Dhaka Water Supply and Sewerage Authority.
Office of the Executive Engineer
Procurement Division-2, WASA Bhaban (5th Floor),
98, Kazi Nazrul Islam Avenue, Kawran Bazar, Dhaka-1215.

Contract DOCUMENT

for

"Procurement of 90 KW Variable Frequency Drive (VFD) for F.M. Division-1, Dhaka WASA (Lot-1)."

Contract No.: 46.113.428.00.00.100/2025-26/e-GP/CA-19

Notification of Award (NOA) of Tender / Proposal ID : 1220334

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Date: 05-Mar-2026

Tender / Proposal ID: 1220334

Contract No: 46.113.428.00.00.100/2025-26/eGP/CA-19

To :

Name : M/s. Faisal Enterprise

Address: Rupayan Taj (Office Suit-E1 & F1) Plot # 1,1/1 Naya Paltan, (Box Calvert Road) Dhaka-1000 Bangladesh

M/s. Faisal Enterprise

This is to notify you that your tender **09-Feb-2026** for the for the supply of Goods for **Procurement of 90 KW Variable Frequency Drive (VFD) for F.M. Division-1 Dhaka WASA. (Lot-1)** for the Contract Price of BDT **Tk. 23635000.000 (Taka TWO CRORE THIRTY-SIX LAKH AND THIRTY-FIVE THOUSAND)** as evaluated in accordance with the Instructions to Tenderers, has been approved by the competent authority.

You are, thus, requested to take following actions.

- Furnish a Performance Security in the specified format and in the amount of ***Tk. 2363500.00 (Taka TWENTY-THREE LAKH SIXTY-THREE THOUSAND AND FIVE HUNDRED)*** , within **SEVEN *(7)*** working days of issuance of this letter but not later than ***16-Mar-2026*** in accordance with ITT Clause .
- sign the Contract within **FOURTEEN *(14)*** Days of issuance of this letter but no later than **19-Mar-2026** in accordance with ITT Clause.

You may proceed with the supply of Goods
only upon completion of the above tasks. You may also please note that this Notification of Award shall constitute the formation of this Contract which shall become binding upon you.
We attach the draft Contract and all other documents for your perusal and signature.

Duly authorised to
Electronically sign
for and on behalf of

Electronically Signed
Md. Mazharul Islam
Office of the EE,
Procurement Division-2, Dhaka WASA

Account Information

Title of the Account :	Ms. Faisal Enterprise	**Name of Bank :**	UNITED COMMERCIAL BANK LIMITED
Name of Branch :	UCBL Dilkusha,Dhaka	**Account Number :**	1222101000005062
Telephone :	58157640	**Fax No :**	-
Branch e-mail ID :	dkb@ucb.com.bd	**SWIFT Code :**	UCBLBDDHXXX
Branch Address :	Holding-84, Road 7/A, Satmasjid Road, Dhanmondi, Dhaka	**Witness Name :**	Syed Md. Zahid M/s. Active International
Witness Address :	Cosmic Tower, 106/KA, Naya Paltan,Suit-4/C, Box Culvert Road, Dhaka-1000		

Beneficial Ownership Information

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

M/s. Faisal Enterprise

e-Tender Submission Letter (Form e-PG3 1)

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Description	Tenderer's Response
We, the undersigned, tender to execute in conformity with the e-Tender Document In accordance with ITT Sub Clauses 23, the discount shall be equally applicable on all the items of Price Schedule within each lot. In signing this letter, in the form of e-Signature/Digital Signature (by clicking on a Final Submission button, Tenderer is signing this e-tender submission document), and in submitting our Tender, we also confirm that: (a) our Tender shall be valid for the period stated in the Tender Data Sheet (ITT Sub Clause 28.1) and it shall remain binding upon us and may be accepted at any time before the expiration of that period; (b) a Tender Security is submitted in e-GP System through e-GP Registered Bank in the amount stated in the Tender Data Sheet (ITT Clause 30) and valid for a period of twenty-eight (28) days beyond the Tender Validity date; (c) if our Tender is accepted, we commit to furnishing a Performance Security within the time stated and, in the amount, stated in the Tender Data Sheet (ITT Clause 61) and in the form specified in the Tender Data Sheet (ITT Clause 62) valid for a period of twenty-eight (28) days beyond the date of completion of our performance obligations; (d) we have examined and have no reservations to the Tender Document including Addendum issued in accordance with the Instructions to Tenderers (ITT Clause 11); (e) we, including as applicable, Subcontractor for any part of the contract resulting from this Tender process, have nationalities from eligible countries, in accordance with ITT Sub Clause 5.1; (f) we are submitting this Tender as a sole Tenderer; (g) we declare that we are not associated, nor have been associated in the past, directly or indirectly, with a consultant or any other entity that has prepared the design, specifications and other documents in accordance with ITT Sub Clause 5.6; (h) we, including as applicable Subcontractor for any part of the contract resulting from this Tender process, have not been declared ineligible by the Government of Bangladesh on charges of engaging in corrupt, fraudulent, collusive, coercive or obstructive practices in accordance with ITT Sub Clause 5.7; (i) furthermore, we are aware of ITT Clause 4 concerning such practices and pledge not to indulge in such practices in competing for or in executing the Contract; (j) we intend to subcontract an activity or part of the Goods, in accordance with ITT Clause 15.1; (k) we confirm that we are not currently suspended or debarred in connection with ITT Clause 5.8, (l) we are not participating as Tenderer in more than one Tender in this Tendering process. We understand that your written Notification of Award shall constitute the acceptance of our Tender and shall become a binding Contract between us, until a formal Contract is prepared and executed; (m) we confirm that currently we do not have a record of insolvency, receivership, bankrupt or being wound up, our business activities were not been suspended, and it was not been the subject of legal proceedings in accordance with ITT Sub Clause 5.9; (n) we, including confirm that we have fulfilled our obligations to pay taxes and social security contributions applicable under the relevant national laws and regulations of Bangladesh in accordance with ITT Sub Clause 5.5; (o) we understand that you reserve the right to reject all the Tenders or annul the Tender proceedings, without incurring any liability to Tenderer, in accordance with ITT Clause 55. (p) The total price of our Tender is mentioned in the Grand summary as auto-generated by the e-GP system.	I Agree

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সওজ বিভাগ-২
ফরিদা ওয়াসা

This e-Tender Submission Letter (Form e-PG3 1)
is Electronically Signed by Mr. Md. Hoque on behalf of M/s. Faisal Enterprise

M/S. Faisal Enterprise
Proprietor

M/s. Faisal Enterprise

Tenderer Information Form (e-PG3-2) - Part 1

Tenderer's profile information will come from the e-GP System.

1. Eligibility Information of the Tenderer [ITT Clauses 5 & 25]

Description	Tenderer's Response
1.1 Tenderer's legal title	M/s. Faisal Enterprise
1.2 Tenderer's registered address	Rupayan Taj (Office Suit-E1 & F1) Plot # 1,1/1 Naya Paltan, (Box Calvert Road) Dhaka-1000 Bangladesh

1.9 Litigation [ITT Sub Cause 14.1(a)]

Month/ Year	Matter in dispute	Value of Pending Claim in Taka
N/A	N/A	0.000

2. Qualification Information of the Tenderer [ITT Clause 27]

Description	Tenderer's Response
2.1 General Experience in the Supply of Goods [State years of experience]	25 Years

2.2 Specific Experience of satisfactory completion of supply of similar Goods

Contract No.	Name of Contract	Role in Contract	Award date	Completion date	Total Contract Value	Procuring Entity?s Name Address Tel e-mail	Brief description with justifications of the similarity compared to the Procuring Entity?s requirements
46.05.0000.428.07.033.22/2022-23/eGP-C04	Procurement of 90 kw Variable Frequency Drive (VFD) for F.M. Division, Dhaka WASA, Lot-2	Prime Supplier	27.09.2022	21/05/2023	36895440.100	Enclosed	We have attached several specific experience in this field.

This Tenderer Information Form (e-PG3-2) - Part 1 is Electronically Signed by Mr. Md. Hoque on behalf of M/s. Faisal Enterprise

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

M/s. Faisal Enterprise

Tenderer Information Form (e-PG3-2) - Part 2

2.3 Supply and/or production capacity of Goods

Year	Quantity	Type of Goods
Enclosed	Enclosed	Enclosed

2.4 Liquid assets available [ITT Sub Clause 14.1(b)]

No.	Source of Financing	Amount Available
1	Bank	18000000.000

2.5 Contact Details [ITT Sub Clause 27.1 (g)]

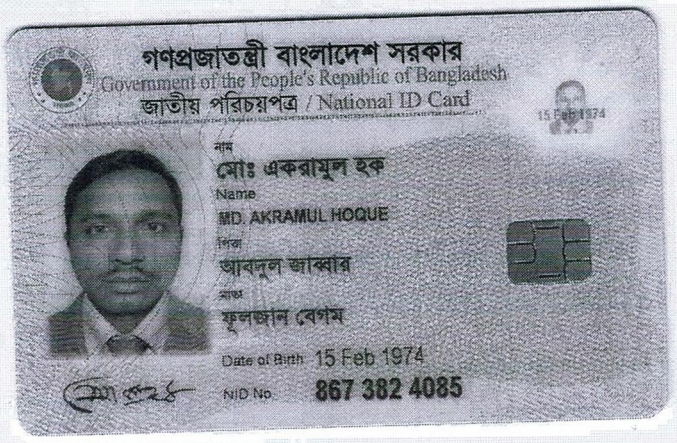
Name, address, and other contact details of Tenderer Bankers and other Procuring Entity(s) that may provide references, if contacted by this Procuring Entity

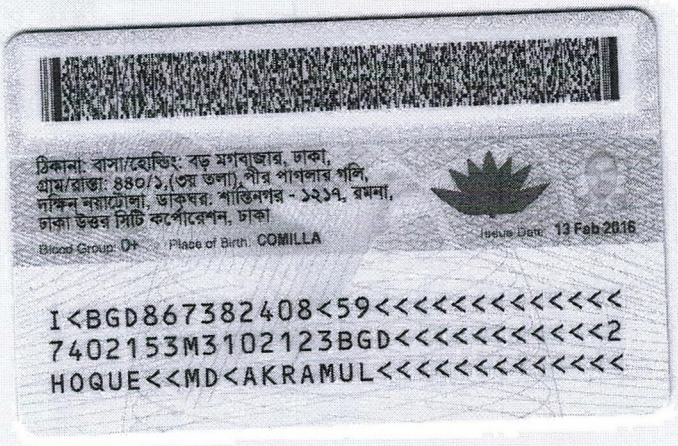
Enclosed

This Tenderer Information Form (e-PG3-2) - Part 2 is Electronically Signed by Mr. Md. Hoque on behalf of M/s. Faisal Enterprise

M/S. Faisal Enterprise
Proprietor

মোঃ মাজেদাকুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা





মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

ঢাকা দক্ষিণ সিটি কর্পোরেশন

www.dscc.gov.bd



লাইসেন্স ইস্যুর বিবরণ

ইস্যুর তারিখ :02/07/2025
ইস্যুর সময় :23:09:48

ই-ট্রেড লাইসেন্স

লাইসেন্স নং : TRAD/DSCC/235740/2019

স্থানীয় সরকার (সিটি কর্পোরেশন) আইন, ২০০৯ (২০০৯ সনের ৬০ নং আইন) এর ধারা ৮৪- তে প্রদত্ত ক্ষমতাবলে সরকার প্রণীত আদর্শ কর তফসিল, ২০১৬ এর ১০ অনুচ্ছেদ অনুযায়ী ব্যবসা, বৃত্তি, পেশা বা শিল্প প্রতিষ্ঠানের উপর আরোপিত কর আদায়ের লক্ষ্যে নিম্নবর্ণিত ব্যক্তি/ প্রতিষ্ঠানের আনুকূলে অত্র ট্রেড লাইসেন্সটি ইস্যু করা হলো।

১। ব্যবসা প্রতিষ্ঠানের নাম	:	মেসার্স ফয়সাল এন্টারপ্রাইজ
২। প্রতিষ্ঠানের মালিকের নাম	:	মোঃ একরামুল হক
৩। পিতা / স্বামীর নাম	:	মৃতঃ আবদুল জববার
৪। মাতার নাম	:	ফুলজান বেগম
৫। ব্যবসার প্রকৃতি	:	অন্যান্য - একক
৬। ব্যবসার ধরণ	:	আমদানীকারক,ইলেকট্রিক ব্যবসা,প্রথম শ্রেনীর ঠিকাদারী,সরবরাহকারী
৭। প্রতিষ্ঠানের ঠিকানা	:	১.১/১ নয়া পল্টন রুপায়ন তাজ সুইট, ই/১ এফ-১, বক্স কালভার্ট রোড, ঢাকা-১০০০
৮। অঞ্চল / বাজার শাখা	:	২ ওয়ার্ড / মার্কেট: ১৩
এলাকা	:	-
৯। এনআইডি/পাসপোর্ট/জন্ম নিবঃ নং	:	২৬৯৬৬৫৫৩১৬৩৬৮ বিআইএন নং:
ফোন	:	০১৮১৯১৩২১৬৭ ই-মেইল: a.hoque1997@gmail.com
১০। অর্থ বছর	:	২০২৫-২০২৬ [নবায়নকৃত] ব্যবসা শুরুর তারিখ: ০৫/০৮/২০১৮

১১। মালিকের বর্তমান ঠিকানা			মালিকের স্থায়ী ঠিকানা		
হোল্ডিং নং	:	১.১/১ নয়া পল্টন সুইট, ই/১ এফ-১	হোল্ডিং নং	:	১.১/১ নয়া পল্টন সুইট, ই/১ এফ-১
রোড নং	:	বক্স কালভার্ট রোড	রোড নং	:	বক্স কালভার্ট রোড
গ্রাম / মহল্লা	:	রুপায়ন তাজ	গ্রাম / মহল্লা	:	রুপায়ন তাজ
পোস্টকোড	:	১০০০	পোস্টকোড	:	১০০০
থানা	:	পল্টন	থানা	:	পল্টন
জেলা	:	ঢাকা	জেলা	:	ঢাকা
বিভাগ	:	ঢাকা	বিভাগ	:	ঢাকা

১২। ট্রেড লাইসেন্স/নবায়ন ফি(বার্ষিক)

লাইসেন্স/নবায়ন ফি	:	৯০০০	সাইনবোর্ড কর	:	৮০০
সারচার্জ	:	০	ভ্যাট	:	১৪৭০
আয়কর / উৎসেকর	:	৩০০০	ফর্ম ফি	:	৫০
বকেয়া ()	:	০			
সংশোধনী ফি	:	০.০০	**সর্বমোট**	:	**১৪৩২০.০০**

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়ার্ড

এই ট্রেড লাইসেন্স এর মেয়াদ ৩০ শে জুন, 2026 পর্যন্ত

লাইসেন্স ও বিজ্ঞাপন সুপারভাইজার

M/S Faisal Enterprise
Proprietor

কর কর্মকর্তা



জনাব মো: হাবিবুল ইসলাম

পিতার নাম মৃত. আবদুল জব্বার

মাতার নাম ফুলবানু বেগম

নমুনা স্বাক্ষর

১।

২।

৩।

তারিখ

মোঃ হাবিবুল ইসলাম
নির্বাহী প্রকৌশলী
বিতরণ বিভাগ-২
ঢাকা ওয়াসা

02-06-16

শাহিদা কানিজ
উপ-সচিব
প্রশাসন বিভাগ-২, ঢাকা ওয়াসা।
সদস্য-সচিব
এনলিস্টমেন্ট কমিটি।

(০৪)

১। ঠিকাদারী প্রতিষ্ঠানের নাম ঃ

মেসার্স ফয়সাল এন্টারপ্রাইজ

২। ঠিকানা ঃ

(ক) বর্তমান ৩, ৭/১ নয়াপল্টনে

রূপায়নে তাজ সুইট, ফ্ল্যাট-১

বক্স কালভার্ট রোড, ঢাকা

(খ) স্থায়ী ঐ

৩। শ্রেণী ক্লাস

৪। পূর্তকাজ/সরবরাহ কাজ/বৈদ্যুতিক ও যান্ত্রিক কাজ।

৫। নিবন্ধন সংখ্যা/নম্বর ঃ ৪৮৩/ক্লাস

৬। তালিকাভুক্তির বৎসর ২০১৪-১৫

৭। শ্রেণী উন্নিতকরণ/নবায়ন

02-06-16

শাহিদা কানিজ
উপ-সচিব
প্রশাসন বিভাগ-২, ঢাকা ওয়াসা।
সদস্য-সচিব
এনলিস্টমেন্ট কমিটি।

(০৫)

M/S. Faisal Enterprise
Proprietor

সাধারণ নিয়মাবলী ঃ

☆ ঠিকাদারী প্রতিষ্ঠানের লাইসেন্সে উলেখকৃত গ্রুপের ঃ

(ক) তালিকাভূক্ত ১ম শ্রেণী ঃ যে কোন পরিমাণ টাকার দরপত্র দাখিল করিতে পারিবে।

(খ) তালিকাভূক্ত দ্বিতীয় শ্রেণী ঃ অনূর্ধ্ব ২০ (বিশ) লক্ষ টাকার দরপত্র দাখিল করিতে পারিবে।

(গ) তালিকাভূক্ত তৃতীয় শ্রেণী ঃ অনুর্দ্ধ ১০ (দশ) লক্ষ টাকার দরপত্র দাখিল করিতে পারিবে।

☆ কর্তৃপক্ষ যেকোনো সময় যেকোনো তালিকাভূক্ত ঠিকাদারের অফিস পরিদর্শন করিতে পারিবে।

☆ একানাগারে কমপক্ষে ৫ (পাঁচ) বৎসর তালিকাভূক্ত লাইসেন্স নবায়ন করা না হলে তাহা বাতিল বলিয়া গণ্য হইবে।

(০৬)

নবায়ন

(৬৪)

২০২৫-২৬ আর্থিক বছরের জন্য মেসার্স ফয়সাল এন্টারপ্রাইজ এর প্রথম শ্রেণীর ঠিকাদারী লাইসেন্স নম্বর ১৮৩/১ম হইতে নবায়ন ফি বাবদ স্মারক নং তাবৎ/পড তাং ০২/১১/২০২৫ মোতাকে ৩৪৫৫০/- (কথায় ঃ তিন হাজার পঁয়তাল্লিশ টাকা মাত্র) টাকা হিসাব বিভাগ, ঢাকা ওয়াসা কর্তৃক গ্রহণ করায় ৩০ জুন ২০২৬ খ্রিঃ পর্যন্ত নবায়ন করা হইল।

প্রশাসন বিভাগ-২ ঢাকা ওয়াসা, ঢাকা

মোঃ ইব্রাহীম খলিল
উপ-সচিব (চঃ দাঃ)
প্রশাসন বিভাগ-২
ঢাকা ওয়াসা।

(০৭)

২৫/১১/২৫

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

Government of the People's Republic of Bangladesh
National Board of Revenue

Mushak-2.3

Customs, Excise and VAT Commissionerate, Dhaka (South)
Shegunbagicha Division

Value Added Tax Registration Certificate

This is to certify that the person whose details are given below is registered under Value Added Tax and Suplementary Duty Act, 2012 (Act No. 47 of 2012)

BIN : 001000229-0208

Name of the Entity	: M/S FAISAL ENTERPRIS
Trading Brand Name	: N/A
Old BIN	: N/A
e-TIN	: 735063316798
Address	: 1, 1/1 Naya Paltan, Rupayan Taj Suite, E1 & F1, Box CulvertRoad; Paltan PS; Dhaka-1000; Bangladesh
Issue Date	: 28/10/2019
Effective Date	: 28/10/2019
Type of Ownership	: Proprietorship
Major Area of Economic Activity	: Services, Imports, Supplier (Trader)

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সমন্বয় বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

This is a system generated certificate and doesn't require any signature

" সুখী স্বদেশ গড়তে ভাই
আয়করের বিকল্প নাই "

GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
NATIONAL BOARD OF REVENUE
TAXES DEPARTMENT
INCOME TAX CERTIFICATE

Vide No-Tax certificate/T.C-5/R-/2024-2025/151

Particulars of Assessee

Name of the assessee	ঃ	**Md. Akramul Hoque**
Father/Husband 's Name	ঃ	Abdul Zabber
Present Address	ঃ	Rupayam Taj (Office Suit-E1 & F1), Plot-1, 1/1, Naya Paltan (Box Calvert Road), Dhaka-1000.
Permanent Address	ঃ	Vill: Kakairtola, PO: Akbaria Bazar, Upazilla: Barura, Dist: Comilla.
Status	ঃ	Individual.
Name of the employer/Buisness	ঃ	**M/S Faisal Enterprise.**
Tax Payers' Identification Number(e-TIN)	ঃ	**735063316798/Circle-105, Zone-5, Dhaka.**
Business Identification Number (BIN)	ঃ	Not Applicable.
National Identification Number (NID)	ঃ	N/A.

This is to certify that **Md. Akramul Hoque,** is a Registered Taxpayer of Taxes Circle-105, Taxes Zone-05, Dhaka. The assesee has submitted his /her return of income u/s 180(1), income tax Act 2023, for the assessment year 2024-2025 which is deemed to be Completed.

Assessment Year	Turnover	Total Income	Tax Paid
2020-2021	17,67,97,216/-	2,07,43,884/-	58,67,701/-
2021-2022	8,02,99,853/-	82,17,026/-	33,36,161/-
2022-2023	4,21,31,025/-	44,10,562/-	10,31,337/-
2023-2024	11,77,24,396/-	1,74,58,735/-	55,30,407/-
2024-2025	2,95,23,002/-	1,09,53,363/-	24,65,841/-

M/S. Faisal Enterprise
Proprietor

06/02/25

(Most. Mahbuba Aktar)
Assistant Commissioner of Taxes
Circle-105, Taxes zone- 5, Dhaka.
Phone: 02-222225030.

06/02/25

Government of the People's Republic of Bangladesh
National Board of Revenue
(Income Tax Office)

Acknowledgement Receipt/Certificate of Retrun of Income

Assessment year | 2 | 0 | 2 | 4 | - | 2 | 5 |

Name of the Assessee: **MD. AKRAMUL HOQUE**

National Identification Number/Passport Number (If no NID): **8673824085**

TIN: | 7 | 3 | 5 | 0 | 6 | 3 | 3 | 1 | 6 | 7 | 9 | 8 |

(a) Circle: **105** (b) Tax Zone: **05, Dhaka**

Total Income Showon=	Tk.	**10,953,364**
Total Tax Paid=	Tk.	**2,627,349**

Serial no. in return register

Volumn no. in return register 2020

Date of return submission

আয়কর রিটার্ন ও তথ্য সেবা মাস-২০২৪
30 JAN 2025

Seal of Tax Office

কর পরিদর্শক

Signature and Seal of the Official Receiving the Return

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

Government of the People's Republic of Bangladesh
Office of the Chief Electric Inspector
(Electricity Licensing Board)
25 New Eskaton, Dhaka
www.ocei.gov.bd

Electrical Contractor License

[Under Electricity Licensing Board Rules, 2022]

License Number: C20210003994
Previous License No. : C-45/11167

This is to certify that **M/S Faisal Enterprise** has been registered as **Electrical Contractor** under **Electricity Licensing Board, Bangladesh**. The License holder is/are hereby authorized to carry out electrical installation works.

Particulars

Organization Name	: M/S Faisal Enterprise
Owners Name	: Md. Akramul Haque
Registered Address	: Village/Road- 68/1, Khilgaon Chowdhurypara, D I T Road, Post Office- , Upazila/Thana- , District- Dhaka
License Category	: ABC
Issue Date	: 16-09-2015
Expiry Date	: 15-09-2026
Supervisor License Number	: S20210004634

Description/Class of work, the license holder is authorized to undertake:
Class A for Extra High/ High Pressure Electrical Installation Works, Class B for Medium Pressure Electrical Installation Works and Class C for Low Pressure Electrical Installation Works.

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সহকারী বিভাগীয় প্রধান
ঢাকা

03-09-2025
Member Secretary
Electricity Licensing Board

03-09-2025
Chairman
Electricity Licensing Board

M/S. Faisal Enterprise
Proprietor

Terms and Conditions

1. All electrical institution work coming within the purview of Electricity Licensing Board Rules, 2022 undertaken by the holder of this license shall be carried out under the direct supervision of a person holding a valid Supervisor's competency certificate.

2. Every Contract on electrical installation works coming within the purview of Electricity Licensing Board Rules, 2022 undertaken by the holder of this license shall be in writing and intimation of which shall be made to the Chief Electrical inspector, Govt. of Bangladesh, in detail as to nature of work, wiring system, name and address of the occupier etc., before the work is actually taken in hand by him. The holder of the license shall be held responsible for the suitability of all materials used in the installation.

3. On the completion of any electrical installation work coming within the purview of Electricity Licensing Board Rules, 2022 a test report shall be submitted by the holder of this license to the Chief Electrical Inspector and the electric licensee. The report shall be signed by the supervisor Under whose Supervision the work has been carried out and countersigned by the holder of this License, who shall be wholly responsible for the due execution of the work.

4. The holder of this license shall send intimation to the secretary, Electricity Licensing Board in writing within 2(two) months with document specified below as to every change of :

a) Business Address (updated trade license and advertisement in daily newspaper)

b) Ownership (updated trade license, advertisement in daily newspaper and sales/transfer agreement)

c) Limited company (MOU, updated trade license, advertisement in daily newspaper, sales/transfer agreement).

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ঢাকা ওয়াসা

Electricity Licensing Board
25 New Eskaton, Dhaka
www.ocei.gov.bd

M/S. Faisal Enterprise
Proprietor

Government of the People's Republic of Bangladesh
Office of the Chief Electric Inspector
(Electricity Licensing Board)
25 New Eskaton, Dhaka
www.ocei.gov.bd

Electrical Supervisor License

[Under Electricity Licensing Board Rules, 2022]

License Number: S20210004634
Previous Certificate No : S-52/12877

This License is granted to **Md. Akramul Hoque** by the **Electricity Licensing Board, Bangladesh** and authorise him to supervise the electrical installation works but does not authorise him to undertake electrical installation contracts, unless the holder also possesses a valid contractor's license.

Particulars:

Father's Name:	Abdul Jabber
Permanent Address:	Village/Road- Kakoirtola, Post Office-Ekbariya Bazar, Upazila/Thana- Barura, District- Cumilla
Category:	ABC
Issue Date:	10/10/2013
Expiry Date:	29/09/2026

M/S. Faisal Enterprise
Proprietor

Description/Class of work, the Certificate holder is authorized to undertake:
Class A for Extra High/ High Pressure Electrical Installation Works, Class B for Medium Pressure Electrical Installation Works and Class C for Low Pressure Electrical Installation Works.

31-08-2025
Member Secretary
Electricity Licensing Board

31-08-2025
Chairman
Electricity Licensing Board

Terms and Conditions

1. All electrical institution work coming within the purview of Electricity Licensing Board Rules, 2022 undertaken by the holder of this license shall be carried out under the direct supervision of a person holding a valid Supervisor's competency certificate.

2. Every Contract on electrical installation works coming within the purview of Electricity Licensing Board Rules, 2022 undertaken by the holder of this license shall be in writing and intimation of which shall be made to the Chief Electrical inspector, Govt. of Bangladesh, in detail as to nature of work, wiring system, name and address of the occupier etc., before the work is actually taken in hand by him. The holder of the license shall be held responsible for the suitability of all materials used in the installation.

3. On the completion of any electrical installation work coming within the purview of Electricity Licensing Board Rules, 2022 a test report shall be submitted by the holder of this license to the Chief Electrical Inspector and the electric licensee. The report shall be signed by the supervisor Under whose Supervision the work has been carried out and countersigned by the holder of this License, who shall be wholly responsible for the due execution of the work.

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b) Ownership (updated trade license, advertisement in daily newspaper and sales/transfer agreement)

c) Limited company (MOU, updated trade license, advertisement in daily newspaper, sales/transfer agreement).

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ঢাকা ওয়াসা

Electricity Licensing Board
25 New Eskaton, Dhaka
www.ocei.gov.bd

M/S. Faisal Enterprise
Proprietor

Government of the People's Republic of Bangladesh
Office of the Chief Controller of Imports and Exports
Import Registration Certificate (IRC)
Commercial
IRC No:

2 6 0 3 2 6 1 1 0 3 6 2 3 1 9

This is to certify that until further orders **M/S. FAISAL ENTERPRISE**, Address: **1/1/1 Nayapaltan Rupayan Taj Suit 2/1 F-1, Box Culvert Road, Dhaka-1000** is hereby registered as a **Commercial Importer** of Office of the Chief Controller of Imports and Exports under the jurisdiction of Office of the Controller of Imports and Exports, Dhaka with following terms and conditions.

Company's Particulars:

1. E-TIN	**: 735063316798**
2. Previous IRC No	**: BA 0198685**
3. Nominated Bank Name & Branch	**: United Commercial Bank PLC, Satmasjid Road**
4. Import Slab	**: Up to 20,00,00,000 Taka**
5. First Issue Date	**: 01 December, 2009**
6. Valid up to	**: 30 June, 2026**
7. Last Updated Date	**: 10 July, 2025**

Terms & condition:

1. This Registration Certificate will have to be renewed every financial year.
2. Prohibited goods cannot be imported and in the case of controlled/restricted goods, all the terms and conditions of the import policy order should be maintained properly.

Dulal Chandra Mazumder
Executive Officer
Office of the Controller of Imports and Exports, Dhaka
National Sports Council (NSC) Tower, 62/3, Level-14, Purana Paltan, Dhaka-1000.

3. Without any permission of the Chief Controller of Imports & Exports or any other officer authorized by him, This Registration Certificate cannot be transferred.
4. If any Importer, Exporter & Indentor violates any provisions of the Importers, Exporters & Indentors (Registration) Order, 1981 or any other laws, the registration may be suspended or cancelled.
5. Any kind of fraud, forgery and misdeclaration is punishable under ICT Act, 2006 and in such cases the registration may be suspended or cancelled by the Authority.
6. The authority reserves the right to cancel the registration certificate at any time without assigning any reason whatsoever.

N.B: This is a system generated certificate requires no manual signature.

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ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

FAISAL ENTERPRISE
BETTER TECHNOLOGY SAFER LIFE

To
The Executive Engineer
Procurement Division-2
Dhaka Water Supply and Sewerage Authority (DWASA)
Dhaka

Subject: Declaration of Established Workshop Facilities and Skilled Manpower for "Procurement of 90 kW Variable Frequency Drive (VFD) for F. M. Division1Dhaka WASA (Lot-1)"

Invitation Reference No.: 46.113.428.00.00.100/26-T-35
Tender Package No.: 46.113.428.00.00.100/26
Tender ID: 1220334

Dear Sir,
We, **M/s. Faisal Enterprise**, located at Rupayan Taj, Suite-E1 & F1, Plot-1, 1/1 Naya Paltan, Box Culvert Road, Dhaka-1000, hereby declare that we possess a fully established in-house workshop facility at the following address:

Workshop Address:
Holding No.: 323/33, Plot No.: 974/975, Ward No.: 70, Amulia East Para, Demra, Dhaka-1360

We further confirm that our skilled team of engineers and technicians is fully prepared and committed to carrying out all activities related to the above-mentioned tender, including supply, installation, testing, and commissioning, in full compliance with DWASA's standards and specifications.

Key Commitments:

Workshop Facilities:

- Fully equipped with modern tools, testing instruments, and electrical assembly setups for panel box preparation, wiring, and ducting work.
- Operationally capable of performing pre-installation testing, quality verification, and performance evaluation of supplied VFD and associated control systems.
- Dedicated facilities for VFD **servicing, maintenance, and troubleshooting**, ensuring long-term operational reliability and technical support.

Skilled Manpower:

- A professional team of electrical engineers and trained technicians experienced in the installation, wiring, calibration, and commissioning of VFD systems, water level measurement sensors, LED display units, and related control and protection devices.
- Specialized expertise in servicing, preventive maintenance, and repair of VFDs and inverter systems of various brands and capacities.

We assure you of our full commitment to delivering the supply, installation, commissioning, and subsequent maintenance works in accordance with the Tender Data Sheet (TDS) and DWASA's operational requirements.

Thank you for considering our submission.

Sincerely,
M/S Faisal Enterprise
Proprietor Proprietor
M/s. Faisal Enterprise

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সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

Head Office : Rupayan Taj (Office Suit-E1 & F1), Plot # 1, 1/1 Naya Paltan (Box Calvert Road) Dhaka-1000
Branch Office : Nasco Power Engineering Ltd. 17-18 Ramna Shopping Complex, Ramna, Dhaka-1217, Bangladesh.
faisal@nascobd.com
a.hoque1997@gmail.com
www.nascobd.com
A Sister Concern of Nasco Group
+88 02 935 9663
+88 01833148736
+88 01833148728

FAISAL ENTERPRISE
BETTER TECHNOLOGY SAFER LIFE

To
The Executive Engineer
Procurement Division-2
Dhaka Water Supply and Sewerage Authority (DWASA)
Dhaka

Subject: Declaration of Established Workshop Facilities and Skilled Manpower for "Procurement of 90 kW Variable Frequency Drive (VFD) for F. M. Division1Dhaka WASA (Lot-1)"

Invitation Reference No.: 46.113.428.00.00.100/26-T-35
Tender Package No.: 46.113.428.00.00.100/26
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- Operationally capable of performing pre-installation testing, quality verification, and performance evaluation of supplied VFD and associated control systems.
- Dedicated facilities for VFD **servicing, maintenance, and troubleshooting**, ensuring long-term operational reliability and technical support.

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- A professional team of electrical engineers and trained technicians experienced in the installation, wiring, calibration, and commissioning of VFD systems, water level measurement sensors, LED display units, and related control and protection devices.
- Specialized expertise in servicing, preventive maintenance, and repair of VFDs and inverter systems of various brands and capacities.

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Thank you for considering our submission.

Sincerely,
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Proprietor
Proprietor
M/s. Faisal Enterprise

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M/S. Faisal Enterprise
Proprietor

Head Office : Rupayan Taj (Office Suit-E1 & F1), Plot # 1, 1/1 Naya Paltan (Box Calvert Road) Dhaka-1000
Branch Office : Nasco Power Engineering Ltd. 17-18 Ramna Shopping Complex, Ramna, Dhaka-1217, Bangladesh.
faisal@nascobd.com
a.hoque1997@gmail.com
www.nascobd.com
A Sister Concern of Nasco Group
+88 02 935 9663
+88 01833148736
+88 01833148728

Tender/Proposal Detail			
Tender/Proposal ID :	1220334	**Invitation Reference No. :**	46.113.428.00.00.100/26-T-35
Closing Date and Time :	10-Feb-2026 14:00	**Opening Date and Time :**	10-Feb-2026 14:00
Procuring Entity :	Office of the EE, Procurement Division-2, Dhaka WASA		
Brief :	Procurement of 90 KW Variable Frequency Drive (VFD) for F.M. Division-1 Dhaka WASA. (Lot-1)		

Particular Conditions of Contract

PCC Clause
.
1. Definitions
1.1 (o) Procuring Entity means an Entity having administrative and financial powers to undertake Procurement of Goods, Works or Services using public funds, as specified in the PCC;
The Procuring Entity is [insert complete name of the Procuring Entity].
1.1 (t) Site means the point(s) of delivery named in the PCC.

Sl. No	Site location	Site detailed information
1	Dhaka WASA Central store at Pagla	Shyampur, Kadamtali, Dhaka-1204

3. Communications & Notices
3.1 Communications between Parties (notice, request or consent required or permitted to be given or made by one party to the other) pursuant to the Contract shall be in writing to the addresses specified in the PCC.
The PE's address for the purpose of communications under this contract is [The PE is Executive Engineer, Procurement Division-2, Dhaka WASA]
7. Documents Forming the Contract and Priority of Documents
7.1 (i) Other Documents including correspondences listed in the PCC forming part of the Contract.

Sl. No	Other documents forming part of the Contract
1	a) The signed Form of Contract Agreement; (b) the Notification of Award (c) the Tender/Proposal and the appendices to the Tender/Proposal; (d) Particular Conditions of Contract; (e) General Conditions of Contract; (f) Technical Specifications; (g) Drawings; (h) Price and Delivery Schedule for Goods; (i) Price and Completion Schedule for Related Services; (j) other document including correspondences listed in the PCC Forming part of the Contract.

8. Scope of Supply
8.1 Subject to the PCC, the Goods to be supplied shall be as specified in Price Schedule.

Sl. No	The scope of Supply
1	The scope of Supply shall be defined in e-PG3-4A and e-PG3-4B

10. Eligibility
10.1 The Supplier and its Subcontractor(s) shall have the nationality of a country other than that specified in

M/S. Faisal Enterprise
Proprietor

the PCC.

Sl. No	Countries are not eligible
1	Israel and the country(s) with whom Bangladesh Government has decided not to have trade relation.

10.2 All Goods and related services to be supplied under the Contract shall have their origin in the countries except any specified in the PCC.

Sl. No	Country of origin are not eligible
1	Goods and related Services from the following counties are not eligible: Goods from Israel and the country(s) with whom Bangladesh Government has decided not to have trade relation are not eligible.

20. Packing and Documents

20.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract as stated under GCC Sub Clause 20.1, including additional requirements, if any, specified in the PCC, and in any subsequent instructions ordered by the Procuring Entity.

Sl. No	The packages packing, marking and documentation
1	The packing, marking and documentation within and outside the packages shall be: The outer packing may be clearly marked on at least four slides as follows: Name and address of PE, Name of the Supplier, Contract Description, Final Destination/Delivery Point, Gross weight, Package number of total number of packages, Brief description of the goods, Any special lifting instructions and Any special handling instructions

21. Delivery and Documents

21.1 Subject to GCC Clause 18, the delivery of the Goods and completion of the related services shall be in accordance with the Delivery and Completion Schedule specified in the Price Schedule. The documents to be furnished by the Supplier shall be specified in the PCC.

Sl. No	The documents to be furnished by the Supplier
1	The documents to be furnished by the Supplier as follows: a. Copies of Suppliers invoice showing goods description, quantity, unit price, total amount; b. Delivery note, railway receipt, or truck receipt; c. Manufacturers /suppliers warranty certificate; d. Inspection certificate issued by the nominated inspection agency (or PE) and/ or the suppliers factory inspection report; e. Certificate of origin, f. any other papers which may be required to supply as instructed by PE.

23. Contract Price

23.1 The Contract Price shall be as specified in the PCC subject to any additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.

The original Contract price is [23635000.000]

M/S. Faisal Enterprise

Proprietor

25. Terms of Payment

25.1 The Contract Price, including any Advance Payments, if applicable, shall be paid in the manner as specified in the PCC.

Advance Amount Percentage	Days to Complete Advance Payment	On Delivery and Acceptance	On Delivery and Acceptance Due Date supported by the

Percentage	Advance Payment	Percentage	Acceptance Certificate issued by the PE
0.000	0	100.000	180

25.3 Payments shall be made promptly by the Procuring Entity, but in no case later than the days indicated in the PCC after submission of an invoice or request for payment by the Supplier, and after the Procuring Entity has accepted it.

Payments shall be made in no case later than the days [[180]] after submission of an invoice or request for payment by the Supplier, and after the PE has accepted it

25.5 In the event that the Procuring Entity fails to pay the Supplier any payment by its respective due date or within the period as stated under GCC Sub Clause 25.3, the Procuring Entity shall pay to the Supplier interest on the amount of such delayed payment at the rate specified in the PCC, for the period of delay until payment has been made in full.

Payment-delay period	Payment-delay percentage
0	0.000

29. Retention Money

29.1 The Procuring Entity shall retain an amount from the payable amount due to the Supplier at the percentage specified in the PCC until successful expiration of the Warranty period as mentioned in GCC Sub Clause 32.3.

The portion of payments to be retained is 10.00% percent of the contract price.
Performance Security : 10.00%

31. Inspections, Examinations and Tests

31.1 The Procuring Entity shall have the right to test the Goods to confirm their conformity to the Contract specifications. The PCC and Technical specifications shall specify what tests the Procuring Entity requires and where they are to be conducted. The Supplier shall at its own expense and at no cost to the Procuring Entity, carry out all such tests of the Goods as are specified in the Contract.

Goods	Type of test	Time or milestone	Place	Procedure
90 KW Variable Frequency Drive (VFD) water level measurement sensor with LED Display unit. Panel Box and Ducting System (Wall Mounted)	Pre-shipment Inspection & Test	Prior to shipment of the goods	Manufacturer Factory premises	a) Prior to shipment, VFD shall be allowed for performance test at testing bed of manufacturer. 2 (Two) DWASA nominated officials will visit the factory where VFD testing shall be done. While VFD are ready, the supplier will inform PE for VFD performance testing. If the test report of the VFD at manufacturer testing bed is not satisfactory, then contract may be terminated. Or b) The supplier shall

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নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

				submit a list of 3 (three) recognized International Inspection Agencies or Licensed Testing Agents for approval by the procuring entity. The approved agent will conduct Pre-shipment inspection and check the compliance of goods with the specifications set forth in this document and country of origin of the goods. Supplier shall be submitted the inspection report to Procuring Entity (PE). If the report is not satisfactory the contract will be terminated.
90 KW Variable Frequency Drive (VFD) water level measurement sensor with LED Display unit. Panel Box and Ducting System (Wall Mounted)	Physical inspection/performance test	After completion of delivery of goods to the final destination	Physical inspection shall be performed at Dhaka WASA'S Centre store and Performance test at FMD	After delivery of the goods at the final destination the physical inspection will be held jointly byTechnical Testing and Acceptance Committee of DWASA. If results of physical inspection are found satisfactory, the goods may be accepted. If the physical inspection is not satisfactory, the supplier shall have to take back all supplied goods at his expense within 15 (Fifteen) days from the day of issuance of the letter from DWASA. The unaccepted / rejected goods shall to be corrected or replaced by new

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
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				goods as per specification which will be inspected accordingly. If results of physical inspection are found satisfactory, inspection committee will select 6 (Six) or required samples from supplied goods randomly and send to F.M. Division for performance tests. If performance tests are found satisfactory, the goods will be accepted. If the performance tests of samples are not satisfactory, the supplier shall have to take back the goods of that Item at his expenses. All expenses related to the tests & Inspection in Bangladesh or abroad shall have to be borne by the supplier. The PE's right to inspect, test and where appropriate reject the Goods after delivery, shall in no way be limited or waived by the reason of Goods having previously been inspected, tested or passed by the PE or its representative prior to the Goods shipment.

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32. Warranty

32.3 In order to assure that manufacturing defects shall be corrected by the Supplier, manufacturer, or distributor, as the case may be, a warranty shall be required from the Supplier for a minimum period of three (3) months, in the case of supplies, and one (1) year, in the case of equipment, after performance of the contract or such other period as may be specified in the PCC.

The period of validity of the Warranty shall be [365] months

32.7 Upon receipt of such notice, the Supplier shall, within the period specified in the PCC, expeditiously

repair or replace the defective Goods or parts thereof, at no cost to the Procuring Entity.

The Supplier shall correct any defects covered by the Warranty within [15] of days of being notified by the PE of the occurrence of such defects.

34. Liquidated Damages

34.1 Except as provided under GCC Sub Clause 38, if the Supplier fails to complete the delivery of Goods and related services within the Delivery and Completion Schedule under GCC Clause 33, the Procuring Entity shall, as Liquidated Damages or Delay Damages, deduct from the Contract Price, a sum at the percent-rate per day of delay as specified in the PCC, of the contract value. The total amount of Liquidated Damages or Delay Damages shall not exceed the amount specified in the PCC. The Procuring Entity may deduct Liquidated damages from payments due to the Supplier. Payment of Liquidated damages shall not affect the Supplier's liabilities.

Liquidated Damages for the uncompleted Works or any part per day of delay (%)	The maximum amount of Liquidated Damages (%)
0.040	10.000

41. Termination for Default

41.7 In the event the Procuring Entity terminates the Contract in whole or in part, as stated under GCC Clause 41.1, the Procuring Entity may procure, upon such terms and in such manner as it deems appropriate, Goods similar to those undelivered or not performed, and the Supplier shall be liable to the Procuring Entity for any additional costs as mentioned in the PCC for such similar Goods. However, the Supplier shall continue performance of the Contract to the extent not terminated.

The percentage to apply to the contract value of the supply not completed, representing the PE's additional cost for completing the incomplete Supply, is [20.000] percent.

45. Settlement of Disputes

45.2 Adjudication (b) The Adjudicator named in the PCC is jointly appointed by the parties. In case of disagreement between the parties, the Appointing Authority designated in the PCC shall appoint the Adjudicator within fourteen (14) days of receipt of a request from either party;

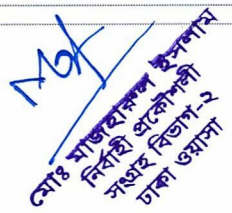
Adjudicator Name *	Fees *	The name of the appointing authority of the Adjudicator *
Deputy Managing Director (O&M), Dhaka WASA.	10000.000	The name of the appointing authority of the Adjudicator: Managing Director, Dhaka WASA.

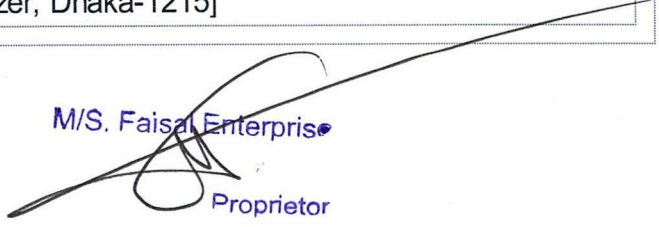
45.2 (e) Should the Adjudicator resign or die, or should the Procuring Entity and the Supplier agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator will be jointly appointed by the Procuring Entity and the Supplier. In case of disagreement between the Procuring Entity and the Supplier the Adjudicator shall be designated by the Appointing Authority designated in the PCC at the request of either party, within fourteen (14) days of receipt of a request from either Party.

In case of disagreement between the parties, the Appointing Authority for the Adjudicator is the President of the Institution of Engineers, Bangladesh (IEB).

45.3(b) The arbitration shall be conducted in accordance with the Arbitration Act (Act No 1 of 2001) of Bangladesh as at present in force and in the place shown in the PCC.

The arbitration shall be conducted in the place mentioned below;
[WASA Bhaban, 98 Kazi Nazrul Islam Avenue, Kawran Bazer, Dhaka-1215]





Name of STD :	e-PG3
Procurement Type :	Goods
Section :	General Conditions of Contract

1. Definitions	1.1 In the Conditions of Contract, which include Particular Conditions and these General Conditions, the following words and expressions shall have the meaning hereby assigned to them. Boldface type is used to identify the defined terms: (a) Act means The Public Procurement Act, 2006 (Act 24 of 2006). (b) Adjudicator is the expert appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in GCC Sub Clause 45.2. (c) Completion Schedule means the fulfilment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract; (d) Contract Agreement means the Agreement entered into between the Procuring Entity and the Contractor, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein; (e) Contract Documents means the documents listed in GCC Clause 7.1, including any amendments thereto. (f) Contract Price means the price stated in the Notification of Award and thereafter as adjusted in accordance with the provisions of the Contract; (g) Cost means all expenditures reasonably incurred or to be incurred by the Contractor, whether on or off the point of delivery, including overhead, taxes, duties, fees and such other similar levies including corresponding incidental charges and premiums for banking and insurances, as applicable. (h) Day means calendar day unless otherwise specified as working days. (i) Delivery means the transfer of ownership of the Goods from the Supplier to the Procuring Entity in accordance with the terms and conditions set forth in the Contract; (j) Force Majeure means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origins not due to negligence or lack of care on the part of the Contractor; such events may include, but not be limited to, acts of the Government in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes or more as included in GCC Clause 37; (k) GCC means the General Conditions of Contract. (l) Government means the Government of the People's Republic of Bangladesh.

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	(m) Goods means raw materials, products and equipment and objects in solid, liquid or gaseous form, electricity, and related Services if the value of such Services does not exceed that of the Goods themselves; (n) "Head of the Procuring Entity" means the Secretary of a Ministry or a Division, the Head of a Government Department or Directorate; or the Chief Executive, or as applicable, Divisional Commissioner, Deputy Commissioner, District Judge; or by whatever designation called, of a local Government agency, an autonomous or semi-autonomous body or a corporation, or a corporate body established under the Companies Act;
	1.1 (o) Procuring Entity means an Entity having administrative and financial powers to undertake Procurement of Goods, Works or Services using public funds, as specified in the PCC;
	(p) PCC means the Particular Conditions of Contract; (q) Related Services means Services linked to the supply of Goods contracts; (r) Subcontractor means any natural person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier; (s) Supplier means a Person under contract with a Procuring Entity for the supply of Goods and related services under the Act;
	1.1 (t) Site means the point(s) of delivery named in the PCC.
	1.1 (u) Writing means communication written by hand or machine duly signed and includes properly authenticated messages by facsimile or electronic mail.
2. Interpretation	2.1 In interpreting the GCC, singular also means plural, male also means female or neuter, and the other way around. Headings in the GCC shall not be deemed part thereof or be taken into consideration in the interpretation or construction of the Contract. Words have their normal meaning under the language of the Contract unless specifically defined. 2.2 **Entire Agreement:** The Contract constitutes the entire agreement between the Procuring Entity and the Contractor and supersedes all communications, negotiations and agreements (whether written or verbal) of parties with respect thereto made prior to the date of Contract Agreement; except those stated under GCC Sub Clause 7.1(i). 2.3 **Amendment:** No amendment or other variation of the Contract shall be valid unless it is dated, expressly refers to the Contract, and is signed by a duly authorised representative of each party thereto. 2.4 **Non-waiver:** (a) Subject to GCC Sub Clause 2.4(b), no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract. (b) Any waiver of a party's rights, powers, or remedies under the Contract

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সওজ বিভাগ-২
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	must be dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived. 2.5 **Severability:** If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.
3. Communications & Notices	3.1 Communications between Parties (notice, request or consent required or permitted to be given or made by one party to the other) pursuant to the Contract shall be in writing to the addresses specified in the PCC.
	3.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later. 3.3 A Party may change its address for notice hereunder by giving the other Party notice of such change to the address.
4. Governing Law	4.1 The Contract shall be governed by and interpreted in accordance with the laws of the People's Republic of Bangladesh.
5. Governing Language	5.1 The Contract shall be written in English. All correspondences and documents relating to the Contract may be written in English or Bangla. Supporting documents and printed literature that are part of the Contract may be in another language, provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Contract, such translation shall govern. 5.2 The Contractor shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.
6. Corrupt, Fraudulent, Collusive, Coercive or Obstructive Practices	6.1 The Government, and the Development Partner, if applicable, requires that the Procuring Entity as well as the Tenderers and Contractors (including sub-contractors, agents, personnel, consultants, and service providers) shall observe the highest standard of ethics during implementation of procurement proceedings and the execution of Contracts under public funds. 6.2 For the purpose of GCC Sub Clause 6.2 the terms set forth below as follows– (a) "Corrupt practice" means offering or promising to offer, directly or indirectly, any bribe, employment, valuable item or service, or financial benefit to any officer or employee of the Procuring Entity or of any other public or private authority, with the intent to influence any act, decision, or procedure of the Procuring Entity in the course of the procurement process or contract execution, or the acceptance or solicitation of such by any officer or employee of the Procuring Entity. It shall also include any involvement of the Procuring Entity or any of its employees in corrupt, fraudulent, collusive, coercive, or obstructive practices as mentioned in this Rule; (b) "Fraudulent practice" means any act of providing false statements, dishonestly concealing information, or omitting or misrepresenting or distorting facts by any person to influence a decision in the procurement process or contract execution; (c) "Collusive practice" means a scheme or arrangement between two (2) or more Persons, knowingly or unknowingly involving the Procuring Entity

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	or any of its employees, that is designed to arbitrarily reduce the number of Tenders submitted or fix Tender prices at artificial, non-competitive levels, thereby denying the Procuring Entity the benefits of competitive price arising from genuine and open competition; (d) "Coercive practice" means harming or threatening to harm, directly or indirectly, Persons or their property to influence a decision to be taken in a Procurement proceeding or the execution of a Contract, and this will include creating obstructions in the normal submission process used for Tenders (e) "Obstructive practice" means deliberately destroying, falsifying, altering, or concealing evidence related to a procurement-related investigation, or providing false statements to an investigator so as to impede the investigation of allegations of corrupt, fraudulent, collusive, coercive, or obstructive practices; or intimidating, harassing, or threatening an investigator so as to discourage the disclosure of information or prevent the investigator from carrying out their duties, or directly or indirectly obstructing any action undertaken by the Bangladesh Public Procurement Authority (BPPA) in discharging its responsibilities assigned under the Bangladesh Public Procurement Authority Act, 2023.
	6.3 Should any corrupt, fraudulent, collusive, coercive or obstructive practice of any kind, in competing for or in executing the Contract, is determined by the Procuring Entity, then the Procuring Entity may, upon giving 14 days' notice to the Supplier, terminate the Supplier's employment under the Contract and the provisions of Clause 41 shall apply as if such expulsion had been made under Sub-Clause 41.1 (Termination for Default). 6.4 If corrupt, fraudulent, collusive, coercive or obstructive practice of any kind, determined by the Procuring Entity or the Development Partner (if applicable) against the Supplier alleged to have carried out such practices, the Procuring Entity and/or the Development Partner shall; (a) exclude the Supplier from further participation in the particular Procurement proceeding; or (b) declare, at its discretion, the Supplier to be ineligible to participate in further Procurement proceedings, either indefinitely or for a specific period of time.
	6.5 The Supplier shall be aware of the provisions on corruption, fraudulence, collusion, coercion and of the Public Procurement Act, 2006, the Public Procurement Rules, 2025 and in case of Development Partner financed contract, the Procurement Guidelines of the Development Partner. 6.6 The Supplier (including its manufacturers, sub-contractors, agents, personnel, consultants and service providers) shall permit the Government and/or the Development Partner to inspect the Supplier's accounts and records and other documents relating to the submission of Tender and contract performance, and to have them audited by auditors appointed by the Government and/or the Development Partner, if so required.
7. Documents Forming the Contract and Priority of Documents	7.1 The following documents forming the Contract shall be in the following order of precedence, namely: (a) The signed Contract Agreement; (b) The Notification of Award;

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	(c) The Completed Tender; (d) Particular Conditions of Contract; (e) General Conditions of Contract; (f) Technical Specifications; (g) Drawings; (h) Priced Schedule and Schedule of Requirements and;
	7.1 (i) Other Documents including correspondences listed in the PCC forming part of the Contract.
8. Scope of Supply	8.1 Subject to the PCC, the Goods to be supplied shall be as specified in Price Schedule.
	8.2 Unless otherwise stipulated in the Contract, the Scope of Supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining delivery and completion of the Goods and related services as if such items were expressly mentioned in the Contract Agreement.
9. Assignment	9.1 The Supplier shall not assign his rights or obligations under the Contract, in whole or in part, except with the Procuring Entity's prior written consent.
10. Eligibility	10.1 The Supplier and its Subcontractor(s) shall have the nationality of a country other than that specified in the PCC.
	10.2 All Goods and related services to be supplied under the Contract shall have their origin in the countries except any specified in the PCC.
11. Gratuities / Agency fees	11.1 No fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the Tender or in the Contract, have been given or received in connection with the procurement process or in the Contract execution.
12. Confidential Details মোঃ মাজহারুল ইসলাম নির্বাহী প্রকৌশলী সংগ্রহ বিভাগ-২ ঢাকা ওয়াসা	12.1 The Supplier shall not, except for purposes of performing the obligations in this Contract, without the Procuring Entity's prior written consent, disclose this Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Procuring Entity. Any such disclosure shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance. 12.2 Any document, other than this Contract itself, enumerated in GCC Clause 12.1 shall remain the property of the Procuring Entity and shall be returned (all copies) to the Procuring Entity on completion of the Supplier's performance under this Contract if so required by the Procuring Entity.
13. Trademark, Patent and Intellectual Property Rights	13.1 The Procuring Entity should not be liable for any infringement of intellectual property rights arising from use of the goods procured. In case there are third-party claims of such infringement of patent, trademark, or industrial design rights, the supplier must indemnify and hold the Procuring Entity free and harmless against such claims and shall not be in contravention of Trademark Act, 2009 and Patent and Design Act, 1911.
14. Copyright	14.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Procuring Entity by the Supplier herein shall remain vested in the Supplier, or if they are furnished to the Procuring Entity directly or through the Supplier by any third party,

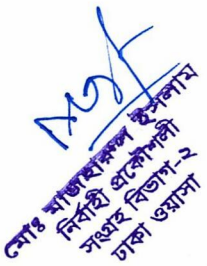
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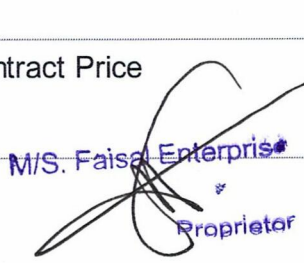
	including suppliers of materials, the copyright in such materials shall remain vested in such third party.
15. Subcontracting	15.1 Any subcontracting arrangements made during contract implementation and not disclosed at the time of the Tendering shall not be allowed. 15.2 Subcontracting of any portion of the Goods shall not relieve the Supplier from any liability or obligations that may arise from its performance. 15.3 Supplier shall retain full responsibility for the contract and cannot pass any contractual obligations to the Subcontractor and under no circumstances assignment of the contract to the Subcontractor be allowed. 15.4 Subcontractors shall comply with the provisions of GCC Clause 6 and 10.
16. Supplierâ??s Responsibilities	16.1 The Supplier shall supply all the Goods specified in the Scope of Supply as stated under GCC Clause 8 and the Delivery and Completion schedule, as stated under GCC Clauses 21 and 22 in conformity with the provisions of the Contract Agreement.
17. Procuring Entityâ??s Responsibilities	17.1 Whenever the performance of the obligations in this Contract requires that the Supplier obtain permits, approvals and other license from local public authorities, the Procuring Entity may, if so needed by the Supplier, make its best effort to assist the Supplier in complying with such requirements in a timely and expeditious manner. However, the supplier shall bear the costs of such permits and/or licenses. 17.2 The Procuring Entity shall pay the Supplier, in consideration of the provision of Goods, the Contract Price under the provisions of the Contract at the times and manner prescribed in the Contract Agreement.
18.Issue change order, Order for Additional Delivery	18.1 The Procuring Entity may at any time order the Supplier through notice in accordance with GCC Clause 3, to make changes within the general scope of the Contract in any one or more of the following: (a) drawings, designs, or specifications, where goods to be delivered under the Contract are to be specifically manufactured for the Procuring Entity; (b) the method of packing; (c) the place(s) of delivery of goods and related services; and (d) the related services to be provided by the Supplier.
	18.2 The Procuring Entity may, in exceptional circumstances, issue additional delivery order where the items already been procured through competitive method of an additional quantity within warranty period provided that prices are still the most advantageous to the Procuring Entity after price verification. 18.3 The Supplier shall, under no circumstances, proceed to commence the delivery of Goods under GCC Sub Clause 18.1 and 18.2 unless it has been approved by the Approving Authority or authority next higher, as appropriate.
19. Order for Additional	19.1 If any change under GCC Sub Clause 18.1 causes an increase or

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নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-2
ঢাকা ওয়াসা

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Delivery	decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery and Completion Schedule, or both, as applicable.
20. Packing and Documents	20.1 The Supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract and in accordance with existing industry standards. The packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
	20.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract as stated under GCC Sub Clause 20.1, including additional requirements, if any, specified in the PCC, and in any subsequent instructions ordered by the Procuring Entity.
	20.3 The outer packaging must contain a "Packing List" which must reflect the actual contents of the package.
21. Delivery and Documents	21.1 Subject to GCC Clause 18, the delivery of the Goods and completion of the related services shall be in accordance with the Delivery and Completion Schedule specified in the Price Schedule. The documents to be furnished by the Supplier shall be specified in the PCC.
22.Acceptance	22.1 Acceptance by the Procuring Entity shall be processed not later than fourteen (14) working days from receipt of the goods at final destination in the form of an Acceptance Certificate as per format e-PG3-D, unless any defects in the supply, any damage during transportation or any failure to meet the required performance criteria of the supply are identified and reported to the Supplier as stated under GCC Clause 30 and 31. In such cases the Acceptance Certificate will be issued only for those parts of the contract supplies which are accepted. The Acceptance Certificate for the remaining supplies will only be issued after the Supplier has remedied the defects and/or any non-conformity under GCC Clause 30 and GCC Clause 31. 22.2 Technical Examination and Acceptance Committee (TEAC), constituted by the Procuring Entity, shall commence the inspection, examination and acceptance process within twenty-four (24) hours from delivery of the goods, and complete the same as soon as practicable.
	22.2 Technical Examination and Acceptance Committee (TEAC), constituted by the Procuring Entity, shall commence the inspection, examination and acceptance process within twenty-four (24) hours from delivery of the goods, and complete the same as soon as practicable.
23. Contract Price	23.1 The Contract Price shall be as specified in the PCC subject to any additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
	23.2 Prices charged by the Supplier for the Goods delivered and the related services performed under the Contract shall not vary from the price as stated under GCC Sub Clause 23.1, with the exception of any change in price resulting from a Variation Order or Order for Additional Delivery





	issued under GCC Clause 18 and 19.
24. Transportation	24.1 The Supplier is required under the Contract to transport the Goods to a specified place of destination as specified in Price Schedule defined as the Site, transport to such place of destination, including insurance, other incidental costs, and temporary storage, if any.
25. Terms of Payment	25.1 The Contract Price, including any Advance Payments, if applicable, shall be paid in the manner as specified in the PCC.
	25.2 The Supplier's request for payment shall be made to the Procuring Entity accompanied by an invoice describing, as appropriate, the Goods delivered and related services performed, and accompanied by the documents as stated under GCC Clause 21 and 22 and upon fulfilment of any other obligations stipulated in the Contract Agreement.
	25.3 Payments shall be made promptly by the Procuring Entity, but in no case later than the days indicated in the PCC after submission of an invoice or request for payment by the Supplier, and after the Procuring Entity has accepted it.
	25.4 Payments due to the Supplier under this Contract shall be made in Bangladesh Taka (BDT) Currency.
	25.5 In the event that the Procuring Entity fails to pay the Supplier any payment by its respective due date or within the period as stated under GCC Sub Clause 25.3, the Procuring Entity shall pay to the Supplier interest on the amount of such delayed payment at the rate specified in the PCC, for the period of delay until payment has been made in full.
26. Insurance	26.1 The Goods supplied under this Contract shall be fully insured by the Supplier against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery until their acceptance by the Procuring Entity.
27. Taxes and Duties	27.1 The Supplier shall be entirely responsible for all applicable taxes, custom duties, VAT and other levies imposed or incurred inside or outside Bangladesh. 27.2 In the event that the rate of any direct or indirect tax (including, but not limited to, income tax, VAT, customs duties, etc.) is altered by virtue of any law, regulation, order, or other legal instrument, the Contract Price shall, subject to the approval of the Head of the Procuring Entity, be adjusted (either upward or downward) so as to ensure that the net amount payable to the Supplier remains unaffected by such legal changes.
28. Performance Security	28.1 The Procuring Entity shall notify the Supplier of any claim made against the Bank issuing the Performance Security. 28.2 The Procuring Entity may claim against the security if any of the following events occurs for fourteen (14) days or more. (a) The Supplier is in breach of the Contract and the Procuring Entity has duly notified him or her; and (b) The Supplier has not paid an amount due to the Procuring Entity and the Procuring Entity has duly notified him or her. 28.3 In the event as stated under GCC Sub Clause 28.2, the Supplier is liable to pay compensation under the Contract amounting to the full value of the Performance Security or more, the Procuring Entity may call the full amount of the security.

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	28.4 If there is no reason to call the security, the security shall be discharged by the Procuring Entity and returned to the Supplier not later than seven (7) days following the date of making the final payment to the Supplier under the Contract and subject to the issuance of the Acceptance Certificate by the Procuring Entity,
29. Retention Money	29.1 The Procuring Entity shall retain an amount from the payable amount due to the Supplier at the percentage specified in the PCC until successful expiration of the Warranty period as mentioned in GCC Sub Clause 32.3.
	29.2 The Retention Money shall only be released after the expiry of the Warranty Period pursuant to GCC Clause 32, provided that the Goods supplied are free from patent and latent defects and all the conditions imposed under the contract have been fully met. (a) A patent defect, which is one that is apparent to the buyer on normal observation. It is an apparent or obvious defect. i. For example, a ball pen that does not write is patently defective. (b) A latent defect, which is one that is not apparent to the buyer by reasonable observation. A latent defect is "hidden" or one that is not immediately determinable. ii. For example, a ball pen that writes 0.75 km instead of the expected 1.5 km, has a latent defect.
	29.3 If the Supplier, having been notified, fails to remedy the defect(s) within the period as stated under GCC Sub Clause 32.7, the Procuring Entity may proceed to call upon the security without prejudice to any other rights which the Procuring Entity may have against the Supplier under the Contract and under the applicable law
30. Specifications and Standards	30.1 The Goods supplied under this Contract shall conform to the technical specifications and standards mentioned in Technical Specifications and Compliance of Goods and related Services (Form e-PG3-5) and in Section 6, Drawings, if any. 30.2 If there is no applicable standard, the Goods must conform to the authoritative standards appropriate to the Good's country of origin. Such standards must be the latest issued by the concerned institution.
	30.3 Subject to the GCC Clause 18, the Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Procuring Entity, by giving a notice of such disclaimer to the Procuring Entity. 30.4 Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Technical Specification. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Procuring Entity and shall be treated under GCC Clause 18.
31. Inspections, Examinations and Tests	31.1 The Procuring Entity shall have the right to test the Goods to confirm their conformity to the Contract specifications. The PCC and Technical specifications shall specify what tests the Procuring Entity requires and where they are to be conducted. The Supplier shall at its own expense and at no cost to the Procuring Entity, carry out all such tests of the Goods as

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

	are specified in the Contract.
	31.2 The Supplier shall provide the Procuring Entity with a report of the results of any such test. 31.3 The Procuring Entity may engage external agents for the purpose of conducting inspection of Goods, provided that the Procuring Entity shall bear all of its costs and expenses. 31.4 The Procuring Entity or its designated representative as specified shall be entitled to attend the tests and/or inspections under GCC Clause 30.1, provided that the Procuring Entity shall bear all of its own costs and expenses incurred in connection with such attendance.
	31.5 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Procuring Entity. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Procuring Entity or its designated representative to attend the test and/or inspection. 31.6 The Procuring Entity may require the Supplier to carry out any test and/or inspection not required by the Contract, but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications, codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impede the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery and Completion Schedule and the other obligations so affected.
	31.7 The Procuring Entity may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Procuring Entity, and shall repeat the test and/or inspection, at no cost to the Procuring Entity, upon giving a notice under GCC Sub Clause 31.5. 31.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Procuring Entity or its representative, nor the issue of any report as stated under GCC Sub Clause 31.2, shall relieve the Supplier from any warranties or other obligations under the Contract.
32. Warranty	32.1 The Supplier warrants that all the Goods supplied under the Contract are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, except when the design and/or material required by the Procuring Entity provides otherwise under GCC Clause 18. 32.2 The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship or from any act or omission of the Supplier that may develop under normal use of the supplied Goods in the conditions prevailing in Bangladesh.
	32.3 In order to assure that manufacturing defects shall be corrected by the Supplier, manufacturer, or distributor, as the case may be, a warranty shall be required from the Supplier for a minimum period of three (3) months, in the case of supplies, and one (1) year, in the case of

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সওজ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

	equipment, after performance of the contract or such other period as may be specified in the PCC.
	32.4 The Warranty Period of the Supplies shall start from the date of completion of delivery in the form of submission by the Supplier and acceptance by the Procuring Entity, of the Delivery Chalan 32.5 The Warranty Periods may vary among the various items and lots. The warranty for Goods delivered earlier will expire earlier than the succeeding deliveries. 32.6 The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty.
	32.7 Upon receipt of such notice, the Supplier shall, within the period specified in the PCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Procuring Entity.
33. Extension of Delivery and Completion Schedule	33.1 The Supplier must deliver the Goods or perform the services procured within the period prescribed by the Procuring Entity, as specified in the TDS. 33.2 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services as stated under GCC Clause 21 and GCC Sub Clause 33.1, the Supplier shall promptly notify the Procuring Entity in writing. It must state therein the cause/s and duration of the expected delay. The Procuring Entity shall decide whether and by how much to extend the time. In all cases, the request for extension shall be submitted before the lapse of the original delivery date. 33.3 Within twenty-one (21) days of receipt of the Supplier's notice, the Procuring Entity shall evaluate the situation and may grant time extensions, if based on justifiable grounds, without liquidated damages.
	33.4 The Procuring may extend up to thirty percent (30%) of the original contract time. above 30% of the original contract time as mentioned in GCC Sub Clause 33.1 . 33.5 In the case an extension of the original delivery schedule required under GCC Sub Clause 33.1 is or will be more than thirty (30) percent but not beyond one hundred (100) percent additional to the original Contract time, approval of the Head of the Procuring Entity or an officer authorized by him or her for the same shall be required.
	33.6 In exceptional cases, where an extension of the original contract time required under GCC Sub Clause 33.1 is or will be more than one hundred (100) percent of the original Contract time, approval of the Secretary of the concerned ministry or division for the same shall be required. 33.7 Except in case of Force Majeure, as provided under GCC Clause 37, a delay by the Supplier in the performance of its delivery and completion obligations shall render the Supplier liable to the imposition of Liquidated Damages pursuant to GCC Clause 34, unless an extension of the Delivery and Completion Schedule is agreed upon, pursuant to GCC Clause 33.
34. Liquidated Damages	34.1 Except as provided under GCC Sub Clause 38, if the Supplier fails to complete the delivery of Goods and related services within the Delivery and Completion Schedule under GCC Clause 33, the Procuring Entity shall, as Liquidated Damages or Delay Damages, deduct from the Contract Price, a sum at the percent-rate per day of delay as specified in

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সওজ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

	the **PCC**, of the contract value or part thereof delivered after the Delivery and Completion Schedule or as extended. The total amount of Liquidated Damages or Delay Damages shall not exceed the amount specified in the **PCC**. The Procuring Entity may deduct Liquidated damages from payments due to the Supplier. Payment of Liquidated damages shall not affect the Supplier's liabilities.
35. Limitation of Liability	35.1 Except in cases of criminal negligence or wilful misconduct, (a) the Supplier shall not be liable to the Procuring Entity, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Procuring Entity; and (b) the aggregate liability of the Supplier to the Procuring Entity, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the Procuring Entity with respect to patent infringement.
36. Adjustment for Changes in Legislation	36.1 Unless otherwise specified in the Contract, if after the Contract, any law, regulation, ordinance, order or by law having the force of law is enacted, promulgated, abrogated, or changed in Bangladesh (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the adjustment of Contract Price where applicable, under GCC Clause 23.
37. Force Majeure	37.1 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below: (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies; (ii) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war; (iii) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel; (iv) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and (v) natural catastrophes such as cyclone, hurricane, typhoon, tsunami, storm surge, floods, earthquake, landslides, fires, epidemics, quarantine restrictions, or volcanic activity; (vi) freight embargoes; (vii) acts of the Government in its sovereign capacity.
	37.2 The Head of Procuring Entity decides the existence of a Force Majeure that will be the basis of the issuance of order for suspension of

মোঃ সাজ্জাদুল ইসলাম
নির্বাহী প্রকৌশলী
সওজ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

	Supply as stated under GCC Sub Clause 40.2.
38. Notice of Force Majeure	38.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice within fourteen (14) days after the party became aware, to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. 38.2 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.
39. Duty to Minimise Delay	39.1 Each Party shall at all times use all reasonable endeavours to minimise any delay in the performance of the Contract as a result of Force Majeure. 39.2 A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.
40. Consequences of Force Majeure	40.1 The Supplier shall not be liable for forfeiture of its security, liquidated damages, or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure 40.2 The Procuring Entity may suspend the delivery or contract implementation, wholly or partly, by written order for a certain period of time, as it deems necessary due to Force Majeure as defined in the Contract. 40.3 Delivery shall be made either upon the lifting or the expiration of the suspension order. However, if the Procuring Entity terminates the contract as stated under GCC Clause 40, resumption of delivery cannot be done. 40.4 After receiving notice under GCC Sub Clause 37.1, the Procuring Entity shall proceed to determine these matters under the provisions of the Contract.
41. Termination for Default মোঃ মাজহারুল ইসলাম নির্বাহী প্রকৌশলী সংযোগ বিভাগ-২ ঢাকা ওয়াসা M/S. Faisal Enterprise Proprietor	41.1 The Procuring Entity, without prejudice to any other remedy for fundamental breach of Contract, by giving fourteen (14) days written notice of default sent to the Supplier, may terminate the Contract in whole or in part if any of the following events (but not limited to) occurs: i. the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Procuring Entity pursuant to GCC Clause 33; or ii. the Supplier does not maintain a Security, which is required; or iii. the Supplier fails to perform any other obligation under the Contract; or iv. the Supplier, in the judgement of the Procuring Entity has engaged in corrupt, fraudulent, collusive, coercive or obstructive practice as defined in GCC Clause 6, in competing for or in executing the Contract; or v. the deductible amount due to Liquidated Damages reaches its maximum as stated under GCC Sub Clause 34 vi. the Supplier has assigned any subcontractor for any part or the full of scope under this contract after the contract has been signed.
	41.2 If any of the events pointed out under GCC Sub Clause 41.1 or any such event that is not listed in that clause but can be deemed as a

	fundamental breach of a contract happens, the affected party shall notify (first notice- Notice of Default) the defaulted party of such event and its intention to terminate the contract making reference(s) to the relevant GCC Clauses and ask the defaulted party the reason why the affected party will not terminate the contract with a 21-day timeline from the issuance of the first notice to provide any clarification. 41.3 If the Procuring Entity receives a reasonable clarification on the breaching event from the Supplier or the Supplier attempts and accomplishes any remedial action to mitigate the breach event, the Procuring Entity may affirm the contract without limiting its right to terminate the contract for any other fundamental breach by the Supplier.
	41.4 If the Procuring Entity does not receive any response or receive an unacceptable clarification on the breach event, it may terminate the contract mentioning an immediate effective date through a final notice. 41.5 The final notice (Notice of Termination) will be issued by the Procuring Entity getting approval from the Head of the Procuring Entity and the Supplier shall not perform any activity after issuance of that notice. 41.6 The Head of the Procuring Entity may create a Contract Termination Review Committee (CTRC) to assist him in the discharge of this function. All decisions recommended by the CTRC shall be subject to the approval of the Head of the Procuring Entity.
	41.7 In the event the Procuring Entity terminates the Contract in whole or in part, as stated under GCC Clause 41.1, the Procuring Entity may procure, upon such terms and in such manner as it deems appropriate, Goods similar to those undelivered or not performed, and the Supplier shall be liable to the Procuring Entity for any additional costs as mentioned in the PCC for such similar Goods. However, the Supplier shall continue performance of the Contract to the extent not terminated.
42. Termination for Insolvency	42.1 The Procuring Entity shall terminate this Contract if the Supplier is declared bankrupt or insolvent as determined with finality by a court of competent jurisdiction. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Procuring Entity and/or the Supplier.
43. Termination for Convenience	43.1 The Procuring Entity, by giving twenty-one (21) days written notice sent to the Supplier, may terminate this Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that the termination is for the procuring Entity's convenience, the extent to which performance of the Supplier under the contract is terminated, and the date upon which such termination becomes effective.
M/S. Faisal Enterprise Proprietor	43.2 The Goods that have been delivered and/or performed or are ready for delivery or performance within twenty-one (21) days after the Supplier's receipt of Notice to Terminate shall be accepted by the Procuring Entity at the contract terms and prices. For Goods not yet performed and/or ready for delivery, the Procuring Entity may elect: (a) to have any portion delivered and/or performed and paid at the contract terms and prices; and/or (b) to cancel the remainder and pay to the Supplier an agreed amount for partially completed and/or performed goods and for materials and parts previously procured by the Supplier

	43.3 The expiration of the Delivery and Completion Schedule, initiation of amicable settlement of disputes, adjudication and arbitral proceedings under the set terms and conditions shall not be deemed a termination of the contract.
44. Amendment to Contract	44.1 The amendment to Contract shall generally include equitable adjustments in original Contract price, Delivery and Completion Schedule and, any other changes acceptable under the conditions of the Contract. 41.2 The Procuring Entity shall amend the Contract, incorporating the changes approved in accordance with the Delegation of Financial Power or sub-delegation thereof and, introduced to the original terms and conditions of the Contract.
45. Settlement of Disputes	45.1 **Amicable Settlement:** The Procuring Entity and the Supplier shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.
	45.2 **Adjudication** (a) If the Supplier /Procuring Entity believe that amicable settlement of dispute is not possible between the two parties, the dispute shall be referred to the Adjudicator within fourteen (14) days of first written correspondence on the matter of disagreement;
	45.2 **Adjudication** (b) The Adjudicator named in the PCC is jointly appointed by the parties. In case of disagreement between the parties, the Appointing Authority designated in the PCC shall appoint the Adjudicator within fourteen (14) days of receipt of a request from either party;
	45.2 (c) The Adjudicator shall give its decision in writing to both parties within twenty-eight (28) days of a dispute being referred to it; 45.2 (d) The Supplier shall make all payments (fees and reimbursable expenses) to the Adjudicator, and the Procuring Entity shall reimburse half of these fees through the regular progress payments;
	45.2 (e) Should the Adjudicator resign or die, or should the Procuring Entity and the Supplier agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator will be jointly appointed by the Procuring Entity and the Supplier. In case of disagreement between the Procuring Entity and the Supplier the Adjudicator shall be designated by the Appointing Authority designated in the PCC at the request of either party, within fourteen (14) days of receipt of a request from either Party.
	45.3 **Arbitration** (a) If the Parties are unable to reach a settlement under GCC Clause 45.1 or 45.2 within twenty-eight (28) days of the first written correspondence on the matter of disagreement or within twenty-eight (28) days of the date of decision made by the Adjudicator as per GCC Sub Clause 45.2(c), then either Party may give notice to the other party of its intention to commence arbitration in accordance with GCC Sub Clause 45.3(b);
	45.3 (b) The arbitration shall be conducted in accordance with the Arbitration Act (Act No 1 of 2001) of Bangladesh as at present in force

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Proprietor

	and in the place shown in the PCC.

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Proprietor

মোঃ মাজহারুল ইসলাম
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M/s. Faisal Enterprise

Technical Specifications and Compliance of Goods and related services (Form e-PG3-5)

Notes on Technical Specifications:

Note 1:

[A set of precise and clear specifications is a prerequisite for Tenderes to respond realistically and competitively to the requirements of the PE. In the context of Competitive Tender, the specifications must be prepared to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of transparency, equity, efficiency, fairness and economy in procurement be realized, responsiveness of Tenders be ensured, and the subsequent task of Tender evaluation and post-qualification facilitated. The specifications should require that all items, materials and accessories to be included or incorporated in the goods be new, unused, and of the most recent or current models, and that they include or incorporate all recent improvements in design and materials]

Note 2:

[The PE must explain in clear terms the exact Technical Specification and any relevant National or International Standards which have to be followed for the manufacture and supply of the goods or related services. Technical Specifications shall specify what inspection and/or tests the PE requires and where they are to be conducted]

Note 3:

Keep the same Item no. in price schedule and technical specification form.

Item No.	Name of Goods	Detailed Technical Specification and Standards required	Inspection and/or tests required and test place	Country of Origin	Make, and Model or Brand (when applicable)	Full Detailed Technical Specifications and Standards offered
1	90 KW variable frequency Drive (VFD)	(i) General Features: This feature is to cover a complete Variable Frequency Drive (VFD) consisting of a pulse width modulated (PWM) inverter designed for use on a standard NEMA, UL, CSA, NEC, IEEE 519 etc. 01. Automatic Voltage Regulation (AVR) Function. 02. Automatic PFI Regulation Function. 03. Auto energy saving mode. 04. Four line digital display. (for four parameter) 05. Dual Rating Design (Light duty and Normal duty). 06. Built-in Real time clock. 07. Hot plug LCD keypad offers a user-friendly operation interface. The Display screen can be defined by the user with customized software & adjustable pulse frequency. 08. Networking drive system. 09. Built-in Automation Application.	As per GCC Clause 31.1	Finland	Model: ACS580-01-169A-4+J425+B056+P952 Brand: ABB	Enclosed As per technical specifications

মোঃ মাহবুবুল ইসলাম
নির্বাহী প্রকৌশলী
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M/S. Faisal Enterprise
Proprietor

10. Design should be flexible and ease maintenance.
(ii) Quality Standard:
(1) Product Quality Standard:
(a) National Electric Manufacturers Association (NEMA).
(b) Underwriters Laboratories Inc. (UL) and CSA.
(c) National Electric Code (NEC).
(d) CE low voltage directive EN50178 Electrical Equipment for use in power installations.
(e) EMC Directive 89/336/EEC (See also EN 5008102 and EN 50082-2)
(f) IEEE 519. Compliance of IEEE 519
(2) Manufacturer Quality Standard:
(a) ISO 9001:2020 or latest.
(iii) Main Control Functions:
01. Fault Reset.
02. Speed search.
03. S-curve Acceleration/Deceleration control.
04. Slip Compensation
05. PID Control (with slip function)
06. Parameter Copy.
07. Energy Saving mode.
08. 3-wire Sequence.
09. Torque Compensation.
10. Torque limit.
11. Over torque Protection
12. Auto tune (rational and stationary)
13. JOG frequency control
14. MODBUS Communication (RS-485)
15. BACnet Communication: 10 step speed (min)- 16 step speed (max)
16. Frequency Upper/lower limit setting
17. Momentary power loss ride through Acceleration/Deceleration. Time Switch.
18. Cooling Fan Auto mode
19. DC injection braking at start/stop
20. Variable Frequency Drive (VFD) Efficiency: Above 96%
21. Auto phase sequence changing mode (Forward/ Reverse rotation mode)
22. Harmonic Current suppression (DC Reactor Facility).
(iv) General Specification:
01. Input Phase, frequency: Three Phase, 50 Hz.
02. VFD Capacity: 90±3% KW (87.30 KW to 92.70 KW)
03. Output Current Range: 150-180A
04. Input Voltage Range: 340-440Vac
05. Output Frequency: 0 to 320 Hz.
06. Frequency Resolution Digital Command: 0.01 Hz.
07. Analog Command: Max. output frequency x 0.03/60 Hz. (±11 bit)
08. Carrier Frequency Range: 2~ 15 KHz. (depends on motor output)
09. Input Frequency Tolerance: 50±5% Hz.
10. Frequency Setting Signal: 0~+10V, 4~20mA. Analog Signal
11. Control mode: V/F control, sensor less Vector control (SVC)
12. Acceleration/Deceleration Time: 0.01~360/0.01~360 seconds, (Adjustable)
13. Communications Protocols: Built-in (RS-485, MODBUS, BACnet)
14. EMI Filter: Built-in
15. Harmonics Filter: Built-in
16. Restart after instantaneous power failure: Up to 15 Seconds (Auto/Manual)

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সংযোগ বিভাগ-২
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Proprietor

		17. Cooling Method: Fan Cooling 18. Starting Torque and Torque Boost: Reach up to 150% or above at 1.0 Hz. 19. Low Voltage Level Setting: For 1(one) Phase (230Vac): 185~220VAC), For 3(Three) Phase (415Vac): 340~440VAC) (v) Safety Protection: 01. Motor Protection: Electronic Thermal Relay Protection 02. Over Current Protection Normal Duty: Over Current Protection for 150% of rated current 03. Over Voltage Protection: For 1(one) Phase (230Vac): Drive will be stopped when input voltage exceeds 20% of the rated Voltage. For 3(Three) Phase (410Vac): Drive will be stopped when input voltage exceeds 20% of the rated Voltage. 04. Overload Tolerance: Light Duty: 120% of rated current for 1 minute; Normal Duty: 120% of rated current for 1 minute; 160% of rated current for 3 Seconds. 05. Over Temperature Protection: Built-in temperature sensor 06. Torque Limit Normal Duty: Max. 170% torque current (vi) Environmental Protection: 01. Ambient Temperature (Storage/Transportation) : 0°C- +50°C 02. Air Pressure (Operation/Storage) : Atmospheric Pressure 03. Pollution Level: Class 3C2: Class 3S2 (Operation) Class 2C2: Class 2S2 (Storage) 04. Protection Level: IP 55. 05. Sound Level: Up to 75 db 06. Humidity: Up to 95%				
2	Specification of Submersible sensor and Panel Box	(vii) Specification of Submersible Sensor: 01. Mode of operation: Piezo-resistive measuring principle 02. Input (a) Measured variable: Hydrostatic level (b) Maximum operating pressure: 0-125 m H2O(0-375ft H2O) 03. Output (a) Output signal: 4-20 mA (b) Measuring accuracy: Acc. to IEC 60770-1 (c) Error in measurement at limit setting incl. hysteresis and reproducibility: 0.3 % of full-scale value (typical) 04. Influence of ambient temperature (a) ≥ 6 mH2O (≥ 18 ft H2O): 0.3 %/10 K of full-scale value (b) Long-term stability: (i) 1-6 m H2O (3-18 ft H2O): 0.25 % of full-scale value/year (ii) ≥ 6 m H2O (≥ 18 ft H2O) : 0.2 % of full-scale value/year 05. Rated conditions (a) Process temperature: (-)10 to +80 °C (14-176 °F) (b) Degree of prot. to DIN EN 60529: IP68 06. Design (a) Weight (i) Pressure transmitter: ≈ 0.4 kg (≈ 0.88 lb) (ii) Cable:0.08 kg/m (≈ 0.054 lb/ft) (iii) Electrical connection: Cable with 2 conductors with screen and vent pipe, strength cord (max. 300 N (67.44 lbf) (b) Material (i) Seal diaphragm: Stainl. steel, mat. no. 316L/316 Ti (ii) Enclosure: Stainl. steel, mat. no. 316L/316 Ti	As per GCC Clause 31.1	China	Model:MD-S401E Brand: Meokon	Enclosed As per technical specifications

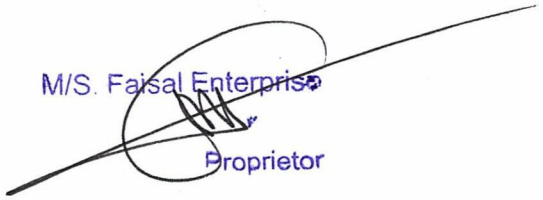
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ঢাকা ওয়াসা

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		(iii) Gasket: Viton (iv) Connecting cable: Either PE/HFFR sheath (non-halo-gen) or FEP sheath 07. Power supply Terminal voltage on pressure transmitter UB: 10-36 V DC 08. Certificates and approvals Drinking water approval (ACS): ACS 11 ACC NY 014 Drinking water approval (WRAS) The transmitter is not subject to the pressure equipment directive (PED 97/23/EC): WRAS 1111055 09. Junction box (a) Application: for connecting the transmitter cable 10. Design (a) Weight: 0.2 kg (0.44 lb) (b) Electrical connection: 2 x 3-way (28 to 18 AWG) (c) Cable entry: 2 x M20 x 1.5 (d) Enclosure material: polycarbonate Vent pipe for atmospheric pressure Screw for cable strength cord 11. Rated conditions Degree of prot. to DIN EN 60529: IP65 12. Cable hanger Application: for mounting the transmitter 13. Design Weight: 0.16 kg (0.35 lb) Material: Galvanized steel, polyamide There will be a display box (4.3", mounted on front door panel box) to display the water level continuously. Interlocking facilities must be set with VFD (viii) Panel Box: 01. Size: Standard (with free space) 14SWG Sheet Steel Enclosed, epoxy powder coated, dust and vermin proof. 02. Circuit Breaker (200 Amps TP MCCB): 1 (One) 03. Safety Control Circuit Breaker (10 Amps TP MCB): 1 (One) 04. Power Factor Meter: 1 (One) 05. Emergency Switch: 1 (One) 06. Ammeter (0-200amps, CT ratio 200/5) Model No 96: 1 (One) 07. Voltmeter (0-500 volt) Model No 96: 1 (One) 08. Amp. Selector Switch: 1 (One) 09. Volt Selector Switch: 1 (One) 10. CT Coil (200/5): 3 (Three) 11. 6 " Air Cooler Fan: 2 (Two) (attach with both sides of the panel box) VFD Panel box must be equivalent to IP41 standard. Panel box should comprise with door mounted operator panel and bottom in/out connection system. Ducting Facility to comprise the hot air outside the pump house as per drawing.				

This Technical Specifications and Compliance of Goods and related services (Form e-PG3-5) is Electronically Signed by Mr. Md. Hoque on behalf of M/s. Faisal Enterprise





Technical Specification of Variable Frequency Drive (VFD) of 90 ±3% KW.

Dhaka WASA Require Technical Specification	Compliance Technical Specification by Tenderer
(i) General Features: This feature is to cover a complete Variable Frequency Drive (VFD) consisting of a pulse width modulated (PWM) inverter designed for use on a standard NEMA, UL, CSA, NEC, IEEE 519 etc. 01. Automatic Voltage Regulation (AVR) Function. 02. Automatic PFI Regulation Function. 03. Auto energy saving mode. 04. Four line digital display. (for four parameter) 05. Dual Rating Design (Light duty and Normal duty). 06. Built-in Real time clock. 07. Hot plug LCD keypad offers a user-friendly operation interface. The Display screen can be defined by the user with customized software & adjustable pulse frequency. 08. Networking drive system. 09. Built-in Automation Application. 10. Design should be flexible and ease maintenance.	**Complied**
(ii) Quality Standard: (1) Product Quality Standard: (a) National Electric Manufacturers Association (NEMA). (b) Underwriters Laboratories Inc. (UL) and CSA. (c) National Electric Code (NEC). (d) CE low voltage directive EN50178 Electrical Equipment for use in power installations. (e) EMC Directive 89/336/EEC (See also EN 5008102 and EN 50082-2) (f) IEEE 519. Compliance of IEEE 519 (2) Manufacturer Quality Standard: (a) ISO 9001:2020 or latest.	**Complied**
(iii) Main Control Functions: 01. Fault Reset. 02. Speed search. 03. S-curve Acceleration/Deceleration control. 04. Slip Compensation 05. PID Control (with slip function) 06. Parameter Copy. 07. Energy Saving mode. 08. 3-wire Sequence. 09. Torque Compensation. 10. Torque limit. 11. Over torque Protection 12. Auto tune (rational and stationary) 13. JOG frequency control 14. MODBUS Communication (RS-485) 15. BACnet Communication: 10 step speed (min)- 16 step speed (max) 16. Frequency Upper/lower limit setting 17. Momentary power loss ride through Acceleration/Deceleration. Time Switch. 18. Cooling Fan Auto mode 19. DC injection braking at start/stop 20. Variable Frequency Drive (VFD) Efficiency: Above 96% 21. Auto phase sequence changing mode (Forward/ Reverse rotation mode) 22. Harmonic Current suppression (DC Reactor Facility).	**Complied**

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/S Faisal Enterprise
Proprietor

M/S. Faisal Enterprise
Proprietor

Head Office : Rupayan Taj (Office Suit-E1 & F1), Plot # 1, 1/1 Naya Paltan (Box Calvert Road) Dhaka-1000
Branch Office : Nasco Power Engineering Ltd. 17-18 Ramna Shopping Complex, Ramna, Dhaka-1217, Bangladesh.
faisal@nascobd.com
a.hoque1997@gmail.com
www.nascobd.com
A Sister Concern of Nasco Group
+88 02 935 9663
+88 01833148736
+88 01833148728

Dhaka WASA Require Technical Specification	Compliance Technical Specification by Tenderer
(iv) General Specification: 01. Input Phase, frequency: Three Phase, 50 Hz. 02. VFD Capacity: 90±3% KW (87.30 KW to 92.70 KW) 03. Output Current Range: 150-180A 04. Input Voltage Range: 340-440Vac 05. Output Frequency: 0 to 320 Hz. 06. Frequency Resolution Digital Command: 0.01 Hz. 07. Analog Command: Max. output frequency x 0.03/60 Hz. (±11 bit) 08. Carrier Frequency Range: 2~ 15 KHz. (depends on motor output) 09. Input Frequency Tolerance: 50±5% Hz. 10. Frequency Setting Signal: 0~+10V, 4~20mA. Analog Signal 11. Control mode: V/F control, sensor less Vector control (SVC) 12. Acceleration/Deceleration Time: 0.01~360/0.01~360 seconds, (Adjustable) 13. Communications Protocols: Built-in (RS-485, MODBUS, BACnet) 14. EMI Filter: Built-in 15. Harmonics Filter: Built-in 16. Restart after instantaneous power failure: Up to 15 Seconds (Auto/Manual) 17. Cooling Method: Fan Cooling 18. Starting Torque and Torque Boost: Reach up to 150% or above at 1.0 Hz. 19. Low Voltage Level Setting: For 1(one) Phase (230Vac): 185~220VAC), For 3(Three) Phase (415Vac): 340~440VAC)	**Complied**
(v) Safety Protection: 01. Motor Protection: Electronic Thermal Relay Protection 02. Over Current Protection Normal Duty: Over Current Protection for 150% of rated current 03. Over Voltage Protection: For 1(one) Phase (230Vac): Drive will be stopped when input voltage exceeds 20% of the rated Voltage. For 3(Three) Phase (410Vac): Drive will be stopped when input voltage exceeds 20% of the rated Voltage. 04. Overload Tolerance: Light Duty: 120% of rated current for 1 minute; Normal Duty: 120% of rated current for 1 minute; 160% of rated current for 3 Seconds. 05. Over Temperature Protection: Built-in temperature sensor 06. Torque Limit Normal Duty: Max. 170% torque current (vi) Environmental Protection: 01. Ambient Temperature (Storage/Transportation) : 0°C- +50°C 02. Air Pressure (Operation/Storage) : Atmospheric Pressure 03. Pollution Level: Class 3C2: Class 3S2 (Operation) Class 2C2: Class 2S2 (Storage) 04. Protection Level: IP 55. 05. Sound Level: Up to 75 db 06. Humidity: Up to 95%	**Complied**

Brand: ABB, Origin: Finland

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Specification of Submersible sensor and Panel Box

Dhaka WASA Require Technical Specification	Compliance Technical Specification by Tenderer
(vii) Specification of Submersible Sensor: 01. Mode of operation: Piezo-resistive measuring principle 02. Input (a) Measured variable: Hydrostatic level (b) Maximum operating pressure: 0-125 m H2O(0-375ft H2O) 03. Output (a) Output signal: 4-20 mA (b) Measuring accuracy: Acc. to IEC 60770-1 (c) Error in measurement at limit setting incl. hysteresis and reproducibility: 0.3 % of full-scale value (typical) 04. Influence of ambient temperature (a) ≥ 6 mH2O (≥ 18 ft H2O): 0.3 %/10 K of full-scale value (b) Long-term stability: (i) 1-6 m H2O (3-18 ft H2O): 0.25 % of full-scale value/year (ii) ≥ 6 m H2O (≥ 18 ft H2O) : 0.2 % of full-scale value/year 05. Rated conditions (a) Process temperature: (-)10 to +80 °C (14-176 °F) (b) Degree of prot. to DIN EN 60529: IP68 06. Design (a) Weight (i) Pressure transmitter: ≈ 0.4 kg (≈ 0.88 lb) (ii) Cable:0.08 kg/m (≈ 0.054 lb/ft) (iii) Electrical connection: Cable with 2 conductors with screen and vent pipe, strength cord (max. 300 N (67.44 lbf) (b) Material (i) Seal diaphragm: Stainl. steel, mat. no. 316L/316 Ti (ii) Enclosure: Stainl. steel, mat. no. 316L/316 Ti (iii) Gasket: Viton (iv) Connecting cable: Either PE/HFFR sheath (non-halo-gen) or FEP sheath 07. Power supply Terminal voltage on pressure transmitter UB: 10-36 V DC 08. Certificates and approvals Drinking water approval (ACS): ACS 11 ACC NY 014 Drinking water approval (WRAS) The transmitter is not subject to the pressure equipment directive (PED 97/23/EC): WRAS 1111055 09. Junction box (a) Application: for connecting the transmitter cable 10. Design (a) Weight: 0.2 kg (0.44 lb) (b) Electrical connection: 2 x 3-way (28 to 18 AWG) (c) Cable entry: 2 x M20 x 1.5 (d) Enclosure material: polycarbonate Vent pipe for atmospheric pressure Screw for cable strength cord 11. Rated conditions Degree of prot. to DIN EN 60529: IP65 12. Cable hanger Application: for mounting the transmitter 13. Design Weight: 0.16 kg (0.35 lb) Material: Galvanized steel, polyamide There will be a display box (4.3", mounted on front door panel box) to display the water level continuously. Interlocking facilities must be set with VFD **Model:MD-S401E** **Brand: Meokon, Origin: China**	**Complied**

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সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

M/S Faisal Enterprise
Proprietor

Head Office : Rupayan Taj (Office Suit-E1 & F1), Plot # 1, 1/1 Naya Paltan (Box Calvert Road) Dhaka-1000
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(viii) Panel Box: 01. Size: Standard (with free space) 14SWG Sheet Steel Enclosed, epoxy powder coated, dust and vermin proof. 02. Circuit Breaker (200 Amps TP MCCB): 1 (One) 03. Safety Control Circuit Breaker (10 Amps TP MCB): 1 (One) 04. Power Factor Meter: 1 (One) 05. Emergency Switch: 1 (One) 06. Ammeter (0-200amps, CT ratio 200/5) Model No 96: 1 (One) 07. Voltmeter (0-500 volt) Model No 96: 1 (One) 08. Amp. Selector Switch: 1 (One) 09. Volt Selector Switch: 1 (One) 10. CT Coil (200/5): 3 (Three) 11. 6 " Air Cooler Fan: 2 (Two) (attach with both sides of the panel box) VFD Panel box must be equivalent to IP41 standard. Panel box should comprise with door mounted operator panel and bottom in/out connection system. Ducting Facility to comprise the hot air outside the pump house as per drawing. **MCB & MCCB (Brand: Vitzro, Origin: Korea)**	**Complied**

M/S Faisal Enterprise
Proprietor

M/S. Faisal Enterprise
Proprietor

মোঃ শাজাহান্নাল ইসলাম
নির্বাহী প্রকৌশলী
সংযোগ বিভাগ-২
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M/s. Faisal Enterprise

Price Schedule for Goods (Form e-PG3-4A)

A: PRICE OF GOODS (Including Spare Parts, if any) AND DELIVERY SCHEDULE

A: PRICE OF GOODS (Including Spare Parts, if any) AND DELIVERY SCHEDULE

Item No.	Description of Item	Measurement Unit	Quantity	Point of Completion	Completion Period (in days)	Country of Origin	Unit Price in Figure (BDT)	Unit Price in Words (BDT)	Total Price in Figure (BDT)	Total Price in Words (BDT)
1	Supply of 90 KW Variable Frequency Drive (VFD) water level measurement sensor with LED Display unit. Panel Box and Ducting System (Wall Mounted).	set	29.000	Central Store, Dhaka WASA	120	Finland	812000.000	Eight Lakh Twelve Thousand	23548000.000	Two Crore Thirty-Five Lakh Forty-Eight Thousand
								Grand Total:	23548000.000	Two Crore Thirty-Five Lakh Forty-Eight Thousand

This Price Schedule for Goods (Form e-PG3-4A) is Electronically Signed by Mr. Md. Hoque on behalf of M/s. Faisal Enterprise

M/S. Faisal Enterprise
Proprietor

মোঃ মাজহারুল ইসলাম
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সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/s. Faisal Enterprise

Price Schedule for Related Services (Form e-PG3-4B)

B: PRICE OF RELATED SERVICES (Including Incidental services, if any) AND COMPLETION SCHEDULE

Item No.	Description of Item	Measurement Unit	Quantity	Point of Completion	Completion Period (in days)	Country of Origin	Unit Price in Figure (BDT)	Unit Price in Words (BDT)	Total Price in Figure (BDT)	Total Price in Words (BDT)
1	Installation and Commissioning of VFD, water level measurement sensor with LED Display unit. & Ducting System at Different pump Station.	Set	29.000	Different Pump stations of Dhaka WASA as instructed by PE	15	BD	3000.000	3000.000	87000.000	Eighty-Seven Thousand
								Grand Total:	87000.000	Eighty-Seven Thousand

This Price Schedule for Related Services (Form e-PG3-4B) is Electronically Signed by Mr. Md. Hoque on behalf of M/s. Faisal Enterprise

M/S. Faisal Enterprise
Proprietor

মোঃ মাজহারুল ইসলাম
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ঢাকা ওয়াসা

MANUFACTURER'S AUTHORIZATION LETTER

Date: 8th February 2026

To,
The Executive Engineer,
Office of the EE, Procurement Division-2
Dhaka Water Supply and Sewerage Authority (DWASA),
9th Floor, WASA Bhaban, Kawranbazar,
Dhaka - 1215, Bangladesh.

Project Invitation Reference for tender:
Identification Description: Procurement of 90 KW Variable Frequency Drive (VFD) for F.M. Division-1 Dhaka WASA
Invitation for Tender No: 46.113.428.00.00.100/26-T-35
Tender/Proposal ID: 1220334

Subject: Authorization letter for ABB VFD Supply
We, ABB India Limited, a company incorporated in India with registration number L32202KA1949PLC032923, having registered office at Disha – 3rd Floor, Plot No. 5 & 6, 2nd Stage, Peenya Industrial Area IV, Peenya, Bengaluru – 560 058, Karnataka, India hereby authorize **M/s. Faisal Enterprise** (Registered office at Rupayan Taj, Plot No:1, 1/1, Naya Palton, Box Culvert Road, Dhaka-1000, Bangladesh) (hereinafter, the "Bidder") to include ABB make Low Voltage Variable Frequency Drives (hereinafter referred as "Products") manufactured by our factories based in Europe (Finland); in their bid against above mentioned tender details for supply of the following Products:

Sl	Proposed Model	CoO	Quantity(pc)
1	ACS580-01-169A-4+J425+B056+P952	Finland	29

Subject to the Bidder placing a firm order on us, we shall support the Bidder in supply of above-mentioned products and our obligations for supply and warranty of the equipment shall be solely to the Bidder and shall be governed by the terms and conditions mutually agreed between ABB India Limited and the Bidder.

Note: Issuing sub-authorization is prohibited based on this authorization

Thanking you,
For and on behalf of ABB India Limited,
Signed by

Name: Kaushik Bhattacharyya

M/S. Faisal Enterprise
Proprietor

CC to,
Tasnim Sarwar Rad, Head of Motion Business, ABB Limited Bangladesh
The Glass House (12th floor), 38, Gulshan Avenue, Dhaka-1212, Bangladesh
Email: tasnim.rad@bd.abb.com, Cell: +8801714110493

Date: 8th February 2026

Invitation for Tender No: 46.113.428.00.00.100/26-T-35
Tender Package No: 46.113.428.00.00.100/26
Tender ID: 1220334
Tender Lot No: Single

To,
The Executive Engineer,
Office of the EE, Procurement Division-2,
Dhaka Water Supply and Sewerage Authority (DWASA),
9th Floor, WASA Bhaban, Kawranbazar,
Dhaka - 1215, Bangladesh.

Subject: Declaration for tests conducted for **ACS580-01-169A-4+J425+B056+P952.**

Dear Sir,
We ABB India Limited hereby confirm that our VFD (90 KW, Model: ACS580) comes with the below test before shipment.
- Insulation Test
- System Test (Load test, 1/0 Test, Protection test, Temp test, Protection test)
- Burn in Test (Stress Cycle test)
- System Test 2(Load test, 1/0 Test, Protection test, Temp test, Current Measurement test, Protection test)
- Visual and Package Inspection.

If you need detailed information, please feel free to contact us.

Thanking you,
For and on behalf of ABB India Limited,
Signed by:

ABB INDIA LIMITED

Name: Kaushik Bhattacharyya

M/S. Faisal Enterprise

Proprietor

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

ABB India Limited
OMEGA Building, 13th Floor, North Wing,
Bengal Intelligent Park, Block - EP & GP
Sector V, Salt Lake City, Kolkata - 700 091
West Bengal, India

CIN : L32202KA1949PLC032923
GST : 19AAACA3834B1Z5

Telephone & Fax :
Ph.: +91 33 6621 3000-1

Corporate & Regd. Office
ABB India Limited
Disha - 3rd Floor,
Plot No. 5 & 6, 2nd Stage,
Peenya Industrial Area IV, Peenya
Bangaluru - 560 058, Karnataka

Telefax & Fax :
Ph.: +91 80 2294 9150-54
Fax : +91 80 2294 9148
www.abb.com/in

EU Declaration of Conformity

Machinery Directive 2006/42/EC

We

Manufacturer:	ABB Oy
Address:	Hiomotie 13, 00380 Helsinki, Finland
Phone:	+358 10 22 11

declare under our sole responsibility that the following product(s):

Frequency converter(s) and/or frequency converter component(s)
ACS580-01

with regard to the safety function(s):

- Safe Torque Off
- Safe stop 1 (SS1-t, with FSPS-21 PROFIsafe module, +Q986)
- Safe stop 1 (SS1-t, with FSCS-21 CIP Safety module)

is/are in conformity with all the relevant safety component requirements of the EU Machinery Directive 2006/42/EC, when the listed safety function(s) is/are used for safety component functionality.

The following harmonized standards have been applied:

EN 61800-5-2:2007 Adjustable speed electrical power drive systems – Part 5-2: Safety requirements - Functional

EN IEC 62061:2021 Safety of machinery – Functional safety of safety-related control systems

EN ISO 13849-1:2015 Safety of machinery – Safety-related parts of control systems. Part 1: General requirements

EN ISO 13849-2:2012 Safety of machinery – Safety-related parts of the control systems. Part 2: Validation

EN 60204-1:2018 Safety of machinery – Electrical equipment of machines – Part 1: General requirements

The following other standards have been applied:

IEC 61508:2010, parts 1-3 Functional safety of electrical / electronic / programmable electronic safety-related systems

IEC 61800-5-2:2016 Adjustable speed electrical power drive systems – Part 5-2: Safety requirements - Functional

The product(s) referred in this declaration of conformity fulfil(s) the relevant provisions of other European Union directives which are notified in Single EU declaration of conformity 3AXD10001818627.

Authorized to compile the technical file: ABB Oy, Hiomotie 13, 00380 Helsinki, Finland.

Helsinki, 22 Apr 2024

Signed for and on behalf of:

Digitally signed by Mika Vartiainen

Mika Vartiainen
Local Division Manager
ABB Oy

Mikko Korpinen
Engineering Unit Manager
ABB Oy

Code: 3AXD10000302783

মোঃ মাজহারুল ইসলাম
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সওঘত বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

IMS template code: 3AFE011906, Rev. E

Date: 8th February 2026

Invitation for Tender No: 46.113.428.00.00.100/26-T-35
Tender Package No: 46.113.428.00.00.100/26
Tender ID: 1220334
Tender Lot No: Single

To,
The Executive Engineer,
Office of the EE, Procurement Division-2
Dhaka Water Supply and Sewerage Authority (DWASA),
9th Floor, WASA Bhaban, Kawranbazar,
Dhaka - 1215, Bangladesh.

Subject: After Sales Service Confirmation.

We **ABB India Limited**, registered office at plot No. 5 & 6, 2nd stage, Peenya industrial area IV, Peenya, Bengaluru -560 058, India do here by declare **M/S FAISAL ENTERPRISE** (registered address: 1, 1/1 Naya Paltan, Rupayan Taj Suite, E1 & F1, Box Culvert Road, Paltan PS, Dhaka-1000, Bangladesh) (hereinafter, the "Bidder"),will be bound to do the after-sales service work for supplied goods upon notice within 12 months from the date of delivery against the Invitation for Tender No: 46.113.428.00.00.100/26-T-35

Thanking you,
For and on behalf of ABB India Limited,
Signed by:

Name: Kaushik Bhattacharyya

ABB INDIA LIMITED

M/S. Faisal Enterprise
Proprietor

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সংযোগ বিভাগ-২
ঢাকা ওয়াসা

Bureau Veritas Certification

ABB Oy

Valimopolku 4 A, FI-00380 Helsinki, Finland

This is a multi-site certificate, additional site(s) are listed on the next page(s)

Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

Scope of certification

Marketing, sales, research and development, design, engineering, supply chain management, production, delivery and maintenance, operational efficiency and lifecycle management services of automation and power technology products and systems for industry, utility, transport and infrastructure customers

Original cycle start date:	**27 November 1995 – ISO 9001** **08 March 2002 – ISO 14001/ ISO 45001**
Expiry date of previous cycle:	**08 March 2023**
Recertification Audit date:	**11 November 2022**
Recertification cycle start date:	**09 March 2023**

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **08 March 2026**

Certificate No. ***CH14389557*** *Version:* ***01*** *Revision date:* ***06 March 2023***

M/S. Faisal Enterprise

Proprietor

Certification body address: 5th Floor, 66 Prescot Street, London E1 8HG, United Kingdom
Local office: Grossächerstrasse 25, 8104 Weiningen/ZH, Switzerland

UKAS MANAGEMENT SYSTEMS
0008

Further clarifications regarding the scope and validity of this certificate and the applicability of the management system requirements, please call: *+41 44 752 11 55*

Bureau Veritas Certification

ABB Oy

Valimopolku 4 A, FI-00380 Helsinki, Finland

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

Scope of certification

Site Name/Location	Site Address	Site Scope
ABB Oy, Head Office	Valimopolku 4 A, FI-00380 Helsinki Finland	Marketing, sales, research and development, design, engineering, supply chain management, production, delivery and maintenance, operational efficiency and lifecycle management services of automation and power technology products and systems for industry, utility, transport and infrastructure customers
ABB Oy, Building Products (Wiring Accessories)	Porvoon Sisäkehä 2, FI-06100 Porvoo, Finland	Sales, marketing, product development, supply chain management and manufacturing of conventional wiring accessories and installation materials for buildings
ABB Oy, Distribution Solutions	Muottitie 2 A, FI-65320 Vaasa, Finland Dynamotie 4 N, FI-65320 Vaasa, Finland	Marketing, sales, development, engineering, manufacturing and delivery of low and medium voltage products, systems and related services
ABB Oy, Domestic Sales	Valimopolku 4A, FI-00380 Helsinki, Finland Strömbergin Puistotie 6 C, FI-65320 Vaasa, Finland	Marketing, sales, engineering, delivery and maintenance, operational efficiency and lifecycle management services of automation and power technology products and systems for industry, utility, transport and infrastructure customer

Certificate No. ***CH14389557*** *Version:* ***01*** *Revision date:* ***06 March 2023***

মোঃ মাছুদুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
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Certification body address: 5th Floor, 66 Prescot Street, London E1 8HG, United Kingdom
Local office: Grossächerstrasse 25, 8104 Weiningen/ZH, Switzerland

UKAS MANAGEMENT SYSTEMS
0008

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BUREAU VERITAS

Bureau Veritas Certification

ABB Oy

Valimopolku 4A, FI-00380 Helsinki, Finland

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

Scope of certification

Site Name/Location	Site Address	Site Scope
ABB Oy, Drives	Hiomotie 13, FI-00380 Helsinki, Finland Strömbergintie 1Aa, FI-00380 Helsinki, Finland Valimopolku 4 A, FI-00380 Helsinki, Finland	Marketing, sales, development, design, engineering, supply chain management, manufacturing and delivery of variable speed drive products, drives packages, related services and software
ABB Oy, Electrification Service	Dynamotie 4 N, FI-65320 Vaasa, Finland Yhteistyönkatu 1, FI-53300 Lappeenranta, Finland Mestarinkatu 15 B, FI-70700 Kuopio, Finland Juvan Teollisuuskatu 25, FI-02920 Espoo, Finland Metallimiehenkatu 1, FI-95450 Tornio, Finland	Marketing, sales, engineering, manufacturing and delivery of low and medium voltage products and related life cycle services
ABB Oy, Energy Industries	Strömbergin Puistotie 6 C, FI-65320 Vaasa, Finland Jasperintie 310, FI-33960 Pirkkala, Finland	Marketing, sales, execution, installation and commissioning of projects providing products, solutions and related life cycle services for utility and industry customers
ABB Oy, GBS and Corporate	Strömbergintie 1 B, FI-00380 Helsinki, Finland Valimopolku 4 A, FI-00380 Helsinki, Finland Strömbergin Puistotie 6 C, FI-65320 Vaasa, Finland	Functions and internal services to support the operative business units
ABB Oy, IEC LV Motors	Strömbergin Puistotie 5 A, FI-65320 Vaasa, Finland	Marketing, sales, research and development, engineering and manufacturing of induction and synchronous motors, generators, components and related after sales services
ABB Oy, Marine & Ports	Merenkulkijankatu 1, FI-00980 Helsinki, Finland Ruusuniementie 4, FI-00980 Helsinki, Finland Hailikarintie 1, FI-49460 Hamina, Finland Rydöntie 7, FI-20360 Turku, Finland Rydöntie 26, FI-20360 Turku, Finland	Marketing, sales, development, engineering, projecting, supply chain management, commissioning and after sales services of power, propulsion and automation systems, and manufacturing of propulsion products, for marine industry

Certificate No: ***CH14389557*** *Version:* ***01*** *Revision date:* ***06 March 2023***

M/S. Faisal Enterprise
Proprietor

Certification body address: 5th Floor, 66 Prescot Street, London E1 8HG, United Kingdom
Local office: Grossächerstrasse 25, 8104 Weiningen/ZH, Switzerland

UKAS MANAGEMENT SYSTEMS
0008

Further clarifications regarding the scope and validity of this certificate and the applicability of the management system requirements, please call: *+41 44 752 11 55*

ABB Oy

Valimopolku 4A, FI-00380 Helsinki, Finland

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

Scope of certification

Site Name/Location	Site Address	Site Scope
ABB Oy, Motion Services	Strömbergintie 1, 00380 Helsinki, Finland Valimopolku 4, 00380 Helsinki, Finland Rydöntie 7, 20360 Turku, Finland Konetie 27, 90630 Oulu, Finland Yhteistyönkatu 1, 53300 Lappeenranta, Finland Myllytie 10, 45910 Voikkaa, Finland Metallimiehenkatu 1, 95450 Tornio, Finland Kauhatie 6, 40320 Jyväskylä, Finland Jesperintie 310, 33960 Tampere, Finland	Sales, marketing, maintenance, repair, installation, commissioning and spare parts for aftermarket activities in Finland for Drives and Motors and Generators products
ABB Oy, Large Motors and Generators	Strömbergintie 1 B, FI-00380 Helsinki, Finland Juvan Teollisuuskatu 25, FI-02920 Espoo, Finland Hiomotie 13, FI-00380 Helsinki, Finland	Marketing, sales, research and development, engineering and manufacturing of induction and synchronous motors, generators, components and related after sales services
ABB Oy, Process Industries	Strömbergintie 1 B, FI-00380 Helsinki, Finland Strömbergin Puistotie 6 C, FI-65320 Vaasa, Finland Kettukalliotie 9 E, FI-87100 Kajaani, Finland	Marketing, sales, projecting, application engineering, commissioning and service of process automation, drive and electrical systems and products for process industries
ABB Oy, Robotics	Strömbergintie 1 B, FI-00380 Helsinki, Finland	Marketing, sales, projects, engineering, service and maintenance, training, lifecycle management services of robot products and systems for industrial customers
ABB Oy, Smart Power	Muottitie 2 A, FI-65320 Vaasa, Finland	Marketing, sales, development, design, supply chain management, manufacturing and delivery of low voltage switch products

Certificate No. ***CH14389557*** *Version:* ***01*** *Revision date:* ***06 March 2023***

M/S. Faisal Enterprise

Proprietor

Certification body address: 5th Floor, 66 Prescot Street, London E1 8HG, United Kingdom
Local office: Grossächerstrasse 25, 8104 Weiningen/ZH, Switzerland

UKAS MANAGEMENT SYSTEMS
0008

Further clarifications regarding the scope and validity of this certificate and the applicability of the management system requirements, please call: *+41 44 752 11 55*

Certificate of Quality Management System

We hereby certify

Meokon Sensor Technology (Shanghai) Co.,Ltd.

(Uniied social credit code:91310118062540088R)

Organization registered address:4th Floor, Building 8, No.3236 Waiqingsong Road, BaiheTown, Qingpu District,Shanghai

The actual business address:4th Floor Building 8,No. 3236 Waiqingsong Road. Baihe Town, Qingpu District, Shanghai

System is in conformity with

GB/T19001- 2016/ISO 9001:2015

Certified Scope

Productiong, processing, and service of intelligent digital pressure gauges (within qualfied scope), intelligent digital pressure controllers, and temperature, flow, and pressure sensors

The cerificate shall be valid for all kinds of administrative licenses preucribed by the state and shall be valid for the period of validity of the qualification;The certified organization must be subject to supervision and audits every year in accordance with the cerification requirements;The certificate validity status can scan the QR code query;This certificate information can be queried on the official website of the CNCA (www.cnca.gov.cn).

Certificate No:054724Q01189ROM

Issued date:May. 6, 2025

Effective date:May. 5, 2028

Issuer: Handan Zhuang

Certificate issuing seal

SHANGHAI CHUANGSHI CERTIFICATION Co.,Ltd. SEAL SPECIALLY TIED FOR CERTIFICATE

Soan the QR code

ISO9001 QMS

CNCA-R-2019-547

M/S. Faisal Enterprise

Proprietor

First Registration Date: May. 6, 2025 Registration Valid Date: May. 5, 2028

Shanghai Chuangshi Certification Co., Ltd.

Address:Room 1202, Building 3,No.251, Songhuajiang Road, Yangpu District, Shanghai City

Post code: 200093 Tell:021-33628538 Website: http://www.csrz8888.net/ E-mail: CSRZ8888@163.com

Certificate of Environmental Management System

We hereby certify

Meokon Sensor Technology (Shanghai) Co.,Ltd.

(Unified social credit code:91310118062540088R)

Organization registered address:4th Floor,Building 8, No. 3236 Waiqingsong Road, Baihe Town, Qingpu District,Shanghai

The actual business address:4th Floor, Building 8, No. 3236 Waiqingsong Road, Baihe Town, Qingpu District,Shanghai

System is in conformity with

GB/T 24001-2016/ ISO14001:2015

Certified Scope

Environmental management activities involved in the Productiong, processing, and service of intelligent digital pressure gauges (within qualified scope), intelligent digital pressure controllers, and temperature, flow, and pressure sensors

The certificate shall be valid for all kinds of administrative licenses prescribed by the state and shall be valid for the period of validity of the qualification; The certified organization must be subject to supervision and audits every year in accordance with the certification requirements;The certificate validity status can scan the QR code query; This certificate information can be queried on the official website of the CNCA (www.cnca.gov.cn).

Certificate No:054724E00568R0M

Issued date:May. 6, 2025

Effective date:May. 5, 2028

Issuer: Haodan Zhuang

Certificate is ring seal

SHANGHAI CHUANGSHI CERTIFICATION CO.,LTD. SEAL SPECIALLY TIED FOR CERTIFICATE

Scan the QR code

ISO14001 EMS

CNCA-R-2019-547

M/S. Faisal Enterprise

Proprietor

First Registration Date: May.6, 2025 Registration Valid Date: May.5, 2028

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Address: Room 1202, Building 3,No.251, Songhuajiang Road, Yangpu District, Shanghai City

Post code: 200093 Tell:021-33628538 Website: http://www.csrz8888.net/ E-mail: CSRZ8888@163.com

Date: 8th February 2026

Invitation for Tender No: 46.113.428.00.00.100/26-T-35
Tender Package No: 46.113.428.00.00.100/26
Tender ID: 1220334
Tender Lot No: Single

To,
The Executive Engineer,
Office of the EE, Procurement Division-2,
Dhaka Water Supply and Sewerage Authority (DWASA),
9th Floor, WASA Bhaban, Kawranbazar
Dhaka - 1215, Bangladesh.

Subject: Production Capacity

Dear Sir,

We hereby confirm that we, **ABB India Limited**, registered office at Plot No. 5 & 6, 2nd Stage, Peenya Industrial Area IV, Peenya, Bengaluru – 560 058, Karnataka, India, Official manufacturers of Variable Frequency Drive (VFD) having factories at ABB India Limited, registered office at Plot No. 5 & 6, 2nd Stage, Peenya Industrial Area IV, Peenya, Bengaluru – 560 058, Karnataka, India, can manufacture approximately 4,500nNos. VFD (Model: ACS580/ACQ580/ACH580/ACS560 Series) annually.

If you need detailed information, please feel free to contact us.

Thanking you,
For and on behalf of ABB India Limited,
Signed by:

ABB INDIA LIMITED

Name: Kaushik Bhattacharyya

M/S Faisal Enterprise
Proprietor

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংযোগ বিভাগ-২
ঢাকা ওয়াসা

ABB India Limited
OMEGA Building, 13th Floor, North Wing,
Bengal Intelligent Park, Block - EP & GP
Sector V, Salt Lake City, Kolkata - 700 091
West Bengal, India

CIN : L32202KA1949PLC032923
GST : 19AAACA3834B1Z5

Telephone & Fax :
Ph.: +91 33 6621 3000-1

Corporate & Regd. Office
ABB India Limited
Disha - 3rd Floor,
Plot No. 5 & 6, 2nd Stage,
Peenya Industrial Area IV, Peenya
Bangaluru - 560 058, Karnataka

Telefax & Fax :
Ph.: +91 80 2294 9150-54
Fax : +91 80 2294 9148
www.abb.com/in

DAkkS
Deutsche
Akkreditierungsstelle
D-ZE-11074-01-00

Certificate

No. SEBS-A.133025/16 V2.0

TÜV NORD Systems GmbH & Co. KG hereby certifies

ABB Oy
Hiomotie 13
00381 Helsinki
Finland

that the safety module

FSPS-21

as plug-in modules for the industrial drive ACS880, ACS580 and ACS 380 series with the integrated safety functions "Safe Torque Off (STO)" and "Safe Stop 1 (SS1-t)" meets the requirements listed in the following standards:

- **IEC 61508 part 1, part 2, part 3: 2010 SIL 3**
- **IEC 61800-5-2: 2016 SIL 3**
- **ISO 13849 part 1: 2023 PL e, part 2: 2012**

Certificationprogram Leittechnik (SEB-ZE-SEECERT-VA-320-20, Rev. 6.0 / 04.24)

The whole assembly can be used in safety applications up to SIL 3 according to IEC 61511.

Base of certification is the report SEBS-A.133025/16TB in the valid version.

This certificate entitles the holder to use the adjacent conformity mark.

Valid until: 2029-12-03
File reference: 8113408575

Hamburg, 2024-12-03
B. Pfuff
Bianca Pfuff

M/S. Faisal Enterprise
Proprietor

মোঃ সাজাহানুল ইসলাম
নিবন্ধী প্রকৌশলী
সংযুক্ত বিভাগ-২
ঢাকা ওয়াসা

Voluntary Certification
TÜV NORD
TÜV NORD Systems GmbH & Co.KG
Safety Approved
FSPS-21
IEC 61508:2010 SIL 3
IEC 61800-5-2:2016 SIL 3
ISO 13849-1:2023 PL e
SEBS-A.133025/16

Certification Body SEECERT
TÜV NORD Systems GmbH & Co. KG
Große Bahnstraße 31, 22525 Hamburg, Germany

FAISAL ENTERPRISE
BETTER TECHNOLOGY SAFER LIFE

Date: **09/02/2026**

To
The Executive Engineer
Procurement Division-2,
Dhaka Water Supply and Sewerage Authority (DWASA), Dhaka

Subject: Declaration of Warranty Support for the Work of **"Procurement of 90 kW Variable Frequency Drive (VFD) for F. M. Division1Dhaka WASA (Lot-1)"**

Invitation Reference No.: **46.113.428.00.00.100/26-T-35**
Tender/Proposal ID: **1220334**

Dear Sir,

We hereby declare that all supplied and installed products under the aforementioned tender will be new, unused, and fully compliant with the specified technical requirements.

We also confirm that the warranty period for these products will be 12 (twelve) months, commencing from the date of final acceptance by Dhaka WASA.

Best Regards

M/S Faisal Enterprise
Proprietor

M/S. Faisal Enterprise
Proprietor

মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

Head Office : Rupayan Taj (Office Suit-E1 & F1), Plot # 1, 1/1 Naya Paltan (Box Calvert Road) Dhaka-1000
Branch Office : Nasco Power Engineering Ltd. 17-18 Ramna Shopping Complex, Ramna, Dhaka-1217, Bangladesh.
faisal@nascobd.com
a.hoque1997@gmail.com
www.nascobd.com
A Sister Concern of Nasco Group
+88 02 935 9663
+88 01833148736
+88 01833148728

LOW VOLTAGE AC DRIVES

ABB general purpose drives

ACS580, 0.75 to 500 kW



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নির্বাহী প্রকৌশলী
সংযোগ বিভাগ-২
ঢাকা ওয়াসা

M/S. Faisal Enterprise
Proprietor

Get it fast.
Use it easily.
Improve your processes.
ACS580: general purpose drives you can trust.

Table of contents

04–05	The all-compatible ACS580 series
06–07	Easily take full control of your processes to comprehensively manage your plant
08–09	Typical industries and applications
10	Food and beverage domain expertise
10	Food and beverage software package for ACS580 (+N8057)
11	Cooling and refrigeration in food and beverage
12	Pumping in food and beverage
13	Ventilation in agriculture: Livestock and poultry
14–15	Complete offering, from wall-mounted drives to cabinet installations
16	Common features throughout the whole ACS580 product family
17	Standard ACS580 drives software with versatile features
18	Standard interface and extensions for plug-in connectivity
19	How to select a drive
20	ABB AC drives comply with the EU Ecodesign requirements
21	Technical data
22–23	Dimensions
24–26	Ratings, types and voltages
28	Easiness on a whole new level
29	Control panel options and mounting kits
30	Door mounting and daisy chaining
32–33	Higher enclosure class for cabinet-free installations even in harsh conditions
34–35	ACS580-07 cabinet-built drives
36–37	Commissioning, programming and customization tools
38–39	Communication and connectivity
40–41	Safety options
42–43	ABB Ability™ Condition Monitoring for drives
44–45	EMC – electromagnetic compatibility
46–47	Harmonic mitigation
48–49	For explosive atmospheres
50–51	Cooling and fuses
52	Circuit breakers
54–55	du/dt filters
56	Sine filters
57	ACS580 drives are compatible with the wide ABB product offering
58	Choose the right motor for your application
59	Synchronous reluctance motors
60–61	Selection guide
63	ABB Access
64	ABB Ability™ Mobile Connect for drives
65	ABB SmartGuide – ACS580
66–67	ABB Motion Services
68–69	ABB Drives Life Cycle Management
70–73	Ordering information

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সংযোগ বিভাগ-২
ঢাকা ওয়াসা

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The all-compatible ACS580 series
Effortless process automation

The ACS580 is an all-compatible ABB general purpose drive, offered in a range of wall-mounted drives, drive modules and cabinet-built drives. It turns complicated to simple and controls processes productively and efficiently.

One product, many applications
ACS580 drives include all the essential components for typical light industry applications, with a scalable offering from 0.75 kW to 500 kW. The drive is ready to control compressors, conveyors, mixers, pumps and fans, as well as many other variable and constant torque applications. The all-compatible drives family ensures that you will always find the best drive for your needs. These drives share a similar user interface and PC tools, making using and learning them fast and easy.

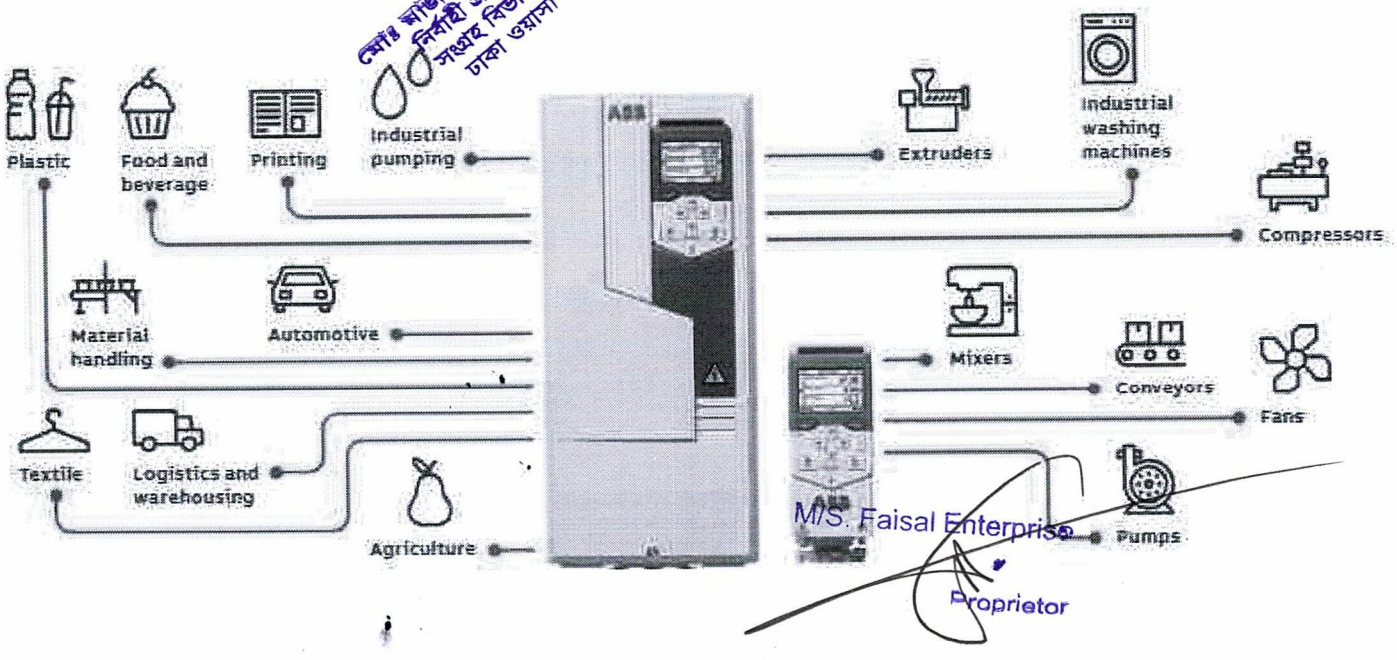
The drive controls a wide range of applications in different industries, and yet it requires very little setting up or commissioning.

Reliability and consistent high quality
ACS580 drives are designed for customers who value high quality and robustness in their applications. The product features, such as coated boards and compact IP55 enclosure, make the ACS580 suitable for harsh conditions also. Additionally, all ACS580 drives are tested at maximum temperature and with nominal loads. The tests include performance and all protective functions.

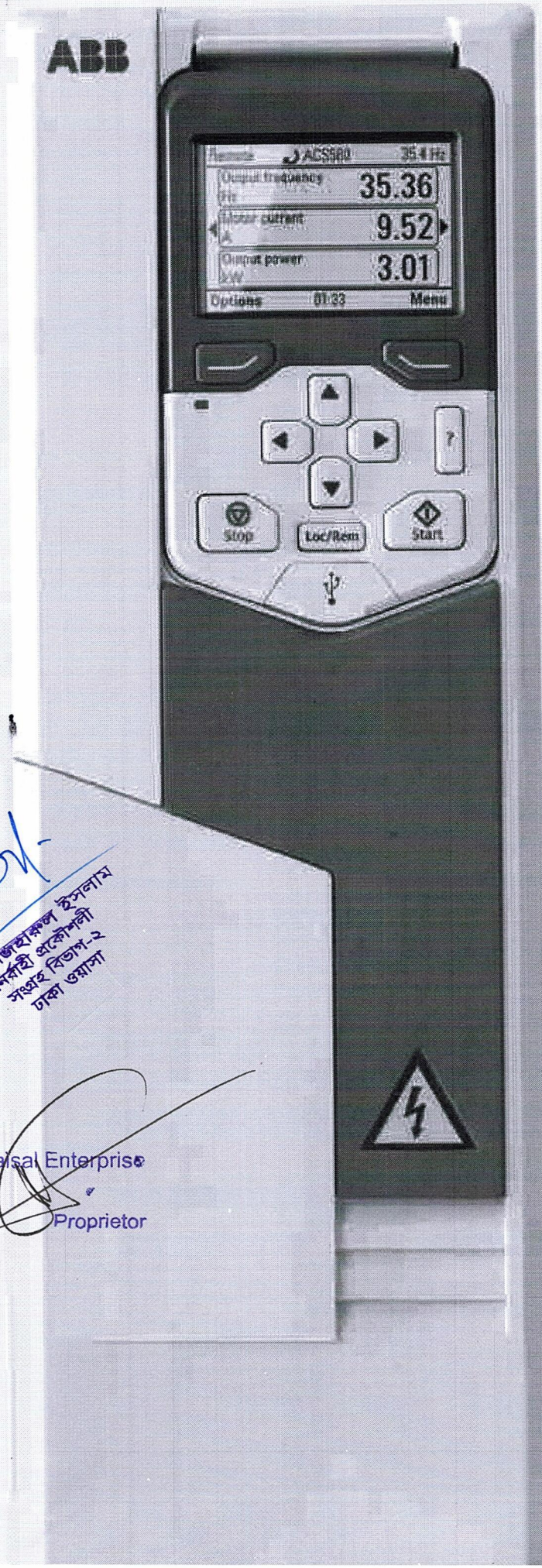
Easier than ever before
ACS580 drives have all the essential features built-in reducing the commissioning and set-up time. The assistant control panel with multiple language choices is standard in ACS580 drives. Users can also upgrade to an optional Bluetooth control panel for wireless commissioning and monitoring. Primary settings and application control macros ensure quick product setup.

Instant availability
ACS580 products are available from central stocks around the world for immediate delivery up to 500 kW. The product is also widely available from ABB distributors globally.

মোঃ ফাজলুল করিম ইসলাম
নির্বাহী প্রকৌশলী
সংযোগ বিভাগ-২
ঢাকা ওয়াসা



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মোঃ মাজহারুল ইসলাম
নির্বাহী প্রকৌশলী
সংগ্রহ বিভাগ-২
ঢাকা ওয়াসা

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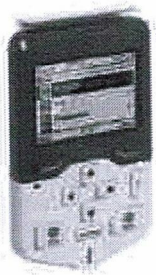
Easily take full control of your processes to comprehensively manage your plant

ACS580 drives are equipped with built-in features that simplify ordering and delivery, and reduce commissioning costs. Everything is provided in a single, compact and ready-to-use package for you to take full control of your processes.



Start-up and maintenance tool
Drive Composer PC tool for startup, configuration, monitoring and process tuning. The PC tool is connected to the drive's control panel via a USB interface.

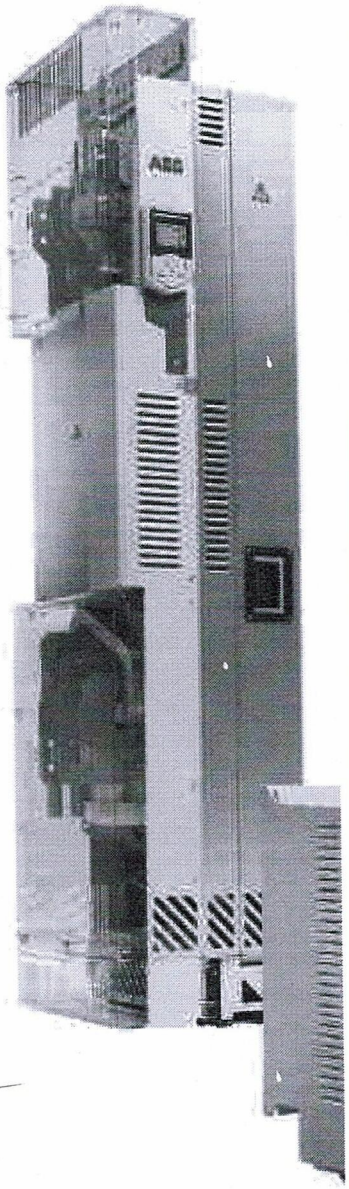
Simple to select, install and use
Built-in features such as an EMC filter, choke, a Modbus RTU fieldbus interface and Safe Torque Off functionality simplify drive selection, installation and use.



Simplicity at your fingertips as standard
The control panel's straightforward primary settings menu with assistants help you set up the drive quickly and effectively.

Boosting energy efficiency
Energy efficiency information is available in the energy optimizer feature to help you optimize your processes. The energy optimizer feature operates both in scalar and vector control modes, ensuring maximum torque per ampere and reducing energy drawn from the supply. You can follow the saved energy, CO_2 emissions or money, and see how fast the drive brings you a return on investment.

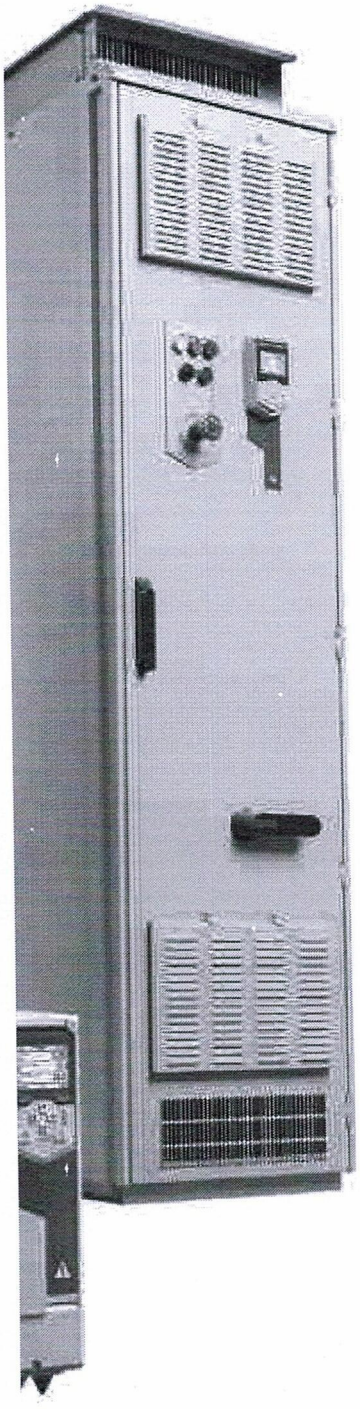
Scalable performance
The ACS580 is a perfect match not only for energy-aware applications, but also for applications where sophisticated speed and torque control are needed.

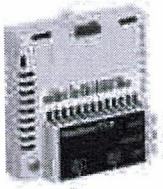


মোঃ শাজাহানুল ইসলাম
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ঢাকা ওয়াসা

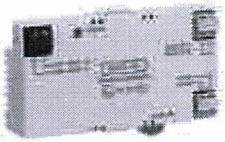
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Effortless automation and productivity for your success





Communication with all major automation networks
Optional fieldbus adapters enable connectivity with all major industrial automation networks.

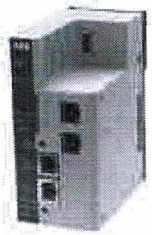


Reliable, integrated safety
The ATEX-certified thermistor protection module, Ex II (2) GD, CPTC-02 provides enhanced process safety and easy, simplified installation.



Adaptive programming
Adaptive programming is ideal for creating simple programs for various applications to further optimize the process control. It does not require expertise in programming.

Designed for maximum reliability
Design features such as coated circuit boards, minimized airflow through the control board section, and earth fault protection make the ACS580 a safe choice for multiple applications.



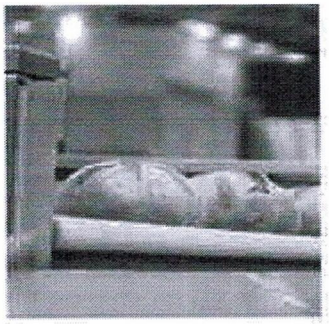
Remote monitoring
A built-in web server and stand-alone datalogger NETA-21 module enable worldwide and secure access to drives.

মোঃ ফারুক হোসেন
নির্বাহী প্রকৌশলী
সংযোগ বিভাগ-২
ঢাকা ওয়াসা

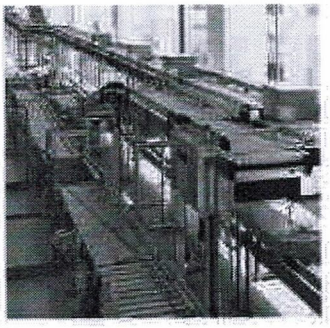
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Typical industries and applications

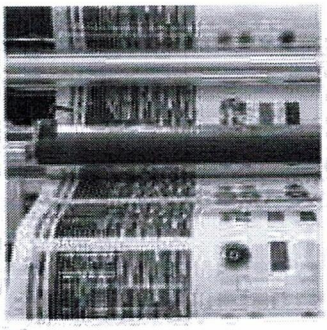
ACS580 drives improve process performance, increase productivity, reduce external components and ensure machine and personnel safety



01



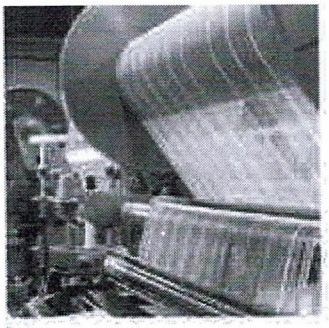
02



03



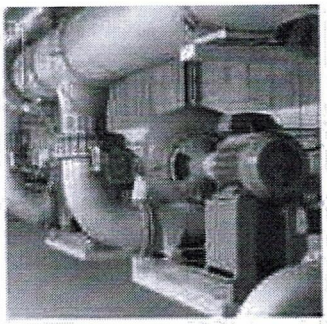
04



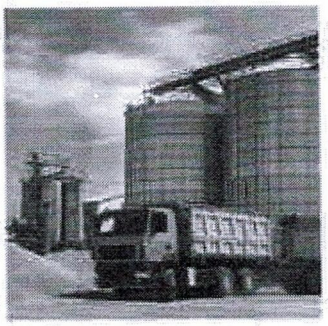
05



06



07



08



09

01 Food and beverage

02 Material handling

03 Printing

04 Rubber and plastics

05 Textile

06 Sawmill

07 Industrial pumping

08 Agriculture

09 Automotive

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Streamline your processes for profitable growth

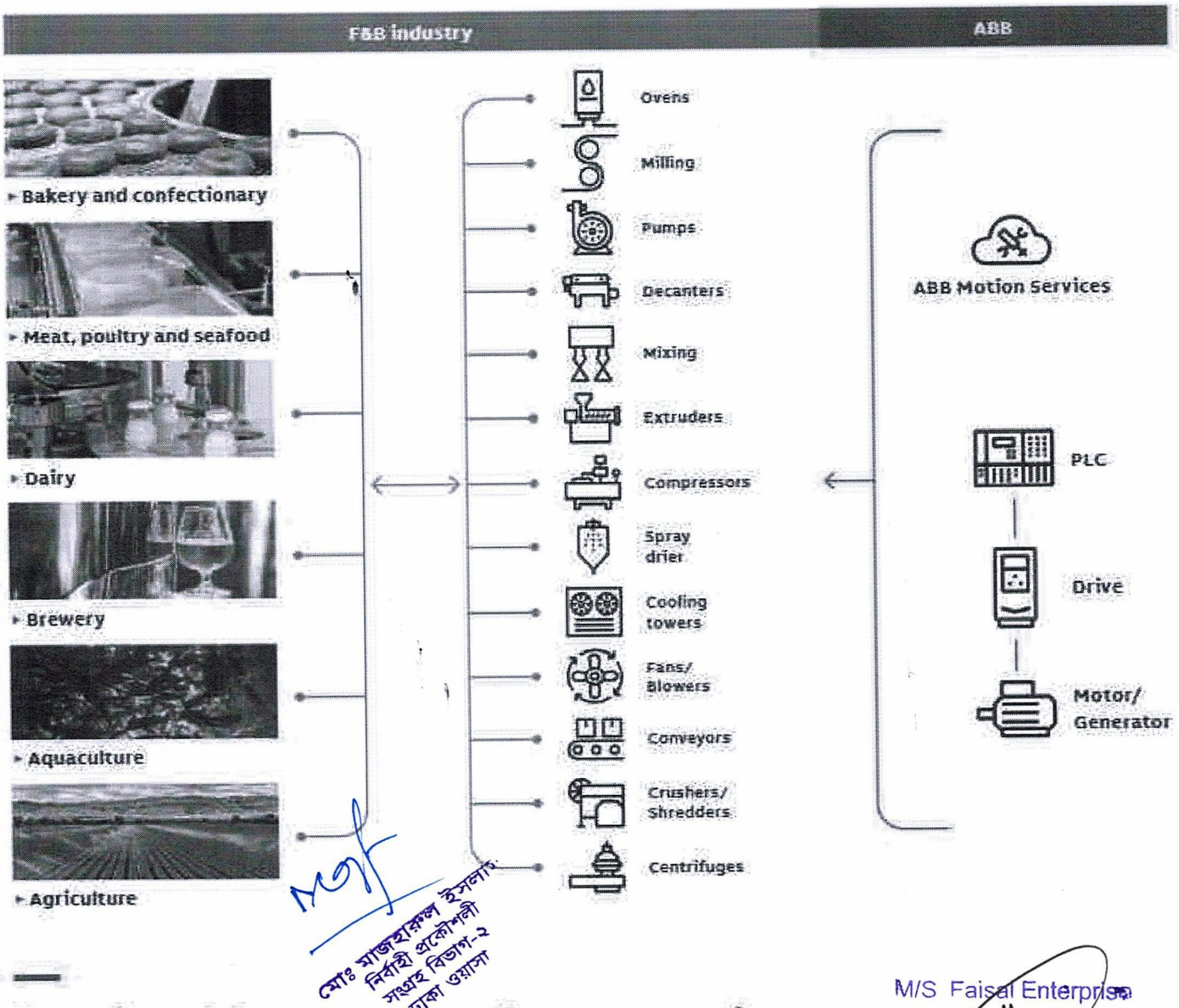
Industry	Application	Customer benefits
Food and beverage	Blowers, centrifuges, compressors, conveyors, fans, mills, pumps, separators, mixers, dryers, pelletizers	• Accurate control of the process increases the speed of food production while saving energy and improving work safety. Precise speed and torque control increases production uptime even when the load varies. • Increased starting torque with boost function allows the same drive series to be used in different applications in the manufacturing plant. • Safe Torque Off (SIL 3) function ensures machine and personnel safety. • The easy-to-use control panel with multiple languages and robust design reduce the time needed for maintenance. • The ATEX-certified thermistor protection module, Ex II (2) GD meets the safety requirements even in dusty environments.
Rubber and plastics	Extruders, injection molding machines, pumps	• Smooth acceleration to prevent breaking the web of plastic film. • The scalable all-compatible platform allows easy process and component optimization with different drive types that share the same user interface and tools. • Wide range of supported fieldbus protocols for easy PLC integration.
Material handling	Conveyors	• Accurate and precise speed and torque control increase production uptime even when the load varies. • Safe Torque Off (SIL 3) function ensures machine and personnel safety. • Minimized downtime with robust and reliable design. • DC or AC choke to mitigate harmonics. • External +24 V supply to keep the communication up when the mains supply is disconnected.
Printing	Compressors, presses, winders	• Smooth acceleration to prevent breaking the paper. • The robust design of the drive reduces mechanical stress on process line equipment, lowering maintenance costs and capital expenditure. • Precise speed and torque control of applications increases process uptime by optimizing motor control.
Textile	Bleaching machines, compressors, conveyors, industrial washing machines, extruders, fans, jet dyeing machines, pumps, stenter machines, stretchers, winders	• Precise speed or torque control for high stretching accuracy and better quality of the end product. • Adjustable torque limit to prevent damage to mechanical equipment. • Adjustable acceleration/deceleration ramps to improve pump control. • Real-time clock and timed functions for process optimization. • Increased productivity and faster payback times with multiple setups, allowing production of two different products. • Built-in counters for additional energy savings and preventive maintenance.
Sawmill	Chippers, conveyors, feeders, dryers, pickers, drying kilns	• IP55/UL type 12 available up to 250 kW for harsh environments. • Cabinet-built drive IP54 up to 500 kW. • Safe Torque Off (SIL 3) function ensures machine and personnel safety. • External +24 V supply to keep the communications "alive" when the mains supply is turned off. • ATEX-certified thermistor protection module, Ex II (2) GD.
Industrial pumping	Pump stations	• Additional energy savings with energy optimizer function. • Adjustable acceleration/deceleration ramps to improve pump control. • Minimized downtime with robust and reliable design. • ABB's extensive product and service offering for comprehensive process optimization.
Agriculture	Fans, irrigators, pumps, sorters	• IP55/UL 12 available up to 250 kW harsh environments. • Wall-mounted power range up to 250 kW. • Drive modules and cabinet-built drives up to 500 kW.
Automotive	Conveyors, fans, pumps	• ATEX-certified thermistor protection module, Ex II (2) GD. • Increased productivity and faster payback times with multiple setups. • Enhanced quality of end products with smooth control of the motor and process. • Safe Torque Off (SIL 3) function ensures machine and personnel safety. • Wide range of fieldbus networks supported, including PROFIBUS and PROFINET IO. • IP55/UL Type 12 available up to 250 kW 400 V and high enclosure rating for harsh environments. • The robust design of the drive reduces mechanical stress on process line equipment, lowering maintenance costs and ensuring high production quality.

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Food and beverage domain expertise

ABB has strong domain expertise in the food and beverage industry and its many subsegments. As part of ABB's general purpose drives family, the ACS580 is well suited to support a wide range of applications in the food and beverage subsegments below.



Food and beverage software package for ACS580 (+N8057)

To help our customers to be more effective, we offer a software package for the ACS580 which is dedicated to the food and beverage industry. The package consists of two different parts, which will improve your processes by utilizing segment-specific functions:

Food and beverage software package option for ACS580	
Plus code	Description
+N8057	Cooling compressor control*)
	Anti-cavitation*)

*) More details on pages 11 and 12

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Cooling and refrigeration in food and beverage

Food and beverage is the most significant segment for industrial refrigeration installations. From bakery to meat, dairy, fruit and vegetables, all require refrigeration across the entire cold chain which includes food process, cold storage, logistic centers and transportation.

Food and beverage software package for ACS580 (+N8057)
Cooling compressor control

Combining best-in-class drive technology with dedicated software for cooling compressors.

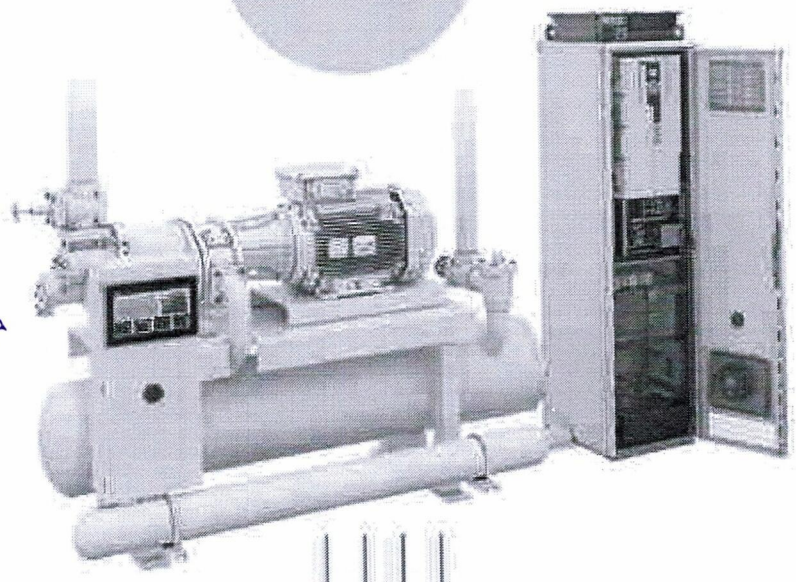
Cooling compressor macro
Sets typical parameter values for cooling compressor application and makes it easier to commission the drive.

Pressure to temperature conversion
Internal scaling is done based on refrigerant. System then automatically adjusts the cooling by using the PID.

Multi compressor control
Controlling more than one compressor with one drive, when needed, by changing all the relevant parameters and settings automatically.

Short cycle protection
Provides time delays in order to limit the number of starts to avoid damages from repetitive rapid-starting cycles.

Built-in intelligence



Reliable
Our high-quality package solution, based on our deep F&B domain expertise, includes reliable drives, motors and PLCs that help prevent unplanned downtime and other process risks.

Energy efficiency
Cooling systems are the biggest energy consumers in food processing plants. The use of VSDs in cooling compressors will provide average energy savings of 20-40% compared to running in DOL mode.

Easy to use
The user friendly interface and all compatible drive offering brings simplicity and time savings.

Flexible
By supporting all major Fieldbus protocols, wide I/O capacities and adaptive programming features, the ACS580 gives you freedom to design different kinds of control system topologies.

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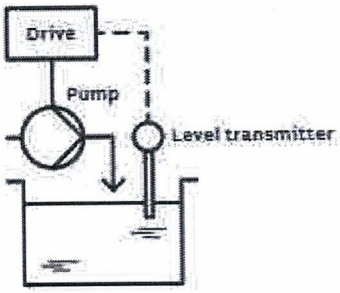
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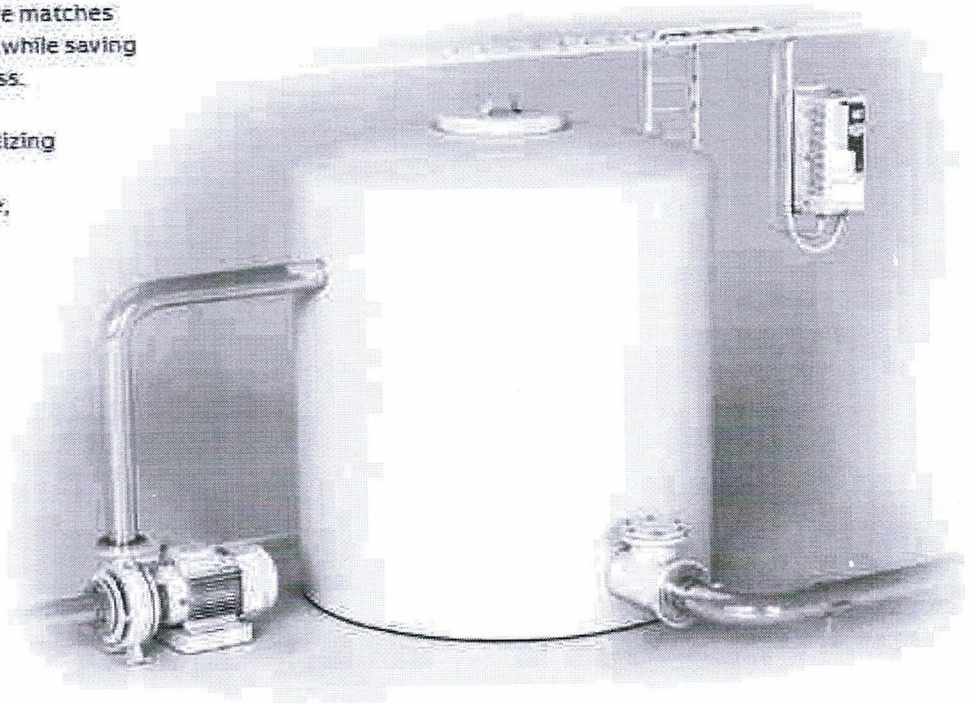
Pumping in food and beverage

A majority of the pump applications in food and beverage benefit from using a drive. The drive matches the pump-flow-rate with the actual demand, while saving energy and optimizing the production process.

The drive controls the pump-flow-rate by utilizing PID control and feedback from the sensor. This functionality controls the level, pressure, flow or temperature automatically.

Application example:
Level control of a beverage tank





Food and beverage software package for ACS580 (+N8057)

Anti-cavitation

Cavitation is caused by local pressure changes in a liquid, creating vapor bubbles that can damage the pump and process when the vapor bubbles implode. In addition, cavitation can also cause unplanned downtime, production losses and even harm the end-product.



Quality in end-product
Anti-cavitation helps to avoid shock waves in the liquid. This may lead to poor product quality and lost revenues.

Lower total cost of ownership
Anti-cavitation eliminates the need for external sensors and reduces maintenance.

The Anti-cavitation feature enables reliable pump operations and increases productivity in the food and beverage industry.

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Ventilation in agriculture: Livestock and poultry

ABB's agricultural expertise and the ACS580 deliver reliable ventilation conditions for your animals and increase overall productivity.

Robustness
- A conformal coating and IP55 option for harsh environment conditions
- Auto-derate option to avoid unwanted tripping of your applications like "oxygen supply fan"
- Built-in choke to reduce mains distortion

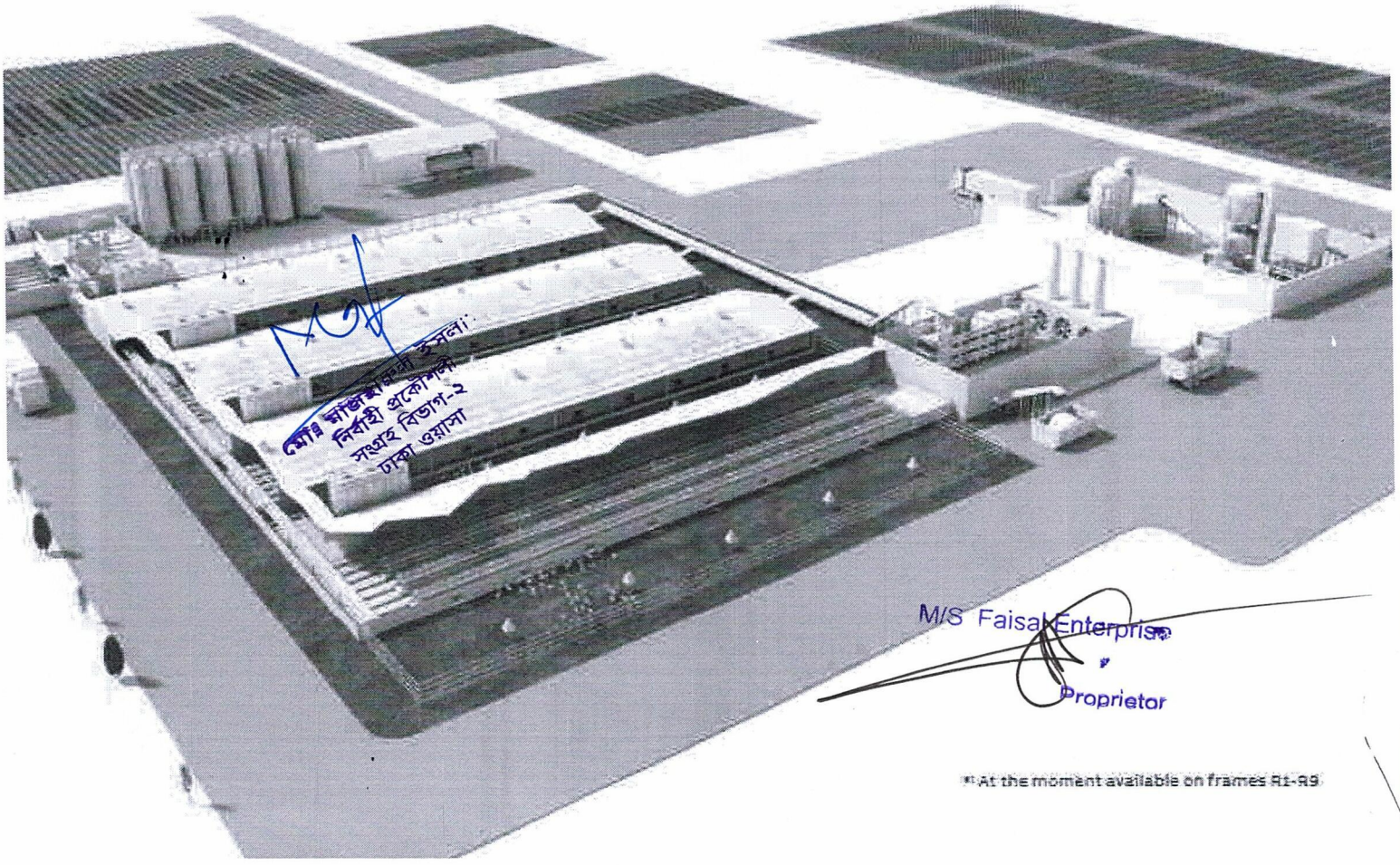
Animal welfare
- Optimal ventilation conditions ensure your animal's health and safety

Accessibility and flexibility
- Local/Remote control options
- Bluetooth panel option to connect your drive via your smart phone
- Long motor cable length

Cost savings
- Reducing fan speed via a drive, positively affects energy efficiency which lowers operating costs

Ammonia resistance for the complete drive (+C219)

Ammonia, which can be found in critical amounts in barns, has a corrosive effect on variable speed drives. The +C219 option enables ammonia resistance not only for the control board, but also for the entire drive. This robust design prevents unplanned downtimes while providing an extended lifetime. *)



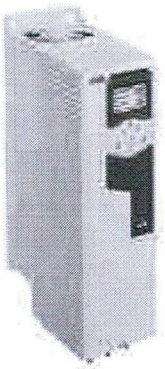
*) At the moment available on frames R1-R9

Complete offering, from wall-mounted drives to cabinet installations

Powerful, rugged and robust ACS580 drives ensure ease of use, scalability and quality. A wide power range and various mounting options and enclosure classes ensure you will find a drive for your installation and environment needs.

01 Wall-mounted ACS580 IP21 drive
02 Wall-mounted ACS580 IP55 drive
03 Flange-mounted ACS580 IP21 drive
04 ACS580 drive module with IP00
05 Cabinet-built ACS580 drive with IP42

Wall-mounted IP21 drives, standard
Wall-mounted IP21 drives are available in a power and voltage range from 0.75 to 250 kW and 3-phase 380–480 V. Side-by-side mounting, flange mounting and horizontal mounting are all available for wall-mounted ACS580 drives.



01

Wall-mounted IP55 drives, +B056
The IP55 drive is designed for applications exposed to dust, moisture, vibrations and other harsh environments. It is similar in size to the compact IP21 drives, which provides significant savings in space, maintenance, engineering, and material costs, as well as in setup and commissioning time.



02

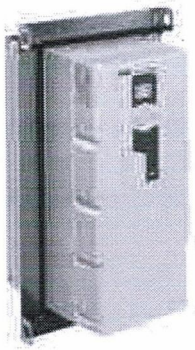
IP20 drives without a conduit box for cabinet installations, +P944
The option code +P944 removes the conduit box from the frames R5-R9, making it easier to install the drive in compact cabinets with limited space. These IP20 units enable you to optimize the solution from cost and dimensioning point of view, and reduce waste. This option is also compatible with the flange mounting option for the frames R5-R9.

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Flange mounting option, +C135

The flange mounting option enables smaller cabinets to be used as the backside of the drive is installed outside of the cabinet. This mounting method improves the cooling system and decreases the investment in the cabinets.
The flange mounting option is compatible only with the standard IP21 units. It maintains the protection class of IP55 on the backside of the drive, while the front side of the drive is IP20.
The option is also available as a loose item with an MRP code. If necessary, the conduit box can be removed from the frames R5-R9 with an option code +P944.

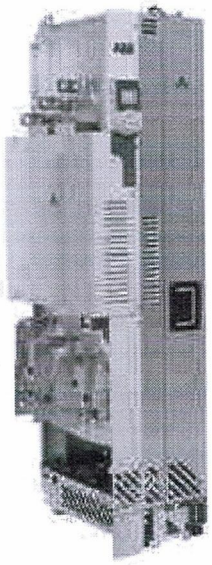


03

Flange mounting kit MRP codes	Frame size
3AXD50000105311	R1 (IP21)
3AXD50000105328	R2 (IP21)
3AXD50000105335	R3 (IP21)
3AXD50000031460	R4 (IP21)
3AXD50000031461	R5 (IP21)
3AXD50000018652	R6 (IP21)
3AXD50000018653	R7 (IP21)
3AXD50000018654	R8 (IP21)
3AXD50000018655	R9 (IP21)

Drive modules for cabinet installations, IP00 and IP20 (+B051)

ACS580 drive modules are optimal for system integrators, cabinet builders or OEMs who want to optimize the cabinet design in the 250-500 kW range but do not want to compromise on easy installation, commissioning and maintenance.
3-phase 380-480 V.



04

Construction options for ACS580-04	
Plus code	Description
+H370	Full-size cable connection terminals for input power cables
+0H371	Drive module without full-size output cable connection terminals
+0H534	No pedestal
+0P919	No cabinet installation ramp
+P906	Remote control board



05

Cabinet-built drives, IP21, IP42 (+B054) and IP54 (+B055)

Cabinet-built drives are available with IP21 protection class as standard and IP42 and IP54 as options in frame sizes R6 to R11. The drives have a unique cooling arrangement even for harsh environments and a global cabinet design with a high quality standard. The power range is from 75 kW to 500 kW, and the voltage range is 3-phase 380-480 V.

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Common features throughout the whole ACS580 product family



Standard ACS580 features

Choke and EMC
- DC or AC choke mitigates harmonics
- Fulfills standard the EN61000-3-12 standard
- EMC C2 filter for R1-R9 allows safe installation in first environment
- EMC C3 and common mode filter for R10 and R11 allow safe installation in second environment
- Optional EMC C1 filter for R1-R5 ensures the best electro-magnetic performance for first environment. Available for option +E223 and +F316.

Scalar and vector control for process control
- Scalar control for effortless process control
- Vector control for accurate speed and torque control in demanding applications
- Support for induction, permanent magnet and synchronous reluctance motors (SynRM)

Extensive I/O connections
- The ACS580 features extensive I/O connections for flexible configuration in various applications
- Colored and bigger terminals for easy commissioning and diagnostics

Assistant control panel and primary settings
- The ACS-AP-S assistant control panel speaks your language
- USB interface for PC and tool connection
- Help button for problem-solving and immediate diagnostics

Integrated Safe Torque Off (STO)
- Safe Torque Off for implementing safe machinery
- SIL 3, PL e

Brake chopper
- The brake chopper is built-in as standard for ACS580 frames up to R3. Braking control is integrated into ACS580 drives.
- Optional external brake chopper can be added for the frames R4-R9.

Performance
The ACS580 is suitable for various types of applications, including constant torque, linear and variable torque applications.

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Shared features of the ABB all-compatible drives portfolio

Same user interface
The drives follow the same operation logic and yet, there is an optimal drive from the smallest water pump to the biggest cement kiln, and everything in the between. When you have learned to use one drive, it is easy to use other drives in the portfolio.

Same PC tools
Free Drive Composer entry available at www.abb.com.

The same parameter structure makes the all-compatible platform easy to use.

Simple connectivity
- The ACS580 supports F-series fieldbus adapters used in the ABB all-compatible platform
- Mobile phone connectivity via the optional Bluetooth assistant control panel
- Fieldbus settings are made easy with the redesigned simple settings menu

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Standard ACS580 drives software with versatile features

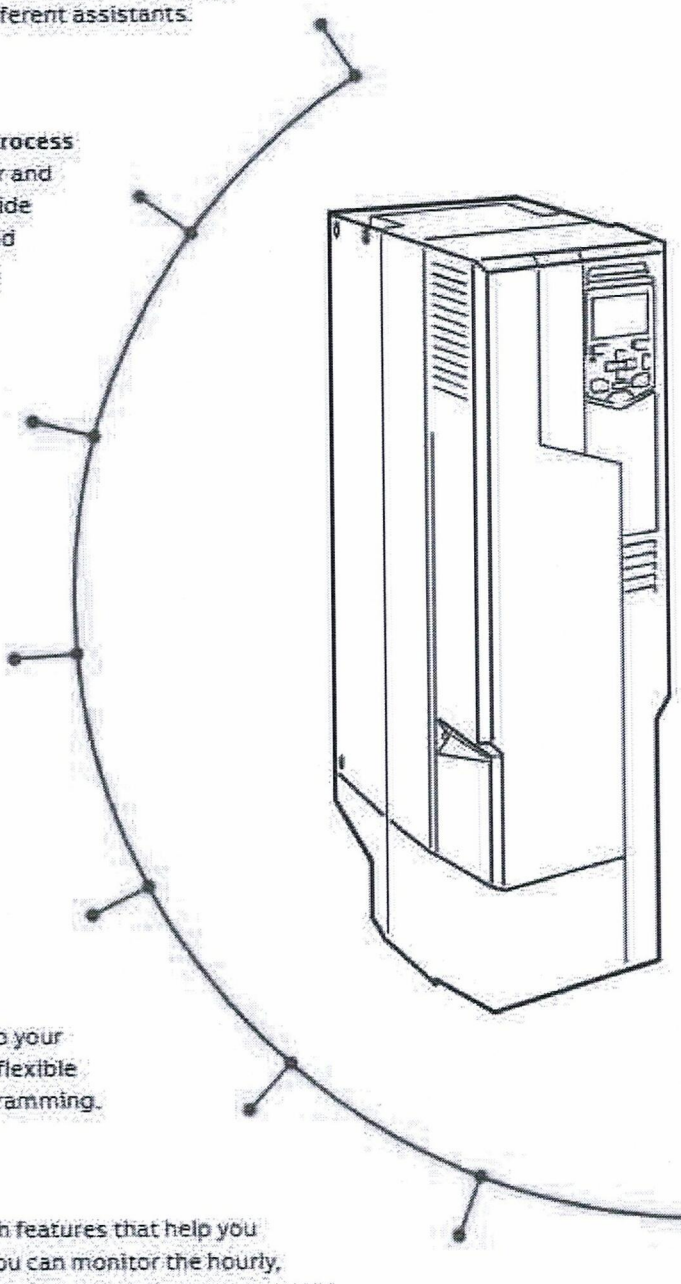
Save commissioning and learning time with the assistant control panel's clear and intuitive user interface and different assistants.

Improve the performance of the motor and process with sophisticated process control in scalar and vector control modes. The drive supports a wide range of motors, including induction and permanent magnet motors.

Analyze and optimize the application with the load profile log, which shows how the drive is operating.

Reduce motor noise with spreading the switching frequencies over a user-specified range.

Reduce costs with the built-in and standalone process PID. It makes the ACS580 a self-governing unit requiring only an external process measurement. No external logic input from the control room is needed.



Scale up and customize the drive to your application's requirements with flexible parameter pointers or adaptive programming.

Optimize energy efficiency with features that help you to save and manage energy. You can monitor the hourly, daily and cumulative energy consumption via kWh counters.

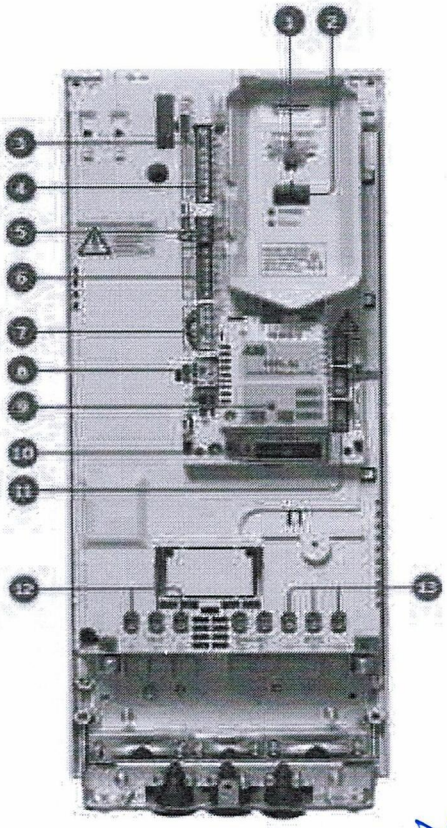
Analyze and resolve issues with the control panel's diagnostics menu. You can quickly analyze why the drive is performing as it is, whether running, stopped or running at the present speed.

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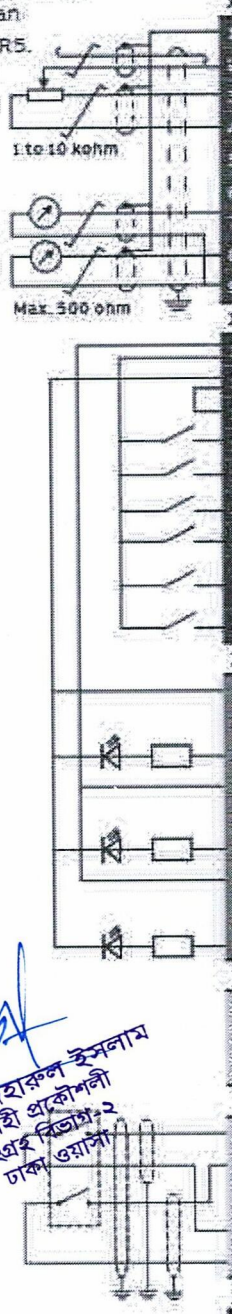
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Standard interface and extensions for plug-in connectivity

ACS580 drives offer a wide range of standard interfaces. In addition, the drive has two option slots that can be used for extensions, including fieldbus adapters and input/output extension modules that allow an external +24 V supply with frame sizes R1 to R5. For frames R6-R11 external +24 V terminals are already integrated on the control board. For further information, please see the ACS580 user manual.



1. Panel port (PC tools, control panel)
2. ABB drive customizer port for programming the drive without mains
3. Analog inputs (2 × AI)
4. Analog outputs (2 × AO)
5. 24 V AC/DC output
6. Digital inputs (6 × DI)
7. Safe Torque Off (STO)
8. Embedded fieldbus
9. Communication options (fieldbuses)
10. I/O extensions
11. Relay outputs (3 × RO)
12. Mains connection
13. Motor connection



Default factory I/O connection diagram: Macro ABB standard

Terminal	Meaning	Default macro connections
XI	**Reference voltage and analog inputs and outputs**	
1	SCR	Signal cable shield (screen)
2	AI1	External frequency reference 1: 0 to 10 V
3	AGND	Analog input circuit common
4	+10 V	Output reference voltage 10 V DC
5	AI2	Not used
6	AGND	Analog input circuit common
7	AO1	Output frequency: 0 to 20 mA
8	AO2	Output current: 0 to 20 mA
9	AGND	Analog output circuit common
X2 & X3	**Aux. voltage output and programmable digital inputs**	
10	+24 V	Auxiliary voltage output +24 V DC
11	DGND	Auxiliary voltage output common
12	DCOM	Digital input common for all DI
13	DI1	Start/Stop: Activate to start
14	DI2	Fwd/Rev: Activate to reverse rotation direction
15	DI3	Constant speed selection
16	DI4	Constant speed selection
17	DI5	Ramp pair selection: Activate to select second pair
18	DI6	Not used
X6, X7, X8	**Relay outputs**	
19	RO1C	Ready 250 V AC/30 V DC 2 A
20	RO1A	
21	RO1B	
22	RO2C	Running 250 V AC/30 V DC 2 A
23	RO2A	
24	RO2B	
25	RO3C	Fault (-1) 250 V AC/30 V DC 2 A
26	RO3A	
27	RO3B	
X5	**EIA-485 Modbus RTU**	
29	B+	Built-in Modbus RTU fieldbus interface
30	A-	
31	DGND	
X4	**Safe Torque Off**	
34	OUT1	Safe Torque Off. Both circuits must be closed for the drive to start. The circuits are closed with jumper wires in the standard delivery.
35	OUT2	
36	SGND	
37	IN1	
38	IN2	
X10*)	**24 V AC/DC**	
40	24 V	AC/DC-in. Ext. 24 V AC/DC input to power up the control unit when the main supply is disconnected
41	24 V	AC/DC+in.

*) The terminals 40-41 are integrated only in the frame sizes R6-R11. For the frame sizes R1-R5 I/O options (+L) are needed.

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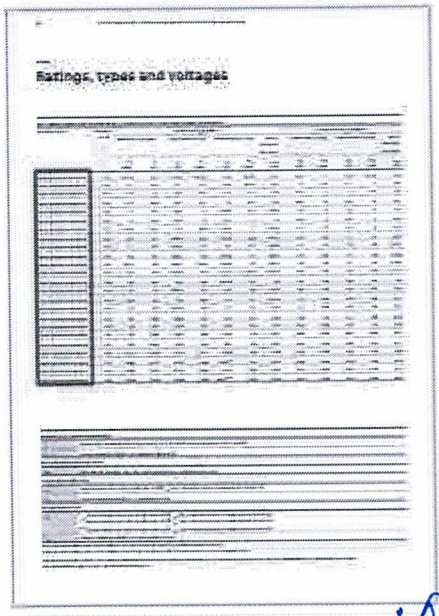
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How to select a drive

The right drive is extremely easy to select. The following instructions show you how to order the right drive for your application.

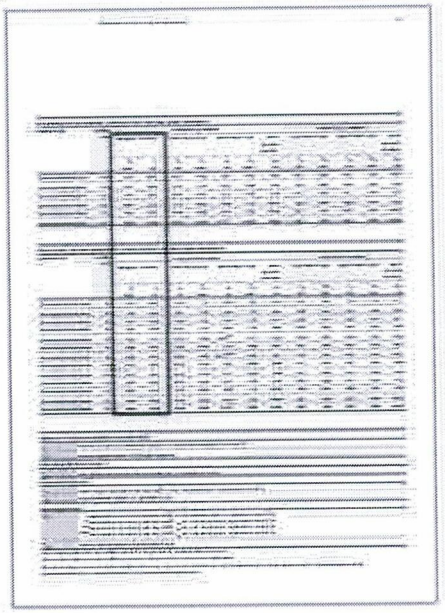
Start by identifying your supply voltage. Based on the supply voltage, follow either the right side or the middle section of the rating table. See pages 24, 25 and 26.

Select your drive's order code from the rating table based on your motor's nominal power rating.



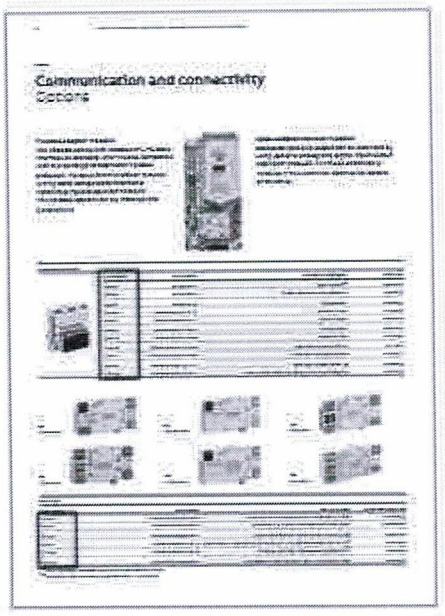
Pages 24, 26 and 26

Choose the motor power and current rating from the rating table on pages 24, 25 and 26.

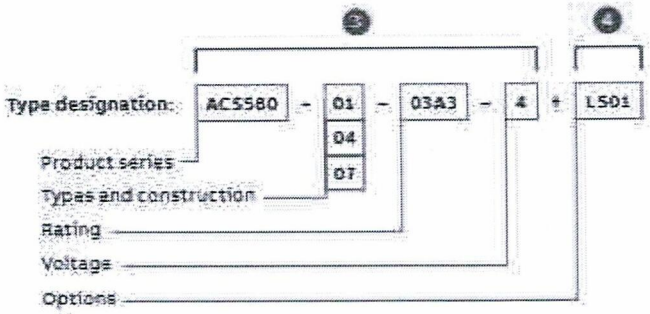


Pages 24, 25 and 26

Choose your options (on pages 30, 32, 38 and 49) and add the option codes to the drive's order code. Remember to use a "+" mark before each option code or order them as loose items. For more information, see pages 64, 65, 66 and 67.



Pages 30, 32, 38 and 49



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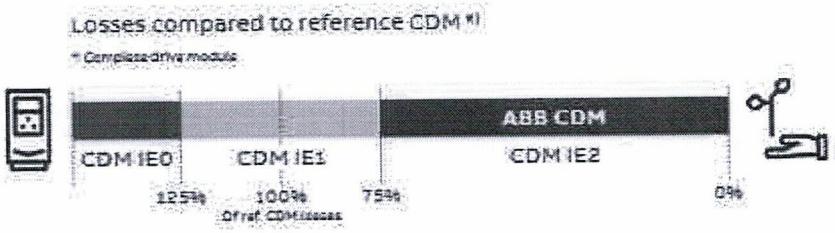
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ABB AC drives comply with the EU Ecodesign requirements

The Ecodesign regulation (EU) 2019/1781 is the legislative framework, that sets minimum energy efficiency requirements for low voltage induction motors and variable speed drives. AC drives and power drive systems are classified according to their power losses. From July 2021, the minimum requirement for non-regenerative AC drives in EU is IE2.

ABB's AC drives (micro and machinery, general purpose, industrial and industry-specific drives) comply with the strictest requirements of the standard for energy efficiency and are classified as IE2.

Energy efficiency classes for a Complete Drive Module (CDM)



Markings on the ABB LV AC drives

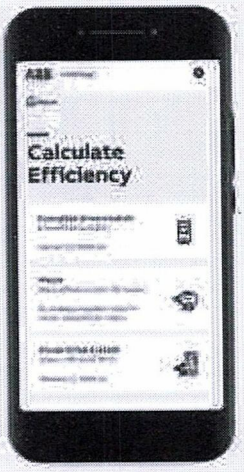
Unique identifier QR code to Ecodesign information

IE class and % loss of rated apparent power 50 Hz, 400 V

IE2 (90;100) 2.8 %

Unique QR codes are located on the rating plate and/or the front side of the drive.

ABB EcoDesign web-based tool



- Calculates absolute and relative losses and efficiency data at standard and user-defined operating points according to EU regulation 2019/1781 for complete drive module (CDM), LV motors with VSD supply, and power drive system (PDS)
- Losses and efficiency data at operating points in graphical and table format
- Printable efficiency report with possibility to customize title and additional details
- Report can be converted to PDF or CSV format and shared via email

The regulation was implemented in two steps:

Step 1: July 1, 2021
- Power range: from 0.12 to 1000 kW
- 3-phase LV AC drives with diode rectifier
- Drive manufacturers must declare power losses in percentage of the rated apparent output power at 8 different operating points as well as standby losses. The international IE level is given at the nominal point. Drives fulfilling the requirements will be CE marked.

Out of scope of the regulation:
- All drives without CE marking
- Following low voltage AC drives: regenerative drives, low-harmonic drives (THD < 10%), multiple AC-output drives and single-phase drives.
- Medium voltage drives, DC drives and traction drives
- Drive cabinets with already conformity assessed modules

Step 2: July 1, 2023
No changes for AC drives

For more information, see: ecodesign.drivesmotors.abb.com

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M/S. Faisal Enterprise
Proprietor

Technical data

Mains connection	
Input voltage and output power range	3-phase, U_n 200 to 240 V, +10%/-15% ACS580-01: from 0.75 up to 75 kW 3-phase, U_n 380 to 480 V, +10%/-15% ACS580-01: from 0.75 up to 250 kW ACS580-04: from 250 up to 500 kW ACS580-07: from 75 up to 500 kW Auto-identification of supply voltage
Frequency	from 47 to 63 Hz
Power factor	$\cos\varphi$ = 0.98
Efficiency (at nominal power)	98%
Efficiency class (IEC 61800-9-2)	IE2
Motor connection	
Voltage	0 to U_{n1} 3-phase
Frequency	0 to 500 Hz
Motor control	Scalar and vector control
Torque control	Torque step rise time: <10 ms with nominal torque Non-linearity: ± 5% with nominal torque
Speed control	Static accuracy: 20% of motor nominal slip Dynamic accuracy: 1% seconds with 100% torque step
Maximum recommended motor cable length	R1: 100 m R2: 200 m R3-R11: 300 m
Supported motor types	Asynchronous AC induction motors (IM) Permanent magnet motors (PMSM/IPM, PMSM/SPM) Synchronous reluctance motors (SynRM) Permanent magnet assisted synchronous reluctance motors (PMaSynRM, SynRM2, EC Titanium)
Product compliance	
CE Low Voltage Directive 2014/34/EU, EN 61800-5-1: 2007 Machinery Directive 2006/42/EC, EN 61800-5-2: 2007 EMC Directive 2014/30/EU, EN 61800-3: 2004 + A1: 2012 RoHS directive 2011/65/EU Quality assurance system ISO 9001 and Environmental system ISO 14001 Waste electrical and electronic equipment directive (WEEE) 2002/96/EC RoHS directive 2011/65/EU UL, EAC, RCM, UL, cUL TÜV Nord (safety functions) UKCA Ecodesign (EU) 2019/1781	
Harmonics compliance	
Built-in optimized DC choke as standard in ACS580-01 meets the requirements of IEC 61000-3-12:2011.	
EMC according to EN 61800-3:2004 + A1:2012	
Frames R1 to R9 with built-in C2 category filter as standard. Frames R10 and R11 with preconfigured built-in C3 category filter option	
Inputs and outputs (standard configuration)	
2 analog inputs	Selection of Current/Voltage input mode is user programmable.
Voltage signal	0 (2) to 10 V, R in >200 kΩ
Current signal	0 (4) to 20 mA, R in = 100 Ω
Potentiometer reference value	10 V ±1% max. 20 mA
2 analog outputs	AO1 is user programmable for current or voltage. AO2 current
Voltage signal	0 to 10 V, R load: >100 kΩ
Current signal	0 to 20 mA, R load: <500 Ω
Internal auxiliary voltage	24 V DC ±10%, max. 250 mA
6 digital inputs	12 to 24 V DC, 24 V AC, Connectivity of PTC sensors supported by a single digital input. PNP or NPN connection (5 DIs with NPN connection).
3 relay outputs	Maximum switching voltage 250 V AC/30 V DC Maximum continuous current 2 A rms.
Supported thermistors	Any of the analog inputs, or digital input 6, are configurable for PTC with up to 6 sensors. Both analog outputs can be used to feed the PT100, PT1000, KTY83, KTY84 or Ni1000 sensors. For more detailed information please see the ACS580 hardware manual.
Environmental limits	
Ambient temperature	
Transport Storage	-40 to +70 °C -40 to +70 °C
Operation area	ACS580-01: -15 to +50 °C. No frost allowed R1 to R9 from +40 to +50 °C with derating ACS580-04: -15 to +55 °C. No frost allowed R10 to R11 from +40 to +55 °C with derating ACS580-07: 0 to +40 °C. No frost allowed R6 to R11 from +40 to +50 °C with derating
Cooling method Air-cooled	Dry clean air
Altitude	0 to 1,000 m Without derating 1,000 to 4,000 m With derating of 1%/100 m For more detailed information please see the ACS580 hardware manual
Relative humidity	5 to 95%, no condensation allowed
Degree of protection	ACS580-01: IP21 as standard. IP55 as option (frames R1 to R9) ACS580-04: IP00 as standard. IP20 as option (frames R10 to R11) ACS580-07: Cabinet-built frames R6 to R11: IP21 as standard. IP42 and IP54 as options
Functional safety	Safe Torque Off (STO according EN 61800-5-2) IEC 61508 ed2: SIL 3. IEC 61511: SIL 3. IEC 62061: SIL CL 3. EN ISO 13849-1: PL e
Contamination levels	No conductive dust allowed
Storage	IEC 60721-3-1. Class 1C2 (chemical gases). Class 1S2 (solid particles) *
Operation	IEC 60721-3-3: Class 3C2 (chemical gases). Class 3S2 (solid particles) *
Transportation	IEC 60721-3-2. Class 2C2 (chemical gases) Class 2S2 (solid particles) *
External power supply	
Standard: ACS580-01 frames R6-R9, ACS580-04 all frames and ACS580-07 all frames	1.5 A at 24 V AC/DC ±10%
With option: ACS580-01 frames R1-R5	1.04 A at 24 V AC/DC ±10%
Communication	
Protocol as standard (EIA-485): Modbus RTU. Protocols available as option: EtherNet/IP, EtherNet POWERLINK, Modbus/TCP, EtherCAT, PROFINET IO, PROFISafe (for STO and SS1-t functions), CANopen, ControlNet, DeviceNet and Profibus DP.	
Protection functions	
Overvoltage controller Undervoltage controller Motor and motor cable earth-leakage monitoring Motor and motor cable short-circuit protection Motor overtemperature protection Output and input switch supervision Motor overload protection Phase-loss detection (both motor and supply) Under load supervision (belt loss detection) Overload supervision Stall protection Loss of control reference	

* C = Chemically active substances
S = Mechanically active substances

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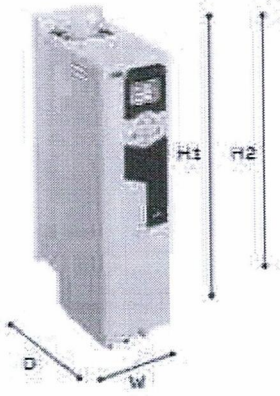
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Dimensions

ACS580-01 IP21, standard

Frames	Height 1		Height 2		Width		Depth		Weight	
	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg)	(lb)
R1	375	14.7	331	13.0	125	4.9	223	8.8	4.6	10.1
R2	475	18.6	432	17.0	125	4.9	229	9.0	6.6	14.6
R3	490	19.3	490	19.3	203	8.0	229	9.0	11.8	26.0
R4	636	25.0	636	25.0	205	8.0	257	10.2	19	41.9
R5	732	28.8	596 *)	23.5	205	8.0	295	11.6	28.3	62.4
R6	727	28.6	548 *)	21.6	252	9.9	369	14.5	42.4	93.5
R7	880	34.6	600 *)	23.7	284	11.2	370	14.6	54	119.1
R8	965	38.0	680 *)	26.7	300	11.8	393	15.5	69	152.2
R9	955	37.6	680 *)	26.8	380	15.0	418	16.5	97	213.9

Height 1: Total height of the drive with glandbox
Height 2: Total height of the drive without glandbox
*) Height with the option +P944



ACS580-01 IP55, +B056

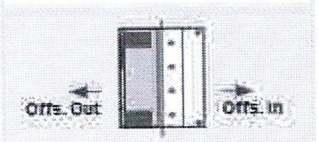
Frames	Height 1		Height 2		Width		Depth		Weight	
	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg)	(lb)
R1	403	15.9	403	15.9	126	5.0	233	9.2	4.6/5.4	10.6/11.2
R2	503	19.8	503	19.8	126	5.0	239	9.4	6.6/7.4	15.0/16.3
R3	490	19.3	733	28.9	206	8.1	237	9.3	13/15	28.7/33.1
R4	636	25.6	879	34.6	203	8.0	265	10.2	20/23.3	44.1/51.4
R5	732	28.8	1023	40.3	203	8.0	320	12.6	29/33	64.0/72.8
R6	727	28.6	–	–	352	9.9	380	15.0	43	94.8
R7	880	34.6	–	–	284	11.2	381	15.0	56	123.5
R8	965	38.0	–	–	300	11.8	452	17.8	77	169.8
R9	955	37.6	–	–	380	15.0	477	18.78	103	227.1

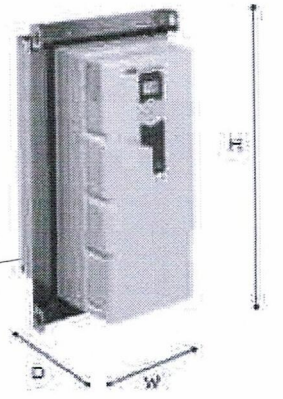
Height 1: Total height of the drive
Height 3: Total height of the drive with options +F287, +F316, +E223
Note: Options +F287, +F316, +E223 are available only for the IP55 frames R1-R5



ACS580-01 flange mounting dimensions, with +C135 or a loose option kit for IP21

Frames	Height		Width		Offs. Out		Offs. In		Weight	
	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg)	(lb)
R1	461	18.2	206	8.1	133	5.2	109	4.3	4.6	10.1
R2	551	21.7	206	8.1	130	5.1	114	4.5	6.5	14.6
R3	613	24.1	290	11.4	118	4.6	116	4.6	11.8	26.0
R4	776	30.6	290	11.4	120	4.7	157	5.4	19	41.9
R5	776	30.6	290	11.4	124	4.9	173	6.8	28.3	62.4
R6	672	26.5	374	14.7	193	7.6	167	6.6	42.4	93.5
R7	722	28.4	406	16.0	194	7.6	169	6.7	54	119.1
R8	814	32.1	433	17.0	202	8.0	184	7.2	69	152.2
R9	804	31.7	502	19.8	204	8.0	209	8.2	97	213.9



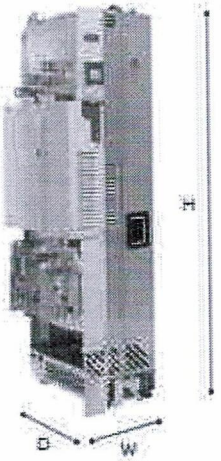


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ACS580-04 IP00, standard

Frames	Height		Width		Depth		Weight	
	(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg)	(lb)
R10	1462	57.6	350	13.8	529	20.8	162	357.2
R11	1662	63.4	350	13.8	529	20.8	200	440.9

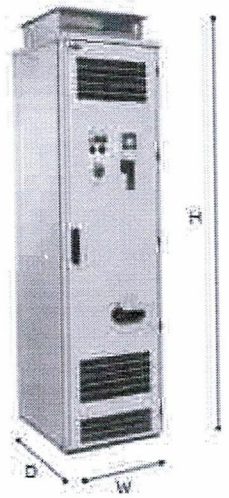


ACS580-04 IP20, +B051

Frames	Height		Width		Depth		Weight	
	(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg)	(lb)
R10	1462	57.6	350	13.8	529	20.8	162	357.2
R11	1662	63.4	350	13.8	529	20.8	200	440.9

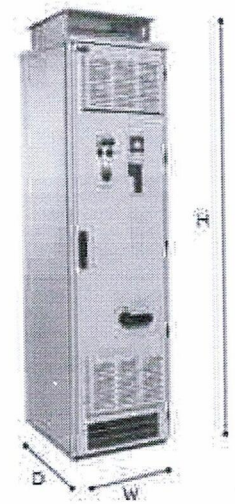
ACS580-07 IP21, standard

Frames	Height		Width		Depth		Weight	
	(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg)	(lb)
R6	2145	84.4	430	16.9	673	26.5	210	463
R7	2145	84.4	430	16.9	673	26.5	220	485
R8	2145	84.4	530	20.9	673	26.5	255	562
R9	2145	84.4	530	20.9	673	26.5	275	606
R10	2145	84.4	830	32.7	698	27.5	410	904
R11	2145	84.4	830	32.7	698	27.5	440	970



ACS580-07 IP42, +B054

Frames	Height		Width		Depth		Weight	
	(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg)	(lb)
R6	2145	84.4	430	16.9	673	26.5	210	463
R7	2145	84.4	430	16.9	673	26.5	220	485
R8	2145	84.4	530	20.9	673	26.5	255	562
R9	2145	84.4	530	20.9	673	26.5	275	606
R10	2145	84.4	830	32.7	698	27.5	410	904
R11	2145	84.4	830	32.7	698	27.5	440	970



ACS580-07 IP54, +B055

Frames	Height		Width		Depth		Weight	
	(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg)	(lb)
R6	2145	84.4	430	16.9	673	26.5	210	463
R7	2145	84.4	430	16.9	673	26.5	220	485
R8	2145	84.4	530	20.9	673	26.5	255	562
R9	2145	84.4	530	20.9	673	26.5	275	606
R10	2315	91.14	830	32.7	698	27.5	410	904
R11	2315	91.14	830	32.7	698	27.5	440	970

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M/S. Faisal Enterprise
Proprietor

Ratings, types and voltages

Wall-mounted drives, ACS580-01 (3-phase supply voltage range 380-480 V)

Frame type	Frame size	3-phase, U_n = 400 V							3-phase, U_n = 460 V				
		Nominal ratings		Light-duty use		Heavy-duty use		Max. output current	Light-duty use		Heavy-duty use		Max. output current
		P_n (kW)	I_n (A)	I_{Ld} (A)	P_{Ld} (kW)	I_{Hd} (A)	P_{Hd} (kW)	I_{max} (A)	I_{Ld} (A)	P_{Ld} (hp)	I_{Hd} (A)	P_{Hd} (hp)	I_{max} (A)
ACS580-01-02A7-4	R1	0.75	2.6	2.5	0.75	1.8	0.55	3.2	2.1	1	1.6	0.75	2.9
ACS580-01-03A4-4	R1	1.1	3.3	3.1	1.1	2.6	0.75	4.7	3	1.5	2.1	1	3.8
ACS580-01-04A1-4	R1	1.5	4	3.8	1.5	3.3	1.1	5.9	3.5	2	3	1.5	5.4
ACS580-01-05A7-4	R1	2.2	5.6	5.3	2.2	4	1.5	7.2	4.8	3	3.4	2	6.1
ACS580-01-07A3-4	R1	3	7.2	6.8	3	5.6	2.2	10.1	6	3	4	3	7.2
ACS580-01-09A5-4	R1	4	9.4	8.9	4	7.2	3	13	7.6	5	4.8	3	8.6
ACS580-01-12A7-4	R1	5.5	12.6	12	5.5	9.4	4	15.3	12	7.5	7.6	5	11.4
ACS580-01-018A-4	R2	7.5	17	16.2	7.5	12.6	5.5	22.7	14	10	11	7.5	19.8
ACS580-01-026A-4	R2	11	25	23.8	11	17	7.5	30.6	23	15	14	10	25.2
ACS580-01-033A-4	R3	15	32	30.4	15	24.6	11	44.3	27	20	21	15	37.8
ACS580-01-039A-4	R3	18.5	38	36.1	18.5	31.6	15	56.9	34	25	27	20	48.6
ACS580-01-046A-4	R3	22	45	42.8	22	37.7	18.5	67.9	44	30	34	25	61.2
ACS580-01-062A-4	R4	30	62	58	30	44.6	22	81	52	40	40	30	76
ACS580-01-073A-4	R4	37	73	68.4	37	61	30	109.8	65	50	52	40	104
ACS580-01-088A-4	R4	45	89	83	45	72	37	129.6	77	60	65	50	117
ACS580-01-088A-4	R5	45	88	82.7	45	72	37	129.6	77	60	65	50	122
ACS580-01-106A-4	R5	55	106	100	55	87	45	156.6	96	75	77	60	145
ACS580-01-145A-4	R6	75	145	138	75	105	55	178	124	100	96	75	178
ACS580-01-169A-4	R7	90	169	161	90	145	75	247	156	125	124	100	247
ACS580-01-206A-4	R7	110	206	196	110	169	90	287	180	150	156	125	287
ACS580-01-246A-4	R8	132	246	234	132	206	110	350	240	200	180	150	350
ACS580-01-293A-4	R8	160	293	278	160	246*	132	418	260	200	240	150	418
ACS580-01-363A-4	R9	200	363	345	200	293	160	498	361	300	302	250	542
ACS580-01-430A-4	R9	250	430	400	200	363**	200	545	414	350	361	300	542

Nominal ratings ACS580-01

I_n	Rated current available continuously without overloadability at 40 °C.
P_n	Typical motor power in no-overload use.
Maximum output current	
I_{max}	Maximum output current. Available for 2 seconds at start.
Light-overload use	
I_{Ld}	Continuous current allowing 110% I_{Ld} for 1 minute every 10 minutes at 40 °C.
P_{Ld}	Typical motor power in light-duty use.
Heavy-duty use	
I_{Hd}	Continuous current allowing 150% I_{Hd} for 1 minute every 10 minutes at 40 °C. * Continuous current allowing 130% I_{Hd} for 1 minute every 10 minutes at 40 °C. ** Continuous current allowing 125% I_{Hd} for 1 minute every 10 minutes at 40 °C.
P_{Hd}	Typical motor power in heavy-duty use.

The ratings apply for the frames R1 to R9 up to +40 °C in enclosure class 21.
The ratings apply for the frames R10 to R11 up to +40 °C in enclosure class IP00/IP20.
For derating at higher altitudes, temperatures, switching frequencies or enclosure classes, see the HW manuals, document codes: 3AXD50000018826 and 3AXD50000015497.

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M/S. Faisal Enterprise
Proprietor

Drive modules, ACS580-04 (3-phase supply voltage range 380-480 V)

Frame type	Frame size	3-phase, U_n = 400 V							3-phase, U_n = 480 V				
		Nominal ratings		Light-duty use		Heavy-duty use		Max. output current	Light-duty use		Heavy-duty use		Max. output current
		P_n (kW)	I_n (A)	I_{Ld} (A)	P_{Ld} (kW)	I_{Hd} (A)	P_{Hd} (kW)	I_{max} (A)	I_{Ld} (A)	P_{Ld} (hp)	I_{Hd} (A)	P_{Hd} (hp)	I_{max} (A)
ACS580-04-505A-4	R10	250	505	485	250	361	200	560	483	400	361	300	560
ACS580-04-585A-4	R10	315	585	575	315	429	250	730	573	450	414	350	730
ACS580-04-650A-4	R10	355	650	634	355	477	250	730	623	500	477	400	730
ACS580-04-725A-4	R11	400	725	715	400	568	315	1020	705	600	566	450	850
ACS580-04-820A-4	R11	450	820	810	450	625	355	1020	807	700	625	500	1020
ACS580-04-880A-4	R11	500	880	865	500	725 *	400	1100	807	700	625	500	1020

Cabinet-built drives, ACS580-07 (3-phase supply voltage range 380-480 V)

Frame type	Frame size	3-phase, U_n = 400 V							3-phase, U_n = 480 V				
		Nominal ratings		Light-duty use		Heavy-duty use		Max. output current	Light-duty use		Heavy-duty use		Max. output current
		P_n (kW)	I_n (A)	I_{Ld} (A)	P_{Ld} (kW)	I_{Hd} (A)	P_{Hd} (kW)	I_{max} (A)	I_{Ld} (A)	P_{Ld} (hp)	I_{Hd} (A)	P_{Hd} (hp)	I_{max} (A)
ACS580-07-0145A-4	R6	75	145	138	75	105	55	178	124	100	96	75	178
ACS580-07-0169A-4	R7	90	169	161	90	145	75	247	156	125	124	100	247
ACS580-07-0206A-4	R7	110	206	196	110	169	90	287	180	150	156	125	287
ACS580-07-0246A-4	R8	132	246	234	132	206	110	350	240	200	180	150	350
ACS580-07-0293A-4	R8	160	293	278	160	246 **	132	418	260	200	240	150	418
ACS580-07-0363A-4	R9	200	363	345	200	293	160	498	361	300	302	250	542
ACS580-07-0430A-4	R9	250	430	400	200	363 ***	200	617	414	350	361	300	542
ACS580-07-0505A-4	R10	250	505	485	250	361	200	560	483	400	361	300	560
ACS580-07-0585A-4	R10	315	585	575	315	429	250	730	573	450	414	350	730
ACS580-07-0650A-4	R10	355	650	634	355	477	250	730	623	500	477	400	730
ACS580-07-0725A-4	R11	400	725	715	400	568	315	1020	705	600	566	450	850
ACS580-07-0820A-4	R11	450	820	810	450	625	355	1020	807	700	625	500	1020
ACS580-07-0880A-4	R11	500	880	865	500	725 *	400	1100	807	700	625	500	1020

Nominal ratings, ACS580-04 and ACS580-07

I_n	Rated current. Available continuously without overloadability at 40 °C.
P_n	Typical motor power in no-overload use.

Maximum output current

I_{max}	Maximum output current. Available for 2 seconds at start.

Light-overload use

I_{Ld}	Continuous current allowing 110% I_{Ld} for 1 minute every 10 minutes at 40 °C.
P_{Ld}	Typical motor power in light-duty use.

Heavy-duty use

I_{Hd}	Continuous current allowing 150% I_{Hd} for 1 minute every 10 minutes at 40 °C. * Continuous current allowing 140% I_{Hd} for 1 minute every 10 minutes at 40 °C. ** Continuous current allowing 130% I_{Hd} for 1 minute every 10 minutes at 40 °C. *** Continuous current allowing 125% I_{Hd} for 1 minute every 10 minutes at 40 °C.
P_{Hd}	Typical motor power in heavy-duty use.

The ratings apply for the frames R6 to R9 up to +40 °C in enclosed IP class 21.
The ratings apply for the frames R10 to R11 up to +40 °C in enclosed IP00/IP20.
For derating at higher altitudes, temperatures or switching frequencies, see the HW manuals, document codes: 3AXD50000016826, 3AXD50000015497, 3AXD50000045815 and 3AXD50000032622.

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পাওয়ার ডিভিশন-২
নেসকো, বগুড়া

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Ratings, types and voltages

3-phase, U_n = 230 V (range 200 to 240 V). The power ratings are valid at nominal voltage 230 V (0.75 to 75 kW)

Drive type	Frame size	Nominal ratings		Light-duty use		Heavy-duty use		Maximum output current
		I_n (A)	P_n (kW)	I_{Ld} (A)	P_{Ld} (kW)	I_{Hd} (A)	P_{Hd} (kW)	I_{max} (A)
ACS580-01-04A7-2	R1	4.7	0.75	4.6	0.75	3.5	0.55	6.3
ACS580-01-06A7-2	R1	6.7	1.1	6.6	1.1	4.6	0.75	8.9
ACS580-01-07A6-2	R1	7.6	1.5	7.5	1.5	6.6	1.1	11.9
ACS580-01-012A-2	R1	12	3	11.8	3	7.5	2.2	19.1
ACS580-01-018A-2	R1	16.9	4	16.7	4	10.6	3.0	22
ACS580-01-025A-2	R2	24.5	5.5	24.2	5.5	16.7	4.0	32.7
ACS580-01-032A-2	R2	31.2	7.5	30.8	7.5	24.2	5.5	43.6
ACS580-01-047A-2	R3	46.7	11	46.2	11	30.8	7.5	62.4
ACS580-01-060A-2	R3	60	15	59.4	15	46.2	11	83.2
ACS580-01-089A-2	R5	89	22	88	22	74.8	18.5	135
ACS580-01-115A-2	R5	115	30	114	30	88.0	22.0	158
ACS580-01-144A-2	R6	144	37	143	37	114	30	205
ACS580-01-171A-2	R7	171	45	169	45	143	37	257
ACS580-01-213A-2	R7	213	55	211	55	169	45	304
ACS580-01-276A-2	R8	276	75	273	75	211	55	380

Nominal ratings

I_n	Rated current available continuously without overloadability at 40 °C.
P_n	Typical motor power in no-overload use.

Maximum output current

I_{max}	Maximum output current. Available for 2 seconds at start, then as long as allowed by drive temperature.

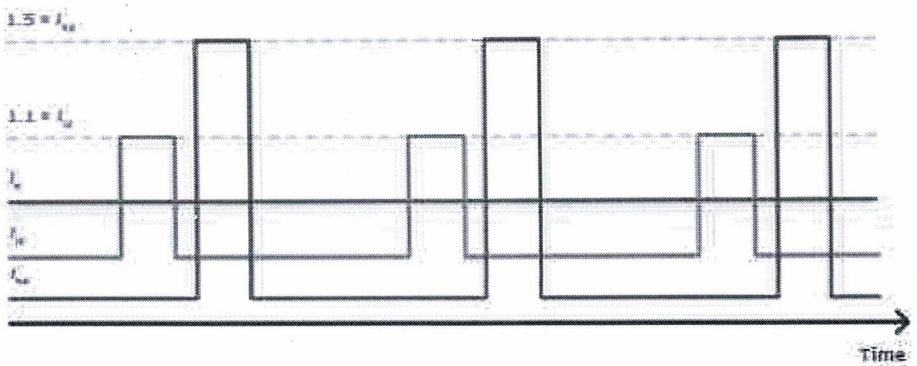
Light-overload use

I_{Ld}	Continuous current allowing 110% I_{Ld} for 1 minute every 10 minutes at 40 °C.
P_{Ld}	Typical motor power in light-overload use.

The ratings apply for the frames R1 to R9 up to +40 °C in enclosed IP21/IP55.
For derating at high altitudes, temperatures or switching frequencies, see the user's HW manual, document code: 3AXD50000035866.

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Overloadability and output current illustration



Definition	ACS580
No overload	I_n
110% overload 1 min / 10 minutes	I_{Ld}
150% overload 1 min / 10 minutes	I_{Hd}

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ঢাকা ওয়াসা

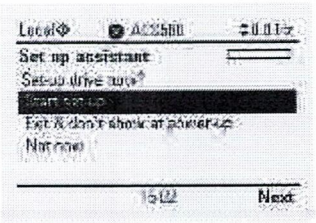
Easiness on a whole new level



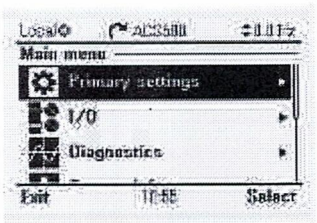
The assistant control panel's intuitive user interface, assistants and ready-made macros offer simplicity for everyday life. The panel guides you through commissioning without a need to know any drive parameters and helps in unclear situations.

Assistant control panel, ACS-AP-S
Set up the drive, fine-tune motor control and monitor values that matter using the assistant control panel, delivered as standard with all ACS580 drives. The assistant control panel can also be used with the ACS480 and the ACS380.

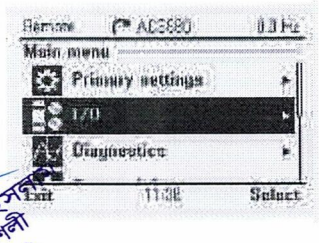
Commission without a hassle
Select language, set time and date, name the drive, enter motor values, test rotating the motor.



Primary settings
Select ready-made macros, perform ID-run, fine-tune settings related to e.g. ramps, limits, PIDs, fieldbuses, reset to defaults.



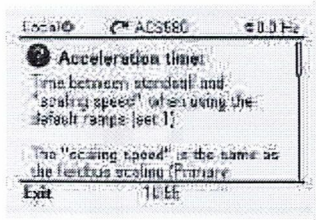
Input/output menu
Set and monitor your input/output (I/O) connections for real-time diagnostics



Home view displays
Monitor the values that are the most important to you. You can select values for monitoring from a ready-made list or choose user-defined parameters.



Help button
The help button provides more information about your selection and it can be pressed in any view.



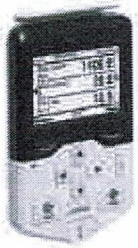
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Control panel options and mounting kits

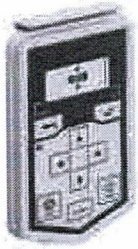
The standard delivery of the ACS580 includes the assistant control panel (requires the +J400 code), but it can be also replaced by other control panels.



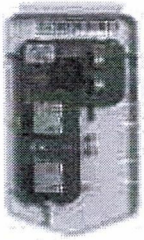
Bluetooth control panel, ACS-AP-W *)
The optional Bluetooth panel enables connection with the Drivetune mobile app. The app is available for free from Google Play and the Apple App store. Together with the Drivetune app and the Bluetooth panel, users can, for example, commission and monitor the drive remotely.



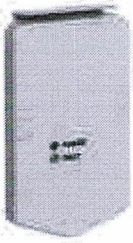
Industrial control panel, ACS-AP-I *)
The industrial control panel is compatible with all ABB drives, making it simple to use a single panel with different products.



Basic control panel, ACS-BP-S
The icon-based control panel supports users with parameter backup, settings and fault tracking in basic operation.



Panel bus adapter, CDPI-01
The panel bus adapter is an ideal choice if there is a need to control multiple drives with a single control panel. The panel bus adapter offers also simplicity for cabinet installations as by using it the control panel can be installed on the cabinet door and the drive can be operated easily and safely.



Blank control panel, CDUM-01
The blank control panel can be used for covering the control panel slot if no control panel or panel bus adapter is needed.



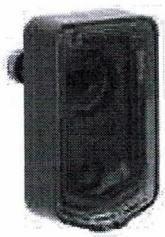
Control panel mounting platform, DPMP-01
This mounting platform is for surface mountings. This also requires RDUM-01 (blank control panel with the RJ-45 connector) and a control panel (assistant, basic, Bluetooth or industrial).



Control panel mounting platform, DPMP-02
This mounting platform is for flush mountings. This also requires RDUM-01 (blank control panel with the RJ-45 connector) and a control panel (assistant, basic, Bluetooth or industrial).



Door mounting kit, DPMP-EXT
The door mounting kit is ideal for cabinet installations. A kit for one drive includes one DPMP-02 and one CDPI-01 (blank control panel cover with RJ-45 connector). If a different control panel than the assistant panel is desired for cabinet door installation, it must be ordered separately.



Control panel mounting kit for outdoor installation DPMP-04/05
Enables control panel outdoor mounting thanks to IP66 protection class, UV resistance and IK07 impact protection rating.

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Door mounting and daisy chaining

Improve safety and leverage the full potential of the ACS580 control panel options with a door mounting kit and panel bus adapter.

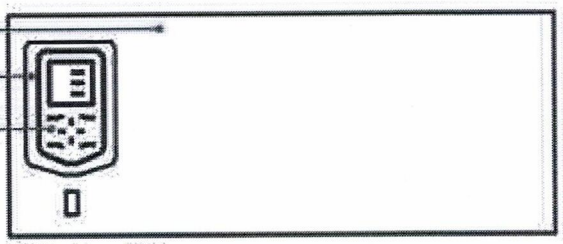


Door mounting fosters easy operation and safety. It enables you to operate the drive without opening the cabinet door, saving time and keeping all the electronics behind the closed door. Up to 32 drives can be connected to one control panel for even easier and quicker operation. When daisy chaining the drives, you need only one assistant control panel. The rest of the drives can be equipped with panel bus adapters.

Cabinet door

Door mounting kit, DPMP-EXT
The kit includes a surface mounting platform for the drive's control panel, panel bus adapter (CDPI-01) and an RJ-45 cable for connecting the control panel and the panel bus adapter.

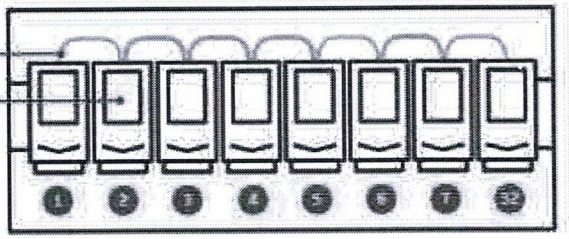
Assistant control panel
The assistant control panel is delivered as standard with the ACS580 drives. Also a Bluetooth or industrial control panel can be used.



Cabinet, outside

RJ-45 cable for daisy chaining drives

Panel bus adapter, CDPI-01
The panel bus adapter can be ordered with a plus code +J424 or with an MRP code 3AXD50000009843 as a loose option.



Cabinet, inside

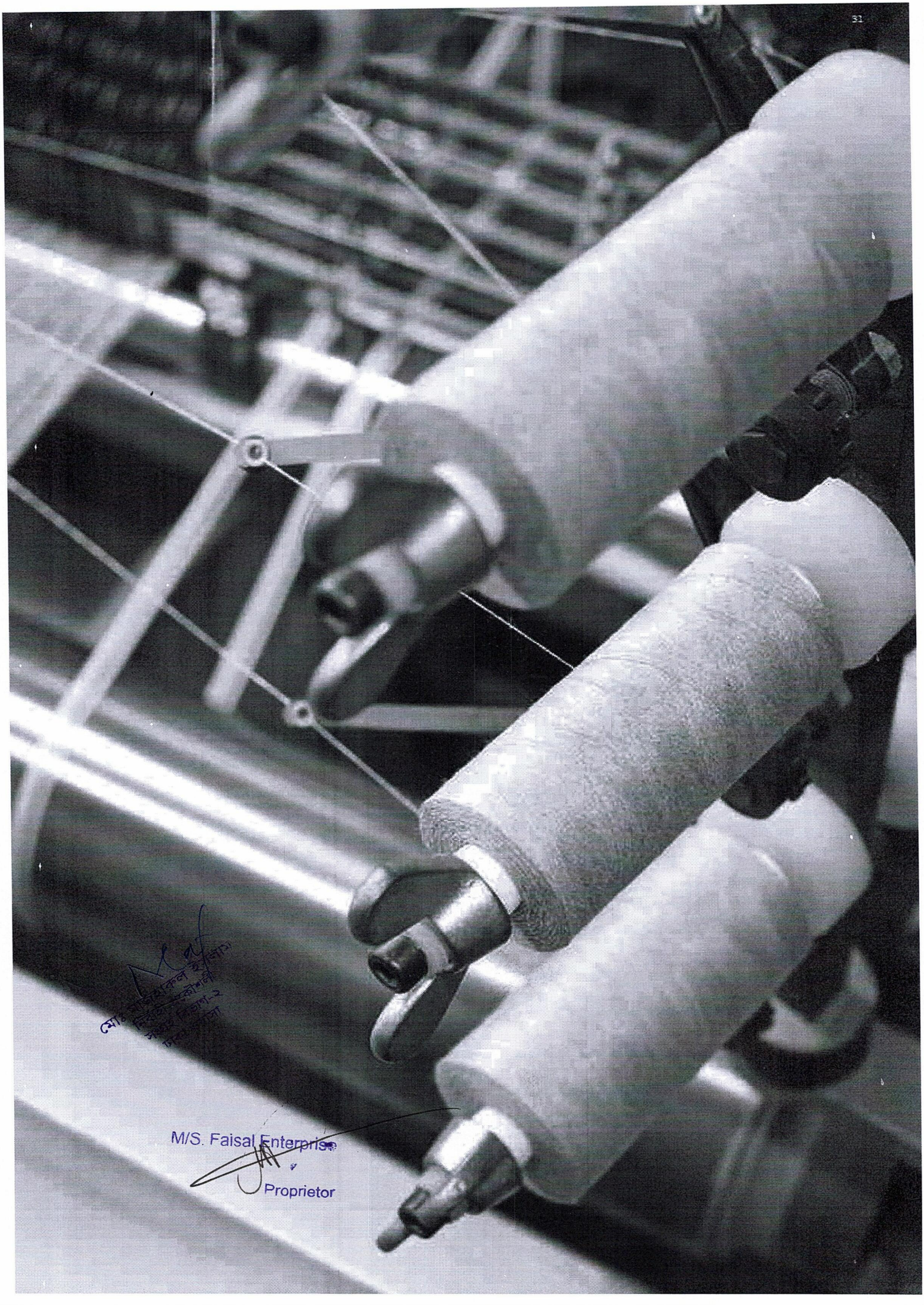
Control panel options
The ACS-AP-S assistant control panel (plus code +J400) is included as standard in the delivery.
If no code is mentioned in the ACS580 order, the assistant control panel is automatically added to the delivery.
It can be replaced by one of the other +Jxxx options listed below.

MRP code	Plus code	Description	Type designation
3AUA0000064864	+J400	Assistant control panel**	ACS-AP-S
3AXD50000025965	+J429	Control panel with Bluetooth interface***	ACS-AP-W
3AUA0000088311	+J425	Industrial assistant control panel***	ACS-AP-I
3AXD50000028828	+J404	Basic control panel**	ACS-BP-S
3AXD50000009843	+J424	Blank control panel cover (no control panel delivered)	CDUM-01
3AXD50000004419	–	Panel bus adapter	CDPI-01
3AUA0000108878	–	Control panel mounting platform (flush mounted, requires also panel bus adapter on the drive)	DPMP-01
3AXD50000009374	–	Control panel mounting platform (surface mounted, requires also panel bus adapter on the drive)	DPMP-02
3AXD50000016230	–	Control panel mounting platform option, only for ACS580-04 modules	DPMP-03
3AXD50000217717		Control panel mounting kit for outdoor installation	DPMP-04
3AXD50000240319		Control panel mounting kit for outdoor installation, only for ACS580-04/34	DPMP-05
3AXD50000010763	–	Door mounting kit for the panel (for one drive, contains both DPMP-02 and CDPI-01)	DPMP-EXT

* Compatible with ACS880 drives
** Compatible with the ACS480 and ACS380

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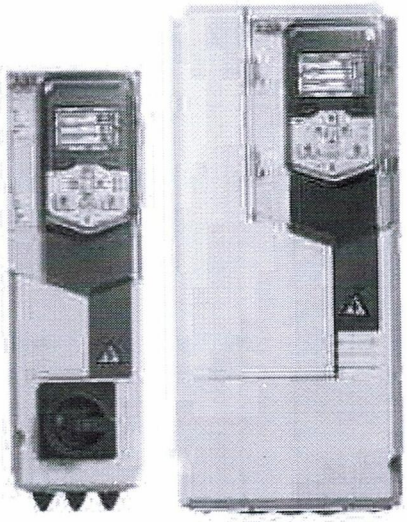


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Higher enclosure class for cabinet-free installations even in harsh conditions

Don't let dust, moisture or dirt interrupt your processes and drag down productivity. ACS580 IP55/UL Type 12 units keep your systems running even in tough conditions.



- Take advantage of flexible, cabinet-free installation
- Save space, increase safety and reduce overall costs
- Maintain productivity in harsh conditions
- Minimized downtime and flawless operation

Compact units for rough environments
The ACS580 IP55 and UL Type 12 units are an ideal choice for harsh environments, where impurities, such as dust or dirt waft in the air. Typical harsh environments include textile, cement, metal and wood processing industries and harsh outdoor conditions in desert and tropical environments. Higher protection class ensures smooth processes by reducing downtime.

These units can be installed directly on the wall closer to the motor, which provides flexibility and simplifies installation. The robust, protective design ensures that no additional enclosures or components, such as dust filters and fans, are needed.

Ordering codes	Description
+B056	IP55/UL Type 12 unit (R1-R9)
+F278	Integrated main switch (R1-R5)*
+E223	Integrated C1 filter (R1-R5)*
+F316	Integrated main switch and C1 filter (R1-R5)*

* Integrated into the R1 and R2, external box for the R3, R4 and R5.

Be productive, save money and keep it simple
If there's a job assignment to build an outdoor swimming pool, the construction employees need to have the right tools and equipment to be successful and productive. A shovel and garden hose are obviously not the right choice for the job. The same applies to your processes: in order to perform the job well, you need to have the right equipment for it.

If the environment around your processes includes impurities, drives with lesser enclosure ratings are more likely to fail because they are not designed for harsh environments. A failure causes an interruption and instantly cuts down productivity and adds costs. Coated control boards of the ACS580 IP55/UL Type 12 units, increased use of plastics with smart design, and fully gasketed control panel section that maintains the IP rating even if the control panel

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is removed help keep your processes up and running in tough environments.

Installing the drive closer to the motor allows shorter motor cables to be used. Shorter cables not only cost less and are easier to handle, but they make it easier to fulfill EMC requirements and reduce the need for additional filters.

Cost reductions take place also by eliminating the need for a cabinet. IP55/UL Type 12 enclosure provides protection from dust and jetting water from any direction. Speed-controlled main cooling fans maintain optimal drive operating temperatures without a need for external cooling. Keeping the drive at optimal temperature increases the lifetime of the drive.

In addition, the IP55/UL Type 12 units reduce maintenance costs compared to cabinet-mounted drives because of the elimination of air filters. The cabinet air filters need to be replaced on a regular basis and if they're not cleaned or taken care of properly, the cabinet temperature may rise and cause issues in the process. In these situations a maintenance engineer may need to open the cabinet door to identify the root cause.

Exploring the root cause is extra work and an open cabinet door instantly decreases safety, exposes all the components to the impurities and interrupts your processes. All these costs can be avoided with cabinet-free installation.

Integrated main switch and EMC C1 filter for further safety improvements and cost reductions

The ACS580 IP55/UL Type 12 units can be ordered with an integrated main switch and/or EMC C1 filter (R1-R5). The integrated main switch further simplifies the installation and improves safety as it ensures a correct drive is being disconnected instead of another one. The switch can be padlocked with three padlocks and in case all padlocks are used, three people need to agree and observe together whether it is safe to connect the drive before the drive can be connected.

Having the EMC C1 filter embedded to the drive, there is no need to order, install and test it separately. The integrated filter is already tested with the drive and it is prewired so there is no need for additional cabling.

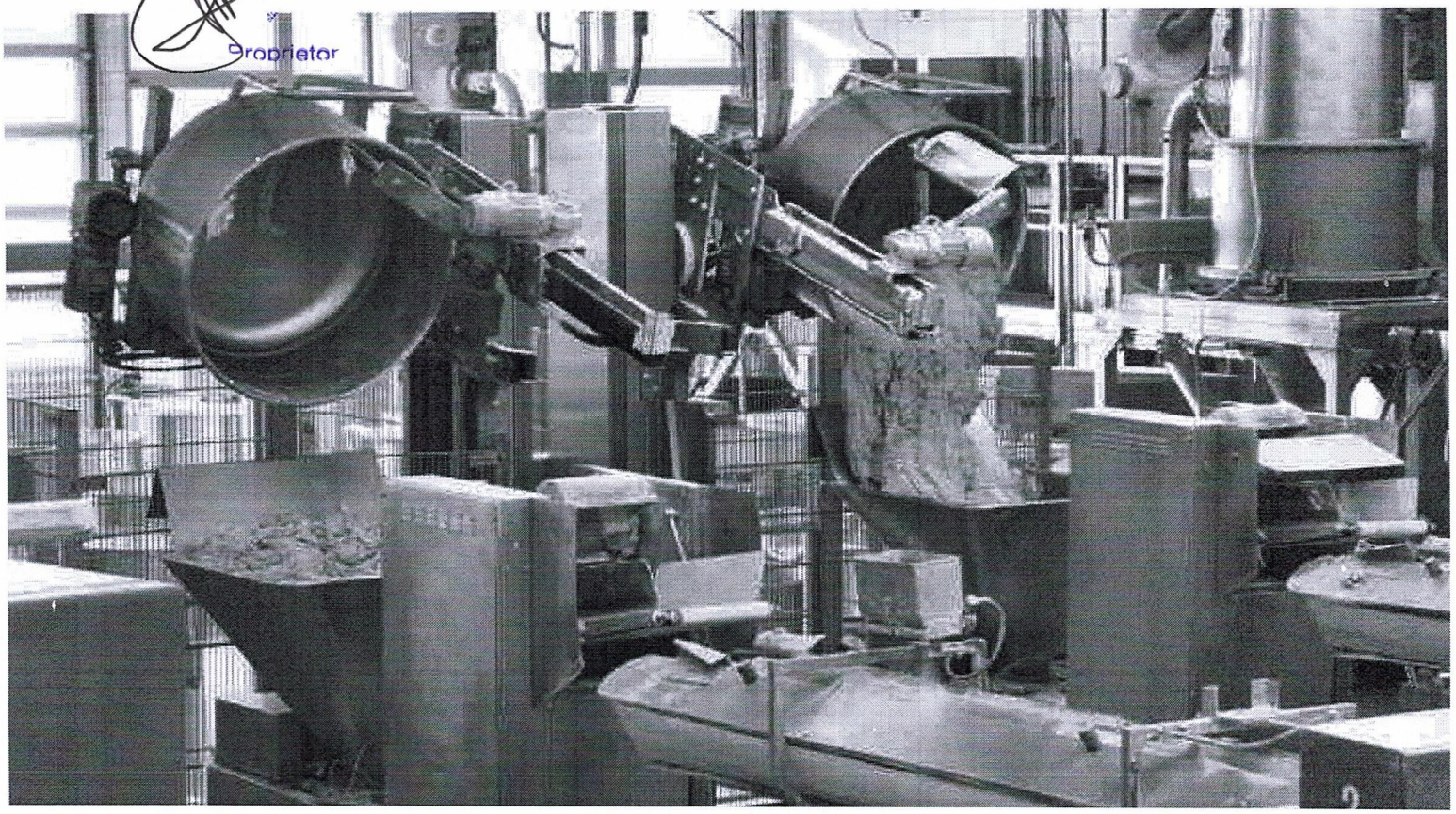
Ready made accessories for simplified cabinet assembly

Installing ACS580-01 drive modules into Rittal VX25 cabinets is made easier with mechanical and electrical accessory kits. The ready made accessories will save time in design work and reduce the building time to enable faster cabinet delivery. This will enable machine builders, system integrators and panel builders to built drive packages using their own cabinet design with ABB technology.

For more information and ordering details, please see manual supplement 3AXD50000523191.

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ACS580-07 cabinet-built drives

Effortless process automation in a ready-made cabinet

The ACS580-07 is part of the all-compatible family and a cabinet-built extension to the ACS580 series. They are suited for many different applications, easy to use, order and maintain, and they are quickly available. The simple and robust design ensures reliable operation even in harsh environments. The cabinets are compact in size, including flange mounting (R6-R9) and optimized cooling system as standard.

For many purposes: The ACS580-07 is ready to control many applications including, mixers, extruders, compressors, centrifuges, and fans, also installed in potentially explosive environment.

Easy to order: An EMC filter, chokes, assistant control panel, Modbus RTU, STO and installation tools are included as standard, and in addition there are several options available to further fulfill your needs. (See page 57)

Fast to get: Cabinet-built ACS580-07 drives are delivered fast from the factory.

Easy to use: Application control is easy to setup through the assistant control panel. Also other all-compatible ACS580 user interfaces can be used with the ACS580-07. (See page 25)



Easy to maintain: Smartly positioned fans and filters ensure the longevity of the drive and its components. When it is time to do maintenance, the necessary components are in easily accessible locations.

EMC tested: All cabinet-built ACS580-07 drives are tested by 3rd party facilities and have certified results for emitted radiations in accordance to IEC 61800-3ED.2:2004+A1(2011). R6-R9 are classified as C2 and R10-R11 as C3.

Thermal tested: The thermal properties are tested in accordance to IEC 61800-5-1:2007 and UL61800-5-1 1st ed. 2012 standards to ensure the environment and operators stay safe in all operating conditions. Be it a premature fan failure or clogged environmental filters to restrict the cooling capabilities, the tests verify that the equipment is self-protecting it at all times.

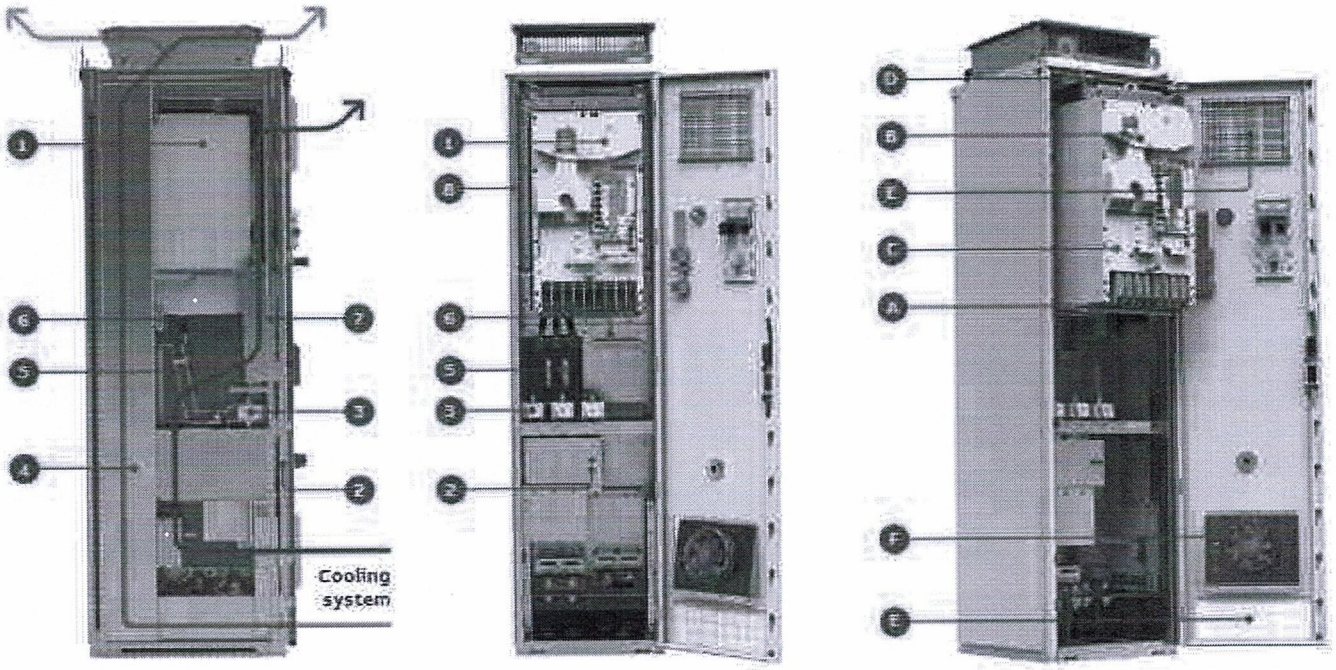
Adaptable to harsh environments: High enclosure classes and unique cooling system ensure the units stay cool even in harsh environments with air pollution.

Factory acceptance test (FAT): For ABB the reliability and quality of the drives is the utmost important. To ensure that the drive solutions meet the specifications and the customer expectations, ABB offers to have a factory acceptance test (FAT) in drives factory. Remote FAT or visual inspection is possible via online services.

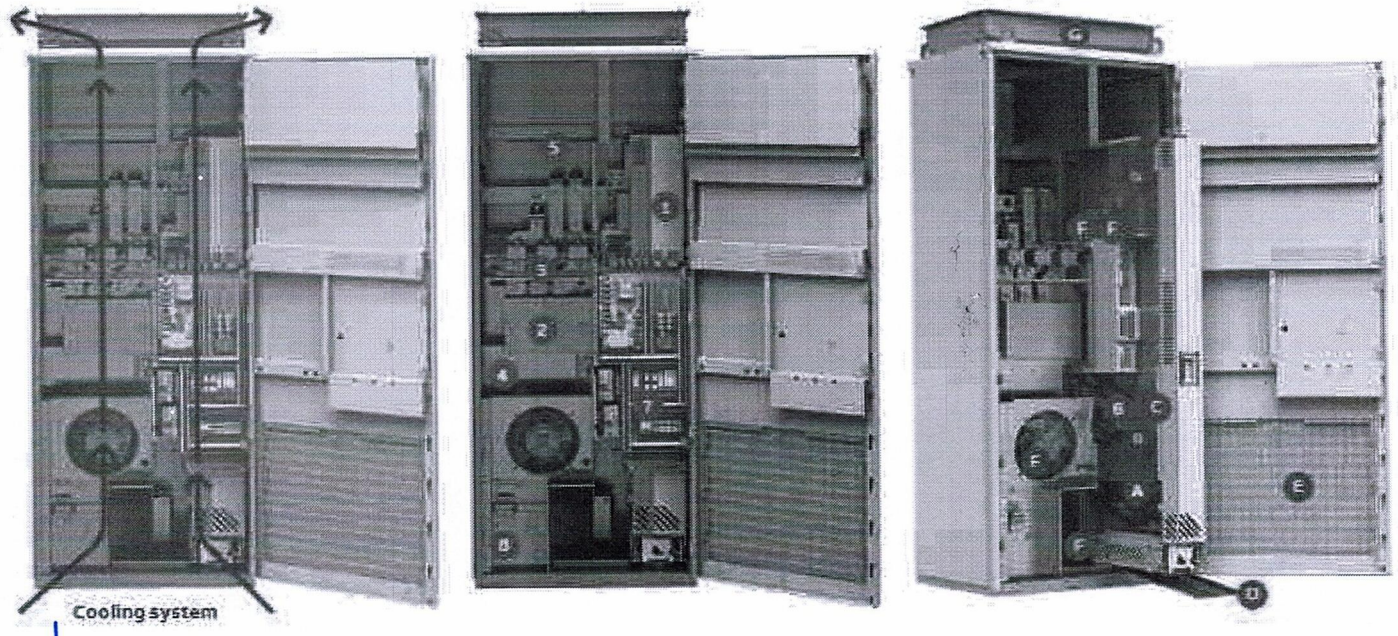
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Frame sizes R6-R9



Frame sizes R10-R11



Cabinet components

1. Module
2. Main switch or MCCB, option +F289
3. Fuses
4. Space for optional du/dt filter or cabinet resisters
5. Space for a line contactor option +F250
6. Common mode filter allocation
7. Space for safety, ATEX or external power supply options
8. Space for options +M600...+M605

Maintenance operation components

A Main fans
B Auxiliary fans
C Capacitors (inside the module)
D Rails and ramp supporting maintenance operation
E Filters for dust and external components
F Other supporting fans for R10 and R11
G Roof top for R10 and R11 (only IP54)

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Proprietor

Commissioning, programming and customization tools

Your engineering efficiency is boosted with our commissioning and programming tools, giving you the optimal solution to perform virtualization, planning, commissioning and maintenance.

Safe configuration for unpowered drives
The CCA-01 cold configuration adapter provides a serial communication interface for unpowered ACS580 drives. With the adapter, safety isolation of both serial communication and control board power supply is possible. The power supply is taken from a PC USB port.

Cold configurator

Users can download the software and parameters to drives without powering the drive.



MRP code	Description	Type designation
3AXD50000019865	Cold configurator adapter, packed kit	CCA-01

Drive Composer
The Drive Composer PC tool offers fast and harmonized setup, commissioning and monitoring for all-compatible drives. The free version of the tool provides startup and maintenance capabilities and gathers all drive information, such as parameter loggers, faults, backups and lists, into a support diagnostics file. Drive Composer pro provides additional features such as custom parameter windows, graphical control diagrams of the drive's configuration, and improved monitoring and diagnostics.



Drive Composer	Entry level (free)	Pro level
	Basic functionality	Entry-level features
	Parameter setting	Networked drives
	Point-to-point connection	Control diagrams
	Simple monitoring	Data logger(s)
	Supports adaptive programming	Graphical safety setup
	Adaptive programming in Demo mode	Adaptive (block) programming
	–	Multiple backup and restore
	–	Drive configuration by using virtual drive

Link/MRP codes	Description	Type designation
new.abb.com/drives/software-tools/drive-composer	Link to download free Drive Composer entry	–
9AKK105408A3415	Drive Composer entry PC tool (document)	–
3AUA0000108087	Drive Composer pro PC tool (single user license)	DCPT-01
3AUA0000145150	Drive Composer pro PC tool (10 users license)	DCPT-01
3AUA0000145151	Drive Composer pro PC tool (20 users license)	DCPT-01

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Automation Builder

ABB Automation Builder is the integrated software suite for machine builders and system integrators wanting to automate their machines and systems in a productive way. Combining the tools required for configuring, programming, debugging and maintaining automation projects in a common, intuitive interface, Automation Builder addresses the largest single cost element of most of today's industrial automation projects: software.

Automation Builder



ABB Automation Builder covers the engineering of ABB PLCs, safety PLCs, control panels, drives, motion and robots.

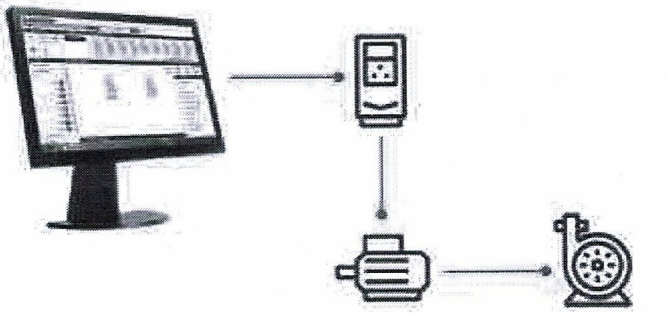
The common engineering tool Automation Builder is used for drive and PLC programming and configuration.

Automation Builder is available in Basic, Standard and Premium editions, fitting the needs of small projects and managing the challenges of many and large projects for OEM and system integrators.

Adaptive programming

Adaptive programming software, embedded inside the drive, is especially handy when there is a need to distribute some of the machine's control logic to the drive. Adaptive programming brings energy savings when the drive is adjusted to control the application optimally. You can use our Drive Composer PC tool to set up the adaptive programming. The drive also offers sequence programming capabilities. Adaptive programming makes it possible to enhance the existing application control program to precisely fit users' application needs. The program is also handy for ensuring that the drive's electrical design is connected as it should be with working drive signals.

Adaptive programming



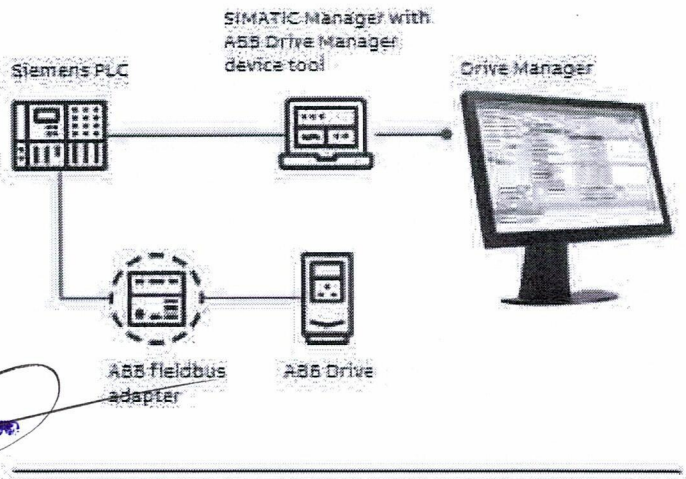
Drive manager

Drive Manager for SIMATIC (DM4S-01) is a plug-in device tool that can be easily installed, for example, in the STEP 7 and TIA Portal. It utilizes the TCI interface of the SIMATIC PLC to communicate with drives connected to PROFIBUS or a PROFINET network.

Drive Manager for SIMATIC offers several useful, ready-made features that simplify the setup of ABB low voltage drives used in combination, for example, with SIMATIC S7 PLCs including:

- Network connection over PROFIBUS and PROFINET (single point of access)
- Online and offline configuration of drives
- Monitoring of actual drive values
- Export to/import from the drive-dedicated PC tools
- Saving drive parameter settings within the SIMATIC PLC project

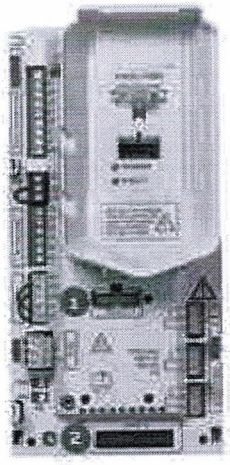
Drive manager



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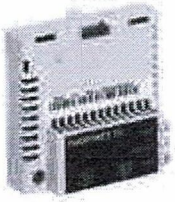
Communication and connectivity
Options

Fieldbus adapter modules
The ACS580 comes with Modbus RTU fieldbus interface as standard, and it is also compatible with a wide range of additional fieldbus protocols. Fieldbus communication reduces wiring costs compared to traditional hardwired input/output connections.
The fieldbus options can be installed into a slot one (1).

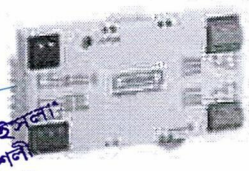


Input/output extension modules
Standard input and output can be extended by using optional analog and digital input/output extension modules. The modules are easily installed in the extension slot two (2) located on the drive.

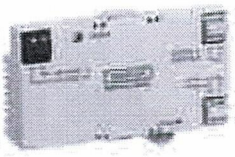
Fieldbus options



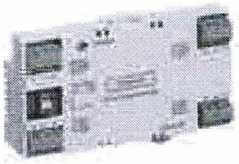
Plus code	MRP code	Fieldbus protocol	Adapter
+K451	68469341	DeviceNet™	FDNA-01
+K454	68469325	PROFIBUS DP, DPV0/DPV1	FPBA-01
+K457	68469376	CANopen®	FCAN-01
+K458	3AUA0000031336	Modbus RTU	FSCA-01
+K462	3AUA0000094512	ControlNet	FCNA-01
+K469	3AUA0000072069	EtherCAT®	FECA-01
+K470	3AUA0000072120	POWERLINK	FEPL-02
+K490	3AXD50000192786	Two port Ethernet/IP	FEIP-21
+K491	3AXD50000048964	Two port Modbus/TCP	FMBT-21
+K492	3AXD50000192779	Two port PROFINET IO	FPNO-21
+Q986	3AXD50000112821	Safety functions fieldbus Profisafe module	FSPS-21



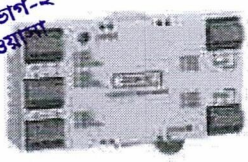
CMOD-01



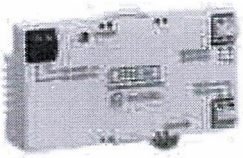
CMOD-02



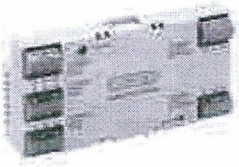
CBAI-01



CHDI-01



CPTC-02



CAIO-01

Options

Plus code	MRP code	Description	Type designation
+L501	3AXD50000004420	External 24 V AC and DC 2 x RO and 1 x DO	CMOD-01
+L503	3AXD50000004418	External 24 V and isolated PTC interface	CMOD-02
+L512	3AXD50000004431	115/230 V digital input 6 x DI and 2 x RO	CHDI-01
+L537	3AXD50000033578	ATEX-certified PTC interface, Ex II (2) GD and external 24 V *	CPTC-02
+L500	3AXD50000137954	Bipolar analog I/O adapter module **	CBAI-01
+L525	3AXD50000[illegible]243	Analogue signal extension 3 x AI and 2 x AO	CAIO-01

* For further information please see pages 48-49
** No additional analog input/output is offered

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Embedded fieldbus interface

Fieldbus protocol	Features	Connector type	+Code/ MRP code/ Typecode
Modbus (RTU)	• The embedded interface acts as a Modbus/RTU server with support for ABB drives profiles	Screw terminal	As standard

—

The F-series fieldbus adapter modules

Fieldbus protocols	Features	Connector type	+Code/ MRP code/ Typecode
EtherNet/IP	• The interface module acts as an EtherNet/IP™ server with support for ODVA AC/DC drive and ABB drive profiles • Supports both explicit messaging where each attribute of a class is set individually, and implicit messaging using input and output instances • Support device-level ring (DLR) • Has 2 RJ45 connections with an integrated switch • Has Add-On Instructions available	2 x RJ45	+K490 3AXD50000192786 (FEIP-21)
PROFINET	• PROFINET® IO is an open standard for industrial Ethernet • Used from process automation to motion control, as well as for functional-safety solutions • Supports PROFIdrive and ABB drive profiles • Has 2 RJ45 connections with an integrated switch • S2 System redundancy • Supports ring topology with Media Redundancy Protocol (MRP) • Supports PROFIsafe with optional FSO-12/21 for ACS880 and with optional FSPS-21 for ACS380, ACS580 and ACS880	2 x RJ45	+K492 3AXD50000192779 (FPNO-21)
EtherCAT	• EtherCAT® is a real-time Ethernet master/slave fieldbus system • The EtherCAT slave devices read the data addressed to them while the telegram passes through the device enabling fast real-time communication • The telegrams are only delayed by a few nanoseconds • Supports CiA 402 and ABB drives profiles	2 x RJ45	+K469 3AUA0000072069 (FECA-01)
CANopen	• CANopen® is a popular industrial communication network originally designed for motion-oriented machine control networks, such as handling systems • Supports both cyclic and acyclic event driven communication. This makes it possible to reduce the bus load to a minimum and maintain short reaction times. • Supports CiA 402 and ABB drive profiles	Screw terminal D-SUB 9	+K495 (BCAN-11) 3AXD50000033816 +K457 68469376 (FCAN-01)
ETHERNET POWERLINK	• Ethernet POWERLINK is a real-time protocol for standard Ethernet • The protocol guarantees transfer of time-critical data in very short cycles with configurable response time • Supports CiA 402 and ABB drives profiles	2 x RJ45	+K470 3AUA0000072120 (FEPL-02)
ControlNet	• ControlNet™ is an open control network that meets the demands of real-time, high-throughput applications • Supports controller-to-controller interlocking and real-time control of I/O, drives and valves • Provides control networking in discrete and process applications including high-availability • Supports ODVA AC/DC Drive and ABB drives profiles • Has Add-On Instructions available	2 x BNC	+K462 3AUA0000094512 (FCNA-01)
DeviceNet	• DeviceNet™ offers robust, efficient data handling since it is based on Produce/Consume model • Uses CAN (Controller Area Network) as the backbone technology and defines an application layer to cover a range of device profiles • Supports ODVA AC/DC drive and ABB drives profiles	Screw terminal	+K451 68469341 (FDNA-01)
Modbus (TCP)	• The interface module acts as a Modbus® TCP server with support for ABB drive profiles • Common read/write single and multiple register function codes are supported • Has 2 RJ45 connections with an integrated switch	2 x RJ45	+K491 3AXD50000048964 (FMBT-21)
	• Common read/write single and multiple register function codes are supported	Screw terminal	+K458 3AUA0000031336 (FSCA-01)
PROFIBUS	• PROFIBUS® DP is the most widely used industrial network • ABB drives support PROFIBUS DP-V0 and DP-V1 • Supports PROFIdrive and ABB drives profiles	D-SUB 9	+K454 68469325 (FPBA-01)

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Safety options

Integrated safety

Integrated safety reduces the need for external safety components, simplifying configuration and reducing installation space. The safety functionality is a built-in feature of the ACS580, with Safe Torque Off (STO) as standard. ACS580 can also be part of PROFIsafe over PROFINET network, where safety PLC is controlling the STO or Safe Stop 1, time controlled, SS1-t functionality. This connectivity and functionality can be done by using the FSPS-21 option module.

The drives' functional safety is designed in accordance with EN/IEC 61800-5-2 and complies with the requirements of the European Union Machinery Directive (2006/42/EC). The safety functions are certified by TÜV Nord and comply with the highest safety performance level (SIL 3/PL e) for machinery safety. It is possible to install the safety modules also afterwards to the drive.

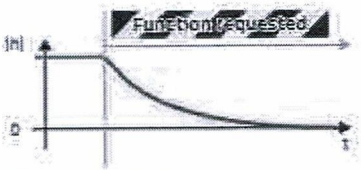
PROFIsafe safety functions module FSPS-21

The FSPS-21 module has integrated PROFIsafe, safety functions and PROFINET IO connection. The ready-made safety functions make safety configuration in the drive unnecessary. The module supports STO and SS1-t safety functions. It is used together with a safety PLC that supports PROFIsafe over PROFINET communication.

For more information see FSPS-21 PROFIsafe safety functions module web page at new.abb.com/drives/functional-safety



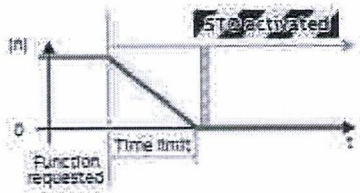
Safe Torque Off (STO)



STO is the basic foundation of drive-based functional safety, as it brings a drive safely to no-torque state making the motor coast to stop. Integrated STO-function simplifies the safety circuit as external components are not needed to safely stop the application.

- **STO** is a standard safety function in all ABB drives.
- Typically used for prevention of an unexpected startup
- (EN ISO 14118) of machinery or for an emergency stop, fulfilling stop category 0 (EN 13850 / IEC 60204-1).

Safe Stop 1, time controlled (SS1-t)



Safe Stop 1 stops the motor safely with a controlled ramp stop and stop time monitoring. SS1-t initiates the ramp stop from the drive and activates STO when speed reaches zero. If the drive is not decelerating to zero speed within the time limit, the STO function is activated. SS1-t is typically used in applications where motion must be stopped quickly and safely before switching to a no-torque state.

- **SS1-t** stops the motor safely, using a controlled ramp stop and then activates the STO function.
- **SS1-t** can be used to implement an Emergency stop, fulfilling stop category 1 (EN/IEC 60204-1).



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PROFIsafe safety functions module FSPS-21

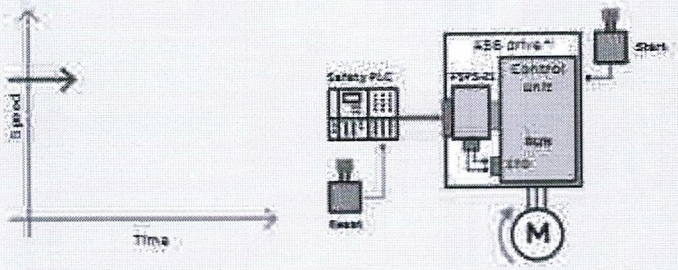
Option code	Ordering code	Module
+Q986	3AXD50000112821	FSPS-21

Note: This module isn't compatible with other fieldbus option modules for ACS380 and ACS580 drives

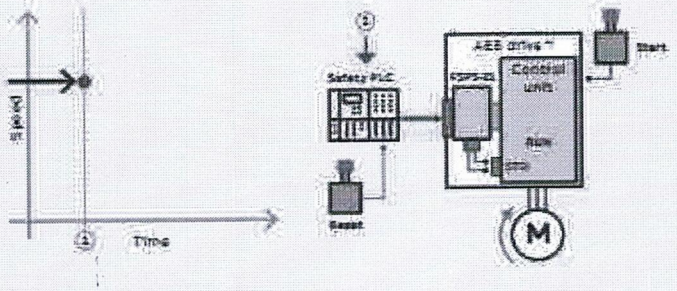
Example: SS1-t

Safety function module FSPS-21, functionality cycle

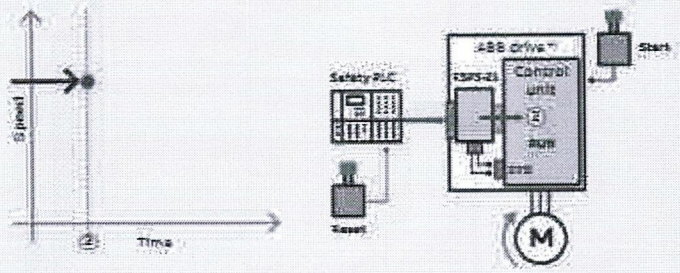
0. Drive running



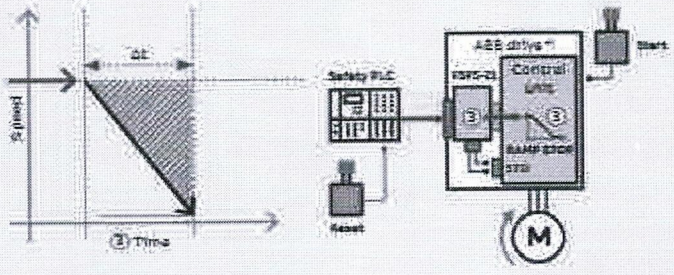
1. Safety PLC – safety function request to the FSPS-21



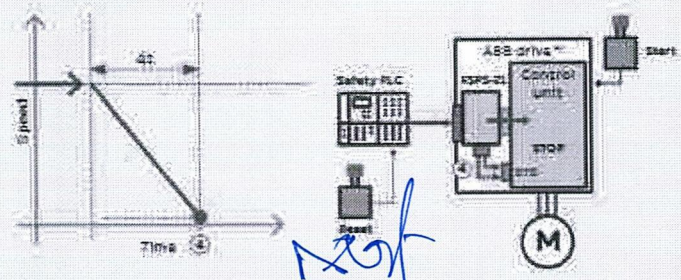
2. SS1-t, safety functions request / start of monitoring



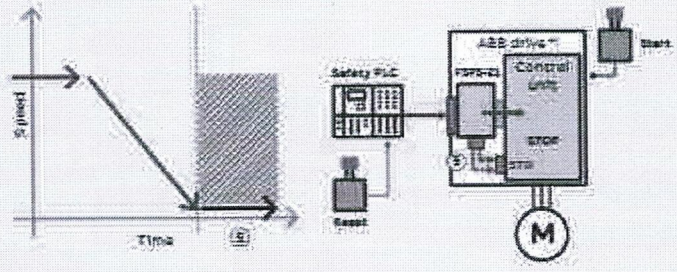
3. Transition and time monitoring of the SS1-t



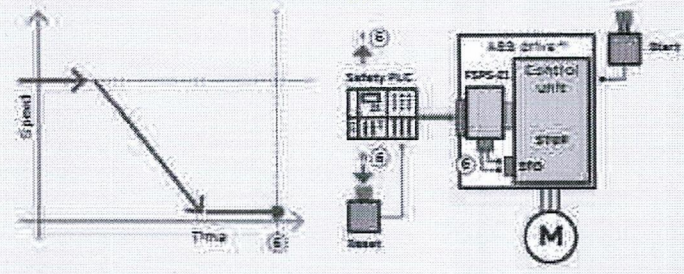
4. Zero speed or SS1-t time limit reached / STO is opened



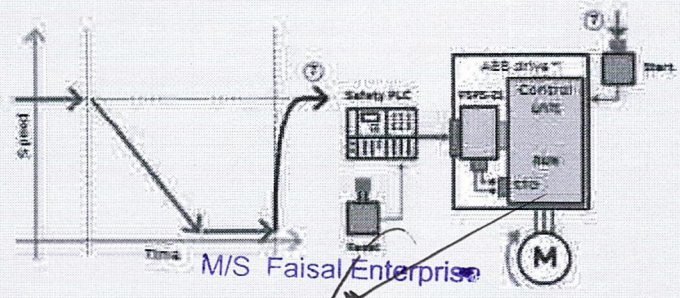
5. Safe state / STO is open



6. Safety function request removed, STO is closed



7. Start – return to normal operation



*) The ABB drive can be ACS380, ACS580 or ACS880

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ABB Ability™ Digital Powertrain
Condition monitoring for drives and rotating equipment

Accurate, real-time information about powertrain events. When you have the facts, you can make the right decisions.

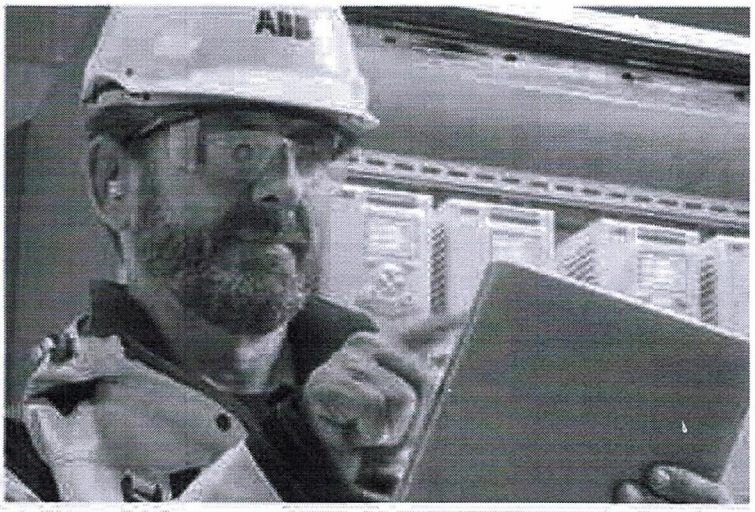


ABB Ability™ Digital Powertrain
The ABB Ability Digital Powertrain enables you to remotely monitor the health and performance of entire powertrains including drives, motors and applications, such as pumps. The data collected from the connected equipment can be accessed and analyzed remotely, providing a better understanding of the health and energy efficiency of the entire process.

ABB Ability™ Condition Monitoring for drives
ABB Ability Condition Monitoring for drives is a key element of the Digital Powertrain. The services are designed to provide key information about drive events and changes in behavior to ensure your equipment is always available, reliable and well maintained.

The service can be tailored to fit your needs. Our standard package for condition monitoring for drives gives you industry leading monitoring capabilities – whether you want to view the drive status through ABB's internet portal or integrate this data with your existing monitoring systems.

The standard package includes the following services:
- Condition Monitoring
- Alarm Management
- Asset Health
- Team Support
- Backup Management

The standard package can be supplemented with optional services:
- Condition-Based Maintenance
- Offline Data Collection
- Expert Reports
- Remote Assistance
- Condition monitoring of your entire powertrain

Key benefits

Solid fact-based decision making
Get the facts, and the history, to help run your operations better and more safely.

Always stay one step ahead of problems
Recognize early signs of possible failures and assess the risks before they turn into serious operational issues.

Find the root cause of process issues
Remotely access data from ABB drives built-in sensors to track the cause of problems. Get back to smooth operation quickly with data back-ups.

Remotely analyze and optimize drives
Get critical drive information anywhere anytime – even in difficult to access sites, or when a site visit is impossible.

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Connectivity devices enabling remote condition monitoring of drives

NETA-21
NETA-21 connects the drive to the cloud via the Internet or local Ethernet network.

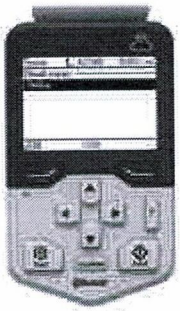
- Up to nine drives can be connected to one module
- The module comes with a built-in web server and requires no Flash/Java plug-ins
- In the absence of a customer local area network, it can be connected via a mobile network router (either Ethernet or USB network adapter)
- The RMDE module with IP54 enclosure is available for already installed drives. It can contain two or four NETA modules to connect up to 36 drives.



Connectivity Panel *)
Connectivity Panel offers easy plug & play installation and commissioning with built-in connectivity.

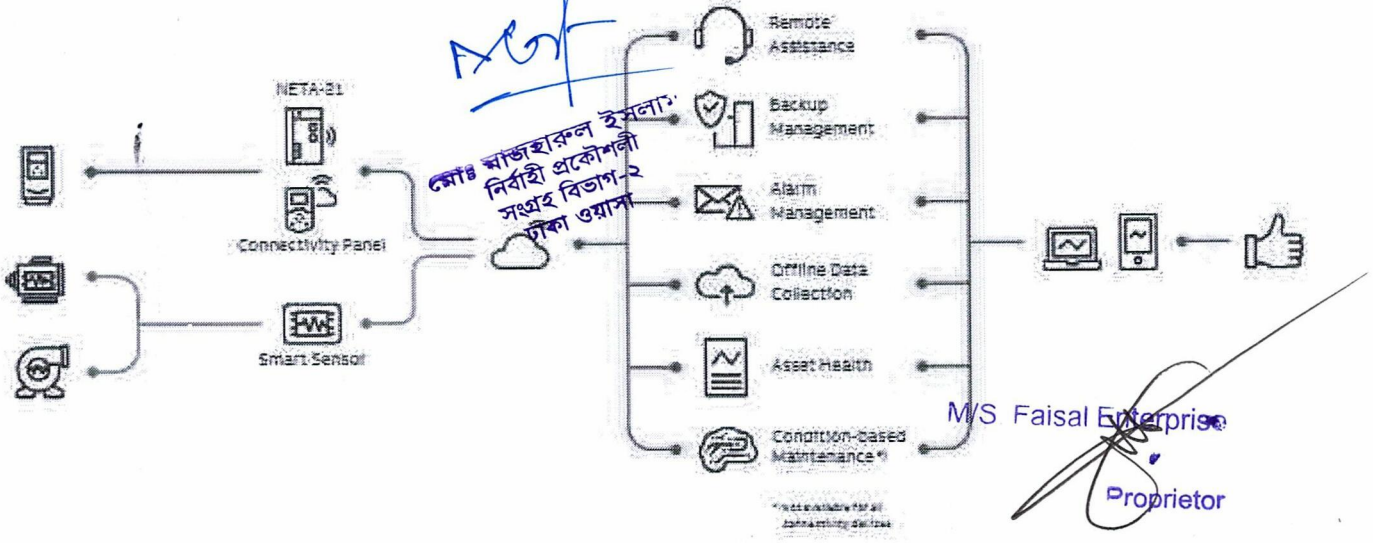
- Built-in NB-IoT wireless module with strong signal penetration even if drive is underground or in cabinet
- High efficiency antenna for reliable connection
- Industrial SIM for best reliability including mobile data plan *)
- Bluetooth® enables use of Mobile apps and PC tools

*) Not available in all countries and for all drives. Please check availability of panel and services with your local ABB representative.



Customers can configure powertrains and customize the digital service plan

1 Choose one or more assets you want to protect
2 Install the connectivity device
3 Activate access to the Condition Monitoring basic feature
4 Pick optional features and customize
5 Start monitoring
6 Enjoy the customized service



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EMC – electromagnetic compatibility

What is EMC?

EMC stands for electromagnetic compatibility. It is the ability of electrical/electronic equipment to operate without problems in an electromagnetic environment.

Likewise, the equipment must not disturb or interfere with any other product or system in its locality. This is a legal requirement for all equipment taken into service within the European Economic Area (EEA).

Installation environments

A power drive system (PDS) can be connected to either industrial or public power distribution networks. The environment class depends on the way the PDS is connected to power supply.

The **1st environment** includes domestic premises. It also includes establishments directly connected without an intermediate transformer to a low voltage power supply network that supplies buildings used for domestic purposes.

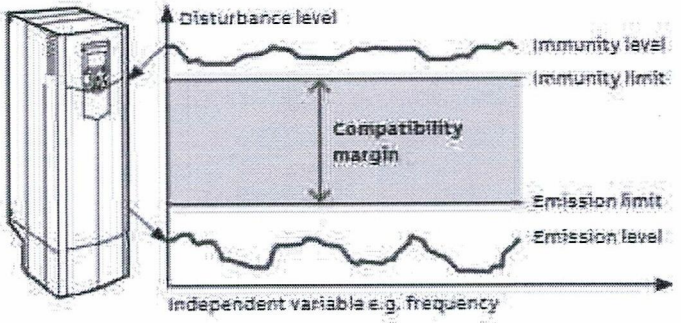
The **2nd environment** includes all establishments directly connected to public low voltage power supply networks.

EMC solutions

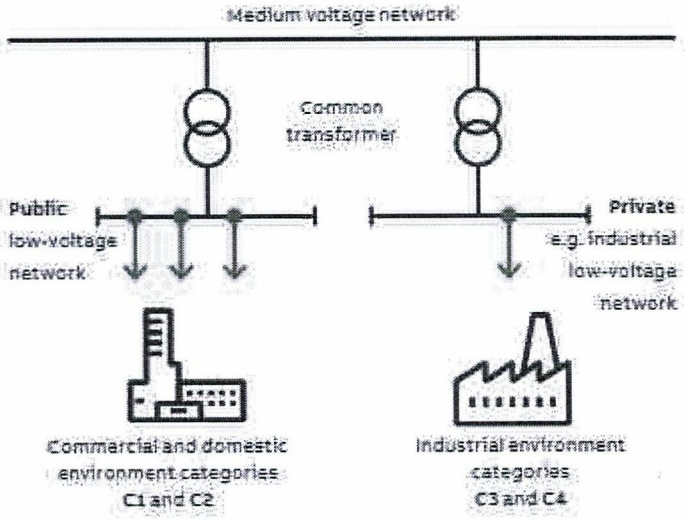
To fulfill the EMC requirements, the drives are equipped with standard or optional RFI filtering for HF disturbances.

- Using ferrite rings in power connection points
- Using an AC or DC choke (while they are meant to protect against harmonics, they reduce HF disturbances as well)
- Using an LCL filter in the case of regenerative drives
- Using a du/dt filter

Immunity and emission compatibility



Installation environments



The product standard EN 61800-3 divides PDSs into four categories according to the intended use

C1 – 1st environment
- Household appliances
- Usually plug connectible to any wall outlet
- Anyone can connect these to the network
- Examples: washing machines, TV sets, computers, microwave ovens, etc.

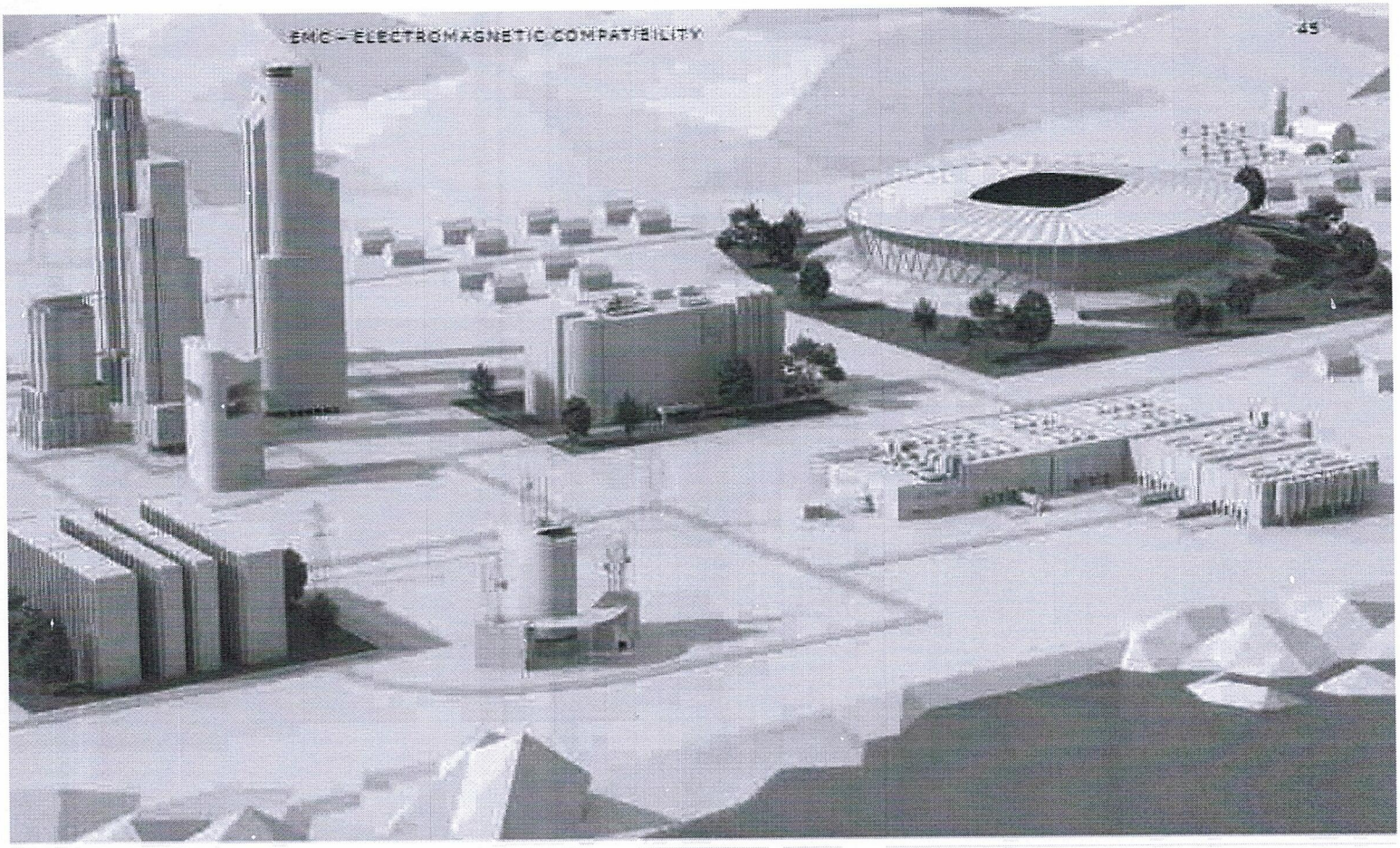
C2 – 1st environment
- Fixed household and public appliances
- Need to be installed or operated by a professional
- Examples: elevators, rooftop fans, residential booster pumps, gates and barriers, supermarket freezers, etc.

C3 – 2nd environment
- Professional equipment
- Needs to be installed or operated by a professional
- In some rare cases, may also be pluggable
- Examples: any equipment for industrial usage only, such as conveyors, mixers, etc.

C4 – 2nd environment
- Professional equipment
- Needs to be fixed installation and operated by a professional
- Examples: paper machines, rolling mills, etc.

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Every ACS580 drive is equipped with a built-in filter to reduce high-frequency emissions.

EMC product standard (EN 61800-3) category C2 is fulfilled in wall-mounted drives and in cabinet-built drives up to frame size R9. Category C3 is fulfilled in drive modules and cabinet-built drives (frames R10 and R11) with no external filters.

Comparison of EMC standards

EN 61800-3, product standard		EN 61800-3, product standard	EN 55011, product family standard for industrial, scientific and medical (ISM) equipment	EN 6100-6-4, generic emission standard for industrial environments	EN 61000-6-3, generic emission standard for residential, commercial and light-industrial environments
Category C1	1st environment, unrestricted distribution		Group 1, Class B	Not applicable	Applicable
Category C2	1st environment, restricted distribution		Group 1, Class A	Applicable	Not applicable
Category C3	2nd environment, unrestricted distribution		Group 2, Class A	Not applicable	Not applicable
Category C4	2nd environment, restricted distribution		Not applicable	Not applicable	Not applicable

EMC compliance and maximum cable length of ACS580-01/07 units [*]

Type	Voltage	Frame sizes	1st environment, restricted distribution, C1, grounded network (TN)	1st environment, restricted distribution, C2, grounded network (TN)	2nd environment, unrestricted distribution, C3, grounded network (TN)	2nd environment, unrestricted distribution, C3, ungrounded network (IT)
ACS580-01	380-480 V	R1-R5	With the plus codes +F316, +E223	Standard device, cable length 100 m	Standard device, cable length 100 m	–
ACS580-01/07	380-480 V	R6-R9	–	Standard device, cable length 150 m	Standard device, cable length 150 m	–
ACS580-04/07	380-480 V	R10-R11	–	–	Standard device, cable length 100 m	–

[*] Motor cable operational functionality up to 300 m. See ACS580 hardware manuals 3AXD50000018828, 3AXD50000045815 and 3AXD50000032622 for frame specific information.

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MEOKON®

MD-S401E SERIES
LEVEL TRANSMITTER

MD-S401E SERIES LEVEL TRANSMITTER

TECHNICAL CHARACTERISTICS:



- ☑ 4-20mA/RS485/0-10V/0-5V output available
- ☑ Anti-electromagnetic interference design, high signal stability
- ☑ 304 SS shell with polyurethane cable, strong media compatibility
- ☑ Small size, delicate shape
- ☑ Precise temperature compensation, high product stability

MD-S401E series Level transmitter measures liquid level or water depth based on the principle of hydrostatic pressure. It uses a high-performance isolating membrane diffused silicon sensor,and then uses sophisticated temperature compensation technology and water sealing technology to convert static pressure to standard electricity signal output.

The product series adopts a 304 stainless steel shell and a shielded polyurethane cable to ensure that it has non-excellent corrosion resistance, reliable for water level measurement in reservoirs,rivers,sewage treatment,urban water supply,etc.

APPLICATION:

◇Civil pool ◇Tank level measurement ◇Hydrology and water conservancy system
◇Other liquid level measurement ◇Marine level measurement
◇Urban drainage system ◇Water level measurement of rivers and lakes

SPECIFICATION:

Range	0~1m...5m...10m...100mH_2O
Overload capacity	200%
Optional	Industrial explosion-proof shell
Transmission distance	≥1Km(4-20mA)
Accuracy	0.5%FS
Long-term stability	Typical: ±0.25%FS/year
Zero temperature drift	Typical: ±0.02%FS/℃, Max: ±0.05%FS/℃
Sensitivity temperature drift	Typical: ±0.02%FS/℃, Max: ±0.05%FS/℃
Power supply	12~28V(Typical 24V)/5V
Output	4~20mA/RS485/0-10V/0-5V
Working temperature	-10~60℃
Electrical protection	Anti-reverse connection protection, over-voltage protection
IP rate	IP68 (Liquid level probe)
Measuring medium	Water or liquid compatible with 316L stainless steel
Pressure connection	Throw-in
Shell material	304 stainless steel shell/polyurethane cable

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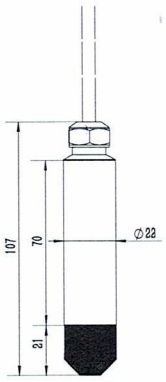
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MEOKON SENSOR TECHNOLOGY(SHANGHAI) CO., LTD.
TEL:021-57780480 57780436

MEOKON®

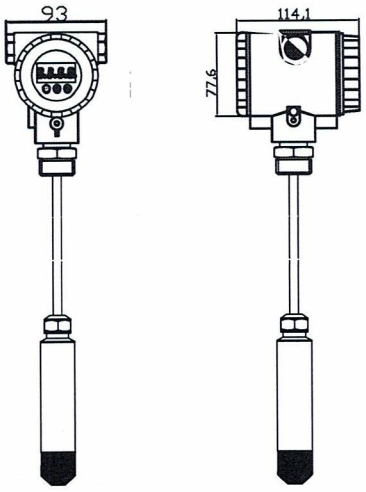
MD-S401 SERIES
LEVEL TRANSMITTER

DIMENSION:

UNIT:mm



Without LCD

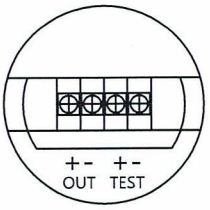


LCD

OUTLET DEFINITION:

4~20mA output (2 wires)	Power supply+	Red
	Output+	Green
Voltage output (3 wires)	Power supply+	Red
	Power supply-	Black
	Output+	Green
RS485 output (4 wires)	Power supply+	Red
	Power supply-	Black
	A	Green
	B	White

Without LCD



RS485 output (4 wires)	TEST+	Power supply+	Red
	TEST-	Power supply-	Black
	OUT+	A	Green
	OUT-	B	White
4~20mA output (2 wires)	TEST+	Power supply+	Red
	OUT+	Output+	Black

LCD

Note: The definition of the outlet is subject to the actual product label

SELECTION GUIDE:

MD —S401E X—5m — 1— A — P3 —T1 — I

Model:
S401E

Display:
X(LCD)
– (without LCD)

Range:
X m(0–X m)

Accuracy:
1(0.5% FS)

Output:
A(4–20mA)
R(RS485)
V1(0~10V)
V2(0~5V)

Power supply:
P1(5V) P3(12~28VDC)

Operation temperature:
T1(–10~+60℃)

Aditional model:
I*(Explosion–proof)

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Instruction:
1. * If you need explosion–proof certification with LCD, please obtain it separately.
2 There may be product selections that cannot be matched. For details, please visit the company's website wwwmeokoncn to inquire or consult a technical engineer.
3. The specifications in this document represent the state of the art at the time of publication, and we reserve the right to make changes to the specifications and materials.

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PRODUCT-DETAILS

ACS580-01-169A-4+B056

LV AC general purpose wall-mounted drive, IEC: Pn 90 kW, 169 A, 400 V (ACS580-01-169A-4+B056)



General Information

Global Commercial Alias:	ACS580-01-169A-4+B056
Product ID:	3AUA0000083580
ABB Type Designation:	ACS580-01-169A-4+B056
EAN:	6438177306115
Catalog Description:	LV AC general purpose wall-mounted drive, IEC: Pn 90 kW, 169 A, 400 V (ACS580-01-169A-4+B056)
Long Description:	The ACS580-01 is plug-in ready to control your compressors, conveyors, pumps, extruders, centrifuges, mixers, fans and many other variable and constant torque applications, in a variety of light industries, including food and beverage, plastic, textile, material handling, and agriculture. All essential features are built-in as standard, simplifying drive selection, and making additional hardware unnecessary. Versatile and straightforward settings menu and assistants enable fast setup, commissioning, use and maintenance, while rugged and robust design makes it a good fit for various environments. With the ACS580 drives you can easily take full control of your processes to comprehensively manage your plant. The wall-mounted ACS580-01 comes in IP21 enclosure as standard. Also, IP55 and flange mounting units are available.
Display Name:	ACS580-01-169A-4+B056

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Ordering

Customs Tariff Number:	850440
HS Code:	850440 -- ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES;Electrical transformers, static converters (for example, rectifiers) and inductors;Static converters
Invoice Description:	ACS580-01-169A-4+B056 PN: 90 kW, IN: 169 A
Made To Order:	Yes
Minimum Order Quantity:	1 piece
Order Multiple:	1 piece
Quote Only:	No
Selling Unit of Measure:	piece

Dimensions

Product Net Weight:	56 kg 123.459 lb
Product Net Depth / Length:	381.00 mm 15.000 in
Product Net Height:	880.00 mm 34.646 in
Product Net Width:	284.00 mm 11.181 in
Package Level 1 Depth / Length:	992.00 mm 39.055 in
Package Level 1 Height:	568.00 mm 22.362 in
Package Level 1 Width:	400.00 mm 15.748 in
Package Level 1 Units:	1 case

Technical

Operating Point Frequency / Current	Absolute Loss	Efficiency	Relative Loss
0/25 %	556 W	92.0 %	0.5 %
0/50 %	754 W	94.2 %	0.6 %
0/100 %	1317 W	94.8 %	1.1 %
50/25 %	611 W	95.6 %	0.5 %
50/50 %	860 W	96.7 %	0.7 %
50/100 %	1547 W	97.0 %	1.3 %
90/50 %	1013 W	97.8 %	0.9 %
90/100 %	2021 W	97.8 %	1.7 %

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Number of Phases:	3-phase
Degree of Protection:	IP55
Enclosure Type NEMA:	Type12
Altitude:	1000 m
Operating Humidity (RH_{amb}):	95
Sound dB (A):	67 dB(A)
Multiple Battery Information:	Lithium Coin, CR2032, 220 mAh, 3 V, 1 pc, 3 g
Frequency (f):	47.5 ... 63 Hz
Frame Size:	R7
Input Voltage (U_{in}):	380 ... 480 V
Mounting Type:	Wall-mounted
Communication Protocol:	CAN DeviceNet EtherNet/IP MODBUS Other Bus Systems PROFIBUS PROFINET IO TCP/IP
Number of Hardware Interfaces:	Industrial Ethernet 0 Other 2 Parallel 2 PROFINET 0 RS-232 0 RS-422 0 RS-485 1 Serial TTY 0 USB 1
Includes:	Control unit PC connection
Analog Inputs:	2
Analog Outputs:	2
Number of Digital In/Outputs:	6 / 3
Output Current, Normal Use (I_n):	169 A
Output Current, Light-Overload Use (I_{LD}):	161 A
Output Current, Heavy-Duty Use (I_{HD}):	145 A
Output Power, Normal Use (P_n):	90 kW
Output Power, Light-Overload Use (P_{LD}):	90 kW
Output Power, Heavy-Duty Use (P_{HD}):	75 kW
Power Consumption (@P_{cons}):	2021 W
Apparent Power Output:	117 kV·A
Efficiency Level:	IE2
Standby Loss:	36 W
Temperature Rating:	Maximum 50 °C Minimum -15 °C

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Certificates and Declarations

Declaration of Conformity - CE:	3AXD10001818627
REACH Date:	20250905
REACH Declaration:	9AKK107992A7060
REACH Information:	True - contains substances > 0.1 mass percentage
RoHS Date:	20240508
RoHS Declaration:	3AXD10001818627
RoHS Information:	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

Environmental

SCIP:	93c4256e-49ac-4f3a-a0ee-89382f71d90e Finland
WEEE Category:	4. Large Equipment (Any External Dimension More Than 50 cm)

External Classifications and Standards

ETIM 9:	EC001857 - Frequency converter =< 1 kV
ETIM 10:	EC001857 - Frequency converter =< 1 kV
UNSPSC:	39122001

Categories

Products > Drives > Low Voltage AC Drives > General Purpose Drives > ACS580-01 - Wall-mounted drive



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