

Office of the Executive Engineer
F.M Division-1, Dhaka WASA
29, K.M Das Lane, Hatkhola, Dhaka-1203.

Name of Work: Repair, Servicing & Periodical Maintenance of existing Danfos and others brand inverter (Variable Frequency Drive) of different pumping stations under F.M. division-1(Lot-1).

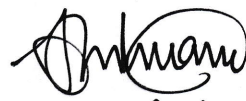
SL No	Description of Item	Rate Basis	Unit	Qty	Rate	Amount
	Periodical or Preventive Maintenance-servicing of Danfoss Brand 90KW VFD at different pump station under MODS Circle-1 area. All works should be done at the presence of the engineer in charge. Necessary safety precautions should be taken for the maximum safety of pump motor and other electro-mechanical apparatus. After servicing works all equipments should be undertaken at running condition. Contractor will be liable for any damage of any part of VFD during the maintenance work. All works should be done by the experienced and skill technician of concern supplier or vendor. Contractor will provide one years Free Service and troubleshooting for VFD from date of periodical maintenance.					
1	Disconnect the VFD from different sides, then VFD panel will be loaded on Pick up to carry to the workshop for servicing, after complete the servicing, we will install the VFD in the Pump House.(55 Nos x 2)=110 Nos	App rate	110	Nos	2,200.001	2,42,000.110
2	Dust on an electronic device can cause malfunctions or even failures so outer and inner panel of VFD will be cleaned by a hot air blower. Cleaner Techspray. (55 Nos x 1)=55 Nos	Do	55	Nos	650.001	35,750.055
3	Disconnect the VFD input (R, S, T) from the circuit breaker, output (U, V, W) from the connector and remove the Earthing cable from VFD.(55 Nos x 1)=55 Nos.	Do	55	Nos	550.001	30,250.055
4	Open the Drive Cover and separate the Display, Display clean by CRC QD Electronic Cleaner.(55 Nos x 1)=55 Nos.	Do	55	Nos	500.001	27,500.055
5	Power card NO will be separated from the VFD terminal port in order to test, clean by CRC QD Electronic Cleaner.(55 Nos x 1)=55 Nos.	Do	55	Nos	650.001	35,750.055
6	Control card w/o safe stop will be separated from the VFD terminal port in order to test, clean by CRC QD Electronic Cleaner.(55 Nos x 1)=55 Nos.	Do	55	Nos	550.001	30,250.055
7	Relay card will be separated from the VFD terminal port in order to test, clean by CRC QD Electronic Cleaner.(55 Nos x 1)=55 Nos.	Do	55	Nos	550.001	30,250.055
8	Inrush card will be separated from the VFD terminal port in order to test, clean by CRC QD Electronic Cleaner.(55 Nos x 1)=55 Nos.	Do	55	Nos	560.001	30,800.055
9	Current Scaling card will be separated from the VFD terminal port in order to test, clean by CRC QD Electronic Cleaner.(55 Nos x 1)=55 Nos.	Do	55	Nos	600.001	33,000.055
10	Gate Drive Card NO will be separated from the VFD terminal port in order to test, clean by CRC QD Electronic Cleaner.(55 Nos x 1)=55 Nos.	Do	55	Nos	450.001	24,750.055
11	BALANCE/HF CARD NO will be separated from the VFD terminal port in order to test, clean by CRC QD Electronic Cleaner.(55 Nos x 1)=55 Nos.	Do	55	Nos	630.001	34,650.055
12	Current Sensor will be separated from the VFD terminal port in order to test, clean by CRC QD Electronic Cleaner.(55 Nos x 1)=55 Nos.	Do	55	Nos	470.001	25,850.055
13	IGBT Dual Module have to open. It will be checked by multi-meter or lamp test. Further, it will be cleaned through CRC QD Electronic Cleaner.(50 Nos x 1)=50 Nos	Do	55	Nos	530.001	29,150.055
14	SCR has to open. It will be checked by multi-meter or lamp test. Further, it will be cleaned through CRC QD Electronic Cleaner.(50 Nos x 1)=50 Nos	Do	55	Nos	520.001	28,600.055

15	The transformer will be separated from the VFD then checking cleaning by Electrical Cleaner.(55 Nos x 1)= 55 Nos.	Do	55	Nos	520.001	28,600.055
16	DC Bus CAP Capacitors have to open. It will be checked by the multimeter. Further, it will be cleaned through Electrical Cleaner.(55 Nos x 1)=55 Nos.	Do	55	Nos	540.001	29,700.055
17	The heat sink will be cleaned in such a way that sufficient air passes through it and IGBT gets cold.(55 Nos x 1)=55 Nos.	Do	55	Nos	520.001	28,600.055
18	The fan will be cleaned in such a way that sufficient air passes through VFD and VFD become cold. It will be cleaned through Blower.(55 Nos x 1)=55 Nos.	Do	55	Nos	650.001	35,750.055
19	The VFD drive will be pulling out from the panel for proper Cleaning.(55 Nos x 1)=55 Nos.	Do	55	Nos	520.001	28,600.055
20	If all the electronics devices parameter/ continuity is found to be accurate, one device after another will be re-installed in VFD Box.(55 Nos x 1)=55 Nos.	Do	55	Nos	600.001	33,000.055
21	All VFD component/spare fitting and fixing in VFD Box.(55 Nos x 1)=55 Nos.	Do	55	Job	1,200.001	66,000.055
					Total =	8,88,801.210

Total in Words: Eight lakh Eighty Eight Thousand Eight Hundred One Point Two One Zero Only.


 20/08/2023
 (মোঃ আরাফাত ইসলাম খান)
 উপ-সহকারী প্রকৌশলী
 এফ.এম. বিভাগ-১, ঢাকা ওয়াসা।


 20/8/23
 মোঃ গোলাম মোস্তফা
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 20/8/2023
 SK. Arif Rahman Jetu
 Executive Engineer
 F.M. Division -1, Dhaka WASA