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Technical Specifications of 400KW In-line Soft Starter


| S.No. | Description & Specifications | Specified / to be confirmed | Offered | Deviations | Remarks |
|-------|---|-----------------------------|---------|------------|--|
| A | Purpose & Design Feature:- | | | | |
| | The soft starter shall be used for smooth starting & stopping of 415VAC / 3-Phase / 315KW / 490A/ 2-Pole AC Motor installed in Vertical Shaft Down position driving a Pump to deliver FRF (Fire Resistant Fluid). Start & Stop operation shall be performed by Existing "Start" and "Stop" Push Button Switches on the Electrical Panel. | | | | Information to vendor |
| 1 | Technical Specifications :- | | | | |
| 1.1 | Rated Operational Power - In Line Connection : 400 KW at 400 VAC/50Hz | | | | Vendor to confirm & provide details reg. make & model |
| 1.2 | Rated Operational Current - In Line Operation : 650A or more | | | | Vendor to confirm |
| 1.3 | Rated Operational Voltage : 415 V AC, +10%, -15% AT 50 Hz. | | | | Vendor to confirm |
| 1.4 | Rated Control Supply Voltage : 230VAC / 50Hz | | | | Vendor to confirm |
| 1.5 | Operation Mode : In-Line (3-Wire) | | | | Vendor to confirm |
| 1.6 | Bypass Contactor : Internal or External (<i>Note : if soft starter with external bypass contactor is quoted, then the offer should be inclusive of external bypass contactor</i>). The soft starter shall be used during starting for stepless acceleration only. Once motor gains its full speed the soft starter shall send control command to switch "ON" the By-pass contactor. | | | | Vendor to provide details of external bypass contactor (if quoted) |
| 1.7 | Ramp Up/Down Time (adjustable) : 60 Sec or more | | | | Vendor to confirm |
| 1.8 | Starting Current Limit Value : 4.0 x Rated capacity (or more) | | | | Vendor to confirm |
| 1.9 | Control Type : Digital / Programmable with keypad | | | | Vendor to confirm |
| 1.10 | Signalling Contacts : (a) Fault (b) Healthy (c) Run | | | | Vendor to confirm |
| 1.11 | Initial Voltage During Startup (adjustable) : (a) Min. 30% or less (b) Max. 70% or more | | | | Vendor to confirm |


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| 1.12 | Protection : (a) Phase Failure (b) Short Circuit (c) Overload (d) Overheating (e) Phase Reversal (f) Phase Imbalance | | | | Vendor to confirm |
| 1.13 | Input / Output connection : Screw Connection | | | | Vendor to confirm |
| 1.14 | Mounting : The unit should be wall mounting type with provision for mounting inside an Electrical Panel. | | | | Vendor to confirm & provide mounting details. |
| 1.15 | Makes Acceptable : Only <u>Siemens, ABB, GE or Schneider</u> makes are acceptable. | | | | Vendor to comply |
| 2 | <u>Documents & Manual</u> | | | | |
| 2.1 | Vendor should provide 2 sets of Operation, Commissioning & Maintenance manuals of the soft starter. | | | | Vendor to confirm |
| 3 | <u>Warranty of Equipment :</u> | | | | |
| 3.1 | One year from the date of successful commissioning of the equipment at BHEL Haridwar. | | | | Vendor to confirm |
| 4 | <u>Commissioning:</u> | | | | |
| 4.1 | Vendor shall depute their manpower for commissioning of the equipment at BHEL, Haridwar. Installation of the equipment will be done by BHEL & vendor should provide installation/wiring details to BHEL. | | | | Vendor to confirm |
| 4.2 | Commissioning will be done by the vendor within 30 days after the 1st intimation given to the vendor by BHEL. | | | | Vendor to confirm |
| 5 | <u>Acceptance Criteria:</u> | | | | |
| 5.1 | Party shall demonstrate operation of all parts of the equipment supplied. | | | | Vendor to confirm |
| 5.2 | Acceptance shall be at BHEL, Haridwar after successful commissioning and testing of the supplied equipment for all operation of the system for which the same was procured. | | | | Vendor to confirm |


 July 8, 2014
 P.C. SINHA
 Dy. Mgr. (WEP)


 17.07.2014
 (W. J.S. Party)
 Sr. Mgr. (WEP & Tg)