

Project: IB TPS Aux Boiler

Sub: BFP - Motor -- C&I Check list

- a) For IB TPS - "Project specific requirements from OPGCL tender" is attached. In case of discrepancies (if any) between Motor specification (PC-TSP-81059-Rev.03) and "Project specific requirements from OPGCL tender", the later has to be followed.
- b) LT Motor is rated for 415V , 3 Ph , 50 Hz.
- c) Motor shall be High Efficiency Motor (IE2) as per IEC 60034-30
- d) Cable glands and lugs are included in motor vendor scope. Cable details for the same shall be furnished to the finalised Pump vendor. Refer Cl. No. 20.3 of Motor specification for tentative cable size. The terminal box of motor shall be suitable for selected cable size, easy termination and maintenance of cables.
- e) Motor shall be suitable for frequency of 50 Hz with variation of +3% and -5%
- f) Combined Voltage and Frequency variation shall be limited to 10 %
- g) *Paint shade* : Motor including fan shall be painted with corrosion proof paints as per IS-5.
- h) Degree of protection : IP 55
- i) Noise level limitation : 85 dB(A) at one metre from motor
- j) Motor Fault level shall be limited to 45 kA , RMS , one second .
- k) Vendor to mention minimum five reputed motor makes for BHEL acceptance for IB valley project
- l) Instruments as per clause 4.17 of pump specification to be supplied (Reproduced below)

4.17.1 *Instrument rack with all indicating instruments mounted on it to be located on the base of the unit.*

- i) *Pressure gauges:* - Balance leak off pressure of BFP (if applicable)
- ii) *Temperature gauge* - Suction temperature of BFP
- Discharge temperature of BFP

4.17.2 *The following shall be wired up to junction box (JB) in instrument rack*

i) *RTD (Duplex) - For any one of the following bearings*

DE Bearing of Pump

NDE Bearing of Pump

DE Bearing of Motor

NDE Bearing of Motor

4.17.3 All instruments shall be completed with root valves, impulse lines & required mounting accessories.

m) *Motor **kW rating and full load current** shall be furnished.*

n) *Selected motor kW rating shall be with 15% margin over the duty point input or 10% over the maximum demand of the driven equipment, whichever is higher.*

o) *Vendor shall submit "duly filled in" motor data sheets, in the attached format in an event of order (Format Attached)*

p) *Documents of finalised vendor are subject to BHEL/Customer approval .*