(B) Bharat Bijlee Data sheet for motors Manufacturer | Bharat Bijlee Ltd. Customer 3 Phase Induction Motor Type of motor BBL Enquiry reference No Quantity Customer P.O.Number CUSTOMER TO FURNISH W.O. No. / SAP No. Application Output kW / pole 0.55 2P Tag no. M180 BBL type tef. Frame size Installation details Applicable standards (latest edition) Area classification (Safe / Hazardous) Hazardous FLP Motors: IS/IEC 60079-1 Performance: IS15999-1 Maintenance IS:900 Location: indoor/outdoor/deck Indoor Dimensions: IS 1231/IS 2223/IS:8223 Vibrations: IS 12075 1000 or less Altitude (meters) Noise level: IS 12065 Hazardous area details Supply conditions and permissible variations (grid supply) Area classification GAS (Zone 1/Zone 2) ZONE I Number of phases Three Gas group IIA, IIB Voltage (Volts) and permisible variation ±10% Temp.class T6 Frequency (Hz) and permissible variation 50 ±5% Type of Explosion protection (FLP/Type Ex d Combined variation (absolute sum) ±10% 'e'/Type 'n') If Coal Mine application then Approving authority for hazardous area DGMS else PESO Electrical parameters Starting performance Method of starting DOL 600 Starting current (%FLC) CUSTOMER TO FURNISH 270 Starting torque (%FLT) Load speed (rpm) 300 0.0026 Pull out torque (%FLT) Motor GD² (kgm²) CUSTOMER TO FURNISH Locked rotor withstand time (hot/cold) (sec) 15 30 Load GD²(kgm²) Number of consecutive starts (hot/cold) (nos.) Parabolic TS curve Load torque-speed curve 2/3 provided Load GD2 = Motor GD2 PLEASE FURNISH ALL ABOVE Starting time at rated voltage (sec) **DETAILS** Running Performance Efficiency class IE2 Duty and designation Continuous (S1) Ambient temp./temp.rise by resistance (deg.C) 50 70 CDF/Equivalent starts per hour/FI TEFC (TOTALLY ENCLOSED F/B Insulation class / utilisation class on DOL FAN COOLED) Full load current (FLC) amps. 1.26 Rotor type (Squirrel Cage/ Slip ring) Squirrel Cage Full load speed (rpm) 2860 Rotor voltage/rotor current (RV/RA) (Volts/Amps) Not applicable 0.19 90/122 Full load torque (FLT) kg-m Stator/rotor time constant (min) Efficiency in % at FL/0.75FL/0.5FL 72.0 0.74 74.1 74.1 Power factor at FL/0.75FL/0.5FL 0.82 0.60 Mechanical parameters В8 Mounting Mounting dimensions Refer GA drawing Shaft extention Single cylindrical Direction of rotation viewed from DE Clockwise Degree of protection IP 55 Suitable for bidirectional rotation Yes Method of cooling (TEFC/forced TEFC (IC 411) Paint type Acid Alkali Proof cooled/TESC) Net weight of motor (kgs.) 31 632 as per IS 5 Paint shade Yes Earthing provision (two terminals on stator body) Bearings Terminal box Coupling (Direct/flexible/Belt & Direct Terminal box location when viewed from DE As per GA drawing Pulley/Gearbox) Dimenssions of pulley (OD x width) mm Direction of cable entry As per GA drawing Bearings (roller/ball/angular contact) Ball /Ball Cable size and type(Aluminium) 1R X 3C X 4 SQ MM Bearing size DE/NDE 6204 2Z C3 Earthing provision (one terminal in TB) 6204 2Z C3 Yes No of phases/Winding connection/number of Type of lubrication LITHIUM SOAP BASE GREASE 3 / STAR / 3 Accessories RTDs - 3 numbers simplex (w/o controller) Arrow plate for direction of rotation BTDs - 1 number per bearing (w/o controller) Double compression glands (main cable) Double compression glands (Space Space heaters - single phase 50z, 230V heater/thermisters/RTDs) Thermisters - PTC, 1 number per phase Brake (Type/voltage/torque) Additional T-Box for Accessories Additional nameplate

Notes:

- 1)All performance values are subject to IS15999-1 tolerances, unless otherwise specified.
- 2)Performance values are at rated voltage and rated frequency condition and for DOL starting condition.
- 3)Motor GD² = Load GD² assumed wherever not mentioned.
- 4) Where starting time is more than 10 seconds, provision of heavy duty relays is mandatory.
- 5)Kilowatt rating is mandatory and HP is approximate.
- 6) Accessories provided are marked as "YES"
- 7) Unused cable entry must be filled with suitably certified stopping plugs.

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Consultant	Package	Date.	



PERFORMANCE CURVES

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PERFORMANCE CURVES 3 Phase Squirrel Cage Induction Motor

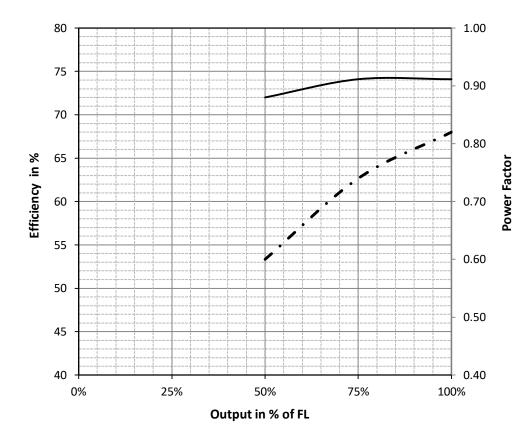
Customer: - BBL Ref No.: - Quantity: -

Consultant : - Tag Nos. : Project : -

Output (kW)/Poles: 0.55 / 2P Frame: MJ80

Efficiency, Power Factor Vs Output Curve





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Current in % age of Full Load

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