## B Bharat Bijlee Data sheet for motors Manufacturer | Bharat Bijlee Ltd. Customer 3 Phase Induction Motor Type of motor **BBL Enquiry reference No** Ouantity Customer P.O.Number CUSTOMER TO FURNISH Application W.O. No. / SAP No. 0.55 Output kW / pole 8P Tag no. BBL type tef. Frame size 90L Applicable standards (latest edition) Installation details Area classification (Safe / Hazardous) Industrial safe area Performance: IS/IEC 60034-1 Maintenance IS:900 Location: indoor/outdoor/deck Indoor Dimensions: IS 1231/IS 2223/IS:8223 1000 or less Vibrations: IS 12075 Altitude (meters) Noise level: IS 12065 Hazardous area details Supply conditions and permissible variations (grid supply) Area classification GAS (Zone 1/Zone 2) N.A. Three Number of phases N.A. ±10% Gas group Voltage (Volts) and permisible variation 415 Temp.class N.A. Frequency (Hz) and permissible variation 50 ±5% Type of Explosion protection (FLP/Type N.A. Combined variation (absolute sum) ±10% 'e'/Type 'n') Approving authority for hazardous area Not Applicable Electrical parameters Starting performance Method of starting DOL Starting current (%FLC) 280 CUSTOMER TO FURNISH 170 Starting torque (%FLT) Load speed (rpm) 0.013 210 Pull out torque (%FLT) Motor GD<sup>2</sup> (kgm<sup>2</sup>) CUSTOMER TO FURNISH Load GD<sup>2</sup>(kgm<sup>2</sup>) Locked rotor withstand time (hot/cold) (sec) 30 60 Number of consecutive starts (hot/cold) (nos.) Parabolic TS curve 2/3 Load torque-speed curve provided Load GD2 = Motor GD2 PLEASE FURNISH ALL ABOVE Starting time at rated voltage (sec) DETAILS Running Performance Duty and designation IE2 Continuous (S1) Efficiency class Ambient temp./temp.rise by resistance (deg.C) 70 CDF/Equivalent starts per hour/FI TEFC (TOTALLY ENCLOSED Insulation class / utilisation class on DOL F/B FAN COOLED) Squirrel Cage 1.82 Full load current (FLC) amps. Rotor type (Squirrel Cage/ Slip ring ) 680 Not applicable Full load speed (rpm) Rotor voltage/rotor current (RV/RA) (Volts/Amps) Full load torque (FLT) kg-m 0.79 84/113 Stator/rotor time constant (min) Efficiency in % at FL/0.75FL/0.5FL 61.7 61.7 56.0 Power factor at FL/0.75FL/0.5FL 0.68 0.60 0.46 Mechanical parameters B5 Mounting Refer GA drawing Mounting dimensions Shaft extention Single cylindrical Clockwise Direction of rotation viewed from DE Degree of protection IP 55 Yes Suitable for bidirectional rotation TEFC (IC 411) Method of cooling (TEFC/forced cooled/TESC) Paint type Acrylic RAL 5000 Net weight of motor (kgs.) 14 Paint shade Earthing provision (two terminals on stator body) Yes 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 1R X 3C X 4 SQ MM OR Bearings (roller/ball/angular contact) Ball/Ball Cable size and type(Aluminium) 2R X 3C X 4 SQ MM Bearing size DE/NDE 6205 2Z C 5205 2Z C: Earthing provision (one terminal in TB) Yes No of phases/Winding connection/number of LITHIUM SOAP BASE GREASE 3 / STAR / 6 Type of lubrication terminals 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 1)All performance values are subject to IS/IEC 60034-1 tolerances, unless otherwise specified.

- 2)Performance values are at rated voltage and rated frequency condition and for DOL starting condition.
- 3)Motor  $GD^2$  = Load  $GD^2$  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"

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