#### (B) Bharat Bijlee Data sheet for motors Manufacturer | Bharat Bijlee Ltd. Customer Type of motor 3 Phase Induction Motor BBL Enquiry reference No Quantity Customer P.O.Number CUSTOMER TO FURNISH W.O. No. / SAP No. Application Output kW / pole 0.37 Tag no. 8P BBL type tef. Frame size Installation details Applicable standards (latest edition) Area classification (Safe / Hazardous) Industrial safe area 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) N.A. Number of phases Three Gas group N.A. Voltage (Volts) and permisible variation ±10% 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 280 DOL Starting current (%FLC) CUSTOMER TO FURNISH 170 Starting torque (%FLT) Load speed (rpm) 0.0097 Pull out torque (%FLT) 210 Motor GD<sup>2</sup> (kgm<sup>2</sup>) CUSTOMER TO FURNISH Locked rotor withstand time (hot/cold) (sec) 30 60 Load GD<sup>2</sup>(kgm<sup>2</sup>) 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. Rotor type (Squirrel Cage/ Slip ring ) Squirrel Cage 1.3 Full load speed (rpm) 680 Rotor voltage/rotor current (RV/RA) (Volts/Amps) Not applicable Full load torque (FLT) kg-m 0.53 72/97 Stator/rotor time constant (min) Efficiency in % at FL/0.75FL/0.5FL 53.0 0.71 56.1 56.1 Power factor at FL/0.75FL/0.5FL 0.58 0.46 Mechanical parameters В3 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 Acrylic cooled/TESC) Net weight of motor (kgs.) 12 RAL 5000 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 As per GA drawing Direction of cable entry 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~MMBearing size DE/NDE 5205 2Z C: Earthing provision (one terminal in TB) 6205 2Z C Yes No of phases/Winding connection/number of Type of lubrication LITHIUM SOAP BASE GREASE 3 / STAR / 6 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

#### Notes:

Additional nameplate

- 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  $GD^2$  = 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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Project:	Contractor/Client	-Date:	
Consultant	Package	Date.	



## PERFORMANCE CURVES 3 Phase Squirrel Cage Induction Motor

mer: - Itant: - ct:-		BBL Ref No.: - Tag Nos. :	Qua	ntity: -
it (kW)/Poles :	0.37 / 8P	Frame: 90S		
	Current V Current V Torque V Torque V	Speed at 100% V s Speed at 110% V s Speed at 110% V s Speed at 100% V	ve	
350%				
odno 300% -				
Current in % of FL torque in %				
700% in 200%				1
8 150% ·				
100% ·				
% 50% ·				44
rrent ii	)% 20%	5 40% 60%	80%	100%

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# PERFORMANCE CURVES 3 Phase Squirrel Cage Induction Motor

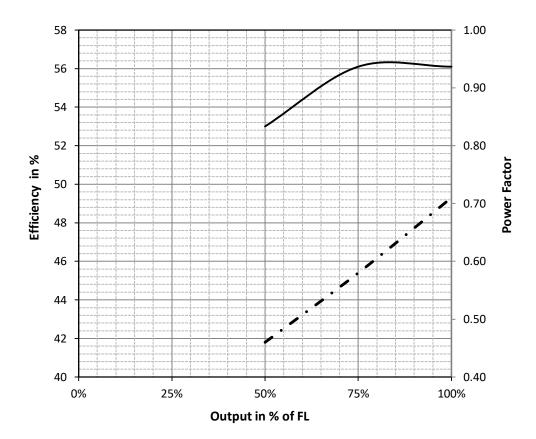
Customer: - BBL Ref No.: - Quantity: -

Consultant : - Tag Nos. : Project : -

Output (kW)/Poles: 0.37 / 8P Frame: 90S

### Efficiency, Power Factor Vs Output Curve





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Customer: - Consultant: - Project:- Output (kW)/Poles: 0.37 / 8P			BBL Ref No.: - Tag Nos. : Frame : 90S			Quantity : -					
		/ 8P									
		Cold		al Withs Current			— Hot (	Condition			
1	0000										
	1000										
Time in seconds	100		'\								
Time	10										
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0 +

Current in % age of Full Load

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