

 <b>Bharat Bijlee</b>		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		
Application	CUSTOMER TO FURNISH		W.O. No. / SAP No.		
Tag no.			Output kW / pole	3.7	/ 8P
BBL type tef.			Frame size	160M	
Installation details			Applicable standards (latest edition)		
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		
Altitude (meters)	1000 or less		Vibrations: IS 12075		
			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 permissible variation		415 ±10%
Temp.class	N.A.		Frequency (Hz) and permissible variation		50 ±5%
Type of Explosion protection (FLP/Type 'e'/Type 'n')	N.A.		Combined variation (absolute sum)		±10%
Approving authority for hazardous area	Not Applicable				
Electrical parameters					
Starting performance					
Method of starting	DOL		Starting current (%FLC)		440
Load speed (rpm)	CUSTOMER TO FURNISH		Starting torque (%FLT)		170
Motor GD <sup>2</sup> (kgm <sup>2</sup> )	0.202		Pull out torque (%FLT)		220
Load GD <sup>2</sup> (kgm <sup>2</sup> )	CUSTOMER TO FURNISH		Locked rotor withstand time (hot/cold) (sec)		30 / 60
Load torque-speed curve	Parabolic TS curve		Number of consecutive starts (hot/cold) (nos.) provided Load GD2 = Motor GD2		2 / 3
Starting time at rated voltage (sec)	PLEASE FURNISH ALL ABOVE 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		-
Enclosure	TEFC (TOTALLY ENCLOSED FAN COOLED)		Insulation class / utilisation class on DOL		F/B
Full load current (FLC) amps.	8.55		Rotor type (Squirrel Cage/ Slip ring )		Squirrel Cage
Full load speed (rpm)	715		Rotor voltage/rotor current (RV/RA) (Volts/Amps)		Not applicable
Full load torque (FLT) kg-m	5.05		Stator/rotor time constant (min)		90/122
Efficiency in % at FL/0.75FL/0.5FL	81.4 81.4 80.0		Power factor at FL/0.75FL/0.5FL		0.74 0.68 0.55
Mechanical parameters					
Mounting	B8		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 cooled/TESC)	TEFC (IC 411)		Paint type		Acrylic
Net weight of motor (kgs.)	87		Paint shade		RAL 5000
			Earthing provision (two terminals on stator body)		Yes
Bearings			Terminal box		
Coupling (Direct/flexible/Belt & Pulley/Gearbox)	Direct		Terminal box location when viewed from DE		As per GA drawing
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)		2R X 3C X 10 SQ MM
Bearing size DE/NDE	6309 2Z C3 / 6209 2Z C3		Earthing provision (one terminal in TB)		Yes
Type of lubrication	LITHIUM SOAP BASE GREASE		No of phases/Winding connection/number of terminals		3 / DELTA / 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)		
Space heaters - single phase 50z, 230V			Double compression glands (Space heater/thermistors/RTDs)		
Thermistors - PTC , 1 number per phase			Brake (Type/voltage/torque)		
Additional T-Box for Accessories					
Additional nameplate					
Notes:					
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 <sup>2</sup> = Load GD <sup>2</sup> 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"					
			Prepared by		
			Approved by		
			Revision		
Project:		Contractor/Client			Date:
Consultant		Package			