	Dhamat Dillag T 4.1		Customer			
Manufacturer	Bharat Bijlee Ltd.		Customer BBI Enguing noference No			
Гуре of motor Quantity	3 phase Induction Motor		BBL Enquiry reference No Customer P.O.Number			
Application	CUSTOME	R TO FURNISH	W.O. No. / SAP No.			
Fag no.	CUSIONIE		Output kW / Pole	90	/	4P
BBL type Ref.		MD28M435	Frame size	70	, MJ280	
Installation detail	ils		Applicable standards (latest edition)			
	n (Safe / Hazardous)	Hazardous area		FLP Mote	ors: IS/IEC	60079-
		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)		ZONE I	Number of phases		Three	
Gas group		IIA, IIB	Voltage (Volts) and permisible variation	415 ±10%		0%
Temp.class		T4	Frequency (Hz) and permissible variation	50 ±5%		5%
Type of Explosion protection (ELD/Type 'e'/Type 'e')		Ex 'd'	Combined variation (absolute sum)	±10%		
Approving author	rity for hazardous area	If Mine application then DGMS else PESO				
Electrical param Starting perform						
Method of startin		DOL	Starting current (%FLC)		600	
Load speed (rpm)	0	CUSTOMER TO FURNISH	Starting torque (%FLT)	210		
Motor $GD^2$ (kgm <sup>2</sup>	-	6	Pull out torque (%FLT)	210		
Load GD <sup><math>^2</math></sup> (kgm <sup><math>^2</math></sup>		CUSTOMER TO FURNISH	Locked rotor withstand time (hot/cold) (sec)	15	/	30
	, 		Number of consecutive starts (hot/cold) (nos.)		,	
Load torque-speed curve		Parabolic TS curve PLEASE FURNISH ALL ABOVE	provided Load GD2 = Motor GD2	2/3		
C	ated voltage (sec)	DETAILS				
Running Perform	nance					(01)
Efficiency class		-	Duty and designation	Continuous (S1)		(S1)
Ambient temp./te	mp.rise by resistance (deg.C)	45 / 75	CDF/Equivalent starts per hour/FI		-	
nclosure		TEFC (TOTALLY ENCLOSED FAN COOLED)	Insulation class / utilisation class on DOL	F/B		
Full load current (FLC) amps.		154.0	Rotor type (Squirrel Cage/ Slip ring )	Squirrel Cage		•
Full load speed (rpm)		1485	Rotor voltage/rotor current (RV/RA) (Volts/Amps)	Not applicable		
Full load torque (FLT) kg-m		59	Stator/rotor time constant (min)	144/194		
•	t FL/0.75FL/0.5FL	94.7 94.5 93.5	Power factor at FL/0.75FL/0.5FL	0.86	0.83	0.75
Mechanical para	imeters	B5	Mounting dimensions	D	for CA dro	
Mounting Shaft extention		Single cylindrical	Mounting dimensions Direction of rotation viewed from DE	Refer GA drawing		0
Shaft extention Degree of protection		IP 55	Suitable for bidirectional rotation	Clockwise Yes		
Method of cooling (TEFC/forced cooled/TESC)			Paint type	Acid Alkali Proof		roof
		``´´				
Net weight of motor (kg)		725	Paint shade	632 as per IS 5		5 5
Ronvinas			Earthing provision (two terminals on stator body) <i>Terminal box</i>		Yes	
Bearings Coupling (Direct/	flexible/Belt &	Direct	Terminal box Terminal box location when viewed from DE	As per GA drawing		
Pulley/Gearbox)	$11_{\text{ov}}$					
punenssions of p	ulley (OD x width) mm	-	Direction of cable entry	As per GA drawing		
<b>U</b>	all/angular contact)	Ball /Ball	Cable size and type(Aluminium)	2R X 3C X 120 SQ MI		SQ MM
Bearing size DE/I		6317 C3/6316 C3	Earthing provision (one terminal in TB)		Yes	
Type of lubrication	)]]	SKF LGMT3- GREASE	tomainala		3 / DELTA	/ 0
Accessories	a simplay (m/a antrallar)		Arrow plata for direction of rotation			
	s simplex(w/o controller)		Arrow plate for direction of rotation			
nuinder - אמוווו	r per bearing(w/o controller)		Double compression glands (main cable) Double compression glands (Space			
Space heaters - single phase 50z, 230V			heater/Thermisters/RTDs)			
Thermisters - PT	С		Brake (Type/voltage/torque)			
Additional T-Box	for Accessories					
Additional namep	olate					
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  $GD^2 = Load GD^2$  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"

Prepared by	
Approved by	

		Revison	
<b>Project:</b>	Contractor/Client	Deter	
Consultant	Package	Date:	