Manufacturer Type of motor Quantity Application Tag no. BBL type tef. Installation deta	Bharat Bijlee Ltd. 3 Phase Induction Motor  CUSTOM		Customer BBL Enquiry reference No Customer P.O.Number			
Quantity Application Fag no. BBL type tef. Installation deta						
Application Fag no. BBL type tef. Installation deta	CUSTOM	ED TO EUDING	Customer P.O.Number			
Tag no. BBL type tef. Installation deta	CUSTOM		0.0000000000000000000000000000000000000			
BBL type tef. Installation deta		ER TO FURNISH	W.O. No. / SAP No.			
nstallation deta			Output kW / pole	0.37	1	2P
			Frame size		MJ80	
Area classificati	ails		Applicable standards (latest edition)			
	ion (Safe / Hazardous)	Hazardous	Performance: IS15999-1 Maintenance IS:900	FLP Motors	s: IS/IEC 6	0079-
ocation: indoor	r/outdoor/deck	Indoor	Dimensions: IS 1231/IS 2223/IS:8223			
Altitude (meters	:)	1000 or less	Vibrations: IS 12075			
			Noise level: IS 12065			
Hazardous area	a details		Supply conditions and permissible variations (grid	d supply)		
Area classificati	on GAS (Zone 1/Zone 2)	ZONE I	Number of phases		Three	
as group		IIA, IIB	Voltage (Volts) and permisible variation	415	±1	0%
emp.class		T6	Frequency (Hz) and permissible variation	50	±5	5%
	on protection (FLP/Type	Ex d	Combined variation (absolute sum)		±10%	
'e'/Type 'n')		If Coal Mine application then	Combined variation (absolute sum)		I1076	
Approving authority for hazardous area  Electrical parameters		DGMS else PESO				
stectrical parai Starting perfori						
		DOI	Ct. div. annual (0/EV C)	I	600	
Method of starti		DOL	Starting current (%FLC)		600	
Load speed (rpn	<del>-</del> /	CUSTOMER TO FURNISH	Starting torque (%FLT)		270	
Motor GD <sup>2</sup> (kgr	m <sup>2</sup> )	0.0026	Pull out torque (%FLT)		300	
oad GD <sup>2</sup> (kgm <sup>2</sup>	<u> </u>	CUSTOMER TO FURNISH	Locked rotor withstand time (hot/cold) (sec)	15	/	30
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	provided Board BB2 Motor BB2			
Running Perfor	rmance	DETINES				
Efficiency class		IE2	Duty and designation	Continuous (S1)		(S1)
Ambient temp./temp.rise by resistance (deg.C)		45 / 75	CDF/Equivalent starts per hour/FI		-	
Enclosure		TEFC (TOTALLY ENCLOSED	Insulation class / utilisation class on DOL	F/B		
Full load current (FLC) amps.		FAN COOLED) 0.9	Rotor type (Squirrel Cage/ Slip ring )	S	quirrel Ca	ıge
Full load speed (rpm)		2880	Rotor voltage/rotor current (RV/RA) (Volts/Amps)	N	ot applica	ble
Full load torque (FLT) kg-m		0.13	Stator/rotor time constant (min)	90/122		
	at FL/0.75FL/0.5FL	69.5 69.5 67.5	Power factor at FL/0.75FL/0.5FL	0.82	0.74	0.6
Mechanical par	rameters					
Mounting		B5	Mounting dimensions	Ref	er GA dra	wing
Shaft extention		Single cylindrical	Direction of rotation viewed from DE		Clockwis	e
Degree of protec	ction	IP 55	Suitable for bidirectional rotation	Yes		
	ing (TEFC/forced	TEFC (IC 411)	Paint type	Acid Alkali Proc		roof
cooled/TESC) Net weight of m	notor (kas )	31	Paint shade	632 as per IS		\$ 5
vet weight of m	iotoi (kgs.)	31		0.	Yes	
Bearings			Earthing provision (two terminals on stator body)  Terminal box		105	
Coupling (Direc	t/flexible/Belt &	Direct		Λ	or GA de-	avinc
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		
	/ball/angular contact)	Ball /Ball	Cable size and type(Aluminium)	1R X 3C X 4 S		Q MN
Bearing size DE/NDE		6204 2Z C3 / 6204 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 / STAR / 3		/ 3
Accessories						
	ers simplex (w/o controller)		Arrow plate for direction of rotation			
BTDs - 1 numbe	er per bearing (w/o controller)		Double compression glands (main cable)			
	single phase 50z, 230V		Double compression glands (Space heater/thermisters/RTDs)			
Space heaters -	ΓC , 1 number per phase		Brake (Type/voltage/torque)			
	ox for Accessories		(-)[			
Thermisters - PT						
Γhermisters - PT Additional T-Bo						
Γhermisters - PT Additional T-Bo Additional name						
Thermisters - PT Additional T-Bo Additional name <b>Votes:</b>	eplate	9-1 tolerances unless otherwise specific	fied			
Thermisters - PT Additional T-Bo Additional name Notes:	eplate uce values are subject to IS15999	9-1 tolerances, unless otherwise special telegraphics of the property condition and for DOL.	fied.			
Thermisters - PT Additional T-Bo Additional name Notes: )All performance v	eplate ace values are subject to IS15999 values are at rated voltage and ra	ated frequency condition and for DOL	fied. starting condition.			
Thermisters - PT Additional T-Bo Additional name Notes: )All performance v 2)Performance v 3)Motor GD <sup>2</sup> =	eplate use values are subject to IS15999 values are at rated voltage and ra Load GD <sup>2</sup> assumed wherever n	ated frequency condition and for DOL	starting condition.	1		

- 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.

		Prepared by	
		Approved by	
		Revison	
Project:	Contractor/Client	Date:	
Consultant	Package	Date.	



## PERFORMANCE CURVES 3 Phase Squirrel Cage Induction Motor

tomer : nsultant : ject : -	-					BBL Ref Tag Nos					Qı	uantit	y: -	
put (kW),	/Poles :	0.37	/ 2P			Fra	me: N	/J80						
		  	Curren Curren Torque	nt Vs Spee nt Vs Spee nt Vs Spee e Vs Speed e Vs Speed	d at 11 d at 10 d at 80 d at 110 d at 100	0% V % V 0% V 0% V	Speed	Curv	e					
	700%	_	• • Torque	e Vs Speed	d at 809	% V	1 1					1 1		
orque	600% -													
% of FL t	500%		•	•			•	-		-			1	
Current in % of FL current & Torque in % of FL torque	400%													
	300% -			-										
FL curre	200%						-	- • •	• • • •	- •				
t in % of	100%													
Current	0% - 0	)%	20%	<u> </u>	4	0%		60%		80	1%	<u> </u>	100%	
Ū	Ü		2070			nchron					. •		200,0	

-	-	-	-
Rev No.	Prepared By	Checked By	Date



## PERFORMANCE CURVES 3 Phase Squirrel Cage Induction Motor

(B) Dilai	at Dijie		3 Phase Squirrel Cage Induction Motor					
Customer : - Consultant : - Project : -			BBL Ref Tag Nos		Quantity	/: -		
Output (kW)/Pol	es: 0.37	′ / 2P	Fran	me: MJ80				
			ower Factor Vs					
		Efficie	ncy	■ • Power Fa	actor			
75 -					1.00			
70 -					- 0.90			
65 -					- 0.80			
Efficiency in %					- 0.70	Power Factor		
<b>E</b> 55 -						Powe		
50 -					- 0.60			
45 -					- 0.50			
40 -	%	25%	50%	75%	0.40			
		C	output in % of FL					

-	-	-	-
Rev No.	Prepared By	Checked By	Date



## **PERFORMANCE CURVES**

stomer : - nsultant : - oject : - itput (kW)/Poles	es: 0.37	/ 2P		BBL Ref No Tag Nos. : Frame	 : MJ80		Quantity	-
	es: 0.37							
10				l Withsta				
10				Current Cu				
10		——— Cold	l Condition		_	— Hot Condit	tion	
	.0000							
	1000							
Time in seconds	100							
Time	10							•
	1 -							
	0 + 0	100	200	300	400	500	600	700

-	-	-	-
Rev No.	Prepared By	Checked By	Date