

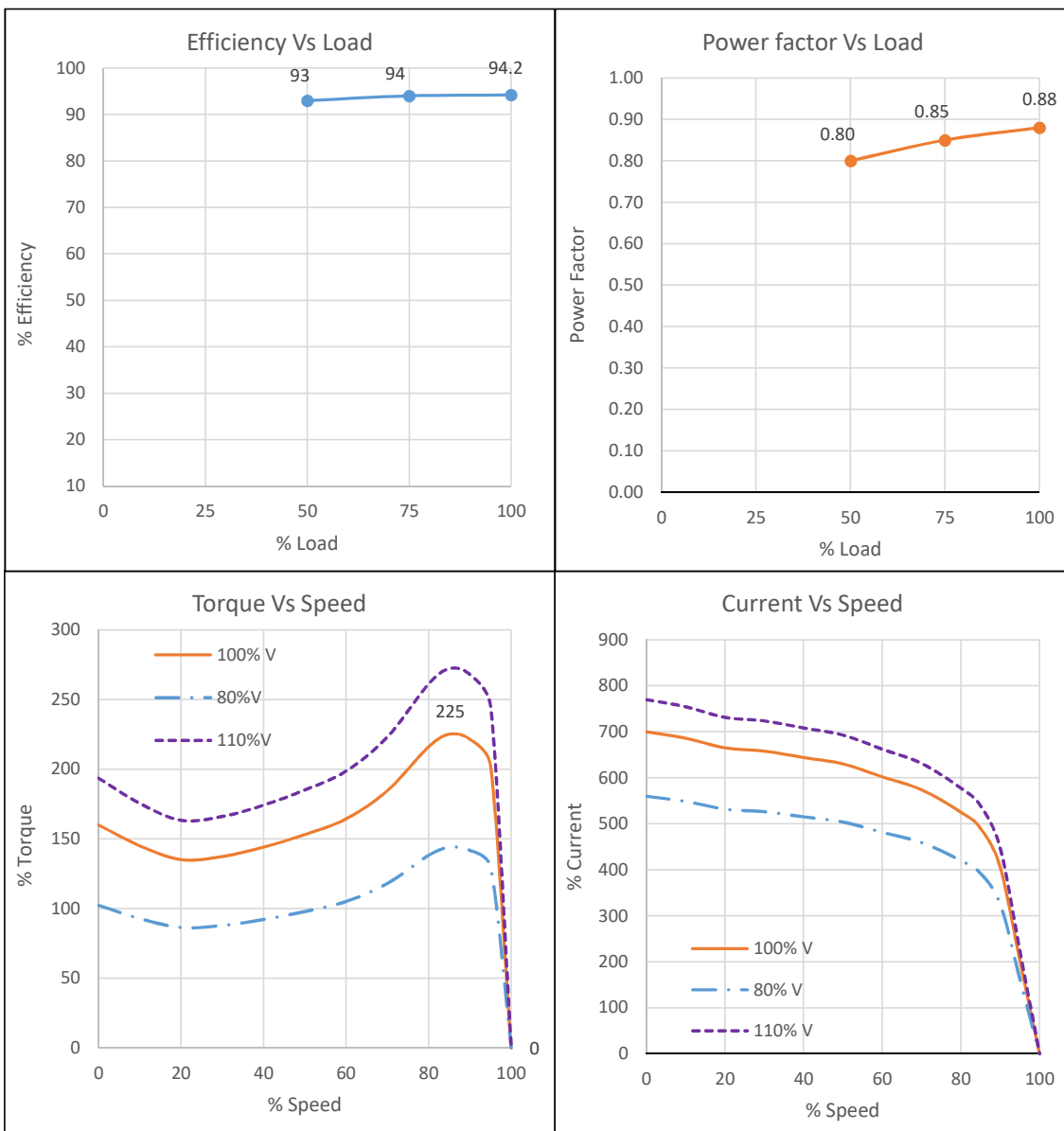
IE2

TECHNICAL DATASHEET **3 PHASE INDUCTION MOTOR**

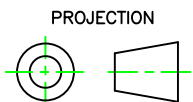


Sr No	Parameter	Unit	Data
Product Specifications			
1	Rated Output	kW	90
2	Number of Poles	No	4
3	Frame Designation		KM280M
4	Product Code		KM2.90T0.BTC.B05.TSS
5	Mounting		B5
Electrical			
6	Type of Duty		Continuous S1
7	Rated Voltage	V	415 $\pm$ 10%
8	Rated Frequency	Hz	50 $\pm$ 5%
9	Rated Speed	RPM	1480
10	Rated Current	A	151
11	Method of Starting		Direct On Line
12	Starting Current (SCC)	% of FLA	700
13	Rated Torque	Kg-m	59.23
14	Starting Torque (STT)	% of FLT	160
15	Maximum Torque (POT)	% of FLT	225
16	Efficiency at 100% / 75% / 50% load	%	94.2 / 94/ 93
17	Power factor at 100% / 75% / 50% load		0.88 / 0.85 / 0.8
18	Thermal Withstand Time (Hot)	s	15
19	Thermal Withstand Time (Cold)	s	30
20	Thermal Time Constant (Stator)	min	60
21	Connection / Number of Terminals		Delta / 6
22	Permissible Starts/hour (Hot/Cold)	Nos	2/3
23	Insulation Class / Thermal Limit		F/B
24	Winding Treatment		VPI, Dual Coat Copper Wire
Mechanical			
25	Degree of Protection		IP55
26	Enclosure / MOC /Method of Cooling		TEFC / CI/ IC411
27	Bearing DE/NDE		6317 C3/6316 C3
28	Type of Coupling		Direct/Flexible
29	Noise Level		As per IS12065
30	Vibration Level		As per IS12075
31	Moment of Inertia GD ²	kg-m ²	7.96
32	Position of Terminal Box		TOP
33	Maximum Cable Size		2X3CX185 mm ²
34	Direction of Rotation		Bidirectional (Default: CW from DE)
35	Paint Shade		RAL 7046- Telegrey
36	Net weight	kg	750
37	Accessories		PTC 130 - 3 Nos (1 No / phase) Space heater 60W - 2 Nos
Enviromental			
38	Ambient Temperature /Temperature Rise	°C	50 / 70 (By resistance method)
39	Altitude Above MSL	m	$\leq$ 1000
Notes: All performance data shall be subject to tolerances as per IS15999/IEC 60034. Applicable Standards:IS 12615-2018, IS 15999-1			
Customer		PO No./ Enq. No	
		Date	
Checked	BMD	13-12-2022	
Approved	SSN	13-12-2022	Document No: KM2-001 Rev.0
KIRLOSKAR OIL ENGINES LTD. ELECTRIC MOTORS			

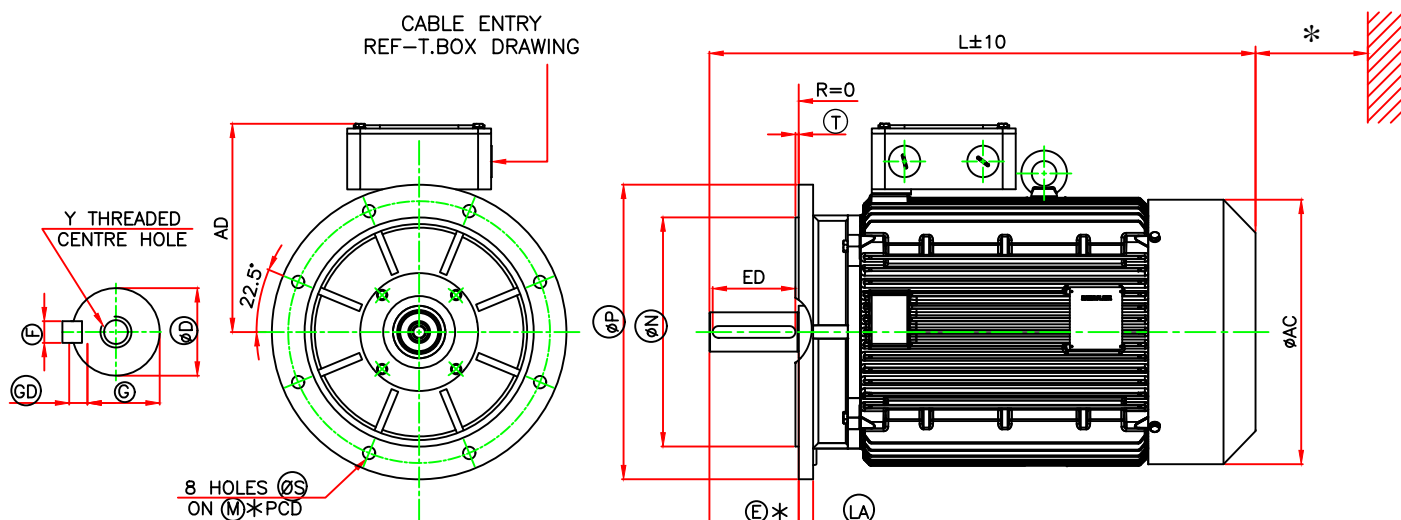
PERFORMANCE CURVE



kW	90	Customer	
Pole	4	PO No / Enq. No	
Frame	KM280M	Date	
Mounting	B5	Product Code	KM2.90T0.BTC.B05.TSS
Checked	BMD	13-12-2022	
Approved	SSN	13-12-2022	Document No KM2-002 Rev. 0
KIRLOSKAR OIL ENGINES LTD.			
ELECTRIC MOTORS			



GENERAL ARRANGEMENT DRAWING FOR TEFC 3 PHASE INDUCTION MOTOR



FRAME	FLANGE FIXING						OVER ALL		
	M Tol	N Tol	P	S	T	LA	AC	L	AD
KM280M	500	450.020/449.980	550	19	5	25	560	1050	450

D END SHAFT EXTENSION AND KEY						
D TOL.	E	ED	F TOL.	GD TOL.	G	Y
75.030/75.011	140	130	20/19.948	12.0/11.9	67.5/67.4	M20X40

kW	PRODUCT CODE	PRODUCT CODE	PRODUCT CODE
	4 POLE	6 POLE	8 POLE
90	KM2.90T0.BTC.B05.TSS	--	--
55	--	KM2.55T0.CTC.B05.TSS	--
45	--	--	KM2.45T0.DTC.B05.TSS

NOTES:

- ONE EARTHING TERMINAL IS PROVIDED INSIDE MAIN TERMINAL BOX.
- * 100mm MINIMUM DISTANCE TO BE MAINTAINED FOR EFFICIENT COOLING OF THE MOTOR.
- * TOLERANCES ON MANDATORY DIMENSIONS ARE AS PER IS:2223/IEC:60072

RINGED DIMENSIONS ARE AS PER IS:2223/IEC:60072-1

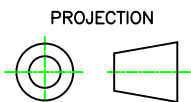
ALL DIMENSIONS ARE IN mm,

	NAME	DATE	kW	REFER TABLE	FRAME	KM280M
DRAWN	SGS	05/01/2023	POLE	REFER TABLE	MOUNTING	B05 (HORIZONTAL FLANGE)
CHECKED	SGS	05/01/2023	PRODUCT CODE	REFER TABLE	CUSTOMER	
APPROVED	SSN	05/01/2023	MAX. CABLE SIZE	2RX3CX185MM ²	PO NO	
			PROJECT		CLIENT	

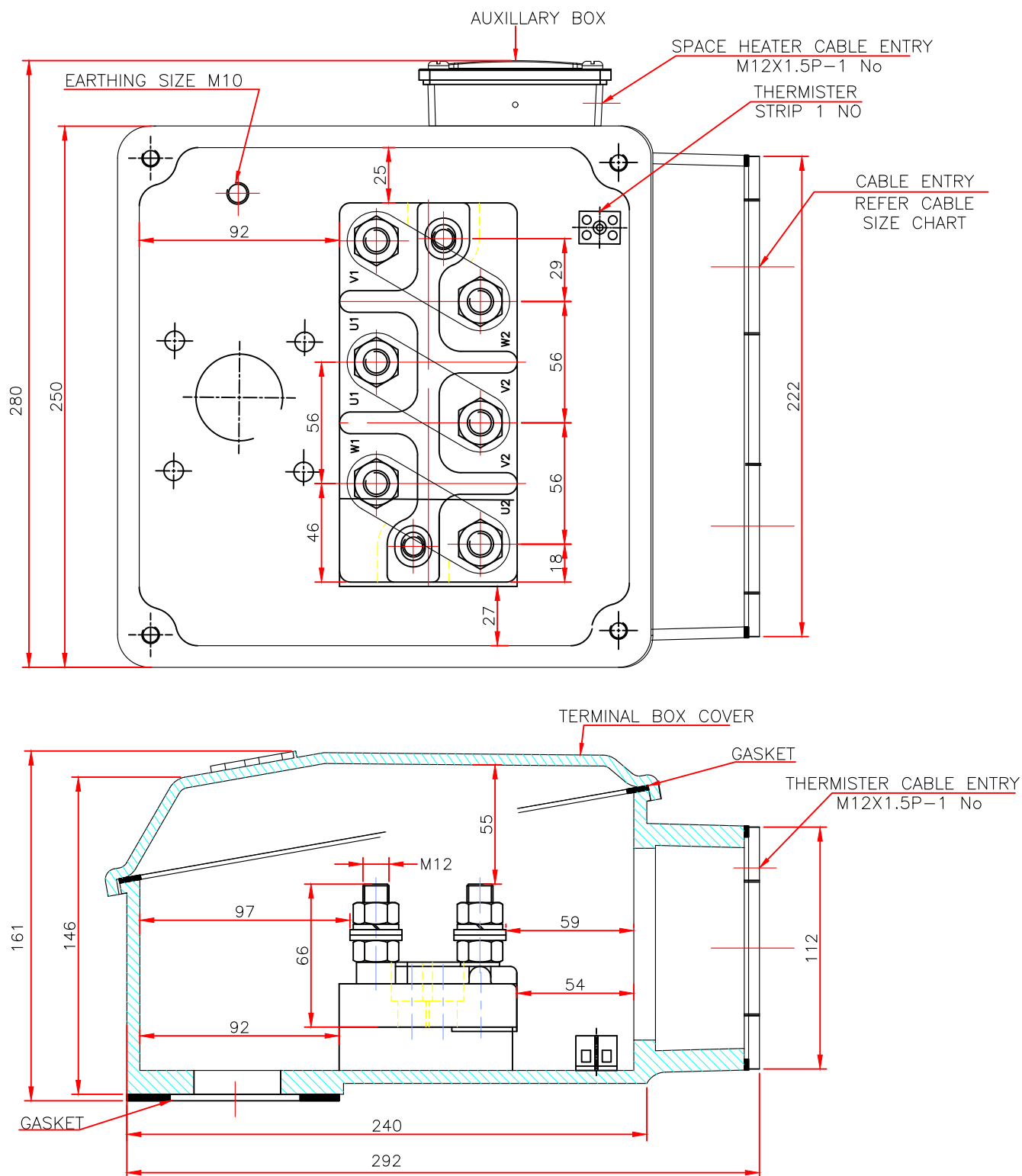
KIRLOSKAR OIL ENGINES LTD.
ELECTRIC MOTORS

DO NOT SCALE
FORMAT NO.:KM-GA-2021 R0

DRAWING NO
KM280MB5TS_4PRO



TERMINAL ARRANGEMENT DRAWING



ALL DIMENSIONS ARE IN mm

	NAME	DATE	kW		FRAME	KM280
DRAWN	SGS	05/01/2023	POLE		CUSTOMER	
CHECKED	SGS	05/01/2023	PRODUCT CODE		PO NO	
APPROVED	SSN	05/01/2023	MAX. CABLE SIZE	2RX3CX185MM ²	CLIENT	
			CABLE ENTRY	M63X1.5P-2NOS.	PROJECT	
KIRLOSKAR OIL ENGINES LTD. ELECTRIC MOTORS				DO NOT SCALE FORMAT NO.:KM-TB-2021 R0	DRAWING NO KM280TBR0	