

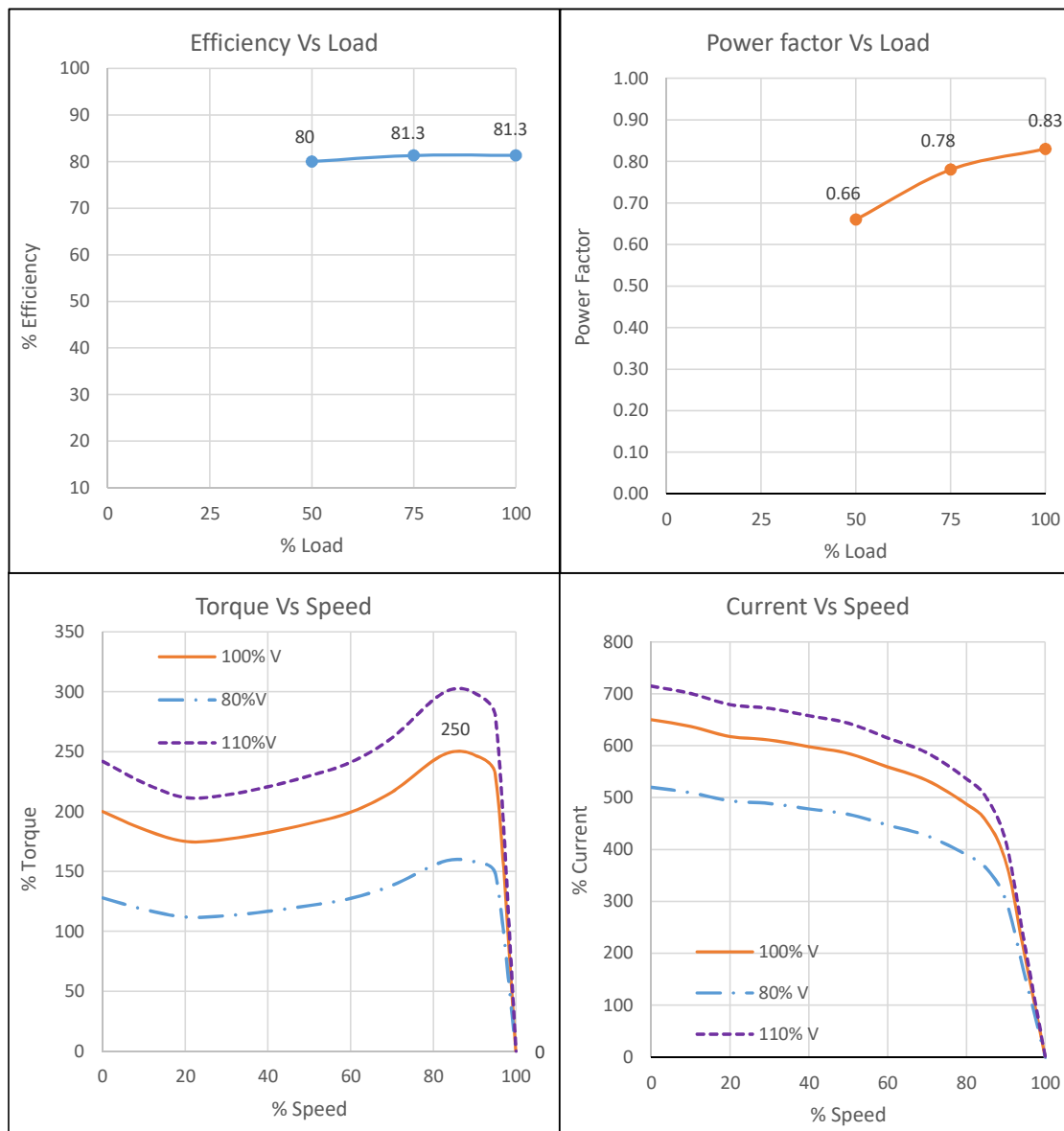
IE2

TECHNICAL DATASHEET **3 PHASE INDUCTION MOTOR**



Sr No	Parameter	Unit	Data
Product Specifications			
1	Rated Output	kW	1.5
2	Number of Poles	No	2
3	Frame Designation		KM90S
4	Product Code		KM2.1T50.AHA.B14.TSS
5	Mounting		B14
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	2840
10	Rated Current	A	3.10
11	Method of Starting		Direct On Line
12	Starting Current (SCC)	% of FLA	650
13	Rated Torque	Kg-m	0.51
14	Starting Torque (STT)	% of FLT	200
15	Maximum Torque (POT)	% of FLT	250
16	Efficiency at 100% / 75% / 50% load	%	81.3 / 81.3/ 80
17	Power factor at 100% / 75% / 50% load		0.83 / 0.78 / 0.66
18	Thermal Withstand Time (Hot)	s	6
19	Thermal Withstand Time (Cold)	s	12
20	Thermal Time Constant (Stator)	min	30
21	Connection / Number of Terminals		Star / 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 / AL/ IC411
27	Bearing DE/NDE		6205ZZ/6205ZZ
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	0.0066
32	Position of Terminal Box		TOP
33	Maximum Cable Size		1X3CX4 mm ²
34	Direction of Rotation		Bidirectional (Default: CW from DE)
35	Paint Shade		RAL 7046- Telegrey
36	Net weight	kg	16.20
37	Accessories		NA
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	27/10/2022	
Approved	SSN	27/10/2022	Document No: KM2-001 Rev.0
KIRLOSKAR OIL ENGINES LTD. ELECTRIC MOTORS			

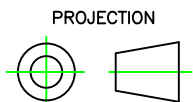
PERFORMANCE CURVE



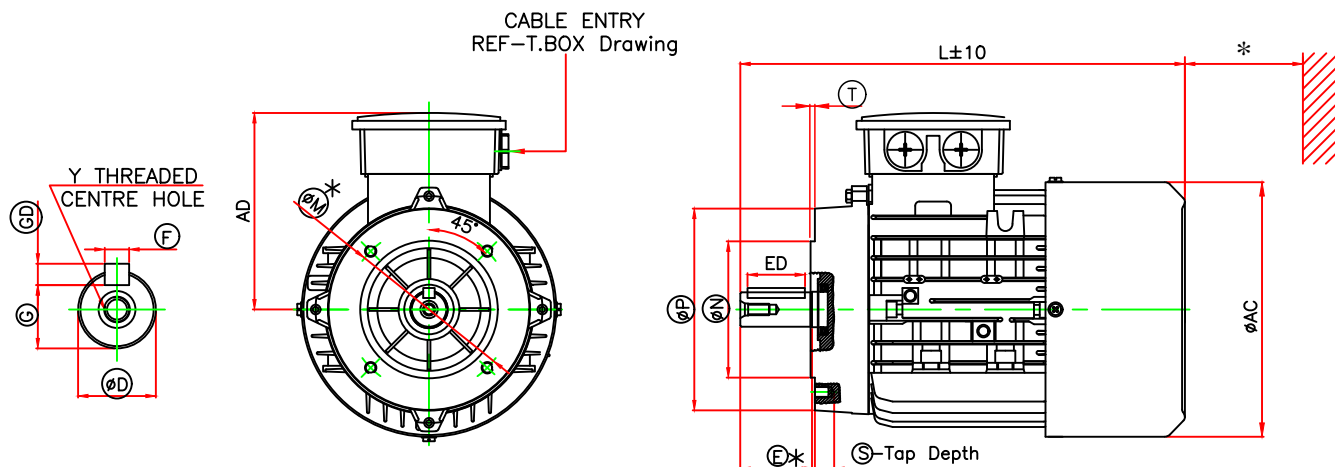
kW	1.5	Customer	
Pole	2	PO No / Enq. No	
Frame	KM90S	Date	
Mounting	B14	Product Code	KM2.1T50.AHA.B14.TSS
Checked	BMD	27/10/2022	
Approved	SSN	27/10/2022	Document No KM2-002 Rev. 0

KIRLOSKAR OIL ENGINES LTD.

ELECTRIC MOTORS



GENERAL ARRANGEMENT DRAWING FOR TEFC 3 PHASE INDUCTION MOTOR



FRAME	FACE FIXING					OVER ALL		
	M TOL.	N TOL.	P	S	T	AC	L	AD
KM90S	115	95.013/94.991	140	M8X9	3	178	316	126

D END SHAFT EXTENSION AND KEY						
D TOL.	E	ED	F TOL.	GD TOL.	G	Y
24.009/23.996	50	40	8/7.964	7.0/6.9	20.0/19.9	M8X19

kW	PRODUCT CODE	PRODUCT CODE	PRODUCT CODE	PRODUCT CODE
	2 POLE	4 POLE	6 POLE	8 POLE
0.37	--	--	--	KM2.0T37.DHA.B14.TSS
0.75	--	--	KM2.0T75.CHA.B14.TSS	--
1.1	--	KM2.1T10.BHA.B14.TSS	--	--
1.5	KM2.1T50.AHA.B14.TSS	--	--	--

NOTES:

- ONE EARTHING TERMINAL IS PROVIDED INSIDE MAIN TERMINAL BOX.
- * 80mm 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

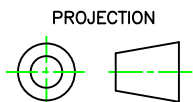
ALL DIMENSIONS ARE IN mm,

	NAME	DATE	kW	REFER TABLE	FRAME	KM90S
DRAWN	KSK	19/10/2022	POLE	REFER TABLE	MOUNTING	B14 (HORIZONTAL FACE)
CHECKED	SGS	19/10/2022	PRODUCT CODE	REFER TABLE	CUSTOMER	
APPROVED	SSN	19/10/2022	MAX. CABLE SIZE	1RX3CX4MM ²	PO NO	
			PROJECT		CLIENT	

KIRLOSKAR OIL ENGINES LTD.
ELECTRIC MOTORS

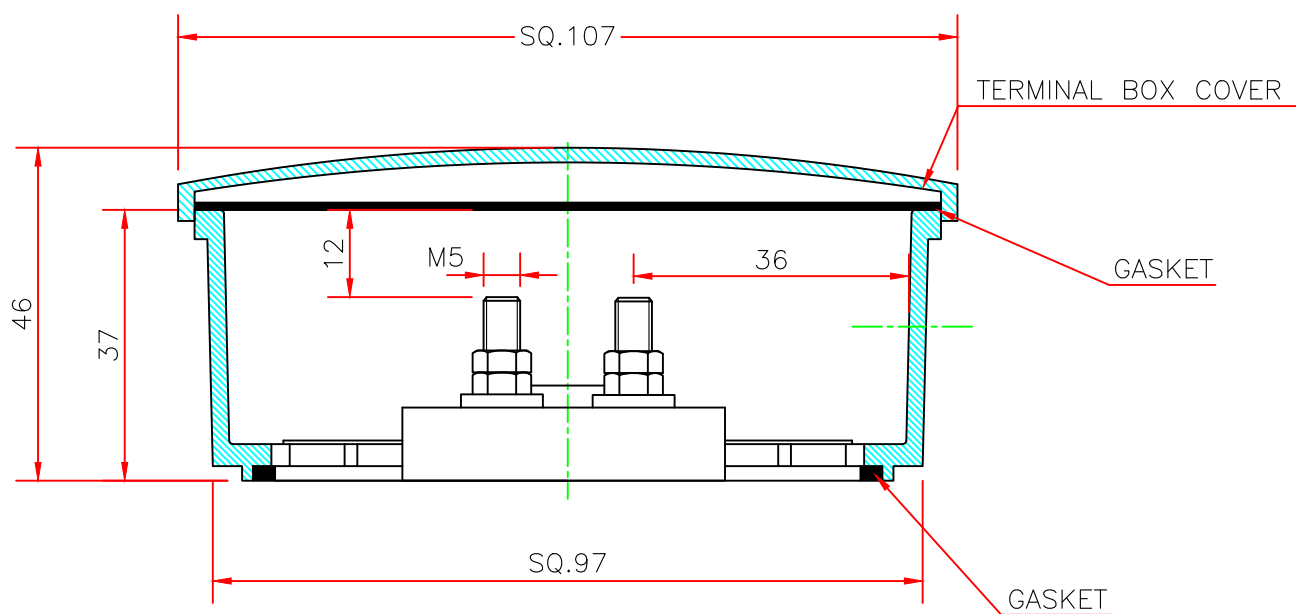
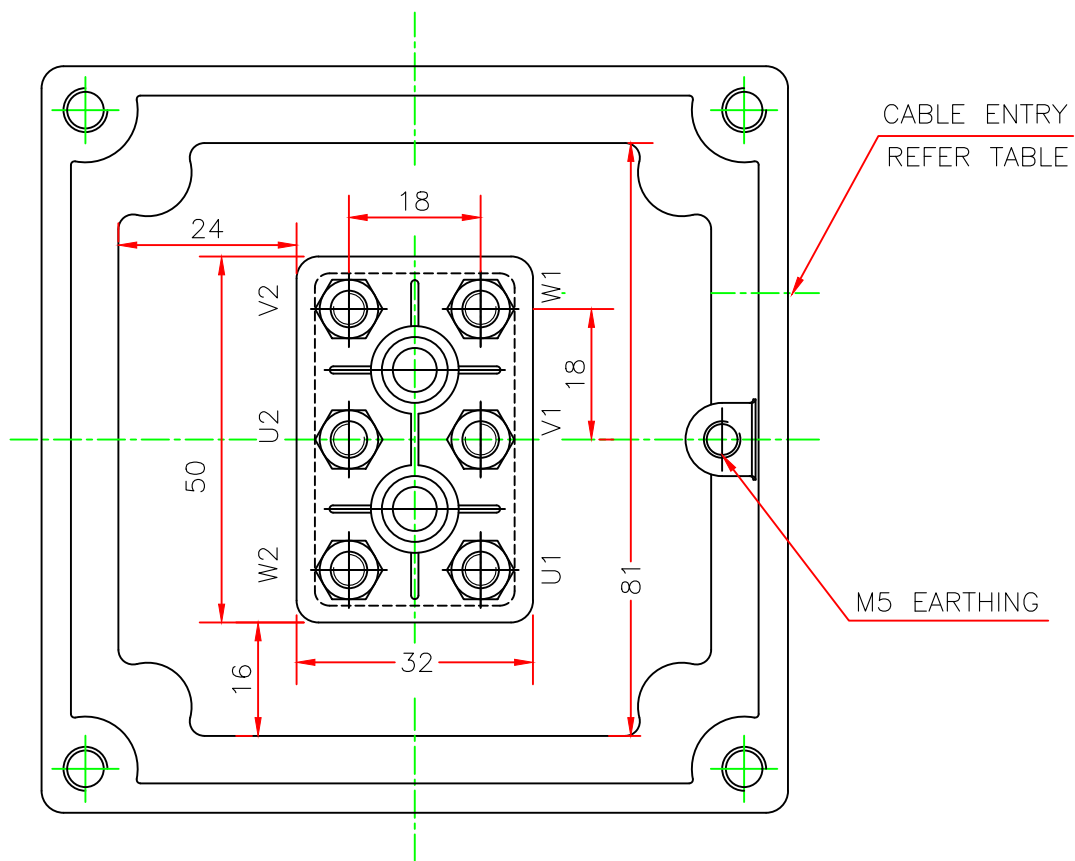
DO NOT SCALE
FORMAT NO.:KM-GA-2021 R0

DRAWING NO
KM90SB14TSALR0



TERMINAL ARRANGEMENT DRAWING

kirloskar
motors



ALL DIMENSIONS ARE IN mm

	NAME	DATE	kW		FRAME	KM90S/L
DRAWN	SGS	24/12/2021	POLE		CUSTOMER	
CHECKED	SGS	24/12/2021	PRODUCT CODE		PO NO	
APPROVED	SSN	24/12/2021	MAX. CABLE SIZE	1RX3CX4MM ²	CLIENT	
			CABLE ENTRY	M20X1.5P-1NO.	PROJECT	
KIRLOSKAR OIL ENGINES LTD. ELECTRIC MOTORS				DO NOT SCALE FORMAT NO.:KM-TB-2021 R0	DRAWING NO KM90TBR1	