

# PRODUCT INFORMATION PACKET

marathon®  
Motors

Model No: KS20P022E40W45XSX

Catalog No: AL08D5240MFAFTOAOO

20.0 Kw, Crane Duty Slipring Motors , 3 phase, 8 Pole, 415 V, S5 Duty, KS225MB Frame, 40 CDF,  
300 Start/Hr., TEFC



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### Nameplate Specifications

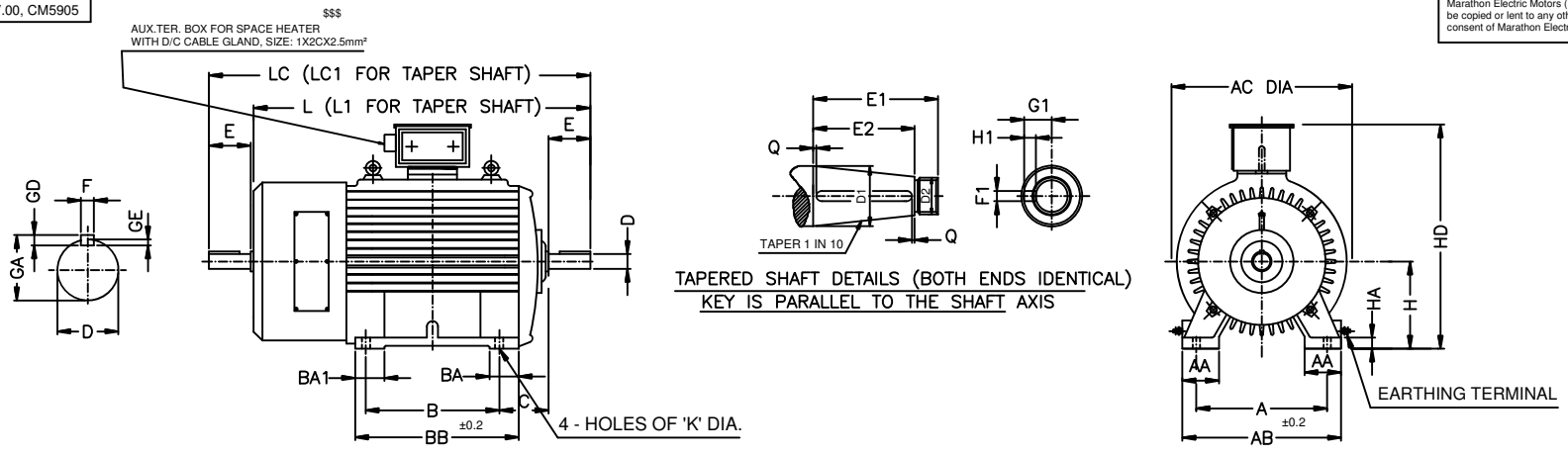
Phase	<b>3</b>	Output HP	<b>27 Hp</b>
Output KW	<b>20.0 kW</b>	Voltage	<b>415 V</b>
Speed	<b>735 rpm</b>	Frame	<b>KS225MB</b>
Enclosure	<b>Totally Enclosed Fan Cooled</b>	Thermal Protection	<b>No Protection</b>
Ambient Temperature	<b>45 °C</b>	Frequency	<b>50 Hz</b>
Current	<b>51.5 A</b>	Duty	<b>S5</b>
Drive End Bearing Size	<b>6314</b>	Opp Drive End Bearing Size	<b>6314</b>
UL	<b>No</b>	CSA	<b>No</b>
CE	<b>No</b>	IP Code	<b>55</b>
CDF	<b>40 %</b>	Start/Hr	<b>300</b>
RA	<b>45.5 A</b>	RV	<b>265 V</b>
Insulation class Stator/Rotor	<b>F/F</b>	Temp. Rise Stator/Rotor	<b>75/75 K</b>
Stator Connection	<b>Delta</b>	Rotor Connection	<b>Star</b>
Efficiency Class	<b>Standard</b>		

### Technical Specifications

Electrical Type	<b>Slipring</b>	Starting Method	<b>Rotor resistance starter</b>
Rotation	<b>Bi-Directional</b>	Mounting	<b>IMB3</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Antifriction</b>
Opp Drive End Bearing	<b>Antifriction</b>	Frame Material	<b>Cast Iron/Fabricated</b>
Shaft Type	<b>Single Cylinder</b>	Overall Length	<b>1077.00 mm</b>
Frame Length	<b>1077.00 mm</b>	Shaft Diameter	<b>60.000 mm</b>
Shaft Extension	<b>140 mm</b>	Assembly/Box Mounting	<b>Top</b>
Rotor GD2	<b>5.12 kg·m²</b>	Pull Out Torque	<b>4.6</b>
Connection Drawing	<b>DP2414</b>	Outline Drawing	<b>CM19820.00</b>

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\$\$\$ - PROVIDED ON DEMAND



**DIMENSIONAL DETAILS:-**

FRAME	NO OF POLE	H		FIXING DIMENSION				HA	AC-DIA	HD	AA	AB	BA	BA1	BB
		NOM	TOL	A	B	C	K								
KS225S	4 -12	225	-0.5	356	286	149	19	27	500	635	108	457	108	108	345
KS225M	4 -12	225	-0.5	356	311	149	19	27	500	635	108	457	108	108	370
KS250S	4 -12	250	-0.5	406	311	168	24	30	500	660	108	483	115	115	382
KS250M	4 -12	250	-0.5	406	349	168	24	30	500	660	108	483	115	115	420

FRAME	CYLINDRICAL SHAFT DIMENSIONS DETAILS (BOTH ENDS)										TAPER SHAFT DIMENSIONS DETAILS (BOTH)											
	L	LC	E	D		GA	F		GD		GE		L1	LC1	D1	D2	E1	E2	F1	H1	G1	Q
				NOM	TOL		NOM	TOL	NOM	TOL	NOM	TOL										
KS225S	1053	1194	140	60	+0.030 +0.011	64	18	-0.052	11	-0.011	7	+0.2	1053	1194	T 60	M42x3	140	105	16	10	31.4	5
KS225M	1077	1218	140	60	+0.030 +0.011	64	18	-0.052	11	-0.011	7	+0.2	1077	1218	T 60	M42x3	140	105	16	10	31.4	5
KS250S	1117	1256	140	65	+0.030 +0.011	69	18	-0.052	11	-0.011	7	+0.2	1117	1256	T 70	M48x3	140	105	18	11	36.4	5
KS250M	1155	1294	140	65	+0.030 +0.011	69	18	-0.052	11	-0.011	7	+0.2	1155	1294	T 70	M48x3	140	105	18	11	36.4	5

NOTE:  
 1.0 ALL DIMENSIONS ARE IN mm EXCEPT OTHERWISE SPECIFIED.  
 2.0 FOR TOLERANCES OF DIMENSIONS(NOT MENTIONED) REFER TO IS:2102.  
 3.0 DIMENSIONS MARKED \* ARE MAXIMUM VALUES.

**marathon electric**  
A Regal Beloit Company

Marathon Electric Motors (India) Limited  
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Kolkata - 700024, INDIA

TITLE: **OUTLINE DIMENSION DRAWING FOR KS225S & M KS250S & M MOTOR (CYLINDRICAL & TAPER SHAFT)**

DRAWN: S.B. 27.10.17 PROJECTION: DRAWING NO. REV. CM19820 00

CHECKED: KAUSIK SCALE IF ANY: N.T.S.

APPRVD: P.LAHIRI SIGN DATE

REVISION	DATE	DETAIL OF REVISION	DONE BY	APPRVD

**Model No.** KS20P022E40W45XSX**Part No.** AL08D5240MFAFTOAOO

P	P	n	POT	T	U	f	I	RA	RV	CDF	Duty	No. of Starts/Hr.	Frame
[kW]	[hp]	[RPM]	XFLT	[Nm]	(V)	[Hz]	[A]			%			
20	27	735	4.6	1117	415	50	51.5	45.5	265	40	S5	300	KS225MB

Motor type	Slipring	Degree of protection	IP-55
Enclosure	TEFC	Motor weight - approx.	580 kg
Frame Material	-	Gross weight- approx.	kg
Mounting type	IMB3	Motor GD2	5.12 kgm <sup>2</sup>
Cooling method	IC411	Vibration level	As per IS:12075 mm/s
Voltage variation	+/-10%	Noise level ( 1meter distance from motor)	As per IS:12065 dB(A)
Frequency variation	+/-5%	Starting method	Rotor resistance starter
Combined variation	10%	Coupling	Direct / Gearbox
Insulation class	F/F	Direction of rotation	Bi-directional
Ambient temperature	45	Paint shade	RAL5011
Temperature rise (by resistance)	75/75	Type of Terminal Box	Standard
Altitude above sea level	Upto 1000	Terminal box position	Top
Efficiency		Max. Cable size	Refer to TBA drg.
Power Factor		Bearing type	Antifriction
Stator Connection	Delta	DE Bearing	6314
Rotor Connection	Star	NDE Bearing	6314
		Type of Lubrication	Grease

**NOTE**

All performance values at rated voltage and frequency.

All performance parameters are subjected to standard tolerance as per IEC 60034-1

Technical data are subject to change. There may be discrepancies between calculated and name plate values.