

# PRODUCT INFORMATION PACKET

marathon®  
Motors

Model No: KS90P031C40W35XSX

Catalog No: AL08D7530MFAFTOAOO

90.0 Kw, Crane Duty Slipring Motors , 3 phase, 6 Pole, 415 V, S5 Duty, KS315MA Frame, 40 CDF,  
300 Start/Hr., TEFC



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### Nameplate Specifications

Output HP	<b>120 Hp</b>	Output KW	<b>90.0 kW</b>
Frequency	<b>50 Hz</b>	Voltage	<b>415 V</b>
Current	<b>166.0 A</b>	Speed	<b>988 rpm</b>
Phase	<b>3</b>	Duty	<b>S5</b>
Frame	<b>KS315MA</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Ambient Temperature	<b>45 °C</b>
Drive End Bearing Size	<b>6319</b>	Opp Drive End Bearing Size	<b>6319</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>119 A</b>	RV	<b>460 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>1425.00 mm</b>
Frame Length	<b>1425.00 mm</b>	Shaft Diameter	<b>80.000 mm</b>
Shaft Extension	<b>170 mm</b>	Assembly/Box Mounting	<b>Top</b>
Rotor GD2	<b>19.8 kg·m<sup>2</sup></b>	Pull Out Torque	<b>4.2</b>
Connection Drawing	<b>DP3139</b>	Outline Drawing	<b>cm5906</b>

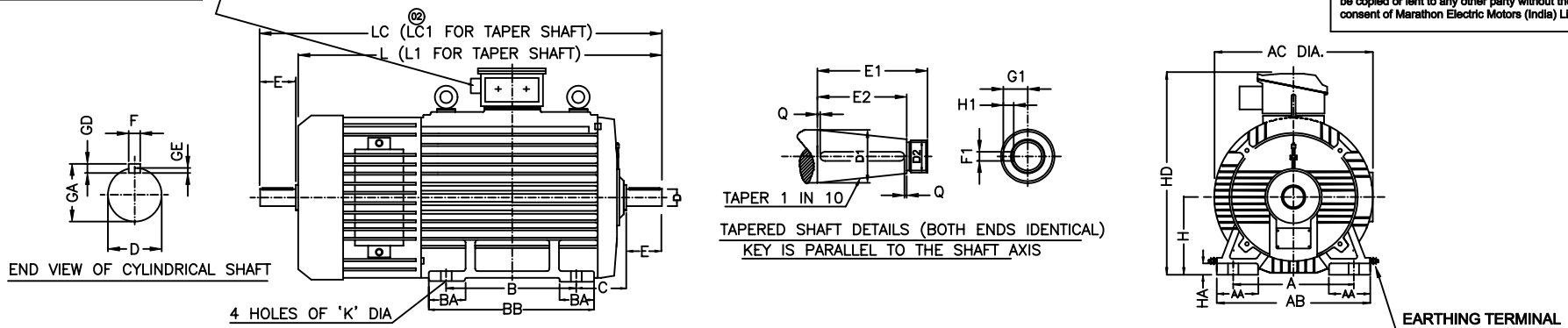


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20 REV 060611 CM5906 REF. AEL DRG. NO. A3C 15019 / 41032 REV. 00

AUX. TER. BOX FOR SPACE HEATER \$\$\$ WITH D/C CABLE GLAND, SIZE: 1x2CX2.5mm<sup>2</sup>

\$\$\$ - 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								
KS280S	4 -12	280	-1	457	368	190	24	32	560	830	112	560	120	120	490
KS280M	4 -12	280	-1	457	419	190	24	32	560	830	112	560	120	120	490
KS315S	4 -12	315	-1	508	406	216	28	36	620	885	120	620	143	143	520
KS315M	4 -12	315	-1	508	457	216	28	36	620	885	120	620	143	143	520

CYLINDRICAL SHAFT DIMENSIONS DETAILS (BOTH ENDS)											TAPER SHAFT DIMENSIONS DETAILS (BOTH)											
FRAME	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										
KS280S	1300	1428	140	75	+0.030 +0.011	79.5	20	-0.052	12	-110	7.5	+0.2	1330	1488	T 80	M56x4	170	130	20	12	41.3	5
KS280M	1300	1428	140	75	+0.030 +0.011	79.5	20	-0.052	12	-110	7.5	+0.2	1330	1488	T 80	M56x4	170	130	20	12	41.3	5
KS315S	1425	1602	170	80	+0.030 +0.011	85	22	-0.052	14	-110	9	+0.2	1425	1602	T 90	M64x4	170	130	22	14	46.7	5
KS315M	1425	1602	170	80	+0.030 +0.011	85	22	-0.052	14	-110	9	+0.2	1425	1602	T 90	M64x4	170	130	22	14	46.7	5

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

**marathon electric**  
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TITLE: **OUTLINE DIMENSION DRAWING FOR KS280S & M KS315S & M MOTOR (CYLINDRICAL & TAPER SHAFT)**

02	28.11.11	IN THE FIGURE 'L1' AND 'LC1' DIM. INCORPORATED		
01	06.06.11	EARTHING TERMINAL INCORPORATED		
REVISION	DATE	DETAIL OF REVISION	DONE BY	APPRVD

DRAWN	S.B	18.12.07	PROJECTION	DRAWING NO.	REV.
CHECKED	KAUSIK				
APPRVD.	R.RANJAN		SCALE IF ANY	<b>CM5906</b>	<b>02</b>
<b>4 of 5</b>		SIGN	DATE	N.T.S	

**Model No.** KS90P031C40W35XSX**Part No.** AL08D7530MFAFTOAOO

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]			%			
90	120	988	4.2	3648	415	50	166	119	460	40	S5	300	KS315MA

Motor type	Slipring	Degree of protection	IP-55
Enclosure	TEFC	Motor weight - approx.	1380 kg
Frame Material	-	Gross weight- approx.	kg
Mounting type	IMB3	Motor GD2	19.8 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	6319
Rotor Connection	Star	NDE Bearing	6319
		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.