

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: KS13P522A60W54XSX

Catalog No: AL08D4850MFAFTOAOO

13.5 Kw, Crane Duty Slipring Motors , 3 phase, 10 Pole, 415 V, S4 Duty, KS225M Frame, 60 CDF,
300 Start/Hr., TEFC



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Nameplate Specifications

| | | | |
|-------------------------------|----------------------|----------------------------|------------------------------------|
| Output HP | 18 Hp | Output KW | 13.5 kW |
| Frequency | 50 Hz | Voltage | 415 V |
| Current | 45.5 A | Speed | 588 rpm |
| Phase | 3 | Duty | S4 |
| Frame | KS225M | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No Protection | Ambient Temperature | 45 °C |
| Drive End Bearing Size | 6314 | Opp Drive End Bearing Size | 6314 |
| UL | No | CSA | No |
| CE | No | IP Code | 55 |
| CDF | 60 % | Start/Hr | 300 |
| RA | 28.5 A | RV | 285 V |
| Insulation class Stator/Rotor | F/F | Temp. Rise Stator/Rotor | 75/75 K |
| Stator Connection | Delta | Rotor Connection | Star |
| Efficiency Class | Standard | | |

Technical Specifications

| | | | |
|-----------------------|-----------------------------|-----------------------|---------------------------------|
| Electrical Type | Slipring | Starting Method | Rotor resistance starter |
| Rotation | Bi-Directional | Mounting | IMB3 |
| Motor Orientation | Horizontal | Drive End Bearing | Antifriction |
| Opp Drive End Bearing | Antifriction | Frame Material | Cast Iron/Fabricated |
| Shaft Type | Single Cylinder | Overall Length | 1077.00 mm |
| Frame Length | 1077.00 mm | Shaft Diameter | 60.000 mm |
| Shaft Extension | 140 mm | Assembly/Box Mounting | Top |
| Rotor GD2 | 5.1 kg-m² | Pull Out Torque | 4.5 |
| Outline Drawing | CM19820.00 | Connection Drawing | DP2319 |

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

| | | | | | |
|---------|----------|----------|--------------|-------------|------|
| DRAWN | S.B | 27.10.17 | PROJECTION | DRAWING NO. | REV. |
| CHECKED | KAUSIK | | SCALE IF ANY | CM19820 | 00 |
| APPRVD. | P.LAHIRI | | N.T.S | | |
| | SIGN | DATE | | | |

| REVISION | DATE | DETAIL OF REVISION | DONE BY | APPRVD |
|----------|------|--------------------|---------|--------|
| | | | | |
| | | | | |
| | | | | |

Model No. KS13P522A60W54XSX**Part No.** AL08D4850MFAFTOAOO

| 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] | | | % | | | |
| 13.5 | 18 | 588 | 4.5 | 1001 | 415 | 50 | 45.5 | 28.5 | 285 | 60 | S4 | 300 | KS225M |

| | | | |
|----------------------------------|-----------|---|--------------------------|
| Motor type | Slipring | Degree of protection | IP-55 |
| Enclosure | TEFC | Motor weight - approx. | 550 kg |
| Frame Material | - | Gross weight- approx. | kg |
| Mounting type | IMB3 | Motor GD2 | 5.1 kgm ² |
| 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.