PRODUCT INFORMATION PACKET



Model No: KS21P025F40X45XSX Catalog No: AL08D5540MFAFTOAOO

21.0 Kw, Crane Duty Slipring Motors, 3 phase, 8 Pole, 415 V, S5 Duty, KS250SB Frame, 40 CDF,

600 Start/Hr., TEFC





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Nameplate Specifications

| Phase | 3 | Output HP | 28 Hp |
|-------------------------------|-----------------------------|----------------------------|---------------|
| Output KW | 21.0 kW | Voltage | 415 V |
| Speed | 738 rpm | Frame | KS250SB |
| Enclosure | Totally Enclosed Fan Cooled | Thermal Protection | No Protection |
| Ambient Temperature | 45 ℃ | Frequency | 50 Hz |
| Current | 63.0 A | Duty | S5 |
| Drive End Bearing Size | 6315 C3 | Opp Drive End Bearing Size | 6315 C3 |
| UL | No | CSA | No |
| CE | No | IP Code | 55 |
| CDF | 40 % | Start/Hr | 600 |
| RA | 47 A | RV | 270 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 | 1117.00 mm |
| Frame Length | 1117.00 mm | Shaft Diameter | 65.000 mm |
| Shaft Extension | 140 mm | Assembly/Box Mounting | Тор |
| Rotor GD2 | 6.34 kg·m² | Pull Out Torque | 5.8 |
| Outline Drawing | CM19820.00 | Connection Drawing | DP2713 |

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DIMENSIONAL DETAILS:-

| - FDAME | NO OF | Н | | FIXING DIMENSION | | | | HA | AC-DIA | HD | AA | AB | BA | DA 1 | BB |
|---------|-------|-----|------|------------------|-----|-----|----|------|--------|-----|-----|-----|-----|------|-----|
| FRAME | POLE | NOM | TOL | Α | В | C | K | 11/4 | AC DIA | пи | AA | AD | DA | BA1 | DD |
| 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 |

| | CYLINDRICAL SHAFT DIMENSIONS DETAILS (BOTH ENDS) | | | | | | | | | ;) | TAPER SHAFT DIMENSIONS DETAILS (BOTH) | | | | | | | | | | | |
|--------|--|------|-----|-----|------------------|----|-----|--------|-----|--------|---------------------------------------|------|------|------|------|-------|-----|-----|----|----|------|---|
| FRAME | L | LC | Ε | [|) | GA | f | F | G | D | G | E | 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 |

REVISION DATE DETAIL OF REVISION DONE BY APPRVD

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 Paharpur Works, 58 Taratala Road.

Kolkata - 700024, INDIA

OUTLINE DIMENSION DRAWING FOR KS225S & M

TLE KS250S & M MOTOR (CYLINDRICAL & TAPER SHAFT)

| DRAWN | S.B | | 27.10.17 | PROJECTION | |
|---------|----------|------|----------|----------------|---|
| CHECKED | KAUSIK | | | • □ | |
| APPRVD. | P.LAHIRI | | | SCALE IF ANY | C |
| | | SIGN | DATE | N.T.S |) |

DRAWING NO. REV. CM19820 00



Model No. KS21P025F40X45XSX

Part No.

AL08D5540MFAFTOAOO

| Р | Р | n | РОТ | Т | U | f | I | RA | RV | CDF | Duty | No. of Starts/Hr. | Frame |
|------|------|-------|------|------|-----|------|-----|----|-----|-----|------|--------------------|---------|
| [kW] | [hp] | [RPM] | XFLT | [Nm] | (V) | [Hz] | [A] | | | % | | NO. OF Starts/Til. | Frame |
| 21 | 28 | 738 | 5.8 | 1498 | 415 | 50 | 63 | 47 | 270 | 40 | S5 | 600 | KS250SB |

| Motor type | Slipring | Degree of protection | IP-55 | |
|----------------------------------|-----------|---|--------------------------|------------------|
| Enclosure | TEFC | Motor weight - approx. | 660 | kg |
| Frame Material | | Gross wight- approx. | | kg |
| Mounting type | IMB3 | Motor GD2 | 6.34 | 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 | Тор | |
| Efficiency | | Max. Cable size | Refer to TBA drg. | |
| Power Factor | | Bearing type | Antifriction | |
| Stator Connection | Delta | DE Bearing | 6315 C3 | |
| Rotor Connection | Star | NDE Bearing | 6315 C3 | |
| | | 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.

REGAL