

PRODUCT INFORMATION PACKET

Model No: KS53P031B60X44XSX

Catalog No: KS53P031B60X44XSX

53.0 Kw, Crane Duty Slipring Motors , 3 phase, 8 Pole, 415 V, S4 Duty, KS315M2 Frame, 60 CDF,
600 Start/Hr., TEFC



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Nameplate Specifications

| | | | |
|-------------------------------|----------------------|----------------------------|------------------------------------|
| Output HP | 71 Hp | Output KW | 53.0 kW |
| Frequency | 50 Hz | Voltage | 415 V |
| Current | 125.0 A | Speed | 744 rpm |
| Phase | 3 | Duty | S4 |
| Frame | KS315M2 | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No Protection | Ambient Temperature | 45 °C |
| Drive End Bearing Size | 6319 | Opp Drive End Bearing Size | 6319 |
| UL | No | CSA | No |
| CE | No | IP Code | 55 |
| CDF | 60 % | Start/Hr | 600 |
| RA | 87 A | RV | 370 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 | 1425.00 mm |
| Frame Length | 1425.00 mm | Shaft Diameter | 80.000 mm |
| Shaft Extension | 170 mm | Assembly/Box Mounting | Top |
| Rotor GD2 | 26.3 kg·m² | Pull Out Torque | 5.3 |
| Connection Drawing | DP3098 | Outline Drawing | cm5906 |

AUX. TER. BOX FOR SPACE HEATER \$\$\$ WITH D/C CABLE GLAND, SIZE: 1x2CX2.5mm³

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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 | | | | | | | | |
| 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
 A Regal Beloit Company
 Marathon Electric Motors (India) Limited
 Paharpur Works, 58 Taratala Road.
 Kolkata - 700024, INDIA

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 | CM5906 | 02 |
| 4 of 5 | | SIGN | DATE | N.T.S | |

Model No. KS53P031B60X44XSX**Part No.**

| 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] | | | % | | | |
| 53 | 71 | 744 | 5.3 | 3892 | 415 | 50 | 125 | 87 | 370 | 60 | S4 | 600 | KS315M2 |

| | | | |
|----------------------------------|-----------|---|--------------------------|
| Motor type | Slipring | Degree of protection | IP-55 |
| Enclosure | TEFC | Motor weight - approx. | 1475 kg |
| Frame Material | - | Gross weight- approx. | kg |
| Mounting type | IMB3 | Motor GD2 | 26.3 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 | 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.