PRODUCT INFORMATION PACKET



Model No: KS21P28G60X34XSX
Catalog No: AL08D5930MFAFTOAOO
31.0 Kw, Crane Duty Slipring Motors , 3 phase, 6 Pole, 415 V, S4 Duty, KS280S Frame, 60 CDF, 600 Start/Hr., TEFC



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Nameplate Specifications

| Output HP | 41.50 Hp | Output KW | 31.0 kW |
|-------------------------------|---------------|----------------------------|-----------------------------|
| Frequency | 50 Hz | Voltage | 415 V |
| Current | 81.0 A | Speed | 989 rpm |
| Phase | 3 | Duty | S4 |
| Frame | KS280S | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No Protection | Ambient Temperature | 45 °C |
| Drive End Bearing Size | 6317 C3 | Opp Drive End Bearing Size | 6317 C3 |
| UL | No | CSA | No |
| CE | No | IP Code | 55 |
| CDF | 60 % | Start/Hr | 600 |
| RA | 82 A | RV | 230 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 | 1300.00 mm |
| Frame Length | 1300.00 mm | Shaft Diameter | 75.000 mm |
| Shaft Extension | 140 mm | Assembly/Box Mounting | Тор |
| Rotor GD2 | 8.8 kg·m² | Pull Out Torque | 5.3 |
| Outline Drawing | cm5906 | Connection Drawing | DP2926 |
| Rotor GD2 | 8.8 kg·m² | Pull Out Torque | 5.3 |

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DIMENSIONAL DETAILS:-

| FRAME | NO OF | Н | | FIXING DIMENSION | | | НА | AC-DIA | HD | AA | AB | DA | DA 1 | DD | |
|--------|-------|-----|-----|------------------|-----|-----|----|--------|--------|-----|-----|-----|------|-----|-----|
| | POLE | NOM | TOL | Α | В | С | K | ПА | AC-DIA | нυ | AA | AB | BA | BA1 | BB |
| 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 | Е | 1 | D | GA | | F | G | D | G | E | 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 | Т 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 | M56×4 | 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 | Т 90 | M64×4 | 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 | M64×4 | 170 | 130 | 22 | 14 | 46.7 | 5 |

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

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.

omarathon• A Regal Beloit Company Marathon Electric Motors (India) Limited Paharpur Works, 58 Taratala Road.

Kolkata - 700024, INDIA

OUTLINE DIMENSION DRAWING FOR KS280S & M

KS315S & M MOTOR (CYLINDRICAL & TAPER SHAFT)

| 4 of / | 5 | SIGN | DATE | N.T.S | CIVIOS |
|---------|----------|------|----------|------------------|--------|
| APPRVD. | R.RANJAN | | | SCALE IF ANY | CM59 |
| CHECKED | KAUSIK | | | - ● □ | |
| | S.B | | 18.12.07 | PROJECTION | DRAWIN |
| | | | | | |

NG NO. REV.

906



Model No. KS21P28G60X34XSX

Part No.

AL08D5930MFAFTOAOO

| Р | Р | n | POT | Т | U | f | | RA | RV | CDF | Duty | No. of Starts/Hr. | Frame |
|------|------|-------|------|------|-----|------|-----|----|----------------------|-------|------|-------------------|--------|
| [kW] | [hp] | [RPM] | XFLT | [Nm] | (V) | [Hz] | [A] | | % No. 01 Starts/111. | Fiame | | | |
| 31 | 41.5 | 989 | 5.3 | 1701 | 415 | 50 | 81 | 82 | 230 | 60 | S4 | 600 | KS280S |

| Motor type | Slipring | Degree of protection | IP-55 | | | | | |
|----------------------------------|-----------|---|--------------------------|------|--|--|--|--|
| Enclosure | TEFC | Motor weight - approx. | 980 | kg | | | | |
| Frame Material | - | Gross wight- approx. | | kg | | | | |
| Mounting type | IMB3 | Motor GD2 | 8.8 | kgm | | | | |
| Cooling method | IC411 | Vibration level | As per IS:12075 | mm, | | | | |
| 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 | 6317 C3 | | | | | |
| Rotor Connection | Star | NDE Bearing | NDE Bearing 6317 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.

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