# PRODUCT INFORMATION PACKET



Model No: KS50P031K10U53XSX Catalog No: AL08D7350MFAFTOAOO

50.0 Kw, Crane Duty Slipring Motors, 3 phase, 10 Pole, 415 V, S3 Duty, KS315SB Frame, 100 CDF,

6 Start/Hr., TEFC





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# Nameplate Specifications

| Output HP                     | 67 Hp         | Output KW                  | 50.0 kW                     |
|-------------------------------|---------------|----------------------------|-----------------------------|
| Frequency                     | 50 Hz         | Voltage                    | 415 V                       |
| Current                       | 128.0 A       | Speed                      | 592 rpm                     |
| Phase                         | 3             | Duty                       | S3                          |
| Frame                         | KS315SB       | 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                           | 100 %         | Start/Hr                   | 6                           |
| RA                            | 89 A          | RV                         | 340 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 | Тор                      |
| Rotor GD2             | 25.2 kg-m²      | Pull Out Torque       | 4.2                      |
| Outline Drawing       | cm5906          | Connection Drawing    | DP3291                   |
| Outilite Drawing      | GIIO300         | Connection Drawing    | DF3291                   |

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#### DIMENSIONAL DETAILS:-

| FDAME  | NO OF | Н   |     | FIXING DIMENSION |     |     | НА | AC-DIA | HD         | AA  | AB  | BA  | BA 1 | BB  |     |
|--------|-------|-----|-----|------------------|-----|-----|----|--------|------------|-----|-----|-----|------|-----|-----|
| FRAME  | POLE  | NOM | TOL | Α                | В   | С   | K  | ПА     | /\\O B\\/\ | שוו | _^^ | AD  | BA   | DAI |     |
| 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<br>+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<br>+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<br>+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<br>+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.

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**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   |      |          | <del>- ● □</del> |        |
|         | S.B      |      | 18.12.07 | PROJECTION       | DRAWIN |
|         |          |      |          |                  |        |

NG NO. REV.

906



### Model No. KS50P031K10U53XSX

Part No.

AL08D7350MFAFTOAOO

| Р    | Р    | n     | POT  | Т    | U   | f    | 1   | RA | RV  | CDF | Duty | No. of Starts/Hr.  | Frame   |  |
|------|------|-------|------|------|-----|------|-----|----|-----|-----|------|--------------------|---------|--|
| [kW] | [hp] | [RPM] | XFLT | [Nm] | (V) | [Hz] | [A] |    |     | %   |      | No. of Starts/III. | Frame   |  |
| 50   | 67   | 592   | 4.2  | 3221 | 415 | 50   | 128 | 89 | 340 | 100 | S3   | 6                  | KS315SB |  |

| Motor type                       | Slipring  | Degree of protection                      | IP-55                    |                  |
|----------------------------------|-----------|---|--------------------------|------------------|
| Enclosure                        | TEFC      | Motor weight - approx.                    | 1450                     | kg               |
| Frame Material                   |           | Gross wight- approx.                      |                          | kg               |
| Mounting type                    | IMB3      | Motor GD2                                 | 25.2                     | 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                     | Тор                      |                  |
| 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.

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