# PRODUCT INFORMATION PACKET



Model No: KS15P022A60V54XSX Catalog No: AL08D4850MFAFTOAOO

15.0 Kw, Crane Duty Slipring Motors, 3 phase, 10 Pole, 415 V, S4 Duty, KS225M Frame, 60 CDF,

150 Start/Hr., TEFC





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### Nameplate Specifications

| Output HP                     | 20 Hp         | Output KW                  | 15.0 kW                     |
|-------------------------------|---------------|----------------------------|-----------------------------|
| Frequency                     | 50 Hz         | Voltage                    | 415 V                       |
| Current                       | 46.0 A        | Speed                      | 586 rpm                     |
| Phase                         | 3             | Duty                       | S4                          |
| Frame                         | KS225M        | Enclosure                  | Totally Enclosed Fan Cooled |
| Thermal Protection            | No Protection | Ambient Temperature        | 45 ℃                        |
| Drive End Bearing Size        | 6314          | Opp Drive End Bearing Size | 6314                        |
| UL                            | No            | CSA                        | No                          |
| CE                            | No            | IP Code                    | 55                          |
| CDF                           | 60 %          | Start/Hr                   | 150                         |
| RA                            | 32 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 | Тор                      |
| Rotor GD2             | 5.1 kg·m²       | Pull Out Torque       | 4.1                      |
| Outline Drawing       | CM19820.00      | Connection Drawing    | DP2311                   |

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#### DIMENSIONAL DETAILS:-

| FRAME  | NO OF | Н   |      | FIXING DIMENSION |     |     |    | HA   | AC-DIA | HD  | AA  | AB  | BA  | DA 1 | BB  |
|--------|-------|-----|------|------------------|-----|-----|----|------|--------|-----|-----|-----|-----|------|-----|
|        | 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<br>+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<br>+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<br>+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<br>+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.

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OUTLINE DIMENSION DRAWING FOR KS225S & M

TLE KS250S & M MOTOR (CYLINDRICAL & TAPER SHAFT)

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

DRAWING NO. REV. CM19820 00



Model No. KS15P022A60V54XSX

Part No.

AL08D4850MFAFTOAOO

| Р    | Р    | n     | POT  | Т    | U   | f    | ı   | RA | RV  | CDF | Duty | No. of Starts/Hr.  | Frame  |
|------|------|-------|------|------|-----|------|-----|----|-----|-----|------|--------------------|--------|
| [kW] | [hp] | [RPM] | XFLT | [Nm] | (V) | [Hz] | [A] |    |     | %   |      | NO. Of Starts/III. | Frame  |
| 15   | 20   | 586   | 4.1  | 1001 | 415 | 50   | 46  | 32 | 285 | 60  | S4   | 150                | KS225M |

| Motor type                       | Slipring  | Degree of protection                      | IP-55                           |                  |  |  |  |  |
|----------------------------------|-----------|-------------------------------------------|---------------------------------|------------------|--|--|--|--|
| Enclosure                        | TEFC      | Motor weight - approx.                    | 550                             | kg               |  |  |  |  |
| Frame Material                   | -         | Gross wight- approx.                      |                                 | kg               |  |  |  |  |
| Mounting type                    | IMB3      | Motor GD2                                 | 5.1                             | kgm <sup>2</sup> |  |  |  |  |
| Cooling method                   | IC411     | Vibration level                           | Vibration level As per IS:12075 |                  |  |  |  |  |
| 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                                | 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.

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