

# PRODUCT INFORMATION PACKET

marathon®  
Motors

Model No: KS41P028G60W35XSX

Catalog No: AL08D5930MFAFTOAOO

41.0 Kw, Crane Duty Slipring Motors , 3 phase, 6 Pole, 415 V, S5 Duty, KS280S Frame, 60 CDF,  
300 Start/Hr., TEFC



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### Nameplate Specifications

|                               |                      |                            |                                    |
|-------------------------------|----------------------|----------------------------|------------------------------------|
| Output HP                     | <b>55 Hp</b>         | Output KW                  | <b>41.0 kW</b>                     |
| Frequency                     | <b>50 Hz</b>         | Voltage                    | <b>415 V</b>                       |
| Current                       | <b>90.0 A</b>        | Speed                      | <b>986 rpm</b>                     |
| Phase                         | <b>3</b>             | Duty                       | <b>S5</b>                          |
| Frame                         | <b>KS280S</b>        | Enclosure                  | <b>Totally Enclosed Fan Cooled</b> |
| Thermal Protection            | <b>No Protection</b> | Ambient Temperature        | <b>45 °C</b>                       |
| Drive End Bearing Size        | <b>6317 C3</b>       | Opp Drive End Bearing Size | <b>6317 C3</b>                     |
| UL                            | <b>No</b>            | CSA                        | <b>No</b>                          |
| CE                            | <b>No</b>            | IP Code                    | <b>55</b>                          |
| CDF                           | <b>60 %</b>          | Start/Hr                   | <b>300</b>                         |
| RA                            | <b>108 A</b>         | RV                         | <b>230 V</b>                       |
| Insulation class Stator/Rotor | <b>F/F</b>           | Temp. Rise Stator/Rotor    | <b>75/75 K</b>                     |
| Stator Connection             | <b>Delta</b>         | Rotor Connection           | <b>Star</b>                        |
| Efficiency Class              | <b>Standard</b>      |                            |                                    |

### Technical Specifications

|                       |                             |                       |                                 |
|-----------------------|-----------------------------|-----------------------|---------------------------------|
| Electrical Type       | <b>Slipping</b>             | Starting Method       | <b>Rotor resistance starter</b> |
| Rotation              | <b>Bi-Directional</b>       | Mounting              | <b>IMB3</b>                     |
| Motor Orientation     | <b>Horizontal</b>           | Drive End Bearing     | <b>Antifriction</b>             |
| Opp Drive End Bearing | <b>Antifriction</b>         | Frame Material        | <b>Cast Iron/Fabricated</b>     |
| Shaft Type            | <b>Single Cylinder</b>      | Overall Length        | <b>1300.00 mm</b>               |
| Frame Length          | <b>1300.00 mm</b>           | Shaft Diameter        | <b>75.000 mm</b>                |
| Shaft Extension       | <b>140 mm</b>               | Assembly/Box Mounting | <b>Top</b>                      |
| Rotor GD2             | <b>8.8 kg-m<sup>2</sup></b> | Pull Out Torque       | <b>4.2</b>                      |
| Outline Drawing       | <b>cm5906</b>               | Connection Drawing    | <b>DP2923</b>                   |



AUX. TER. BOX FOR SPACE HEATER \$\$\$ WITH D/C CABLE GLAND, SIZE: 1x2CX2.5mm<sup>3</sup>

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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<br>+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<br>+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<br>+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<br>+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**  
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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    | <b>CM5906</b> | <b>02</b> |
|         |          |          | SIGN DATE N.T.S |               |           |

**Model No.** KS41P028G60W35XSX**Part No.** AL08D5930MFAFTOAOO

| 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] |     |     | %   |      |                   |        |
| 41   | 55   | 986   | 4.2  | 1701 | 415 | 50   | 90  | 108 | 230 | 60  | S5   | 300               | KS280S |

|                                  |           |   |                          |
|----------------------------------|-----------|---|--------------------------|
| Motor type                       | Slipring  | Degree of protection                      | IP-55                    |
| Enclosure                        | TEFC      | Motor weight - approx.                    | 980 kg                   |
| Frame Material                   | -         | Gross weight- approx.                     | kg                       |
| Mounting type                    | IMB3      | Motor GD2                                 | 8.8 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                     | Top                      |
| 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                               | 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.