# PRODUCT INFORMATION PACKET

Model No: KS13P520B40V45XSX
Catalog No: AL08D4040MFAFTOAOO
13.5 Kw, Crane Duty Slipring Motors , 3 phase, 8 Pole, 415 V, S5 Duty, KS200L2 Frame, 40 CDF, 150 Start/Hr., TEFC

## Nameplate Specifications

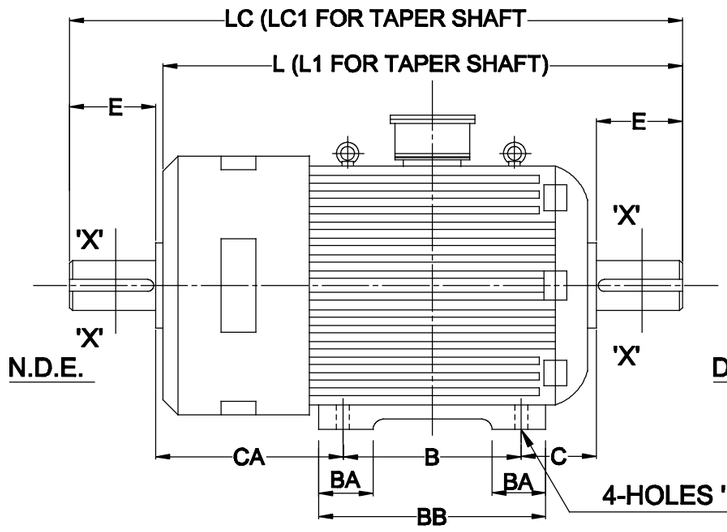
| | | | |
|---|---|---|---|
| Output HP | 18 Hp | Output KW | 13.5 kW |
| Frequency | 50 Hz | Voltage | 415 V |
| Current | 32.5 A | Speed | 727 rpm |
| Phase | 3 | Duty | S5 |
| Frame | KS200L2 | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | No Protection | Ambient Temperature | 45 °C |
| Drive End Bearing Size | 6312 | Opp Drive End Bearing Size | 6312 |
| UL | No | CSA | No |
| CE | No | IP Code | 55 |
| CDF | 40 % | Start/Hr | 150 |
| RA | 32 A | RV | 255 V |
| Insulation class Stator/Rotor | F/F | Temp. Rise Stator/Rotor | 75/75 K |
| Stator Connection | Delta | Rotor Connection | Star |
| Efficiency Class | Standard | | |

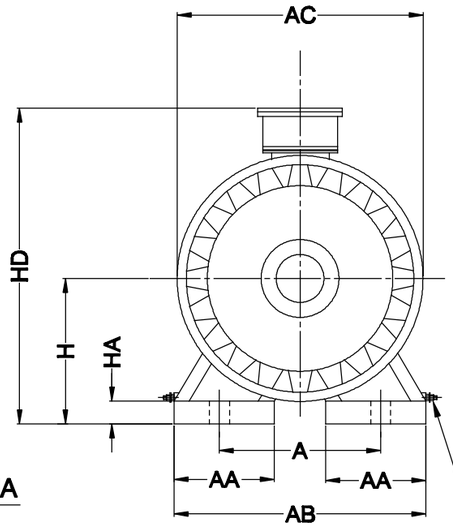
## Technical Specifications

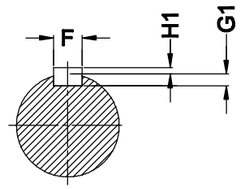
| | | | |
|---|---|---|---|
| Electrical Type | Slipring | Starting Method | Rotor resistance starter |
| Rotation | Bi-Directional | Mounting | IMB3 |
| Motor Orientation | Horizontal | Drive End Bearing | Antifriction |
| Opp Drive End Bearing | Antifriction | Frame Material | Cast Iron/Fabricated |
| Shaft Type | Single Cylinder | Overall Length | 947.00 mm |
| Frame Length | 947.00 mm | Shaft Diameter | 55.000 mm |
| Shaft Extension | 110 mm | Assembly/Box Mounting | Top |
| Rotor GD2 | 2.17 kg·m² | Pull Out Torque | 3.2 |
| Outline Drawing | CM1383 | Connection Drawing | DP2290 |

DRAWING No. CM1383 REV.09



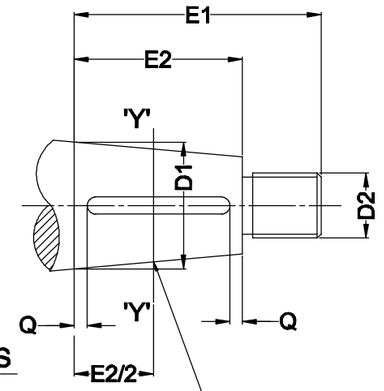


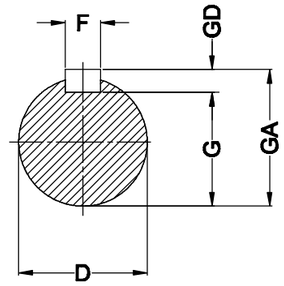




SECTION- Y'Y'

TAPER SHAFT DETAILS
(BOTH ENDS IDENTICAL)
KEY IS PARALL TO THE SHAFT AXIS




SECTION - "XX"

| PT. NO. | FRAME | POLE | D(SHAFT DIA) | | E | GA | F | | GD | | G | | H | | FIXING DIMENSIONS | | | | K | HA | AC | HD | AB | AA | BB | BA | L | LC | L1 | LC1 | TAPER SHAFT DIMENSIONS DETAILS (BOTH) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | NOM. | TOL. | | | NOM. | TOL. | NOM. | TOL. | NOM. | TOL. | NOM. | TOL. | A | B | C | CA | | | | | | | | | | | | | D1 | D2 | E1 | E2 | F1 | H1 | G1 | Q |
| 1 | KS112M | 4-8 | 28 | +.009 -.004 | 60 | 31 | 8 | +0 -.036 | 7 | +0 -.090 | 24 | +0 -.2 | 112 | +0 -0.5 | 190 | 140 | 70 | 345 | 12 | 15 | 252 | 330 | 226 | 45 | 170 | 50 | 610 | 672.5 | 610 | 672.5 | T28 | M16x1.5 | 60 | 42 | 5 | 5 | 3 | 3 |
| 2 | KS132M | 4-8 | 38 | +.018 +.002 | 80 | 41 | 10 | +0 -.036 | 8 | +0 -.090 | 33 | +0 -.2 | 132 | +0 -0.5 | 216 | 178 | 89 | 358 | 12 | 15 | 300 | 380 | 260 | 55 | 220 | 55 | 700 | 785 | 700 | 785 | T38 | M20x1.5 | 80 | 54 | 8 | 7 | 4 | 5 |
| 3 | KS160M | 4-8 | 42 | +.018 +.002 | 110 | 45 | 12 | +0 -.043 | 8 | +0 -.090 | 37 | +0 -.2 | 160 | +0 -0.5 | 254 | 210 | 108 | 347 | 15 | 20 | 350 | 440 | 305 | 55 | 305 | 92.5 | 815 | 932 | 815 | 932 | T42 | M24x2 | 110 | 82 (09) | 10 | 8 | 5 | 5 |
| 4 | KS160L | 4-8 | 42 | +.018 +.002 | 110 | 45 | 12 | +0 -.043 | 8 | +0 -.090 | 37 | +0 -.2 | 160 | +0 -0.5 | 254 | 254 | 108 | 347 | 15 | 20 | 350 | 440 | 305 | 55 | 305 | 92.5 | 815 | 932 | 815 | 932 | T42 | M24x2 | 110 | 82 (09) | 10 | 8 | 5 | 5 |
| 5 | KS180L | 4-8 | 48 | +.018 +.002 | 110 | 51.5 | 14 | +0 -.043 | 9 | +0 -.090 | 42.5 | +0 -.2 | 180 | +0 -0.5 | 279 | 279 | 121 | 370 | 15 | 21 | 445 | 490 | 340 | 75 | 340 (04) | 85 | 875 | 990 | 875 | 990 | T48 | M30x2 | 110 | 82 | 12 | 8 | 5 | 5 |
| 6 | KS200L | 4-8 | 55 | +.030 +.011 | 110 | 59 | 16 | +0 -.052 | 10 | +0 -.090 | 49 | +0 -.2 | 200 | +0 -0.5 | 318 | 305 | 133 | 399 | 19 | 25 | 450 (04) | 545 | 400 | 89 | 365 | 95 | 947 (04) | 1057 | 947 (04) | 1057 | T55 | M36x3 | 110 | 82 | 14 | 9 | 5.5 | 5 |

| REVISION | DATE | DETAIL OF REVISION | DONE BY | APPRVD |
|---|---|---|---|---|
| 09 | 14.04.14 | 'E2' Dimension for Pt.No. 3 & 4 Changed to 82 was 87 | | |
| 08 | 07.07.11 | Unification of KS160 M&L Frame | | |
| 07 | 06.06.11 | EARTHING TERMINAL INCORPORATED | | |
| 06 | 19.07.10 | 'G' Dimn. for Pt.1 Changed to 24mm. was 27mm. | | |
| 05 | 14.12.07 | COMPANY NAME AND LOGO CHANGED | | |
| 04 | 05.05.06 | 'BB' Dimension for KS180 Frame was 394 mm.<br>'AC' Dimension for KS200 Frame was 494 mm.<br>'L' & 'L1' Dimension for KS20 Frame was 942 mm. | | |
| 03 | 11.09.04 | DRAWING GENERALLY REVISED | | |
| B | 10.11.97 | 'L' & 'L1' DIM. ALTERED (OLD 704) FOR PT.2 | B.B. | S.B. |
| A | 19.04.97 | 'G' FOR PART 3 & 4 CHANGED | B.B. | S.B. |

ALL DIMENSIONS ARE IN MILIMETRE

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A Regal Beloit Company

Marathon Electric Motors (India) Limited
Paharpur Works, 58 Taratala Road.
Kolkata - 700024 , INDIA

TITLE: OUTLINE DIMENSION DRAWING FOR 112M TO 200L (KRANE MOTOR.)

| | | SIGN | DATE | |
|---|---|---|---|---|
| DRAWN | B.BISWAS | | 23.07.96 | |
| CHECKED | S.BHOWMICK | | 23.07.96 | |
| APPRVD. | R.RANJAN | | 23.07.96 | SCALE IF ANY |
| | | | | N.T.S |

DRAWING NO. CM1383 REV. 09

marathon® Motors

**Model No.** KS13P520B40V45XSX **Part No.** AL08D4040MFAFTOAOO

| 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] | | | % | | | |
| 13.5 | 18 | 727 | 3.2 | 572 | 415 | 50 | 32.5 | 32 | 255 | 40 | S5 | 150 | KS200L2 |

| | | | | |
|---|---|---|---|---|
| Motor type | Slipring | Degree of protection | IP-55 | |
| Enclosure | TEFC | Motor weight - approx. | 370 | kg |
| Frame Material | - | Gross wight- approx. | | kg |
| Mounting type | IMB3 | Motor GD2 | 2.17 | $kgm^2$ |
| 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 | 6312 | |
| Rotor Connection | Star | NDE Bearing | 6312 | |
| | | 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.

REGAL