



TerraMAX[®] MOTORS SCA SERIES

TerraMAX SCA Series motors are IE2 Efficient Totally Enclosed Fan Cooled Cast Iron motors built on the TerraMAX Low Voltage platform. SCA Series motors inherit premium features of the futuristic TerraMAX motor platform family. The rugged construction of SCA motors endeavors to meet all the general industry requirement for every tough and demanding applications.

SPECIFICATIONS

| | |
|--------------------|--|
| Output: | 0.75kW to 375kW (1HP to 500HP) |
| Pole: | 2 to 8 Pole |
| Frame: | IEC 80 – 355 |
| Standards: | Confirms to IEC 60034 |
| Supply: | Available for voltage supply between 200V to 690V and frequency 50 or 60Hz |
| Ambient: | 40°C (Higher ambient on request) |
| Construction: | Cast Iron with Integrally Cast Feet |
| Drive Suitability: | Suitable for variable torque duty (10:1) |
| Terminal Box: | Sheet metal up to 225, Cast Iron for 250 and above |
| Connection: | ≤ 3kW: Star Connection, > 3kW: Delta Connection |
| Protection: | IP55 (Higher degree protection on request) |
| Insulation: | Class F with Class B temperature rise |
| Bearings: | Shielded bearings for IEC 80-180 |
| Fan: | Bi-directional fan |
| Mounting: | All standard mountings B3, B5, B35, V1 (B14 and B34 for IEC 80-132) |

OPTIONAL ACCESSORIES:

Space heater, RTD (for IEC 200 and above), BTD (for IEC 160 and above), Cable glands, Brakes (IEC 180 and above), Encoders and canopy for V1 mounting. For additional details, please contact our technical support team

APPLICATIONS

| | | | |
|---------------|-------------------|-------------|-----------------------|
| Machine Tools | Material Handling | Pumps | Fans |
| Conveyors | Crane & Hoist | Compressors | Packaging Equipment's |



CERTIFICATIONS (ON REQUEST)



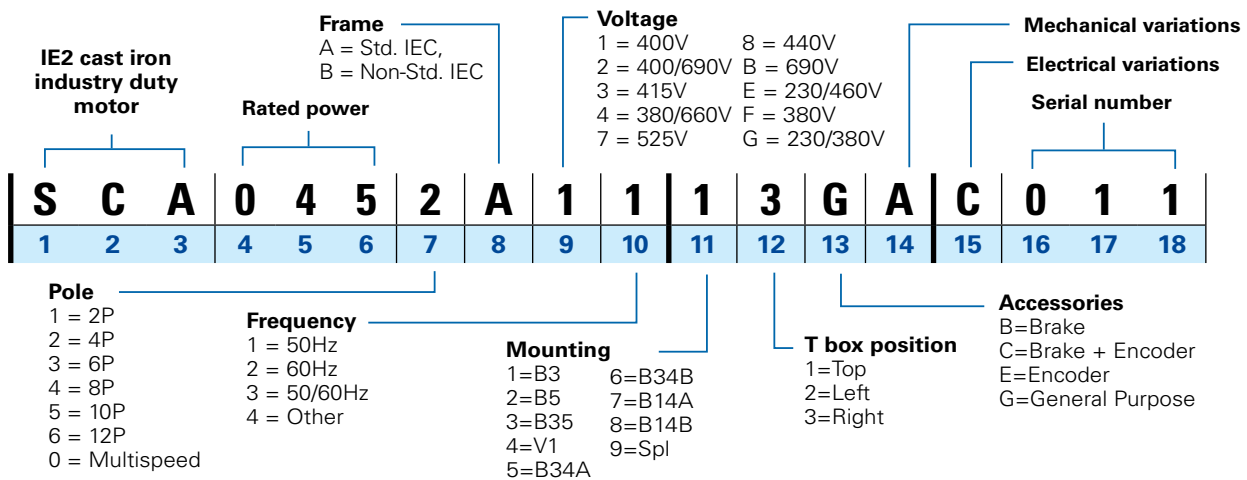
PERFORMANCE DATA

| Model No. | Frame | Rated (kW) | 50 Hz Supply | | | | | | | | | | Moment of Inertia (kgm ²) | Weight (kg) | |
|----------------------|-------|------------|--------------|---------------|------|------|--------------|------------|------|------|---|--|---------------------------------------|-------------|---|
| | | | Speed (RPM) | Full Load Amp | | | Power factor | Efficiency | | | Starting Current (I _{LR} /I _{RATED}) | Starting Torque (T _{LR} /T _{RATED}) | | | Breakdown Torque (T _{BD} /T _{RATED}) |
| | | | | 380V | 400V | 415V | | 100% | 75% | 50% | | | | | |
| 6 POLE MOTORS | | | | | | | | | | | | | | | |
| SCAP753A.1..G..... | 90S | 0.75 | 913 | 1.9 | 1.9 | 1.8 | 0.77 | 75.9 | 75.9 | 75.1 | 3.9 | 2.2 | 2.2 | 0.0036 | 22.9 |
| SCA1P13A.1..G..... | 90L | 1.1 | 912 | 2.8 | 2.7 | 2.6 | 0.76 | 78.1 | 78.1 | 77.5 | 4.1 | 2.4 | 2.4 | 0.0048 | 27.0 |
| SCA1P53A.1..G..... | 100L | 1.5 | 931 | 3.7 | 3.5 | 3.4 | 0.77 | 79.8 | 79.8 | 79.0 | 4.8 | 2.7 | 2.7 | 0.0058 | 37 |
| SCA2P23A.1..G..... | 112M | 2.2 | 962 | 5.2 | 5.0 | 4.8 | 0.78 | 81.8 | 81.8 | 80.2 | 6.0 | 2.3 | 2.6 | 0.0180 | 44 |
| SCA0033A.1..G..... | 132S | 3.0 | 957 | 7.0 | 6.7 | 6.4 | 0.78 | 83.3 | 83.3 | 83.6 | 6.1 | 2.5 | 2.8 | 0.0211 | 69 |
| SCA3P73A.1..G..... | 132S | 3.7 | 955 | - | - | 7.9 | 0.77 | 84.3 | 84.3 | 85.3 | 6.0 | 2.6 | 2.8 | 0.0256 | 76 |
| SCA0043A.1..G..... | 132M | 4.0 | 953 | 9.1 | 8.6 | 8.3 | 0.79 | 84.6 | 84.6 | 85.1 | 6.0 | 2.6 | 2.7 | 0.0256 | 78 |
| SCA5P53A.1..G..... | 132M | 5.5 | 956 | 12.6 | 12.0 | 11.6 | 0.77 | 86.0 | 86.0 | 85.3 | 6.7 | 3.1 | 3.2 | 0.0332 | 90 |
| SCA7P53A.1..G..... | 160M | 7.5 | 970 | 17.0 | 16.1 | 15.5 | 0.77 | 87.2 | 87.2 | 86.2 | 5.9 | 2.4 | 3.6 | 0.1140 | 119 |
| SCA0113A.1..G..... | 160L | 11 | 970 | 24.2 | 22.9 | 22.1 | 0.78 | 88.7 | 88.7 | 87.3 | 5.8 | 2.4 | 3.4 | 0.1530 | 139 |
| SCA0153A.1..G..... | 180L | 15 | 974 | 31 | 29.4 | 28.4 | 0.82 | 89.7 | 89.7 | 89.4 | 5.3 | 2.0 | 2.3 | 0.1992 | 201 |
| SCA18P3A.1..G..... | 200L | 18.5 | 977 | 37 | 36 | 34 | 0.83 | 90.4 | 90.4 | 90.9 | 5.1 | 1.7 | 2.1 | 0.3254 | 249 |
| SCA0223A.1..G..... | 200L | 22 | 977 | 44 | 42 | 41 | 0.83 | 90.9 | 90.9 | 91.4 | 5.3 | 1.8 | 2.2 | 0.3694 | 266 |
| SCA0303A.1..G..... | 225M | 30 | 983 | 60 | 57 | 55 | 0.83 | 91.7 | 91.7 | 92.6 | 5.6 | 2.0 | 2.3 | 0.7554 | 375 |
| SCA0373A.1..G..... | 250M | 37 | 987 | 73 | 69 | 66 | 0.84 | 92.2 | 92.2 | 92.2 | 6.7 | 2.3 | 2.9 | 1.0661 | 474 |
| SCA0453A.1..G..... | 280S | 45 | 984 | 86 | 81 | 79 | 0.86 | 92.7 | 92.7 | 93.6 | 5.7 | 2.0 | 2.4 | 1.9403 | 616 |
| SCA0553A.1..G..... | 280M | 55 | 984 | 104 | 99 | 96 | 0.86 | 93.1 | 93.1 | 93.9 | 5.7 | 2.0 | 2.3 | 2.2355 | 677 |
| SCA0753A.1..G..... | 315S | 75 | 989 | 147 | 139 | 134 | 0.83 | 93.7 | 93.7 | 94.4 | 5.1 | 1.6 | 2.2 | 3.3734 | 822 |
| SCA0903A.1..G..... | 315M | 90 | 990 | 175 | 167 | 160 | 0.83 | 94.0 | 94.0 | 94.7 | 5.2 | 1.7 | 2.2 | 3.9282 | 888 |
| SCA1103A.1..G..... | 315L | 110 | 990 | 211 | 200 | 193 | 0.84 | 94.3 | 94.3 | 95.0 | 5.4 | 1.8 | 2.2 | 4.7728 | 1012 |
| SCA1323A.1..G..... | 315L | 132 | 990 | 252 | 240 | 231 | 0.84 | 94.6 | 94.6 | 95.2 | 5.5 | 1.9 | 2.2 | 5.4662 | 1080 |
| SCA1603A.1..G..... | 355M | 160 | 991 | 298 | 283 | 273 | 0.86 | 94.8 | 94.8 | 95.5 | 6.1 | 1.9 | 2.5 | 8.5699 | 1609 |
| SCA2003A.1..G..... | 355M | 200 | 991 | 372 | 353 | 341 | 0.86 | 95.0 | 95.0 | 95.8 | 6.0 | 1.9 | 2.4 | 9.9148 | 1724 |
| SCA2503A.1..G..... | 355L | 250 | 991 | 460 | 437 | 421 | 0.87 | 95.0 | 95.0 | 95.7 | 6.1 | 2.0 | 2.4 | 11.708 | 1867 |
| SCA2803A.1..G..... | 355L | 280 | 990 | 515 | 489 | 471 | 0.87 | 95.0 | 95.0 | 95.6 | 6.1 | 2.0 | 2.4 | 12.717 | 1959 |
| 8 POLE MOTORS | | | | | | | | | | | | | | | |
| SCAP754A.1..G..... | 100L | 0.75 | 723 | 2.6 | 2.5 | 2.4 | 0.66 | 66.2 | 66.2 | 66.2 | 4.7 | 1.8 | 2.7 | 0.0149 | 36 |
| SCA1P14A.1..G..... | 100L | 1.1 | 722 | 3.6 | 3.4 | 3.3 | 0.66 | 70.8 | 70.8 | 70.8 | 4.9 | 2.0 | 2.7 | 0.0172 | 39 |
| SCA1P54A.1..G..... | 112M | 1.5 | 718 | 4.7 | 4.4 | 4.3 | 0.66 | 74.1 | 74.1 | 72.5 | 4.4 | 2.0 | 2.4 | 0.0200 | 52 |
| SCA2P24A.1..G..... | 132S | 2.2 | 709 | 6.2 | 5.9 | 5.7 | 0.69 | 77.6 | 77.6 | 76.9 | 4.0 | 1.9 | 2.2 | 0.0640 | 79 |
| SCA0034A.1..G..... | 132M | 3.0 | 706 | 8.3 | 7.8 | 7.6 | 0.69 | 80.0 | 80.0 | 79.5 | 4.1 | 2.0 | 2.3 | 0.0764 | 90 |
| SCA3P74A.1..G..... | 160 M | 3.7 | 715 | - | - | 9.0 | 0.70 | 81.4 | 81.4 | 81.4 | 6.0 | 1.9 | 2.1 | 0.0890 | 102 |
| SCA0044A.1..G..... | 160M | 4.0 | 715 | 10.6 | 10.1 | 9.7 | 0.70 | 81.9 | 81.9 | 81.4 | 6.0 | 1.9 | 2.1 | 0.0890 | 102 |
| SCA5P54A.1..G..... | 160M | 5.5 | 720 | 13.9 | 13.2 | 12.7 | 0.72 | 83.8 | 83.8 | 83.3 | 6.0 | 2.0 | 2.1 | 0.1090 | 115 |
| SCA7P54A.1..G..... | 160L | 7.5 | 720 | 18.3 | 17.4 | 16.8 | 0.73 | 85.3 | 85.3 | 84.6 | 6.0 | 2.0 | 2.1 | 0.1450 | 135 |
| SCA0114A.1..G..... | 180L | 11 | 723 | 27.5 | 26.1 | 25.2 | 0.70 | 86.9 | 86.9 | 86.8 | 4.5 | 2.0 | 2.1 | 0.3646 | 236 |
| SCA0154A.1..G..... | 200L | 15 | 730 | 35 | 34 | 32 | 0.73 | 88.0 | 88.0 | 89.0 | 6.1 | 1.9 | 3.0 | 0.7327 | 300 |
| SCA18P4A.1..G..... | 225S | 18.5 | 737 | 45 | 42 | 41 | 0.71 | 88.6 | 88.6 | 89.1 | 4.7 | 1.9 | 2.4 | 1.0860 | 403 |
| SCA0224A.1..G..... | 225M | 22 | 736 | 51 | 48 | 46 | 0.74 | 89.1 | 89.1 | 89.7 | 4.3 | 1.7 | 2.1 | 1.1910 | 426 |
| SCA0304A.1..G..... | 250M | 30 | 738 | 66 | 63 | 60 | 0.77 | 89.8 | 89.8 | 90.8 | 4.9 | 1.9 | 2.3 | 2.1620 | 552 |
| SCA0374A.1..G..... | 280S | 37 | 738 | 84 | 80 | 77 | 0.74 | 90.3 | 90.3 | 92.6 | 4.6 | 1.9 | 2.3 | 3.2580 | 691 |
| SCA0454A.1..G..... | 280M | 45 | 738 | 94 | 90 | 86 | 0.80 | 90.7 | 90.7 | 93.1 | 4.7 | 1.9 | 2.1 | 3.5330 | 743 |
| SCA0554A.1..G..... | 315S | 55 | 742 | 128 | 121 | 117 | 0.72 | 91.0 | 91.0 | 91.3 | 4.3 | 1.8 | 2.0 | 3.7900 | 853 |
| SCA0754A.1..G..... | 315M | 75 | 743 | 170 | 162 | 156 | 0.73 | 91.6 | 91.6 | 92.1 | 4.4 | 1.9 | 2.0 | 4.8300 | 959 |
| SCA0904A.1..G..... | 315L | 90 | 743 | 201 | 191 | 184 | 0.74 | 91.9 | 91.9 | 92.5 | 4.5 | 1.9 | 2.0 | 5.6620 | 1042 |
| SCA1104A.1..G..... | 355M | 110 | 743 | 229 | 218 | 210 | 0.79 | 92.3 | 92.3 | 93.8 | 5.8 | 1.6 | 2.7 | 7.8320 | 1545 |
| SCA1324A.1..G..... | 355M | 132 | 743 | 271 | 257 | 248 | 0.8 | 92.6 | 92.6 | 94.2 | 5.9 | 1.6 | 2.6 | 8.9260 | 1636 |
| SCA1504A.1..G..... | 355M | 150 | 742 | 299 | 284 | 274 | 0.82 | 92.9 | 92.9 | 94.7 | 5.5 | 1.5 | 2.4 | 9.9100 | 1727 |
| SCA1604A.1..G..... | 355M | 160 | 743 | 327 | 310 | 299 | 0.80 | 93.0 | 93.0 | 94.4 | 6.1 | 1.8 | 2.7 | 10.566 | 1783 |
| SCA1854A.1..G..... | 355M | 185 | 743 | 372 | 353 | 341 | 0.81 | 93.3 | 93.3 | 94.7 | 6.1 | 1.8 | 2.7 | 12.097 | 1916 |
| SCA2004A.1..G..... | 355L | 200 | 742 | 392 | 372 | 359 | 0.83 | 93.5 | 93.5 | 95.1 | 5.8 | 1.7 | 2.5 | 13.190 | 2011 |
| SCA2204A.1..G..... | 355L | 220 | 743 | 431 | 409 | 394 | 0.83 | 93.5 | 93.5 | 95.1 | 5.9 | 1.7 | 2.5 | 14.721 | 2140 |

Blue Shaded: For sale by Regal operations in India only. Performance per IS:12615

PART NUMBER LOGIC

Marathon® TerraMAX® SCA series standard product code for IEC frame motors is shown below.



For additional details, please contact our technical support team.



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APPLICATION CONSIDERATIONS

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal Beloit America, Inc. and/or its affiliates ("Regal") with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

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