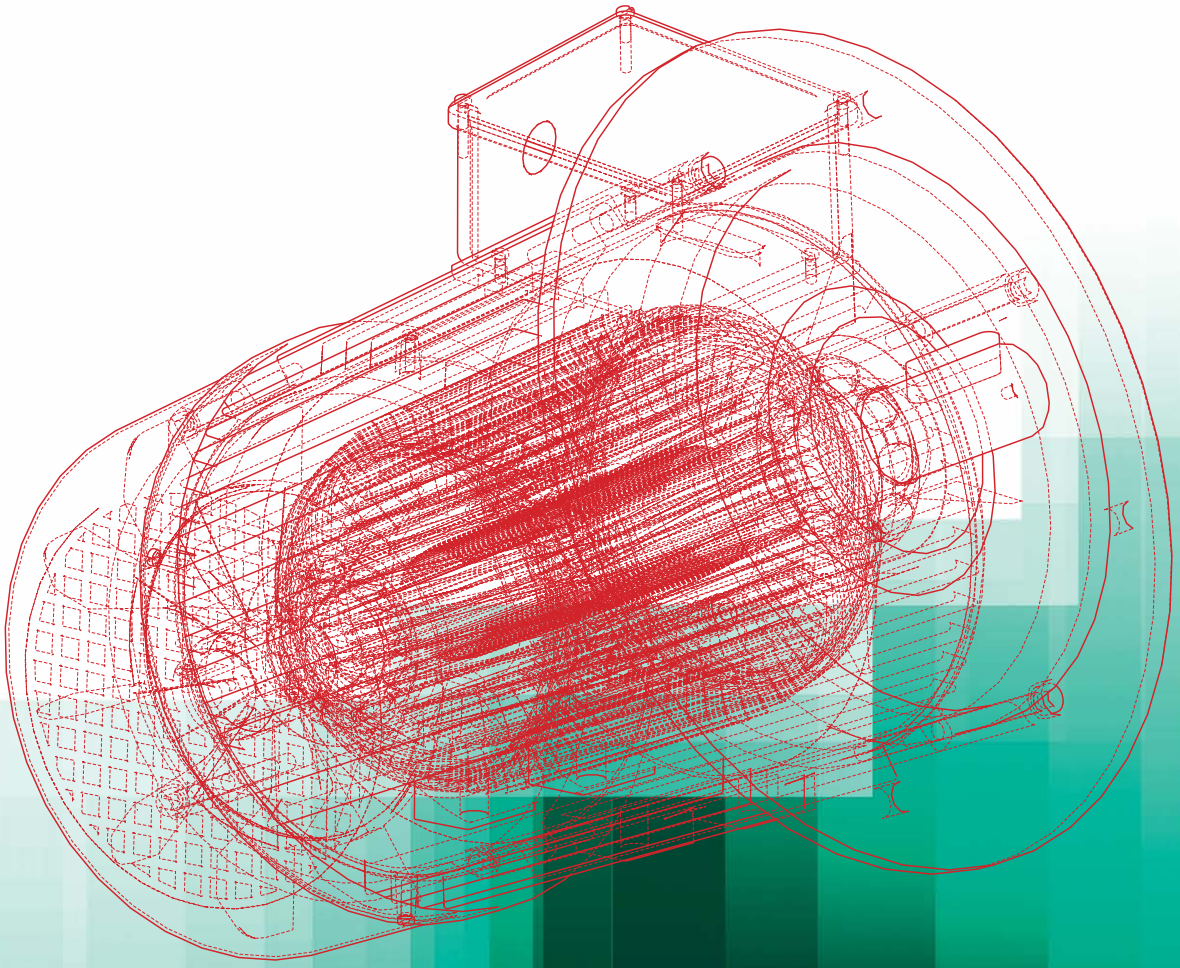
LOW VOLTAGE ELECTRIC MOTORS
TECHNICAL PUBLICATION

# LS6 RANGE



**PERFORMANCE PRODUCTS**

ELECTRICAL MACHINES
A division of ACTOM (Pty) Ltd

ACTOM

## GENERAL FEATURES :

1. 3 phase TEFC Cast Iron at 50Hz, 400V and 525V as standard
2. Frame Size 80 to 400 in foot, flange and / or foot / flange combinations.
3. Rated output: 0.55kW to 680kW at 4 pole speed.
4. 2, 4, 6, 8 pole motors available ex stock as standard.
5. Premium efficiency (IE3) to IEC 60034–30, IEC 60034–2–1
6. Efficiency rating quoted to IEC Indirect stray loss measurement method
7. Class H insulation with VPI and class B temperature rise
8. IP 66 degree of enclosure protection. See pg 15.
9. Heavy duty bearings re-greasable in Frame Size 160 and higher. See pg 13.
10. Large volume, $90^0$ rotatable cast iron terminal boxes. See pg 6.
11. Detachable gland plates in Frame Size 160 and higher.
12. Variable Speed Drive compatible. Motor and load must be correctly matched
    * V peak < 1 640V at motor terminals.
    * Rise time > 0.3µsec at motor terminals.

The LS6 Motor Range is manufactured in accordance with:

| | |
|---|---|
| SANS 1804-1 | Induction motors Part 1: IEC requirements |
| SANS 1804-2 | Induction motors Part 2: LV 3-phase standard motors |
| SANS 60034-1 | Rotating electrical machines - Rating and performance |
| SANS 60034-2-1 | Standard methods for determining losses & efficiency from tests |
| SANS 60034-30 | Efficiency classes of single-speed, three-phase, cage-induction motors (IE-code) |
| SANS 60034-5 | Rotating electrical machines Part 5: Degrees of protection Provided by the integral design of rotating electrical machines (IP code) – Classification |
| SANS 60034-14 | Rotating electrical machines Part 14: Mechanical vibration of certain machines with shaft heights 56 mm and higher. Measurement, evaluation and limits of vibration severity |
| SANS 60034-7 | Rotating electrical machines Part 7: Classification types of construction, mounting arrangements, terminal box position |
| SANS 60034-6 | Rotating electrical machines Part 6: Methods of cooling |

## CONTACT DETAILS

### TELEPHONE CONTACTS

| | | |
|---|---|---|
| BENONI | Antonio Teixeira | +27 (0) 82 804 2620 |
| | Rishi Gangaram | +27 (0) 78 800 6874 |
| | Daniel Hall | +27 (0) 83 515 0962 |
| CAPE TOWN | Keith Kovachi | +27 (0) 72 698 5489 |
| | Tiaan van Dyk | +27 (0) 64 756 1143 |
| PORT ELIZABETH | Ettienne Haasbroek | +27 (0) 84 456 7807 |
| DURBAN | Martin van Ballegooyen | +27 (0) 82 906 6318 |
| | Dean Pillay | +27 (0) 72 486 3618 |
| RUSTENBURG | Jaco Ayres | +27 (0) 82 908 7746 |
| | Gerrie Benadie | +27 (0) 83 629 8372 |
| NELSPRUIT | Craig Scheepers | +27 (0) 71 518 9008 |
| | Ricky Duimelaar | +27 (0) 83 721 4897 |
| MIDDELBURG/WITBANK | Arnold vd Merwe | +27 (0) 82 497 6901 |
| | Shane Scott | +27 (0) 72 284 9389 |
| RICHARDS BAY | Grant Toms | +27 (0) 84 408 6114 |

### E-MAIL CONTACTS

| | |
|---|---|
| GENERAL MANAGER | antonio.teixeira@actom.co.za |
| BUSINESS DEVELOPMENT MANAGER | rishi.gangaram@actom.co.za |
| PROJECT MANAGER | daniel.hall@actom.co.za |
| AFTER SALES MANAGER | barries.barnard@actom.co.za |
| SPARES MANAGER | ish.hira@actom.co.za |
| TECHNICAL MANAGER | gerrit.kellerman@actom.co.za |
| CENTRAL SALES MANAGER | jane.goldwyer@actom.co.za |
| GENERAL SALES | em.lvmotors@actom.co.za |

### WEB DETAILS

www.actom.co.za

### BRANCHES

### HEAD OFFICE

| | | |
|---|---|---|
| BENONI WORKS | Cnr. Aberdeen & Van Dyk Rds, Benoni Industrial Sites | Tel: +27 (0) 11 899 1111<br>Fax: +27 (0) 11 899 1371 |
| BLOEMFONTEIN | 20 Lombard St, Hilton, Bloemfontein | Tel: +27 (0) 51 448 1417<br>Fax: +27 (0) 51 448 7104 |
| CAPE TOWN | 12-16 Hawkins Ave, Epping Industrial No.1 | Tel: +27 (0) 21 532 2000<br>Fax: +27 (0) 21 532 2013 |
| DURBAN | 70 Edwin Swales VC Drive, Rossburgh, | Tel: +27 (0) 31 465 170<br>Fax: +27 (0) 31 465 4189 |
| MIDDELBURG | 25 Milli St, Industrial Area | Tel: +27 (0) 13 136 0100<br>Fax: +27 (0) 86 210 0200 |
| NELSPRUIT | 6 Wilkens Street, Rockys Drift, Axis Industrial Park, A1 | Tel: +27 (0) 87 351 2996<br>Fax: +27 (0) 86 587 8457 |
| POLOKWANE | 115 Blaawberg St, Ladine, Polokwane | Tel: +27 (0) 15 293 0920<br>Fax: +27 (0) 15 293 0408 |

| | | |
|---|---|---|
| PORT ELIZABETH | 200 Kempston Rd, Sidwell P.E. | Tel: +27 (0) 41 451 5641<br>Fax: +27 (0) 41 451 4385 |
| PRETORIA | 437 Skilder St, Silvertondale | Tel: +27 (0) 12 804 0551<br>Fax: +27 (0) 12 804 1596 |
| RICHARDS BAY | Unit 1, 13 Bronze Bar Road, Alton, Richards Bay | Tel: +27 (0) 87 365 0236<br>Fax: +27 (0) 86 506 6402 |
| RUSTENBURG | No 1, First Street Waterval, Unit NR2 | Tel: +27 (0) 14 940 0382<br>Fax: +27 (0) 86 732 6999 |
| STEELPOORT | Building No.1, Steelpoort Ext 10 | Tel: +27 (0) 13 230 3238<br>Fax: +27 (0) 13 230 3253 |
| WELKOM | 29-10th St, Voorspoed | Tel: +27 (0) 57 355 2451<br>Fax: +27 (0) 57 396 2155 |

**DISTRIBUTORS / STOCKISTS**

| | | |
|---|---|---|
| BARBERTON | DE KAAP ELECTRICAL | Tel: +27 (0) 13 712 3398<br>Fax: +27 (0) 13 712 4587 |
| DURBAN | BRADCOR ARMATURE WINDERS | Tel: +27 (0) 31 468 3371<br>Fax: +27 (0) 31 468 9333 |
| EAST LONDON | E AND P MANUFACTURING | Tel: +27 (0) 43 743 0212<br>Fax: +27 (0) 43 743 6587 |
| ERMELO | ERMELO ELECTRO MOTOR SERVICES | Tel: +27 (0) 17 811 4902<br>Fax: +27 (0) 17 811 2483 |
| GEORGE | GEORGE ELECTRICAL REWINDERS | Tel: +27 (0) 44 873 4004<br>Fax: +27 (0) 44 874 7747 |
| KIMBERLEY | MULTITECH AFRICA | Tel: +27 (0) 53 861 3765<br>Fax: +27 (0) 86 657 0224 |
| KLERKSDORP | CENTRAL BEARINGS | Tel: +27 (0) 18 469 2005<br>Fax: +27 (0) 18 469 2007 |
| MIDDELBURG | SIMOTECH (PTY) LTD | Tel: +27 (0) 13 246 2614<br>Fax: +27 (0) 13 246 2617 |
| NEWCASTLE | OREG TECHNOLOGY | Tel: +27 (0) 34 315 3278<br>Fax: +27 (0) 34 315 3279 |
| PHALABORWA | LH MARTHINUSEN | Tel: +27 (0) 15 781 5126<br>Fax: +27 (0) 15 781 7033 |
| PIET RETIEF | PUMPS AND TRANSMISSIONS | Tel: +27 (0) 17 826 1205<br>Fax: +27 (0) 17 826 2523 |
| PORT ELIZABETH | POSTMA AND POSTMA | Tel: +27 (0) 41 453 3451<br>Fax: +27 (0) 41 451 4446 |
| RICHARDS BAY | L.R. GEARED MOTORS | Tel: +27 (0) 35 789 1081<br>Fax: +27 (0) 35 789 1081 |
| RUSTENBURG | VENWOOD AND BAKER | Tel: +27 (0) 14 597 2445<br>Fax: +27 (0) 14 597 4816 |
| SPRINGBOK | SPRINGBOK MOTOR REWINDS | Tel: +27 (0) 27 712 2239<br>Fax: +27 (0) 27 712 2243 |
| TZANEEN | TZANEEN REWINDING | Tel: +27 (0) 15 307 6570<br>Fax: +27 (0) 86 647 4040 |
| VEREENIGING | CENTURY ELECTRICAL | Tel: +27 (0) 16 440 1500<br>Fax: +27 (0) 16 422 1126 |
| VREDENBURG | BEARING DISTRIBUTORS - WESKUS | Tel: +27 (0) 22 713 5663<br>Fax: +27 (0) 22 713 5665 |

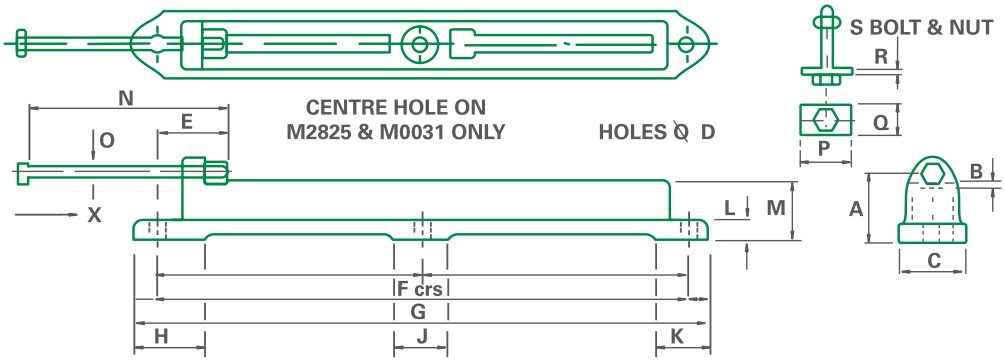
LS6 Premium Efficiency Motors

## Terminal box data

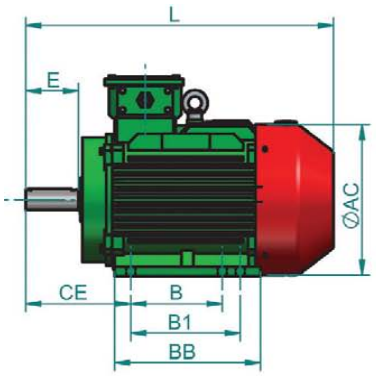
| FRAME SIZE | CABLE ENTRIES | TERMINAL SCREW THREAD | DEGREE OF PROTECTION | No. OF TERMINALS | TERMINAL BOX MATERIAL | DETACHABLE GLAND PLATE | METHOD OF STARTING |
|---|---|---|---|---|---|---|---|
| 80 | 1xM20x1,5 | M4 | IP66 | 6 | Cast Iron | NO | Direct on line or Star Delta starting subject to the following limitations<br><br>Motors rated 3kW and smaller are Star wound for DOL<br><br>Motors rated 4kW and above are Delta wound for DOL |
| 90 | 1xM20x1,5 | M4 | IP66 | 6 | Cast Iron | NO | |
| 100 | 1xM20x1,5 | M4 | IP66 | 6 | Cast Iron | NO | |
| 112 | 2xM20x1,5 | M5 | IP66 | 6 | Cast Iron | NO | |
| 132 | 2xM25x1,5 | M5 | IP66 | 6 | Cast Iron | NO | |
| 160 | 2xM25x1,5 | M6 | IP66 | 6 | Cast Iron | YES | |
| 180 | 2xM32x1,5 | M6 | IP66 | 6 | Cast Iron | YES | |
| 200 | 2xM32x1,5 | M8 | IP66 | 6 | Cast Iron | YES | |
| 225 | 2xM32x1,5 | M8 | IP66 | 6 | Cast Iron | YES | |
| 250 | 2xM40x1,5 | M10 | IP66 | 6 | Cast Iron | YES | |
| 280 | 2xM50x1,5 | M10 | IP66 | 6 | Cast Iron | YES | |
| 315 | 2xM63x1,5 | M12 | IP66 | 6 | Cast Iron | YES | |
| 315LX | 2xM63x1,5 | M16 | IP66 | 6 | Cast Iron | YES | |

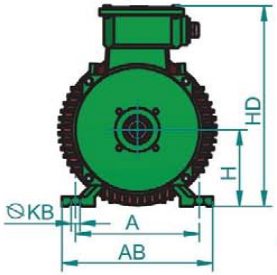
# Slide Rail data

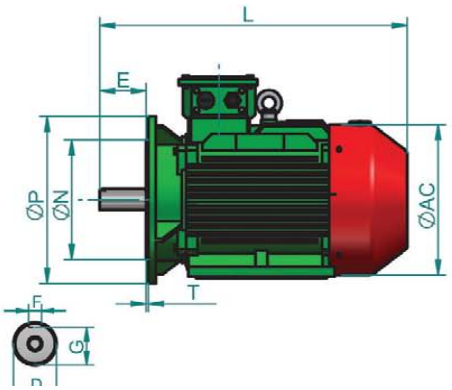
| SLIDE RAIL SIZE | M9080 | M1310 | M1816 | M2220 | M2825 | M0031 |
|---|---|---|---|---|---|---|
| MOTOR FRAME SIZE | 80-90 | 100-112-132 | 160-180 | 200-225 | 250-280 | 315-355 |
| A | 38 | 52 | 73.5 | 93 | 111 | 143 |
| B | 17 | 12 | 16 | 18 | 16 | 25 |
| C | 35 | 51 | 76 | 102 | 102 | 120 |
| D | 11 | 13 | 15 | 19 | 25 | 28 |
| E | 50 | 55 | 86 | 96 | 111 | 125 |
| F | 325 | 430 | 565 | 725 | 885 | 1115 |
| G | 356 | 470 | 615 | 787 | 965 | 1175 |
| H | 59 | 59 | 79 | 92 | 113 | 105 |
| J | - | - | - | - | 90 | 125 |
| K | 35 | 49 | 64 | 100 | 95 | 90 |
| L | 13 | 16 | 19 | 25 | 30 | 40 |
| M | 30 | 44 | 64 | 82 | 100 | 125 |
| N | 135 | 200 | 210 | 255 | 315 | 420 |
| O | M12 | M12 | M16 | M20 | M20 | M24 |
| P | 19 | 19 | 25 | 28 | 38 | 50 |
| Q | 16 | 16 | 19 | 25 | 32 | 32 |
| R | 5 | 5 | 6 | 6 | 10 | 10 |
| S | M8X50 | M10X50 | M12X50 | M16X50 | M20X50 | M24X50 |
| MASS EACH | 3 | 11 | 20 | 63 | 83 | 120 |

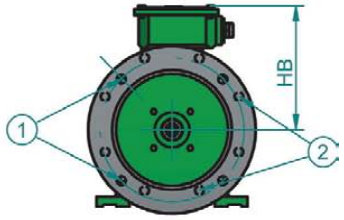


LS6 Premium Efficiency Motors




ØS Holes on M PCD
1 4Holes up to frame size 200
2 8Holes from frame size 225 - 315

Values indicated are subject to change without prior notice. For installation and construction purposes always obtain certified dimensions.

| Frame | Pole | A | AB | AC | B | B1 | BB | CE | D | E | F | G | H | HB | HD | KB | L | M | N | P | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 2 - 8 | 112 | 150 | 136 | 90 | --- | 125 | 75 | 14 | 30 | 5 | 11 | 71 | 124 | 195 | 7 | 270 | 130 | 110 | 160 | 10 | 3.5 |
| 80 | 2 - 8 | 125 | 165 | 156 | 100 | --- | 130 | 90 | 19 | 40 | 6 | 15.5 | 80 | 137 | 217 | 10 | 300 | 165 | 130 | 200 | 12 | 3.5 |
| 90S | 2 - 8 | 140 | 180 | 175 | 100 | --- | 140 | 106 | 24 | 50 | 8 | 20 | 90 | 160 | 250 | 10 | 315 | 165 | 130 | 200 | 12 | 3.5 |
| 90L | 2 - 8 | 140 | 180 | 175 | 125 | --- | 165 | 106 | 24 | 50 | 8 | 20 | 90 | 160 | 250 | 10 | 340 | 165 | 130 | 200 | 12 | 3.5 |
| 100L | 2 - 8 | 160 | 205 | 215 | 140 | --- | 176 | 123 | 28 | 60 | 8 | 24 | 100 | 200 | 290 | 12 | 435 | 215 | 180 | 250 | 14.5 | 4 |
| 112M | 2 - 8 | 190 | 230 | 220 | 140 | --- | 180 | 130 | 28 | 60 | 8 | 24 | 112 | 188 | 300 | 12 | 470 | 215 | 180 | 250 | 14.5 | 4 |
| 132S | 2 - 8 | 216 | 262 | 260 | 140 | --- | 224 | 169 | 38 | 80 | 10 | 33 | 132 | 213 | 345 | 12 | 510 | 265 | 230 | 300 | 14.5 | 4 |
| 132M | 4 - 8 | 216 | 262 | 260 | 178 | --- | 262 | 169 | 38 | 80 | 10 | 33 | 132 | 213 | 345 | 12 | 550 | 265 | 230 | 300 | 14.5 | 4 |
| 160M | 2 - 8 | 254 | 314 | 320 | 210 | --- | 304 | 218 | 42 | 110 | 12 | 37 | 160 | 260 | 420 | 14.5 | 670 | 300 | 250 | 350 | 18.5 | 5 |
| 160L | 2 - 8 | 254 | 314 | 320 | 254 | --- | 334 | 218 | 42 | 110 | 12 | 37 | 160 | 260 | 420 | 14.5 | 700 | 300 | 250 | 350 | 18.5 | 5 |
| 180M | 2 - 4 | 279 | 355 | 390 | 241 | --- | 353 | 231 | 48 | 110 | 14 | 42.5 | 180 | 275 | 455 | 14.5 | 716 | 300 | 250 | 350 | 18.5 | 5 |
| 180L | 4 - 8 | 279 | 355 | 390 | 279 | --- | 400 | 231 | 48 | 110 | 14 | 42.5 | 180 | 275 | 455 | 14.5 | 764 | 300 | 250 | 350 | 18.5 | 5 |
| 200L | 2 - 8 | 318 | 395 | 398 | 305 | --- | 375 | 243 | 55 | 110 | 16 | 49 | 200 | 305 | 505 | 18.5 | 780 | 350 | 300 | 400 | 18.5 | 5 |
| 225S | 4 & 8 | 356 | 435 | 470 | 286 | --- | 370 | 289 | 60 | 140 | 18 | 53 | 225 | 370 | 580 | 18.5 | 820 | 400 | 350 | 450 | 18.5 | 5 |
| 225M | 2 | 356 | 435 | 470 | 311 | --- | 395 | 259 | 55 | 110 | 16 | 49 | 225 | 370 | 580 | 18.5 | 815 | 400 | 350 | 450 | 18.5 | 5 |
| 225M | 4 - 8 | 356 | 435 | 470 | 311 | --- | 395 | 289 | 60 | 140 | 18 | 53 | 225 | 370 | 580 | 18.5 | 845 | 400 | 350 | 450 | 18.5 | 5 |
| 250S/M | 2 | 406 | 490 | 485 | 311 | 349 | 450 | 308 | 60 | 140 | 18 | 53 | 250 | 385 | 635 | 24 | 915 | 500 | 450 | 550 | 18.5 | 5 |
| 250S/M | 4 - 8 | 406 | 490 | 485 | 311 | 349 | 450 | 308 | 70 | 140 | 20 | 62.5 | 250 | 385 | 635 | 24 | 915 | 500 | 450 | 550 | 18.5 | 5 |
| 280S/M | 2 | 457 | 542 | 547 | 368 | 419 | 540 | 330 | 65 | 140 | 18 | 58 | 280 | 400 | 680 | 24 | 1020 | 500 | 450 | 550 | 18.5 | 5 |
| 280S/M | 4 - 8 | 457 | 542 | 547 | 368 | 419 | 540 | 360 | 80 | 170 | 22 | 71 | 280 | 400 | 680 | 24 | 1065 | 500 | 450 | 550 | 18.5 | 5 |
| 315S | 2 | 508 | 630 | 620 | 406 | --- | 570 | 356 | 65 | 140 | 18 | 58 | 315 | 535 | 870 | 28 | 1200 | 600 | 550 | 660 | 24 | 6 |
| 315S | 4 - 8 | 508 | 630 | 620 | 406 | --- | 570 | 386 | 85 | 170 | 22 | 76 | 315 | 535 | 870 | 28 | 1235 | 600 | 550 | 660 | 24 | 6 |
| 315M | 2 | 508 | 630 | 620 | 457 | 508 | 680 | 356 | 65 | 140 | 18 | 58 | 315 | 535 | 870 | 28 | 1310 | 600 | 550 | 660 | 24 | 6 |
| 315M | 4 - 8 | 508 | 630 | 620 | 457 | 508 | 680 | 386 | 85 | 170 | 22 | 76 | 315 | 535 | 870 | 28 | 1345 | 600 | 550 | 660 | 24 | 6 |
| 315L | 2 | 508 | 630 | 620 | 457 | 508 | 680 | 356 | 70 | 140 | 20 | 62.5 | 315 | 535 | 870 | 28 | 1310 | 600 | 550 | 660 | 24 | 6 |
| 315L | 4 - 8 | 508 | 630 | 620 | 457 | 508 | 680 | 386 | 90 | 170 | 25 | 81 | 315 | 535 | 870 | 28 | 1345 | 600 | 550 | 660 | 24 | 6 |
| 315LX | 2 | 508 | 628 | 630 | 508 | --- | 680 | 356 | 70 | 140 | 20 | 62.5 | 315 | 600 | 915 | 28 | 1430 | 600 | 550 | 660 | 24 | 6 |
| 315LX | 4 - 8 | 508 | 628 | 630 | 508 | --- | 680 | 386 | 90 | 170 | 25 | 81 | 315 | 600 | 915 | 28 | 1460 | 600 | 550 | 660 | 24 | 6 |

LS6 Premium Efficiency Motors

# LS6 Premium Specification Range ( IE 3) - Performance Data
## Premium Efficiency ( IE 3) - IEC 60034 - 30
## IEC 60034 - 2 - 1: Indirect method, stray loss measurement

**2 pole**

| Output | Frame Size | Type | Speed | Pole | Current at 400 V | Current at 525 V | FLT | Efficiency | | | Power Factor | | | D.O.L | | BDT | LRT (s) | | Rotor Inertia | Motor Mass |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **kW** | | **LS6** | **r/min** | | **A** | **A** | **Nm** | **(%)** | **(%)** | **(%)** | | | | **Starting** | **pu** | **p.u.** | **Cold** | **Hot** | **kg.m²** | **kg** |
| | | | | | | | | **4/4** | **3/4** | **1/2** | **4/4** | **3/4** | **1/2** | **Torque** | **Current** | | | | | |
| 0.75 | 80 | 080 | 2840 | 2 | 1.63 | 1.24 | 2.5 | 81.2 | 81.8 | 80.1 | 0.82 | 0.80 | 0.72 | 2.3 | 7.2 | 2.3 | 17 | 6 | 0.00100 | 16 |
| 1.1 | 80 | 083 | 2840 | 2 | 2.30 | 1.75 | 3.7 | 83.2 | 83.6 | 81.4 | 0.83 | 0.81 | 0.73 | 2.2 | 7.5 | 2.3 | 13 | 4 | 0.0013 | 17.5 |
| 1.5 | 90S | 090 | 2895 | 2 | 3.04 | 2.32 | 5.0 | 84.7 | 85.1 | 83.2 | 0.84 | 0.80 | 0.73 | 2.2 | 7.6 | 2.3 | 15 | 8 | 0.0020 | 19.5 |
| 2.2 | 90L | 093 | 2895 | 2 | 4.32 | 3.29 | 7.4 | 86.5 | 86.6 | 86.0 | 0.85 | 0.81 | 0.74 | 2.2 | 7.6 | 2.3 | 12 | 6 | 0.0024 | 23.5 |
| 3 | 100L | 101 | 2880 | 2 | 5.69 | 4.33 | 9.9 | 87.5 | 87.5 | 86.0 | 0.87 | 0.83 | 0.76 | 2.2 | 8.1 | 2.3 | 14 | 5 | 0.0042 | 38 |
| 4 | 112M | 112 | 2890 | 2 | 7.49 | 5.71 | 13.3 | 88.6 | 88.6 | 88.1 | 0.87 | 0.84 | 0.80 | 2.2 | 8.1 | 2.3 | 16 | 5 | 0.0074 | 49 |
| 5.5 | 132S | 130 | 2920 | 2 | 10.1 | 7.68 | 18.1 | 89.5 | 89.5 | 87.0 | 0.88 | 0.85 | 0.81 | 2.2 | 8.0 | 2.3 | 25 | 11 | 0.0132 | 63 |
| 7.5 | 132S | 131 | 2925 | 2 | 13.6 | 10.4 | 24.7 | 90.5 | 90.0 | 89.0 | 0.88 | 0.85 | 0.81 | 2.2 | 8.1 | 2.3 | 17 | 6 | 0.0164 | 70 |
| 9.2 | 160M | 135 | 2925 | 2 | 16.7 | 12.7 | 35.8 | 90.4 | 90.0 | 90.2 | 0.88 | 0.85 | 0.81 | 2.2 | 8.1 | 2.3 | 17 | 6 | 0.0174 | 92 |
| 11 | 160M | 163 | 2950 | 2 | 19.5 | 14.8 | 35.8 | 91.6 | 91.6 | 90.3 | 0.89 | 0.87 | 0.83 | 2.1 | 7.9 | 2.3 | 25 | 8 | 0.0489 | 121 |
| 15 | 160M | 164 | 2950 | 2 | 26.4 | 20.1 | 48.9 | 92.2 | 92.0 | 91.0 | 0.89 | 0.87 | 0.83 | 2.1 | 7.9 | 2.3 | 20 | 9 | 0.0559 | 132 |
| 18.5 | 160L | 166 | 2950 | 2 | 32.3 | 24.6 | 60.3 | 92.8 | 92.4 | 91.6 | 0.89 | 0.87 | 0.83 | 2.1 | 7.9 | 2.3 | 18 | 6 | 0.0648 | 149 |
| 22 | 180M | 183 | 2955 | 2 | 38.4 | 29.2 | 71.4 | 93.0 | 93.0 | 91.8 | 0.89 | 0.87 | 0.81 | 2.0 | 8.2 | 2.3 | 10 | 5 | 0.0920 | 191 |
| 30 | 200L | 206 | 2965 | 2 | 52.0 | 39.6 | 97 | 93.6 | 93.3 | 91.9 | 0.89 | 0.87 | 0.79 | 2.0 | 7.6 | 2.3 | 22 | 9 | 0.195 | 290 |
| 37 | 200L | 207 | 2965 | 2 | 63.9 | 48.7 | 120 | 93.9 | 93.5 | 92.2 | 0.89 | 0.87 | 0.80 | 2.0 | 7.6 | 2.3 | 18 | 9 | 0.203 | 315 |
| 45 | 225M | 223 | 2970 | 2 | 77.3 | 58.9 | 145 | 94.4 | 94.6 | 94.1 | 0.89 | 0.86 | 0.81 | 2.0 | 8.1 | 2.3 | 25 | 11 | 0.302 | 340 |
| 55 | 250S | 253 | 2975 | 2 | 93.4 | 71.2 | 177 | 94.4 | 94.5 | 93.7 | 0.90 | 0.87 | 0.79 | 2.0 | 7.7 | 2.3 | 19 | 9 | 0.42 | 386 |
| 75 | 250M | 255 | 2980 | 2 | 127 | 96.5 | 241 | 95.0 | 94.9 | 94.4 | 0.90 | 0.88 | 0.80 | 1.8 | 7.7 | 2.3 | 22 | 10 | 0.585 | 406 |
| 90 | 280S | 283 | 2970 | 2 | 153 | 117 | 289 | 95.3 | 95.0 | 94.2 | 0.89 | 0.87 | 0.79 | 1.8 | 7.5 | 2.3 | 25 | 13 | 1.04 | 560 |
| 110 | 280M | 285 | 2970 | 2 | 187 | 142 | 354 | 95.5 | 95.2 | 94.4 | 0.89 | 0.87 | 0.79 | 1.8 | 7.5 | 2.3 | 25 | 12 | 1.25 | 640 |
| 132 | 315S | 310 | 2975 | 2 | 220 | 169 | 423 | 95.7 | 95.3 | 94.2 | 0.90 | 0.89 | 0.84 | 1.8 | 7.7 | 2.2 | 25 | 11 | 1.5 | 1035 |
| 160 | 315M | 311 | 2975 | 2 | 270 | 205 | 513 | 95.8 | 95.4 | 94.4 | 0.90 | 0.89 | 0.84 | 1.8 | 7.7 | 2.2 | 24 | 13 | 1.67 | 1130 |
| 185 | 315L | 312 | 2975 | 2 | 310 | 235 | 593 | 95.9 | 95.4 | 94.4 | 0.90 | 0.89 | 0.84 | 1.8 | 7.7 | 2.2 | 25 | 12 | 1.78 | 1180 |
| 200 | 315L | 313 | 2975 | 2 | 335 | 255 | 641 | 96.0 | 95.9 | 95.0 | 0.90 | 0.89 | 0.84 | 1.8 | 7.7 | 2.2 | 25 | 12 | 1.88 | 1220 |
| 225 | 315LX | 314 | 2975 | 2 | 380 | 290 | 722 | 96.0 | 96.0 | 95.0 | 0.90 | 0.90 | 0.87 | 1.6 | 7.2 | 2.2 | 25 | 12 | 3.2 | 1563 |
| 250 | 315LX | 315 | 2975 | 2 | 420 | 320 | 802 | 96.0 | 96.0 | 95.0 | 0.90 | 0.90 | 0.87 | 1.6 | 7.2 | 2.2 | 25 | 12 | 3.5 | 1568 |

**Values indicated are subject to change without prior notice. To obtain guaranteed values, please contact an ACTOM ELECTRICAL MACHINES motor outlet. All values are subject to IEC tolerances. Values given are for 50 Hz supply.**

Locked rotor ratios - Pu value
Power factor - Power factor under different conditions
Output - Rated output (kW)
Speed - Motor rated speed(r/min)
Frame - IEC frame size
FLT - Full load torque (Nm)
BDT - Break down torque
LRT - Locked rotor time (seconds)
Type - Range type
Efficiency - efficiency under different conditions

LS6 Premium Efficiency Motors

# LS6 Premium Specification Range ( IE 3) - Performance Data
## Premium Efficiency ( IE 3) - IEC 60034 - 30
## IEC 60034 - 2 - 1: Indirect method, stray loss measurement

**4 pole**

| Output | Frame Size | Type | Speed | Pole | Current at 400 V | Current at 525 V | FLT | Efficiency | | | Power Factor | | | D.O.L | | BDT | LRT (s) | | Rotor Inertia | Motor Mass |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **kW** | | **LS6** | **r/min** | | **A** | **A** | **Nm** | **(%)** | **(%)** | **(%)** | | | | **Starting** | **pu** | **p.u.** | **Cold** | **Hot** | **kg.m²** | **kg** |
| | | | | | | | | **4/4** | **3/4** | **1/2** | **4/4** | **3/4** | **1/2** | **Torque** | **Current** | | | | | |
| 0.37 | 71 | 073 | 1330 | 4 | 0.95 | 0.72 | 2.7 | 77.4 | 76.5 | 74.0 | 0.73 | 0.71 | 0.63 | 2.1 | 6.0 | 2.2 | 26 | 12 | 0.0010 | 16 |
| 0.55 | 80 | 080 | 1390 | 4 | 1.31 | 1.00 | 3.8 | 81.0 | 79.5 | 78.0 | 0.75 | 0.72 | 0.65 | 2.3 | 7.3 | 2.3 | 24 | 8 | 0.0016 | 17 |
| 0.75 | 80 | 083 | 1390 | 4 | 1.75 | 1.33 | 5.2 | 82.6 | 82.2 | 80.5 | 0.75 | 0.72 | 0.65 | 2.3 | 7.3 | 2.3 | 23 | 8 | 0.0020 | 18.5 |
| 1.1 | 90S | 090 | 1440 | 4 | 2.47 | 1.88 | 7.3 | 84.7 | 84.7 | 83.1 | 0.76 | 0.72 | 0.65 | 2.3 | 6.8 | 2.3 | 18 | 10 | 0.0030 | 24 |
| 1.5 | 90L | 093 | 1440 | 4 | 3.28 | 2.50 | 9.9 | 85.7 | 86.1 | 84.3 | 0.77 | 0.73 | 0.66 | 2.3 | 7.0 | 2.3 | 13 | 7 | 0.0040 | 29.5 |
| 2.2 | 100L | 101 | 1440 | 4 | 4.50 | 3.43 | 14.6 | 87.2 | 87.0 | 86.5 | 0.81 | 0.78 | 0.71 | 2.3 | 7.5 | 2.3 | 16 | 9 | 0.0077 | 39.5 |
| 3 | 100L | 102 | 1440 | 4 | 5.99 | 4.57 | 19.9 | 88.1 | 88.1 | 87.1 | 0.82 | 0.78 | 0.72 | 2.3 | 7.5 | 2.3 | 18 | 11 | 0.0093 | 43.5 |
| 4 | 112M | 112 | 1440 | 4 | 7.92 | 6.03 | 26.5 | 88.9 | 89.0 | 88.5 | 0.82 | 0.77 | 0.72 | 2.3 | 7.5 | 2.3 | 18 | 6 | 0.0171 | 52 |
| 5.5 | 132S | 130 | 1460 | 4 | 10.8 | 8.21 | 36.0 | 89.9 | 89.8 | 88.9 | 0.82 | 0.78 | 0.74 | 2.3 | 7.5 | 2.3 | 25 | 10 | 0.0339 | 66 |
| 7.5 | 132M | 133 | 1465 | 4 | 14.6 | 11.1 | 48.9 | 90.7 | 90.9 | 90.3 | 0.82 | 0.78 | 0.74 | 2.3 | 7.5 | 2.3 | 21 | 9 | 0.0448 | 78 |
| 9.2 | 132M | 135 | 1465 | 4 | 17.9 | 13.6 | 60.0 | 90.7 | 90.9 | 90.3 | 0.82 | 0.78 | 0.74 | 2.3 | 7.5 | 2.3 | 21 | 9 | 0.0556 | 95 |
| 11 | 160M | 163 | 1475 | 4 | 20.4 | 15.5 | 71.2 | 91.7 | 91.8 | 90.9 | 0.85 | 0.81 | 0.72 | 2.0 | 7.5 | 2.3 | 19 | 6 | 0.0900 | 122 |
| 15 | 160L | 166 | 1475 | 4 | 27.2 | 20.8 | 97.1 | 92.4 | 92.6 | 92.0 | 0.86 | 0.82 | 0.73 | 2.0 | 7.5 | 2.3 | 17 | 6 | 0.0180 | 140 |
| 18.5 | 180M | 183 | 1470 | 4 | 33.4 | 25.4 | 120 | 93.0 | 92.8 | 91.7 | 0.86 | 0.84 | 0.78 | 2.0 | 7.8 | 2.1 | 19 | 7 | 0.0148 | 188 |
| 22 | 180L | 186 | 1470 | 4 | 39.6 | 30.2 | 143 | 93.3 | 93.0 | 92.0 | 0.86 | 0.84 | 0.78 | 2.0 | 7.8 | 2.1 | 18 | 6 | 0.0182 | 193 |
| 30 | 200L | 207 | 1475 | 4 | 53.7 | 40.9 | 194 | 93.8 | 93.7 | 92.7 | 0.86 | 0.82 | 0.77 | 2.0 | 7.3 | 2.3 | 25 | 11 | 0.321 | 295 |
| 37 | 225S | 220 | 1480 | 4 | 65.9 | 50.2 | 239 | 94.2 | 94.0 | 93.4 | 0.86 | 0.82 | 0.78 | 2.2 | 7.9 | 2.3 | 18 | 9 | 0.473 | 308 |
| 45 | 225M | 223 | 1480 | 4 | 79.9 | 60.9 | 290 | 94.5 | 94.3 | 93.9 | 0.86 | 0.82 | 0.78 | 2.2 | 7.9 | 2.3 | 25 | 12 | 0.554 | 337 |
| 55 | 250S | 253 | 1490 | 4 | 97.4 | 74.2 | 352 | 94.8 | 94.5 | 93.7 | 0.86 | 0.84 | 0.76 | 2.2 | 7.4 | 2.3 | 21 | 10 | 0.751 | 410 |
| 75 | 250M | 255 | 1495 | 4 | 132 | 101 | 479 | 95.2 | 94.8 | 94.1 | 0.86 | 0.84 | 0.76 | 2.0 | 7.4 | 2.3 | 22 | 10 | 0.91 | 430 |
| 90 | 280S | 283 | 1480 | 4 | 155 | 118 | 581 | 95.5 | 95.3 | 94.4 | 0.88 | 0.85 | 0.78 | 2.0 | 7.5 | 2.3 | 26 | 12 | 2.32 | 652 |
| 110 | 280M | 285 | 1480 | 4 | 189 | 144 | 710 | 95.7 | 95.5 | 94.5 | 0.88 | 0.85 | 0.78 | 2.0 | 7.5 | 2.2 | 25 | 12 | 2.83 | 720 |
| 132 | 315S | 310 | 1480 | 4 | 225 | 170 | 852 | 95.9 | 95.7 | 94.9 | 0.89 | 0.87 | 0.83 | 2.1 | 7.6 | 2.2 | 25 | 13 | 2.58 | 1055 |
| 160 | 315M | 311 | 1480 | 4 | 270 | 205 | 1032 | 96.0 | 95.8 | 95.1 | 0.89 | 0.87 | 0.83 | 2.1 | 7.6 | 2.2 | 24 | 13 | 2.96 | 1155 |
| 185 | 315L | 312 | 1480 | 4 | 315 | 240 | 1194 | 96.0 | 95.9 | 95.4 | 0.89 | 0.87 | 0.83 | 2.1 | 7.6 | 2.2 | 24 | 12 | 3.21 | 1200 |
| 200 | 315L | 313 | 1480 | 4 | 335 | 255 | 1290 | 96.0 | 95.9 | 95.4 | 0.90 | 0.87 | 0.83 | 2.1 | 7.6 | 2.2 | 25 | 13 | 3.46 | 1230 |
| 225 | 315LX | 314 | 1485 | 4 | 385 | 295 | 1447 | 96.2 | 96.2 | 95.0 | 0.88 | 0.87 | 0.85 | 2 | 7.1 | 2.2 | 24 | 11 | 6.4 | 1597 |
| 250 | 315LX | 315 | 1485 | 4 | 430 | 325 | 1608 | 96.2 | 96.2 | 95.0 | 0.88 | 0.87 | 0.85 | 2 | 7.1 | 2.2 | 25 | 11 | 6.9 | 1601 |

**Values indicated are subject to change without prior notice. To obtain guaranteed values, please contact an ACTOM ELECTRICAL MACHINES motor outlet. All values are subject to IEC tolerances. Values given are for 50 Hz supply.**

Locked rotor ratios - Pu value
Power factor - Power factor under different conditions
Output - Rated output (kW)
Speed - Motor rated speed(r/min)
Frame - IEC frame size
FLT - Full load torque (Nm)
BDT - Break down torque
LRT - Locked rotor time (seconds)
Type - Range type
Efficiency - efficiency under different conditions

LS6 Premium Efficiency Motors

# LS6 Premium Specification Range ( IE 3) - Performance Data
## Premium Efficiency ( IE 3) - IEC 60034 - 30
## IEC 60034 - 2 - 1: Indirect method, stray loss measurement

**6 pole**

| Output | Frame Size | Type | Speed | Pole | Current at 400 V | Current at 525 V | FLT | Efficiency | | | Power Factor | | | D.O.L | | BDT | LRT (s) | | Rotor Inertia | Motor Mass |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **kW** | | **LS6** | **r/min** | | **A** | **A** | **Nm** | **(%)** | **(%)** | **(%)** | | | | **Starting** | **pu** | **p.u.** | **Cold** | **Hot** | **kg.m²** | **kg** |
| | | | | | | | | **4/4** | **3/4** | **1/2** | **4/4** | **3/4** | **1/2** | **Torque** | **Current** | | | | | |
| 0.37 | 80 | 080 | 885 | 6 | 1.04 | 0.79 | 4.0 | 73.7 | 70.0 | 70.0 | 0.70 | 0.67 | 0.60 | 2.0 | 6.9 | 2.0 | 24 | 10 | 0.0016 | 15 |
| 0.55 | 80 | 083 | 885 | 6 | 1.42 | 1.09 | 5.9 | 77.4 | 75.5 | 72.0 | 0.72 | 0.69 | 0.62 | 2.0 | 6.9 | 2.1 | 24 | 11 | 0.0020 | 16 |
| 0.75 | 90S | 090 | 935 | 6 | 1.85 | 1.41 | 7.7 | 80.0 | 80.0 | 78.0 | 0.73 | 0.69 | 0.62 | 2.0 | 6.0 | 2.1 | 25 | 12 | 0.0040 | 23 |
| 1.1 | 90L | 093 | 935 | 6 | 2.67 | 2.03 | 11.2 | 81.5 | 81.6 | 81.0 | 0.73 | 0.69 | 0.62 | 2.0 | 6.0 | 2.1 | 25 | 13 | 0.0050 | 28.5 |
| 1.5 | 100L | 102 | 950 | 6 | 3.54 | 2.70 | 15.1 | 82.7 | 82.7 | 81.7 | 0.74 | 0.68 | 0.60 | 2.0 | 5.9 | 2.1 | 20 | 7 | 0.0107 | 37.5 |
| 2.2 | 112M | 112 | 940 | 6 | 5.14 | 3.92 | 22.3 | 84.6 | 84.6 | 83.6 | 0.73 | 0.66 | 0.58 | 2.0 | 6.9 | 2.1 | 25 | 9 | 0.0192 | 48 |
| 3 | 132S | 130 | 970 | 6 | 6.81 | 5.19 | 29.5 | 85.9 | 85.9 | 85.1 | 0.74 | 0.67 | 0.60 | 2.1 | 6.9 | 2.1 | 23 | 9 | 0.0358 | 65 |
| 4 | 132M | 133 | 970 | 6 | 8.98 | 6.84 | 39.4 | 86.9 | 86.9 | 86.1 | 0.74 | 0.67 | 0.60 | 2.1 | 6.9 | 2.1 | 24 | 8 | 0.0478 | 73 |
| 5.5 | 132M | 134 | 970 | 6 | 12.0 | 9.14 | 54.1 | 88.2 | 88.2 | 87.0 | 0.75 | 0.68 | 0.61 | 2.1 | 6.9 | 2.1 | 22 | 8 | 0.0631 | 82 |
| 7.5 | 160M | 163 | 980 | 6 | 15.3 | 11.7 | 73.1 | 89.4 | 89.4 | 88.5 | 0.79 | 0.74 | 0.62 | 2.1 | 7.0 | 2.3 | 24 | 10 | 0.1140 | 119 |
| 11 | 160L | 166 | 980 | 6 | 21.9 | 16.7 | 107 | 90.6 | 90.4 | 89.4 | 0.80 | 0.75 | 0.63 | 2.1 | 7.0 | 2.3 | 22 | 9 | 0.1530 | 139 |
| 15 | 180L | 186 | 970 | 6 | 29.2 | 22.2 | 148 | 91.6 | 91.6 | 91.3 | 0.81 | 0.79 | 0.73 | 2.0 | 7.3 | 2.1 | 16 | 8 | 0.2180 | 178 |
| 18.5 | 200L | 206 | 980 | 6 | 35.9 | 27.4 | 180 | 91.8 | 91.7 | 91.0 | 0.81 | 0.78 | 0.72 | 2.0 | 7.3 | 2.1 | 17 | 8 | 0.357 | 265 |
| 22 | 200L | 207 | 980 | 6 | 42.4 | 32.3 | 214 | 92.5 | 92.0 | 91.5 | 0.81 | 0.78 | 0.72 | 2.0 | 7.4 | 2.1 | 24 | 7 | 0.423 | 280 |
| 30 | 225M | 223 | 980 | 6 | 57.4 | 43.7 | 292 | 93.2 | 93.4 | 92.9 | 0.81 | 0.76 | 0.71 | 2.1 | 7.5 | 2.1 | 16 | 8 | 0.533 | 315 |
| 37 | 250S | 253 | 990 | 6 | 67.9 | 51.8 | 357 | 93.6 | 93.4 | 91.7 | 0.84 | 0.82 | 0.73 | 2.0 | 7.1 | 2.1 | 16 | 8 | 0.877 | 369 |
| 45 | 250M | 255 | 990 | 6 | 81.4 | 62.0 | 434 | 93.9 | 93.8 | 92.2 | 0.85 | 0.82 | 0.75 | 2.0 | 7.3 | 2.0 | 15 | 8 | 1.07 | 390 |
| 55 | 280S | 283 | 980 | 6 | 97.9 | 74.6 | 536 | 94.3 | 94.2 | 93.3 | 0.86 | 0.83 | 0.76 | 2.0 | 7.3 | 2.1 | 15 | 10 | 2.12 | 545 |
| 75 | 280M | 285 | 980 | 6 | 136 | 104 | 731 | 94.8 | 94.6 | 93.8 | 0.84 | 0.81 | 0.74 | 2.0 | 7.0 | 2.2 | 15 | 8 | 2.83 | 635 |
| 90 | 315S | 310 | 985 | 6 | 161 | 122 | 873 | 95.2 | 95.2 | 94.3 | 0.85 | 0.82 | 0.75 | 2.0 | 7.3 | 2.1 | 25 | 11 | 4.28 | 970 |
| 110 | 315M | 311 | 985 | 6 | 196 | 149 | 1066 | 95.4 | 95.3 | 94.5 | 0.85 | 0.83 | 0.76 | 2.0 | 7.3 | 2.1 | 24 | 11 | 5.47 | 1155 |
| 132 | 315L | 312 | 985 | 6 | 235 | 178 | 1280 | 95.7 | 95.7 | 94.5 | 0.85 | 0.83 | 0.76 | 2.0 | 7.3 | 2.1 | 22 | 10 | 6.59 | 1260 |
| 160 | 315L | 313 | 985 | 6 | 280 | 215 | 1551 | 95.8 | 95.6 | 94.4 | 0.86 | 0.83 | 0.76 | 2.0 | 7.3 | 2.1 | 21 | 9 | 7.54 | 1330 |
| 185 | 315LX | 314 | 983 | 6 | 330 | 250 | 1797 | 95.9 | 95.9 | 94.5 | 0.85 | 0.83 | 0.82 | 2 | 6.8 | 2.0 | 24 | 11 | 9.5 | 1612 |
| 200 | 315LX | 315 | 985 | 6 | 355 | 270 | 1939 | 96.0 | 96.0 | 95.0 | 0.85 | 0.83 | 0.82 | 2 | 6.8 | 2.0 | 22 | 10 | 10.1 | 1619 |

**Values indicated are subject to change without prior notice. To obtain guaranteed values, please contact an ACTOM ELECTRICAL MACHINES motor outlet. All values are subject to IEC tolerances. Values given are for 50 Hz supply.**

Locked rotor ratios - Pu value
Power factor - Power factor under different conditions
Output - Rated output (kW)
Speed - Motor rated speed(r/min)
Frame - IEC frame size
FLT - Full load torque (Nm)
BDT - Break down torque
LRT - Locked rotor time (seconds)
Type - Range type
Efficiency - efficiency under different conditions

LS6 Premium Efficiency Motors

# LS6 Premium Specification Range ( IE 3) - Performance Data
## Premium Efficiency ( IE 3) - IEC 60034 - 30
## IEC 60034 - 2 - 1: Indirect method, stray loss measurement

**8 pole**

| Output | Frame Size | Type | Speed | Pole | Current at 400 V | Current at 525 V | FLT | Efficiency | | | Power Factor | | | D.O.L | | BDT | LRT (s) | | Rotor Inertia | Motor Mass |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **kW** | | **LS6** | **r/min** | | **A** | **A** | **Nm** | **(%)** | **(%)** | **(%)** | | | | **Starting** | **pu** | **p.u.** | **Cold** | **Hot** | **kg.m²** | **kg** |
| | | | | | | | | **4/4** | **3/4** | **1/2** | **4/4** | **3/4** | **1/2** | **Torque** | **Current** | | | | | |
| 0.37 | 90S | 090 | 670 | 8 | 1.26 | 0.96 | 5.3 | 69.5 | 67 | 65 | 0.61 | 0.59 | 0.53 | 1.8 | 4.0 | 2.3 | 25 | 15 | 0.0040 | 24 |
| 0.55 | 90L | 093 | 670 | 8 | 1.78 | 1.35 | 7.8 | 73.2 | 70.5 | 70 | 0.61 | 0.59 | 0.53 | 1.8 | 4.0 | 2.2 | 25 | 15 | 0.0050 | 26 |
| 0.75 | 100L | 101 | 680 | 8 | 2.13 | 1.62 | 10.5 | 75.8 | 75.6 | 74.0 | 0.67 | 0.63 | 0.59 | 1.8 | 4.0 | 2.2 | 18 | 13 | 0.0063 | 33 |
| 1.1 | 100L | 102 | 680 | 8 | 2.95 | 2.25 | 15.4 | 77.9 | 76.5 | 75.0 | 0.69 | 0.64 | 0.6 | 1.8 | 5.0 | 2.2 | 22 | 12 | 0.0097 | 38 |
| 1.5 | 112M | 112 | 700 | 8 | 4.04 | 3.08 | 20.5 | 79.9 | 79.5 | 79.0 | 0.67 | 0.59 | 0.51 | 1.8 | 5.5 | 1.8 | 25 | 11 | 0.0192 | 45 |
| 2.2 | 132S | 130 | 710 | 8 | 5.61 | 4.27 | 29.6 | 82.1 | 82.0 | 81.6 | 0.69 | 0.60 | 0.52 | 1.8 | 6.5 | 1.8 | 24 | 11 | 0.0393 | 68 |
| 3 | 132M | 133 | 710 | 8 | 7.40 | 5.64 | 40.3 | 83.6 | 83.5 | 82.9 | 0.70 | 0.61 | 0.53 | 1.8 | 6.5 | 1.8 | 25 | 10 | 0.0495 | 70 |
| 4 | 160M | 163 | 730 | 8 | 9.21 | 7.02 | 52.3 | 85.9 | 85.8 | 84.7 | 0.73 | 0.65 | 0.52 | 2.0 | 6.9 | 2.2 | 24 | 11 | 0.0771 | 104 |
| 5.5 | 160M | 164 | 730 | 8 | 12.3 | 9.37 | 71.9 | 87.2 | 87.1 | 85.8 | 0.74 | 0.66 | 0.53 | 2.0 | 6.9 | 2.2 | 25 | 11 | 0.0989 | 114 |
| 7.5 | 160L | 166 | 730 | 8 | 16.6 | 12.6 | 98.1 | 88.3 | 88.2 | 86.9 | 0.74 | 0.66 | 0.53 | 2.0 | 6.9 | 2.2 | 15 | 10 | 0.1310 | 132 |
| 11 | 180L | 186 | 730 | 8 | 23.3 | 17.8 | 144 | 89.5 | 89.2 | 88 | 0.76 | 0.74 | 0.68 | 2.0 | 6.6 | 2.2 | 21 | 11 | 0.0218 | 170 |
| 15 | 200L | 207 | 730 | 8 | 32.1 | 24.5 | 196 | 89.9 | 89.8 | 88.5 | 0.75 | 0.72 | 0.65 | 2.0 | 6.8 | 2.0 | 21 | 10 | 0.491 | 260 |
| 18.5 | 225S | 220 | 730 | 8 | 38.9 | 29.6 | 242 | 90.4 | 90.4 | 89.9 | 0.76 | 0.71 | 0.64 | 1.9 | 6.6 | 2.2 | 25 | 13 | 0.481 | 268 |
| 22 | 225M | 223 | 730 | 8 | 46.0 | 35.0 | 288 | 90.9 | 90.9 | 90.4 | 0.76 | 0.71 | 0.65 | 1.9 | 6.6 | 2.2 | 25 | 12 | 0.531 | 288 |
| 30 | 250S | 253 | 735 | 8 | 59.7 | 45.5 | 390 | 91.8 | 91.7 | 91.1 | 0.79 | 0.77 | 0.69 | 1.9 | 6.8 | 2.0 | 25 | 12 | 0.914 | 372 |
| 37 | 250M | 255 | 740 | 8 | 73.3 | 55.9 | 477 | 92.2 | 92.2 | 91.6 | 0.79 | 0.77 | 0.70 | 1.9 | 6.9 | 2.0 | 25 | 13 | 1.12 | 395 |
| 45 | 280S | 283 | 735 | 8 | 89.0 | 67.8 | 585 | 92.4 | 92.5 | 91.6 | 0.79 | 0.75 | 0.69 | 1.9 | 6.8 | 2.0 | 24 | 11 | 2.22 | 555 |
| 55 | 280M | 285 | 735 | 8 | 106 | 80.6 | 715 | 92.7 | 92.8 | 91.9 | 0.81 | 0.76 | 0.71 | 1.8 | 6.8 | 2.0 | 24 | 11 | 2.68 | 645 |
| 75 | 315S | 310 | 735 | 8 | 143 | 109 | 974 | 93.3 | 93.4 | 92.4 | 0.81 | 0.78 | 0.67 | 1.8 | 6.6 | 2.2 | 21 | 9 | 5.18 | 1100 |
| 90 | 315M | 311 | 735 | 8 | 169 | 129 | 1169 | 93.7 | 93.7 | 92.7 | 0.82 | 0.78 | 0.67 | 1.8 | 6.6 | 2.2 | 21 | 10 | 6.16 | 1160 |
| 110 | 315L | 312 | 735 | 8 | 215 | 164 | 1429 | 90.0 | 93.8 | 93.1 | 0.82 | 0.78 | 0.67 | 1.8 | 6.6 | 2.2 | 22 | 10 | 7.22 | 1230 |
| 132 | 315L | 313 | 735 | 8 | 245 | 188 | 1715 | 94.3 | 94.2 | 93.5 | 0.82 | 0.78 | 0.67 | 1.8 | 6.6 | 2.2 | 22 | 10 | 8.21 | 1280 |
| 132 | 315LX | 315 | 740 | 8 | 295 | 225 | 2065 | 94.3 | 94.0 | 92.9 | 0.83 | 0.8 | 0.72 | 1.6 | 6.5 | 2.0 | 23 | 10 | 12.2 | 1620 |

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Locked rotor ratios - Pu value
Power factor - Power factor under different conditions
Output - Rated output (kW)
Speed - Motor rated speed(r/min)
Frame - IEC frame size
FLT - Full load torque (Nm)
BDT - Break down torque
LRT - Locked rotor time (seconds)
Type - Range type
Efficiency - efficiency under different conditions

LS6 Premium Efficiency Motors

## LS6 Premium Specification Range ( IE 3 ) - LV Motors
## Bearing arrangement details

**Standard horizontal Mouning**

** For increased radial loading (eg. Pulleys), it may be required to change bearing to a roller bearing. Please enquire at time of ordering.

| Frame Size | Pole | Drive End Bearing ** (ND) | Non Drive End Bearing (NDE) | Regreasing Quantity (grams) | Regreasing Intervals - Hours | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | 2P | 4P | 6P | 8P |
| 71 | 2 - 8 | 6202 ZZ C3 | 6202 ZZ C3 | Not Applicable | Sealed Bearings | Sealed Bearings | Sealed Bearings | Sealed Bearings |
| 80 | 2 - 8 | 6204 ZZ C3 | 6204 ZZ C3 | Not Applicable | Sealed Bearings | Sealed Bearings | Sealed Bearings | Sealed Bearings |
| 90 | 2 - 8 | 6205 ZZ C3 | 6205 ZZ C3 | Not Applicable | Sealed Bearings | Sealed Bearings | Sealed Bearings | Sealed Bearings |
| 100 | 2 - 8 | 6306 ZZ C3 | 6306 ZZ C3 | Not Applicable | Sealed Bearings | Sealed Bearings | Sealed Bearings | Sealed Bearings |
| 112 | 2 - 8 | 6306 ZZ C3 | 6306 ZZ C3 | Not Applicable | Sealed Bearings | Sealed Bearings | Sealed Bearings | Sealed Bearings |
| 132 | 2 - 8 | 6308 ZZ C3 | 6308 ZZ C3 | Not Applicable | Sealed Bearings | Sealed Bearings | Sealed Bearings | Sealed Bearings |
| 160 | 2 - 8 | 6309 C3 | 6309 C3 | 20 | 7500 | 15000 | 22500 | 29000 |
| 180 | 2 - 8 | 6311 C3 | 6311 C3 | 30 | 6000 | 13000 | 19500 | 26500 |
| 200 | 2 - 8 | 6312 C3 | 6312 C3 | 40 | 5700 | 11500 | 17000 | 23000 |
| 225 | 2 | 6313 C3 | 6313 C3 | 40 | 5700 | - | - | - |
| | 4 - 8 | 6313 C3 | 6313 C3 | 40 | - | 10000 | 16000 | 21000 |
| 250 | 2 | 6314 C3 | 6314 C3 | 50 | 4000 | - | - | - |
| | 4 - 8 | 6315 C3 | 6314 C3 | 50 | - | 9000 | 13500 | 18000 |
| 280 | 2 | 6314 C3 | 6314 C3 | 50 | 4000 | - | - | - |
| | 4 - 8 | 6317 C3 | 6317 C3 | 70 | - | 8000 | 12000 | 16000 |
| 315 S/M/L | 2 | 6317 C3 | 6317 C3 | 70 | 3000 | - | - | - |
| | 4 - 8 | 6319 C3 | 6319 C3 | 70 | - | 7000 | 10000 | 14500 |
| 315 LX | 2 | 6315 C3 | 6315 C3 | 70 | 3000 | - | - | - |
| | 4 - 8 | 6319 C3 | 6319 C3 | 70 | - | 7000 | 10000 | 14500 |

LS6 Premium Efficiency Motors

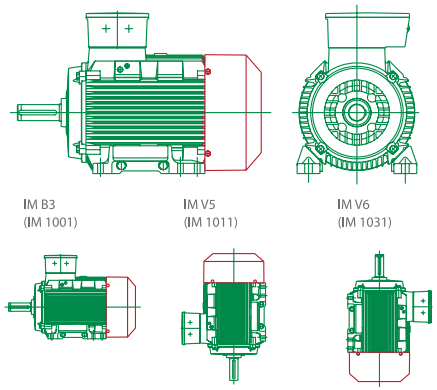
# LS6 Premium Specification Range - LV Motors
## Optional extras

| Description | Frame Size | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 80 | 90 | 100 | 112 | 132 | 160 | 180 | 200 | 225 | 250 | 280 | 315 S/M/L | 315 LX |
| Heaters | NO | NO | NO | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| Thermistor 1/phase (PTC) | NO | NO | NO | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| Thermistor 2/phase (PTC) | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES | YES | YES |
| RTD in bearing (PT100) | NO | NO | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES |
| RTD 1/phase (PT100) | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES | YES | YES |
| RTD 2/phase (PT100) | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES | YES | YES |
| B3 to B35 Top box | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| B3 to B5 Top box | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| IP56 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| IP65 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| IP66 | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD | STD |
| Roller Bearing on Drive End | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES | YES | YES |
| Chemical Paint - std ACTOM | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| Spark Proof | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| No fan or / and No cowl | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| Insulated NDE Bearing | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| Canopy On Cowl | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| Angular Contact Bearing - NDE | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| Detachable Terminal Box Gland Plate | NO | NO | NO | NO | NO | STD | STD | STD | STD | STD | STD | STD | STD |
| Convert Top To Right Hand Side Box | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| Convert Top To Left Hand Side Box | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| Re-greasing Facility | NO | NO | NO | NO | NO | STD | STD | STD | STD | STD | STD | STD | STD |
| Bearing Location - Inner caps - NDE | NO | NO | NO | NO | NO | STD | STD | STD | STD | STD | STD | STD | STD |
| RTD In Bearing + RTD 1/phase | NO | NO | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES |
| RTD In Bearing + RTD 2/phase | NO | NO | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES |
| Heaters + Thermistors 1 per phase (PTC) | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| Heaters + Thermistors 2 per phase (PTC) | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES | YES | YES |
| Heaters and RTD in bearing | NO | NO | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES |
| Heaters and RTD 1 Per Phase | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES | YES | YES |
| Heaters and RTD 2 Per Phase | NO | NO | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES |
| Heaters + Therm. 1/phase + RTD in Bearing | NO | NO | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES |
| Heaters + Therm. 2/phase + RTD in Bearing | NO | NO | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES |
| Heaters + RTD in Bearing + RTD 1 Per Phase | NO | NO | NO | NO | NO | NO | NO | YES | YES | YES | YES | YES | YES |

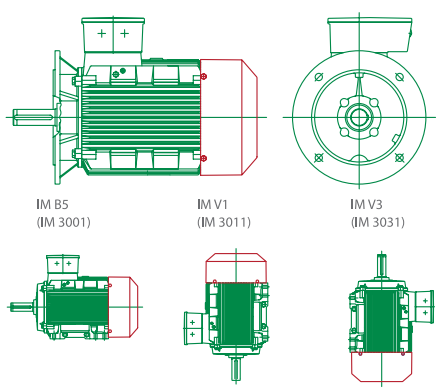
LS6 Premium Efficiency Motors

# LS6 Premium Specification Range ( IE 3 )
## Typical mounting arrangements

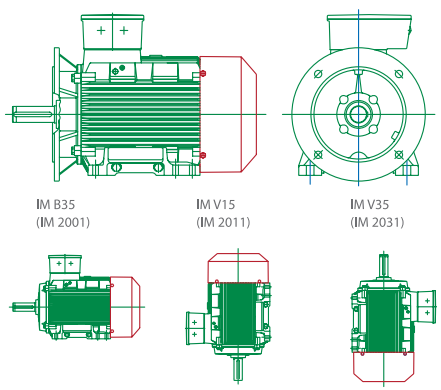
FOOT MOUNTED



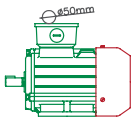
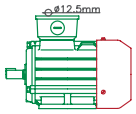
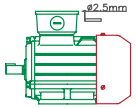
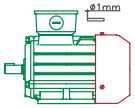
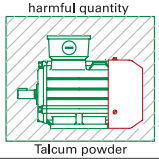
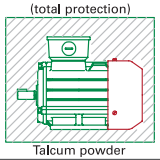
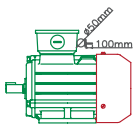
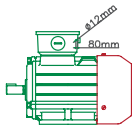
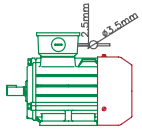
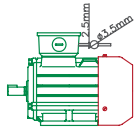
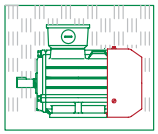
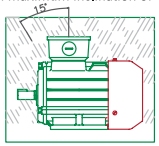
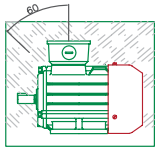
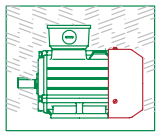
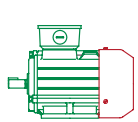
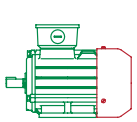
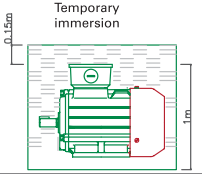

FLANGE MOUNTED




FOOT & FLANGE MOUNTED

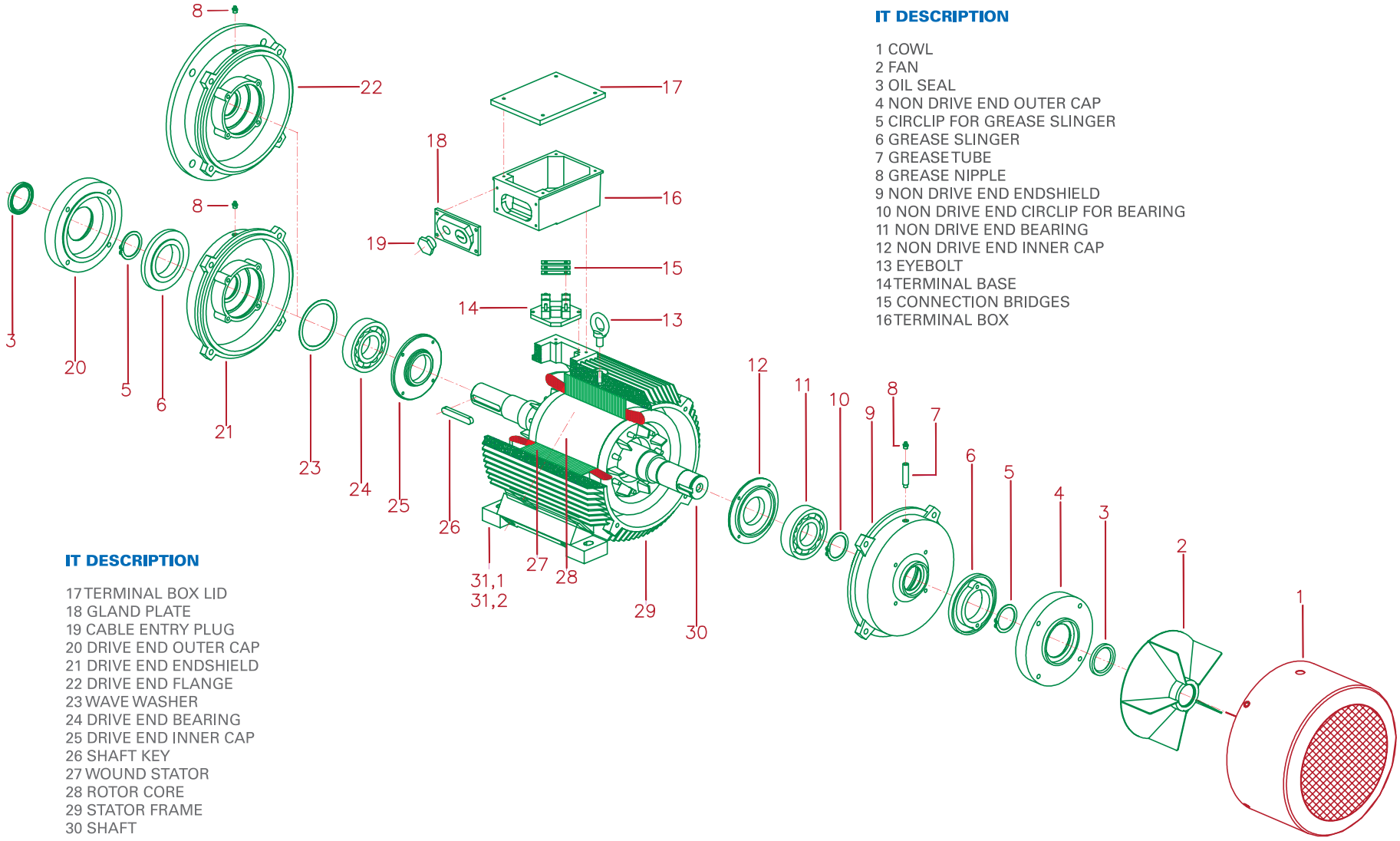



## Electric motor IP ratings explained

| Meaning | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| Protection against ingress of:<br><br>Test Means | No Protection | Solid objects larger than Ø 50mm<br>  <br>Object probe Ø 50mm | Solid objects larger than Ø 12.5mm<br>  <br>Object probe Ø 12.5mm | Solid objects larger than Ø 2.5mm<br>  <br>Object probe Ø 2.5mm | Solid objects larger than Ø 1mm<br>  <br>Object probe Ø 1mm | Dust in a harmful quantity<br>  <br>Talcum powder | Dust (total protection)<br>  <br>Talcum powder | |
| Personal protection against access with:<br><br>Test Means | No Protection | Back of hand<br>  <br>Access probe Ø 50mm | Finger<br>  <br>Jointed Test finger | Tool<br>  <br>Access probe Ø 2.5mm | |  <br>Access probe Ø 1mm | | |
| Protection against effect of:<br><br>Test Means | No Protection | Virtual falling drops of water<br>  | Virtually falling drops of water with maximum inclination of 15°<br>  | Rain<br>  | Splashing water<br>  | Water jet<br>  | Powerful Water jet<br>  | Temporary immersion<br>  |

LS6 Premium Efficiency Motors

# LS6 Premium Specification Range ( IE 3 )
## Exploded view - Typical LS6 Motor




**IT DESCRIPTION**

1 COWL
2 FAN
3 OIL SEAL
4 NON DRIVE END OUTER CAP
5 CIRCLIP FOR GREASE SLINGER
6 GREASE SLINGER
7 GREASE TUBE
8 GREASE NIPPLE
9 NON DRIVE END ENDSHIELD
10 NON DRIVE END CIRCLIP FOR BEARING
11 NON DRIVE END BEARING
12 NON DRIVE END INNER CAP
13 EYEBOLT
14 TERMINAL BASE
15 CONNECTION BRIDGES
16 TERMINAL BOX

**IT DESCRIPTION**

17 TERMINAL BOX LID
18 GLAND PLATE
19 CABLE ENTRY PLUG
20 DRIVE END OUTER CAP
21 DRIVE END ENDSHIELD
22 DRIVE END FLANGE
23 WAVE WASHER
24 DRIVE END BEARING
25 DRIVE END INNER CAP
26 SHAFT KEY
27 WOUND STATOR
28 ROTOR CORE
29 STATOR FRAME
30 SHAFT

NB: This outline is of a typical motor. Only to be used for illustration purposes.