



IE3 RANGE

PREMIUM EFFICIENCY THREE-PHASE MOTORS



| | PREMIUM EFFICIENCY MOTORS | | HIGH EFFICIENCY MOTORS | | |
|-----------------------|---------------------------|--|--|--|---------------------|
| | IE3 | IE3  | IE2 | IE2  | IE2 |
| EFFICIENCY | IE3@400V-50Hz | IE3@460V-60Hz NEMA MG 1-table 12-12 @460-60Hz | IE2@400V-50Hz IE2@460V-60Hz NEMA MG 1-table 12-11 (EPAct) @460V-60Hz | IE2@460V-60Hz NEMA MG 1-table 12-11 (EPAct) @460V-60Hz | IE2@400V-50Hz |
| RANGE | AMPE 71-315 | AMPH 80-160 | AMHE 71-315 | AMH 80-160 | AMEE 71-160 |
| STANDARDS | IEC 60034-30-1:2014 | EISA Directive UL Environment | IEC 60034-30-1:2014 | EPAct | IEC 60034-30-1:2014 |
| TESTING METHOD | IEC 60034-2-1;2014 | CSA C390-10 | IEC 60034-2-1;2014 | CSA C390 | IEC 60034-2-1;2014 |

INTERNATIONAL EFFICIENCY LEVELS: IE CODES

The International Standard **IEC 60034-30-1;2014** ensures an international common base for electric motor designing and classification, as well as for national legislative activities, increasing the level of harmonization in efficiency standard **MEPS** (Minimum Energy Performance Standard) all over the world.

The IEC 60034-30-1 states the efficiency levels (IE codes) and requirements, provides test conditions and efficiency measurement methods which are more accurate than the previous, specified in **IEC 60034-2-1;2014**, and unifies product labelling requirements.

While the Standard sets international guidelines. It does not state the motors to be supplied or the minimum efficiency level (MEPS). This depends on any national legislative activities and government targets to save energy and reduce environmental impact.

EU MEPS—COMMISSION REGULATION EC 4/2014

The **Commission Regulation EC 4/2014** specifies efficiency requirements for three-phase AC motors from 0.75 to 375kW, 2, 4 and 6 poles, and introduces in all countries of the European Community the following MEPS **from 1st January 2017**:
- motors from 0.75 to 375kW - **IE3 minimum efficiency or IE2 only for motors with variable speed drive (VSD)**.

USA MEPS – EISA 2007

The **EISA Directive** (Energy Independence and Security Act, 2007), enforced in Dec 2010, replaces the previous EPAct (Energy Policy Act), and sets **Nema Super Premium Efficiency IE3 as minimum level** for general purpose three-phase AC industrial motors from 1 to 500 HP, which are manufactured or imported for sale in USA.

STANDARD FEATURES

- Very low temperature rise: allowing a service factor of 1.25, extending insulation and bearings useful life
- Very low noise
- VFD rated as standard
- Detachable feet to flange conversion
- Four position cable entry
- IP 55 Protection
- Ease of Maintenance
- Clean modern lines with RAL 9005 finish

OPTIONAL FEATURES

- cURus Energy Certification (EPAct)
- UL Energy Verified Certification (EISA)
- Encoder mounting
- Forced ventilation
- Customised shafts of flanges
- Increased output (Progressive motor)

TYPICAL APPLICATIONS

- Fans and Blowers
- Pumps
- Vacuum Pumps
- Compressors
- Conveyors
- HVAC



SPECIAL EXECUTIONS

A strong OEM orientation, with a **wide range of special executions to offer the optimum electrical and mechanical designs for particular markets or customer requests.**

Excellent flexibility to specific market demands, the whole manufacturing process is integrated within Lafert manufacturing facilities, and that gives a high level of cost-efficiency.

Lafert specializes in the design and manufacture of customized electric motors produced to meet specific needs of individual customers. **Over 90% of Lafert's output is non-standard motors.** The co-ordination of all production processes from start to finish allows for any aspect of the motor to be modified. This gives the ability to engineer customized motors that fit the final application/work environment for maximum efficiency and reliability.

Motors manufactured ad hoc for non-standard applications according to customer's demands: customised flanges and shafts, special electrical designs for each application duty, complete tailor-made designs, solutions to special environmental conditions e.g. Smoke and Heat Exhaust Ventilation, Dust Ignition for Zone 22, Non Sparking Exn.

TARGET APPLICATIONS

RENEWABLES

Wind turbines (Cooling System, Hydraulic Pump), Solar Followers (Gear drive), Biogas & Biofuel Power Plant (Cooling System)

- High reliability
- High corrosion protection level (according to ISO 12944)
- Special insulation system/voltage/frequency
- PAD mounting

HVAC

Centrifugal and axial Fans & Pumps for Industrial and Marine Environment

- Stainless steel shaft in special design
- High corrosion protection level (according to ISO 12944)
- EISA - EPAct approval

COOLERS

Air cooled radiators for heavy industrial cooling applications (diesel and gas engine/generator)

- High corrosion protection level (according to ISO 12944)
- Special insulation system/voltage/frequency
- Very high ambient temperature up to 80°C
- Without ventilation
- Cast iron design
- PAD mounting

TEXTILE INDUSTRY

- Without ventilation
- Driven by frequency converter
- Encoder (variable speed)
- High reliability

PREMIUM EFFICIENCY THREE-PHASE MOTORS – IE3 ALLUMINIUM DESIGN

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30-1:2014
EFFICIENCY TESTING METHOD IEC 60034-2-1;2014

NOMINAL FULL LOAD EFFICIENCY ACCORDING TO IE3 CODE @ 400 V - 50 HZ

FOR MAINS VOLTAGE
400 V - 50 HZ



TEMPERATURE RISE TO CLASS B

| Type | kW | HP | min ⁻¹ | M _N Nm | IE3 η | | | cos φ | I _N 400V | I _A /I _N | M _A /M _N | M _S /M _N | M _R /M _N | J 10 ⁻³ kgm ² | kg | |
|--|----|------|-------------------|----------------------|------------|------|------|---------------|------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|-------|-------|
| | | | | | 50% | 75% | 100% | | | | | | | | | |
| 3000 min⁻¹ (2 poles) | | | | | | | | | | | | | | | | |
| AMPE 71Z AA | 2 | 0.75 | 1 | 2880 | 2.5 | 76.5 | 80.8 | 80.7 | 0.70 | 1.9 | 5.5 | 3.1 | 3.0 | 3.2 | 0.7 | 8.2 |
| AMPE 80Z AA | 2 | 0.75 | 1 | 2910 | 2.5 | 77.8 | 81.2 | 82.0 | 0.78 | 1.7 | 8.9 | 4.7 | 4.5 | 4.8 | 0.7 | 9.5 |
| AMPE 80Z BA | 2 | 1.1 | 1.5 | 2870 | 3.7 | 78.7 | 81.7 | 82.7 | 0.76 | 2.4 | 9.3 | 5.0 | 4.9 | 5.3 | 0.9 | 11.1 |
| AMPE 80Z CA | 2* | 1.5 | 2 | 2810 | 5.1 | 78.8 | 82.2 | 84.2 | 0.76 | 3.6 | 7.8 | 4.9 | 3.7 | 4.3 | 1.1 | 13.5 |
| AMPE 90S AA | 2 | 1.5 | 2 | 2875 | 5.0 | 83.2 | 84.8 | 84.2 | 0.85 | 3.0 | 8.4 | 3.6 | 3.2 | 3.8 | 1.6 | 14.0 |
| AMPE 90L BA | 2 | 2.2 | 3 | 2880 | 7.3 | 85.0 | 86.2 | 86.5 | 0.82 | 4.6 | 9.2 | 4.0 | 3.8 | 4.2 | 1.8 | 16.0 |
| AMPE 90L DA | 2* | 3 | 4 | 2865 | 10.0 | 85.2 | 86.3 | 87.1 | 0.80 | 6.3 | 8.7 | 4.5 | 4.0 | 4.6 | 2.0 | 18.0 |
| AMPE 100L AA | 2 | 3 | 4 | 2900 | 9.9 | 82.3 | 85.8 | 87.1 | 0.89 | 5.6 | 8.8 | 5.5 | 3.5 | 4.5 | 4.1 | 22.8 |
| AMPE 100L BA | 2* | 4 | 5.5 | 2920 | 13.1 | 85.4 | 87.2 | 88.1 | 0.81 | 8.2 | 10.9 | 6.1 | 5.2 | 5.7 | 7.3 | 26.5 |
| AMPE 112M AA | 2 | 4 | 5.5 | 2910 | 13.1 | 86.8 | 87.8 | 88.1 | 0.93 | 7.0 | 9.6 | 3.6 | 3.0 | 4.0 | 6.5 | 27.4 |
| AMPE 112M BA | 2* | 5.5 | 7.5 | 2935 | 17.9 | 85.6 | 88.3 | 89.2 | 0.87 | 10.2 | 11.2 | 4.2 | 3.5 | 4.3 | 8.6 | 33.6 |
| AMPE 112M CA | 2* | 7.5 | 10 | 2930 | 24.5 | 88.0 | 89.7 | 90.1 | 0.84 | 14.4 | 10.4 | 4.5 | 3.5 | 4.6 | 10.5 | 36.0 |
| AMPE 132S ZA | 2 | 5.5 | 7.5 | 2920 | 18.0 | 88.0 | 88.5 | 89.2 | 0.90 | 10.0 | 8.9 | 3.0 | 2.5 | 3.6 | 14.0 | 46.0 |
| AMPE 132S TA | 2 | 7.5 | 10 | 2910 | 24.6 | 88.6 | 89.2 | 90.1 | 0.92 | 13.1 | 8.9 | 3.0 | 2.6 | 3.6 | 16.0 | 53.0 |
| AMPE 132M ZA | 2 | 9.2 | 12.4 | 2930 | 30.0 | 88.6 | 89.8 | 90.7 | 0.89 | 16.5 | 10.1 | 3.7 | 3.3 | 4.0 | 17.5 | 58.0 |
| AMPE 132M RA | 2* | 11 | 15 | 2935 | 35.8 | 90.0 | 90.8 | 91.2 | 0.89 | 19.9 | 9.7 | 4.4 | 3.5 | 4.6 | 25.0 | 59.0 |
| AMPE 132M TA | 2* | 15 | 20 | 2915 | 49.2 | 91.0 | 92.2 | 91.9 | 0.88 | 26.8 | 9.6 | 3.7 | 2.6 | 3.8 | 28.0 | 68.0 |
| AMPE 160M YA | 2 | 11 | 15 | 2950 | 35.6 | 87.4 | 89.8 | 91.2 | 0.89 | 19.7 | 9.1 | 4.0 | 3.0 | 4.2 | 51.7 | 87.8 |
| AMPE 160M ZA | 2 | 15 | 20 | 2940 | 48.7 | 91.0 | 91.3 | 91.9 | 0.89 | 26.7 | 9.7 | 4.7 | 3.5 | 4.8 | 53.4 | 88.9 |
| AMPE 160L ZA | 2 | 18.5 | 25 | 2950 | 59.9 | 91.6 | 92.8 | 92.4 | 0.88 | 33.0 | 10.7 | 4.6 | 3.1 | 4.7 | 64.0 | 104.0 |
| AMPE 160L TA | 2 | 22 | 30 | 2950 | 71.3 | 92.2 | 93.7 | 92.7 | 0.87 | 39.4 | 10.4 | 4.5 | 3.0 | 4.6 | 64.0 | 104.0 |
| 1500 min⁻¹ (4 poles) | | | | | | | | | | | | | | | | |
| AMPE 80Z AA | 4 | 0.75 | 1 | 1435 | 5.0 | 80.7 | 81.5 | 82.5 | 0.74 | 1.8 | 5.5 | 2.7 | 2.6 | 2.8 | 2.5 | 11.0 |
| AMPE 90S AA | 4 | 1.1 | 1.5 | 1440 | 7.3 | 83.3 | 84.3 | 84.1 | 0.75 | 2.5 | 7.1 | 4.3 | 3.4 | 4.4 | 3.6 | 15.8 |
| AMPE 90L BA | 4 | 1.5 | 2 | 1430 | 10.0 | 84.1 | 85.2 | 85.3 | 0.72 | 3.6 | 6.6 | 4.3 | 3.8 | 4.4 | 3.7 | 16.4 |
| AMPE 90L CA | 4 | 1.8 | 2.4 | 1430 | 12.0 | 83.5 | 86.1 | 86.0 | 0.69 | 4.5 | 8.5 | 4.3 | 3.7 | 4.4 | 3.9 | 20.0 |
| AMPE 100L AA | 4 | 2.2 | 3 | 1455 | 14.4 | 83.2 | 86.2 | 86.7 | 0.63 | 4.8 | 7.2 | 3.7 | 3.0 | 3.9 | 5.9 | 22.8 |
| AMPE 100L BA | 4 | 3 | 4 | 1440 | 19.9 | 85.1 | 87.1 | 87.7 | 0.73 | 6.8 | 8.1 | 4.1 | 3.8 | 4.1 | 7.3 | 26.5 |
| AMPE 112M BA | 4 | 4 | 5.5 | 1450 | 26.4 | 87.2 | 88.3 | 88.6 | 0.80 | 8.2 | 8.5 | 2.7 | 2.4 | 3.5 | 16.4 | 36.0 |
| AMPE 132S ZA | 4 | 5.5 | 7.5 | 1450 | 36.2 | 89.8 | 90.2 | 89.6 | 0.84 | 10.6 | 8.7 | 3.7 | 3.2 | 4.3 | 36.0 | 65.0 |
| AMPE 132M ZA | 4 | 7.5 | 10 | 1465 | 48.9 | 89.9 | 90.9 | 90.4 | 0.78 | 15.3 | 8.2 | 4.4 | 3.1 | 5.1 | 45.0 | 79.0 |
| AMPE 132M TA | 4 | 9.2 | 12.4 | 1455 | 60.4 | 88.6 | 91.1 | 91.0 | 0.74 | 19.7 | 8.2 | 4.9 | 3.3 | 5.5 | 57.0 | 98.0 |
| AMPE 160M ZA | 4 | 11 | 15 | 1475 | 71.3 | 90.5 | 91.5 | 91.4 | 0.77 | 22.4 | 10.1 | 2.5 | 2.2 | 3.1 | 105.0 | 108.0 |
| AMPE 160L ZA | 4 | 15 | 20 | 1465 | 97.8 | 91.8 | 92.5 | 92.1 | 0.78 | 30.5 | 8.9 | 3.2 | 2.1 | 2.8 | 120.7 | 114.0 |
| 1000 min⁻¹ (6 poles) | | | | | | | | | | | | | | | | |
| AMPE 90S AA | 6 | 0.75 | 1 | 940 | 7.6 | 78.1 | 79.2 | 78.9 | 0.62 | 2.2 | 4.6 | 1.7 | 1.6 | 1.8 | 6.0 | 18.1 |
| AMPE 90L BA | 6 | 1.1 | 1.5 | 935 | 11.2 | 79.1 | 81.2 | 81.0 | 0.64 | 3.1 | 4.2 | 1.8 | 1.7 | 2.3 | 6.5 | 19.0 |
| AMPE 100L AA | 6 | 1.1 | 1.5 | 960 | 10.9 | 78.9 | 81.3 | 81.0 | 0.65 | 3.0 | 6.2 | 2.2 | 1.8 | 2.8 | 11.6 | 25.0 |
| AMPE 100L BA | 6 | 1.5 | 2 | 920 | 15.6 | 81.1 | 82.7 | 82.5 | 0.68 | 3.8 | 5.7 | 1.7 | 1.3 | 2.3 | 14.2 | 26.0 |
| AMPE 112M BA | 6 | 2.2 | 3 | 920 | 22.8 | 83.3 | 85.1 | 84.3 | 0.68 | 5.4 | 5.3 | 2.0 | 1.8 | 2.4 | 20.1 | 34.2 |
| AMPE 132S YA | 6 | 3 | 4 | 975 | 29.4 | 84.1 | 85.8 | 85.6 | 0.65 | 8.0 | 5.5 | 2.1 | 1.9 | 3.1 | 37.7 | 42.0 |
| AMPE 132M YA | 6 | 4 | 5.5 | 975 | 39.2 | 85.2 | 87.1 | 86.8 | 0.66 | 10.3 | 5.4 | 2.2 | 1.7 | 3.2 | 44.4 | 46.0 |
| AMPE 132M TA | 6 | 5.5 | 7.5 | 975 | 53.9 | 87.1 | 88.1 | 88.0 | 0.64 | 14.2 | 5.4 | 2.1 | 1.8 | 2.9 | 54.1 | 48.0 |
| AMPE 160M YA | 6 | 5.5 | 7.5 | 975 | 53.9 | 87.5 | 88.5 | 88.0 | 0.77 | 11.8 | 8.6 | 2.2 | 1.8 | 2.8 | 103.0 | 84.0 |
| AMPE 160LM ZA | 6 | 7.5 | 10 | 980 | 73.1 | 88.3 | 89.3 | 89.1 | 0.78 | 15.7 | 8.7 | 2.4 | 1.9 | 3.1 | 132.0 | 97.0 |
| AMPE 160L ZA | 6 | 9.2 | 12.4 | 970 | 87.6 | 88.9 | 90.1 | 89.8 | 0.74 | 19.9 | 8.3 | 3.1 | 2.2 | 3.5 | 136.0 | 105.0 |
| AMPE 160L TA | 6 | 11 | 15 | 970 | 108.3 | 89.1 | 90.4 | 90.3 | 0.78 | 22.9 | 8.0 | 2.7 | 2.4 | 3.2 | 136.0 | 105.0 |

PREMIUM EFFICIENCY THREE-PHASE MOTORS – IE3 CAST IRON DESIGN

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30-1:2014
EFFICIENCY TESTING METHOD IEC 60034-2-1:2014

NOMINAL FULL LOAD EFFICIENCY ACCORDING TO IE3 CODE @ 400 V - 50 HZ

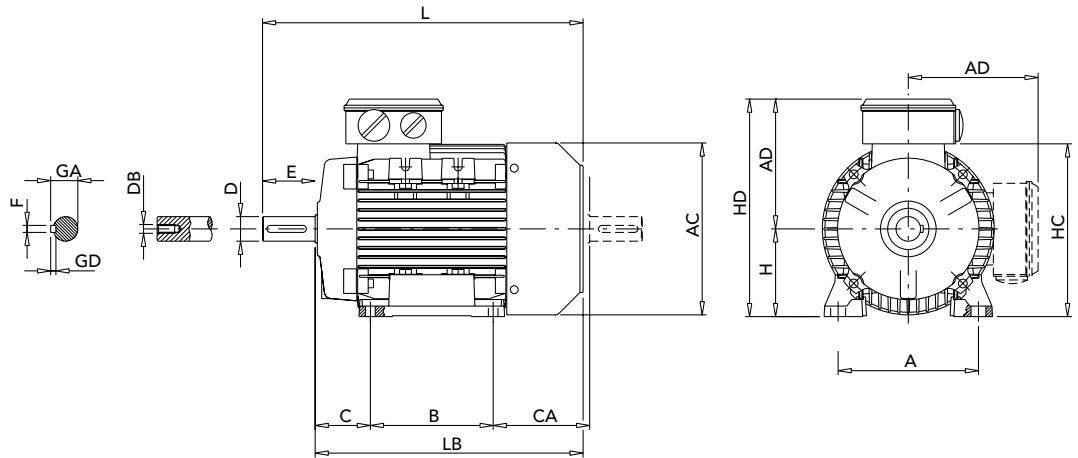
FOR MAINS VOLTAGE
400 V - 50 HZ



TEMPERATURE RISE TO CLASS B

| Type | kW | HP | min ⁻¹ | M _N Nm | IE3 η | | | cos φ | I _N 400V | I _A /I _N | M _A /M _N | M _S /M _N | M _K /M _N | J 10 ⁻³ kgm ² | kg | |
|--|----|------|-------------------|----------------------|------------|------|------|---------------|------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|------|------|
| | | | | | 50% | 75% | 100% | | | | | | | | | |
| 3000 min⁻¹ (2 poles) | | | | | | | | | | | | | | | | |
| AMPE 180M ZG | 2 | 22 | 30 | 2930 | 71.7 | 92.6 | 93.1 | 92.7 | 0.89 | 38.5 | 7.5 | 2.3 | 2.0 | 2.8 | 97 | 210 |
| AMPE 200L PG | 2 | 30 | 40 | 2925 | 97.9 | 92.9 | 93.5 | 93.3 | 0.88 | 52.7 | 6.7 | 2.4 | 2.0 | 2.7 | 173 | 234 |
| AMPE 200L RG | 2 | 37 | 50 | 2930 | 120.6 | 93.7 | 94.1 | 93.7 | 0.90 | 63.3 | 6.3 | 2.3 | 2.0 | 2.7 | 200 | 250 |
| AMPE 225M PG | 2 | 45 | 60 | 2930 | 146.7 | 93.8 | 94.2 | 94.0 | 0.88 | 78.5 | 6.9 | 2.3 | 2.0 | 2.8 | 344 | 322 |
| AMPE 250M PG | 2 | 55 | 75 | 2940 | 178.6 | 93.2 | 94.1 | 94.3 | 0.88 | 95.7 | 8.0 | 2.3 | 1.9 | 2.7 | 444 | 420 |
| AMPE 280S G | 2 | 75 | 100 | 2940 | 243.6 | 93.6 | 94.5 | 94.7 | 0.92 | 124.3 | 8.0 | 2.2 | 1.9 | 2.7 | 829 | 630 |
| AMPE 280M G | 2 | 90 | 125 | 2940 | 292.3 | 93.6 | 94.7 | 95.0 | 0.92 | 148.6 | 7.7 | 2.2 | 1.9 | 2.6 | 982 | 650 |
| AMPE 315S G | 2 | 110 | 150 | 2940 | 357.3 | 94.6 | 95.5 | 95.2 | 0.90 | 185.3 | 7.7 | 2.0 | 1.8 | 2.3 | 1509 | 930 |
| AMPE 315M G | 2 | 132 | 180 | 2940 | 428.7 | 94.7 | 95.5 | 95.4 | 0.91 | 219.5 | 7.6 | 2.0 | 1.8 | 2.3 | 1938 | 1030 |
| AMPE 315L RG | 2 | 160 | 200 | 2945 | 518.8 | 94.5 | 95.8 | 95.6 | 0.90 | 267.9 | 7.8 | 2.0 | 1.8 | 2.3 | 2197 | 1070 |
| AMPE 315L G | 2 | 200 | 270 | 2945 | 648.5 | 94.7 | 96.0 | 95.8 | 0.89 | 338.6 | 7.9 | 2.0 | 1.8 | 2.3 | 2554 | 1140 |
| 1500 min⁻¹ (4 poles) | | | | | | | | | | | | | | | | |
| AMPE 180M ZG | 4 | 18.5 | 25 | 1445 | 122.3 | 92.3 | 92.9 | 92.6 | 0.87 | 33.1 | 7.8 | 2.4 | 2.1 | 3.0 | 155 | 160 |
| AMPE 180L ZG | 4 | 22 | 30 | 1460 | 143.9 | 92.8 | 93.3 | 93.0 | 0.89 | 38.4 | 7.5 | 2.3 | 2.0 | 3.0 | 194 | 186 |
| AMPE 200L RG | 4 | 30 | 40 | 1460 | 196.2 | 92.5 | 93.5 | 93.6 | 0.88 | 52.6 | 7.9 | 2.4 | 2.0 | 2.7 | 287 | 245 |
| AMPE 225S PG | 4 | 37 | 50 | 1470 | 240.4 | 93.5 | 94.1 | 93.9 | 0.80 | 71.1 | 6.7 | 2.4 | 2.0 | 2.7 | 578 | 320 |
| AMPE 225M PG | 4 | 45 | 60 | 1480 | 290.3 | 93.7 | 94.3 | 94.2 | 0.80 | 86.2 | 7.0 | 2.3 | 2.0 | 2.8 | 653 | 350 |
| AMPE 250M PG | 4 | 55 | 75 | 1480 | 354.9 | 94.0 | 94.6 | 94.6 | 0.88 | 95.4 | 7.4 | 2.4 | 1.9 | 2.7 | 765 | 460 |
| AMPE 280S G | 4 | 75 | 100 | 1480 | 483.9 | 94.8 | 95.2 | 95.0 | 0.91 | 125.2 | 7.5 | 2.2 | 1.9 | 2.6 | 1887 | 620 |
| AMPE 280M G | 4 | 90 | 125 | 1480 | 580.7 | 94.3 | 95.1 | 95.2 | 0.92 | 148.3 | 7.7 | 2.2 | 1.9 | 2.6 | 2183 | 673 |
| AMPE 315S G | 4 | 110 | 150 | 1480 | 109.7 | 94.6 | 95.7 | 95.4 | 0.90 | 184.9 | 7.8 | 2.0 | 1.8 | 2.3 | 3718 | 1027 |
| AMPE 315M G | 4 | 132 | 180 | 1480 | 851.7 | 95.0 | 95.8 | 95.6 | 0.91 | 219.0 | 7.8 | 2.0 | 1.8 | 2.3 | 4297 | 1070 |
| AMPE 315L RG | 4 | 160 | 200 | 1480 | 1032.4 | 95.1 | 96.0 | 95.8 | 0.91 | 264.9 | 7.9 | 2.0 | 1.8 | 2.3 | 5120 | 1150 |
| AMPE 315L G | 4 | 200 | 270 | 1480 | 1290.4 | 95.3 | 96.2 | 96.0 | 0.90 | 334.1 | 7.7 | 2.0 | 1.8 | 2.3 | 6173 | 1230 |
| 1000 min⁻¹ (6 poles) | | | | | | | | | | | | | | | | |
| AMPE 180L ZG | 6 | 15 | 20 | 960 | 149.2 | 90.3 | 92.0 | 91.2 | 0.83 | 28.6 | 7.8 | 2.3 | 2.1 | 2.9 | 257 | 152 |
| AMPE 200L PG | 6 | 18.5 | 25 | 965 | 183.1 | 91.2 | 92.0 | 91.7 | 0.85 | 34.3 | 7.8 | 2.4 | 2.1 | 3.2 | 383 | 188 |
| AMPE 200L RG | 6 | 22 | 30 | 965 | 217.7 | 91.5 | 92.4 | 92.2 | 0.86 | 40.0 | 7.9 | 2.3 | 1.9 | 3.1 | 449 | 250 |
| AMPE 225M PG | 6 | 30 | 40 | 975 | 293.8 | 93.5 | 93.6 | 92.9 | 0.85 | 54.8 | 7.9 | 2.2 | 1.9 | 2.7 | 670 | 252 |
| AMPE 250M PG | 6 | 37 | 50 | 975 | 362.4 | 91.8 | 94.0 | 93.3 | 0.83 | 69.0 | 7.5 | 2.3 | 2.1 | 2.7 | 992 | 345 |
| AMPE 280S G | 6 | 45 | 60 | 980 | 438.5 | 92.2 | 93.5 | 93.7 | 0.86 | 80.6 | 7.2 | 2.3 | 2.0 | 2.8 | 2046 | 410 |
| AMPE 280M G | 6 | 55 | 75 | 980 | 535.9 | 92.8 | 93.9 | 94.1 | 0.86 | 98.1 | 7.7 | 2.2 | 1.9 | 2.7 | 2573 | 520 |
| AMPE 315S G | 6 | 75 | 100 | 980 | 730.8 | 93.2 | 94.8 | 94.6 | 0.89 | 128.6 | 7.9 | 2.1 | 1.9 | 2.5 | 4157 | 530 |
| AMPE 315M G | 6 | 90 | 125 | 980 | 877.0 | 93.4 | 95.0 | 94.9 | 0.90 | 152.1 | 8.0 | 2.0 | 1.8 | 2.3 | 3530 | 860 |
| AMPE 315L RG | 6 | 110 | 150 | 980 | 1071.9 | 94.0 | 95.4 | 95.1 | 0.90 | 185.5 | 7.7 | 2.0 | 1.8 | 2.3 | 4173 | 970 |
| AMPE 315L G | 6 | 132 | 180 | 980 | 1286.2 | 94.2 | 95.7 | 95.4 | 0.89 | 224.4 | 8.0 | 2.0 | 1.8 | 2.3 | 5167 | 1010 |

THREE-PHASE FRAME SIZE 80 - 160 IM B3 AMPE SERIES - ALUMINIUM ALLOY FRAME

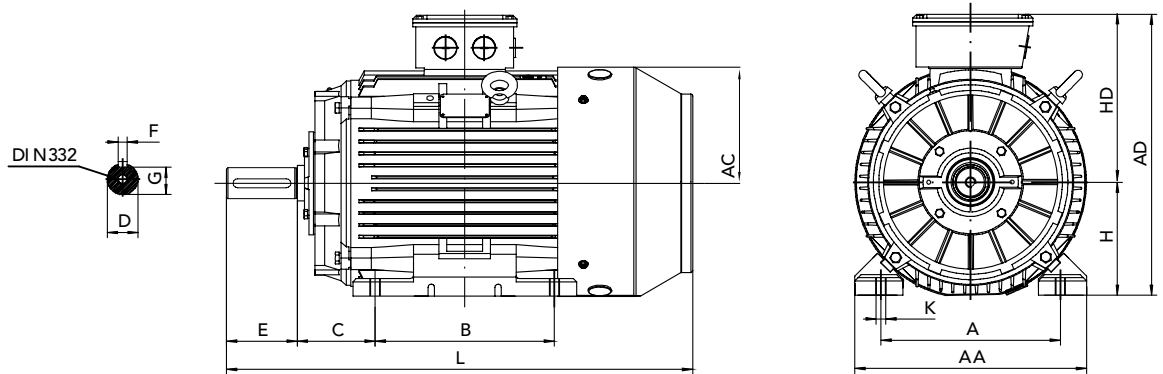


| IEC | Poles | kW | H | A | B | C | CA | AD ¹⁾ | HD ¹⁾ | AC | HC | L | LB | D | E | F | GD | GA | DB ²⁾ |
|------|-----------|----------|-----|-----|-----|-----|-----|------------------|------------------|-----|-----|-----|-----|-------|--------|------|-----|-------|------------------|
| 71 | 2 | all | 71 | 112 | 90 | 45 | 83 | 110 | 181 | 139 | 142 | 246 | 216 | 14 | 30 | 5 | 5 | 16 | M5 |
| 80 | 2 - 4 | all | 80 | 125 | 100 | 50 | 89 | 129 | 209 | 160 | 162 | 272 | 232 | 19 | 40 | 6 | 6 | 21.5 | M6 |
| 90S | 2 - 4 - 6 | all | 90 | 140 | 100 | 56 | 116 | 138 | 228 | 180 | 181 | 317 | 267 | 24 | 50 | 8 | 7 | 27 | M8 |
| 90L | 2 | 2.2 | 90 | 140 | 125 | 56 | 91 | 138 | 228 | 180 | 181 | 317 | 267 | 24 | 50 | 8 | 7 | 27 | M8 |
| | 2 | 3 | 90 | 140 | 125 | 56 | 114 | 138 | 228 | 180 | 181 | 340 | 290 | 24 | 50 | 8 | 7 | 27 | M8 |
| | 4 - 6 | all | 90 | 140 | 125 | 56 | 91 | 138 | 228 | 180 | 181 | 317 | 267 | 24 | 50 | 8 | 7 | 27 | M8 |
| 100L | 2 | all | 100 | 160 | 140 | 63 | 110 | 145 | 245 | 196 | 198 | 366 | 306 | 28 | 60 | 8 | 7 | 31 | M10 |
| | 4 - 6 | all | 100 | 160 | 140 | 63 | 110 | 145 | 245 | 198 | 192 | 366 | 306 | 28 | 60 | 8 | 7 | 31 | M10 |
| 112M | 2 | 4 - 5.5 | 112 | 190 | 140 | 70 | 126 | 160 | 272 | 225 | 225 | 388 | 328 | 28 | 60 | 8 | 7 | 31 | M10 |
| | 2 | 7.5 | 112 | 190 | 140 | 70 | 148 | 160 | 272 | 222 | 225 | 410 | 350 | 28 | 60 | 8 | 7 | 31 | M10 |
| | 4-6 | all | 112 | 190 | 140 | 70 | 126 | 160 | 272 | 225 | 225 | 388 | 328 | 28 | 60 | 8 | 7 | 31 | M10 |
| 132S | 2 | 5.5 | 132 | 216 | 140 | 89 | 134 | 194 | 326 | 248 | 261 | 445 | 365 | 38 | 80 | 10 | 8 | 41 | M12 |
| | 2 | 7.5 | 132 | 216 | 140 | 89 | 154 | 194 | 326 | 248 | 261 | 465 | 385 | 38 | 80 | 10 | 8 | 41 | M12 |
| | 4 - 6 | all | 132 | 216 | 140 | 89 | 134 | 194 | 326 | 248 | 261 | 445 | 365 | 38 | 80 | 10 | 8 | 41 | M12 |
| 132M | 2 | 9.2 - 11 | 132 | 216 | 178 | 89 | 156 | 194 | 326 | 248 | 261 | 505 | 425 | 38 | 80 | 10 | 8 | 41 | M12 |
| | 2 | 15 | 132 | 216 | 178 | 89 | 207 | 194 | 326 | 248 | 261 | 556 | 476 | 38 | 80 | 10 | 8 | 41 | M12 |
| | 4 | 7.5 | 132 | 216 | 178 | 89 | 156 | 194 | 326 | 248 | 261 | 505 | 425 | 38 | 80 | 10 | 8 | 41 | M12 |
| | 4 | 9.2 | 132 | 216 | 178 | 89 | 207 | 194 | 326 | 248 | 261 | 556 | 476 | 38 | 80 | 10 | 8 | 41 | M12 |
| | 6 | 4 | 132 | 216 | 178 | 89 | 136 | 194 | 326 | 248 | 261 | 485 | 405 | 38 | 80 | 10 | 8 | 41 | M12 |
| | 6 | 5.5 | 132 | 216 | 178 | 89 | 156 | 194 | 326 | 248 | 261 | 505 | 425 | 38 | 80 | 10 | 8 | 41 | M12 |
| 160M | 2 - 4 - 6 | all | 160 | 254 | 210 | 108 | 180 | 238 | 398 | 317 | 316 | 608 | 498 | 42/28 | 110/60 | 12/8 | 8/7 | 45/31 | M16/M10 |
| 160L | 2 - 4 - 6 | all | 160 | 254 | 254 | 108 | 180 | 238 | 398 | 317 | 316 | 652 | 542 | 42/28 | 110/60 | 12/8 | 8/7 | 45/31 | M16/M10 |

1) Maximum distance

2) Centering holes in shaft extensions to DIN 332 part 2

THREE-PHASE FRAME SIZE 180 - 315 IM B3
AMPE SERIES - CAST IRON FRAME



| IEC | Poles | H | A | B | C | K | AD | HD | AC | L | AA | D | E | F | G |
|-------------|--------------|-----|-----|-----|-----|----|-----|-----|-----|------|-----|----|-----|----|------|
| 180M | 2-4-6 | 180 | 279 | 241 | 121 | 15 | 439 | 259 | 360 | 687 | 348 | 48 | 110 | 14 | 42.5 |
| 180L | 2-4-6 | 180 | 279 | 279 | 121 | 15 | 439 | 259 | 360 | 725 | 348 | 48 | 110 | 14 | 42.5 |
| 200 | 2-4-6 | 200 | 318 | 305 | 133 | 19 | 497 | 297 | 399 | 768 | 388 | 55 | 110 | 16 | 49 |
| 225S | ≥ 4 | 225 | 356 | 286 | 149 | 19 | 553 | 328 | 465 | 814 | 436 | 60 | 140 | 18 | 53 |
| 225M | 2 | 225 | 356 | 311 | 149 | 19 | 553 | 358 | 465 | 809 | 436 | 55 | 110 | 16 | 49 |
| | ≥ 4 | 225 | 356 | 311 | 149 | 19 | 553 | 328 | 465 | 839 | 436 | 60 | 140 | 18 | 53 |
| 250 | 2 | 250 | 406 | 349 | 168 | 24 | 616 | 366 | 506 | 918 | 484 | 60 | 140 | 18 | 53 |
| | ≥ 4 | 250 | 406 | 349 | 168 | 24 | 616 | 366 | 506 | 918 | 484 | 65 | 140 | 18 | 58 |
| 280S | 2 | 280 | 457 | 368 | 190 | 24 | 668 | 388 | 559 | 984 | 557 | 65 | 140 | 18 | 58 |
| | ≥ 4 | 280 | 457 | 368 | 190 | 24 | 668 | 388 | 559 | 984 | 557 | 75 | 140 | 20 | 67.5 |
| 280M | 2 | 280 | 457 | 419 | 190 | 24 | 668 | 388 | 559 | 1035 | 557 | 65 | 140 | 18 | 58 |
| | ≥ 4 | 280 | 457 | 419 | 190 | 24 | 668 | 388 | 559 | 1035 | 557 | 75 | 140 | 20 | 67.5 |
| 315S | 2 | 315 | 508 | 457 | 216 | 28 | 845 | 530 | 680 | 1355 | 630 | 65 | 140 | 18 | 58 |
| | ≥ 4 | 315 | 508 | 457 | 216 | 28 | 845 | 530 | 680 | 1385 | 630 | 80 | 170 | 22 | 71 |
| 315M | 2 | 315 | 508 | 508 | 216 | 28 | 845 | 530 | 680 | 1355 | 630 | 65 | 140 | 18 | 58 |
| | ≥ 4 | 315 | 508 | 508 | 216 | 28 | 845 | 530 | 680 | 1385 | 630 | 80 | 170 | 22 | 71 |
| 315L | 2 | 315 | 508 | 508 | 216 | 28 | 845 | 530 | 680 | 1355 | 630 | 65 | 140 | 18 | 58 |
| | ≥ 4 | 315 | 508 | 508 | 216 | 28 | 845 | 530 | 680 | 1385 | 630 | 80 | 170 | 22 | 71 |

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