

ACA ALUMINUM HOUSING IE3

DIN EN 60034-30 | Premium High Efficiency (PHE)

2 poles, idle speed 3000 rpm

400 V / 50 Hz, 460 V / 60 Hz

| Frame size | Power at 50/60 Hz | Rated speed at 50/60 Hz | Efficiency at 100% load | 75% | 50% | Power factor at 50/60 Hz | Rated current at 400 V / 50 Hz | Rated torque | Starting current to Rated current | Starting torque to rated torque | Breakdown torque to Rated torque | Moment of inertia | Weight |
|------------|-------------------|-------------------------|-------------------------|------|------|--------------------------|--------------------------------|--------------|-----------------------------------|---------------------------------|----------------------------------|-----------------------|--------|
| Type | kW | rpm | % | % | % | cos φ | A | Nm | Ia/In | Ta/Tn | Tk/Tn | J [kgm ²] | kg |
| 80 A-2 | 0.75 / 0.90 | 2880 / 3456 | 80.7 | 80.7 | 79.1 | 0.82 | 1.64 | 2.5 | 7.0 | 2.3 | 2.3 | 0.0010 | 8.8 |
| 80 B-2 | 1.10 / 1.32 | 2880 / 3456 | 82.7 | 82.7 | 81.0 | 0.83 | 2.31 | 3.7 | 7.3 | 2.3 | 2.3 | 0.0012 | 9.0 |
| 90 S-2 | 1.50 / 1.80 | 2895 / 3474 | 84.2 | 84.2 | 82.5 | 0.84 | 3.06 | 4.9 | 7.6 | 2.3 | 2.3 | 0.0015 | 13.5 |
| 90 L-2 | 2.20 / 2.64 | 2895 / 3474 | 85.9 | 85.9 | 84.2 | 0.85 | 4.35 | 7.3 | 7.6 | 2.3 | 2.3 | 0.0018 | 17.0 |
| 100 L-2 | 3.00 / 3.60 | 2895 / 3474 | 87.1 | 87.1 | 85.4 | 0.87 | 5.71 | 9.9 | 7.8 | 2.3 | 2.3 | 0.0033 | 23.2 |
| 112 M-2 | 4.00 / 4.80 | 2905 / 3486 | 88.1 | 88.1 | 86.3 | 0.88 | 7.45 | 13.1 | 8.3 | 2.3 | 2.3 | 0.0060 | 40.0 |
| 132 SA-2 | 5.50 / 6.60 | 2930 / 3516 | 89.2 | 89.2 | 87.4 | 0.88 | 10.11 | 17.9 | 8.3 | 2.2 | 2.3 | 0.0120 | 42.0 |
| 132 SB-2 | 7.50 / 9.00 | 2930 / 3516 | 90.1 | 90.1 | 88.3 | 0.88 | 13.65 | 24.4 | 7.9 | 2.2 | 2.3 | 0.0150 | 48.0 |

4 poles, idle speed 1500 rpm

400 V / 50 Hz, 460 V / 60 Hz

| Frame size | Power at 50/60 Hz | Rated speed at 50/60 Hz | Efficiency at 100% load | 75% | 50% | Power factor at 50/60 Hz | Rated current at 400 V / 50 Hz | Rated torque | Starting current to Rated current | Starting torque to rated torque | Breakdown torque to Rated torque | Moment of inertia | Weight |
|------------|-------------------|-------------------------|-------------------------|------|------|--------------------------|--------------------------------|--------------|-----------------------------------|---------------------------------|----------------------------------|-----------------------|--------|
| Type | kW | rpm | % | % | % | cos φ | A | Nm | Ia/In | Ta/Tn | Tk/Tn | J [kgm ²] | kg |
| 80 B-4 | 0.75 / 0.90 | 1420 / 1704 | 82.5 | 82.5 | 80.9 | 0.75 | 1.75 | 5.0 | 6.6 | 2.3 | 2.3 | 0.0025 | 11.1 |
| 90 S-4 | 1.10 / 1.32 | 1445 / 1734 | 84.1 | 84.1 | 82.4 | 0.76 | 2.48 | 7.3 | 6.8 | 2.3 | 2.3 | 0.0030 | 15.0 |
| 90 L-4 | 1.50 / 1.80 | 1445 / 1734 | 85.3 | 85.3 | 83.6 | 0.77 | 3.30 | 9.9 | 7.0 | 2.3 | 2.3 | 0.0036 | 19.0 |
| 100 LA-4 | 2.20 / 2.64 | 1435 / 1722 | 86.7 | 86.7 | 85.0 | 0.81 | 4.52 | 14.6 | 7.6 | 2.3 | 2.3 | 0.0062 | 25.4 |
| 100 LB-4 | 3.00 / 3.60 | 1435 / 1722 | 87.7 | 87.7 | 85.9 | 0.82 | 6.02 | 20.0 | 7.6 | 2.3 | 2.3 | 0.0078 | 30.5 |
| 112 M-4 | 4.00 / 4.80 | 1440 / 1728 | 88.6 | 88.6 | 86.8 | 0.82 | 7.95 | 26.5 | 7.8 | 2.3 | 2.3 | 0.0110 | 37.0 |
| 132 S-4 | 5.50 / 6.60 | 1460 / 1752 | 89.6 | 89.6 | 87.8 | 0.83 | 10.68 | 36.0 | 7.9 | 2.0 | 2.3 | 0.0250 | 48.5 |
| 132 M-4 | 7.50 / 9.00 | 1460 / 1752 | 90.4 | 90.4 | 88.6 | 0.84 | 14.26 | 49.1 | 7.5 | 2.0 | 2.3 | 0.0340 | 60.0 |

ACA ALUMINUM HOUSING IE3

DIN EN 60034-30 | Premium High Efficiency (PHE)

6 poles, idle speed 1000 rpm

400 V / 50 Hz, 460 V / 60 Hz

| Frame size | Power at 50/60 Hz | Rated speed at 50/60 Hz | Efficiency at 100% load | 75% | 50% | Power factor at 50/60 Hz | Rated current at 400 V / 50 Hz | Rated torque | Starting current to Rated current | Starting torque to rated torque | Breakdown torque to Rated torque | Moment of inertia | Weight |
|------------|-------------------|-------------------------|-------------------------|------|------|--------------------------|--------------------------------|--------------|-----------------------------------|---------------------------------|----------------------------------|-----------------------|--------|
| Type | kW | rpm | % | % | % | cos φ | A | Nm | Ia/In | Ta/Tn | Tk/Tn | J [kgm ²] | kg |
| 90 S-6 | 0.75 / 0.90 | 935 / 1122 | 78.9 | 78.9 | 77.3 | 0.71 | 1.93 | 7.7 | 6.0 | 2.0 | 2.1 | 0.0035 | 14.0 |
| 90 L-6 | 1.10 / 1.32 | 945 / 1134 | 81.0 | 81.0 | 79.4 | 0.73 | 2.69 | 11.1 | 6.0 | 2.0 | 2.1 | 0.0047 | 18.0 |
| 100 L-6 | 1.50 / 1.80 | 949 / 1138 | 82.5 | 82.5 | 80.9 | 0.73 | 3.60 | 15.1 | 6.5 | 2.0 | 2.1 | 0.0090 | 29.5 |
| 112 M-6 | 2.20 / 2.64 | 955 / 1146 | 84.3 | 84.3 | 82.6 | 0.74 | 5.09 | 22.0 | 6.6 | 2.0 | 2.1 | 0.0150 | 32.0 |
| 132 S-6 | 3.00 / 3.60 | 968 / 1161 | 85.6 | 85.6 | 83.9 | 0.74 | 6.84 | 29.6 | 6.8 | 2.0 | 2.1 | 0.0300 | 43.0 |
| 132 MA-6 | 4.00 / 4.80 | 968 / 1161 | 86.8 | 86.8 | 85.1 | 0.74 | 8.99 | 39.5 | 6.3 | 2.0 | 2.1 | 0.0380 | 49.0 |
| 132 MB-6 | 5.50 / 6.60 | 968 / 1161 | 88.0 | 88.0 | 86.2 | 0.75 | 12.03 | 54.3 | 7.0 | 2.0 | 2.1 | 0.0430 | 59.0 |

8 poles, idle speed 750 rpm

400 V / 50 Hz, 460 V / 60 Hz

| Frame size | Power at 50/60 Hz | Rated speed at 50/60 Hz | Efficiency at 100% load | 75% | 50% | Power factor at 50/60 Hz | Rated current at 400 V / 50 Hz | Rated torque | Starting current to Rated current | Starting torque to rated torque | Breakdown torque to Rated torque | Moment of inertia | Weight |
|------------|-------------------|-------------------------|-------------------------|------|------|--------------------------|--------------------------------|--------------|-----------------------------------|---------------------------------|----------------------------------|-----------------------|--------|
| Type | kW | rpm | % | % | % | cos φ | A | Nm | Ia/In | Ta/Tn | Tk/Tn | J [kgm ²] | kg |
| 100 LA-8 | 0.75 / 0.90 | 685 / 822 | 75.0 | 75.0 | 73.5 | 0.67 | 2.15 | 10.5 | 4.0 | 1.8 | 2.0 | 0.0085 | 29.0 |
| 100 LB-8 | 1.10 / 1.32 | 685 / 822 | 77.7 | 77.7 | 76.1 | 0.69 | 2.96 | 15.3 | 5.0 | 1.8 | 2.0 | 0.0095 | 30.5 |
| 112 M-8 | 1.50 / 1.80 | 695 / 834 | 79.7 | 79.7 | 78.1 | 0.70 | 3.88 | 20.6 | 5.0 | 1.8 | 2.0 | 0.0140 | 38.5 |
| 132 S-8 | 2.20 / 2.64 | 710 / 852 | 81.9 | 81.9 | 80.3 | 0.71 | 5.46 | 29.6 | 6.0 | 1.8 | 2.0 | 0.0350 | 49.5 |
| 132 M-8 | 3.00 / 3.60 | 710 / 852 | 83.5 | 83.5 | 81.8 | 0.73 | 7.10 | 40.4 | 6.0 | 1.8 | 2.0 | 0.0430 | 59.0 |

PROGRESSIVE

IE3 motors with increased power in a smaller housing

2 poles, idle speed 3000 rpm

400 V / 50 Hz, 460 V / 60 Hz

| Frame size | Power at 50/60 Hz | Rated speed at 50/60 Hz | Efficiency at 100% load | 75% | 50% | Power factor at 50/60 Hz | Rated current at 400 V / 50 Hz | Rated torque | Starting current to Rated current | Starting torque to Rated torque | Breakdown torque to Rated torque | Moment of inertia | Weight |
|------------|-------------------|-------------------------|-------------------------|------|------|--------------------------|--------------------------------|--------------|-----------------------------------|---------------------------------|----------------------------------|-----------------------|--------|
| Type | kW | rpm | % | % | % | cos φ | A | Nm | Ia/In | Ta/Tn | Tk/Tn | J [kgm ²] | kg |
| 80 C-2 | 1.50 | 2890 | 84.2 | 84.2 | 82.5 | 0.84 | 3.1 | 5.0 | 7.6 | 2.3 | 2.3 | 0.00110 | 11.6 |
| 90 LC-2 | 3.00 | 2890 | 87.1 | 87.1 | 85.4 | 0.87 | 5.7 | 9.9 | 8.1 | 2.3 | 2.3 | 0.00260 | 20.4 |
| 100 LC-2 | 4.00 | 2895 | 88.1 | 88.1 | 86.3 | 0.88 | 7.4 | 13.2 | 8.3 | 2.3 | 2.3 | 0.00450 | 23.7 |
| 112 MC-2 | 5.50 | 2920 | 89.2 | 89.4 | 87.4 | 0.88 | 10.1 | 18.0 | 8.0 | 2.2 | 2.3 | 0.00690 | 30.2 |
| 132 MC-2 | 11.0 | 2940 | 91.2 | 91.2 | 89.4 | 0.90 | 19.3 | 35.7 | 7.9 | 2.2 | 2.3 | 0.01700 | 71.2 |
| 160 LC-2 | 22.0 | 2950 | 92.7 | 92.7 | 90.8 | 0.90 | 38.1 | 71.2 | 8.2 | 2.2 | 2.3 | 0.06000 | 187 |
| 180 MC-2 | 30.0 | 2950 | 93.3 | 93.3 | 91.4 | 0.89 | 52.1 | 97.1 | 7.5 | 2.2 | 2.3 | 0.09300 | 235 |

4 poles, idle speed 1500 rpm

400 V / 50 Hz, 460 V / 60 Hz

| Frame size | Power at 50/60 Hz | Rated speed at 50/60 Hz | Efficiency at 100% load | 75% | 50% | Power factor at 50/60 Hz | Rated current at 400 V / 50 Hz | Rated torque | Starting current to Rated current | Starting torque to Rated torque | Breakdown torque to Rated torque | Moment of inertia | Weight |
|------------|-------------------|-------------------------|-------------------------|------|------|--------------------------|--------------------------------|--------------|-----------------------------------|---------------------------------|----------------------------------|-----------------------|--------|
| Type | kW | rpm | % | % | % | cos φ | A | Nm | Ia/In | Ta/Tn | Tk/Tn | J [kgm ²] | kg |
| 80 C-4 | 1.10 | 1430 | 84.1 | 84.1 | 82.4 | 0.74 | 2.6 | 7.3 | 6.5 | 2.3 | 2.3 | 0.00240 | 12.9 |
| 90 LC-4 | 2.20 | 1430 | 86.7 | 86.7 | 85.0 | 0.78 | 4.7 | 14.7 | 6.9 | 2.3 | 2.3 | 0.00530 | 19.7 |
| 100 LC-4 | 4.00 | 1435 | 88.6 | 88.6 | 86.8 | 0.80 | 8.1 | 26.6 | 7.6 | 2.3 | 2.3 | 0.00950 | 31.3 |
| 112 MC-4 | 5.50 | 1450 | 89.6 | 89.6 | 87.8 | 0.80 | 11.1 | 36.2 | 7.7 | 2.0 | 2.3 | 0.01100 | 39.2 |
| 132 MC-4 | 11.0 | 1460 | 91.4 | 91.4 | 89.6 | 0.84 | 21.2 | 72.0 | 7.4 | 2.2 | 2.3 | 0.03950 | 58.2 |
| 160 LC-4 | 18.5 | 1465 | 92.6 | 92.6 | 90.7 | 0.84 | 33.4 | 120.6 | 7.5 | 2.2 | 2.3 | 0.09800 | 182 |
| 180 MC-4 | 22.0 | 1465 | 93.0 | 93.0 | 91.1 | 0.85 | 40.2 | 143.4 | 7.7 | 2.2 | 2.3 | 0.16000 | 231 |
| 180 LC-4 | 30.0 | 1470 | 93.6 | 93.6 | 91.7 | 0.86 | 53.8 | 194.9 | 7.8 | 2.2 | 2.3 | 0.18200 | 225 |
| 200 LC-4 | 37.0 | 1475 | 93.9 | 93.9 | 92.0 | 0.86 | 66.1 | 239.6 | 7.5 | 2.1 | 2.3 | 0.31000 | 331 |
| 225 MC-4 | 55.0 | 1480 | 94.6 | 94.6 | 92.7 | 0.86 | 97.6 | 354.9 | 7.5 | 2.2 | 2.3 | 0.60000 | 443 |
| 250 MC-4 | 75.0 | 1480 | 95.0 | 95.0 | 93.1 | 0.87 | 131.0 | 484.0 | 7.5 | 2.2 | 2.3 | 0.81000 | 553 |
| 280 MC-4 | 110.0 | 1485 | 95.4 | 95.4 | 93.5 | 0.88 | 189.1 | 707.5 | 7.5 | 2.0 | 2.3 | 1.70000 | 835 |
| 315 MC-4 | 200.0 | 1485 | 96.0 | 96.0 | 94.1 | 0.90 | 334.1 | 1286 | 7.5 | 2.0 | 2.3 | 5.00000 | 1336 |

PROGRESSIVE

IE3 motors with increased power in a smaller housing

6 poles, idle speed 1000 rpm

400 V / 50 Hz, 460 V / 60 Hz

| Frame size | Power at 50/60 Hz | Rated speed at 50/60 Hz | Efficiency at 100% load | 75% | 50% | Power factor at 50/60 Hz | Rated current at 400 V / 50 Hz | Rated torque | Starting current to Rated current | Starting torque to Rated torque | Breakdown torque to Rated torque | Moment of inertia | Weight |
|------------|-------------------|-------------------------|-------------------------|------|------|--------------------------|--------------------------------|--------------|-----------------------------------|---------------------------------|----------------------------------|-----------------------|--------|
| Type | kW | rpm | % | % | % | cos φ | A | Nm | Ia/In | Ta/Tn | Tk/Tn | J [kgm ²] | kg |
| 90 LC-6 | 1.50 | 945 | 82.5 | 82.5 | 80.9 | 0.69 | 3.8 | 15.2 | 6.0 | 2.1 | 2.1 | 0.00720 | 26.6 |
| 100 LC-6 | 2.20 | 952 | 84.3 | 84.3 | 82.6 | 0.71 | 5.3 | 22.1 | 6.0 | 2.1 | 2.2 | 0.01300 | 33.5 |
| 112 MC-6 | 3.00 | 965 | 85.6 | 85.6 | 83.9 | 0.71 | 7.1 | 29.7 | 6.2 | 2.0 | 2.1 | 0.02000 | 38.3 |
| 112 MD-6 | 4.00 | 965 | 86.8 | 86.8 | 85.1 | 0.71 | 9.4 | 39.6 | 6.8 | 2.0 | 2.1 | 0.02500 | 54.1 |
| 132 MC-6 | 5.50 | 965 | 88.0 | 88.0 | 86.2 | 0.75 | 12.0 | 54.4 | 7.1 | 2.0 | 2.1 | 0.05100 | 68.9 |
| 132 MC-6 | 7.50 | 968 | 89.1 | 89.1 | 87.3 | 0.77 | 15.8 | 74.0 | 6.7 | 2.1 | 2.1 | 0.05100 | 72.4 |
| 160 LC-6 | 15.0 | 968 | 91.2 | 91.2 | 89.4 | 0.81 | 29.3 | 148.0 | 7.2 | 2.0 | 2.1 | 0.12100 | 143 |
| 180 LC-6 | 18.5 | 977 | 91.7 | 91.7 | 89.9 | 0.81 | 35.0 | 180.8 | 7.2 | 2.1 | 2.1 | 0.25300 | 250 |
| 280 MC-6 | 75.0 | 990 | 94.6 | 94.6 | 92.7 | 0.86 | 133.1 | 723.6 | 7.3 | 2.0 | 2.1 | 1.95000 | 713 |