

IEC LV MOTORS

Motor data sheet

M3AA 160MLC 2

| Definition | Data | Unit | Remarks |
|---|-------------------------------|-----------------------|---|
| Product code | 3GAA161430-**K | | CalcId: 3GZF021016-1072 |
| Voltage code | D | | |
| Type/Frame | M3AA 160MLC 2 | | |
| Design | CENELEC | | |
| Efficiency class | IE3 | | IEC 60034-2-1:2014 |
| Rated output P_N | 18.5 | kW | |
| Rated voltage U_N | 415 | V | ± 5 % (IEC 60034-1) |
| Rated frequency f_N | 50 | Hz | ± 2 % (IEC 60034-1) |
| Rated speed n_N | 2952 | r/min | |
| Rated current I_N | 31.3 | A | |
| Starting current I_S/I_N | 9.6 | | |
| Nominal torque T_N | 59.8 | Nm | |
| Locked rotor torque T_l/T_N | 3.6 | | |
| Maximum torque T_b/T_N | 4.2 | | |
| Efficiency - full load 100% | 92.4 | % | IEC 60034-2-1:2014 |
| Efficiency - 75% | 92.9 | % | |
| Efficiency - 50% | 92.3 | % | |
| Power factor - full load 100% | 0.89 | | |
| Bearing DE/NDE | 6309-2Z/C3 6209-2Z/C3 | | |
| Sound pressure level L_{pA} dB | 73.3 | dB(A) | +3dB(A) |
| Moment of inertia $J = \frac{1}{4} GD^2$ kgm ² | 0.076 | kg-m ² | |
| Weight | 137 | kg | |
| Ambient temperature | 40 | °C | |
| Motor losses at VSD operating points | losses in efficiency % | losses in Watt | losses in relative to nom. power % |
| VSD Speed 90% Torque 100% | 91.8 | 1487 | 8.0 |
| VSD Speed 50% Torque 100% | 88.5 | 1202 | 6.5 |
| VSD Speed 25% Torque 100% | 79.8 | 1171 | 6.3 |
| VSD Speed 90% Torque 50% | 91.1 | 813 | 4.4 |
| VSD Speed 50% Torque 50% | 89.8 | 525 | 2.8 |
| VSD Speed 50% Torque 25% | 86.8 | 352 | 1.9 |
| VSD Speed 25% Torque 25% | 82.1 | 252 | 1.4 |