

210D0027 MMA 80-8-90-C-...-W2 Data Sheet Version 1.3

| Parameter | Unit | Value | |
|---------------------------------------|--------------------------|---|------------|
| | | 400 V | 230 V |
| Power | [kW] | 7.9 | 4 |
| Torque (rated @ 100°C*) | [Nm] | 21.5 | 21.5 |
| Torque (rated @ 120°C*) | [Nm] | 25 | 25.5 |
| Torque (max @ 100°C*) (60 sec.) | [Nm] | 41.5 | 41.5 |
| Torque (max @ 120°C*) (30 sec.) | [Nm] | 41.5 | 41.5 |
| Speed (rated) | [rpm] | 3000 | 1500 |
| Speed (max) | [rpm] | 3000 | 1500 |
| Freq. | [Hz] | 400 | 200 |
| Pole pairs | | 8 | 8 |
| Current (rated) @ rated torque 120°C | [A _{RMS}] | 13.8 | 14.0 |
| Current (max) @ max torque | [A _{RMS}] | 23.8 | 23.3 |
| Motor voltage (rated phase to phase) | [V _{RMS}] | 400 | 230 |
| DC-link voltage | [V] | >560 | ≥ 325 |
| Phase: | | | |
| k _E | [V _{RMS} /krpm] | 72 | |
| R _{Ph,20} | [Ohm] | 0.55 | |
| L _d | [mH] | 2.35 | |
| L _q | [mH] | 2.75 | |
| Line to line: | | | |
| k _{E,LL} | [V _{RMS} /krpm] | 125 | |
| R _{LL,20} | [Ohm] | 1.10 | |
| L _{LL,d} | [mH] | 4.7 | |
| L _{LL,q} | [mH] | 5.5 | |
| Connection | | Y | |
| Moment of inertia | [kgm ²] | 0.0030 | |
| Weight | [kg] | 11 | |
| Protection class | | IP67 | |
| Thermal class | | H | |
| Thermal protection | | PTC (Pt1000 on request) | |
| Cooling type | | Water cooled | |
| Rated flowrate (motor coolant) | [l/min] | 6 | |
| Pressure drop @ rated flow rate | [bar] | 0.014 | |
| Coolant | | Water/Ethylenglycol 50/50 or hydraulic oil | |
| Max. cooling pressure (motor coolant) | [bar] | 3 | |
| Coolant max temperature | [°C] | 60 | |
| Rotational direction** | | Clockwise | |



*Winding temperature

Performance data were determined with a thermally decoupled engine and a coolant temperature of 60°C at 6 l/min (water/Ethylenglycol 50/50)



In order to run the motor, a frequency inverter capable of conducting **sensorless control** for permanent magnet motors is needed, because the motor has no own position sensor or encoder.



**The rotational direction is defined according to DIN-EN60034-8 (looking on the motor shaft).