

## 210D0026 Motor MMA80-8-AA1 V3.1

Parameter	Unit	Value
		<b>400 V</b>
Power	[kW]	5.2
Torque (rated @ 100°C*)	[Nm]	11.5
Torque (rated @ 120°C*)	[Nm]	16.5
Torque (max @ 100°C*) (60 sec.) **	[Nm]	21.5
Torque (max @ 120°C*) (30 sec.) **	[Nm]	21.5
Speed (rated)	[rpm]	3000
Speed (max)	[rpm]	3800
Freq. (rated)	[Hz]	400
Pole pairs		8
Current (rated) @ rated Torque 120°C*	[ARMS]	11.5
Current (max) @ max. Torque	[ARMS]	15.4
Motor voltage (rated phase to phase)	[VRMS]	<b>400</b>
DC-link voltage	[V]	≥ 560
<b>Phase:</b>		
k <sub>E</sub>	[VRMS/krpm]	57
R <sub>Ph,20</sub>	[Ohm]	0.63
L <sub>d</sub>	[mH]	2.7
L <sub>q</sub>	[mH]	2.85
<b>Line to line:</b>		
k <sub>E,LL</sub>	[VRMS/krpm]	98.7
R <sub>LL,20</sub>	[Ohm]	1.26
L <sub>LL,d</sub>	[mH]	5.4
L <sub>LL,q</sub>	[mH]	5.7
Connection		Y
Moment of inertia	[kgm <sup>2</sup> ]	0.0020
Weight	[kg]	8.6
Protection class		IP67
Thermal class		H
Thermal protection		PTC (Pt1000 on request)
Cooling type		Water cooled ****
rated flow rate (motor coolant)	[l/min]	6
Pressure drop @ rated flow rate	[bar]	0.015
Coolant		Water/Ethylenglycol 50/50 or hydraulic oil
Coolant max temperature	[°C]	60
Rotational direction***		Clockwise



\*Winding temperature

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



\*\*Up to base speed @ max torque speed curve



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).



\*\*\*\*Technical information about oil cooling on request

