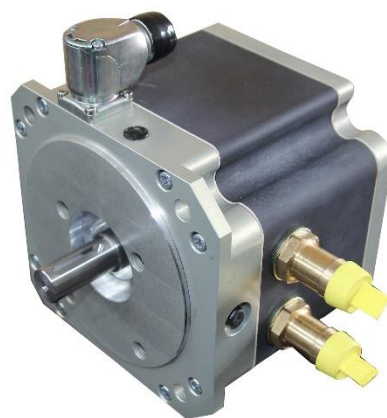


# MMA80-8-CA1

400V<sub>AC</sub> / 565V<sub>DC</sub>

LIQUID COOLED ELECTRIC MOTORS



PRODUCT DATASHEET

## DATASHEET

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

MMA80 CA1 is specifically designed for auxiliaries and can be proposed with flange inverter emDrive H05.

Parameter	Unit	Value
		400 Vac / 565Vdc
<b>Power</b>	[kW]	10
<b>Torque (rated @ 120°C*)</b>	[Nm]	32
<b>Torque (max.) **</b>	[Nm]	67.5
<b>Time max. Torque starting @ 60°C*</b>	[s]	45
<b>Time max. Torque starting @ 120°C*</b>	[s]	15
<b>Speed (rated)</b>	[rpm]	3000
<b>Speed (max)</b>	[rpm]	4000
<b>Freq. (rated)</b>	[Hz]	400
<b>Pole pairs</b>		8
<b>Current (rated)</b>	[A <sub>RMS</sub> ]	16.5
<b>Current (max)</b>	[A <sub>RMS</sub> ]	38
<b>Rated DC-link voltage</b>	[V <sub>DC</sub> ]	>560
<b>Max. Motor voltage (phase to phase at rated DC-Link)</b>	[V <sub>RMS</sub> ]	<b>400</b>
<b>Phase:</b>		
<b>k<sub>E</sub></b>	[V <sub>RMS</sub> /krpm]	75.3
<b>R<sub>Ph,20</sub></b>	[Ohm]	0.419
<b>L<sub>d</sub></b>	[mH]	1.8
<b>L<sub>q</sub></b>	[mH]	2.3
<b>Line to line:</b>		
<b>k<sub>E,LL</sub></b>	[V <sub>RMS</sub> /krpm]	130.4
<b>R<sub>LL,20</sub></b>	[Ohm]	0.838
<b>Connection</b>		Y
<b>Moment of inertia</b>	[kgm <sup>2</sup> ]	0.0042
<b>Weight</b>	[kg]	14
<b>Protection class</b>		IP67
<b>Thermal class</b>		H
<b>Thermal protection</b>		PTC (Pt1000 on request)
<b>Cooling type</b>		Water cooled, Oil cooled****
<b>min flow rate (motor coolant)</b>	[l/min]	6
<b>rated flow rate (motor coolant)</b>	[l/min]	6
<b>max flow rate (motor coolant)</b>	[l/min]	40
<b>Pressure drop @ rated flow rate</b>	[bar]	0.018
<b>Coolant</b>		Water/Ethylenglycol 50/50
<b>Max. cooling pressure (motor coolant)</b>	[bar]	3
<b>Coolant max temperature</b>	[°C]	60
<b>Rotational direction***</b>		Clockwise

\*Winding temperature

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

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

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

## EFFICIENCY MAP

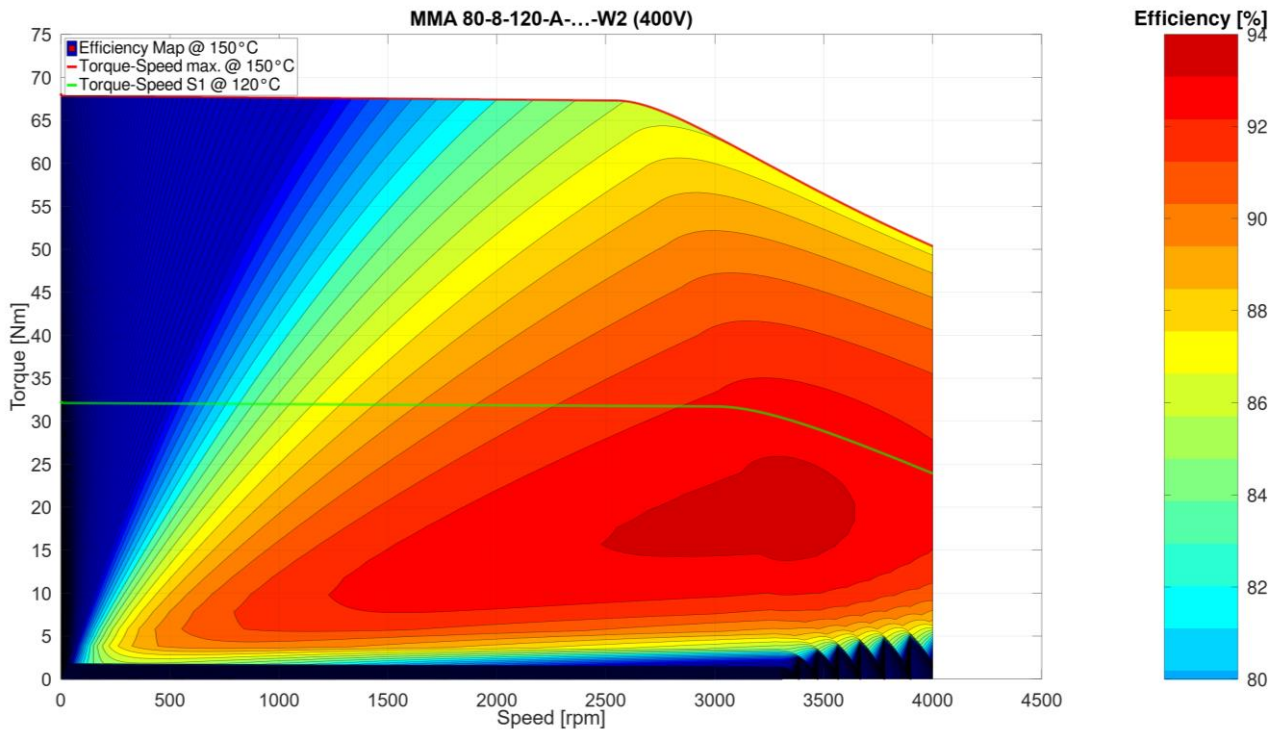


Figure 1 : efficiency map at 565V DC / 400V AC



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