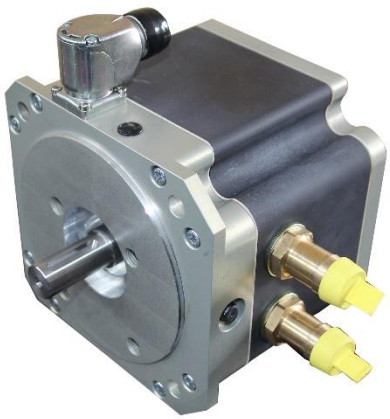
MMA80-8-BA1

400V_{AC} / 565V_{DC}

LIQUID COOLED ELECTRIC MOTORS



PRODUCT DATASHEET

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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 BA1 is specifically designed for auxiliaries and can be proposed with flange inverter emDrive H05.

Parameter	Unit	Value
		400 Vac / 565 Vdc
Power	[kW]	4
Torque (rated @ 100°C*)	[Nm]	21.5
Torque (rated @ 120°C*)	[Nm]	25.5
Torque (max @ 100°C*) (60 sec.) **	[Nm]	41.5
Torque (max @ 120°C*) (30 sec.) **	[Nm]	41.5
Speed (rated)	[rpm]	1500
Speed (max)	[rpm]	1500
Freq.	[Hz]	200
Pole pairs		8
Current (rated) @ rated torque 120°C	[A_{RMS}]	8.1
Current (max) @ max torque	[A_{RMS}]	13.5
Motor voltage (rated phase to phase)	[V_{RMS}]	**400**
DC-link voltage	[V]	>560
Phase:		
k_E	[V_{RMS}/krpm]	125
$R_{Ph,20}$	[Ohm]	1.63
L_d	[mH]	7.1
L_q	[mH]	8.3
Line to line:		
$k_{E,LL}$	[V_{RMS}/krpm]	216.5
$R_{LL,20}$	[Ohm]	3.25
$L_{LL,d}$	[mH]	14.1
$L_{LL,q}$	[mH]	16.5
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
**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

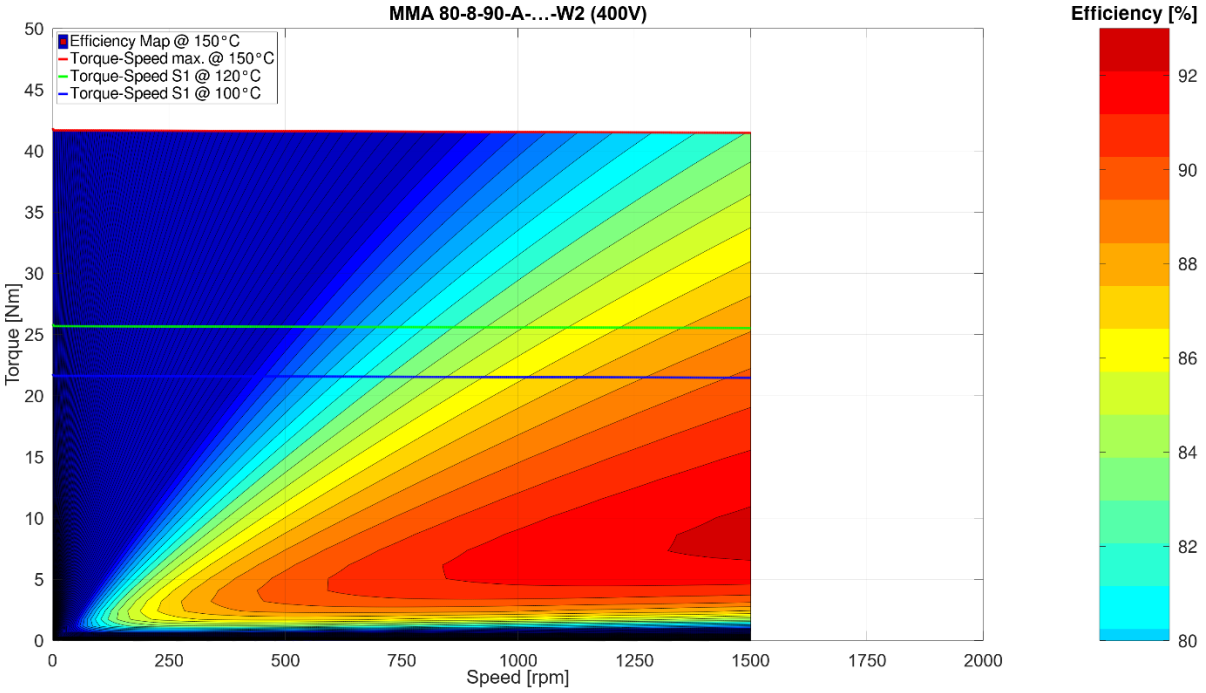

Figure 1 : efficiency map at 565V DC / 400V AC

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