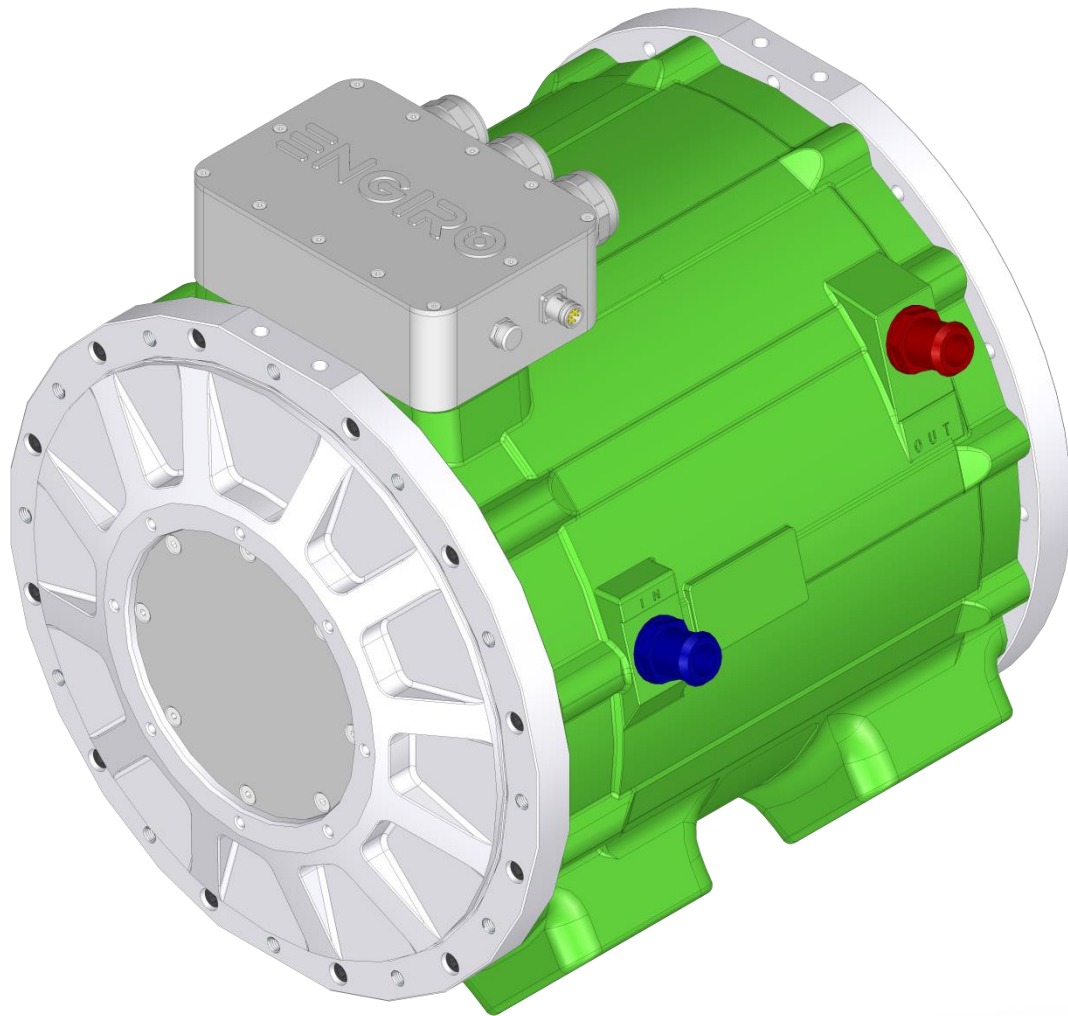


370W-29012-ABC

water-cooled motor / generator with 400 kW continuous power



KEY FEATURES

- permanent magnet synchronous machine
- very robust design
- recommended for trucks and buses up to 18 tons
- designed for battery voltages from 550 to 750V
- very high efficiency over a wide speed range
- high maximum speed due to reluctance torque
- delivery with controller possible
- optional with tachometer sensor

Section	Page
Technical Data Machine	3
Technical Drawings Machine	4
Characteristics Machine	5
Technical Data Inverter Set	6

Data, including specifications, contained within this document are summary in nature and subject to change at any time without notice and are intended for general information only. Call for latest revision. All brand names and product names referenced are trademarks, registered trademarks, or trade names of their respective holders.

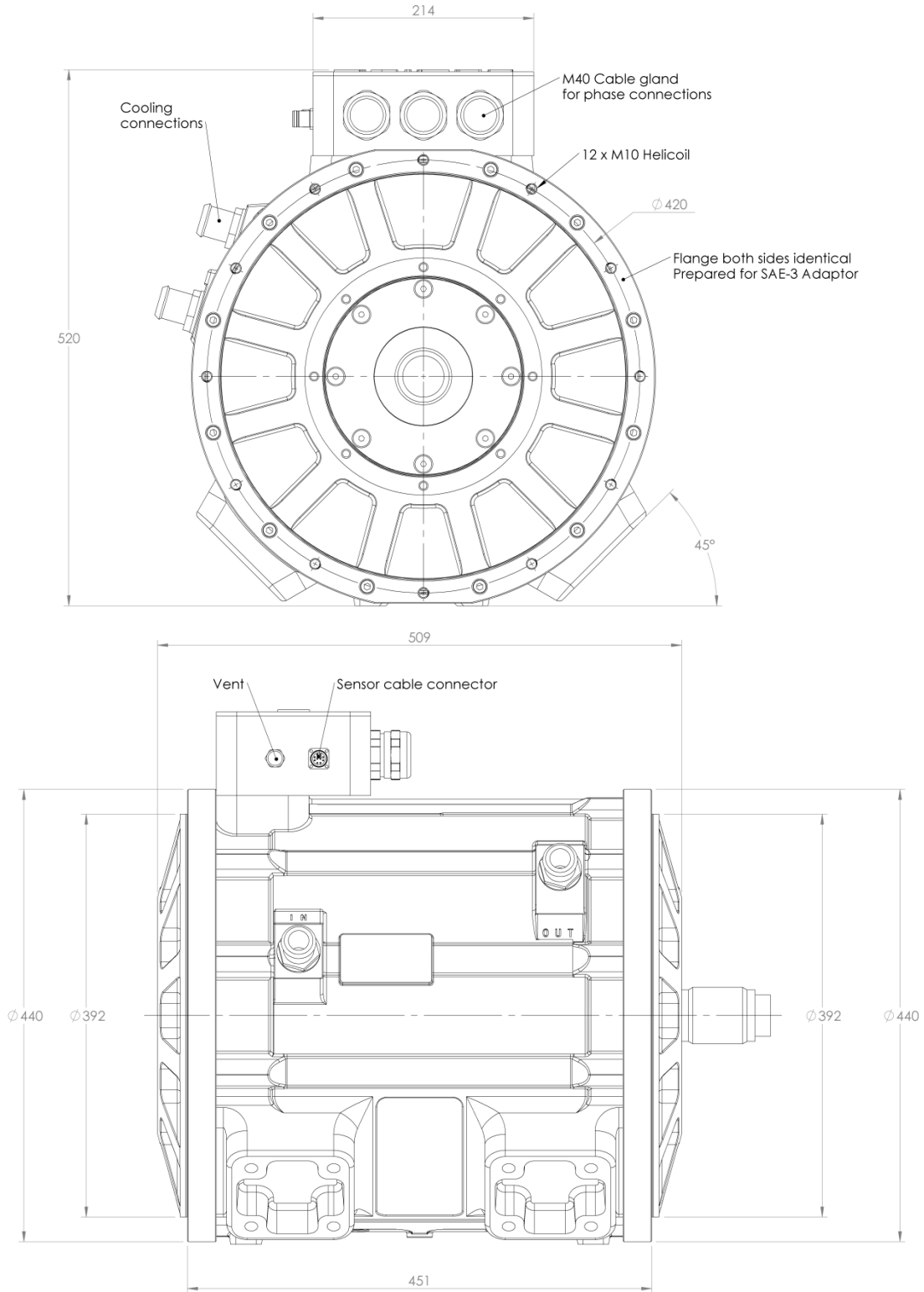
Nominal Operation (S1, cooling as specified below)				
Torque	T_{nom}		2000	Nm
Power	P_{nom}		400	kW
Speed	n_{nom}		1910	rpm
Phase rms-current	I_{nom}		531	A
Battery voltage (DC)	U_{nom}		700	V
Electric frequency	$f_{el,nom}$		191	Hz
Power factor	$\cos(\varphi)$		0.78	
Maximal Values (S2, 10s, cooling as specified below)				
Torque	T_{max}		3900	Nm
Power	P_{max}		707	kW
Phase rms-current	I_{max}		1336	A
Battery voltage (DC)	U_{max}		750	V
Speed	n_{max}		3520	rpm
Electric frequency	$f_{el,max}$		352	Hz
Electrical Data				
Number of phases			3	
Number of pole pairs			6	
Maximal efficiency			>96	%
T/I constant ($I < I_{nom}$)			3.68	Nm/A _{rms}
U/n constant (AC)		rms: 201.2	peak: 284.5	V/(1000rpm)
K_e constant (AC)		rms: 0.320	peak: 0.453	V/(rad*s ⁻¹)
Additional Data				
Weight (w/o cables)			295	kg
Rotor moment of inertia			1,07	kg*m ²
Protection category			IP65 / IP69k	
Maximal motor temperature			140	°C
Allowed ambient temperature			-20 ... 45 ¹⁾	°C
Cooling (medium, flow rate, inlet temperature, pressure)			water/glycol 50/50, 40 l/min, ≤ 45°C, ≤ 0.5 bar	
Temperature monitoring			1 x PT 1000	
Type approval			CE, EN 60034	
Customs tariff number			8501 5394	
Connectors				
Power terminals			3 x M32 cable gland	
Signal connectors			M16, 10 Pin	
Cooling connectors			2 x 1" / 25 mm	

¹⁾ other range on request

Data, including specifications, contained within this document are summary in nature and subject to change at any time without notice and are intended for general information only. Call for latest revision. All brand names and product names referenced are trademarks, registered trademarks, or trade names of their respective holders.

Available Type Variants

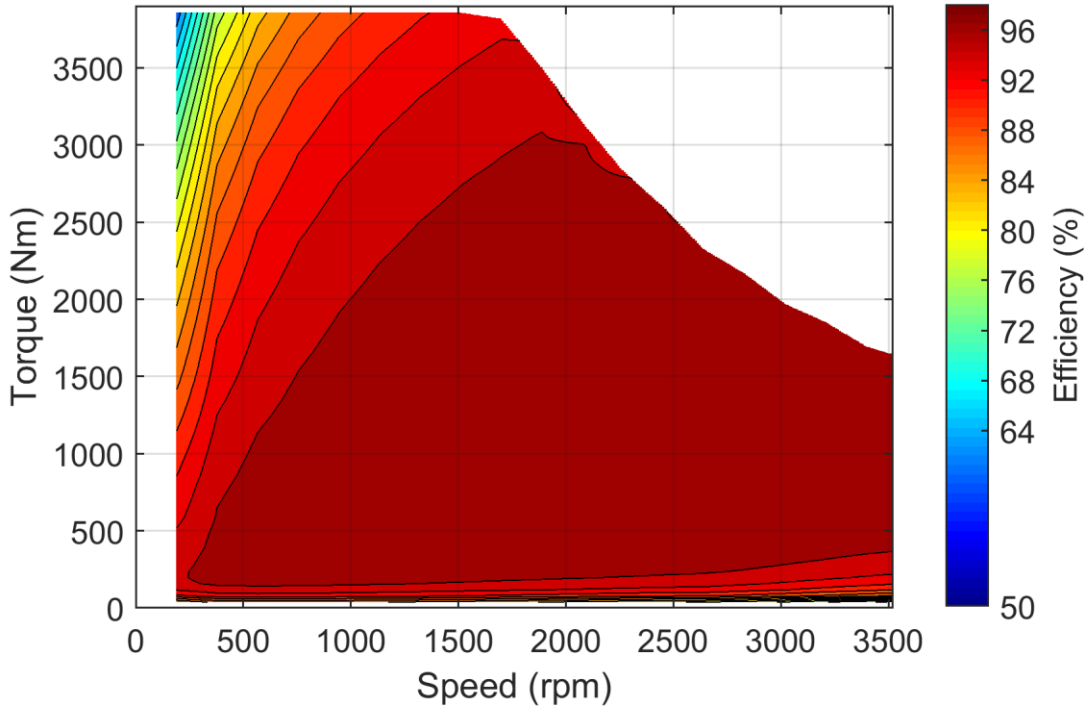
type number	A: flange	B: shaft	C: position sensor
370W-29012-	S: standard	S: cylindrical shaft with keyway	R: resolver
			N: none



Data, including specifications, contained within this document are summary in nature and subject to change at any time without notice and are intended for general information only. Call for latest revision. All brand names and product names referenced are trademarks, registered trademarks, or trade names of their respective holders.

Simulated Efficiency of Motor Application

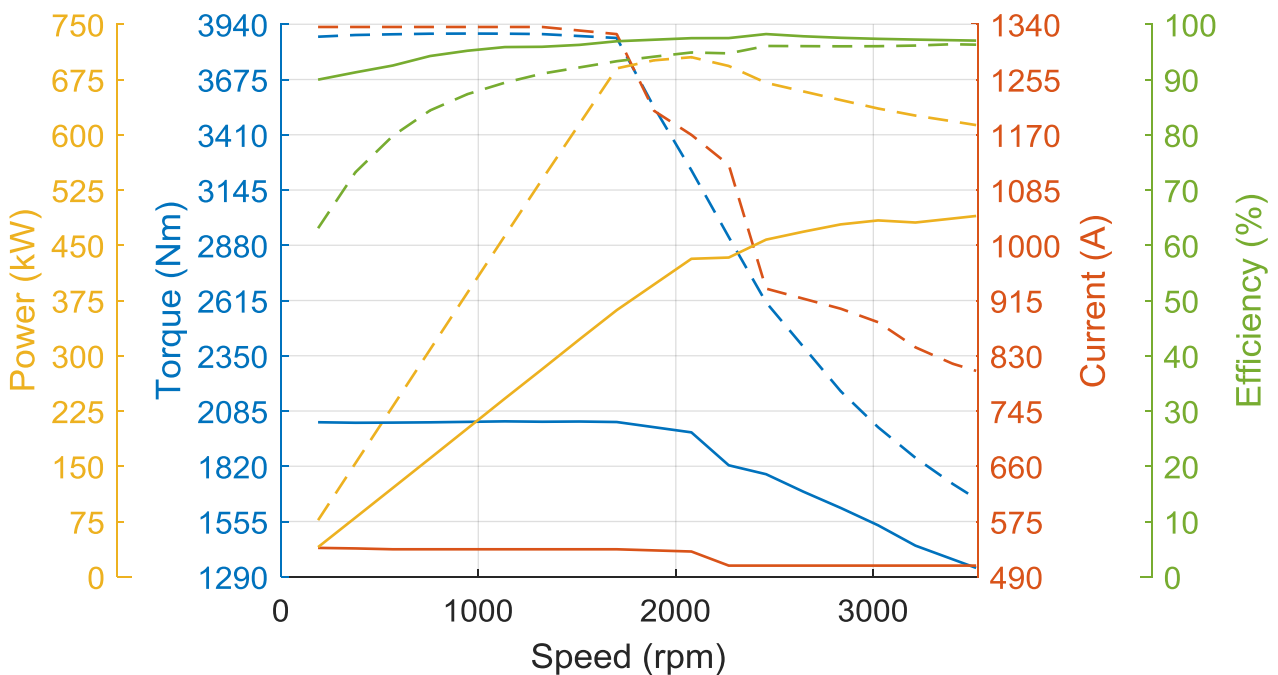
(electric machine only; $U_{nom} = 700\text{ V}$; machine at 100 °C ;)



Simulated Characteristic Motor Parameters

$U_{nom} = 700\text{ V}$

solid lines: continuous; dashed lines: maximum;
(jitter is caused by numerical inaccuracies in the simulation software)

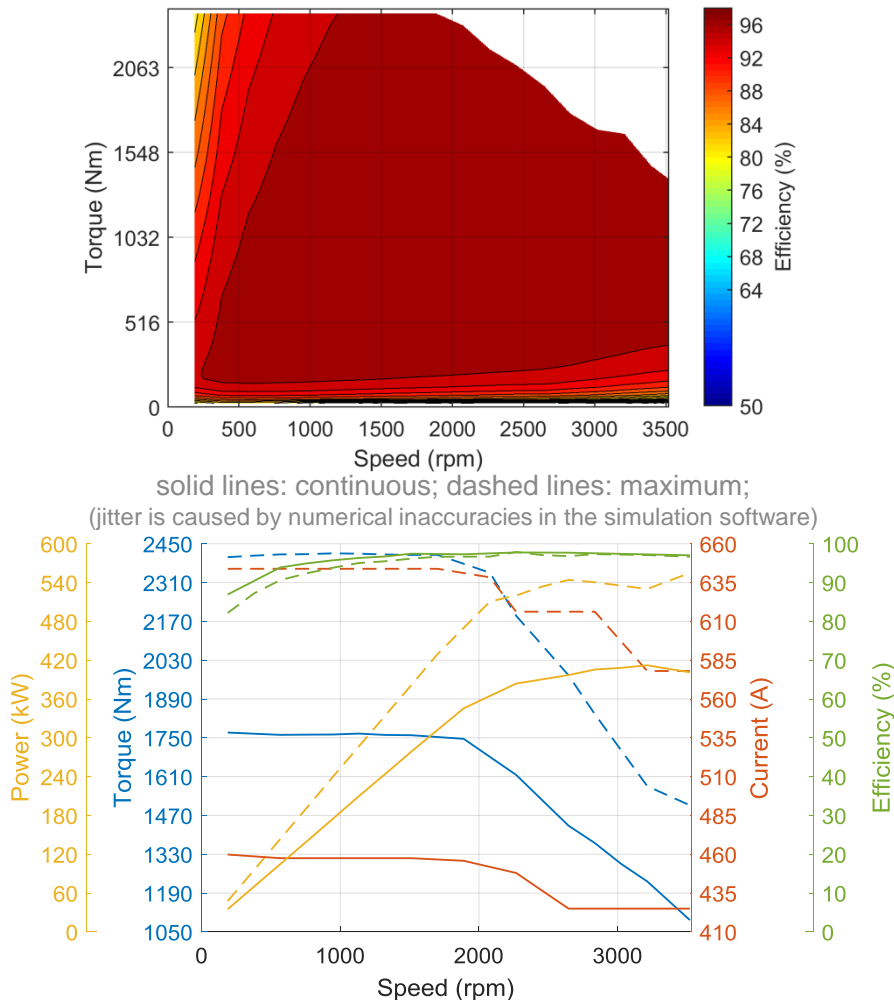


Data, including specifications, contained within this document are summary in nature and subject to change at any time without notice and are intended for general information only. Call for latest revision. All brand names and product names referenced are trademarks, registered trademarks, or trade names of their respective holders.

Nominal Operation Drive Set (S1)			
Torque	T_{nom}	1750	Nm
Power	P_{nom}	346	kW
Speed	n_{nom}	1890	rpm
Phase rms-current	I_{nom}	460	A
Battery voltage	U_{nom}	700	V
Electric frequency	$f_{el,nom}$	191	Hz
Power factor	$\cos(\varphi)$	0.79	
Maximal Values Drive Set (S2, 1-10s)			
Torque	T_{max}	2415	Nm
Power	P_{max}	561	kW
Phase rms-current	I_{max}	650	A
Battery voltage	U_{max}	700	V
Speed	n_{max}	3500	rpm
Electric frequency	$f_{el,max}$	352	Hz

Simulated Efficiency and Motor Characteristic of Motor Application

(electric machine only; $U_{nom} = 700$ V; machine at 100 °C;)



Data, including specifications, contained within this document are summary in nature and subject to change at any time without notice and are intended for general information only. Call for latest revision. All brand names and product names referenced are trademarks, registered trademarks, or trade names of their respective holders.