

**Nominal Operation (S1, cooling as specified below)**

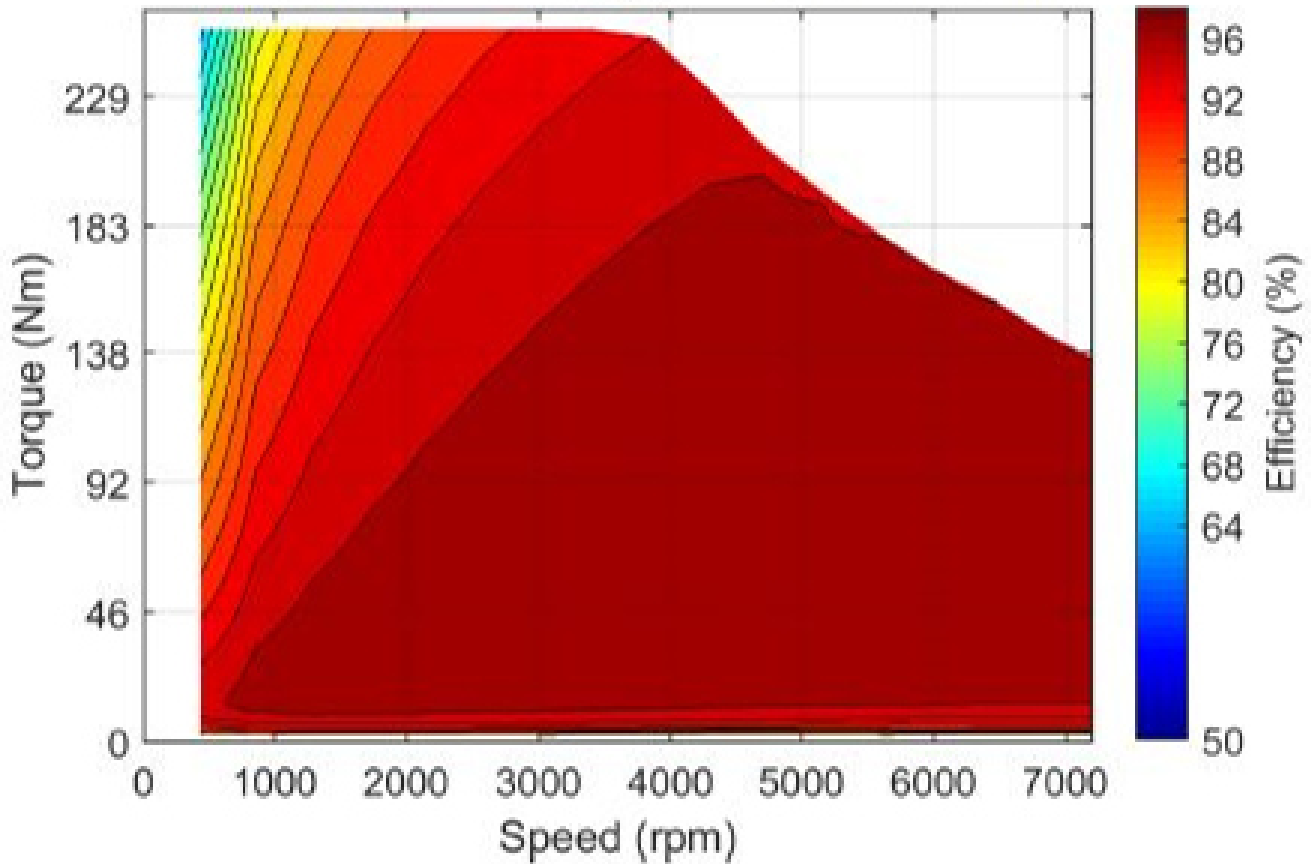
Torque	$T_{\text{nom}}$	133	133	Nm
Power	$P_{\text{nom}}$	49	59	kW
Speed	$n_{\text{nom}}$	3550	4290	rpm
Phase rms-current	$I_{\text{nom}}$	308	308	A
Battery voltage (DC)	$U_{\text{nom}}$	96	116	V
Electric frequency	$f_{el, \text{nom}}$	237	286	Hz
Power factor	$\cos(\varphi)$	0.69	0.69	

**Maximal Values (S2, 10s, cooling as specified below)**

Torque	$T_{\text{max}}$	255	255	Nm
Power	$P_{\text{max}}$	89	108	kW
Phase rms-current	$I_{\text{max}}$	659	659	A
Battery voltage (DC)	$U_{\text{max}}$	96	116	V
Speed	$n_{\text{max}}$	7100	7200	rpm
Electric frequency	$f_{el, \text{max}}$	473	480	Hz

## Simulated Efficiency of Motor Application

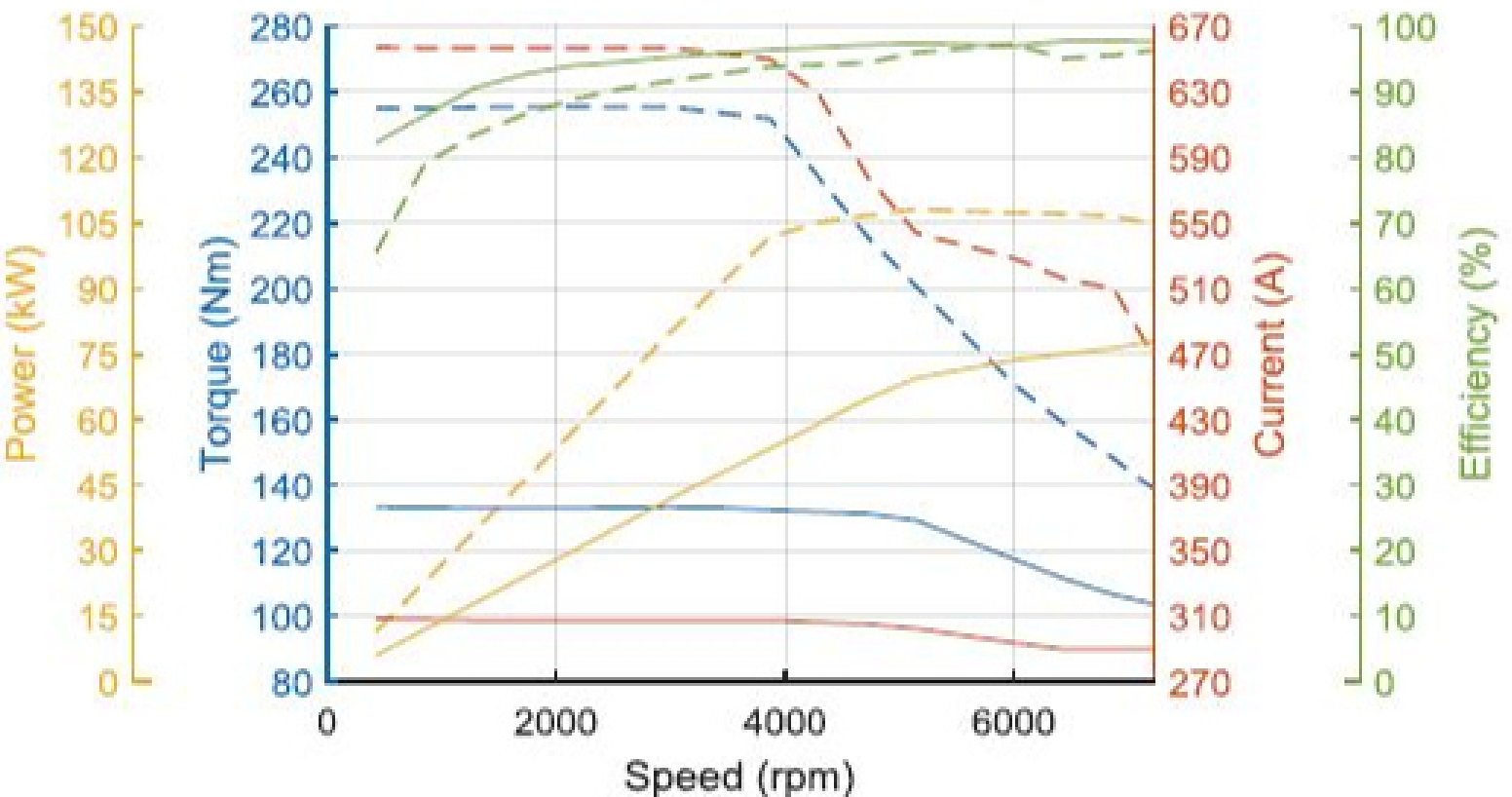
(electric machine only,  $U_{nom} = 116 \text{ V}$ ; machine at  $100 \text{ }^\circ\text{C}$ ;) )



## Simulated Characteristic Motor Parameters

$U_{nom} = 116 \text{ V}$

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



## Electrical Data

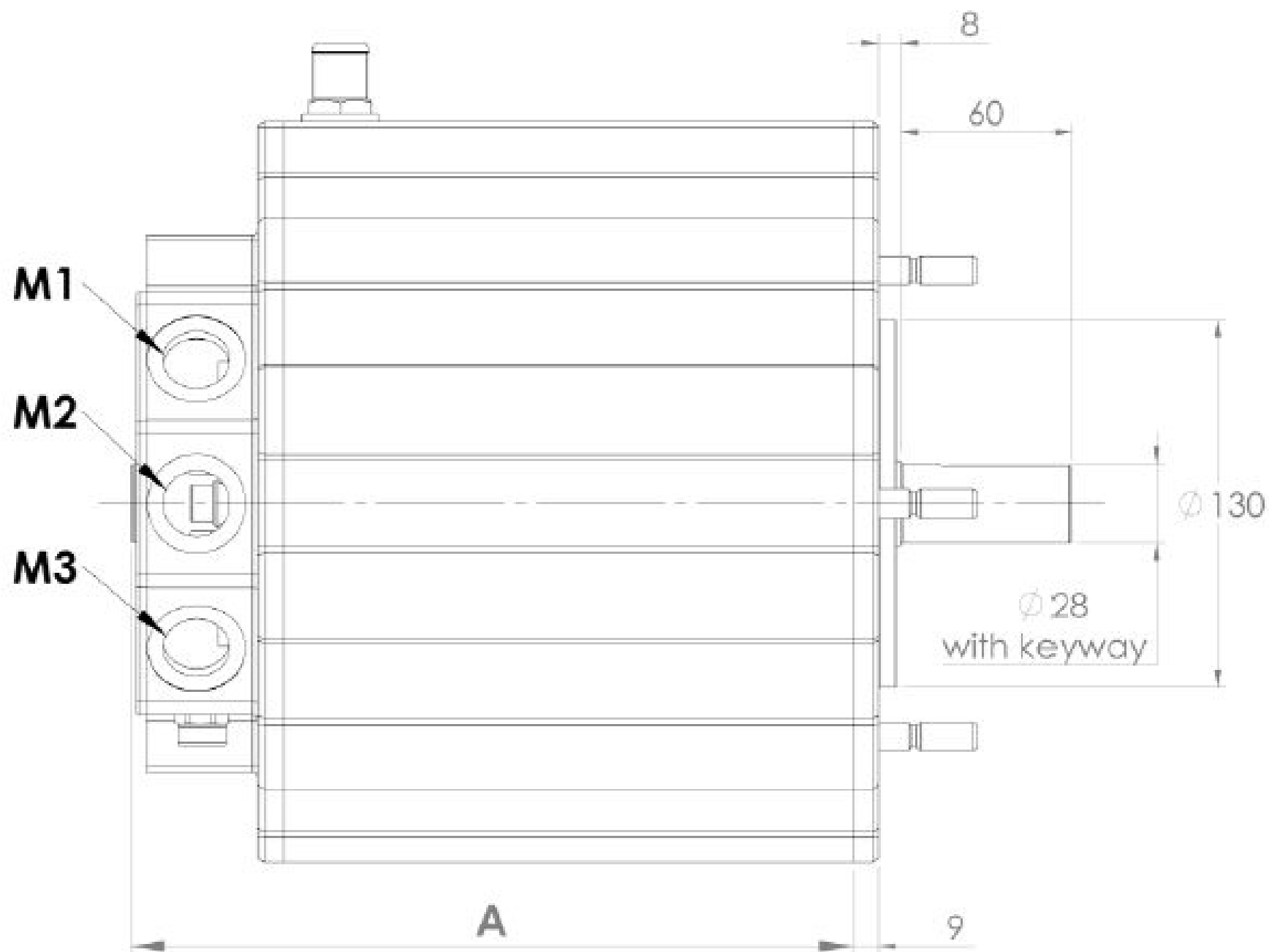
Number of phases					6	
Number of pole pairs					4	
Maximal efficiency					>96	%
$T/I$ constant ( $I < I_{nom}$ )					0.43	Nm/A <sub>rms</sub>
$U/n$ constant (AC)	rms:	14.6	peak:	20.7	V/(1000rpm)	
$K_e$ constant (AC)	rms:	0.035	peak:	0.049	V/(rad*s <sup>-1</sup> )	

## Additional Data

Weight (w/o cables)					47	kg
Rotor moment of inertia					0.0183	kg*m <sup>2</sup>
Protection category					IP65 / IP69k	
Maximal motor temperature					140	°C
Allowed ambient temperature					-20 ... 45 <sup>1)</sup> °C	
Cooling (medium, flow rate, inlet temperature, pressure)					water/glycol 50/50, 6 l/min, ≤ 45°C, ≤ 0.5 bar	
Temperature monitoring					1 x KTY84-130	
Type approval					CE, EN 60034	
Customs tariff number					8501 5230	

## Connectors

Power terminals					3 x M25 cable gland	
Signal connectors					M16, 10 Pin	
Cooling connectors					2 x ¾" / 19 mm	



**Dimension „A“ = 337 mm**