

## motor type DD5-14-xxW-19000 V with controller KW40

These are calculated curves.

The actual motor performance might vary up to 5%

input:

lamination stack length	L	60	mm
connection type	D/S	D	
number of winding turns	#	43,0	
resistance of ECU (per phase)	$R_{ECU}$	0,000	Ohm
DC-voltage	U	600	V
thermal resistance	$R_{th}$	0,108	K/W

stall data
Duty Cycle = 100%
dT = 80 K

continuous stall torque	①	$M_0$	13,80	Nm	
continuous stall current	①	Io	54,00	Arms	
peak stall torque		$M_{\text{max}}$	21,0	Nm	
peak stall current		I <sub>max</sub>	100,0	Arms	
time for peak stall current	(5)	t <sub>Imax</sub>	1,2	S	

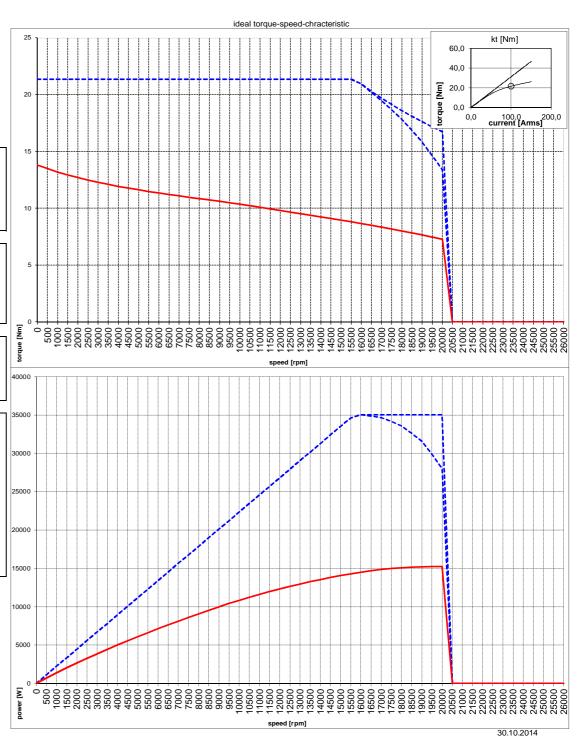
nominal values

rated torque	2	M <sub>N</sub>	9,80	Nm	
rated current	2	$I_N$	41,0	Arms	
rated power	2	$P_N$	12300	W	
rated speed	2	$n_N$	12000	rpm	

other data

theoretical no load speed	3	N <sub>theo</sub>	22600	rpm
torque constant		kt	0,26	Nm/Arms
EMK-constant		ke	18,80	Vrms/krpm
terminal to terminal resistance	4	$R_{tt}$	0,130	Ohm
terminal to terminal inductance	4	$L_{tt}$	0,360	mH
inductance Ld	4	$L_d$	0,290	mH
inductance Lq	4	$L_q$	0,260	mH
thermal resistance	4	$R_{th}$	0,135	°C/W
electr. time constant	4	$T_{el}$	2,700	ms
inertia w/o brake		J	2,9	kgcm <sup>2</sup>
mass w/o brake		m	5,3	kg

- Motor liquid cooled with 4 l/min in closed circulation and dT = 80 K between windings and water (max. 30°C)
- ② nominal speed as customers demand or at maximum continuous output power with at least 100% overload capability
- 3 speed, where EMF is equal to bus voltage
- measured at 25°C
- ⑤ time while peak current is heating up copper mass dT = 10K



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