
Neuromeka CORE smart actuator specification

(Data measured at nominal voltage)

Revision 02

2019.07.23

	MODEL			CORE100
	Description	Symbol	Units	value
1	Nominal voltage	V	Volts DC	48
2	Rated power	P_{out}	W	100
3	No-load output speed	S	deg/s	178
4	Full-load maximum output speed	S_r	deg/s	155
5	Stall continuous current (*)	I_{cs}	A_{peak}	5.37
6	Peak current (*)	I_{pk}	A_{peak}	15.55
7	Rated output torque (**)	T_r	Nm	21
8	Torque constant	K_t	Nm/ A_{peak}	0.058
9	Encoder resolution		count/turn	6619136
10	Gear ratio	HD_{ratio}		101
11	Brake supply voltage (***)	V_{brk}	Volts DC	24
12	Size		mm x mm	$\Phi 80 \times 141$
13	Weight	M	kg	1.45

Notes:

- (*) Current (A) is peak (amplitude) of phase's sine current
- (**) Output torque is computed with assumption that harmonic drive efficiency of 70%, actual value can be varied depending on friction
- (***) Beside main supplied voltage, an additional 24V (minimum 0.5A) source is needed for brake. Two power sources have common GND