Neuromeka CORE smart actuator specification

(Data measured at nominal voltage)

	MODEL			CORE500
	Description	**Symbol**	**Units**	**value**
1	Nominal voltage	V	Volts DC	48
2	Rated power	P_{out}	W	500
3	No-load output speed	S	deg/s	150
4	Full-load maximum output speed	S_r	deg/s	130
5	Stall continuous current (*)	I_{cs}	A_{peak}	16.54
6	Peak current (*)	I_{pk}	A_{peak}	52.47
7	Rated output torque (**)	T_r	Nm	117.73
8	Torque constant	K_t	Nm/A_{peak}	0.0884
9	Encoder resolution		count/turn	7929856
10	Gear ratio	HD_{ratio}		121
11	Brake supply voltage (***)	V_{brk}	Volts DC	24
12	Size		mm x mm	Φ142 x 163
13	Weight	M	kg	4.59

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