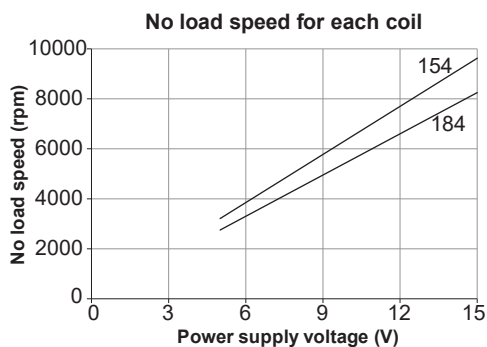


Dimensions in mm

Electrical Data	Symbol	22ECP35 2A-xxx.01		Unit
		154	184	
1 Nominal Voltage	$U_N$	12	12	Volt
2 Optimization Direction	-	Bidirectional	Bidirectional	-
3 No Load Speed	$n_0$	7,700	6,600	rpm
4 Typical No Load Current	$I_0$	63	30	mA
5 Max. Continuous Mechanical Power (@25°C)	$P_{max}$	9	7.3	W
6 Max. Continuous Current	$I_{e,max}$	0.9	0.7	A
7 Max. Continuous Torque	$M_{e,max}$	12.6 (1.78)	12.6 (1.78)	mNm (oz-in)
8 Back EMF Constant	$k_E$	1.53	1.82	V/1000 rpm
9 Torque Constant	$k_M$	14.6	17.4	mNm/A
10 Motor Regulation	$R/k^2$	21.8	21.7	$10^3/Nms$
11 Motor Regulation	$k/R^{1/2}$	6.8 (0.96)	6.8 (0.96)	mNm/W <sup>1/2</sup> (oz-in/W <sup>1/2</sup> )
12 Internal Resistance - phase to phase	$R_i$	4.65	6.58	ohms
13 Line to Line Resistance at Connectors	$R_L$	NA	NA	ohms
14 Inductance Phase to Phase	$L$	0.62	0.89	mH
15 Mechanical Time Constant	$\tau_m$	3	3	ms
16 Electrical Time Constant	$\tau_e$	0.13	0.14	ms

General Data				
17 Maximum Motor Speed	$n_{max}$	10000	8000	rpm
18 Ambient Working Temperature Range	-	-30 to +100 (-22 to +212)		°C (°F)
19 Ambient Storage Temperature Range	-	-40 to +100 (-40 to +212)		°C (°F)
20 Ball Bearings Preload	-	5.5		N
21 Axial Static Force w/o Shaft Support (max)	-	34.00		N
22 Maximum Winding Temperature	-	125 (257)		°C (°F)
23 Thermal Resistance	$R_{th}$	3.5/12.5		°C/W
24 Thermal Time Constant	$\tau_w$	550		s
25 Weight	-	64 (2.26)		g (oz)
26 Rotor Inertia	$J$	1.38		g-cm <sup>2</sup>
27 Hall Sensor Electrical Phasing (Sensorless)	-	NA		Electrical °

Wire	Description
Red	5 to 15V DC
Black	GND
A reverse polarity will damage the electronics permanently	
PWM not allowed on power supply	
When ordering, please choose CW or CCW for rotation direction seen from shaft output side	



Power curves on following page

