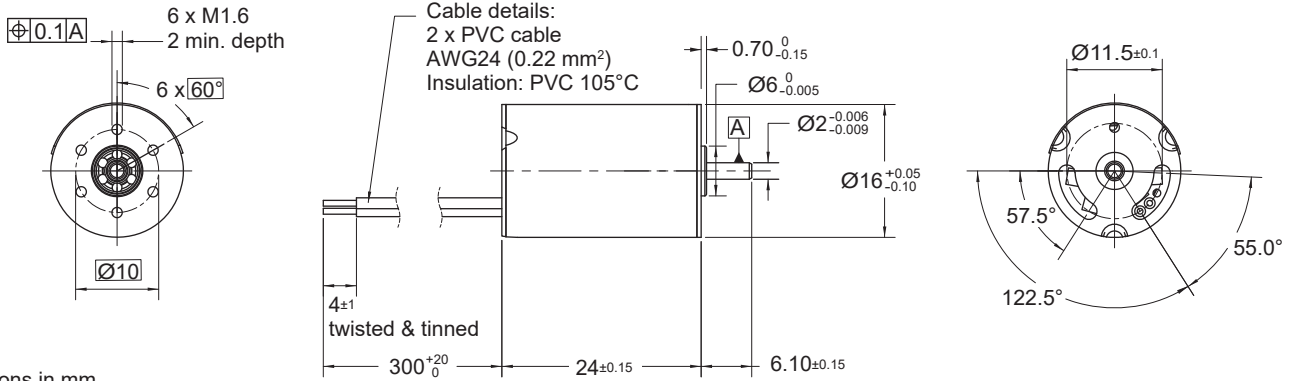


16ECP24 2-Wire

Ø16 mm • 2-pole • 4.6 W

With Integrated Electronics



Dimensions in mm

Electrical Data	Symbol	16ECP 24 2A xxx		Unit
		87	128	
1 Nominal Voltage	U_N	6	6	Volt
2 Optimization Direction	-	CW	CW	-
3 No Load Speed	n_0	8,700	5,700	rpm
4 Typical No Load Current	I_0	56	40	mA
5 Max. Continuous Mechanical Power (@25°C)	P_{max}	4.6	3.4	W
6 Max. Continuous Current	$I_{e max}$	0.6	0.4	A
7 Max. Continuous Torque	$M_{e max}$	4 (0.57)	4 (0.57)	mNm (oz-in)
8 Back EMF Constant	k_E	0.66	0.97	V/1000 rpm
9 Torque Constant	k_M	6.29 (0.89)	9.29 (1.32)	mNm/A
10 Motor Regulation	R/k^2	151.8	156.3	10 ³ /Nms
11 Motor Regulation	$k/R^{1/2}$	2.57 (0.36)	2.53 (0.36)	mNm/W ^{1/2} (oz-in/W ^{1/2})
12 Internal Resistance - phase to phase	R_1	N/A	N/A	ohms
13 Line to Line Resistance at Connectors	R_L	0.26	0.57	ohms
14 Inductance Phase to Phase	L	6	13.5	mH
15 Mechanical Time Constant	τ_m	5.5	5.6	ms
16 Electrical Time Constant	τ_e	0.04	0.04	ms

General Data				
17 Maximum Motor Speed	n_{max}		12,000	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	-		0	N
21 Axial Static Force w/o Shaft Support (max)	-		20 (4.5)	N
22 Maximum Winding Temperature	-		125 (257)	°C (°F)
23 Thermal Resistance	R_{th}		5.2 / 24	°C/W
24 Thermal Time Constant	τ_w		390	s
25 Weight	-		24 (0.85)	g (oz)
26 Rotor Inertia	J		0.36 (1968)	g-cm ²
27 Hall Sensor Electrical Phasing*	-		120	Electrical °

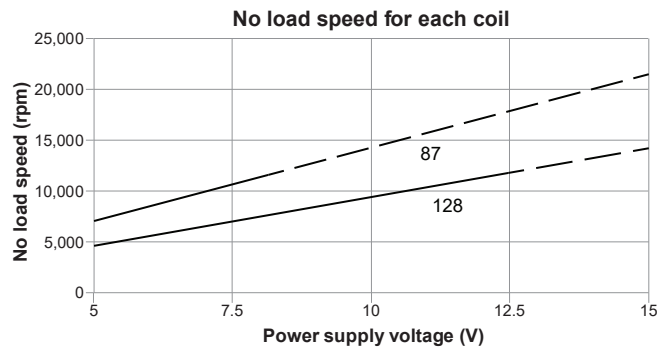
*Also available without Hall sensors

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

16ECP24 2-Wire
With Integrated Electronics

Ø16 mm • 2-pole • 4.6 W

