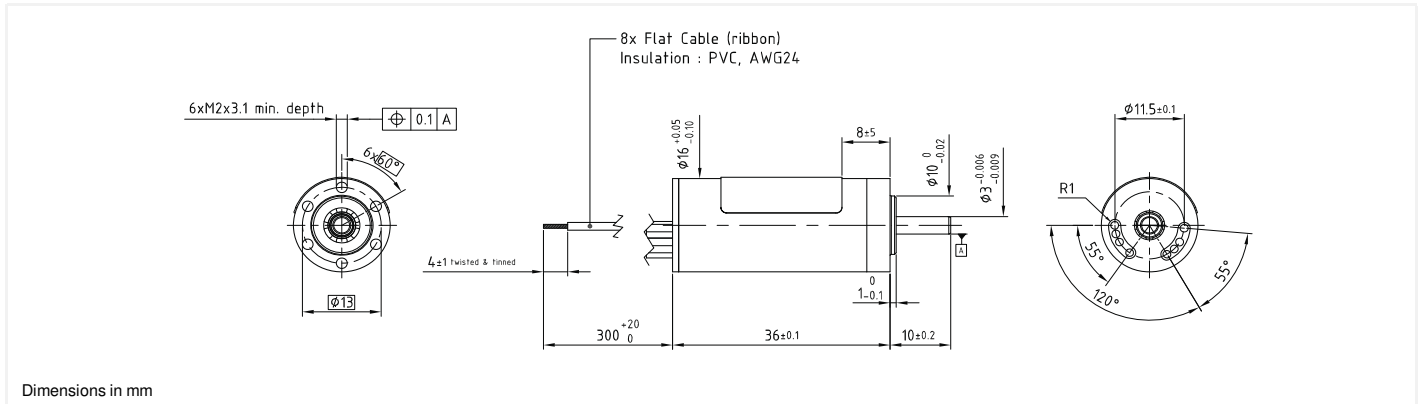


16ECP36 Ultra EC™

2 pole

Ø16mm

23 W



16ECP36 - 8B - **

Electrical Data	**	380	245	108	49	
1 Nominal Voltage	U_N	24	24	24	12	Volt
2 Optimization Direction	-	Symetrical	Symetrical	Symetrical	Symetrical	-
3 No-Load Speed	n_0	8,100	12,420	29,000	31,550	rpm
4 Typical No-Load Current	I_0	20.0	35.0	85.0	160.0	mA
5 Max Continuous Mechanical Power (@25 °C)	P_{max}	23.0	23.0	23.0	23.0	W
6 Max Continuous Current	$I_{e max}$	0.2	0.4	0.9	2.0	A
7 Max Continuous Torque	$M_{e max}$	6.4 (0.91)	6.6 (0.94)	6.6 (0.94)	6.9 (0.98)	mNm (oz-in)
8 Back EMF Constant	K_E	2.82	1.84	0.80	0.37	V/1000 rpm
9 Torque Constant	k_M	26.9	17.6	7.7	3.5	mNm/A
10 Motor Regulation	R/k^2	71.8	67.9	69.2	62.4	$10^3/Nms$
11 Motor Regulation	$k/R^{1/2}$	3.7 (0.53)	3.8 (0.54)	3.8 (0.54)	4 (0.57)	$mNm/W^{1/2}$ (oz-in/ $W^{1/2}$)
12 Internal Resistance - phase to phase	R_t	52.00	21.00	4.05	0.78	ohms
13 Line to Line Resistance at Connectors	R_L	52.10	21.10	4.13	0.82	ohms
14 Inductance Phase to Phase	L	3.93	1.63	0.32	0.07	mH
15 Mechanical Time Constant	t_m	3.9	3.7	3.8	3.4	ms
16 Electrical Time Constant	t_e	0.08	0.08	0.08	0.08	ms

General Data				
17 Maximum Motor Speed	n_{max}		63,000	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	-		5.3	N
21 Axial Static Force w/o Shaft Support (max)	-		34.0	N
22 Maximum Winding Temperature	-		125 (257)	°C (°F)
23 Thermal Resistance	R_{th1}/R_{th2}		3.5 / 20.5	°C/W
24 Thermal Time Constant	t_w		580	s
25 Weight	-		41 (1.45)	g (oz)
26 Rotor Inertia	J		0.600	$g.cm^2$
27 Hall Sensor Electrical Phasing	-		120	Electrical °

* Available without hall sensor

with hall effect sensors	
Wire	Description
Grey	Phase 1
Violet	Phase 2
Blue	Phase 3
Green	3.5 to 27V DC
Yellow	GND
Orange	Sensor 1
Red	Sensor 2
Brown	Sensor 3

