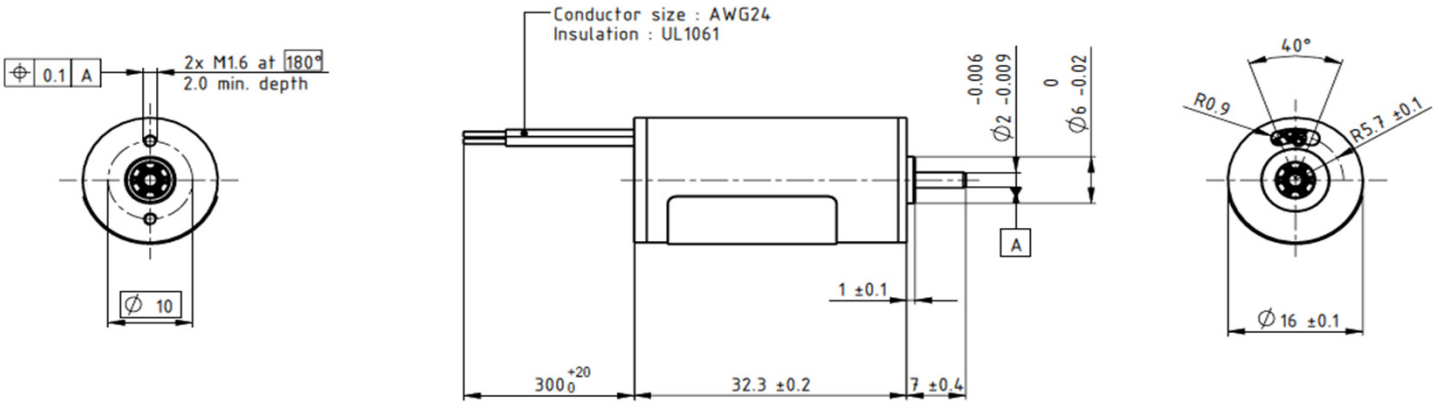
16BHS 2-wires

Brushless Slotless | Ø16mm | 4 W



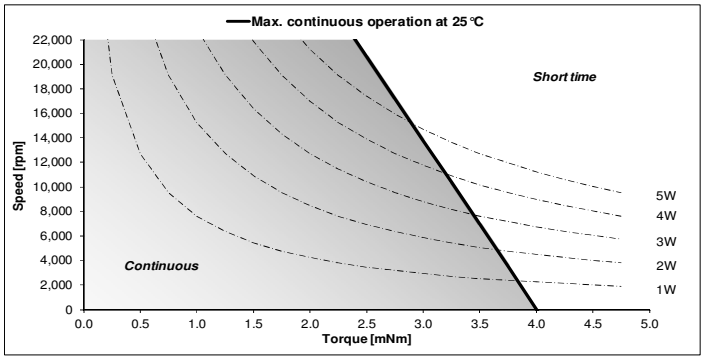
16BHS 2A - **

Electrical Data	**	E	L	P	T	
1 Nominal Voltage	U_N	12	12	12	12	Volt
2 Optimization direction	-	Symmetrical	Symmetrical	Symmetrical	Symmetrical	-
3 No-Load Speed	n_0	8,740	12,740	17,100	33,770	rpm
4 Typical no-load current	I_0	55.0	75.0	112.0	235.0	mA
5 Max continuous mechanical power (@ 25°C)	P_{max}	4.0	4.0	4.0	4.0	W
6 Max continuous current	$I_{e\ max}$	0.3	0.4	0.6	1.2	A
7 Max continuous torque	$M_{e\ max}$	3.8 (0.54)	3.6 (0.51)	4 (0.57)	4 (0.57)	mNm (oz-in)
8 Back EMF Constant	K_E	1.19	0.84	0.65	0.34	V/1000 rpm
9 Torque Constant	k_M	11.4	8.1	6.2	3.3	mNm/A
10 Motor regulation	R/k^2	225.5	251.5	205.5	192.8	10^3/Nms
11 Motor regulation	$k/R^{½}$	2.1 (0.3)	2 (0.29)	2.2 (0.32)	2.2 (0.32)	mNm/$W^{½}$ (oz-in/$W^{½}$)
12 Internal resistance - phase to phase	R_I	29.30	16.50	7.90	2.10	ohms
13 Line to line resistance at connectors	R_L	n.a.	n.a.	n.a.	n.a.	ohms
14 Inductance phase to phase	L	1.17	0.66	0.32	0.08	mH
15 Mechanical Time Constant	t_m	11.8	13.2	10.7	10.3	ms
16 Electrical Time Constant	t_e	0.04	0.04	0.04	0.04	ms

General Data			
17 Maximum motor speed	n_{max}	10,900	rpm
18 Ambient working temperature range	-	-30 to + 80 (-22 to + 176)	°C (°F)
19 Ambient storage temperature range	-	-40 to + 80 (-40 to + 176)	°C (°F)
20 Ball bearings preload	-	2.0	N
21 Axial static force without shaft support (max)	-	25.0	N
22 Maximum winding temperature	-	125 (257)	°C (°F)
23 Thermal Resistance	R_{th}	22.0	°C/W
24 Thermal time constant	t_w	520	s
25 Weight	-	33 (1.17)	g (oz)
26 Rotor Inertia	J	0.500	$g.cm^2$
27 Hall sensor electrical phasing	-	NA	Electrical °

16BHS - 2A CW - ** - 01
16BHS - 2A CCW - ** - 01
integrated electronics

Wire	Description
Red	VCC
Black	GND
Other	3.5-15V DC for E,L,P windings 3.5-5V DC for T winding 2.6A max - care about polarity
Other	Choose CW or CCW for rotation direction seen from shaft output side



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