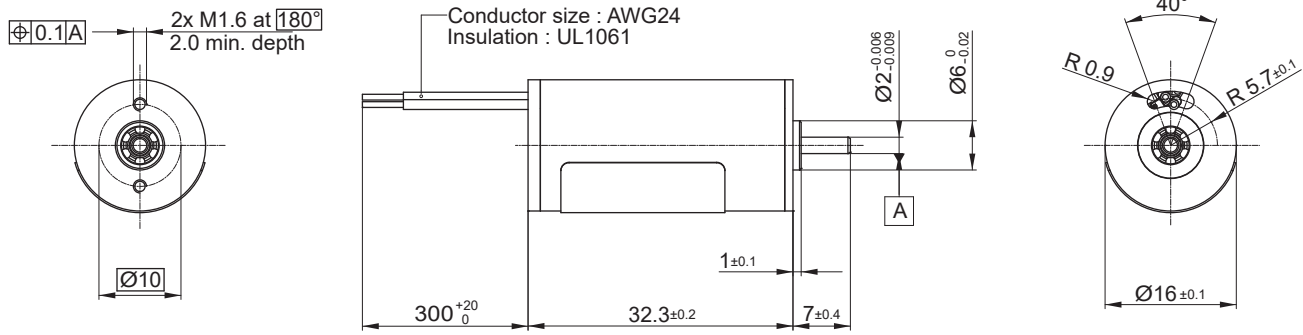


16BHS 2-Wire

Ø 16 mm • 2-pole • 6 W



Dimensions in mm

Electrical Data	Symbol	16BHS 2A-xxx.01				Unit
		E	L	P	T	
1 Nominal Voltage	U_N	12	12	12	12	Volt
2 Optimization Direction	-	n.a.	n.a.	n.a.	n.a.	-
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}	6.0	6.0	6.0	6.0	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	$k/R^{1/2}$	2.1 (0.3)	2 (0.29)	2.2 (0.32)	2.2 (0.32)	mNm/W ^{1/2} (oz-in/W ^{1/2})
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	τ_m	11.8	13.2	10.7	10.3	ms
16 Electrical Time Constant	τ_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 w/o 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	τ_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 °

Wire	Description
Red	VCC
Black	GND

3.5-15V DC for E,L,P windings
 3.5-5V DC for T winding
 2.6A max - do not reverse polarity

When ordering, please choose CW or CCW for rotation direction seen from shaft output side

