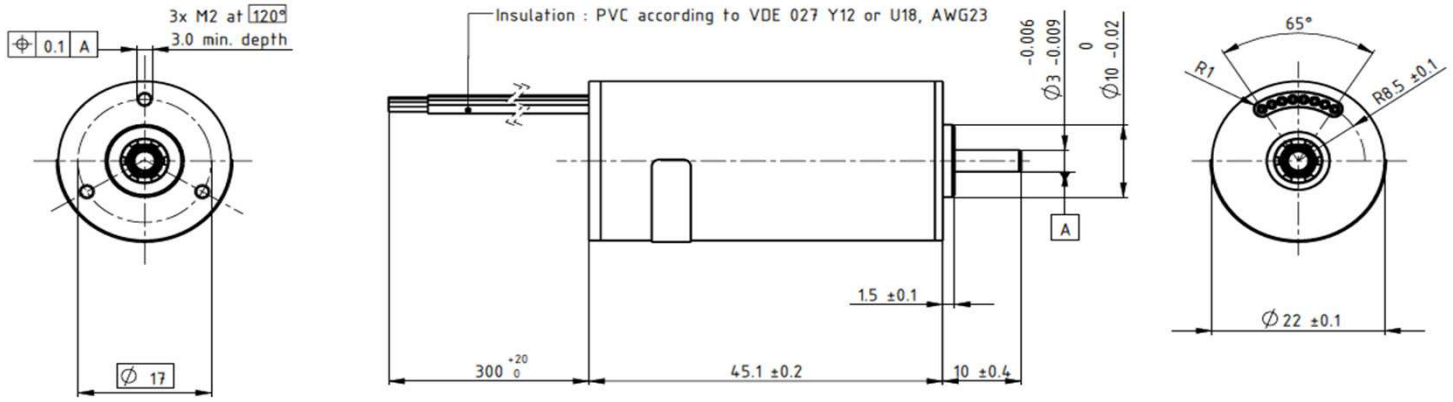

22BHM 8B - **

Electrical Data	**	H	K	P	
1 Nominal Voltage	U_N	24	24	24	Volt
2 Optimization direction	-	Symetrical	Symetrical	Symetrical	-
3 No-Load Speed	n_0	28,300	34,000	49,500	rpm
4 Typical no-load current	I_0	130.0	160.0	270.0	mA
5 Max continuous mechanical power (@ 25°C)	P_{max}	50.0	50.0	50.0	W
6 Max continuous current	$I_{e\ max}$	2.4	2.8	4.1	A
7 Max continuous torque	$M_{e\ max}$	19.5 (2.77)	19.2 (2.72)	19.3 (2.74)	mNm (oz-in)
8 Back EMF Constant	K_E	0.87	0.71	0.50	V/1000 rpm
9 Torque Constant	k_M	8.3	6.7	4.7	mNm/A
10 Motor regulation	R/k^2	14.4	15.1	14.9	10^3/Nms
11 Motor regulation	$k/R^{½}$	8.3 (1.18)	8.2 (1.17)	8.2 (1.17)	mNm/$W^{½}$ (oz-in/$W^{½}$)
12 Internal resistance - phase to phase	R_I	0.99	0.68	0.33	ohms
13 Line to line resistance at connectors	R_L	0.99	0.68	0.33	ohms
14 Inductance phase to phase	L	0.10	0.07	0.04	mH
15 Mechanical Time Constant	t_m	3.3	3.4	3.4	ms
16 Electrical Time Constant	t_e	0.10	0.10	0.12	ms

General Data			
17 Maximum motor speed	n_{max}	73,000	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	-	5.5	N
21 Axial static force without shaft support (max)	-	34.0	N
22 Maximum winding temperature	-	125 (257)	°C (°F)
23 Thermal Resistance	R_{th}	13.0	°C/W
24 Thermal time constant	t_w	560	s
25 Weight	-	100 (3.53)	g (oz)
26 Rotor Inertia	J	2.300	$g.cm^2$
27 Hall sensor electrical phasing	-	120	Electrical °

22BHM - 8B - ** - 01
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