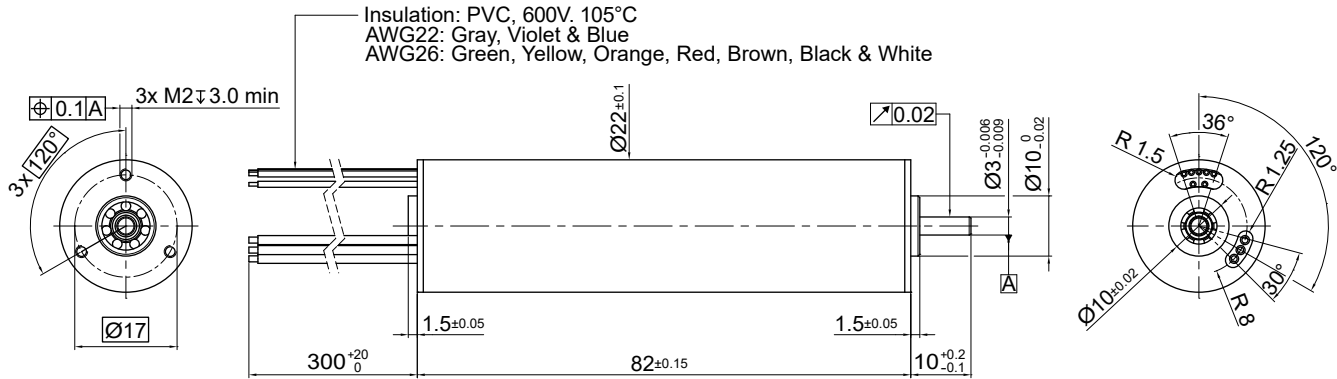


22ECT82 Ultra EC™

Ø 22 mm • 4-pole • 104 W



Dimensions in mm.

Electrical Data	Symbol	22ECT82 10B-xxx.01			Unit
		6	9	15	
1 Nominal Voltage	$U_N$	24	24	24	Volt
2 Optimization Direction	-	Symmetrical	Symmetrical	Symmetrical	-
3 No Load Speed	$n_0$	18,550	12,390	7,800	rpm
4 Typical No Load Current	$I_0$	435	250	130	mA
5 Max. Continuous Mechanical Power (@25°C)	$P_{max}$	104	104	104	W
6 Max. Continuous Current	$I_{e,max}$	7.9	5.3	3.2	A
7 Max. Continuous Torque	$M_{e,max}$	98.4 (13.94)	98.8 (14)	98.3 (13.92)	mNm (oz-in)
8 Back EMF Constant	$k_E$	1.30	1.96	3.22	V/1000 rpm
9 Torque Constant	$k_M$	12.4	18.7	30.8	mNm/A
10 Motor Regulation	$R/k^2$	0.8	0.8	0.8	10 <sup>3</sup> /Nms
11 Motor Regulation	$k/R^{1/2}$	35.8 (5.1)	35.9 (5.1)	36 (5.1)	mNm/W <sup>1/2</sup> (oz-in/W <sup>1/2</sup> )
12 Internal Resistance - phase to phase	$R_l$	0.13	0.27	0.73	ohms
13 Line to Line Resistance at Connectors	$R_L$	0.16	0.30	0.76	ohms
14 Inductance Phase to Phase	$L$	0.02	0.03	0.09	mH
15 Mechanical Time Constant	$\tau_m$	1.1	1.0	1.0	ms
16 Electrical Time Constant	$\tau_e$	0.12	0.13	0.13	ms

General Data					
17 Maximum Motor Speed	$n_{max}$	20,000			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	-	6.8			N
21 Axial Static Force w/o Shaft Support (max)	-	45.0			N
22 Maximum Winding Temperature	-	125 (257)			°C (°F)
23 Thermal Resistance	$R_{th}$	1.4 / 8.2			°C/W
24 Thermal Time Constant	$\tau_w$	1,140			s
25 Weight	-	174 (6.14)			g (oz)
26 Rotor Inertia	$J$	13.17			g-cm <sup>2</sup>
27 Hall Sensor Electrical Phasing*	-	120			Electrical °

\*Available without hall sensor

Wire	Description
Gray	Phase 1
Violet	Phase 2
Blue	Phase 3
Green	3.5 to 24V DC
Yellow	GND
Orange	Sensor 1
Red	Sensor 2
Brown	Sensor 3
Black	NTC 10 kohm
White	NTC 10 kohm

with hall effect sensor

