



Dimensions in mm

Electrical Data	Symbol	22ECT35 10B-xxx.01			Unit
		32	52	80	
1 Nominal Voltage	U_N	12	24	24	Volt
2 Optimization Direction	-	Symmetrical	Symmetrical	Symmetrical	-
3 No-Load Speed	n_0	10,330	12,400	8,100	rpm
4 Typical No-Load Current	I_0	100	90	40	mA
5 Max Continuous Mechanical Power (@25°C)	P_{max}	34.0	34.0	34.0	W
6 Max Continuous Current	$I_{e,max}$	1.8	1.1	0.7	A
7 Max Continuous Torque	$M_{e,max}$	20 (2.84)	19.9 (2.82)	19.5 (2.77)	mNm (oz-in)
8 Back EMF Constant	k_E	1.14	1.86	2.86	V/1000 rpm
9 Torque Constant	k_M	10.9	17.8	27.3	mNm/A
10 Motor Regulation	R/k^2	11.8	11.8	12.3	10 ³ /Nms
11 Motor Regulation	$k/R^{1/2}$	9.2 (1.31)	9.2 (1.31)	9 (1.28)	mNm/W ^{1/2} (oz-in/W ^{1/2})
12 Internal Resistance - phase to phase	R_i	1.40	3.73	9.20	ohms
13 Line to Line Resistance at Connectors	R_L	1.43	3.76	9.23	ohms
14 Inductance Phase to Phase	L	0.12	0.32	0.75	mH
15 Mechanical Time Constant	τ_m	4.2	4.2	4.4	ms
16 Electrical Time Constant	τ_e	0.09	0.08	0.08	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	N
22 Maximum Winding Temperature	-		125 (257)	°C (°F)
23 Thermal Resistance	R_{th}		2.3 / 13	°C/W
24 Thermal Time Constant	τ_w		829	s
25 Weight	-		67 (2.37)	g (oz)
26 Rotor Inertia	J		3.6	g-cm ²
27 Hall Sensor Electrical Phasing*	-		120	Electrical °

*Also available without Hall sensors

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

