



Dimensions in mm.

Electrical Data	Symbol	30ECT64-10B-xxx.01				Unit
		4	7	11	14	
1 Nominal Voltage	$U_N$	18	24	36	48	Volt
2 Optimization Direction	-	Symmetrical	Symmetrical	Symmetrical	Symmetrical	-
3 No-Load Speed	$n_0$	28,550	21,930	21,150	22,425	rpm
4 Typical No-Load Current	$I_0$	1,100	575	425	300	mA
5 Max Continuous Mechanical Power (@25°C)	$P_{max}$	187.0	187.0	187.0	187.0	W
6 Max Continuous Current	$I_{e,max}$	22.8	12.9	8.1	6.5	A
7 Max Continuous Torque	$M_{e,max}$	137 (19.40)	136 (19.26)	134 (18.98)	133 (18.84)	mNm (oz-in)
8 Back EMF Constant	$k_E$	0.63	1.10	1.74	2.14	V/1000 rpm
9 Torque Constant	$k_M$	6.0	10.5	16.6	20.5	mNm/A
10 Motor Regulation	$R/k^2$	0.55	0.57	0.59	0.60	10 <sup>3</sup> /Nms
11 Motor Regulation	$k/R^{1/2}$	42.5 (6.02)	41.8 (5.92)	41.3 (5.85)	40.8 (5.78)	mNm/W <sup>1/2</sup> (oz-in/W <sup>1/2</sup> )
12 Internal Resistance - phase to phase	$R_i$	0.02	0.06	0.16	0.25	ohms
13 Line to Line Resistance at Connectors	$R_L$	0.04	0.08	0.18	0.27	ohms
14 Inductance Phase to Phase	$L$	0.01	0.02	0.04	0.06	mH
15 Mechanical Time Constant	$\tau_m$	1.6	1.6	1.6	1.7	ms
16 Electrical Time Constant	$\tau_e$	0.25	0.23	0.22	0.23	ms

General Data

17 Maximum Motor Speed	$n_{max}$		30,000		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	-		13.5		N
21 Axial Static Force w/o Shaft Support (max)	-		134		N
22 Maximum Winding Temperature	-		150 (302)		°C (°F)
23 Thermal Resistance	$R_{th}$		0.9/7		°C/W
24 Thermal Time Constant	$\tau_w$		1,327		s
25 Weight	-		263 (9.28)		g (oz)
26 Rotor Inertia	$J$		28.00		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	4 to 24V DC
Yellow	GND
Orange	Sensor 1
Red	Sensor 2
Brown	Sensor 3
White	NTC 10 kohm
White	NTC 10 kohm

with hall effect sensor

