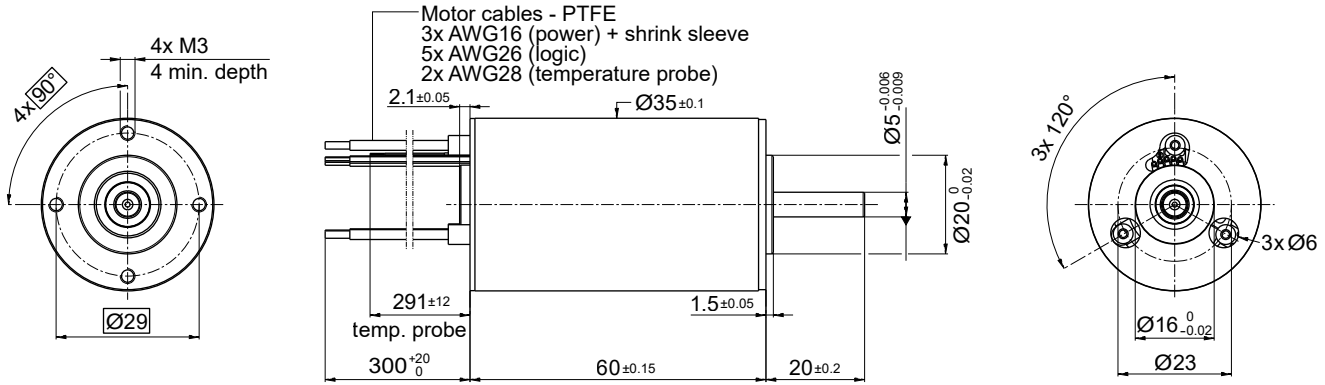


35ECS60 Ultra EC™

Ø 35 mm • 2-pole • 262 W



Dimensions in mm.

Electrical Data	Symbol	35ECS60 10B-xxx.01				Unit
		8	10	15	20	
1 Nominal Voltage	$U_N$	20	24	36	48	Volt
2 Optimization Direction	-	Symmetrical	Symmetrical	Symmetrical	Symmetrical	-
3 No Load Speed	$n_0$	38,900	38,500	39,000	39,300	rpm
4 Typical No Load Current	$I_0$	1000	900	500	360	mA
5 Max. Continuous Mechanical Power (@25°C)	$P_{max}$	262	262	262	262	W
6 Max. Continuous Current	$I_{e,max}$	25.3	20.1	13.2	9.8	A
7 Max. Continuous Torque	$M_{e,max}$	120.6 (17.1)	120.6 (17.1)	117.9 (16.7)	115.8 (16.4)	mNm (oz-in)
8 Back EMF Constant	$k_E$	0.51	0.63	0.94	1.24	V/1000 rpm
9 Torque Constant	$k_M$	4.90	6.01	8.94	11.83	mNm/A
10 Motor Regulation	$R/k^2$	0.832	0.886	0.928	0.961	$10^3/Nms$
11 Motor Regulation	$k/R^{1/2}$	34.6 (4.9)	33.6 (4.76)	32.8 (4.65)	32.3 (4.57)	mNm/W <sup>1/2</sup> (oz-in/W <sup>1/2</sup> )
12 Internal Resistance - phase to phase	$R_l$	0.02	0.032	0.074	0.135	ohms
13 Line to Line Resistance at Connectors	$R_L$	0.026	0.044	0.086	0.147	ohms
14 Inductance Phase to Phase	$L$	0.011	0.017	0.037	0.064	mH
15 Mechanical Time Constant	$\tau_m$	1.6	1.8	1.9	2.0	ms
16 Electrical Time Constant	$\tau_e$	0.6	0.5	0.5	0.5	ms

General Data				
17 Maximum Motor Speed	$n_{max}$		40,000	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	-		9	N
21 Axial Static Force w/o Shaft Support (max)	-		134	N
22 Maximum Winding Temperature	-		150 (302)	°C (°F)
23 Thermal Resistance	$R_{th}$		0.8/5.7	°C/W
24 Thermal Time Constant	$\tau_w$		1,618	s
25 Weight	-		315 (11.11)	g (oz)
26 Rotor Inertia	$J$		20.4	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

