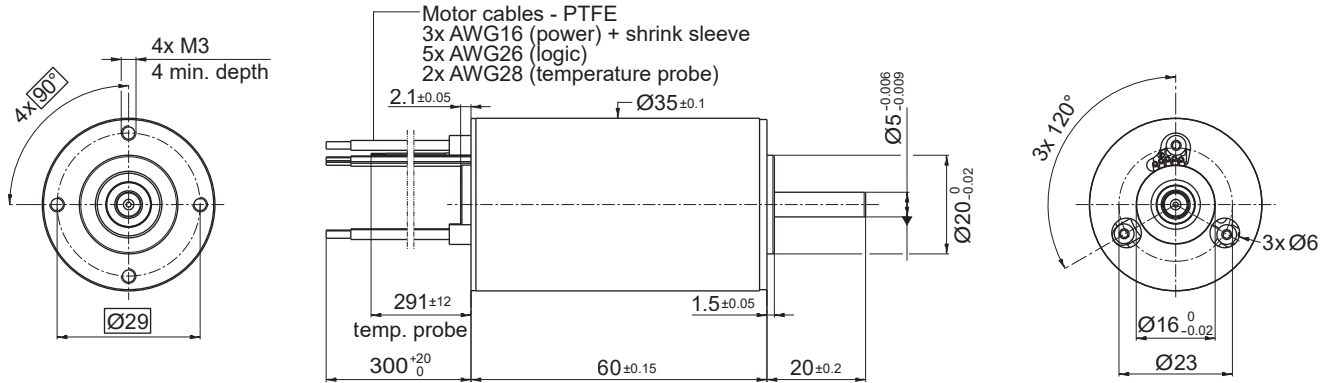


35ECS60 Ultra EC™

Ø 35 mm • 2-pole • 262 W



Dimensions in mm.

Electrical Data	Symbol	8	10	15	20	Unit
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 ^{1/2} (oz-in/W ^{1/2})
12 Internal Resistance - phase to phase	R_i	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	τ_m	1.6	1.8	1.9	2.0	ms
16 Electrical Time Constant	τ_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	τ_w	1,618				s
25 Weight	-	315 (11.11)				g (oz)
26 Rotor Inertia	J	20.4				g-cm ²
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	

