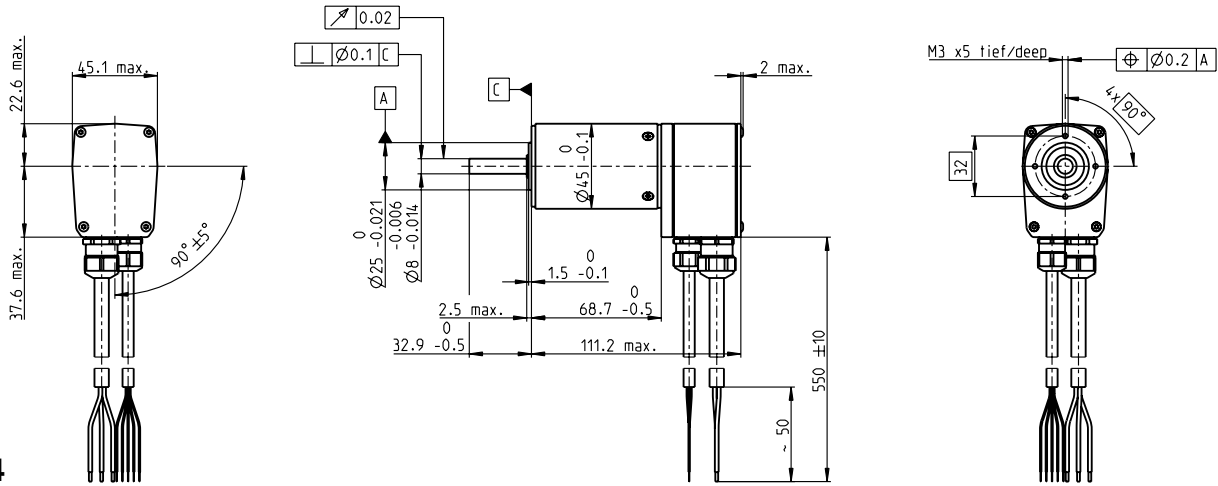


EC 45 Ø45 mm, brushless, 150 Watt



M 1:4

- Stock program
- Standard program
- Special program (on request)

Part Numbers										
136202	136196	136203	136197	136204	136198	136205	136200	136206	136201	136201

Motor Data		136202	136196	136203	136197	136204	136198	136205	136200	136206	136201
Values at nominal voltage											
1 Nominal voltage	V	12	12	18	18	24	24	36	36	48	48
2 No load speed	rpm	9780	5650	10300	5930	10500	6090	9360	5400	10200	5860
3 No load current	mA	1530	577	1120	419	879	328	471	177	411	154
4 Nominal speed	rpm	8410	4370	9000	4680	9290	4840	8150	4190	8960	4640
5 Nominal torque (max. continuous torque)	mNm	174	186	171	184	169	183	179	191	174	187
6 Nominal current (max. continuous current)	A	16.2	9.65	11.2	6.72	8.55	5.13	5.29	3.14	4.21	2.52
7 Stall torque	mNm	1380	872	1540	931	1600	952	1560	911	1650	962
8 Stall current	A	119	43.6	93.3	32.6	74.8	25.6	43.1	14.5	37.2	12.5
9 Max. efficiency	%	79	79	80	79	80	79	81	80	81	80
Characteristics											
10 Terminal resistance phase to phase	Ω	0.101	0.275	0.193	0.552	0.321	0.936	0.836	2.48	1.29	3.85
11 Terminal inductance phase to phase	mH	0.0266	0.0797	0.0542	0.163	0.0917	0.275	0.263	0.788	0.395	1.19
12 Torque constant	mNm/A	11.5	20	16.5	28.6	21.4	37.1	36.3	62.8	44.5	77.1
13 Speed constant	rpm/V	827	478	579	334	445	257	263	152	214	124
14 Speed/torque gradient	rpm/mNm	7.22	6.58	6.78	6.46	6.67	6.49	6.07	6	6.22	6.18
15 Mechanical time constant	ms	8.99	8.19	8.44	8.05	8.32	8.08	7.56	7.48	7.75	7.7
16 Rotor inertia	gcm ²	119	119	119	119	119	119	119	119	119	119

Specifications	
Thermal data	
17 Thermal resistance housing-ambient	1.9 K/W
18 Thermal resistance winding-housing	0.9 K/W
19 Thermal time constant winding	15.4 s
20 Thermal time constant motor	1600 s
21 Ambient temperature	-20...+100°C
22 Max. winding temperature	+125°C
Mechanical data (preloaded ball bearings)	
23 Max. speed	15 000 rpm
24 Axial play at axial load < 20 N	0 mm
> 20 N	max. 0.14 mm
25 Radial play	preloaded
26 Max. axial load (dynamic)	16 N
27 Max. force for press fits (static)	182 N
(static, shaft supported)	5000 N
28 Max. radial load, 5 mm from flange	140 N

Other specifications	
29 Number of pole pairs	1
30 Number of phases	3
31 Weight of motor	850 g
Protection to	IP54*

Values listed in the table are nominal.

Connection motor (Cable AWG 16)

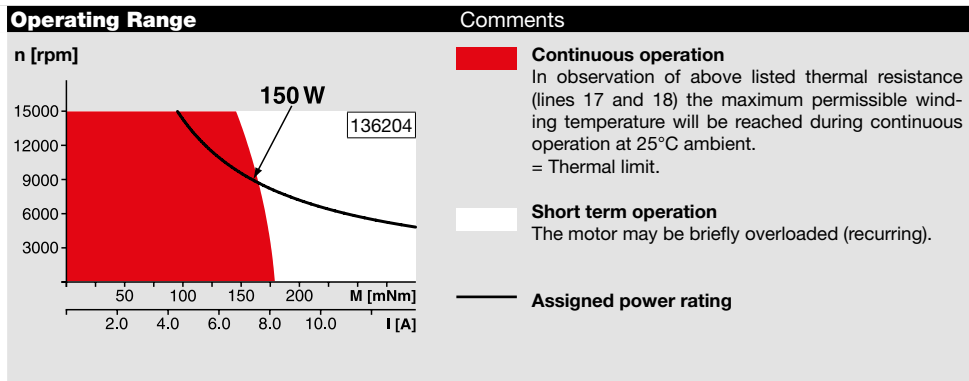
- Cable 1 Motor winding 1
- Cable 2 Motor winding 2
- Cable 3 Motor winding 3

Connection sensors (Cable AWG 24)¹⁾

- white Hall sensor 3
 - brown Hall sensor 2
 - green Hall sensor 1
 - yellow GND
 - grey V_{Hall} 4.5 ... 24 VDC
- Wiring diagram for Hall sensors see p. 41

¹⁾ Not lead through in combination with resolver.

*Protection level only when installed with flange-side seal.



maxon Modular System		Overview on page 28–36
<p>Planetary Gearhead Ø42 mm 3 - 15 Nm Page 345</p> <p>Planetary Gearhead Ø52 mm 4 - 30 Nm Page 351</p>		<p>Encoder HEDL 9140 500 CPT, 3 channels Page 419</p> <p>Resolver Res 26 Ø26 mm 10 V Page 422</p> <p>Brake AB 28 24 VDC 0.4 Nm Page 459</p>
<p>Recommended Electronics: Notes Page 32</p> <ul style="list-style-type: none"> ESCON 36/3 EC 427 ESCON Mod. 50/5 427 ESCON Mod. 50/4 EC-S 427 ESCON 50/5 428 ESCON 70/10 428 DEC Module 50/5 430 EPOS2 24/5, 50/5, 70/10 435 EPOS2 P 24/5 438 EPOS4 Module/CB 50/5 442 EPOS4 Module 50/8 443 EPOS4 Comp. 50/8 CAN 443 EPOS4 Module 50/15 444 EPOS4 Comp. 50/15 CAN 444 MAXPOS 50/5 447 		