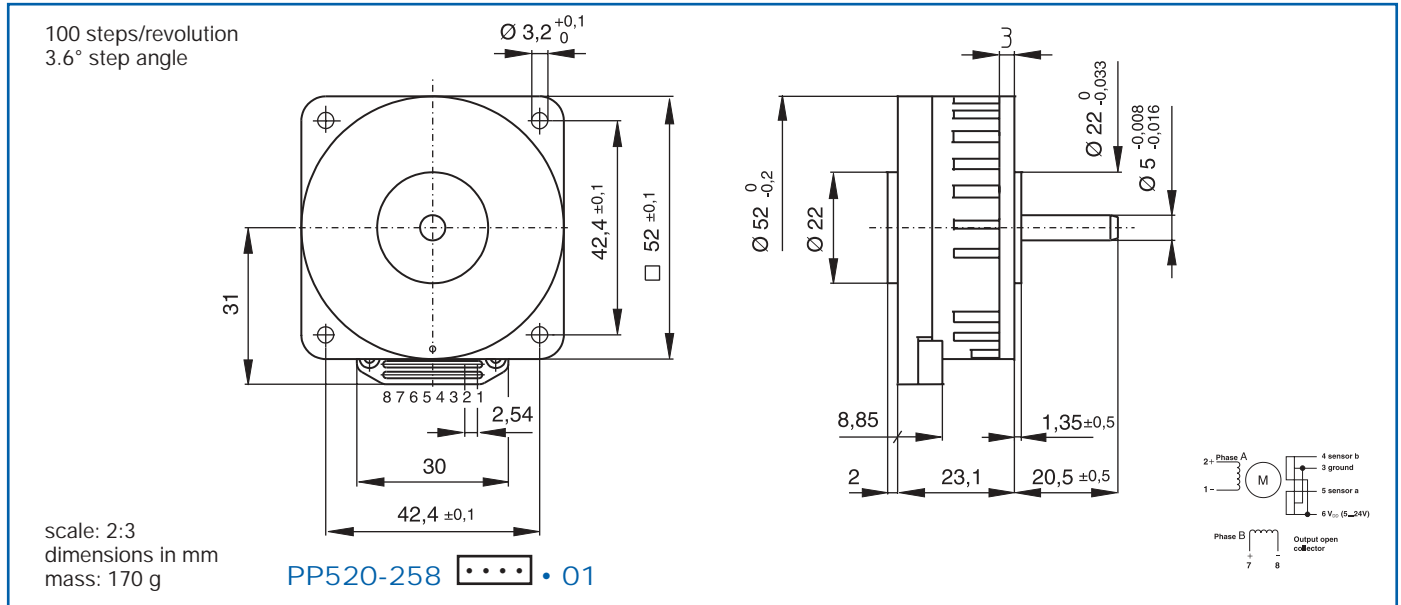


Turbo Disc™ PP520

With integrated position sensors

Stepper motor



Windings available

Coil dependent parameters

		013	004	0.7
1 Phase resistance	ohm	13.5	4.4	0.7
2 Phase inductance (1 kHz)	mH	27	8	1.3
3 Nominal phase current (2 ph. on)	A	0.5	0.9	2.3
4 Nominal phase current (1 ph. on)	A	0.75	1.3	3.3
5 Back-EMF amplitude	V/kst/s	9.8	5.5	2.1

Coil independent parameters

Torque parameters		typ		
6 Holding torque (nominal current)	mNm (oz-in)	120 (17)		
7 Holding torque (2 x nominal current) ¹⁾	mNm (oz-in)	205 (29)		
8 Detent torque amplitude and friction	mNm (oz-in)	10 (1.4)		

Thermal parameters		min	typ	max
9 Thermal resistance coil-ambient ²⁾	°C/W	9.5		
10 Coil temperature	°C	130		
11 Operating ambient temperature	°C	-20	+50	

Angular accuracy

12 Absolute accuracy (2 ph. on full-step mode)	% full-step	±3		±5
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Mechanical parameters

13 Rotor inertia	kgm ² · 10 ⁻⁷	12		
14 Radial load	N	20		
15 Axial load ³⁾	N	30		
16 Radial shaft play (5N)	µm	15		
17 Axial shaft play (5N)	µm	10		

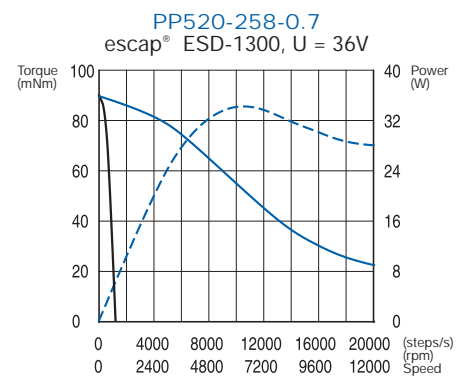
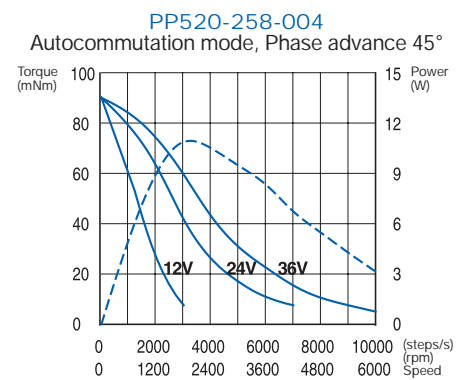
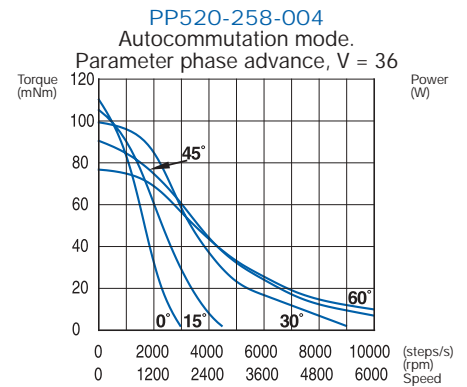
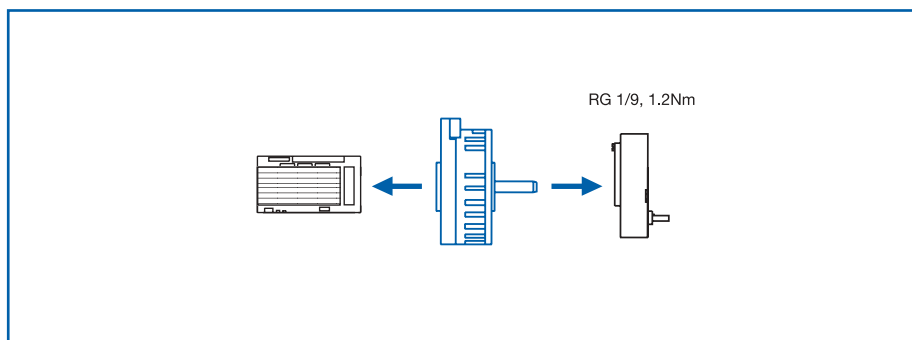
Hall sensor

18 Supply voltage	V	5	24	
19 Operating temperature	°C	-40	125	
20 Signal periods per revolution	-	25		
21 Elec. angle between motor ph./hall signal	degrees	35	45	55

¹⁾ The maximum coil temperature must be respected

²⁾ Motor unmounted

³⁾ Load applied at 12 mm from mounting face



— Pull-in range
— Pull-out range
- - - Power output
Pull-in is measured with a load inertia equal to the rotor inertia.