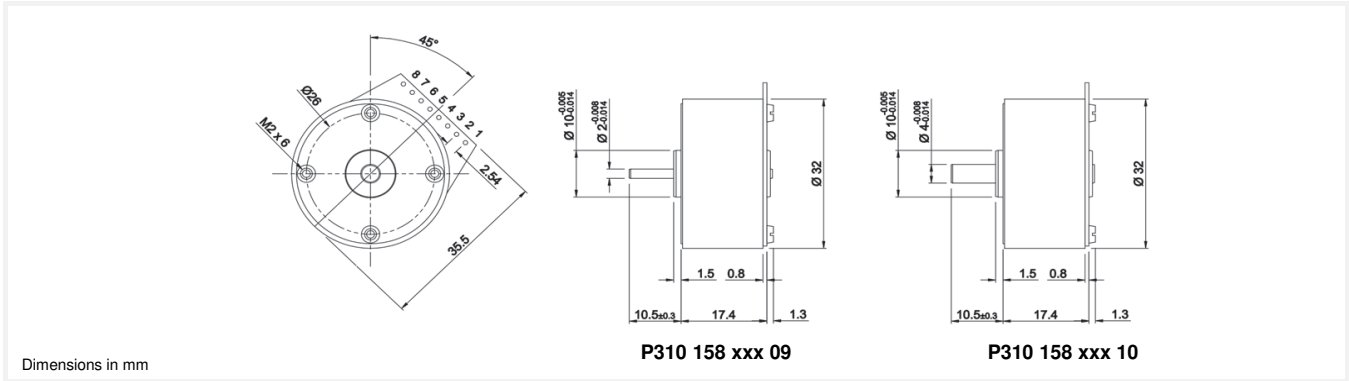


## P310

Ø32mm

14 mNm



Dimensions in mm

## P310

Electrical Data	P310 158 170 09/10(series)	P310 158 170 09/10 (parallel)	P310 158 005 09/10 (series)	P310 158 005 09/10 (parallel)	
1 Resistance per Phase, typ	332.0	83.0	10.5	2.6	Ohms
2 Inductance per Phase, typ	184.0	46.0	6.4	1.6	mH
3 Nominal Phase Current (2 ph. On)	0.06	0.12	0.36	0.72	A
4 Nominal Phase Current (1 ph. On)	0.09	0.17	0.51	1.00	A
5 Back EMF Amplitude	18.00	9.00	3.20	1.60	V/kstep/s
<b>Coil independent parameters</b>					
6 Holding Torque, nominal current			14 (2)		mNm (oz-in)
7 Holding Torque, 1.5x nominal current (1)			20 (2.83)		mNm (oz-in)
8 Detent Torque			2.6 (0.37)		mNm (oz-in)
9 Rotor Inertia			0.860		kgm <sup>2</sup> x 10 <sup>-7</sup>
10 Step Angle			6		Degree
11 Absolute Accuracy 2 ph. On, Full step mode			+/- 5%		% Full Step
12 Steps Per Revolution			60		
13 Ambient Temperature Range (operating)			-20 to 50 (-4 to 122)		°C (°F)
14 Maximum Coil Temperature			130 (266)		°C (°F)
15 Thermal Resistance Coil-ambient (2)			25		°C/W
16 Natural Resonance Frequency (nominal current)			230		Hz
17 Electrical Time Constant			0.60		ms
18 Angular Acceleration (nominal current)			140,000		rad/s <sup>2</sup>
19 Bearing Type			Sleeve or Ball		
20 Dielectric Withstanding Voltage			500 VRMS for 5 seconds (35@5N / 15@1N)		VAC
21 Radial Shaft Play			35@5N / 15@1N		µm
22 Axial Shaft Play			100@5N / 10@1N		µm
23 Maximum Radial Shaft Load			1 / 10 (3.6 / 36)		N (oz)
24 Maximum Axial Shaft Load (3)			0.5 / 20 ( 1.8 / 72)		N (oz)
25 Weight			40 (1.4)		g (oz)
26 Power Rate (nominal current)			1.7		kW/s

- (1) Measured with 1 phase ON. The max coil temperature must be respected
- (2) Motor unmounted
- (3) Shaft must be supported when press-fitting a pulley or pinion

