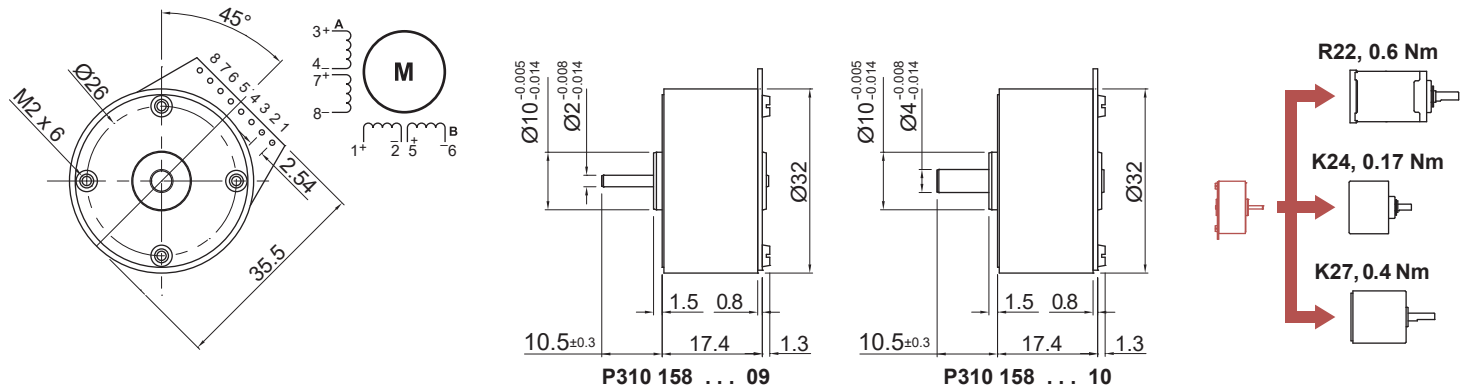


P310

Ø 32 mm • 14 mNm



Dimensions in mm

Electrical Data	P310 158 170		P310 158 005		Unit
	09/10 (series)	09/10 (parallel)	09/10 (series)	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
General Data					
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 ² x 10 ⁻⁷
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 ²
19 Bearing Type	Sleeve or Ball				
20 Dielectric Withstanding Voltage	500 VRMS for 5 seconds				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

Notes:

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

