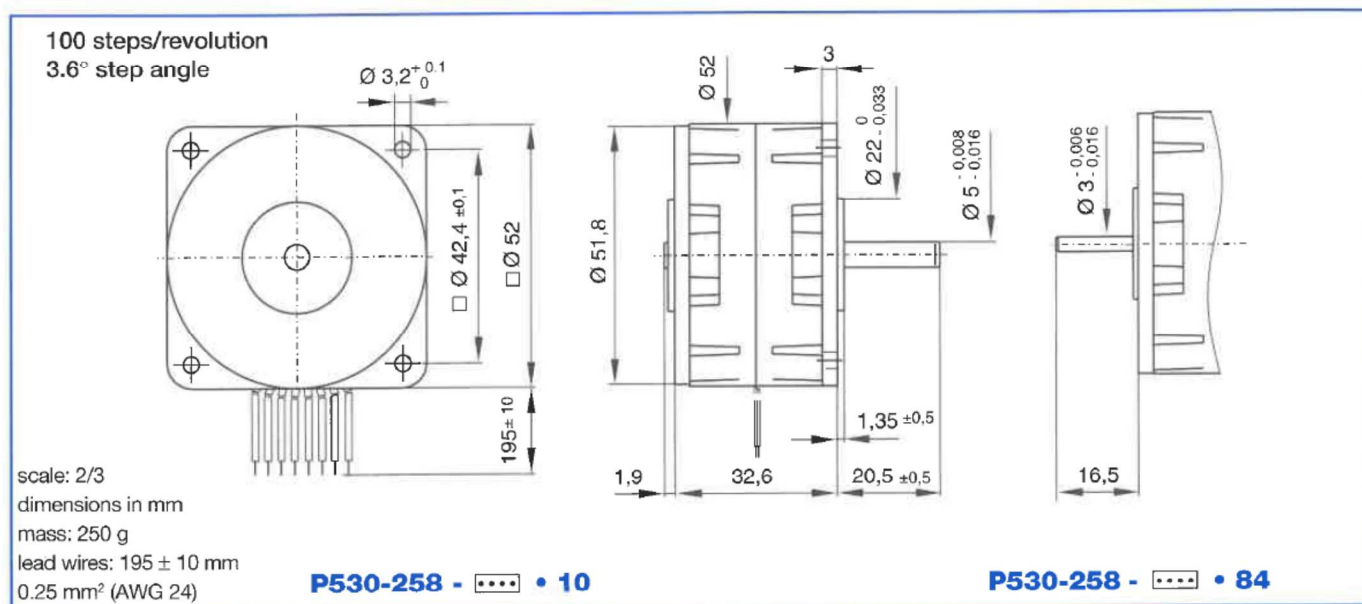


Turbo Disc™ P530

Stepper motor

Suitable for microstep operation



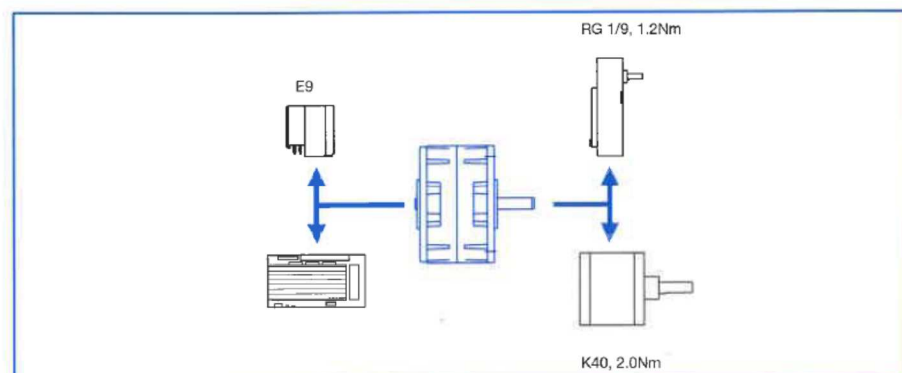
Windings available

		012	004	004	0.7
		coils in series	coils in series	coils in parallel	coils in parallel
Coil dependent parameters					
		typ	typ	typ	typ
1	Phase resistance	ohm	27	8.8	2.2
2	Phase inductance (1 kHz)	mH	64	20	5
3	Nominal phase current (2 ph. on)	A	0.4	0.7	1.4
4	Nominal phase current (1 ph. on)	A	0.56	1	2
5	Back-EMF amplitude	V/kst/s	20	11	5.5
Coil independent parameters ¹⁾					
			min	typ	max
Torque parameters					
6	Holding torque (nominal current)	mNm (oz-in)		155 (22.1)	175 (25)
7	Holding torque (2 x nominal current) ²⁾	mNm (oz-in)		255 (36.1)	300 (42.5)
8	Detent torque amplitude and friction	mNm (oz-in)		2 (0.3)	10 (1.4)
9	Thermal resistance coil-ambient ³⁾	°C/W		7.3	
Angular accuracy					
10	Absolute accuracy (2 ph. on full-step mode/microstep) % full-steps			±3/±6	±5/±8
Mechanical parameters					
11	Rotor inertia	kgm ² ·10 ⁻⁷		12	
Other parameters					
12	Natural resonance frequency (nominal current)	Hz		300	
13	Electrical time constant	ms		2.3	
14	Angular acceleration (nominal current)	rad/s ²		141 000	

- Max. rated coil temperature: 130°C
- Recom. ambient temperature range: -20°C to +50°C

- Radial shaft play (5N): 25 µm
- Axial shaft play (5N): 25 µm
- Max. radial load⁴⁾: 20N
- Max. axial load⁵⁾: 30N

- Test voltage (1 min): 500 V_{RMS}
- "Power rate" (nominal current): 24 kW/s



- ¹⁾ Bipolar driver.
- ²⁾ The maximum coil temperature must be respected.
- ³⁾ Motor unmounted.
- ⁴⁾ Load applied at 12 mm from mounting face.
- ⁵⁾ Shaft must be supported for press-fitting a pulley or pinion.