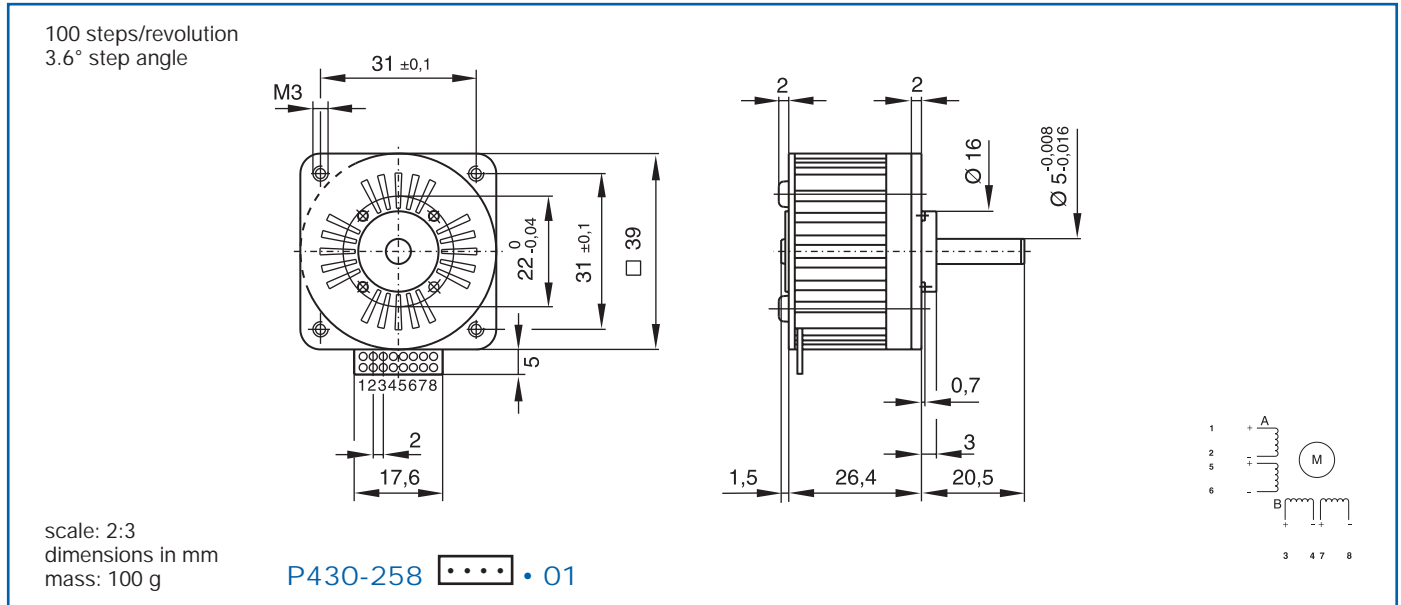


# Turbo Disc™ P430

Suitable for microstep operation

# Stepper motor



## Windings available



**013 013 005 005**

coils in series coils in parallel series coils in parallel

### Coil dependent parameters

		typ	typ	typ	typ	
1	Phase resistance	ohm	26	6.5	10	2.5
2	Phase inductance (1 kHz)	mH	40	10	14	3.5
3	Nominal phase current (2 ph. on)	A	0.34	0.68	0.56	1.12
4	Nominal phase current (1 ph. on)	A	0.5	1	0.8	1.6
5	Back-EMF amplitude	V/kst/s	7.5	3.8	4.7	2.3

### Coil independent parameters

Torque parameters		typ		
6	Holding torque (nominal current)	mNm (oz-in)	60 (8.5)	
7	Holding torque (2 x nominal current) <sup>1)</sup>	mNm (oz-in)	90 (12.7)	
8	Detent torque amplitude and friction	mNm (oz-in)	3.5 (0.5)	

Thermal parameters		min	typ	max
9	Thermal resistance coil-ambient <sup>2)</sup>	°C/W		
			11	
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

Mechanical parameters		
13	Rotor inertia	kgm <sup>2</sup> · 10 <sup>-7</sup>
		3
14	Radial load	N
		20
15	Axial load <sup>3)</sup>	N
		30
16	Radial shaft play (5N)	µm
		15
17	Axial shaft play (5N)	µm
		10

<sup>1)</sup> The maximum coil temperature must be respected

<sup>2)</sup> Motor unmounted

<sup>3)</sup> Load applied at 12 mm from mounting face

