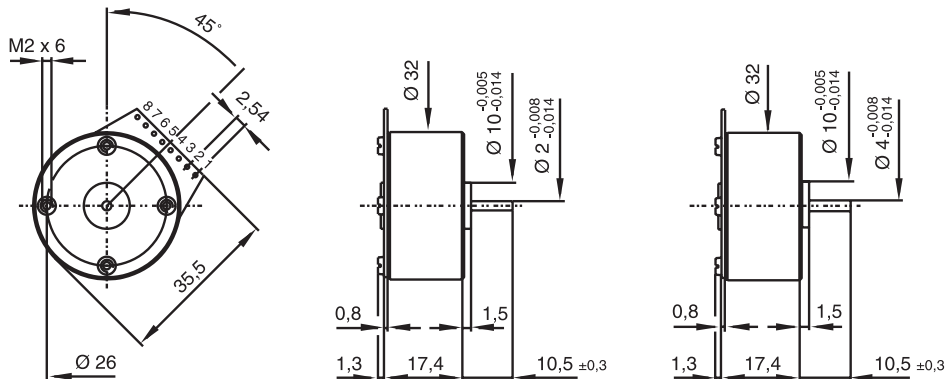


60 steps/revolution  
6° step angle

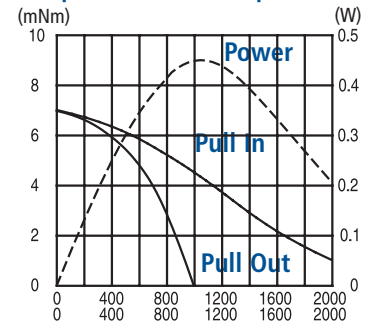


dimensions in mm  
mass: 40 g

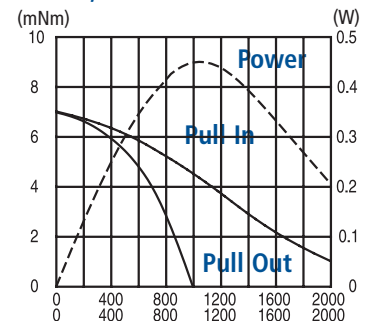
**P310 - 158 - ☉☉ • 09**

**P310 - 158 - ☉☉ • 10**

**P310-158-005, Coils in parallel  
escap EDM-453, I=1 amp, U=24V**



**P310-158-170, Coils in series  
Voltage driver type L/R, 56 series  
resistor, 24V**



## Winding Type

### Coil Dependent Parameters

	☉☉	170 typ	170 typ	005 typ	005
		coils in series	coils in parallel	coils in series	coils in parallel
Phase resistance	ohm	332	83	10.5	2.6
Phase inductance (1kHz)	mH	184	46	6.4	1.6
Nominal phase current (2 ph. on)	A	0.06	0.12	0.36	0.72
Nominal phase current (1 ph. on)	A	0.09	0.17	0.51	1
Back-EMF amplitude	V/kst/s	18	9	3.2	1.6

### Coil Independent Parameters

#### Torque Parameters

		min	typ	max
Holding torque (nominal current)	mNm (oz-in)	11.5 (1.6)	14 (2)	16.5 (2.4)
Holding torque (1.5 x nominal current) <sup>(1)</sup>	mNm (oz-in)	23 (3.8)	28 (4)	33 (4.8)
Detent torque	mNm (oz-in)	1.4 (0.2)	2.5 (0.3)	3 (0.4)

#### Thermal Parameters

Thermal resistance coil ambient <sup>(2)</sup>	°C/W	25
Absolute accuracy (2 ph. on full-step model)	% full-step	±3.5 ±5

#### Mechanical Parameters

Rotor inertia	kgm <sup>2</sup> , 10 <sup>-7</sup>	0.86
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#### Other Parameters

Natural resonance frequency (nom. current)	Hz	230
Electrical time constant	ms	0.6
Angular acceleration (nominal current)	rad/s <sup>2</sup>	140000