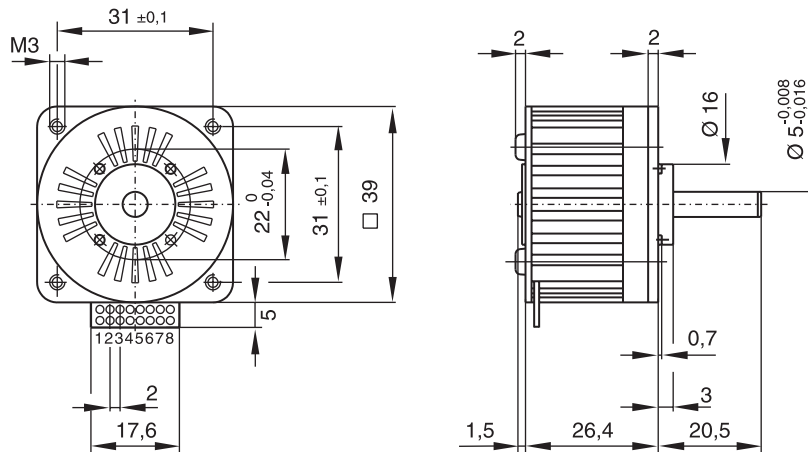


Suitable for microstep operation

100 steps/revolution
3.6° step angle



scale 2/3
dimensions in mm
mass : 100g

P430-258 - [dots] • 01

Windings available



013

013

005

005

coils in series

coils in parallel

coils in series

coils in parallel

Coil dependent parameters

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

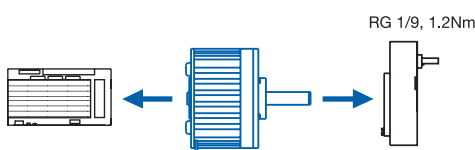
Coil independent parameters ¹⁾

Torque parameters		min	typ	max	
6	Holding torque (nominal current)	mNm (oz-in)	50 (7.1)	60 (8.5)	70 (9.9)
7	Holding torque (1.5 x nominal current) ²⁾	mNm (oz-in)	75 (10.6)	90 (12.7)	105 (14.9)
8	Detent torque amplitude and friction	mNm (oz-in)	1.5 (0.2)	3.5 (0.5)	6.5 (0.9)
Thermal parameters					
9	Thermal resistance coil-ambient ³⁾	°C/W		11	
Angular accuracy					
10	Absolute accuracy (2 ph. on full-step mode)	% full-steps		±3	
Mechanical parameters					
11	Rotor inertia	kgm ² .10 ⁻⁷		3	
Other parameters					
12	Natural resonance frequency (nominal current)	Hz		360	
13	Electrical time constant	ms		1.5	
14	Angular acceleration (nominal current)	rad/s ²		200 000	

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

- Radial shaft play (1N) : 15 µm
- Axial shaft play (1N) : 10 µm
- Max. radial load⁴⁾ : 20N
- Max. axial load⁵⁾ : 30N

- Test voltage (1 min) : 500 V_{RMS}
- "Power rate" (nominal current) : 12 kW/s



¹⁾ Bipolar driver.

²⁾ The maximum coil temperature must be respected.

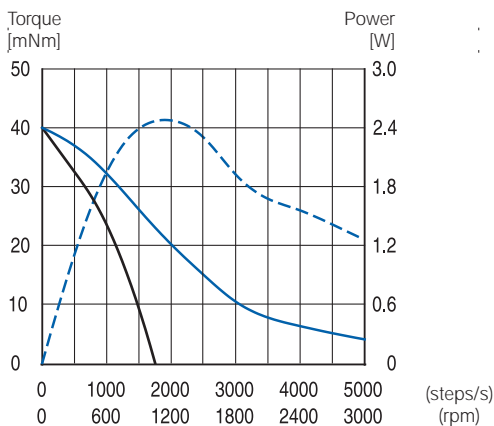
³⁾ Motor unmounted.

⁴⁾ Load applied at 12 mm from mounting face.

⁵⁾ Shaft must be supported for press-fitting a pulley or pinion.

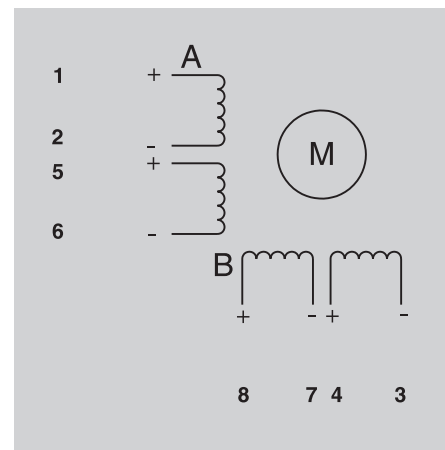
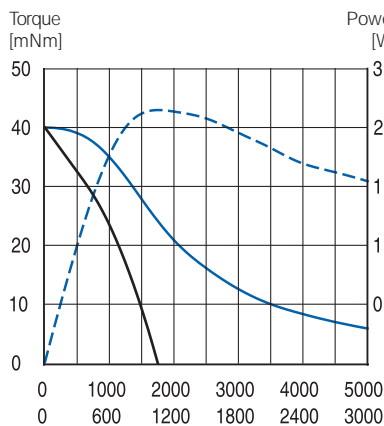
P430-258-013

Coils in series
Voltage driver type L/R
47Ω series resistor, 36V



P430-258-005

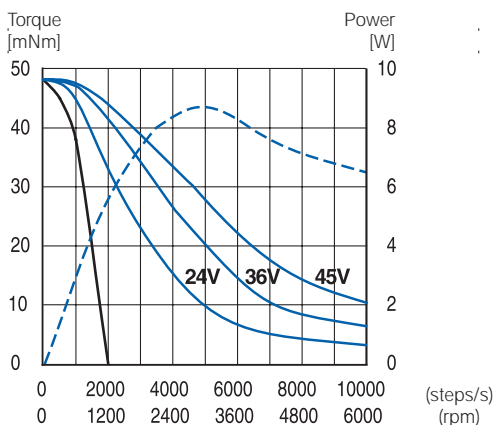
Coils in series
Voltage driver type L/R
33Ω series resistor, 36V



Motor connections

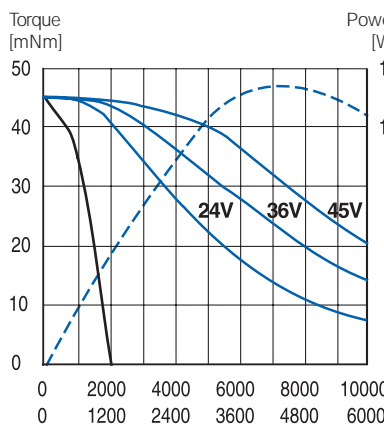
P430-258-013

Coils in parallel
escap® EDM-453 ou DM224-i
I = 1A



P430-258-005

Coils in parallel
escap® EDM-453,
I = 1.5A



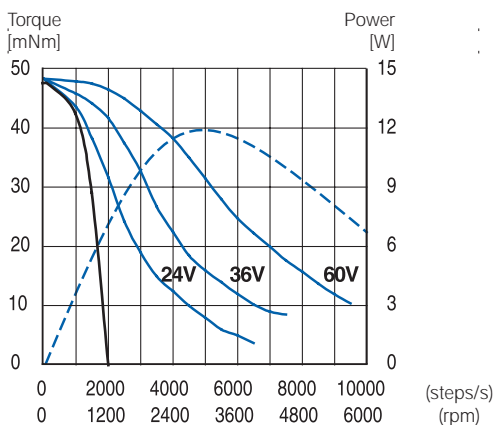
Executions available from stock :

- 01 see drawing
- 01 & RG1/9

Particular versions include options such as special shafts and so forth.

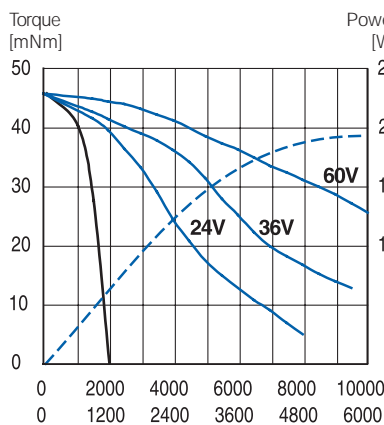
P430-258-013

Coils in parallel
escap® ESD-1200,
I = 1A



P430-258-005

Coils in parallel
escap® ESD-1200,
I = 1.6A



Notes

The speed scale is indicated in full-steps/s for all drive modes.

The motor is driven in half-steps unless otherwise specified.

The motor is energised with nominal current unless otherwise specified.

Pull-in is measured with a load inertia equal to the rotor inertia.

The following drive circuits are recommended with the P430 motor, depending on the drive mode and the dynamic performance required: DM224i, EDM-453, ESD-1200.

Pull-in is measured with a load inertia equal to the rotor inertia.

Availability: see enclosed document at the end of the catalogue

Specifications subject to change without prior notice

- Pull-in range
- Pull-out range
- - - Power output