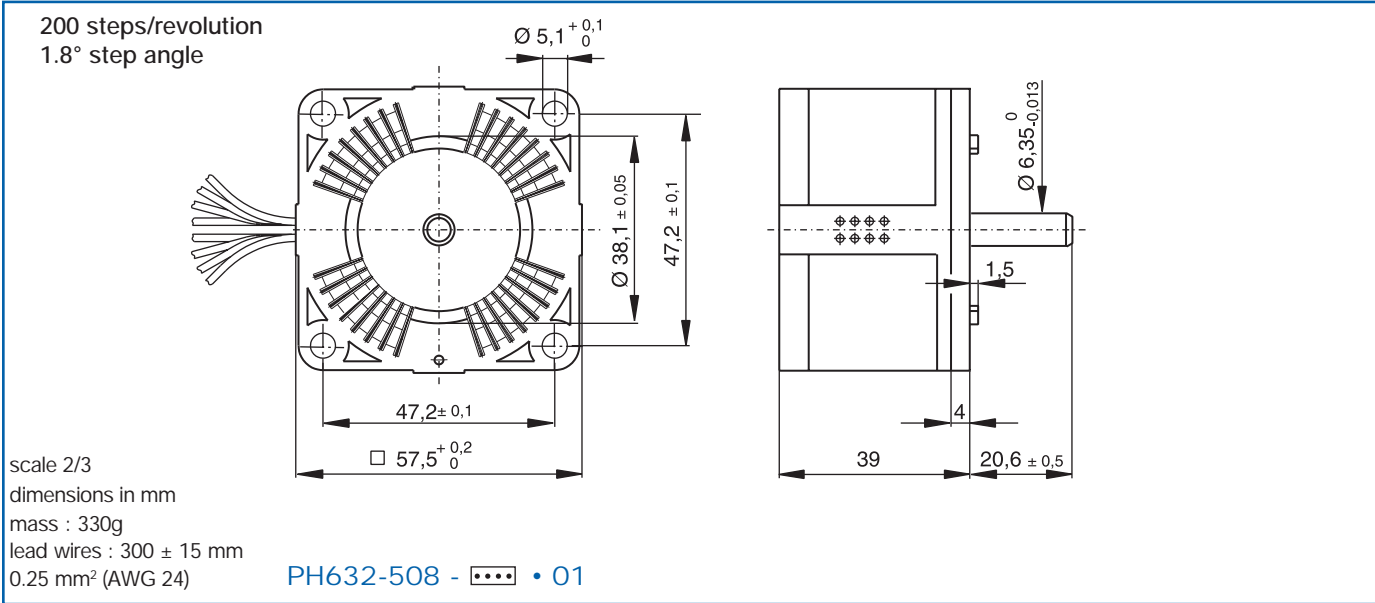
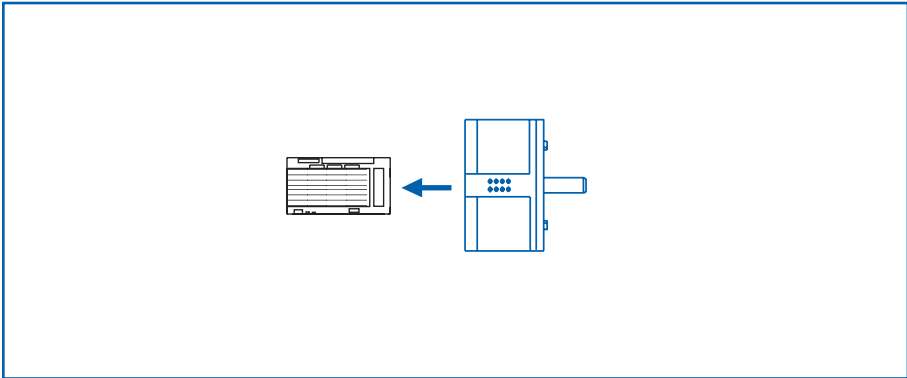


Suitable for microstep operation



Windings available		...	002	002	001	001
			coils in series	coils in parallel	coils in series	coils in parallel
Coil dependent parameters			typ	typ	typ	typ
1	Phase resistance	ohm	4.4	1.1	2	0.5
2	Phase inductance (1 kHz)	mH	13	3.3	6.4	1.6
3	Nominal phase current (2 ph. on)	A	1	2	1.5	3
4	Nominal phase current (1 ph. on)	A	1.4	2.8	2.1	4.2
5	Back-EMF amplitude	V/kst/s	6.6	3.3	4.4	2.2
Coil independent parameters ¹⁾				min	typ	max
Torque parameters						
6	Holding torque (nominal current)	mNm (oz-in)		230 (35.4)	290 (41.1)	330 (46.7)
7	Holding torque (1.5 x nominal current) ²⁾	mNm (oz-in)		300 (45.3)	370 (52.4)	425 (60.2)
8	Detent torque amplitude and friction	mNm (oz-in)		19 (2.7)	32 (4.5)	50 (6.4)
Thermal parameters						
9	Thermal resistance coil-ambient ³⁾	°C/W			8	
Angular accuracy						
10	Absolute accuracy (2 ph. on full-step mode)	% full-steps			±3	±5
Mechanical parameters						
11	Rotor inertia	kgm².10 ⁻⁷			30	
Other parameters						
12	Natural resonance frequency (nominal current)	Hz			350	
13	Electrical time constant	ms			2.6	
14	Angular acceleration (nominal current)	rad/s²			100 000	

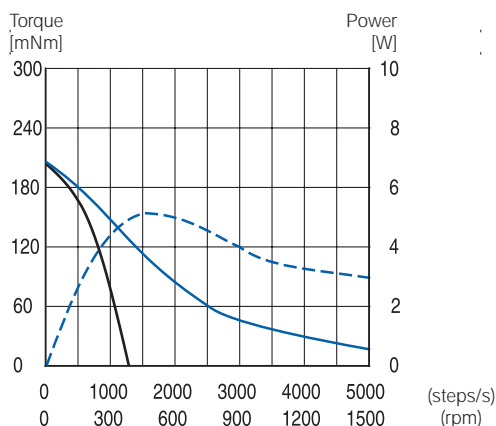
- Max. rated coil temperature : 130°C
 - Recom. ambient temperature range : -20 °C to +50 °C
- Radial shaft play (5N) : 25 µm
 - Axial shaft play (5N) : 100 µm
 - Max. radial load⁴⁾ : 20N
 - Max. axial load⁵⁾ : 30N
- Test voltage (1 min) : 500 V_{RMS}
 - "Power rate" (nominal current) : 28 kW/s



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.

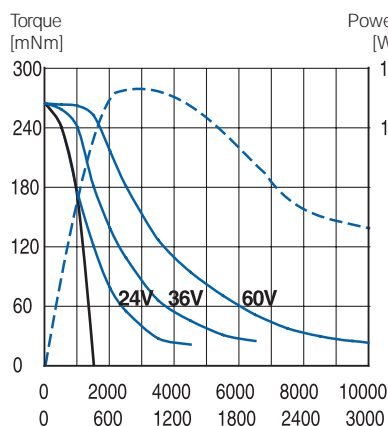
PH632-508-002

Coils in series
Driver L/R
33Ω series resistor, 0.8V



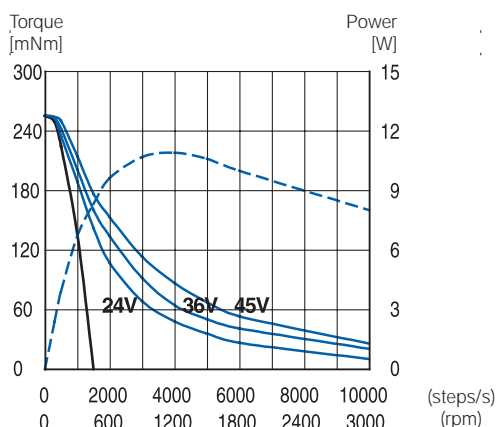
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Coils in series
escap® ESD-1200
I = 1.4A



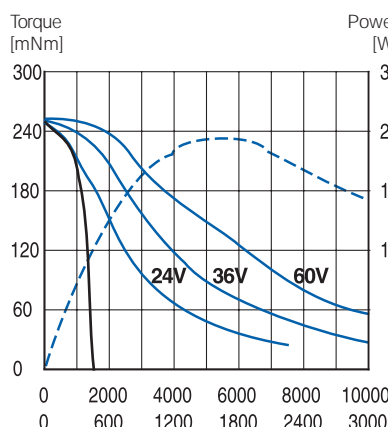
PH632-508-002

Coils in parallel
escap® EDM-453 ou DM224-i
I = 2.8A



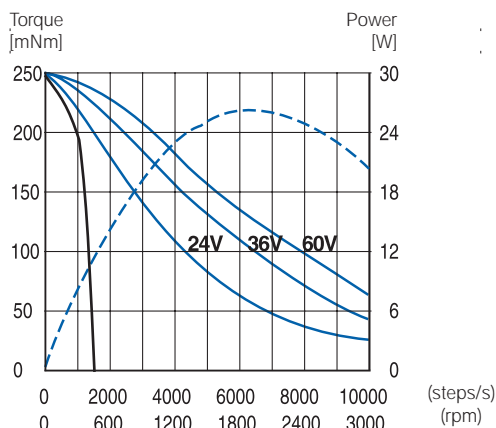
PH632-508-002

Coils in parallel
escap® ESD-1300
I = 2.7A



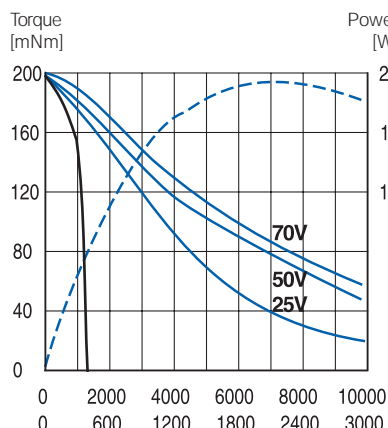
PH632-508-001

Coils in parallel
escap® ESD-1300
I = 3A



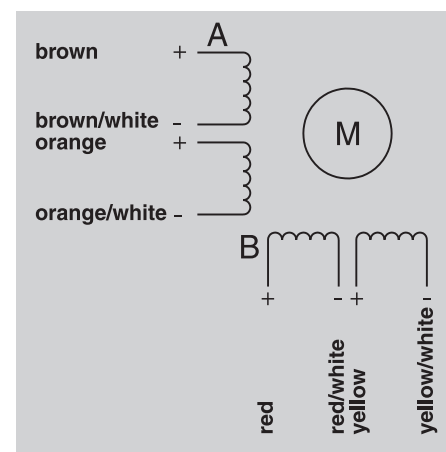
PH632-508-001

Coils in parallel
escap® EDB-909,
I = 3A



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

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



Motor connections

Executions available from stock :

None, but the execution • 01 and also particular versions including options such as special shafts (hollow shaft) and so forth are fasten to produce

Notes

The low inertia and extended pull-in range of this motor often allow to economise a ramp in the control circuit.

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.

The following drive circuits are recommended with the PH632 motor, depending on the drive mode and the dynamic performance required: DM-224i, EDM-453, ESD-1200, ESD-1300, EDB-909.

Availability: see enclosed document at the end of the catalogue

Specifications subject to change without prior notice