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NAFSA - ER SERIES

ER45-15/C
ER45-05/C



- Single acting, spring or load return
- Up to class F winding (155°C)
- Duty cycle from 0 to 100%
- Up to 234N force
- Customer specific version available

PRODUCT DESCRIPTION

The ER series of electromagnets are a single acting solenoid.

When an electrical connection is made to to coil, the plunger moves through the magnetic field and pushes the shaft along its designated stroke.

Upon removing the electrical connection, the shaft is retracted to its rest position using either a mechanical spring or the load applied.

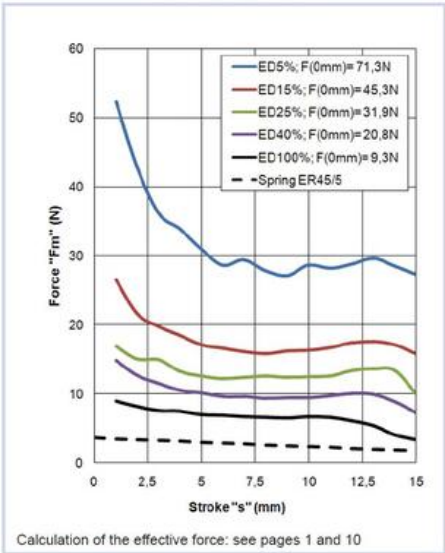
Many different standard versions are available (please see catalogue PDF below) and application specific designs can be provided for larger volume requirements.

TECHNICAL DATA

Absorbed power @ 20°C, 100% duty	12 W
Absorbed power @ 20°C, 15% duty	80 W
Absorbed power @ 20°C, 25% duty	48 W
Absorbed power @ 20°C, 40% duty	30 W
Absorbed power @ 20°C, 5% duty	240 W
Beginning of stroke force at 100% duty	33 N
Beginning of stroke force at 15% duty	155 N
Beginning of stroke force at 25% duty	10 N
Beginning of stroke force at 40% duty	73 N
Beginning of stroke force at 5% duty	27 N
End of stroke force at 100% duty	93 N
End of stroke force at 15% duty	453 N
End of stroke force at 25% duty	319 N
End of stroke force at 40% duty	208 N
End of stroke force at 5% duty	713 N

Function	pull/push
Insulation class	B (130°C)
IP class	IP00
Spring return	Yes
Stroke	15 mm
Total weight	285 g
Voltage ac max	230 V
Voltage ac min	110 V
Voltage dc max	205 V
Voltage dc min	6 V

Force stroke curve



Calculation of the effective force: see pages 1 and 10

Duty-cycle ED%	Standard voltages								Under demand voltages			
	VDC						VAC		VDC		VAC	
	6	12	24	48	100	125	205	110	230	Min	Max	Min	Max
100%	o	o	o	o	o	o	o	o	o	5	230	34	230
40%	x	o	o	o	o	o	o	o	o	7	230	86	230
25%	x	o	o	o	o	o	o	x	o	9	230	136	230
15%	x	o	o	o	o	o	o	x	o	11	230	230	230
5%	x	x	o	o	o	o	o	x	x	16	230	x	x

Layout: o = Available ; x = Unavailable

Solenoid under voltage

