

## NAFSA - ER SERIES

ER15/C  
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- 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 the 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

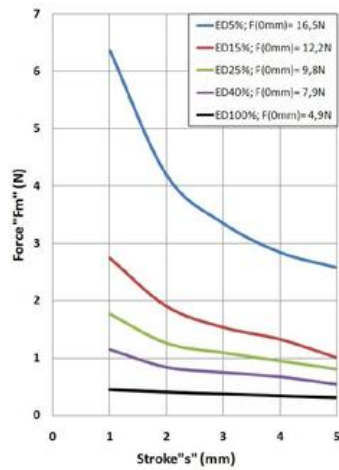
Absorbed power @ 20°C, 100% duty	3 W
Absorbed power @ 20°C, 15% duty	20 W
Absorbed power @ 20°C, 25% duty	12 W
Absorbed power @ 20°C, 40% duty	7.5 W
Absorbed power @ 20°C, 5% duty	60 W
Beginning of stroke force at 100% duty	0.3 N
Beginning of stroke force at 15% duty	1 N
Beginning of stroke force at 25% duty	0.8 N
Beginning of stroke force at 40% duty	0.5 N
Beginning of stroke force at 5% duty	2.5 N
End of stroke force at 100% duty	4.9 N
End of stroke force at 15% duty	12.2 N
End of stroke force at 25% duty	9.8 N
End of stroke force at 40% duty	7.9 N
End of stroke force at 5% duty	16.5 N

<b>Function</b>	pull/push
<b>Insulation class</b>	B (130°C)
<b>IP class</b>	IP00
<b>Spring return</b>	No
<b>Total weight</b>	39 g
<b>Voltage ac max</b>	230 V
<b>Voltage ac min</b>	110 V
<b>Voltage dc max</b>	205 V
<b>Voltage dc min</b>	6 V

Duty-cycle ED%	Standard voltages							Under demand voltages					
	VDC							VDC		VAC			
	6	12	24	48	100	125	205	110	230	Min	Max	Min	Max
100%	o	o	o	o	x	x	x	x	x	3	55	x	x
40%	o	o	o	o	x	x	x	x	x	3	85	x	x
25%	o	o	o	o	o	x	x	x	x	3	105	x	x
15%	o	o	o	o	o	o	x	x	x	6	135	x	x
5%	o	o	o	o	o	o	o	x	x	6	230	x	x

Layout: o = Available ; x = Unavailable

**Force-stroke curve**



Calculation of the effective force: see pages 1 and 10

**Solenoid under voltage**

