

## NAFSA - ER SERIES

ER60-10/CT  
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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.

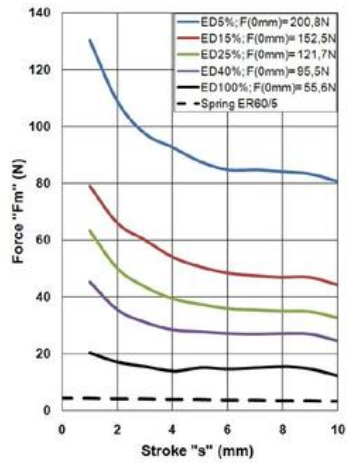
Many different standard versions are available (please see catalogue PDF below) and application specific designs can be provided for larger volume requirements.

### TECHNICAL DATA

Absorbed power @ 20°C, 100% duty	18 W
Absorbed power @ 20°C, 15% duty	110 W
Absorbed power @ 20°C, 25% duty	70 W
Absorbed power @ 20°C, 40% duty	45 W
Absorbed power @ 20°C, 5% duty	280 W
Beginning of stroke force at 100% duty	11.6 N
Beginning of stroke force at 15% duty	43.6 N
Beginning of stroke force at 25% duty	31.6 N
Beginning of stroke force at 40% duty	23.6 N
Beginning of stroke force at 5% duty	79.6 N
End of stroke force at 100% duty	55.1 N
End of stroke force at 15% duty	152.1 N
End of stroke force at 25% duty	121.3 N
End of stroke force at 40% duty	95.1 N

End of stroke force at 5% duty	200.4 N
Function	pull/push
Insulation class	B (130°C)
IP class	IP00
Spring return	Yes
Stroke	10 mm
Total weight	681 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%	x	o	o	o	o	o	o	o	o	7	230	48	230	
40%	x	o	o	o	o	o	o	x	o	11	230	125	230	
25%	x	x	o	o	o	o	o	x	o	13	230	200	230	
15%	x	x	o	o	o	o	o	x	x	16	230	x	x	
5%	x	x	o	o	o	o	o	x	x	24	230	x	x	

Layout: o = Available ; x = Unavailable

Solenoid under voltage

