

Dormeyer® AC Open Frame Solenoid Selection

AC actuated open frame solenoids are available in box frame and C frame design styles in a variety of models and sizes.

Models are available for continuous use and intermittent duty.

For higher force applications, consider an laminate solenoid.



Box Frame

This solenoid has a 4-sided closed box frame and solid plunger and is, therefore, more electrically efficient than the C Frame solenoid. The closed, box frame also provides improved mechanical strength.



C Frame

C Frame solenoids consist of a formed C-shaped steel frame and solid plunger. Therefore, these solenoids are less efficient and less costly than their Box Frame counterparts.

All catalog products manufactured after April 1, 2006 are RoHS Compliant

Size	Frame Type	Coil Type ⁽¹⁾	Height (inches)	Width (inches)	Length (inches)	Max. Stroke (inches)	Nominal Stroke (inches)	Typical Force (lbs)		Page
								Nominal Stroke and 100% Rated Voltage @ 100% Duty	25% Duty	
B4HD	Box	OM	1.63	1.45	2.18	1.00	0.50	1.3	5.0	13
B22	Box	OM	1.47	1.31	1.61	1.00	0.40	1.2	2.6	15
C8	C	OM	0.81	0.75	1.13	0.50	0.25	0.2	0.4	16

⁽¹⁾ OM = Overmolded; T = Taped

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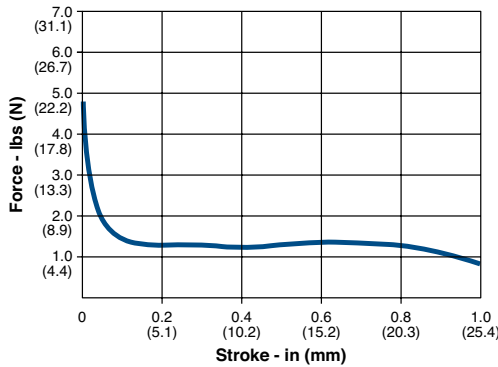
All specifications subject to change without notice.

Dormeyer® Box Frame Size B4HD — AC Operation

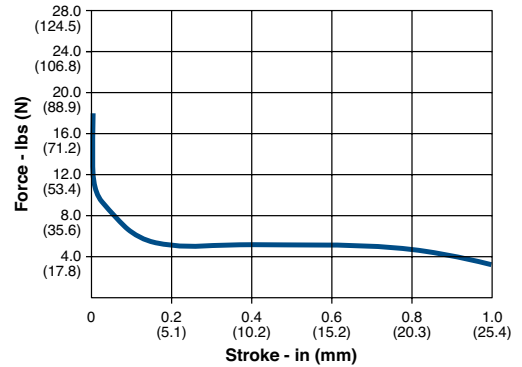
Specifications

Continuous Duty Cycle	100% at 20°C ambient temperature
Intermittent Duty Cycle	20% on time, 80% off time. On time not to exceed 3 min. at 20°C ambient temperature
Direction of Load Movement	Pull
Coil Insulation	Class "A": 105°C max. temperature standard. Other temperature classes are available
Coil Termination	3/16" QC
Plunger Weight	2.2 oz. (62.4 g)
Total Weight	12.5 oz. (354 g)
Dimensions	See page 18

AC Continuous Duty



AC Intermittent Duty



Duty Cycle	Continuous – 31 VA		Intermittent – 145 VA	
Model	B4HD-1-M-36	B4HD-2-M-36	B4HD-501-M-36	B4HD-502-M-36
Volts — 60Hz (50 Hz avail.)	120	240	120	240
Coil Resistance ± 10% (Ohms at 25°C)	73	320	19.3	78
Amps Seated ± 10%	0.155	0.075	1.146	0.580
Amps at 1/8" ± 10%	0.340	0.187	1.876	0.874
Amps at 1/4" ± 10%	0.460	0.269	2.370	1.147
Amps at 3/8" ± 10%	0.575	0.309	2.804	1.348
Amps at 1/2" ± 10%	0.690	0.381	3.221	1.552
Amps at 5/8" ± 10%	0.805	0.412	3.566	1.729
Amps at 3/4" ± 10%	0.910	0.467	3.875	1.928
Amps at 7/8" ± 10%	1.000	0.517	4.085	2.033
Amps at 1" ± 10%	1.050	0.558	4.214	2.119

NOTES:

1. All data is typical.
2. Force testing is done with the solenoid in the horizontal position.
3. All data reflects operation with no heatsink.
4. Other coil terminations available.
5. 230V/50 Hz models are also available. Please contact us for ordering information.
6. All specifications subject to change without notice.

How to Order

Select the part number from the table provided. (For example, to order a continuous duty cycle unit rated at 120 VAC, specify B4HD-1-M-36.

Please see www.dormeyer-solenoids.com (click on Stock Products tab) for our list of stock products available through our distributors.

Dormeyer® Box Frame Size B22 — AC Operation

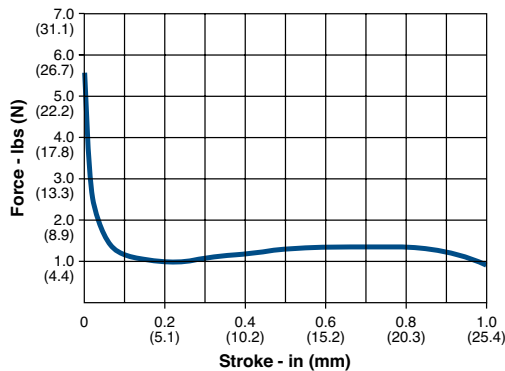
Specifications

Continuous Duty Cycle 100% at 20°C ambient temperature
 Intermittent Duty Cycle 20% on time, 80% off time. On time not to exceed 3 min. at 20°C ambient temperature

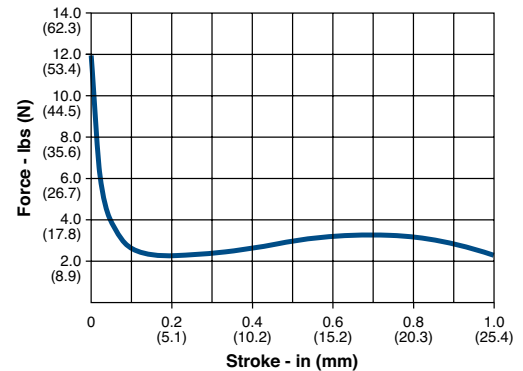
Direction of Load Movement Pull
 Coil Insulation Class "A": 105°C max. temperature standard. Other temperature classes are available
 Coil Termination 3/16" QC
 Plunger Weight 1.5 oz. (42.5 g)
 Total Weight 8.0 oz. (227 g)
 Dimensions See page 19

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AC Continuous Duty



AC Intermittent Duty



Duty Cycle	Continuous – 12 VA		Intermittent – 40 VA	
Model	B22-1-M-36	B22-2-M-36	B22-501-M-36	B22-502-M-36
Volts — 60Hz (50 Hz avail.)	120	240	120	240
Coil Resistance ± 10% (Ohms at 25°C)	107	433	40.5	163
Amps Seated ± 10%	0.162	0.090	0.548	0.357
Amps at 1/8" ± 10%	0.322	0.220	0.920	0.528
Amps at 1/4" ± 10%	0.417	0.247	1.135	0.625
Amps at 3/8" ± 10%	0.492	0.308	1.365	0.735
Amps at 1/2" ± 10%	0.603	0.368	1.593	0.872
Amps at 5/8" ± 10%	0.697	0.403	1.835	1.007
Amps at 3/4" ± 10%	0.793	0.438	2.077	1.128
Amps at 7/8" ± 10%	0.870	0.482	2.267	1.227
Amps at 1" ± 10%	0.925	0.523	2.405	1.283

NOTES:

- All data is typical.
- Force testing is done with the solenoid in the horizontal position.
- All data reflects operation with no heatsink.
- Other coil terminations available.
- 230V/50 Hz models are also available. Please contact us for ordering information.
- All specifications subject to change without notice.

How to Order

Select the part number from the table provided. (For example, to order a continuous duty cycle unit rated at 120 VAC, specify B22-1-M-36.

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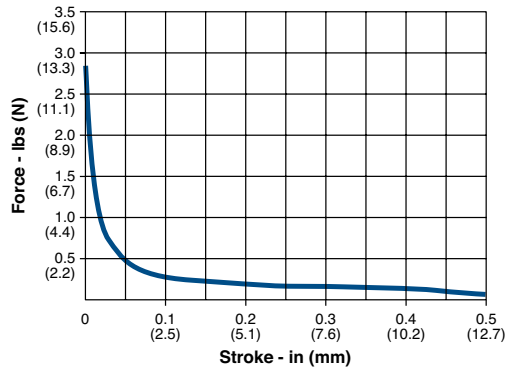
Dormeyer® C Frame Size C8 — AC Operation

Specifications

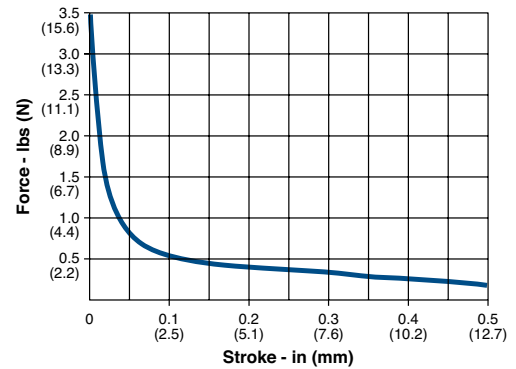
Continuous Duty Cycle	100% at 20°C ambient temperature
Intermittent Duty Cycle	20% on time, 80% off time. On time not to exceed 3 min. at 20°C ambient temperature
Direction of Load Movement	Pull
Coil Insulation	Class "A": 105°C max. temperature standard. Other temperature classes are available
Coil Termination	3/16" QC
Plunger Weight	0.4 oz. (11.3 g)
Total Weight	1.7 oz. (48.2 g)
Dimensions	See page 20

All catalog products manufactured after April 1, 2006 are RoHS Compliant

AC Continuous Duty



AC Intermittent Duty



Duty Cycle	Continuous – 6.5 VA		Intermittent – 19 VA	
Model	C8-19-M-36	C8-20-M-36	C8-519-M-36	C8-520-M-36
Volts — 60Hz (50 Hz avail.)	120	240	120	240
Coil Resistance ± 10% (Ohms at 25°C)	840	3739	500	2010
Amps Seated ± 10%	0.0512	0.029	0.112	0.056
Amps at 1/8" ± 10%	0.102	0.502	0.122	0.089
Amps at 1/4" ± 10%	0.117	0.572	0.135	0.101
Amps at 3/8" ± 10%	0.126	0.613	0.143	0.109
Amps at 1/2" ± 10%	0.130	0.637	0.146	0.112

NOTES:

- All data is typical.
- Force testing is done with the solenoid in the horizontal position.
- All data reflects operation with no heatsink.
- Other coil terminations available.
- 230V/50 Hz models are also available. Please contact us for ordering information.
- All specifications subject to change without notice.

How to Order

Select the part number from the table provided. (For example, to order a continuous duty cycle unit rated at 120 VAC, specify C8-19-M-36.

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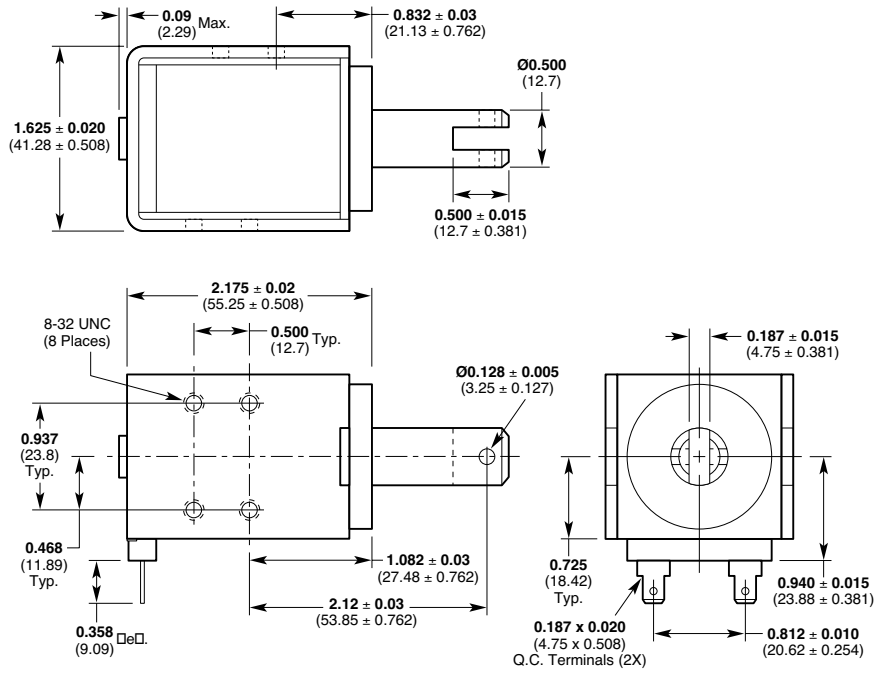
Dormeyer® Box Frame Dimensions

Inches (mm)

All solenoids are illustrated in energized state

NOTE: Many other metric and American standard threads are available.

B4HD



All specifications subject to change without notice.

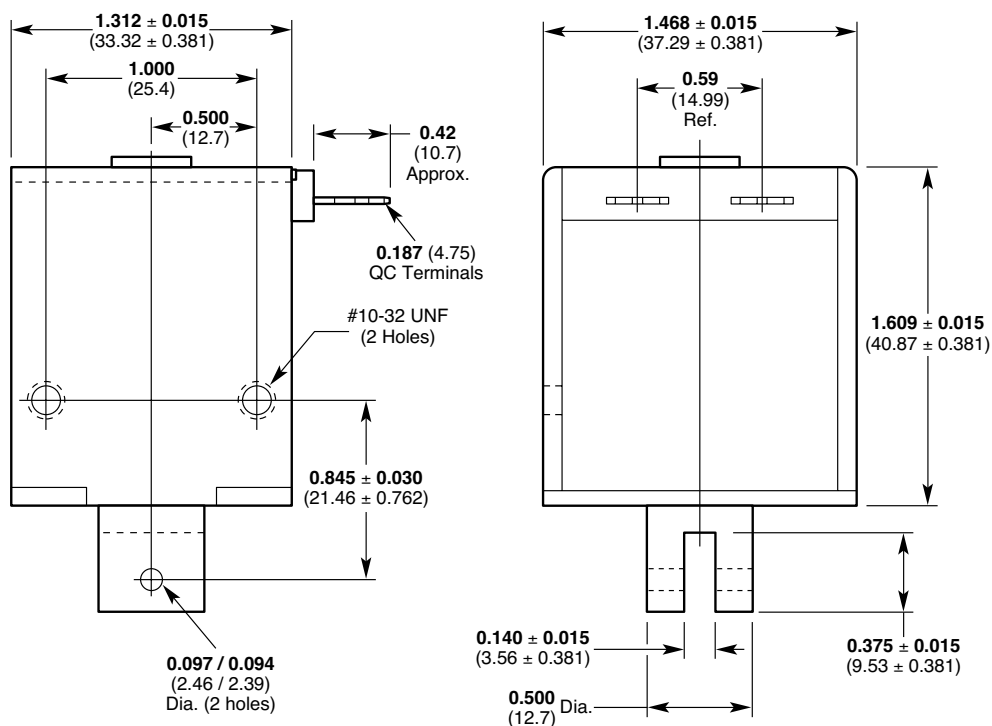
Dormeyer® Box Frame Dimensions

Inches (mm)

All solenoids are illustrated in energized state

NOTE: Many other metric and American standard threads are available.

B22



All specifications subject to change without notice.

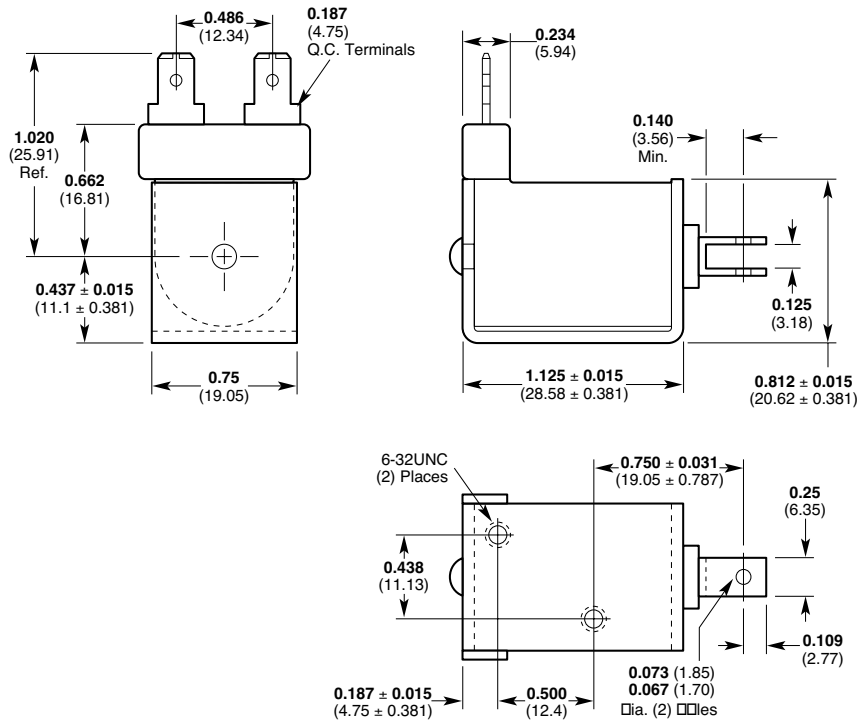
Dormeyer® C Frame Dimensions

Inches (mm)

All solenoids are illustrated in energized state

NOTE: Many other metric and American standard threads are available.

C8



All specifications subject to change without notice.