

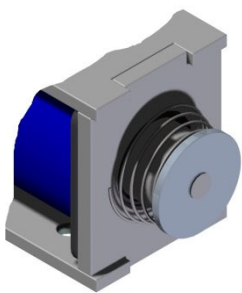
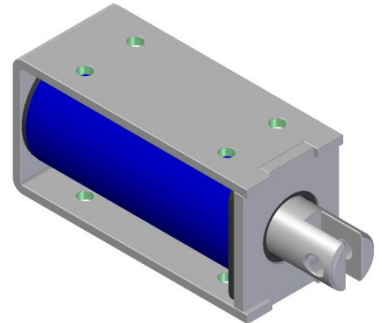
OPEN FRAME SOLENOIDS



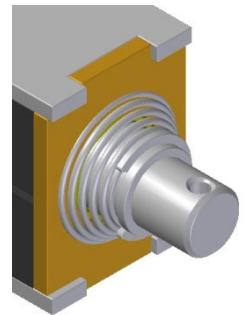
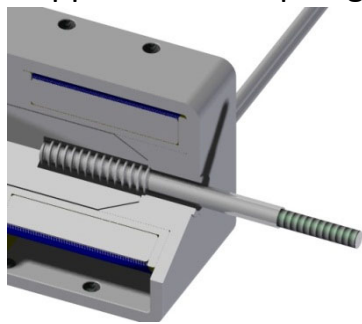
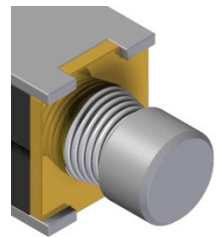


Open Frame Solenoid Modification

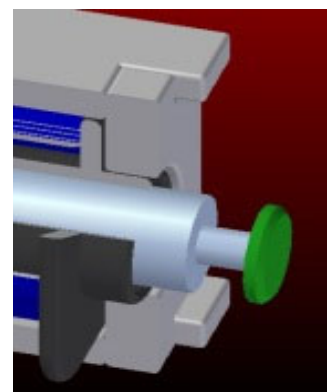
The standard configuration for most open-frame solenoids is pull configuration with a clevis connection to plunger (a slot with cross-hole running through this at 90 deg). Smaller solenoids may have just a cross-hole in the plunger. The solenoid is mounted with threaded holes in one or more of the flat sides. The plunger of the open frame solenoid is normally allowed to close fully against the pole piece, so some degree of residual magnetism is commonly seen. Solenoids are normally drawn & dimensioned in the energised position (with plunger fully retracted into the body). It should be noted that the construction of open-frame solenoids is suited to high-volume production, and modification may add substantially to pricing in small (typically <5k for these parts) volume.



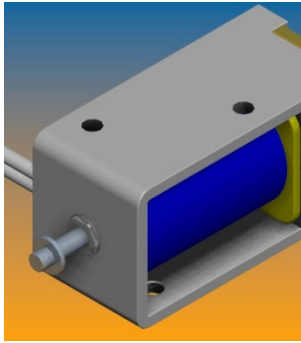
Spring - Addition of a return spring is a common modification, these can be fitted in many different ways either externally or internally. External springs can be secured with a staked disc, springs can also be secured with an e-ring, shoulder machined on plunger, or fitted in a groove machined in plunger. Conical springs can have shorter compressed length, and help prevent end of the spring getting trapped between plunger and sleeve, straight springs may require a stepped washer to control end position. Springs fitted internally will reduce the cross-section of the plunger and force developed by the solenoid. Where springs are required the spring force should be specified at the 0mm (energised), and at a specified extension position.



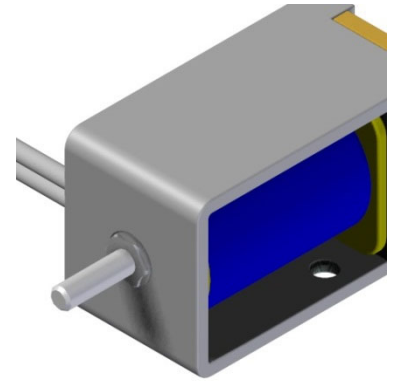
Plunger Modification - Modification of the plunger attachment is also common. This may be to incorporate threaded hole, e-ring groove, stop washer to avoid residual magnetism. The simplest and cheapest termination in high volume is probably a simple turned groove.



Pushrod – A pushrod may be added to the solenoid either as an interface to the load, or to provide a means of limiting



displacement. It should be noted that fitting a pushrod requires removal of material from the plunger and endstop, and will generally lead to a reduction in the achievable force when energised. When used as a stop, the stroke may be limited by fitting an E-ring, nuts, or by other means.



Coil Modification – The coil winding of a solenoid may be modified to optimise for available supply voltage and required duty cycle (ED). It should be noted that coils wound for lower voltage operation use thicker wire and less turns, these are faster to wind and more robust, and in higher volumes may be significantly cheaper. Less common winding modifications involve addition of a diode to clamp ‘back-emf’ spikes, or use of different leadwires to suit a particular connector style.

Connectors – In the manufacture of coils for open-frame solenoids, the flexible leadwires are usually terminated manually to the coil wire after winding. Where connectors are required, it may be more cost-effective to terminate the connector to leadwire automatically before this is terminated to the coil, than to fit the connector to the completed solenoid.

Frame / Mounting Holes – Changes to the frame / mounting hole size and position usually requires tooling. For samples / small volume it may be possible to produce by laser cutting / machining but this is a fairly expensive process. We would generally advise that quantity >10k per annum is required to consider modifications to the solenoid frame.

**GEEPLUS**

Open Frame Solenoid RD-A420

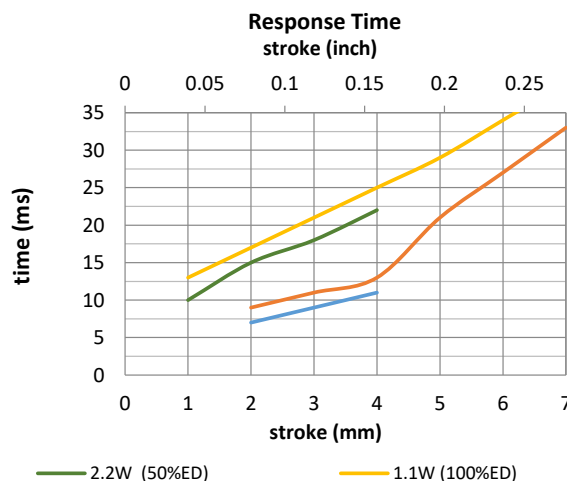
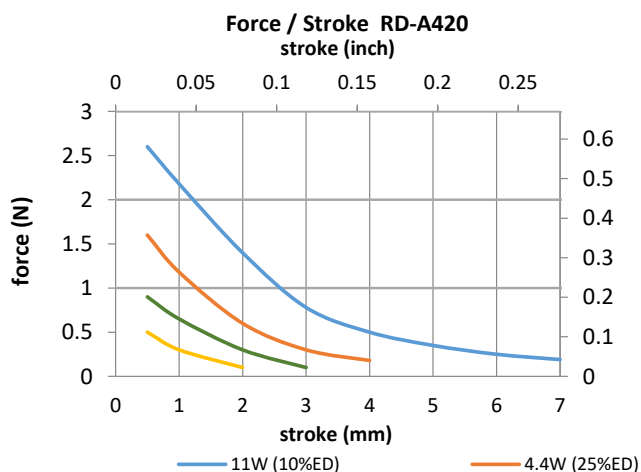
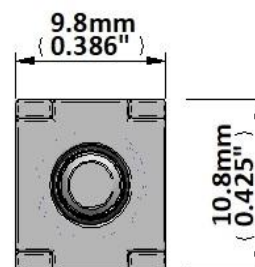
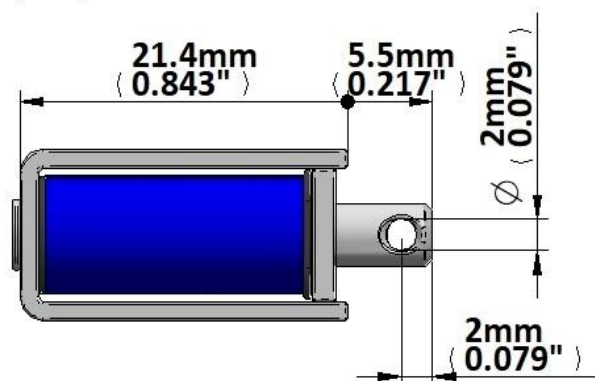
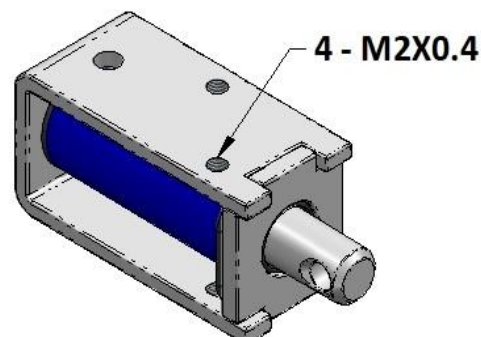
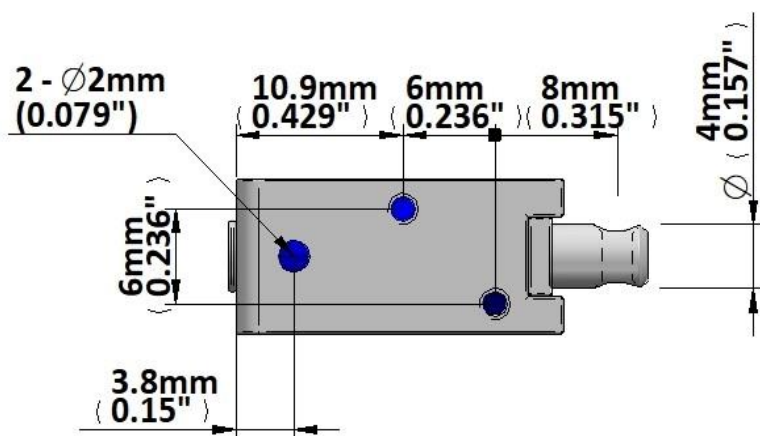
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1571, 26AWG, 310mm±10

Plunger Mass 2 grammes

Total Mass 12 grammes



Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds		∞	155	38	14
watts at 20°C		1.1	2.2	4.4	11
ampere-turns at 20°					

AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-A420-6v	32.7		6.0	8.5	12.0	19.0
RD-A420-12v	131		12.0	17.0	24.0	38.0
RD-A420-24v	524		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

Geeplus reserves the right to change specifications without notice

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Open Frame Solenoid RD-B425

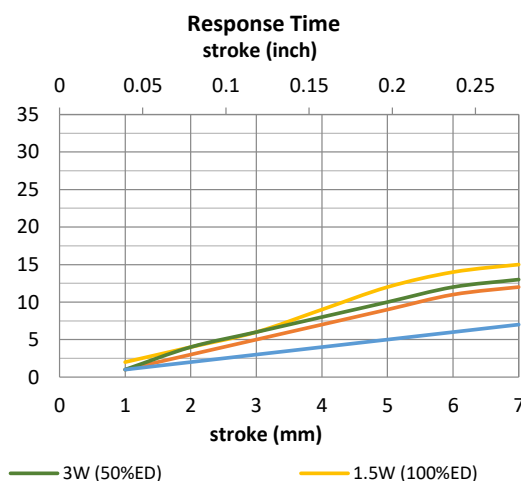
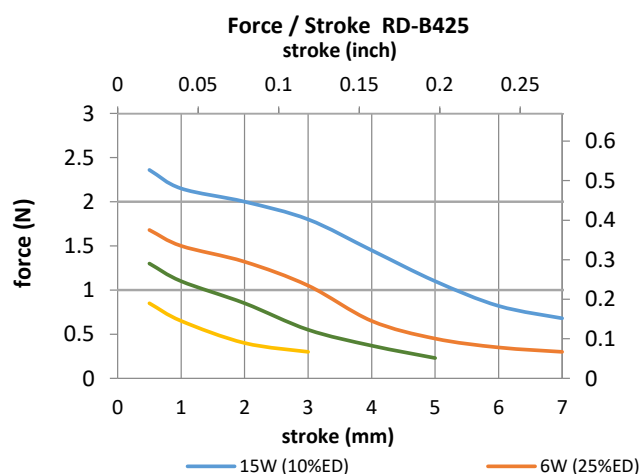
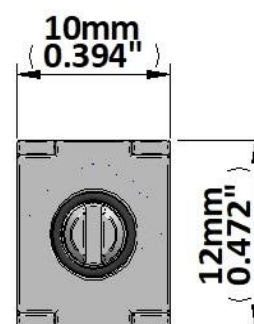
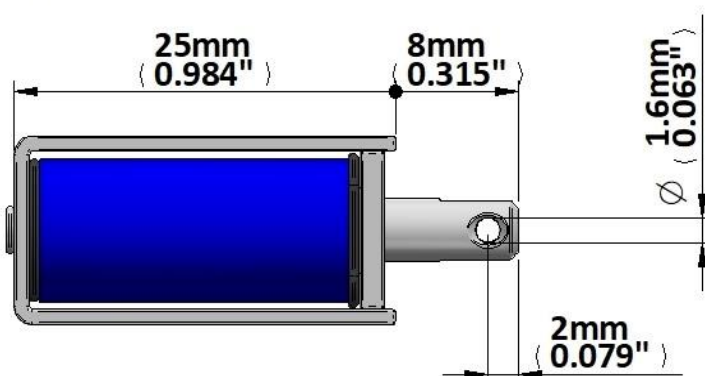
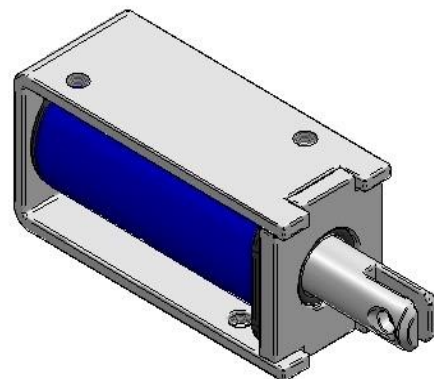
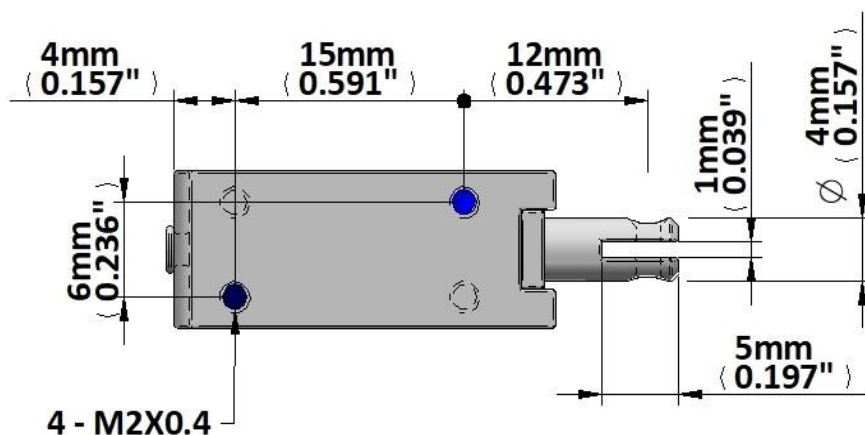
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1571, 26AWG, 300mm

Plunger Mass 3 grammes

Total Mass 16 grammes



Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink						
duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less	
Max. "on" time in seconds		∞	185	65	18	
watts at 20°C		1.5	3.0	6.0	15.0	
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-B425-6v	24		6.0	8.5	12.0	19.0
RD-B425-12v	96		12.0	17.0	24.0	38.0
RD-B425-24v	384		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

Geeplus reserves the right to change specifications without notice

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Open Frame Solenoid RD-A520

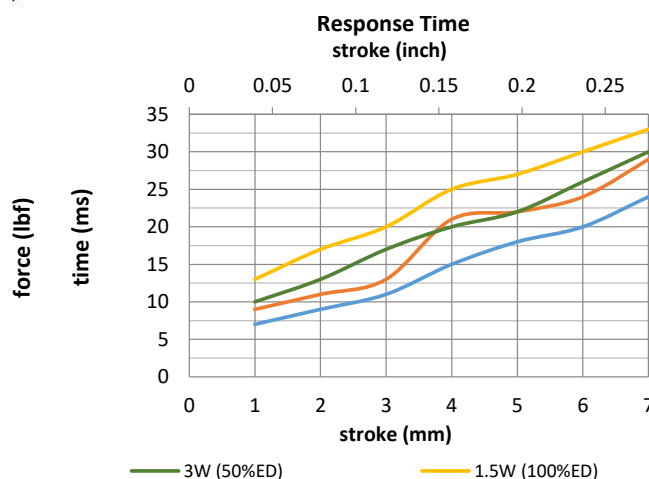
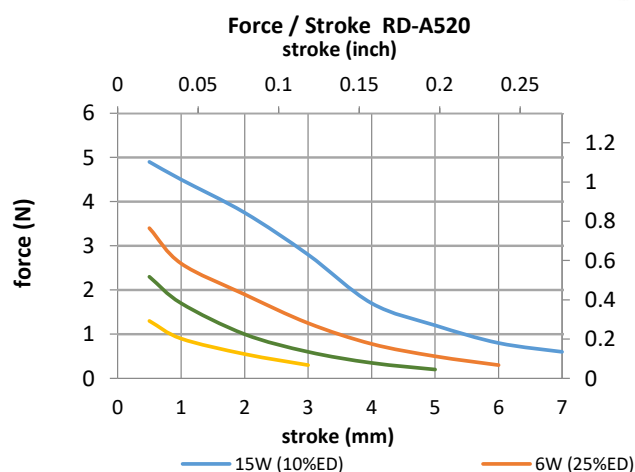
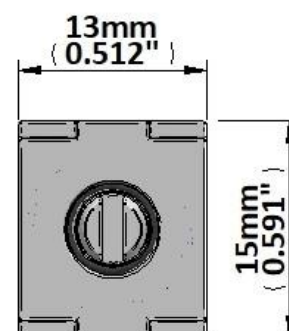
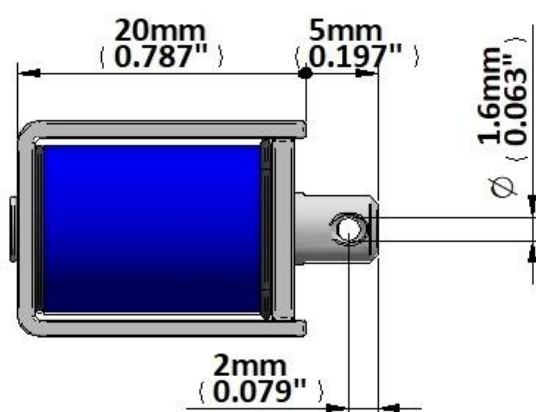
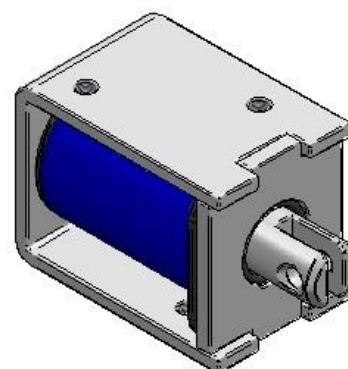
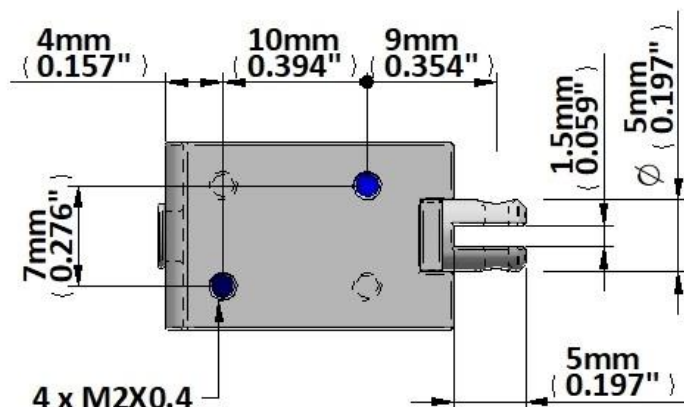
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 310mm

Plunger Mass 3 grammes

Total Mass 20 grammes



Data at 20°C, device performance measured without heat sink

Data at 20 °C , device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less	
Max. "on" time in seconds		∞	239	83	21	
watts at 20°C		1.5	3.0	6.0	15.0	
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-A520-6v	24		6.0	8.5	12.0	19.0
RD-A620-12v	96		12.0	17.0	24.0	38.0
RD-A520-24v	384		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid RD-U617

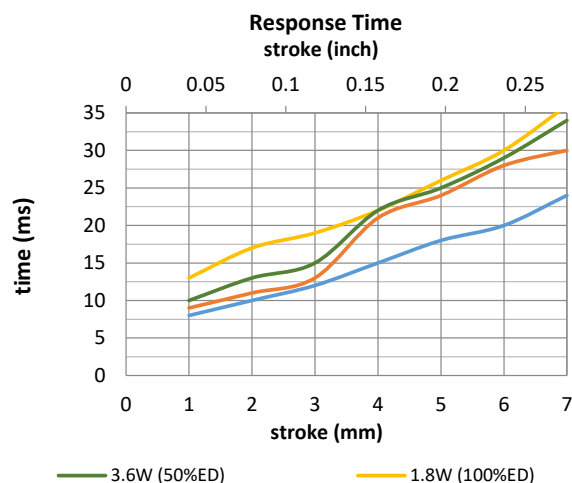
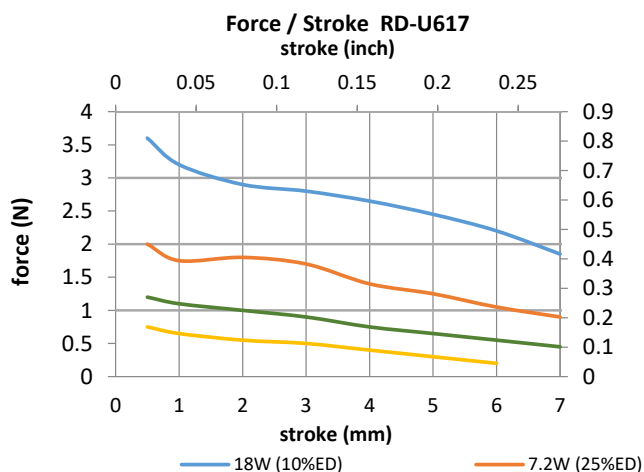
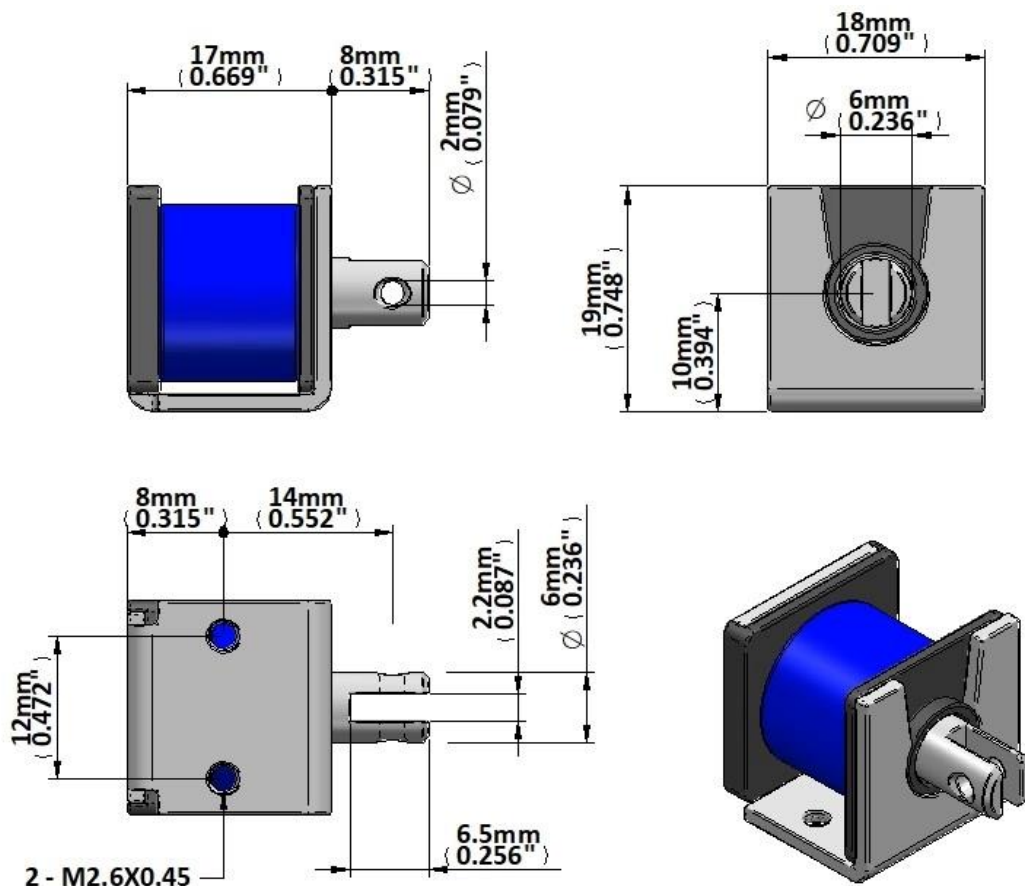
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 310mm

Plunger Mass 4 grammes

Total Mass 25 grammes



Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds		∞	256	85	24
watts at 20°C		1.8	3.6	7.2	18.0
ampere-turns at 20°					

AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-U617-6v	20		6.0	8.5	12.0	19.0
RD-U617-12v	80		12.0	17.0	24.0	38.0
RD-U617-24v	320		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid RD-S622

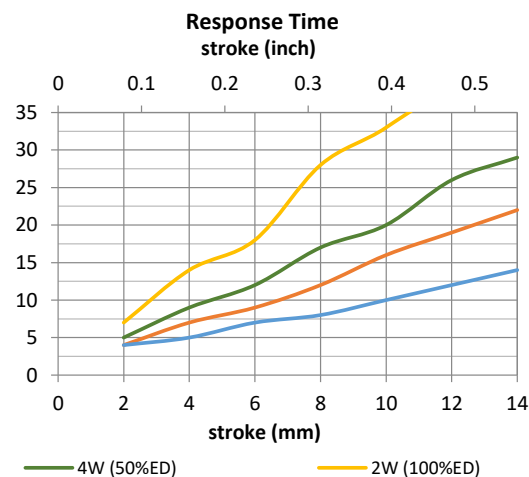
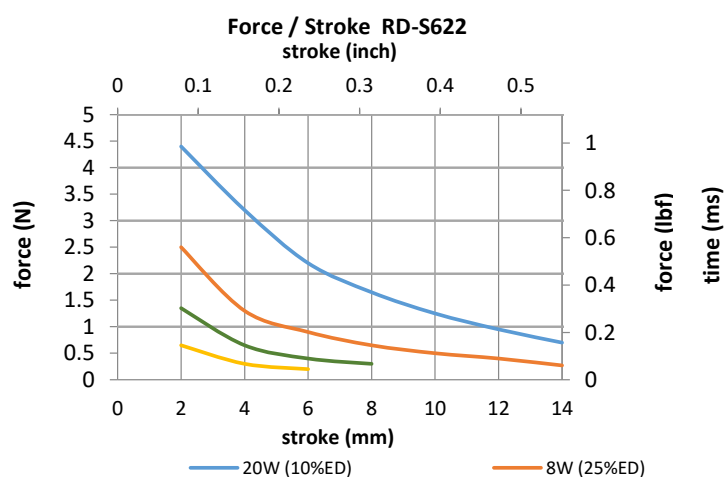
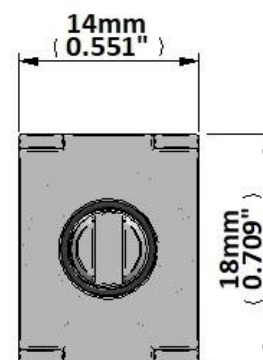
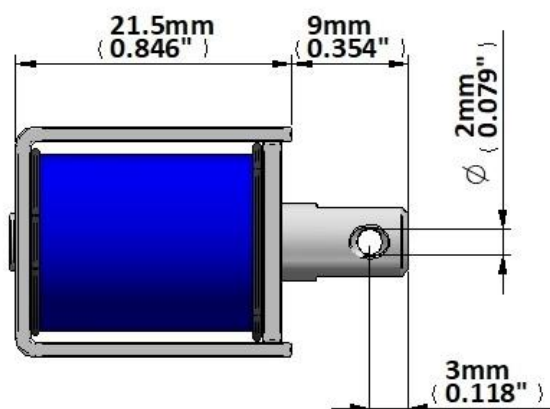
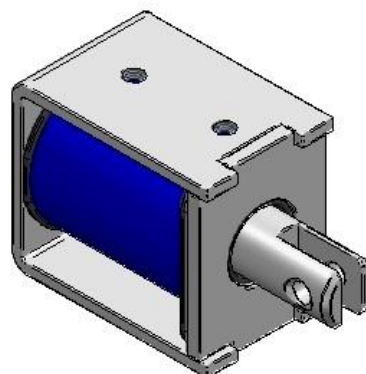
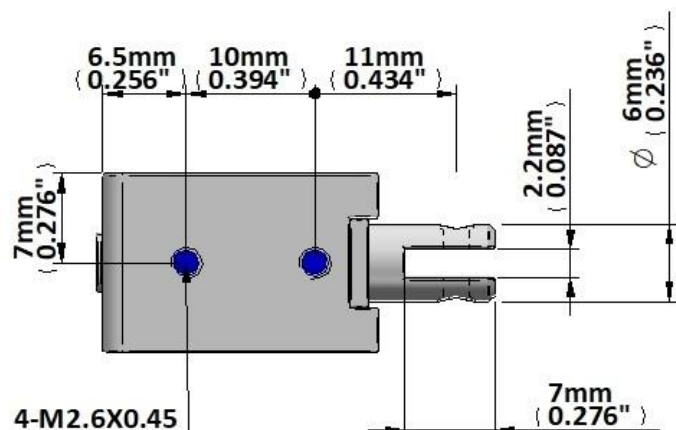
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 300mm

Plunger Mass 6 grammes

Total Mass 26 grammes



Data at 20°C, device performance measured without heat sink

Data at 20 °C , device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less	
Max. "on" time in seconds		∞	168	59	16	
watts at 20°C		2.0	4.0	8.0	20.0	
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-S622-6v	18		6.0	8.5	12.0	19.0
RD-S622-12v	72		12.0	17.0	24.0	38.0
RD-S622-24v	288		24.0	34.0	48.0	76.0

Insulation Resistance >100M Ω , 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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**GEEPLUS**

Open Frame Solenoid RD-A622

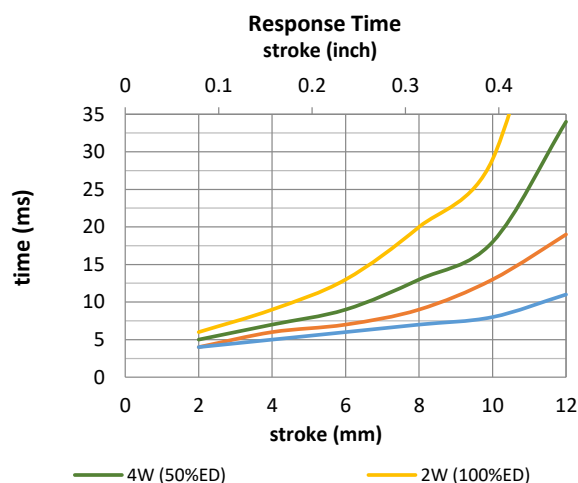
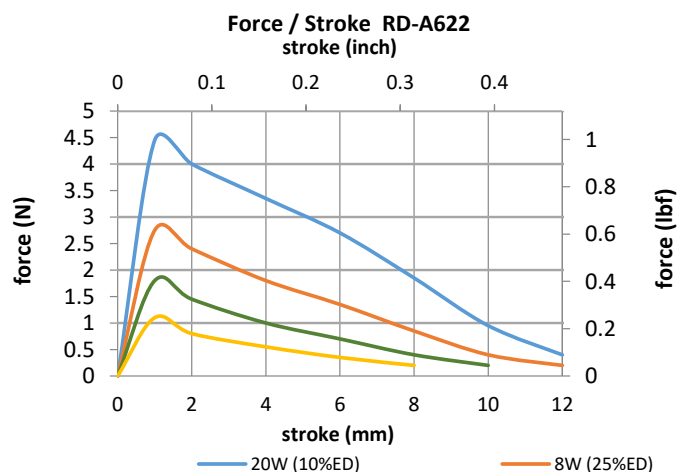
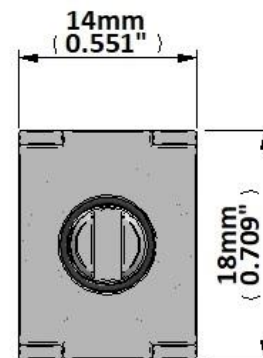
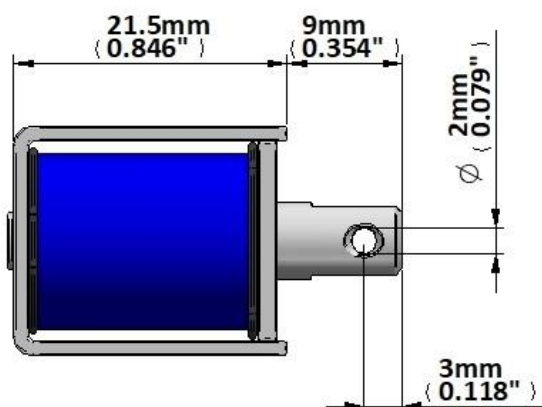
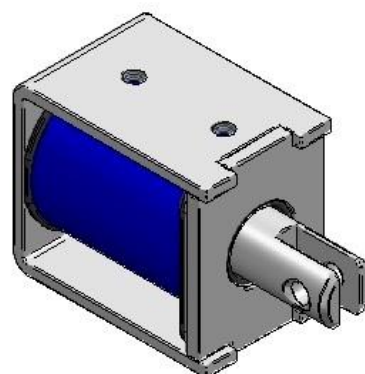
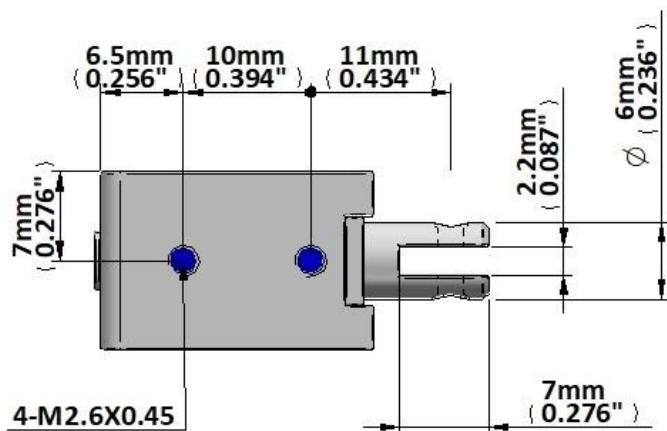
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 300mm

Plunger Mass 5 grammes

Total Mass 26 grammes



Data at 20°C, device performance measured without heat sink

Data at 20 °C , device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less	
Max. "on" time in seconds		∞	168	59	16	
watts at 20°C		2.0	4.0	8.0	20.0	
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-A622-6v	18		6.0	8.5	12.0	19.0
RD-A622-12v	72		12.0	17.0	24.0	38.0
RD-A622-24v	288		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

Geeplus reserves the right to change specifications without notice

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Open Frame Solenoid RD-A625

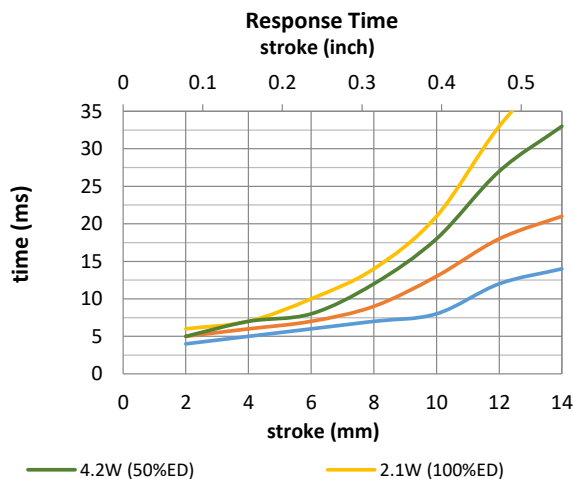
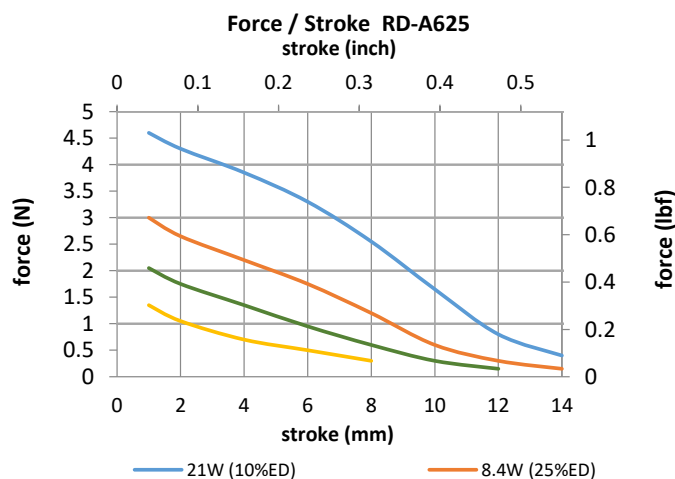
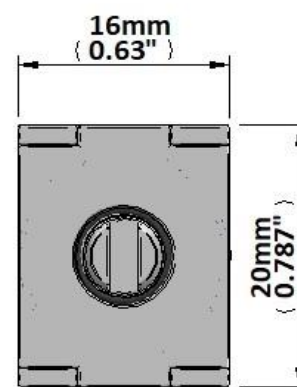
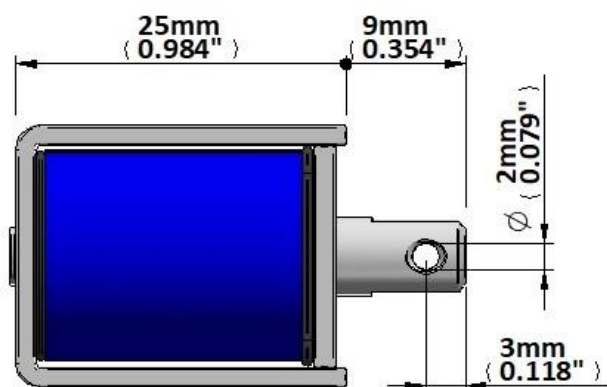
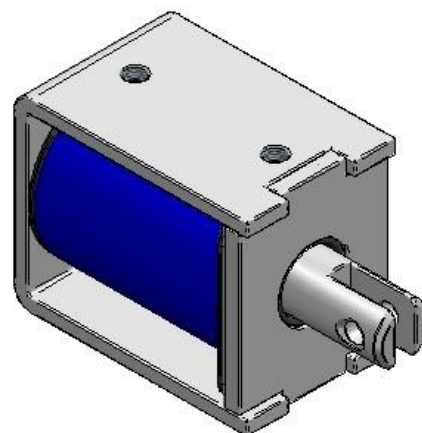
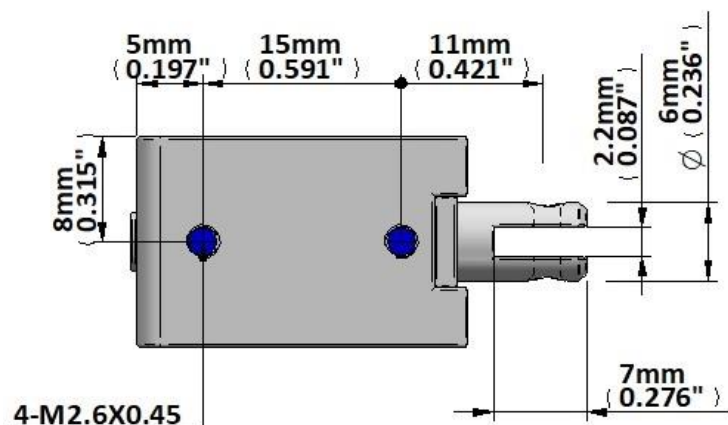
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 300mm

Plunger Mass 5 grammes

Total Mass 39 grammes



Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds		∞	310	100	27
watts at 20°C		2.1	4.2	8.4	21.0
ampere-turns at 20°					
AWG no.	resistance Ω±10% (at 20°C)	number of turns	volts DC		
RD-A625-6v	17.1		6.0	8.5	12.0
RD-A625-12v	68.6		12.0	17.0	24.0
RD-A625-24v	274		24.0	34.0	48.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

Geeplus reserves the right to change specifications without notice

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**GEEPLUS**

Open Frame Solenoid RD-A628

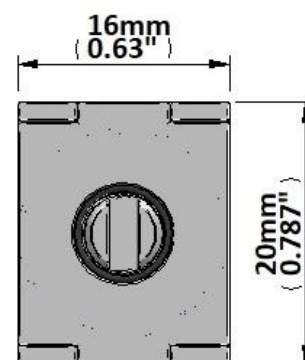
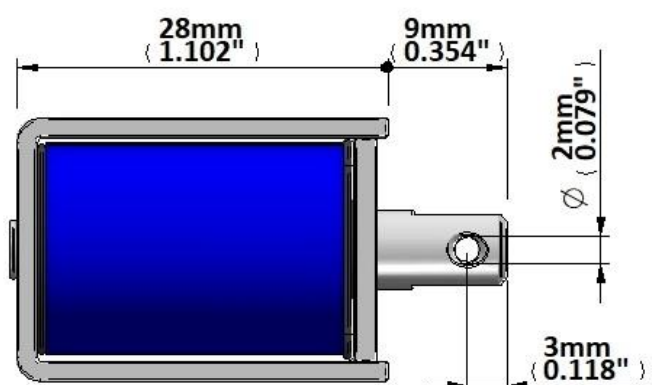
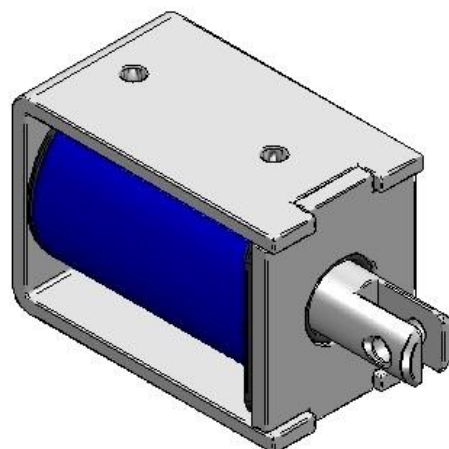
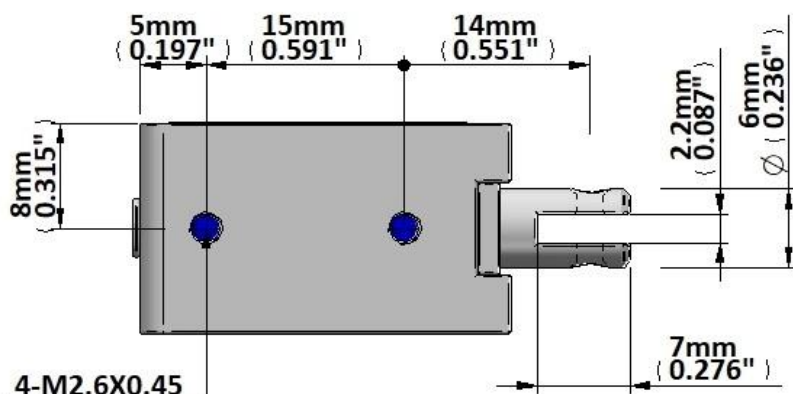
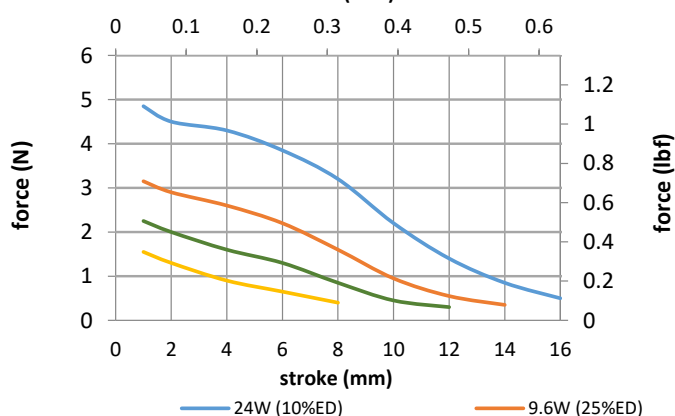
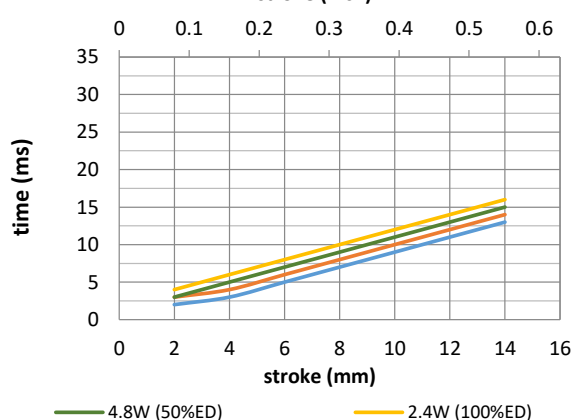
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 300mm

Plunger Mass 6 grammes

Total Mass 43 grammes

**Force / Stroke RD-A628**
stroke (inch)**Response Time**
stroke (inch)

Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink						
duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less	
Max. "on" time in seconds		∞	319	109	23	
watts at 20°C		2.4	4.8	9.6	24.0	
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-A628-6v	15		6.0	8.5	12.0	19.0
RD-A628-12v	60		12.0	17.0	24.0	38.0
RD-A628-24v	240		24.0	34.0	48.0	76.0

Insulation Resistance >100M Ω , 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

Geeplus reserves the right to change specifications without notice

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**GEEPLUS**

Open Frame Solenoid RD-B630

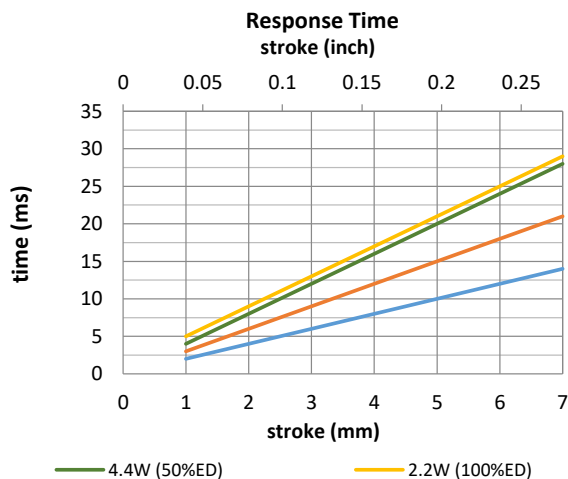
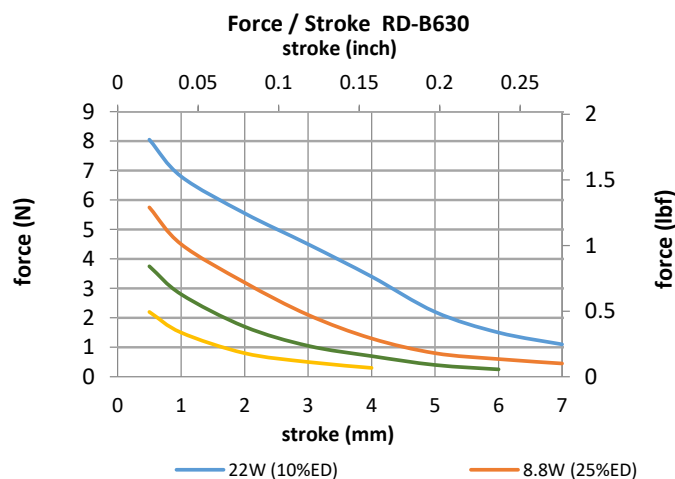
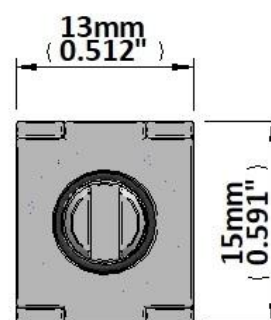
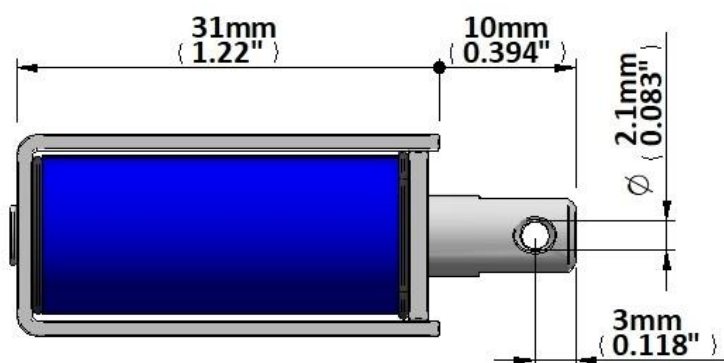
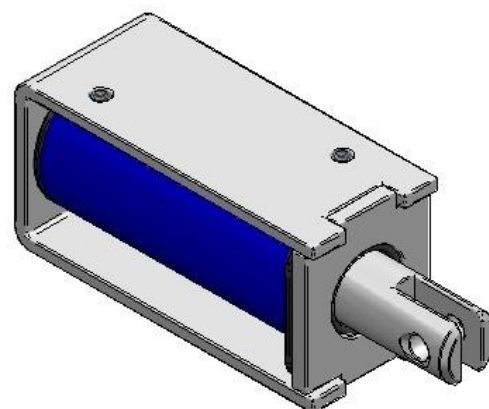
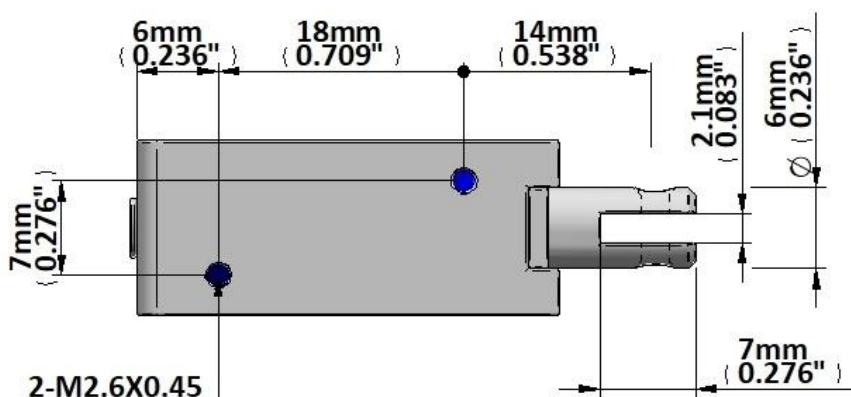
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 300mm

Plunger Mass 6 grammes

Total Mass 29 grammes



Data at 20°C, device performance measured without heat sink

Data at 20 °C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less	
Max. "on" time in seconds		∞	233	82	20	
watts at 20°C		2.2	4.4	8.8	22.0	
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-B630-6v	15		6.0	8.5	12.0	19.0
RD-B630-12v	60		12.0	17.0	24.0	38.0
RD-B630-24v	240		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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**GEEPLUS**

Open Frame Solenoid RD-U630

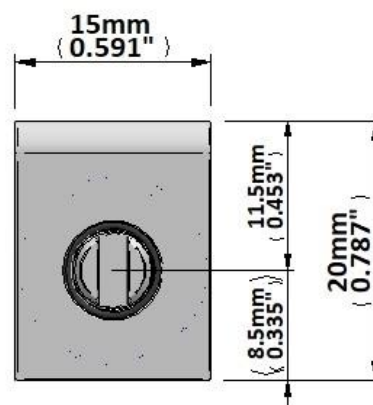
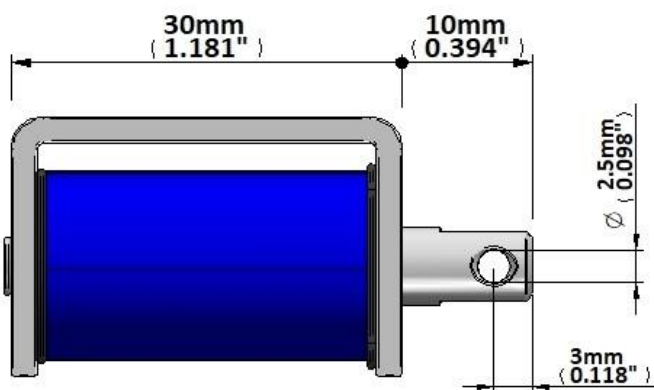
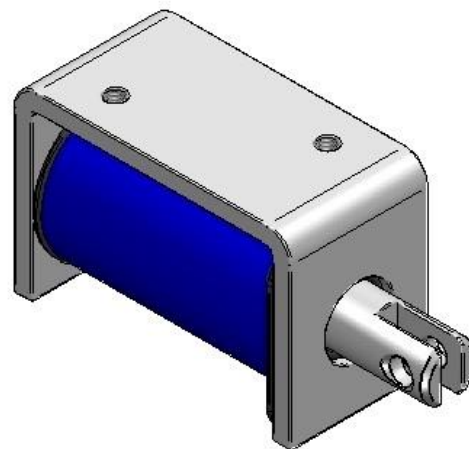
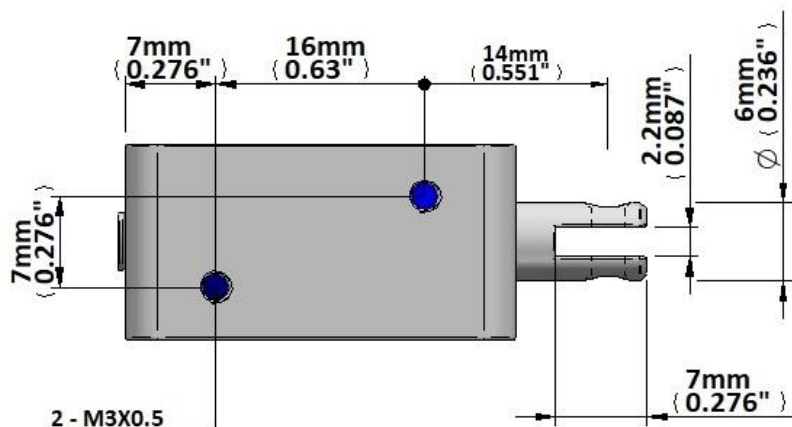
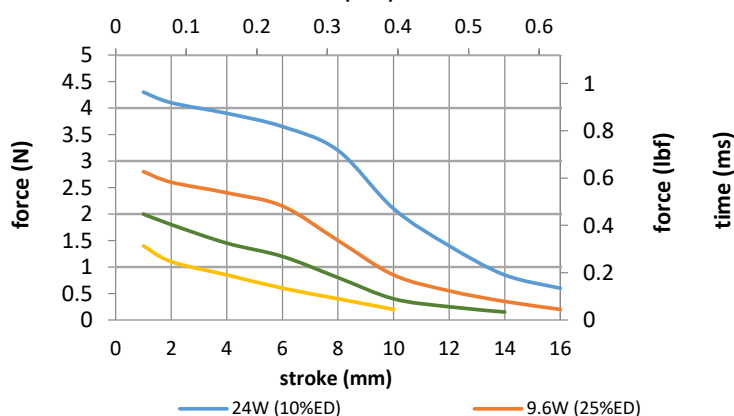
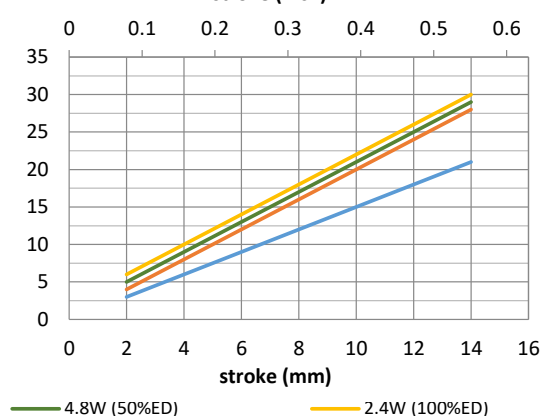
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 300mm

Plunger Mass 6 grammes

Total Mass 42 grammes

**Force / Stroke RD-U630**
stroke (inch)**Response Time**
stroke (inch)

Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink						
duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less	
Max. "on" time in seconds		∞	322	103	30	
watts at 20°C		2.4	4.8	9.6	24.0	
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-U630-6v	15		6.0	8.5	12.0	19.0
RD-U630-12v	60		12.0	17.0	24.0	38.0
RD-U630-24v	240		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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**GEEPLUS**

Open Frame Solenoid RD-U640

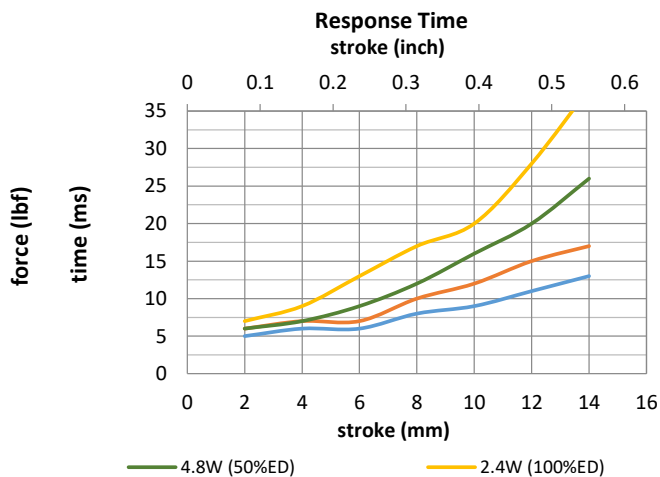
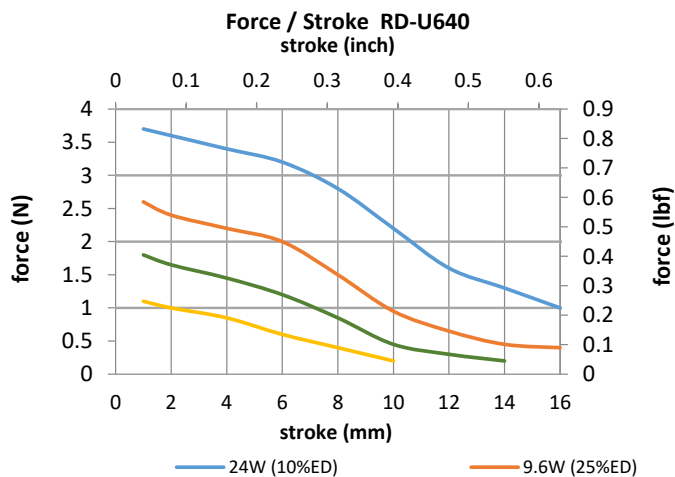
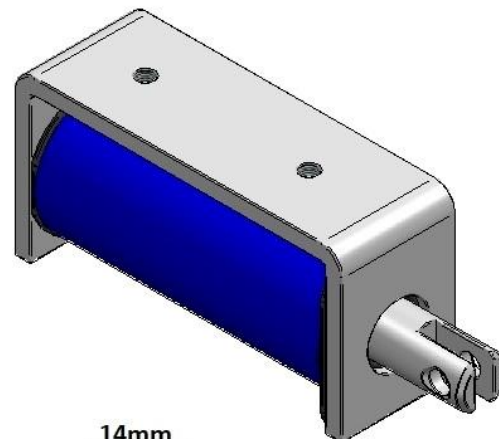
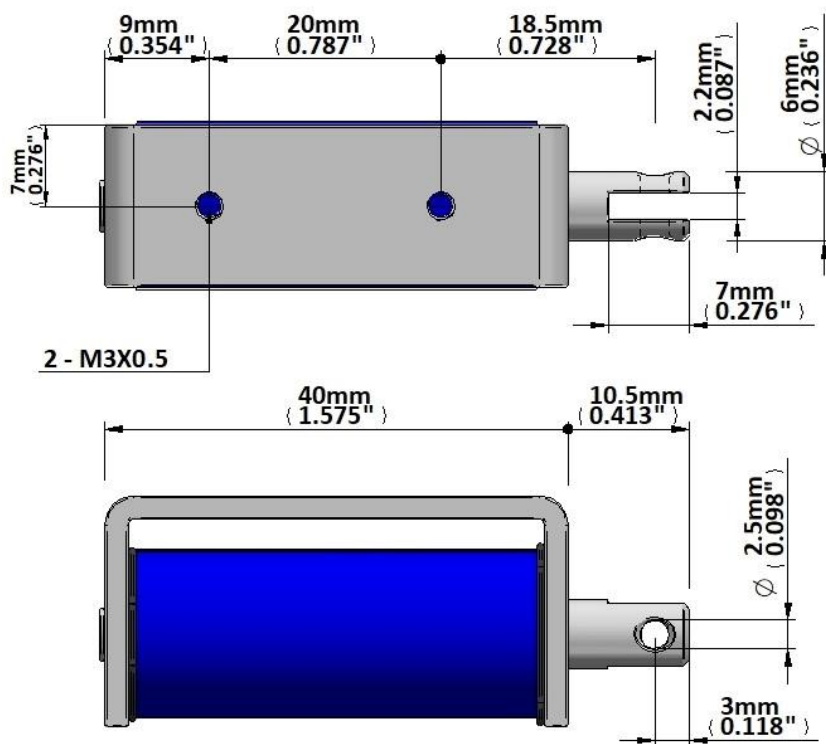
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 300mm

Plunger Mass 8 grammes

Total Mass 44 grammes



Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds		∞	363	111	30
watts at 20°C		2.4	4.8	9.6	24.0
ampere-turns at 20°					

AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-U640-6v	15		6.0	8.5	12.0	19.0
RD-U640-12v	60		12.0	17.0	24.0	38.0
RD-U640-24v	240		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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**GEEPLUS**

Open Frame Solenoid RD-A730

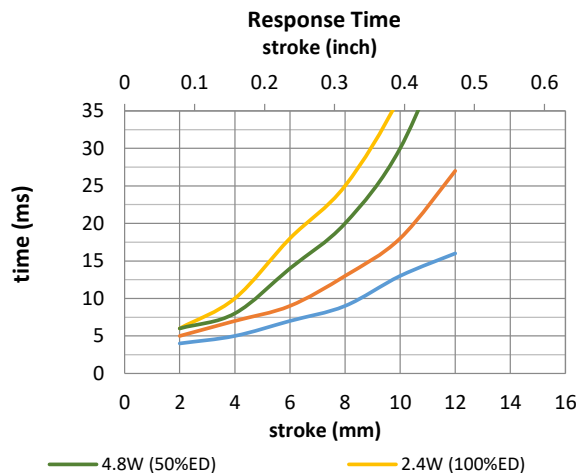
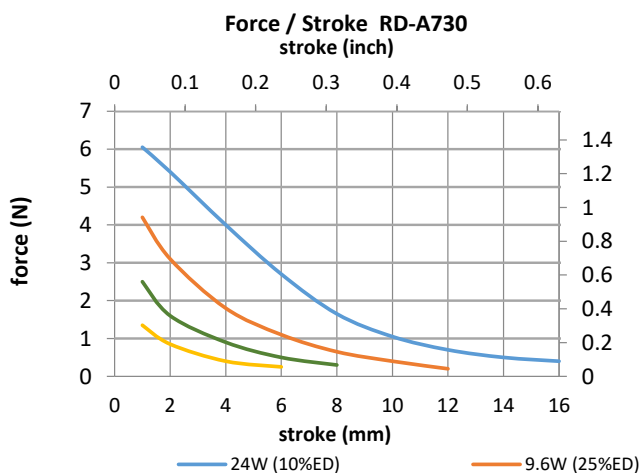
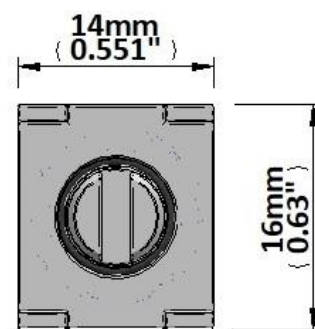
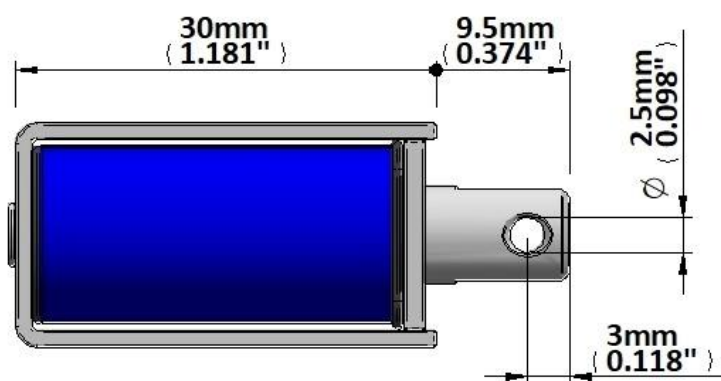
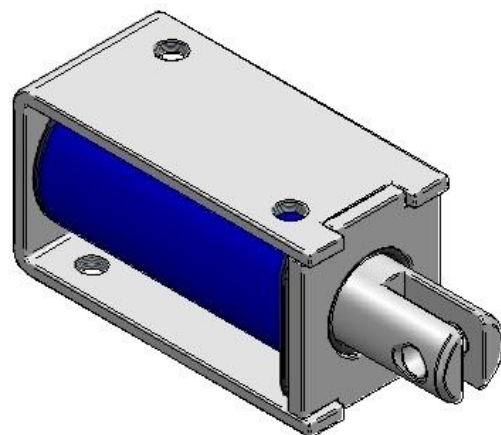
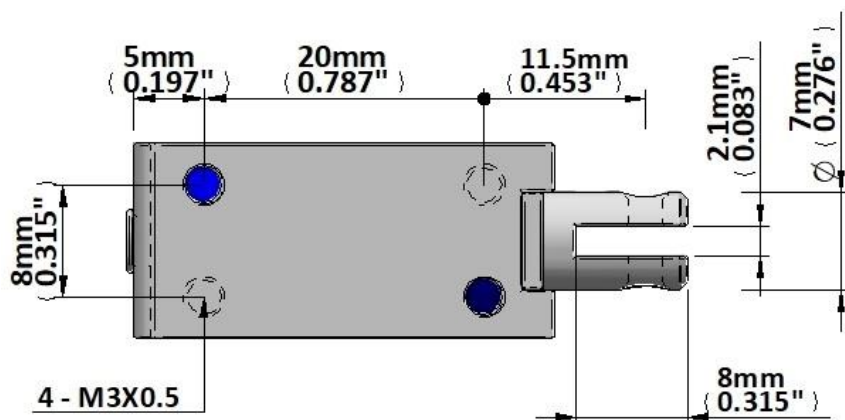
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 300mm

Plunger Mass 9 grammes

Total Mass 32 grammes



Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink						
duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	264	85	19
watts at 20°C			2.2	4.4	8.8	22.0
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-A730-6v	16		6.0	8.5	12.0	19.0
RD-A730-12v	66		12.0	17.0	24.0	38.0
RD-A730-24v	262		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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**GEEPLUS**

Open Frame Solenoid RD-A732

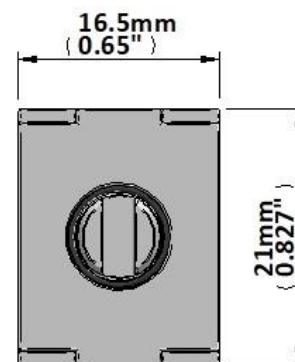
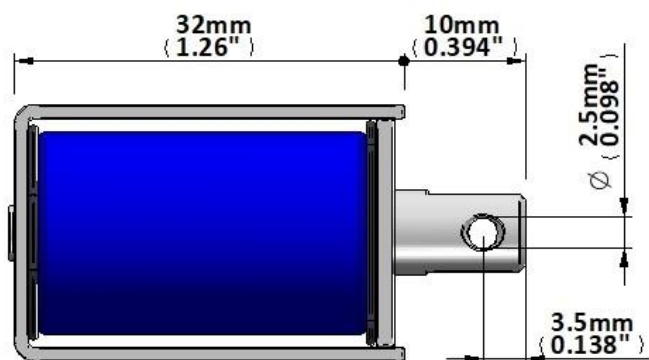
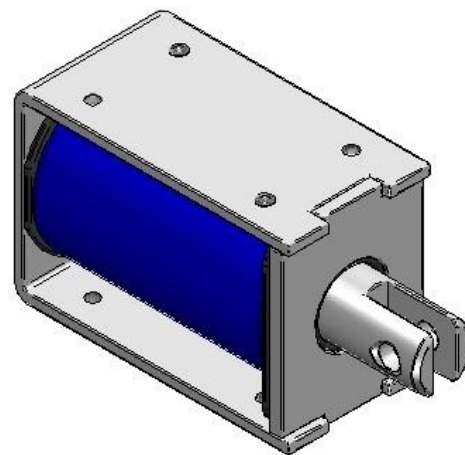
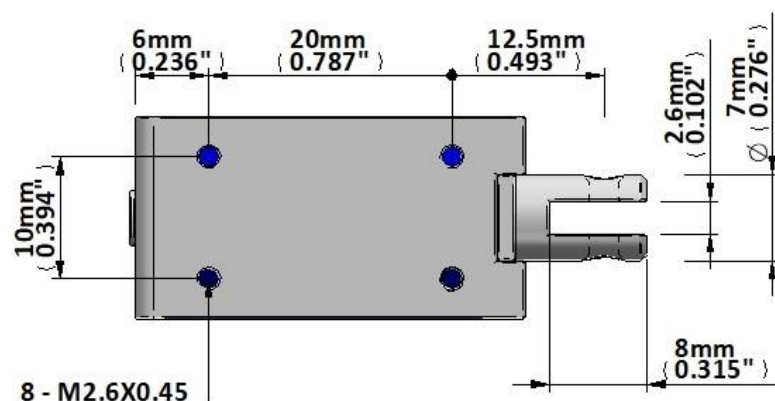
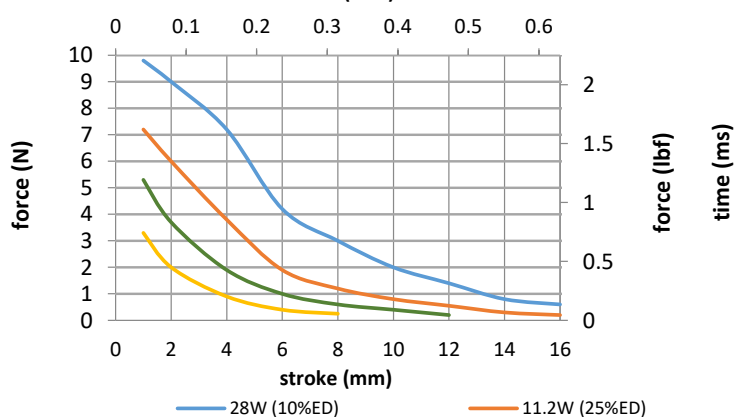
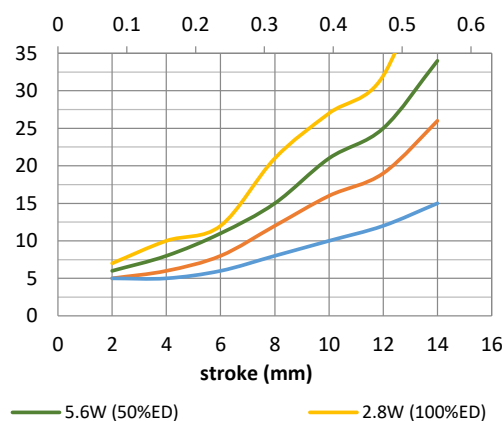
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 300mm

Plunger Mass 9 grammes

Total Mass 53 grammes

**Force / Stroke RD-A732**
stroke (inch)**Response Time**
stroke (inch)

Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds		∞	309	100	28
watts at 20°C		2.8	5.6	11.2	28.0
ampere-turns at 20°					
AWG no.	resistance Ω±10% (at 20°C)	number of turns	volts DC		
RD-A732-6v	12.9		6.0	8.5	12.0
RD-A732-12v	51.4		12.0	17.0	24.0
RD-A732-24v	206		24.0	34.0	48.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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**GEEPLUS****Open Frame Solenoid RD-A840**

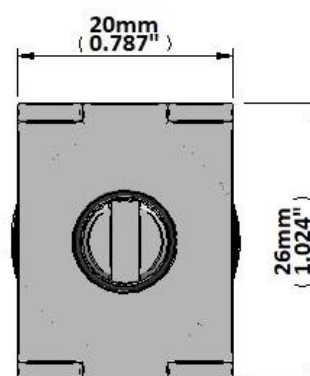
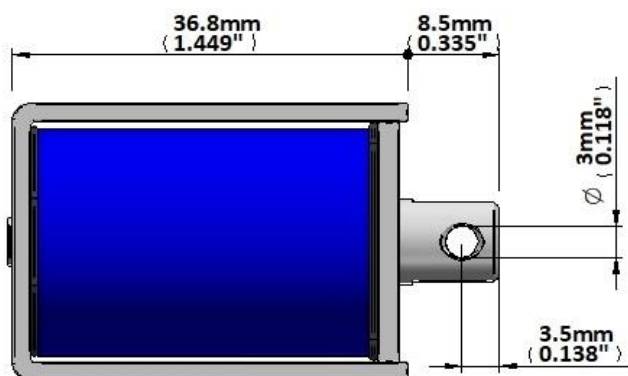
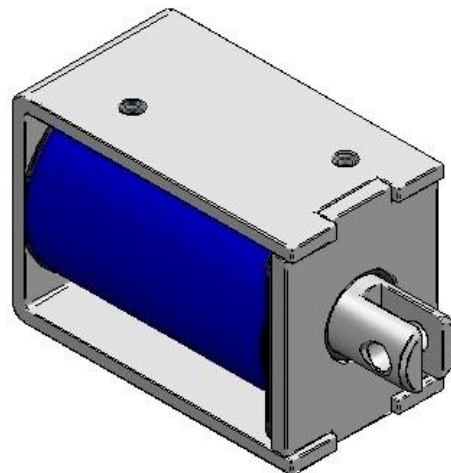
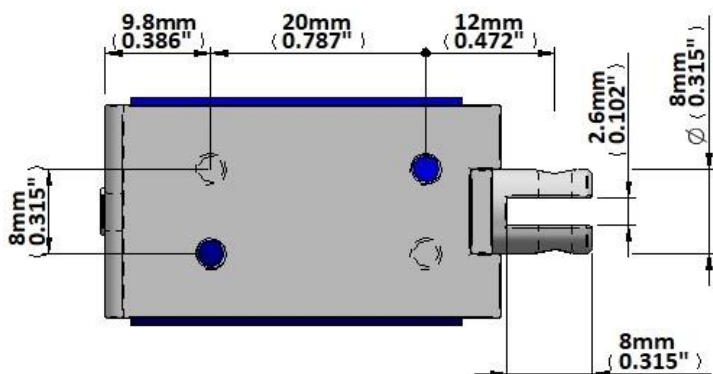
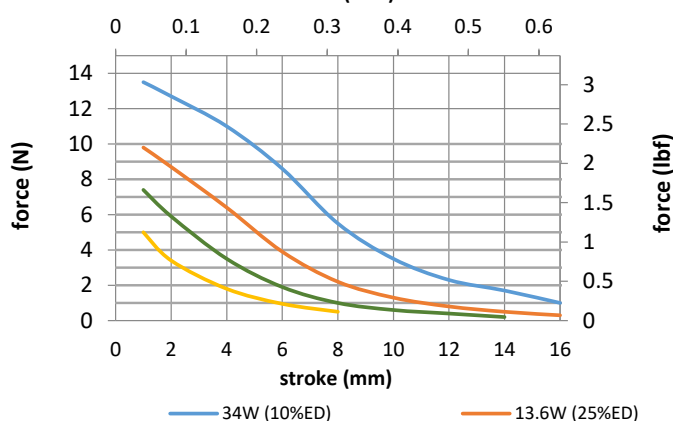
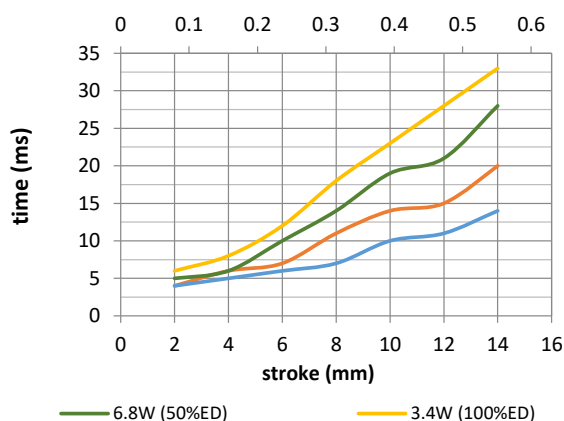
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 22AWG, 320mm

Plunger Mass 12 grammes

Total Mass 83 grammes

**Force / Stroke RD-A840**
stroke (inch)**Response Time**
stroke (inch)

Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink						
duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	394	112	32
watts at 20°C			3.4	6.8	13.6	34.0
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-A840-6v	10.6		6.0	8.5	12.0	19.0
RD-A840-12v	42.4		12.0	17.0	24.0	38.0
RD-A840-24v	169		24.0	34.0	48.0	76.0

Insulation Resistance >100M Ω , 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid RD-B840

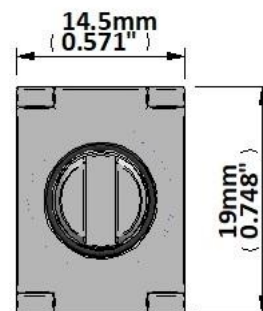
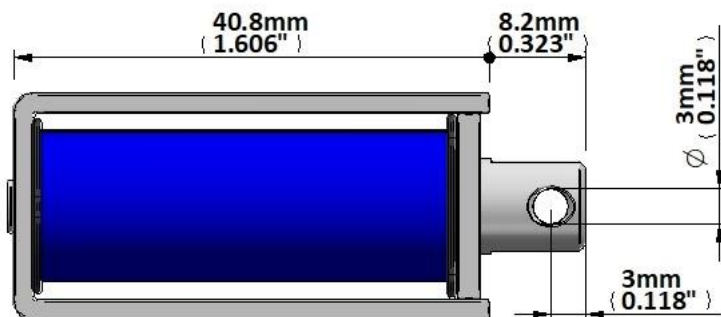
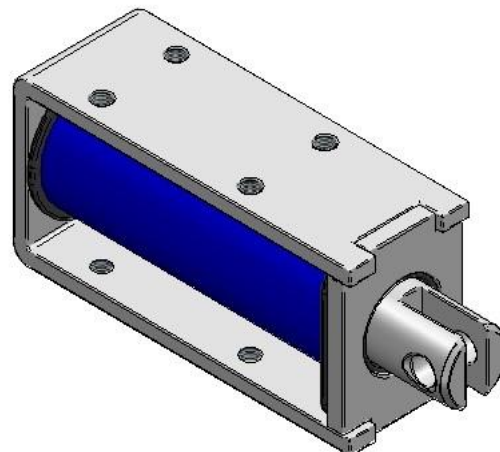
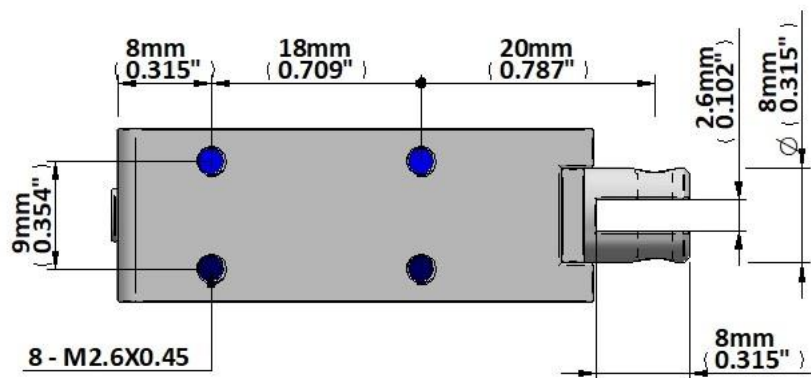
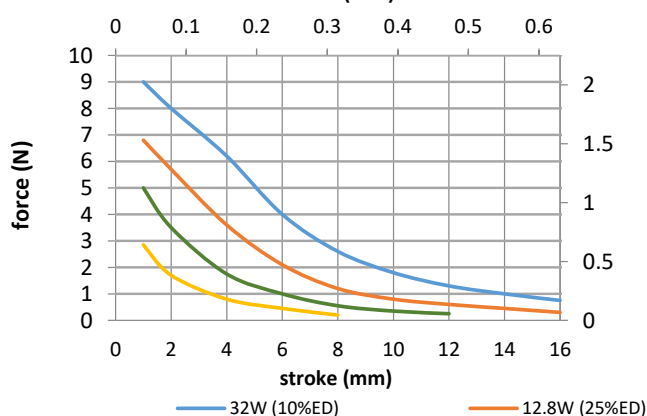
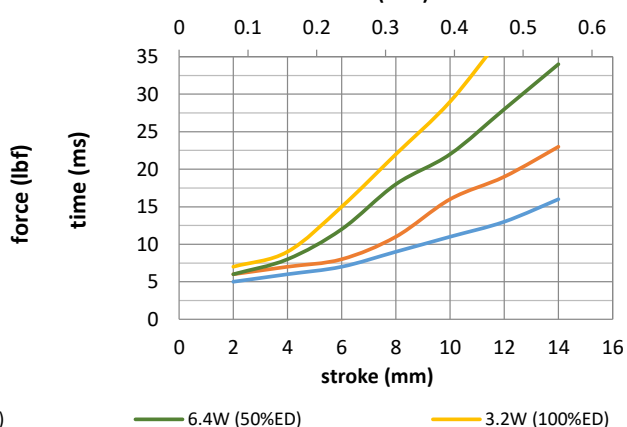
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 300mm

Plunger Mass 14 grammes

Total Mass 58 grammes

**Force / Stroke RD-B840**
stroke (inch)**Response Time**
stroke (inch)

Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds		∞	277	87	18
watts at 20°C		3.2	6.4	12.8	32.0
ampere-turns at 20°					

AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-B840-6v	11.3		6.0	8.5	12.0	19.0
RD-B840-12v	45		12.0	17.0	24.0	38.0
RD-B840-24v	180		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid RD-A940

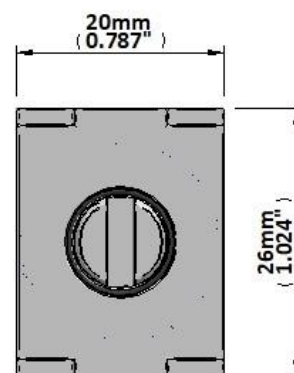
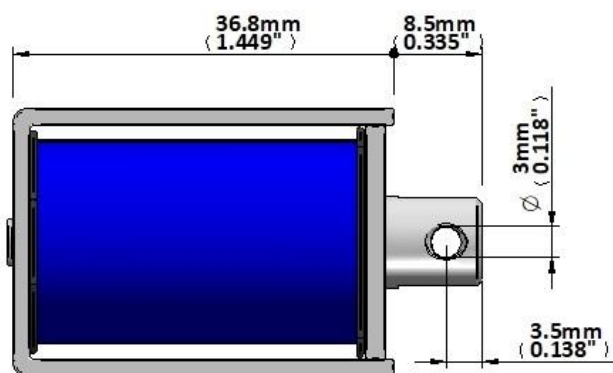
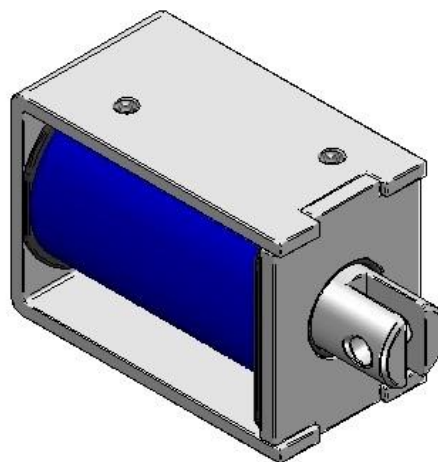
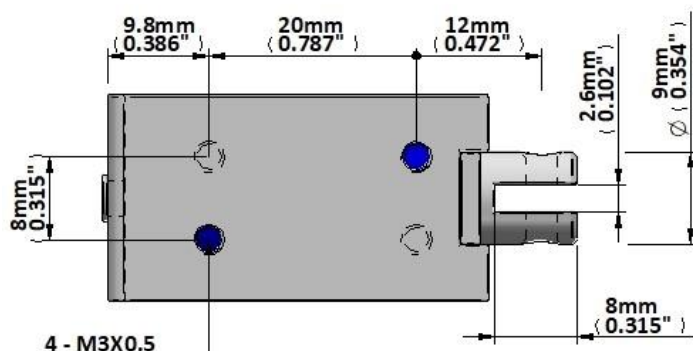
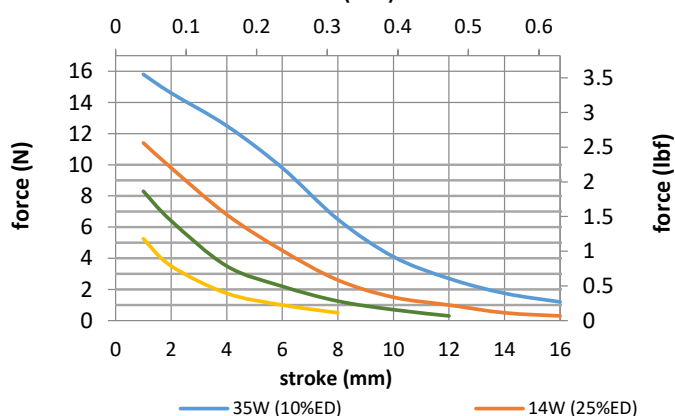
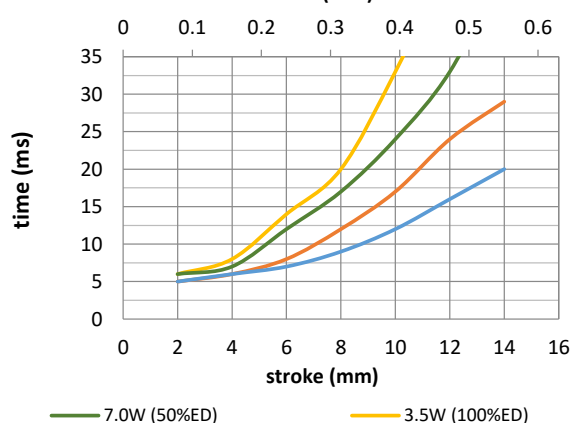
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 22AWG, 320mm

Plunger Mass 16 grammes

Total Mass 85 grammes

**Force / Stroke RD-A940**
stroke (inch)**Response Time**
stroke (inch)

Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink						
duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less	
Max. "on" time in seconds		∞	437	134	35	
watts at 20°C		3.5	7.0	14.0	35.0	
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-A940-6v	10.3		6.0	8.5	12.0	19.0
RD-A940-12v	41.1		12.0	17.0	24.0	38.0
RD-A940-24v	165		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid RD-B945

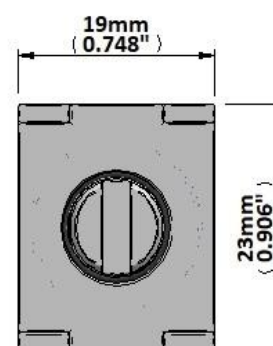
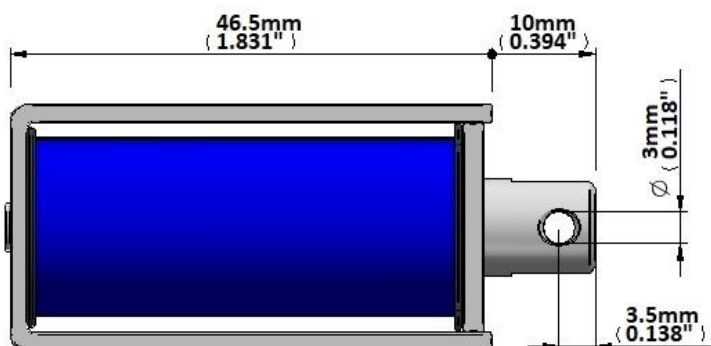
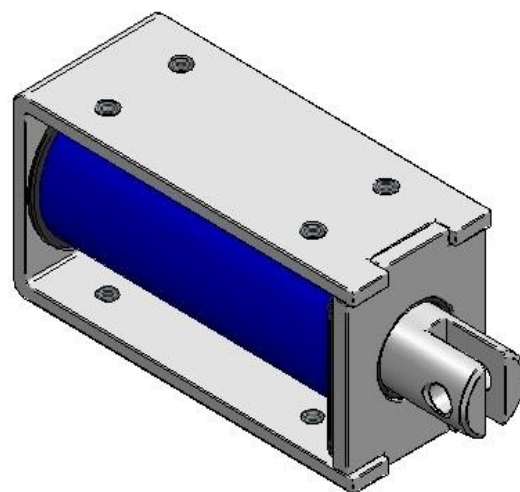
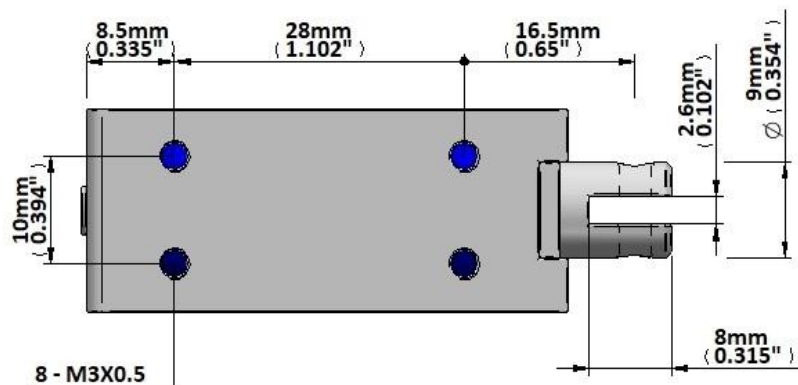
Device drawn in energised condition

Life Expectancy >250K cycles

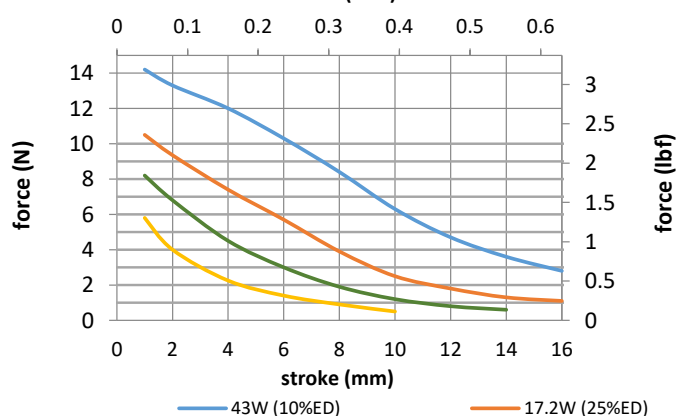
Leadwires UL1007, 22AWG, 320mm

Plunger Mass 20 grammes

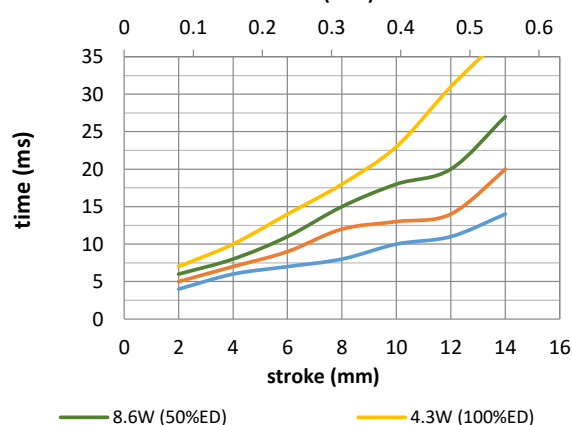
Total Mass 98 grammes



Force / Stroke RD-B945
stroke (inch)



Response Time
stroke (inch)



Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$				100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds				∞	348	112	28
watts at 20°C				4.3	8.6	17.2	43.0
ampere-turns at 20°							
AWG no.	resistance Ω±10% (at 20°C)	number of turns	volts DC				
RD-B945-6v	8.4		6.0	8.5	12.0	19.0	
RD-B945-12v	33.5		12.0	17.0	24.0	38.0	
RD-B945-24v	134		24.0	34.0	48.0	76.0	

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

Geeplus reserves the right to change specifications without notice

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**GEEPLUS**

Open Frame Solenoid RD-A1040

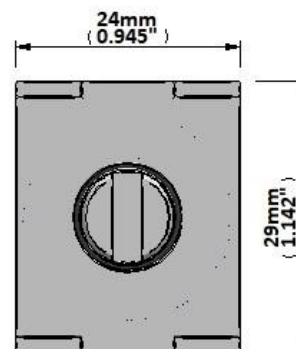
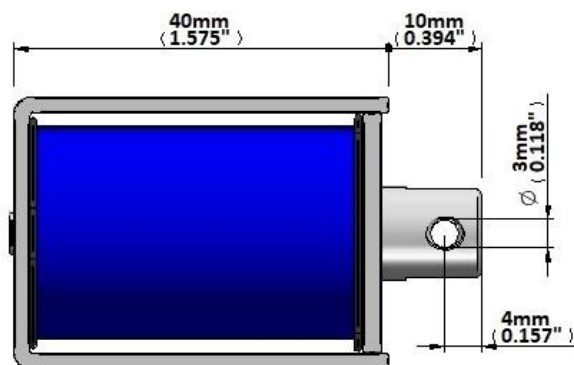
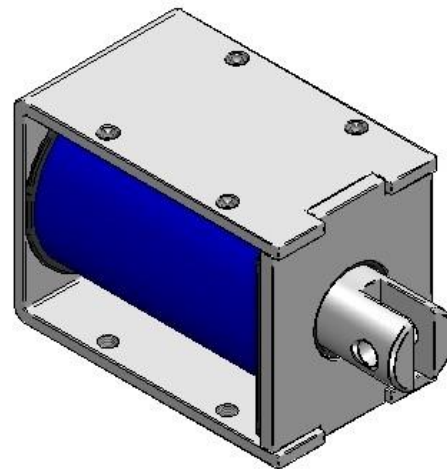
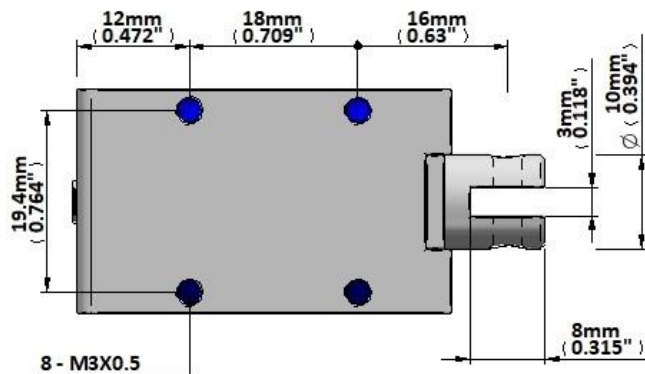
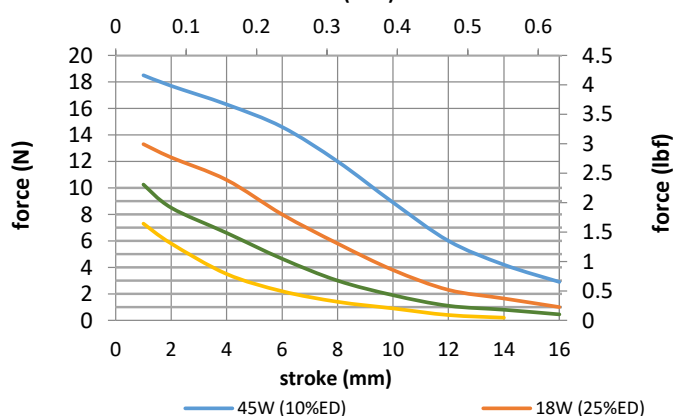
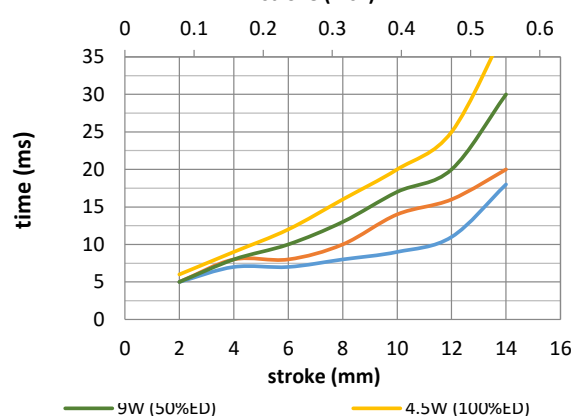
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 22AWG, 320mm

Plunger Mass 22 grammes

Total Mass 129 grammes

**Force / Stroke RD-A1040**
stroke (inch)**Response Time**
stroke (inch)

Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$				100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds				∞	500	170	48
watts at 20°C				4.5	9.0	18.0	45.0
ampere-turns at 20°							
AWG no.	resistance Ω±10% (at 20°C)	number of turns	volts DC				
RD-A1040-6v	8.0		6.0	8.5	12.0	19.0	
RD-A1040-12v	32.0		12.0	17.0	24.0	38.0	
RD-A1040-24v	128		24.0	34.0	48.0	76.0	

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid RD-A1053

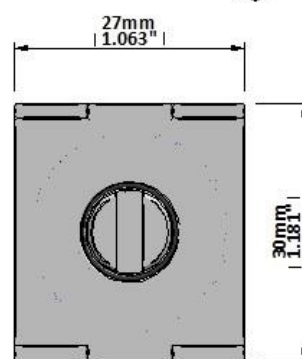
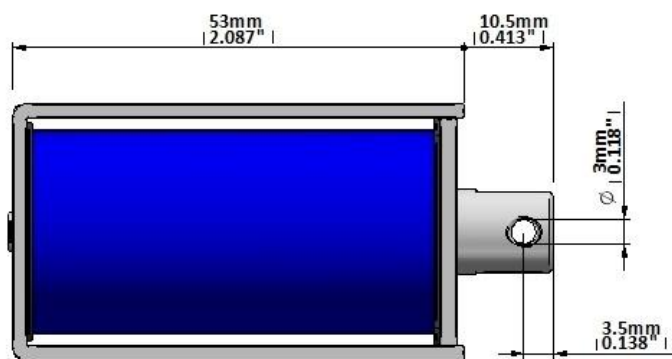
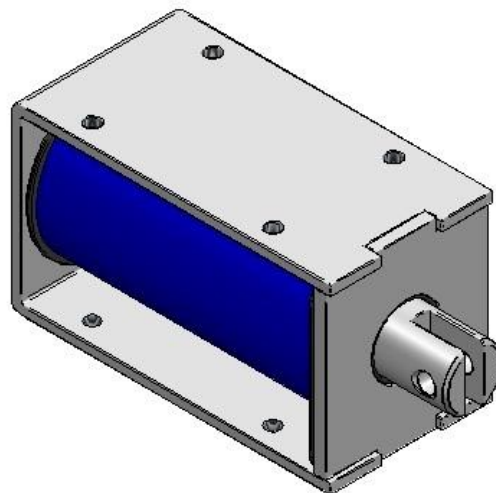
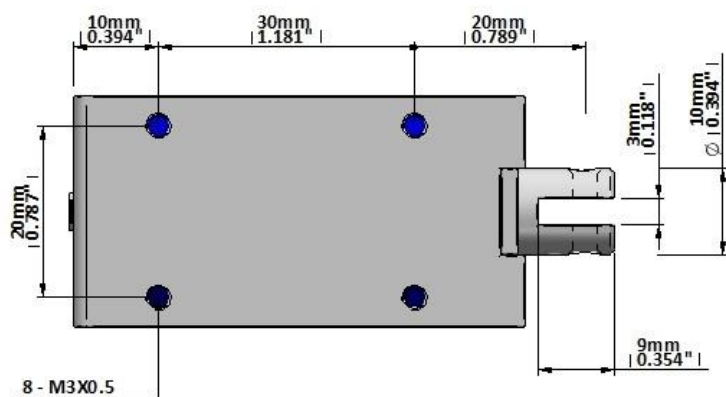
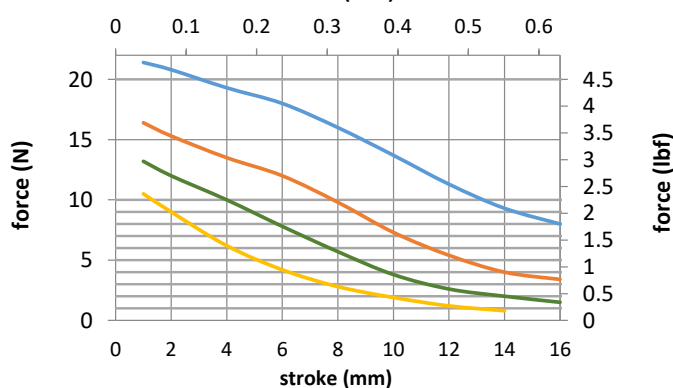
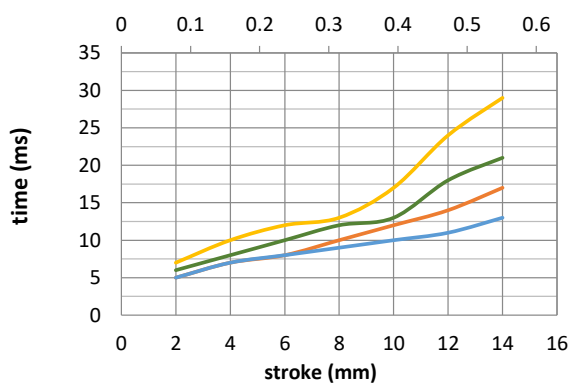
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 22AWG, 320mm

Plunger Mass 29 grammes

Total Mass 194 grammes

**Force / Stroke RD-A1053**
stroke (inch)**Response Time**
stroke (inch)

— 54W (10%ED) — 21.6W (25%ED) — 10.8W (50%ED) — 5.4W (100%ED)

Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less	
Max. "on" time in seconds		∞	590	192	64	
watts at 20°C		5.4	10.8	21.6	54.0	
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-A1053-6v	6.7		6.0	8.5	12.0	19.0
RD-A1053-12v	26.7		12.0	17.0	24.0	38.0
RD-A1053-24v	107		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid RD-A1250

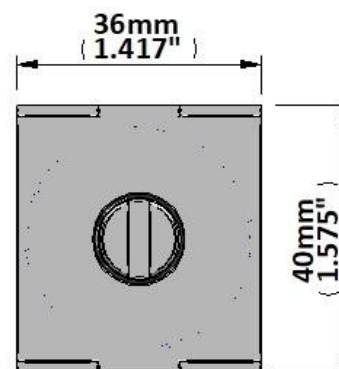
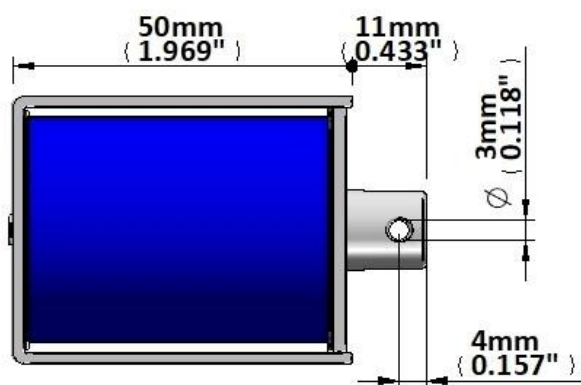
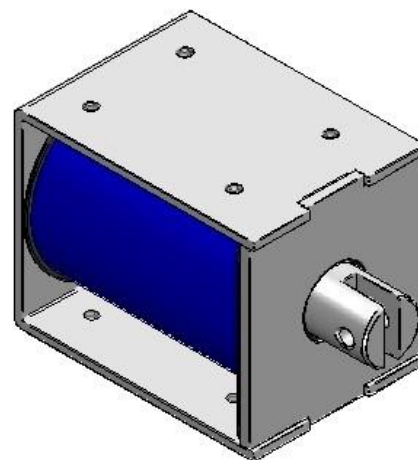
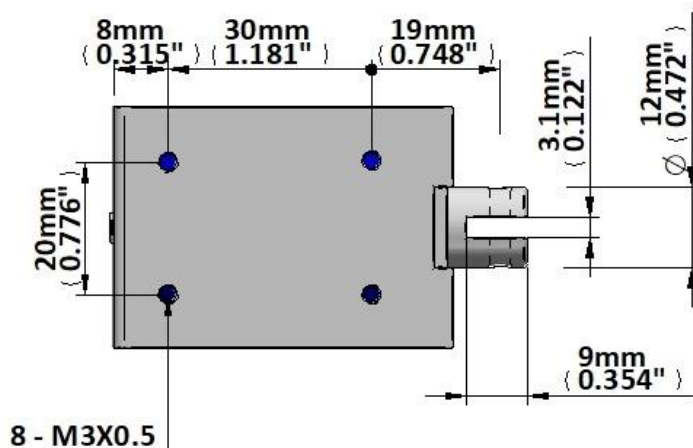
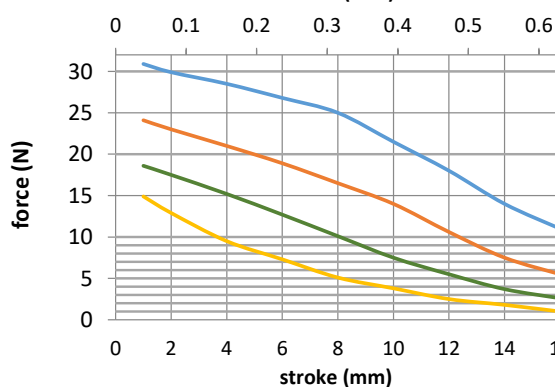
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 22AWG, 320mm

Plunger Mass 38 grammes

Total Mass 319 grammes

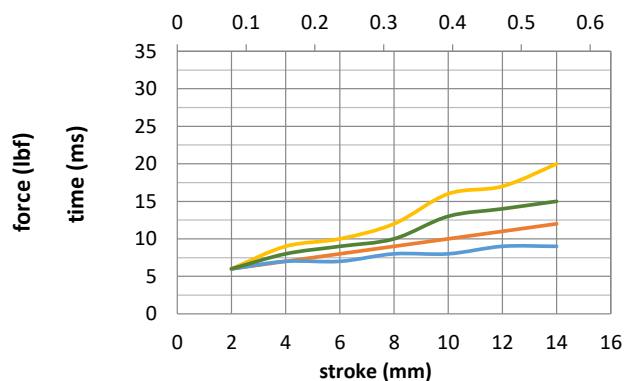
**Force / Stroke RD-A1250**
stroke (inch)

— 75W (10%ED)

— 30W (25%ED)

— 15W (50%ED)

— 7.5W (100%ED)

Response Time
stroke (inch)

Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink						
duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	713	249	76
watts at 20°C			7.5	15.0	30.0	75.0
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-A1250-6v	4.8		6.0	8.5	12.0	19.0
RD-A1250-12v	19.2		12.0	17.0	24.0	38.0
RD-A1250-24v	76.8		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid RD-A1264

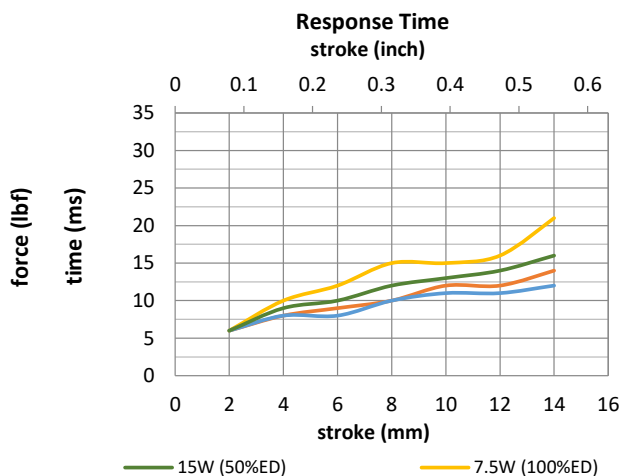
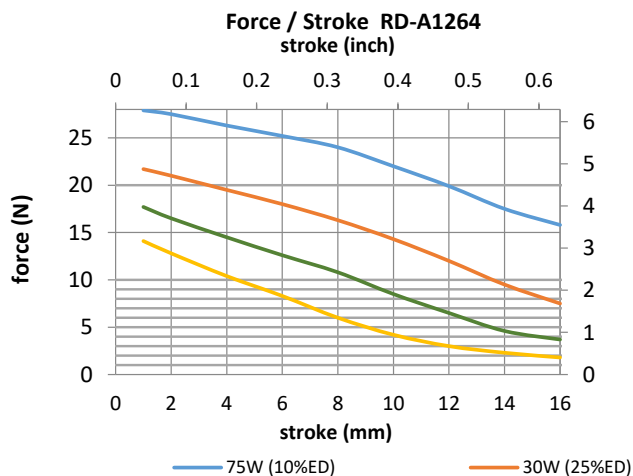
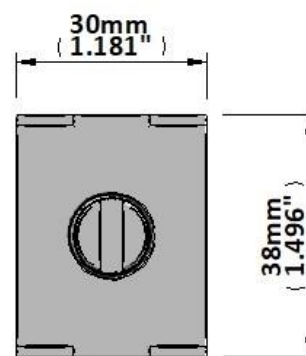
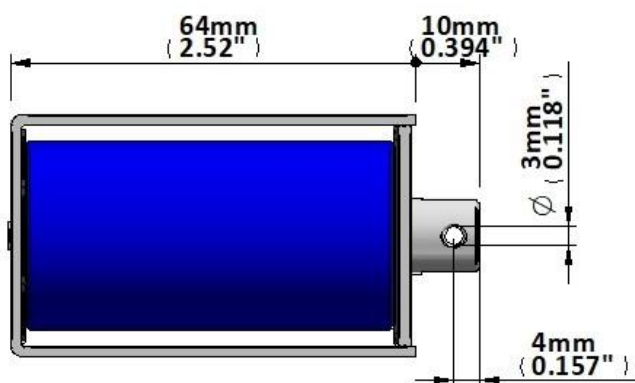
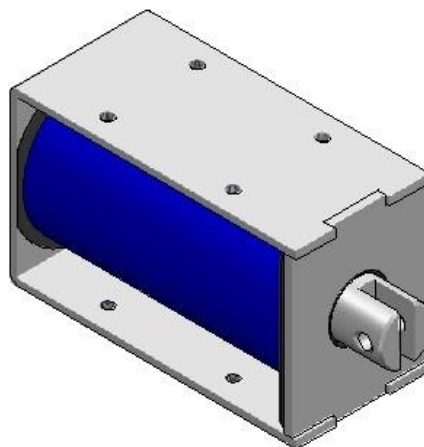
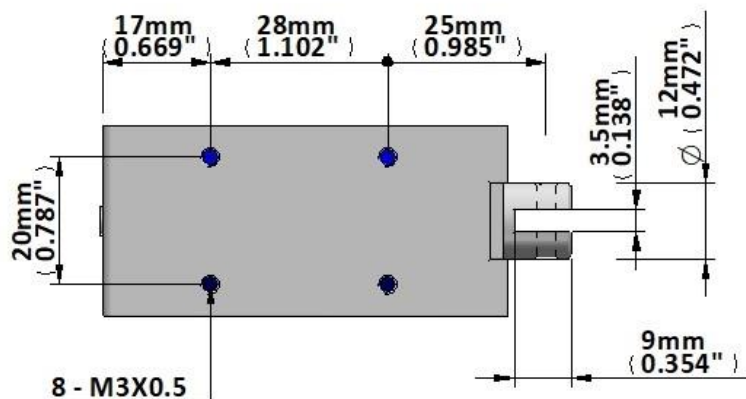
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 22AWG, 320mm

Plunger Mass 49 grammes

Total Mass 337 grammes



Data at 20°C, device performance measured without heat sink

Data at 20 °C ; device performance measured without heat sink						
duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$		100% cont.	50% or less	25% or less	10% or less	
Max. "on" time in seconds		∞	713	305	95	
watts at 20°C		7.5	15.0	30.0	75.0	
ampere-turns at 20°						
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
RD-A1264-6v	4.8		6.0	8.5	12.0	19.0
RD-A1264-12v	19.2		12.0	17.0	24.0	38.0
RD-A1264-24v	76.8		24.0	34.0	48.0	76.0

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid SK-A0315

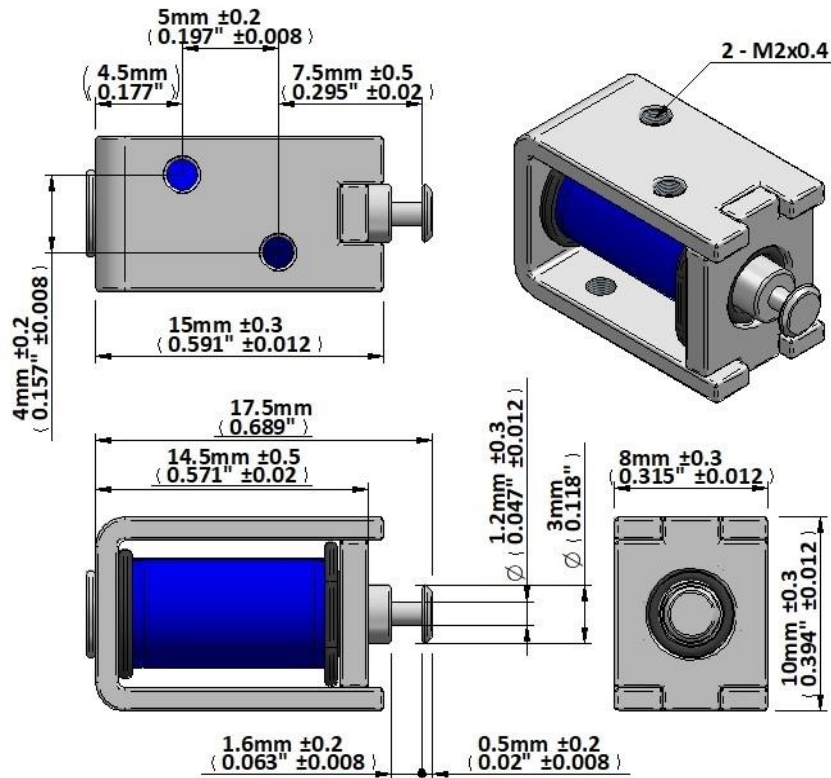
Device drawn in energised condition

Life Expectancy >250K cycles

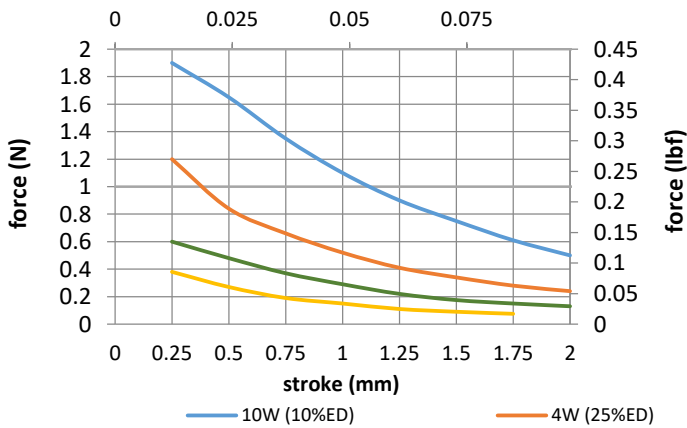
Leadwires UL1571, 28AWG, 240mm

Plunger Mass 1 grammes

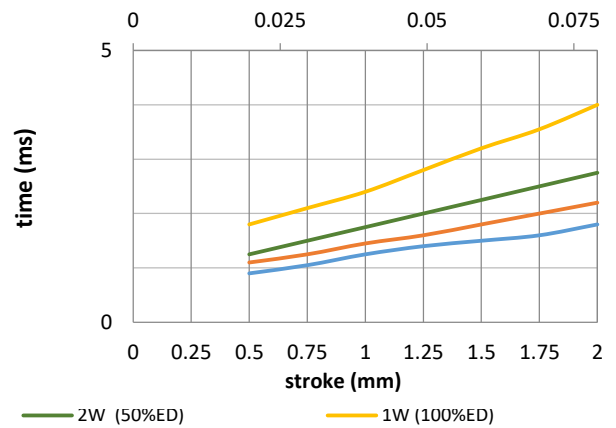
Total Mass 5 grammes



Force / Stroke SK-A0315
stroke (inch)



Response Time
stroke (inch)



Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	50	18	2
watts at 20°C			1.0	2.0	4.0	10.0
ampere-turns at 20°			140	198	280	442
AWG no.	resistance	number of turns	volts DC			
	Ω±10% (at 20°C)					
SK-A0315-6v	36	920	6.0	8.5	12.0	19.0
SK-A0315-12v	144	1750	12.0	17.0	24.0	38.0
SK-A0315-24v	576	3370	24.0	34.0	48.0	76.0
SK-A0315-48v	2304	6700	48.0	68.0	96.0	152

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid SK-F0420

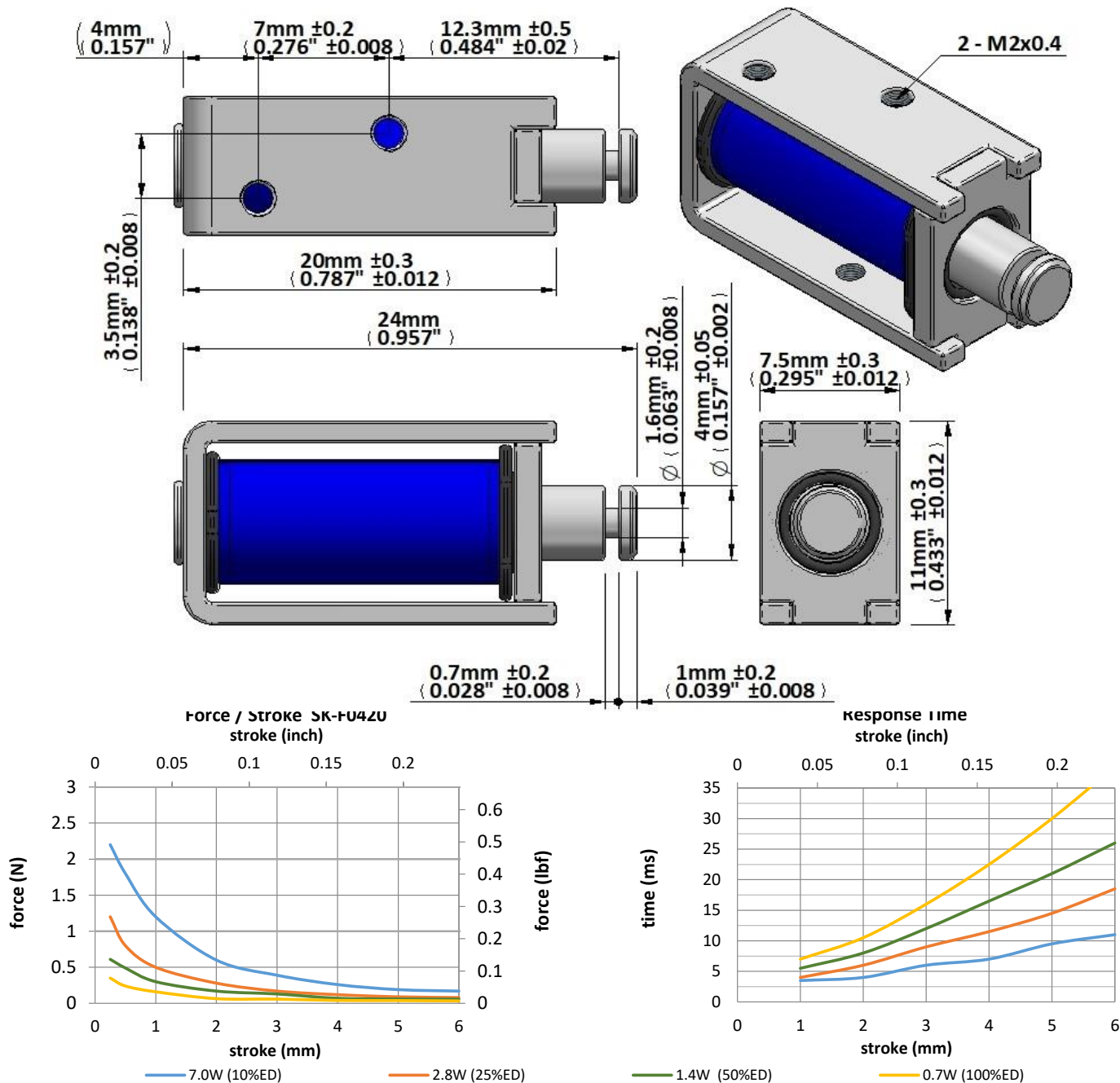
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1571, 28AWG, 240mm

Plunger Mass 2 grammes

Total Mass 8 grammes



Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	50	18	2
watts at 20°C			0.7	1.4	2.8	7.0
ampere-turns at 20°			119	168	238	376
AWG no.	resistance Ω±10% (at 20°C)	number of turns	volts DC			
SK-F0420-6v	51	1100	6.0	8.5	12.0	19.0
SK-F0420-12v	205	2120	12.0	17.0	24.0	38.0
SK-F0420-24v	823	4100	24.0	34.0	48.0	76.0
SK-F0420-48v	3291	8100	48.0	68.0	96.0	152

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid SK-A0520

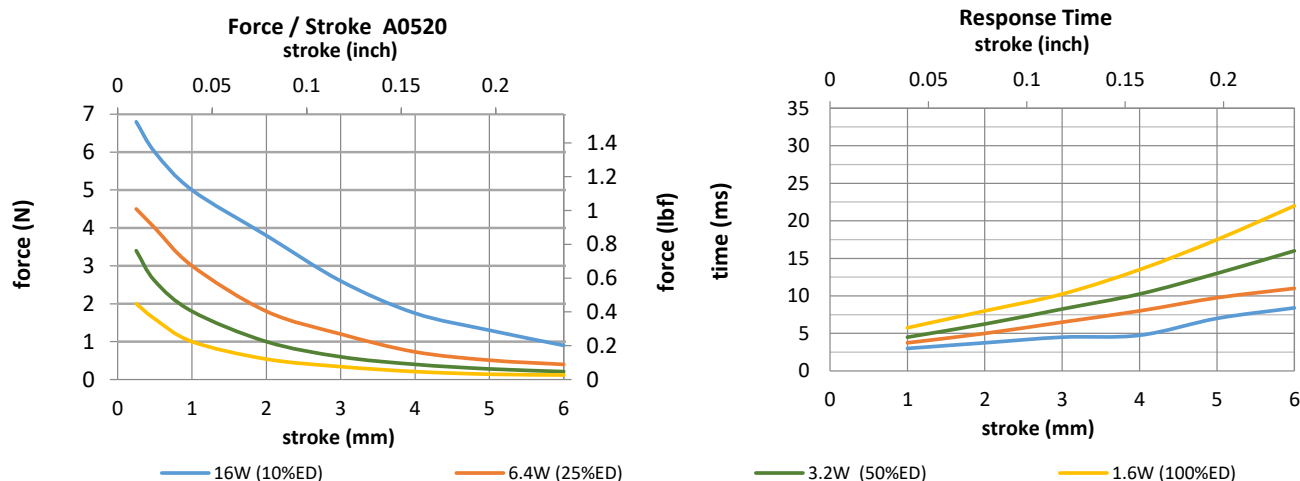
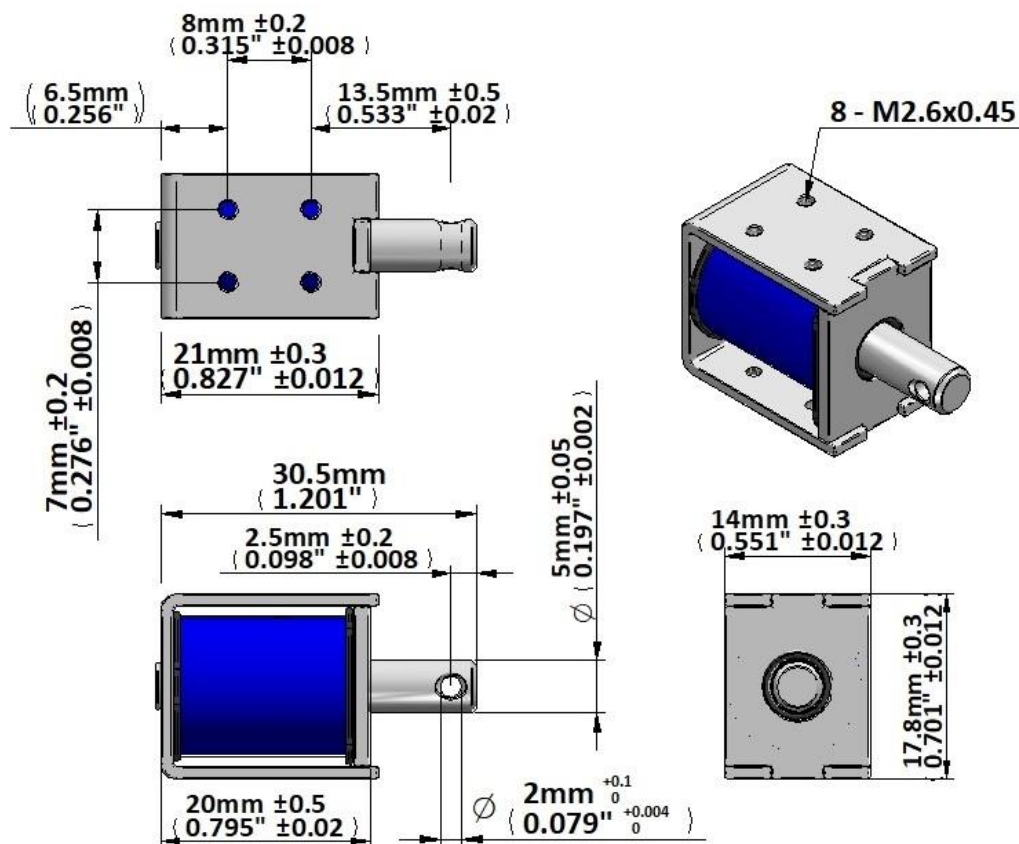
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 28AWG, 240mm

Plunger Mass 4 grammes

Total Mass 22 grammes



Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	55	19	3
watts at 20°C			1.6	3.2	6.4	16.0
ampere-turns at 20°			300	424	600	948
AWG no.	resistance Ω±10% (at 20°C)	number of turns	volts DC			
SK-A0520-6v	23	1150	6.0	8.5	12.0	19.0
SK-A0520-12v	90	2290	12.0	17.0	24.0	38.0
SK-A0520-24v	360	4500	24.0	34.0	48.0	76.0
SK-A0520-48v	1440	8600	48.0	68.0	96.0	152

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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**GEEPLUS**

Open Frame Solenoid SK-A0626

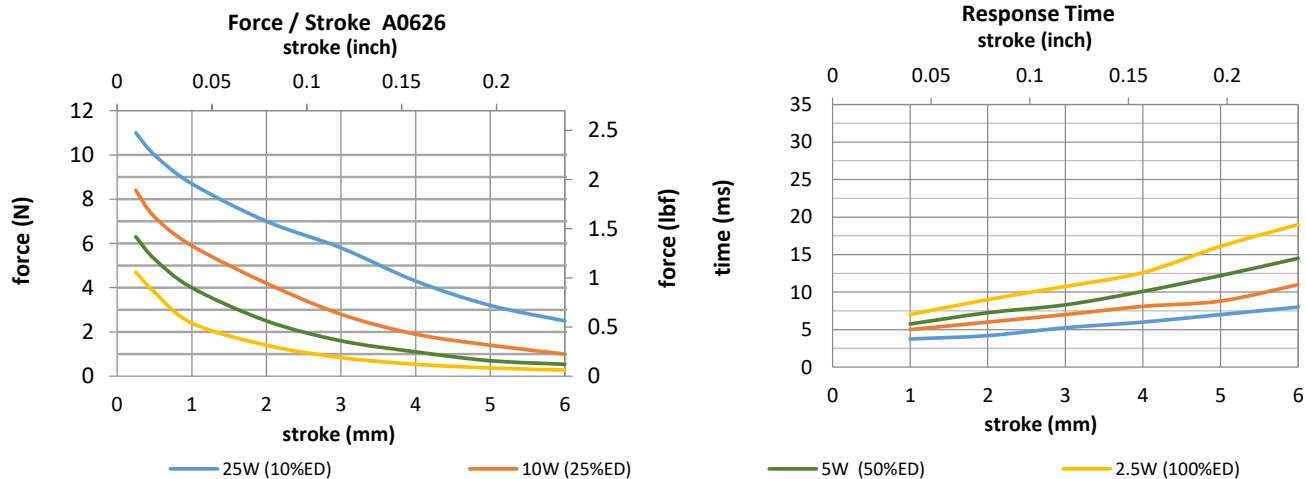
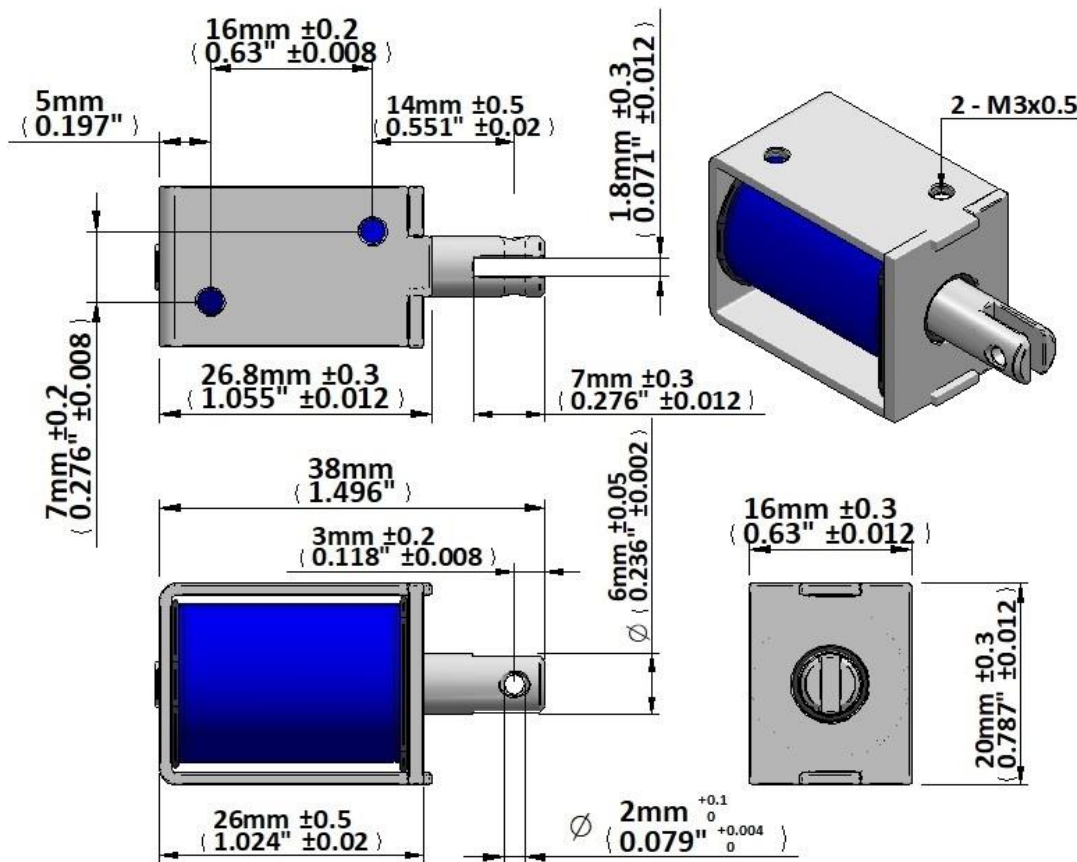
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 240mm

Plunger Mass 7 grammes

Total Mass 43 grammes



Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	100	36	7
watts at 20°C			2.5	5.0	10.0	25.0
ampere-turns at 20°			428	605	856	1353
AWG no.	resistance Ω±10% (at 20°C)	number of turns	volts DC			
SK-A0626-6v	14	1090	6.0	8.5	12.0	19.0
SK-A0626-12v	58	2090	12.0	17.0	24.0	38.0
SK-A0626-24v	230	4110	24.0	34.0	48.0	76.0
SK-A0626-48v	922	8200	48.0	68.0	96.0	152

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid SK-C0640

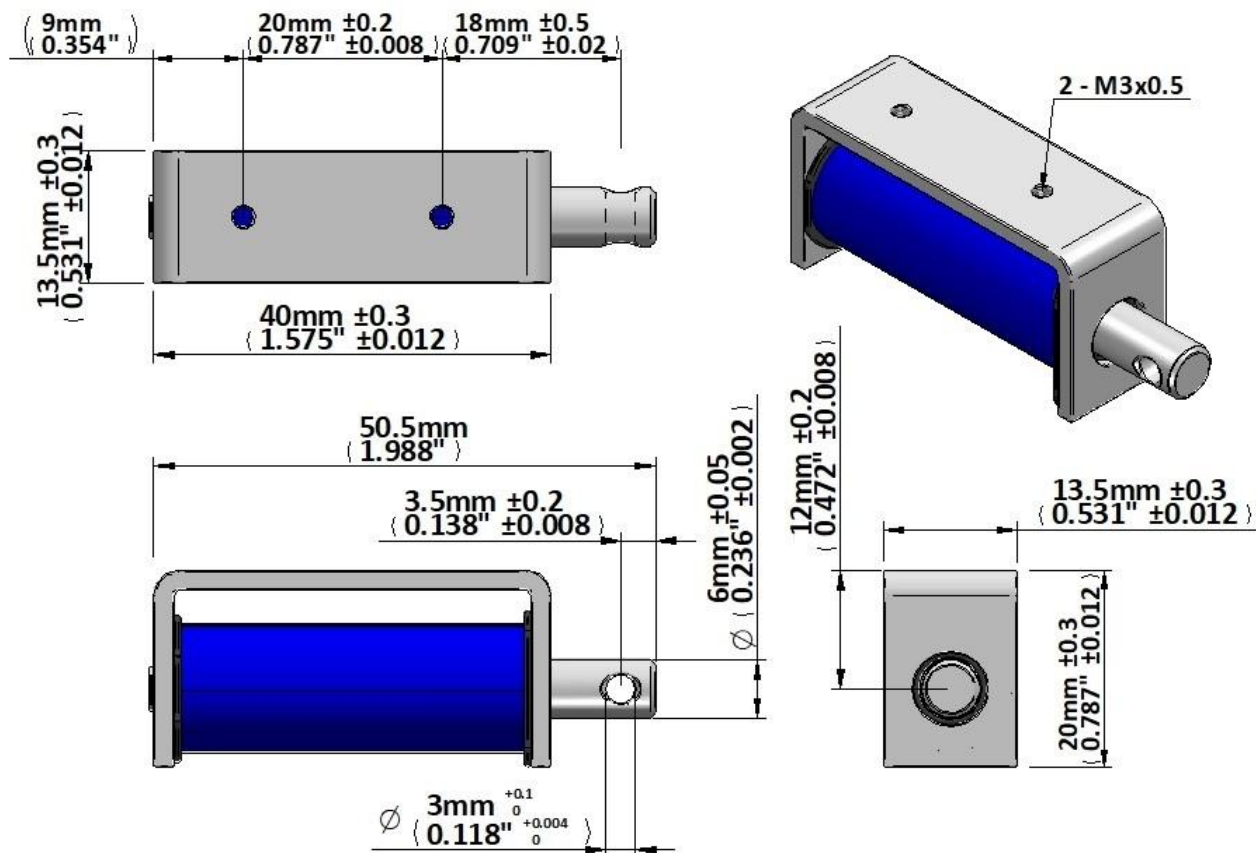
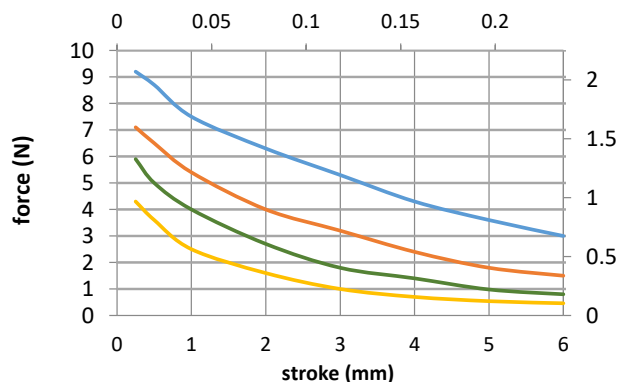
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 240mm

Plunger Mass 9 grammes

Total Mass 48 grammes

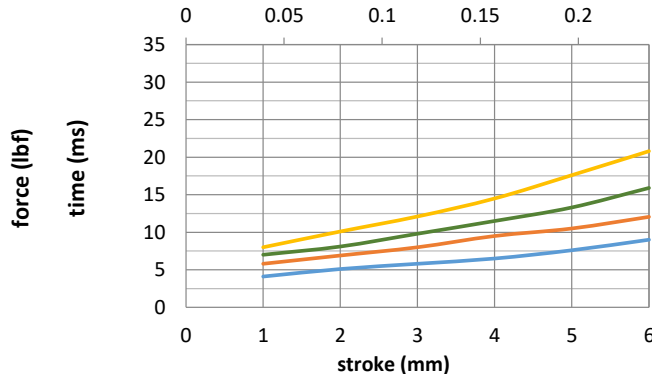
**Force / Stroke C0640**
stroke (inch)

— 25W (10%ED)

— 10W (25%ED)

— 5W (50%ED)

— 2.5W (100%ED)

Response Time
stroke (inch)

Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	100	36	7
watts at 20°C			2.5	5.0	10.0	25.0
ampere-turns at 20°			504	712	1008	1593
AWG no.	resistance Ω±10% (at 20°C)	number of turns	volts DC			
SK-C0640-6v	14	1185	6.0	8.5	12.0	19.0
SK-C0640-12v	58	2480	12.0	17.0	24.0	38.0
SK-C0640-24v	230	4830	24.0	34.0	48.0	76.0
SK-C0640-48v	922	9460	48.0	68.0	96.0	152

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid SK-A0730

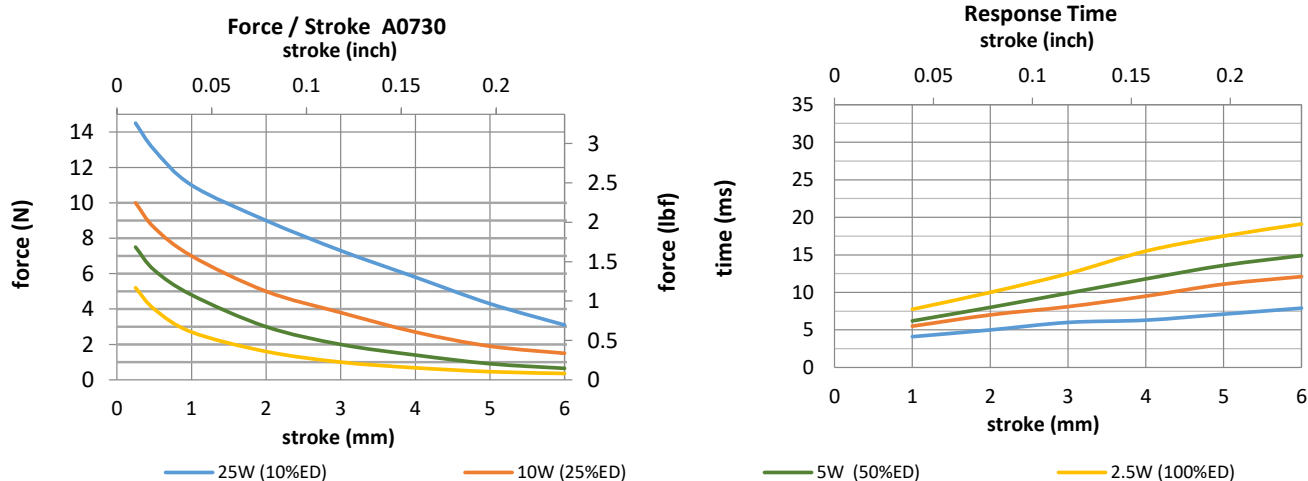
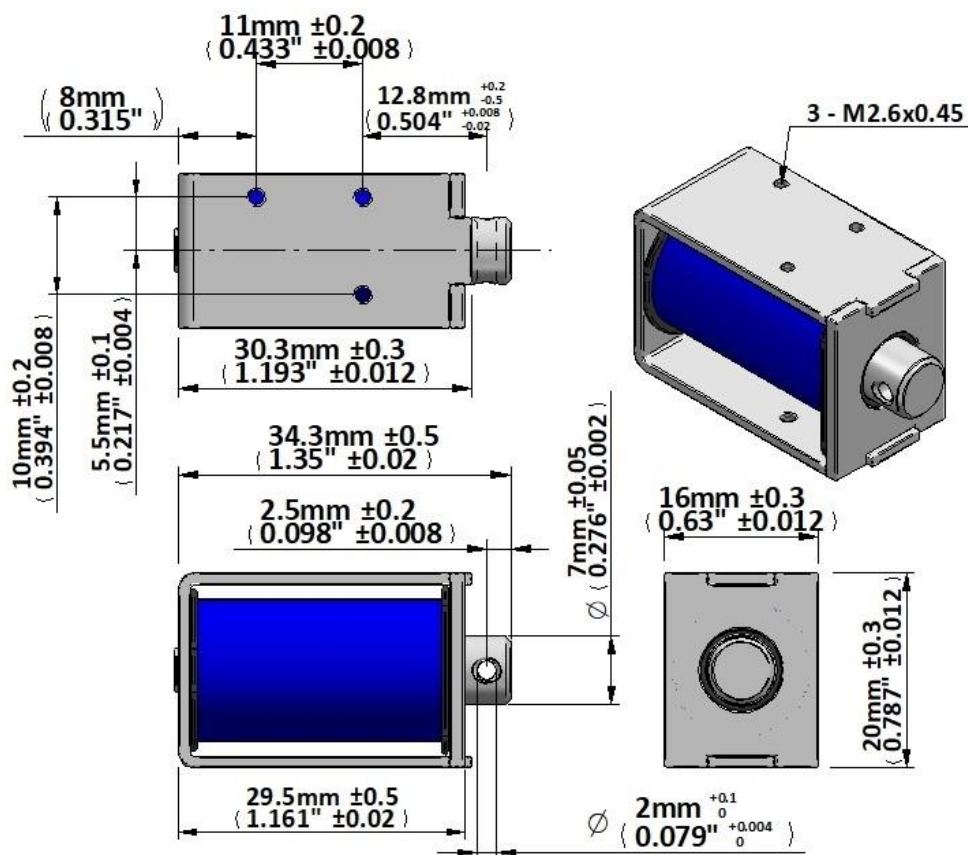
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 240mm

Plunger Mass 8 grammes

Total Mass 48 grammes



Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	100	36	7
watts at 20°C			2.5	5.0	10.0	25.0
ampere-turns at 20°			389	550	778	1230
AWG no.	resistance $\Omega \pm 10\%$ (at 20°C)	number of turns	volts DC			
SK-A0730-6v	14	990	6.0	8.5	12.0	19.0
SK-A0730-12v	58	1925	12.0	17.0	24.0	38.0
SK-A0730-24v	230	3730	24.0	34.0	48.0	76.0
SK-A0730-48v	922	7300	48.0	68.0	96.0	152

Insulation Resistance >100M Ω , 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

Geeplus reserves the right to change specifications without notice

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GEEPLUS

Open Frame Solenoid SK-A0832

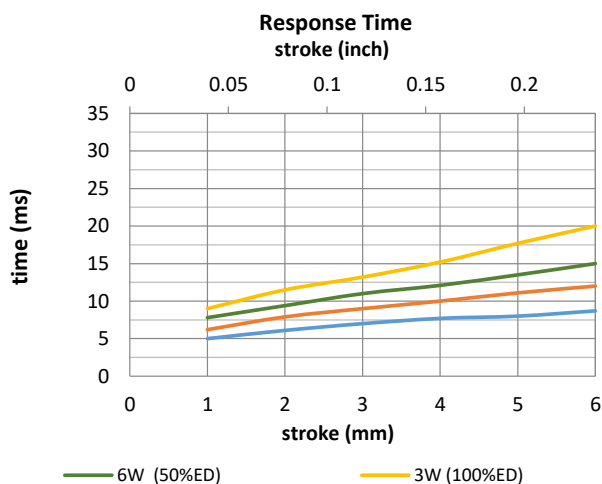
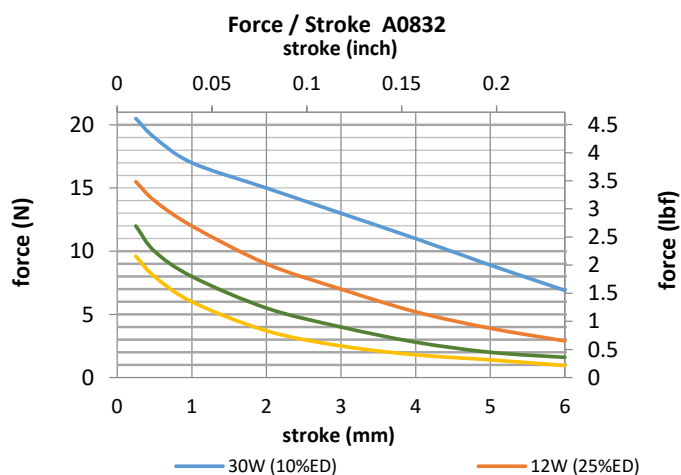
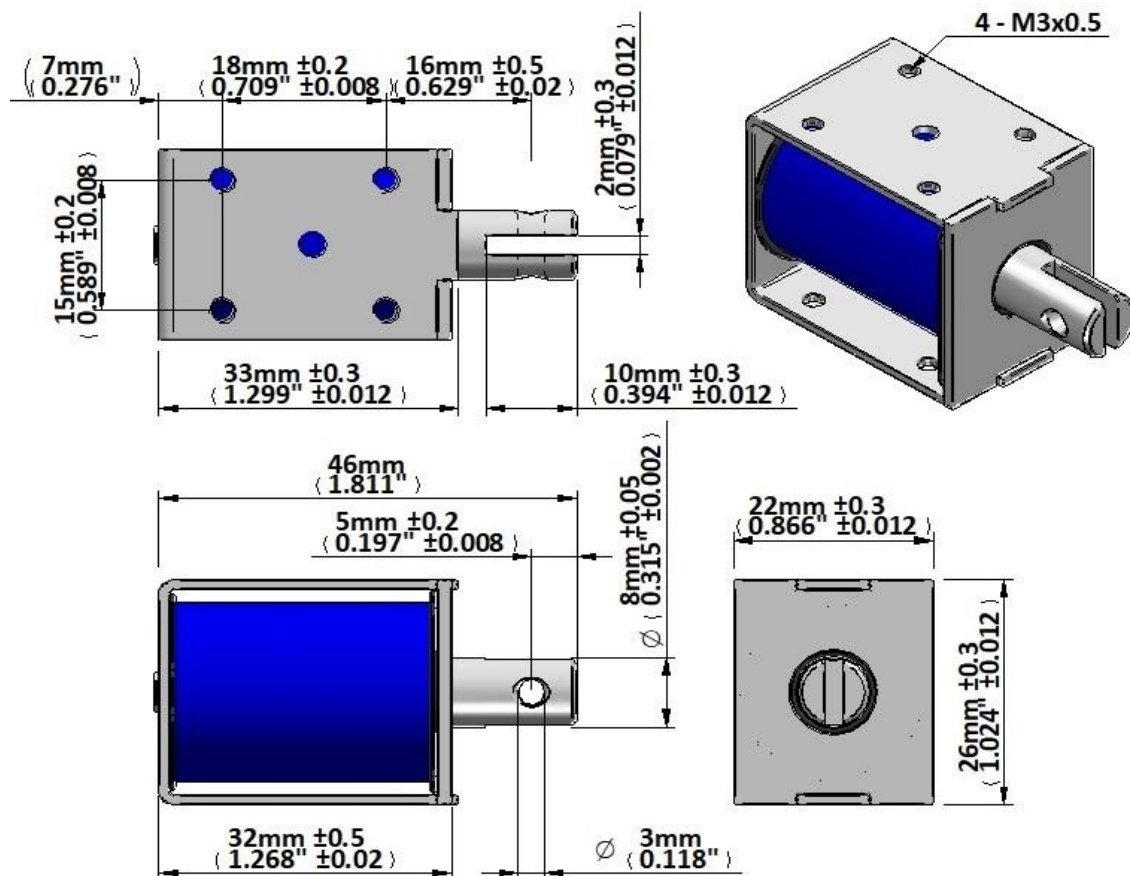
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 240mm

Plunger Mass 14grammes

Total Mass 82 grammes



Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	100	36	7
watts at 20°C			3.0	6.0	12.0	30.0
ampere-turns at 20°			571	807	1142	1805
AWG no.	resistance $\Omega \pm 10\%$ (at 20°C)	number of turns	volts DC			
SK-A0832-6v	12	1150	6.0	8.5	12.0	19.0
SK-A0832-12v	46	2300	12.0	17.0	24.0	38.0
SK-A0832-24v	186	4430	24.0	34.0	48.0	76.0
SK-A0832-48v	743	8410	48.0	68.0	96.0	152

Insulation Resistance >100M Ω , 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

Geeplus reserves the right to change specifications without notice

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**GEEPLUS**

Open Frame Solenoid SK-W0836

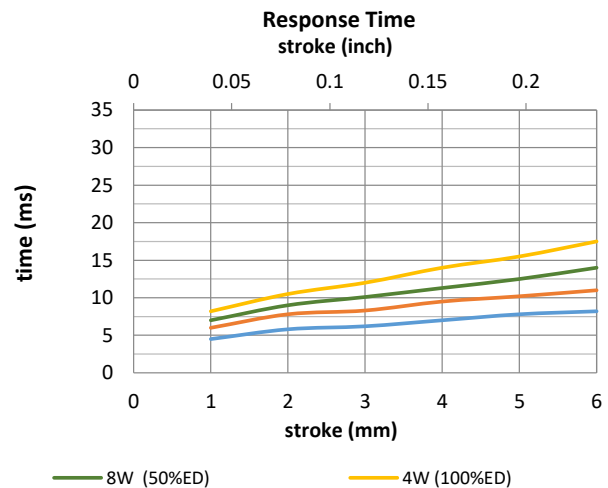
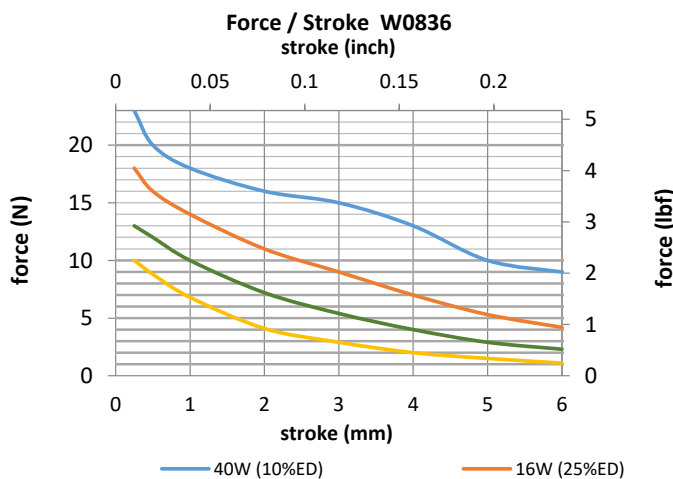
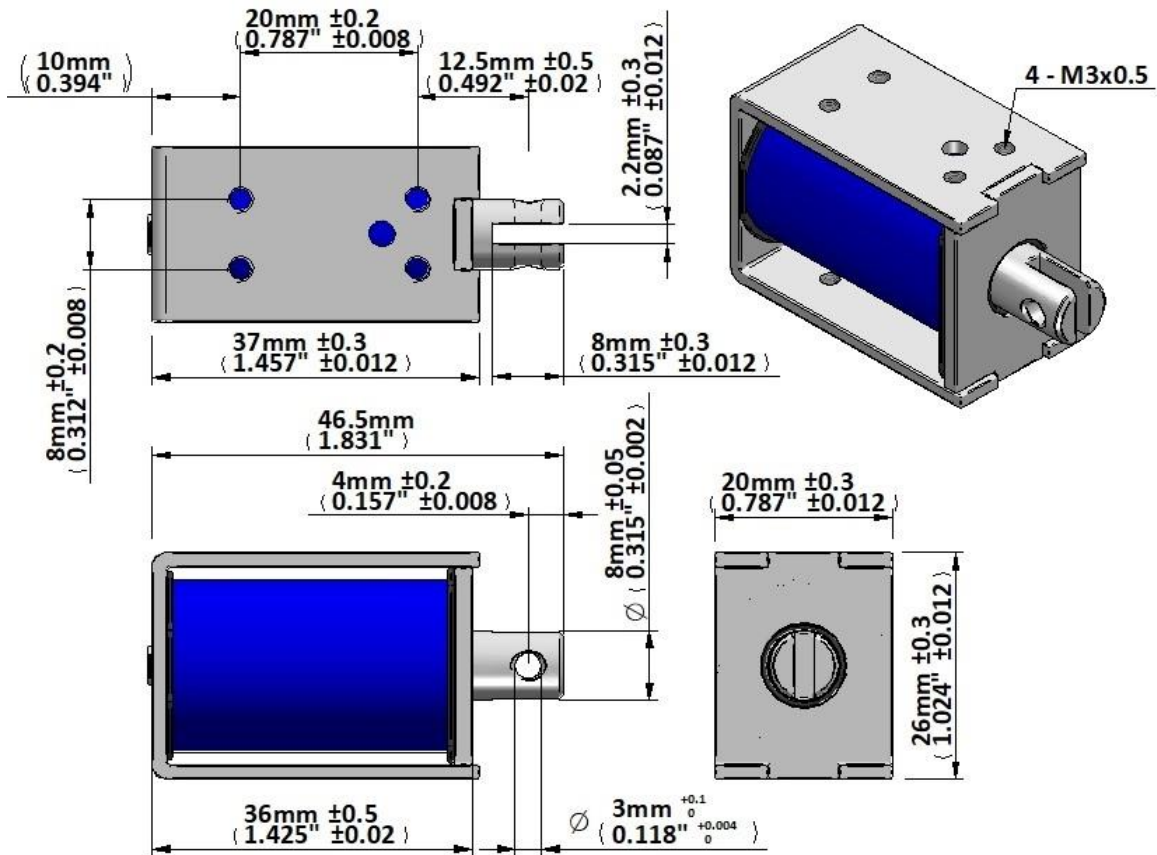
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 240mm

Plunger Mass 14grammes

Total Mass 100 grammes



Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	100	36	7
watts at 20°C			4.0	8.0	16.0	40.0
ampere-turns at 20°			666	941	1332	2106
AWG no.	resistance Ω±10% (at 20°C)	number of turns	volts DC			
SK-W0836-6v	9	1000	6.0	8.5	12.0	19.0
SK-W0836-12v	36	2000	12.0	17.0	24.0	38.0
SK-W0836-24v	144	4000	24.0	34.0	48.0	76.0
SK-W0836-48v	576	7540	48.0	68.0	96.0	152

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

Geeplus reserves the right to change specifications without notice

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Open Frame Solenoid SK-A0946

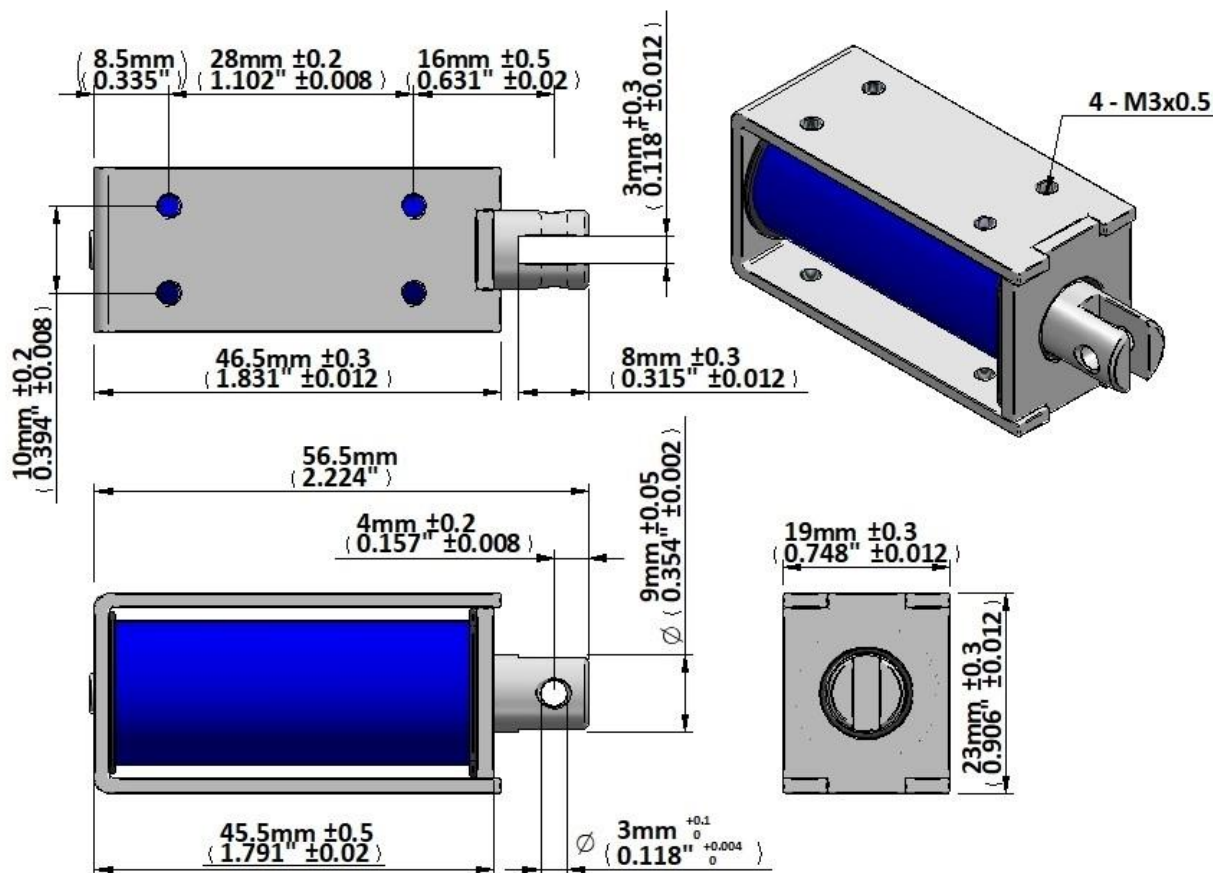
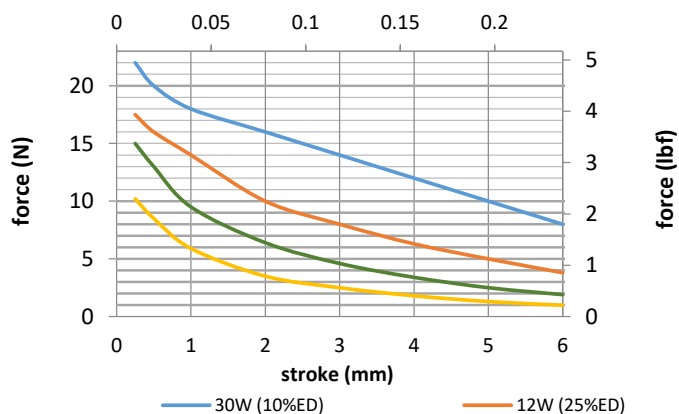
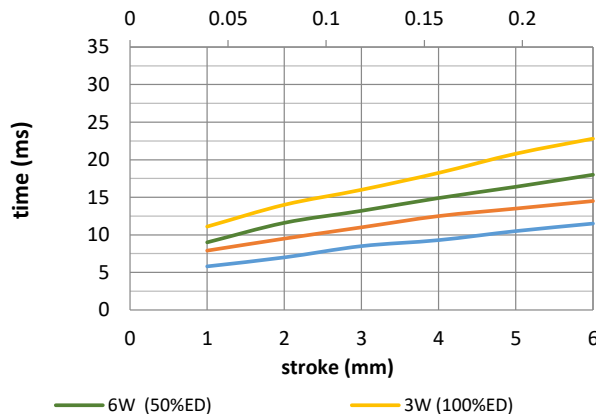
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 240mm

Plunger Mass 20grammes

Total Mass 96 grammes

**Force / Stroke A0946**
stroke (inch)**Response Time**
stroke (inch)

Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	100	36	7
watts at 20°C			3.0	6.0	12.0	30.0
ampere-turns at 20°			585	827	1170	1849
AWG no.	resistance $\Omega \pm 10\%$ (at 20°C)	number of turns	volts DC			
SK-A0946-6v	12	1120	6.0	8.5	12.0	19.0
SK-A0946-12v	48	2320	12.0	17.0	24.0	38.0
SK-A0946-24v	192	4680	24.0	34.0	48.0	76.0
SK-A0946-48v	768	9000	48.0	68.0	96.0	152

Insulation Resistance >100M Ω , 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid SK-A1040

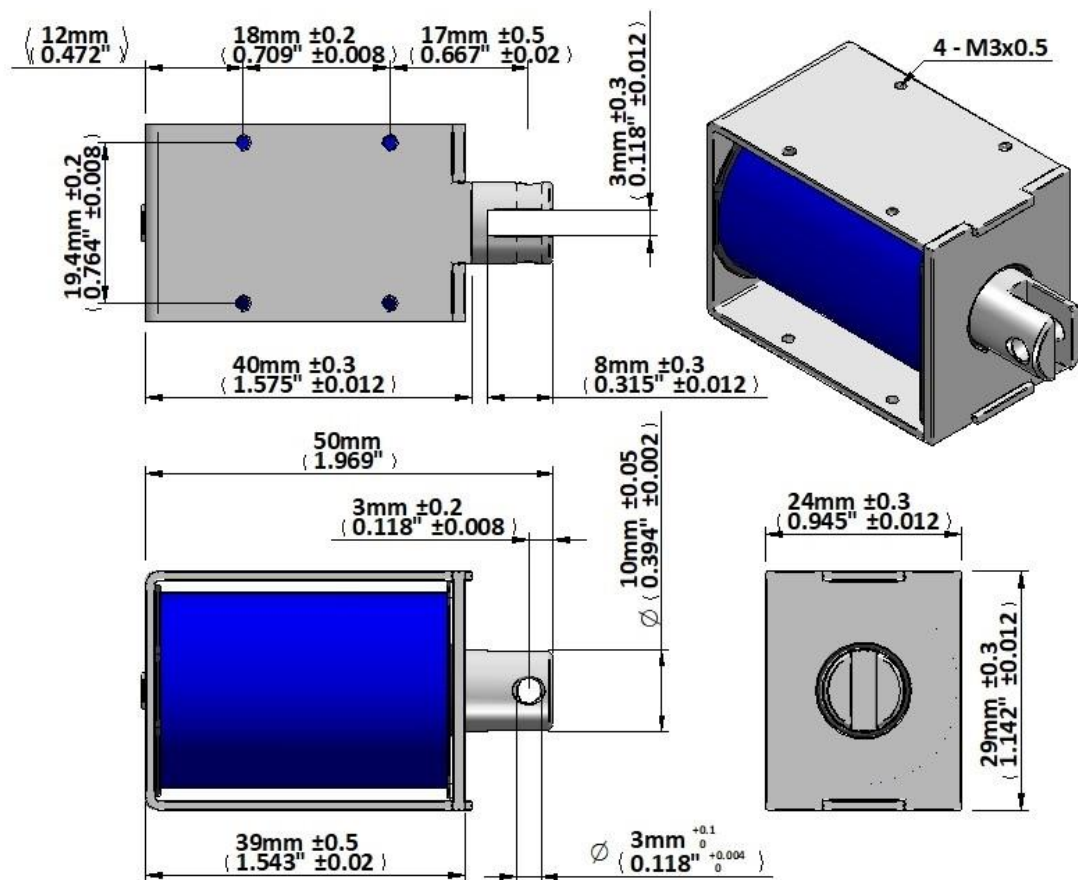
Device drawn in energised condition

Life Expectancy >250K cycles

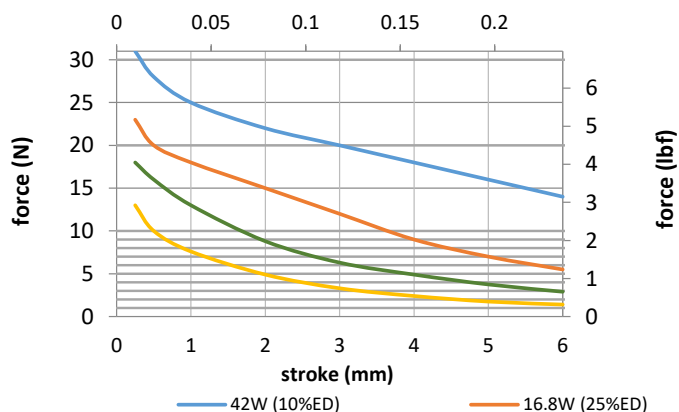
Leadwires UL1007, 26AWG, 240mm

Plunger Mass 23grammes

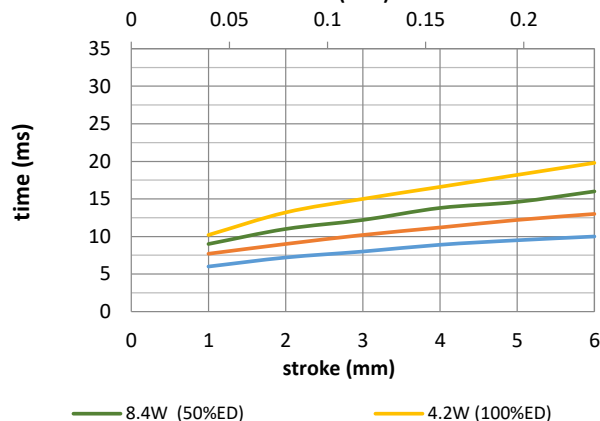
Total Mass 126grammes



Force / Stroke A1040
stroke (inch)



Response Time
stroke (inch)



Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	100	36	7
watts at 20°C			4.2	8.4	16.8	42.0
ampere-turns at 20°			635	898	1270	2008
AWG no.	resistance $\Omega \pm 10\%$ (at 20°C)	number of turns	volts DC			
SK-A01040-6v	9	1020	6.0	8.5	12.0	19.0
SK-A1040-12v	34	2000	12.0	17.0	24.0	38.0
SK-A1040-24v	137	3625	24.0	34.0	48.0	76.0
SK-A1040-48v	549	7420	48.0	68.0	96.0	152

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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Open Frame Solenoid SK-W1250

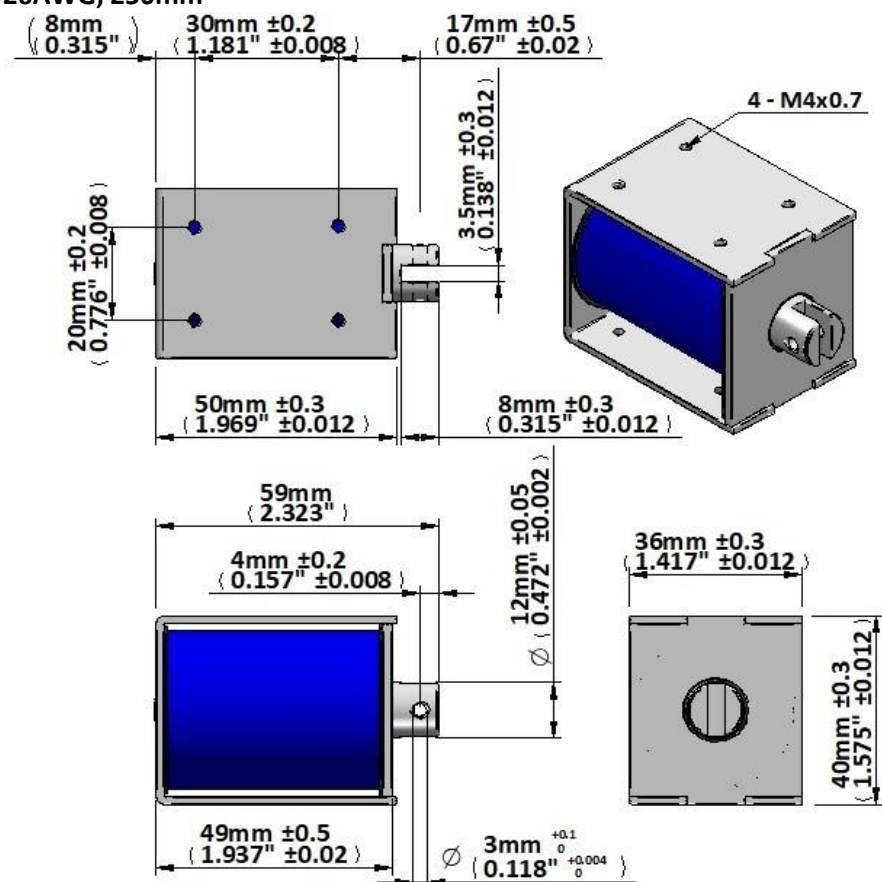
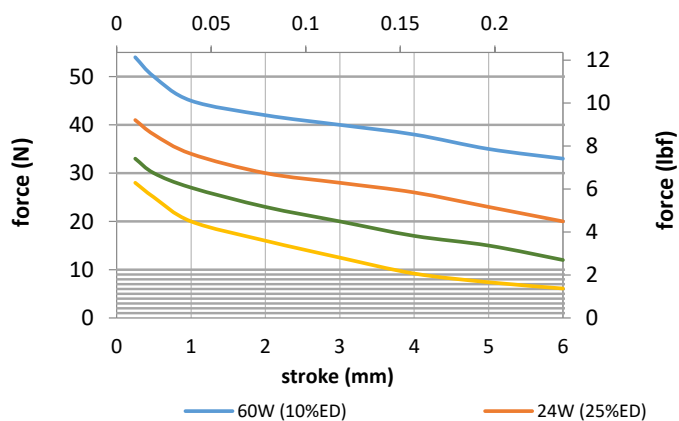
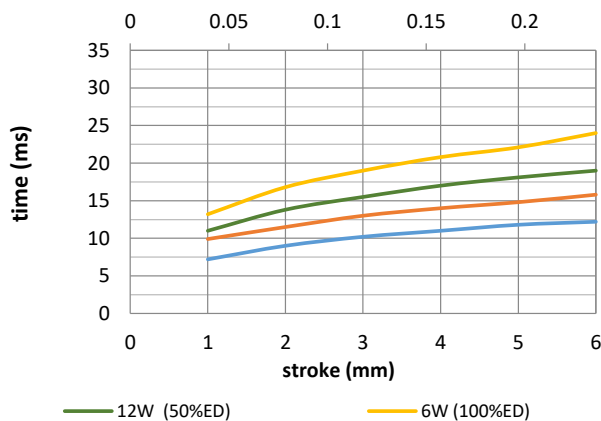
Device drawn in energised condition

Life Expectancy >250K cycles

Leadwires UL1007, 26AWG, 250mm

Plunger Mass 40grammes

Total Mass 362grammes

**Force / Stroke W1250**
stroke (inch)**Response Time**
stroke (inch)

Data at 20°C, device performance measured without heat sink

duty cycle = $\frac{\text{"on" time}}{\text{"on" time} + \text{"off" time}} \times 100\%$			100% cont.	50% or less	25% or less	10% or less
Max. "on" time in seconds			∞	140	50	9
watts at 20°C			6.0	12.0	24.0	60.0
ampere-turns at 20°			1150	1626	2300	3636
AWG no.	resistance Ω±10% (at 20°C)	number of turns	volts DC			
SK-W1250-6v	6	1100	6.0	8.5	12.0	19.0
SK-W1250-12v	24	2370	12.0	17.0	24.0	38.0
SK-W1250-24v	96	4600	24.0	34.0	48.0	76.0
SK-W1250-48v	384	8640	48.0	68.0	96.0	152

Insulation Resistance >100MΩ, 500VDC Megger

Dielectric Strength 500VAC, 50/60Hz, 1 minute

Class A (105°C) insulation class

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