## Linear Solenoids

Tubular	Туре	Preferred Products	Page
	STA Pull 13 x 27 mm STA Pull 13 x 27 mm	195222-232 195222-132	94
-	STA Push 13 x 27 mm STA Push 13 x 27 mm	195223-232 195223-132	97
	STA Pull 20 x 39 mm STA Pull 20 x 39 mm	195224-229 195224-129	100
	STA Push 20 x 39 mm STA Push 20 x 39 mm	195225-229 195225-129	103
	STA Pull 26 x 52 mm STA Pull 26 x 52 mm	195224-229 195224-129	106
	STA Push 26 x 52 mm STA Push 26 x 52 mm	195225-229 195225-129	109
	STA 125 M Pull 32 x 57 mm	282366-024	112
	STA 150 M Pull 38 x 63 mm	282367-023	115



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# STA 13 x 27

### Linear Solenoid

Tubular - Pull

### STA 13 x 27

Dimensions (mm) Ø 13 x 27

Duty cycle continous or intermittent

Stroke Nominal Stroke 2,5 mm

Operation Pull engagement; well-suited to lock/latch operations

Max. force (N) Up to 4,45 N (@ 10% Duty Cycle)

Life Extraordinary life of 25+ million actuations

Power (W) 4–40

Supply (V) 2,4–77 VDC

Functional Advantages multiple plunger designs; on/off operation



### **Technical Data**

Dielectric Strength

Recommended

Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C,

Minimum Heat Sink

Coil Resistance

Holding Force

Flat Face: 5,25 N @20°C

60°: 4,00 N @20°C

Weight

Plunger Weight

500 VRMS

Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C,

with solenoid mounted on the equivalent of an aluminium plate measuring 51 x 3,2 mm

25% tolerance

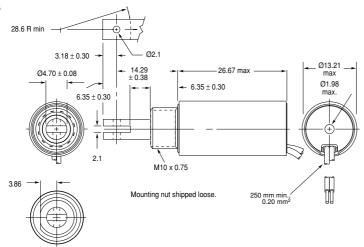
Flat Face: 5,25 N @20°C

60°: 4,00 N @20°C

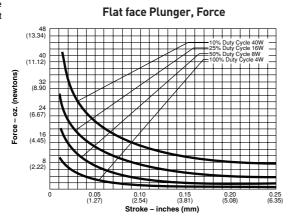
### **Preferred Range**

Туре	Size	Function	Duty Cycle	Max. Stroke	Nominal voltage	Force@Nominal Stroke	Nominal power	max. "On time"
195222-232	Ø 13 X 27 mm	Pull	100%	12,7 mm	8,1 VDC	0,6–0,8 N	4 W @20°C	∞ sec
195222-132	Ø 13 X 27 mm	Pull	100%	12,7 mm	8,1 VDC	0,6-0,8 N	4 W @20°C	∞ sec

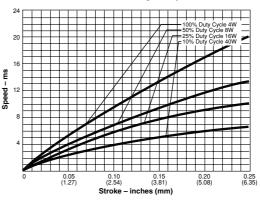
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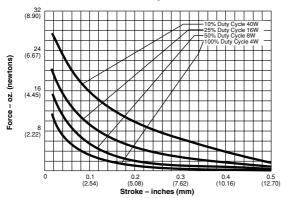
### Performance chart



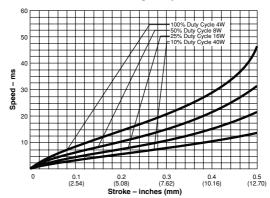
#### Flat face Plunger, Speed



### 60° Plunger, Force



### 60° Plunger, Speed



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Type 195222-(0) Plunger (XX) Coil Data awg (wire diameter)

Plunger Configurations and anti-rotation flat on mounting

- Flat face plunger without anti-rotation flat 60° plunger without anti-rotation flat Flat face plunger with anti-rotation flat 60° plunger with anti-rotation flat

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erformance				100%	50%	25%	10%
	Maximum 0 when pulsed	N Time (sec) I continuously¹		∞	50	5	2
	Force@Nominal Stroke (N)			0.6– 0.8	1.1– 1.4	2.0- 2.5	3.6– 4.5
	Watts (@20°	C)		4	8	16	40
	Ampere Turr	ns (@20°C)		497	704	994	1573
Coil Data	awg (XX) <sup>2</sup>	Resistance (@20°C)	# Turns³	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
	27 28 29 30	1.43 1.95 3.84 5.29	306 342 508 572	2.4 2.8 3.9 4.6	3.4 3.9 5.5 6.5	4.8 5.6 7.8 9.2	7.6 8.8 12.4 14.5
	31 32 33 34	9.56 16.54 22.60 37.41	795 1068 1194 1547	6.2 8.1 9.5 12.2	8.8 11.5 13.4 17.3	12.4 16.3 19.0 24.0	19.6 25.7 30.0 39.0
	35 36 37	60.71 96.19 149.93	1976 2475 3060	15.6 19.6 24.5	22.0 28.0 35.0	31.0 39.0 49.0	49.0 62.0 77.0

<sup>1</sup> Continuously pulsed at stated watts and duty cycle

All data is at  $20^{\circ}\text{C}$  coil temperature. Force outputs degrade with increased temperatures.

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 $<sup>^{2}\;\;</sup>$  Other coil awg (wire diameter) sizes available — please enquire

<sup>&</sup>lt;sup>3</sup> Reference number of turns

# STA 13 x 27

### Linear Solenoid

Tubular - Push

### STA 13 x 27

Dimensions (mm)	Ø 13 x 27
Duty cycle	continous or intermittent
Stroke	Nominal Stroke 2.5 mm
Operation	Push engagement; well-suited to lock/latch operations
Max. force (N)	Up to 4,18 N (@ 10% Duty Cycle)
Life	Extraordinary life of 25+ million actuations
Power (W)	4–40
Supply (V)	2,4-77 VDC
	Economical STA® Series design for volume applications; multiple plunger designs; on/off operation



### **Technical Data**

Dielectric Strength

Recommended

Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C,
Minimum Heat Sink

Coil Resistance

Holding Force

Flat Face: 4,45 N @20°C

60°: 3.16 N @20°C

Weight

25,2 g

Plunger Weight

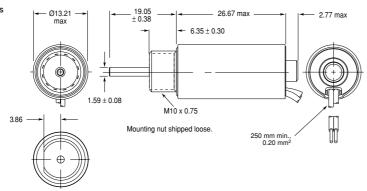
3,12 g

### **Preferred Range**

Туре	Size	Function	Duty Cycle	Max. Stroke	Nominal voltage	Force@Nominal Stroke	Nominal power	max. "On time"
195223-232	Ø 13 X 27 mm	Push	100%	12,7 mm	8,1 VDC	0,3–0,6 N	4 W @20°C	∞ sec
195223-132	Ø 13 X 27 mm	Push	100%	12,7 mm	8,1 VDC	0,3–0,6 N	4 W @20°C	∞ sec

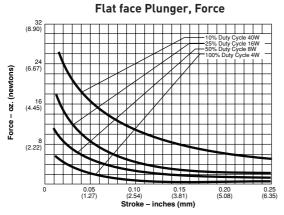
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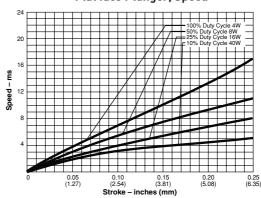


### Performance

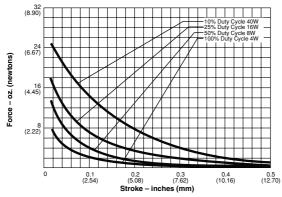
### chart



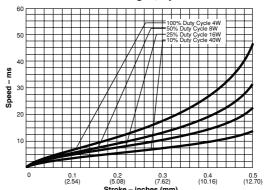
### Flat face Plunger, Speed



### 60° Plunger, Force



### 60° Plunger, Speed



**98** | <sub>099</sub>

Type 195223-(0) Plunger (XX) Coil Data awg (wire diameter)

Plunger Configurations and anti-rotation flat on mounting

- Flat face plunger without anti-rotation flat
- 60° plunger without anti-rotation flat Flat face plunger with anti-rotation flat 60° plunger with anti-rotation flat

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Performance	

Coil

mance				100%	50%	25%	10%
		N Time (sec) d continuously¹		∞	50	5	2
	Force@Nom	inal Stroke (N)		0.27- 0.58	0.62- 1.11	1.38- 2.14	3.07- 4.18
	Watts (@20°	C)		4	8	16	40
	Ampere Turi	ns (@20°C)		497	704	994	1573
il Data	awg (XX) <sup>2</sup>	Resistance (@20°C)	# Turns³	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
	27 28 29 30	1.43 1.95 3.84 5.29	306 342 508 572	2.4 2.8 3.9 4.6	3.4 3.9 5.5 6.5	4.8 5.6 7.8 9.2	7.6 8.8 12.4 14.5
	31 32 33 34	9.56 16.54 22.60 37.41	795 1068 1194 1547	6.2 8.1 9.5 12.2	8.8 11.5 13.4 17.3	12.4 16.3 19.0 24.0	19.6 25.7 30.0 39.0
	35 36 37	60.71 96.19 149.93	1976 2475 3060	15.6 19.6 24.5	22.0 28.0 35.0	31.0 39.0 49.0	49.0 62.0 77.0

<sup>1</sup> Continuously pulsed at stated watts and duty cycle

All data is at  $20^{\circ}\text{C}$  coil temperature. Force outputs degrade with increased temperatures.

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 $<sup>^{2}\;\;</sup>$  Other coil awg (wire diameter) sizes available — please enquire

<sup>&</sup>lt;sup>3</sup> Reference number of turns

# STA 20 x 39

### Linear Solenoid

Tubular - Pull

### STA 20 x 39

Dimensions (mm) 

Duty cycle 

Continous or intermittent

Stroke 

Nominal Stroke 5.1 mm

Operation 

Pull engagement; well-suited to lock/latch operations

Max. force (N) 

Up to 11.9 N (@ 10% Duty Cycle)

Life 

25 M cycles

Power (W) 7–70

Supply (V) 

3.9–76 VDC

Functional 

Advantages 

Economical STA® Series design for volume applications; multiple plunger designs; on/off operation



### **Technical Data**

Dielectric Strength
Recommended
Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C,
Minimum Heat Sink
With solenoid mounted on the equivalent of an aluminium plate measuring 3" 1/8"

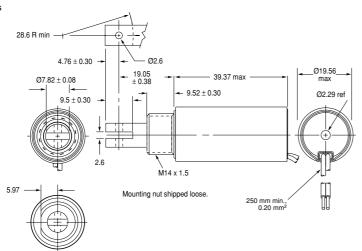
Coil Resistance
Holding Force
Flat Face: 23,31 N @20°C
60°: 12,81 N @20°C
Weight
83,6 g

Plunger Weight
20,13 g

### **Preferred Range**

Туре	Size	Function	Duty Cycle	Max. Stroke	Nominal voltage	Force@Nominal Stroke	Nominal power	max. "On time"
195224-229	Ø 20 X 39 mm	Pull	100%	17,8 mm	9,4 VDC	1,7–2,2 N	7 W @20°C	∞ sec
195224-129	Ø 20 X 39 mm	Pull	100%	17,8 mm	9,4 VDC	1,7–2,2 N	7 W @20°C	∞ sec

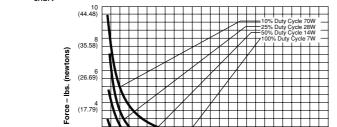
100 | 101



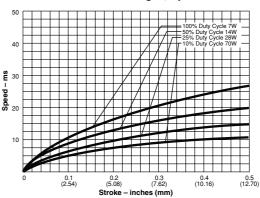
Flat face Plunger, Force

### Performance chart

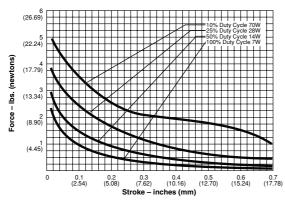
(8.90)



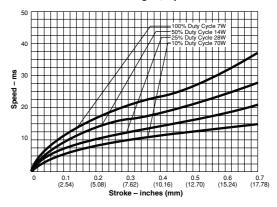
### Flat face Plunger, Speed



### 60° Plunger, Force



### 60° Plunger, Speed



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Type 195224-(0) Plunger (XX) Coil Data awg (wire diameter)

Plunger Configurations and anti-rotation flat on mounting

- Flat face plunger without anti-rotation flat
- 60° plunger without anti-rotation flat Flat face plunger with anti-rotation flat 60° plunger with anti-rotation flat

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Coil Data

			100%	50%	25%	10%
Maximum 01 when pulsed	N Time (sec) I continuously¹		∞	230	25	6
Force@Nom	inal Stroke (N)		1.69- 2.22	3.34- 4.45	5.56- 7.25	9.48- 11.97
Watts (@20°0	C)		7	14	28	70
Ampere Turn	ns (@20°C)		855	1200	1700	2700
awg (XX) <sup>2</sup>	Resistance (@20°C)	# Turns <sup>3</sup>	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
25 26 27	2.13 2.90 5.27	488 544 760	3.9 4.5 6.1	5.5 6.4 8.6	7.7 9.0 12.1	12.2 14.2 19.2
28	9.15	1026	8.0	11.3	16.0	25.0
29 30 31	12.50 20.70 33.60	1146 1491 1904	9.4 12.0 15.0	13.2 17.0 22.0	18.7 24.0 31.0	30.0 38.0 48.0
32 33	53.50 83.50	2394 2970	19.4 24.0	27.0 34.0	39.0 48.0	61.0 76.0

All data is at 20°C coil temperature. Force outputs degrade with increased temperatures.

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<sup>&</sup>lt;sup>1</sup> Continuously pulsed at stated watts and duty cycle

<sup>&</sup>lt;sup>3</sup> Other coil awg (wire diameter) sizes available — please enquire

<sup>&</sup>lt;sup>4</sup> Reference number of turns

# STA 20 x 39

### Linear Solenoid

Tubular - Push

### STA 20 x 39

Dimensions (mm)	Ø 20 x 39
Duty cycle	continous or intermittent
Stroke	Nominal Stroke 5,1 mm
Operation	Push engagement; well-suited to lock/latch operations
Max. force (N)	Up to 12,2 N (@ 10% Duty Cycle)
Life	25 M cycles
Power (W)	
Supply (V)	3,9–76 VDC
	Economical STA® Series design for volume applications; multiple plunger designs; on/off operation



### **Technical Data**

Dielectric Strength
Recommended
Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C,
Minimum Heat Sink
With solenoid mounted on the equivalent of an aluminium plate measuring 76 x 3,2 mm

Coil Resistance
Holding Force
Flat Face: 22,02 N @20°C
60°: 12,68 N @20°C

Weight
87,3 g

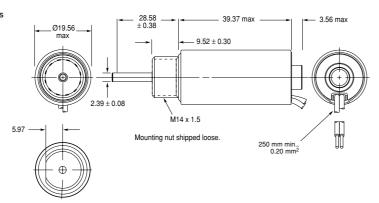
Plunger Weight
15,03 g

### **Preferred Range**

Туре	Size	Function	, , ,	Max. Stroke	Nominal voltage	Force@Nominal Stroke	Nominal power	max. "On time"
195225-229	Ø 20 X 39 mm	Push	100%	17,8 mm	9,4 VDC	1,1–1,7 N	7 W @20°C	∞ sec
195225-129	Ø 20 X 39 mm	Push	100%	17,8 mm	9,4 VDC	1,1–1,7 N	7 W @20°C	∞ sec

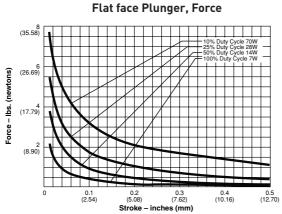
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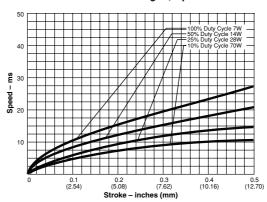


### Performance

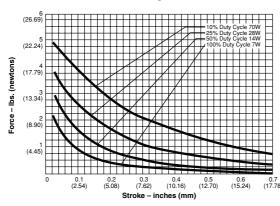




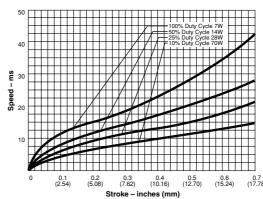
### Flat face Plunger, Speed



### 60° Plunger, Force



### 60° Plunger, Speed



Type 195225-(0) Plunger (XX) Coil Data awg (wire diameter)

Plunger Configurations and anti-rotation flat on mounting

- Flat face plunger without anti-rotation flat 60° plunger without anti-rotation flat Flat face plunger with anti-rotation flat 60° plunger with anti-rotation flat

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Coil Data

			100%	50%	25%	10%
Maximum 0	N Time (sec)   continuously <sup>1</sup>		∞	230	25	6
Force@Nom	inal Stroke (N)		1.11- 1.69	2.22- 3.56	4.90- 6.68	9.79- 12.24
Watts (@20°0	C)		7	14	28	70
Ampere Turr	ıs (@20°C)		855	1200	1700	2700
awg	Resistance	#	VDC	VDC	VDC	VDC
(XX) <sup>2</sup>	(@20°C)	Turns <sup>3</sup>	(Nom)	(Nom)	(Nom)	(Nom)
25	2.13	488	3.9	5.5	7.7	12.2
26	2.90	544	4.5	6.4	9.0	14.2
27	5.27	760	6.1	8.6	12.1	19.2
28	9.15	1026	8.0	11.3	16.0	25.0
29	12.50	1146	9.4	13.2	18.7	30.0
30	20.70	1491	12.0	17.0	24.0	38.0
31	33.60	1904	15.0	22.0	31.0	48.0
32	53.50	2394	19.4	27.0	39.0	61.0
33	83.50	2970	24.0	34.0	48.0	76.0

<sup>1</sup> Continuously pulsed at stated watts and duty cycle

All data is at 20°C coil temperature. Force outputs degrade with increased temperatures.

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<sup>&</sup>lt;sup>2</sup> Other coil awg (wire diameter) sizes available — please enquire

<sup>&</sup>lt;sup>3</sup> Reference number of turns

# STA 26 x 52

### Linear Solenoid

Tubular - Pull

### STA 26 x 52



### **Technical Data**

Dielectric Strength 1000 VRMS

Recommended Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C,

with solenoid mounted on the equivalent of an aluminium plate measuring 102 x 3,2 mm

Coil Resistance ±5% tolerance

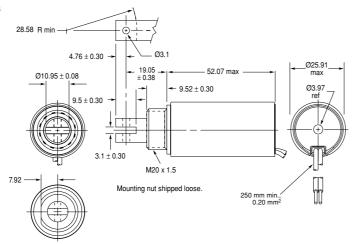
Holding Force Flat Face: 61,52 N @20°C

60°: 29,40 N @20°C

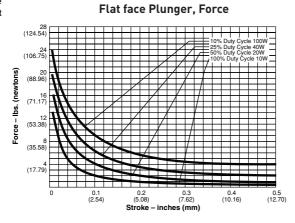
Weight 197,3 g Plunger Weight 45,36 g

### **Preferred Range**

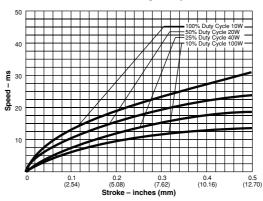
	Type	Size	Function	Duty Cycle	Max. Stroke	Nominal voltage	Force@Nominal Stroke	Nominal power	max. "On time"
19522	24-229	2 20 71 02 111111	Pull	100%	17,8 mm	9,2 VDC	3,4–4,0 N	10 W @20°C	∞ sec
19522	24-129	Ø 26 X 52 mm	Pull	100%	17,8 mm	9,4 VDC	3,4–4,0 N	10 W @20°C	∞ sec



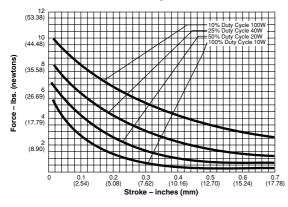
#### Performance chart



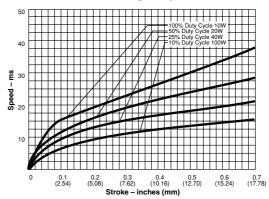
### Flat face Plunger, Speed



### 60° Plunger, Force



### 60° Plunger, Speed



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Type 195226-(0) Plunger (XX) Coil Data awg (wire diameter)

Plunger Configurations and anti-rotation flat on mounting

- Flat face plunger without anti-rotation flat
- 60° plunger without anti-rotation flat Flat face plunger with anti-rotation flat 60° plunger with anti-rotation flat

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rformance				100%	50%	25%	10%
	Maximum 0 when pulsed	N Time (sec) d continuously¹		∞	360	32	8
	Force@Nom	inal Stroke (N)		3.34- 4.00	6.68- 7.79	11.57- 13.35	21.36- 23.14
	Watts (@20°	C)		10	20	40	100
	Ampere Turr	ns (@20°C)		1166	1649	2332	3688
Coil Data	awg (XX) <sup>2</sup>	Resistance (@20°C)	# Turns³	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
	23	1.96	536	4.4	6.3	8.9	14.0
	24 25	2.69 4.89	600 840	5.2 7.0	7.3 9.9	10.4 14.0	16.4 22.0
	26 27	8.44 11.50	1128 1260	9.2 10.7	13.0 15.2	18.4 21.0	29.0 34.0
	28 29	19.20 31.20	1645 2104	13.8 17.7	19.6 25.0	28.0 35.0	44.0 56.0
	30	49.60	2646	22.0	31.0	45.0	70.0
	31 32	77.40 119.00	3280 4026	28.0 35.0	39.0 49.0	56.0 69.0	88.0 109.0
	33	202.00	5317	45.0	64.0	90.0	142.0

<sup>1</sup> Continuously pulsed at stated watts and duty cycle

All data is at  $20^{\circ}\text{C}$  coil temperature. Force outputs degrade with increased temperatures.

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 $<sup>^{2}\;\;</sup>$  Other coil awg (wire diameter) sizes available — please enquire

<sup>&</sup>lt;sup>3</sup> Reference number of turns

# STA 26 x 52

### Linear Solenoid

Tubular - Push

### STA 26 x 52

Dimensions (mm)	Ø 26 x 52
Duty cycle	continous or intermittent
Stroke	Nominal Stroke 7.6 mm
Operation	Push engagement; well-suited to lock/latch operations
Max. force (N)	Up to 23,14 N (@ 10% Duty Cycle)
Life	25 M cycles
Power (W)	10–100
Supply (V)	4,4–142 VDC
Functional Advantages	Economical STA® Series design for volume applications;



### **Technical Data**

Dielectric Strength
Recommended
Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C,
Minimum Heat Sink
With solenoid mounted on the equivalent of an aluminium plate measuring 102 x 3,2 mm

Coil Resistance
Holding Force
Flat Face: 52,58 N @20°C
60°: 28,87 N @20°C
Weight
190.8 g

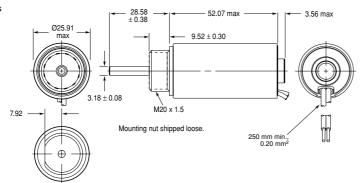
Plunger Weight
33,74 g

### **Preferred Range**

Туре	Size	Function	Duty Cycle	Max. Stroke	Nominal voltage	Force@Nominal Stroke	Nominal power	max. "On time"
195225-229	Ø 26 X 52 mm	Push	100%	17,8 mm	9,2 VDC	2,2–3,3 N	10 W @20°C	∞ sec
195225-129	Ø 26 X 52 mm	Push	100%	17,8 mm	9,2 VDC	2,2–3,3 N	10 W @20°C	∞ sec

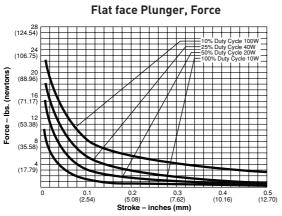
Solenoid Products www.saia-burgess.com 108 | 109



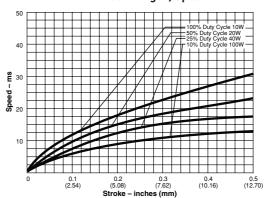


Performance chart

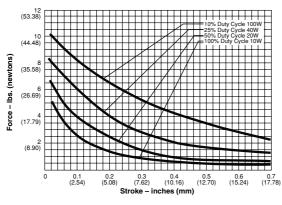




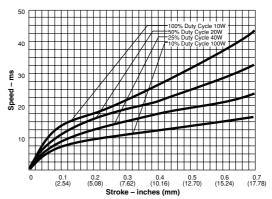
### Flat face Plunger, Speed







### 60° Plunger, Speed



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Type 195227-(0) Plunger (XX) Coil Data awg (wire diameter)

Plunger Configurations and anti-rotation flat on mounting

- Flat face plunger without anti-rotation flat
- 60° plunger without anti-rotation flat Flat face plunger with anti-rotation flat 60° plunger with anti-rotation flat

Dai	-6-	 	

rformance				100%	50%	25%	10%
	Maximum 0	N Time (sec) I continuously <sup>1</sup>		∞	360	32	8
	Force@Nom	inal Stroke (N)		2.22- 3.34	4.45- 8.37	8.9- 12.9	17.9- 23.14
	Watts (@20°	C)		10	20	40	100
	Ampere Turr	ns (@20°C)		1166	1649	2332	3688
Coil Data	awg (XX) <sup>2</sup>	Resistance (@20°C)	# Turns³	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
	23 24 25 26	1.96 2.69 4.89 8.44	536 600 840 1128	4.4 5.2 7.0 9.2	6.3 7.3 9.9 13.0	8.9 10.4 14.0 18.4	14.0 16.4 22.0 29.0
	27 28 29 30	11.50 19.20 31.20 49.60	1260 1645 2104 2646	10.7 13.8 17.7 22.0	15.2 19.6 25.0 31.0	21.0 28.0 35.0 45.0	34.0 44.0 56.0 70.0
	31 32 33	77.40 119.00 202.00	3280 4026 5317	28.0 35.0 45.0	39.0 49.0 64.0	56.0 69.0 90.0	88.0 109.0 142.0

<sup>1</sup> Continuously pulsed at stated watts and duty cycle

All data is at  $20^{\circ}\text{C}$  coil temperature. Force outputs degrade with increased temperatures.

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 $<sup>^{2}\;\;</sup>$  Other coil awg (wire diameter) sizes available — please enquire

<sup>&</sup>lt;sup>3</sup> Reference number of turns

# STA 125 M

### Linear Solenoid

Tubular - Pull

### **STA 125 M**

imensions (mm)	Ø 32 x 57
Duty cycle	continous or intermittent
Stroke	Nominal Stroke 10,2 mm
Operation	Pull
Max. force (N)	Up to 28,9 N (@ 10% Duty Cycle)
Life	1 million cycles
Power (W)	13–130
Supply (V)	6.8–218 VDC
	Economical STA® Series design for volume applications; multiple plunger designs; on/off operation



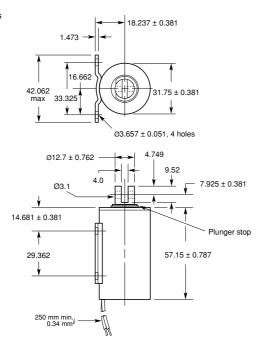
### **Technical Data**

Weight	295 g
Holding Force	40,03 N @20°C
Coil Resistance	±5% tolerance
Recommended Minimum Heat Sink	Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20 $^{\circ}$ C, with solenoid mounted on the equivalent of an aluminium plate measuring 127 x 3,2 mm
Dielectric Strength	1000 VRMS

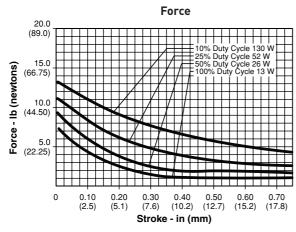
### **Preferred Range**

Туре	Size	Function	Duty Cycle	Max. Stroke	Nominal voltage	Force@Nominal Stroke	Nominal power	max. "On time"
282366-024	Ø 32 X 57 mm	Pull	100%	19 mm	8,6 VDC	4,5 N	13 W @20°C	∞ sec

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### Performance chart



### 80 100% Duty Cycle 13 W 50% Duty Cycle 26 W 10% Duty Cycle 21 W 10% Duty Cycle 52 W 20 0 0.20 0.40 0.60 0.80 1.00 (5.08) (10.16) (15.24) (20.32) (25.4)

Stroke - in (mm)

Speed

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Type 282366-(0XX) Coil Data awg (wire diameter)

Pe	rfo	rm	an	ce

rformance				100%	50%	25%	10%
	Maximum ON when pulsed	N Time (sec) continuously <sup>1</sup>		∞	390	60	18
		nal Stroke (N)		4.45	8.90	17.80	28.9
	Watts (@20°C	;)		13	26	52	130
	Ampere Turn	s (@20°C)		1500	2121	3000	4743
Coil Data	awg	Resistance	#	VDC	VDC	VDC	VDC
	(0XX) <sup>2</sup>	(@20°C)	Turns <sup>3</sup>	(Nom)	(Nom)	(Nom)	(Nom)
	023	3.52	780	6.8	9.6	13.6	22.0
	024	6.04	1056	8.6	12.2	17.2	27.0
	025	8.47	1176	10.9	15.4	22.0	34.0
	026	14.10	1540	13.8	19.5	28.0	44.0
	027	22.50	1970	17.3	24.0	35.0	55.0
	028	36.10	2484	22.0	31.0	44.0	69.0
	029	55.10	3060	27.0	38.0	54.0	86.0
	030	88.10	3805	35.0	49.0	70.0	110.0
	031	147.00	5044	44.0	62.0	88.0	139.0
	032	214.00	5992	54.0	76.0	107.0	170.0
	033	354.00	7744	69.0	98.0	138.0	218.0

<sup>&</sup>lt;sup>1</sup> Continuously pulsed at stated watts and duty cycle

All data is at 20°C coil temperature. Force outputs degrade with increased temperatures.

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 $<sup>^{2}\,\,</sup>$  Other coil awg (wire diameter) sizes available — please enquire

<sup>&</sup>lt;sup>3</sup> Reference number of turns

# STA 150 M

### Linear Solenoid

Tubular – Pull

### **STA 150 M**

Dimensions (mm)	Ø 38 x 63
Duty cycle	continous or intermittent
Stroke	Nominal Stroke 10.2 mm
Operation	Pull
Max. force (N)	Up to 43.6 N (@ 10% Duty Cycle)
Life	1 million cycles
Power (W)	17–170
Supply (V)	9.8–315 VDC
	Economical STA® Series design for volume applications; multiple plunger designs; on/off operation



### **Technical Data**

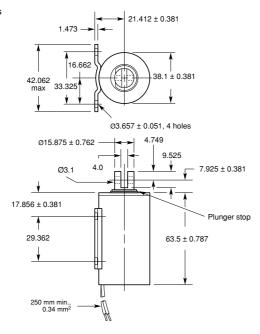
Dielectric Strength	1000 VRMS
Recommended	Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C,
Minimum Heat Sink	with solenoid mounted on the equivalent of an aluminium plate measuring 152 x 3,2 mm
Coil Resistance	±5% tolerance
Holding Force	64,50 N at 20°C
Weight	481,8 g

### **Preferred Range**

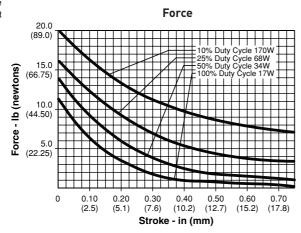
Туре	Size	Function	Duty Cycle	Max. Stroke	Nominal voltage	Force@Nominal Stroke	Nominal power	max. "On time"
282367-023	Ø 38 X 63 mm	Pull	100%	19 mm	9,8 VDC	4,5 N	17 W @20°C	∞ sec

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### Performance chart



# Speed 80 100% Duty Cycle 17W 60 50% Duty Cycle 34W 10% Duty Cycle 68W 10% Duty Cycle 170W 40 0 0.20 0.40 0.60 0.80 1.00 (5.08) (10.16) (15.24) (20.32) (25.4) Stroke - in (mm)

Type 282367-(0XX) Coil Data awg (wire diameter)

Pe	rfo	rm	an	ce

erformance				100%	50%	25%	10%
	Maximum OI when pulsed	N Time (sec) I continuously¹		∞	420	100	25
	Force@Nom	inal Stroke (N)		4.45	11.12	23.14	43.61
	Watts (@20°0	C)		17	34	68	170
	Ampere Turn	ns (@20°C)		1800	2546	3600	5692
Coil Data	awg (0XX) <sup>2</sup>	Resistance (@20°C)	# Turns³	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
	023	5.58	1030	9.8	13.9	19.7	31.0
	024 025	9.30 14.90	1344 1712	12.4 15.7	17.6 22.0	25.0 31.0	39.0 50.0
	026 027	24.00 36.90	2180 2680	19.9 25.0	28.0 35.0	40.0 50.0	63.0 79.0
	028	58.40	3322	32.0	45.0	63.0	100.0
	029 030	87.50 148.00	4008 5292	39.0 50.0	56.0 71.0	79.0 101.0	124.0 159.0
	031 032	224.00 344.00	6360 7956	63.0 78.0	90.0 110.0	127.0 155.0	200.0 246.0
	033	554.00	10070	100.0	141.0	199.0	315.0

<sup>1</sup> Continuously pulsed at stated watts and duty cycle

All data is at  $20^{\circ}\text{C}$  coil temperature. Force outputs degrade with increased temperatures.

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<sup>&</sup>lt;sup>2</sup> Other coil awg (wire diameter) sizes available — please enquire

<sup>&</sup>lt;sup>3</sup> Reference number of turns