

DC Open Frame Solenoid

Rectifier for AC supply
Stroke up to 25mm
Pushing and spring-return versions available

10

Product group

Type 609

- Increasing force characteristic (Fig. 2)
- Long stroke design with integral clevis for pull operation (Fig.1)
- Version with threaded pushrod available
- Zinc / nickel plated iron parts
- Coil insulation to class B, for voltages up to 250 volts
- Protection classification - DIN VDE0470 / EN60529
Flying leads - IP00
- UL listed materials of construction
- Suitable for operation in any attitude
- Spring return arrangement available
- Modifications and special designs on request
- General - purpose box frame solenoid for service on:

Machine tools

Office Machines

Automation

Remote control

Packaging and coin equipment

Textile Machinery

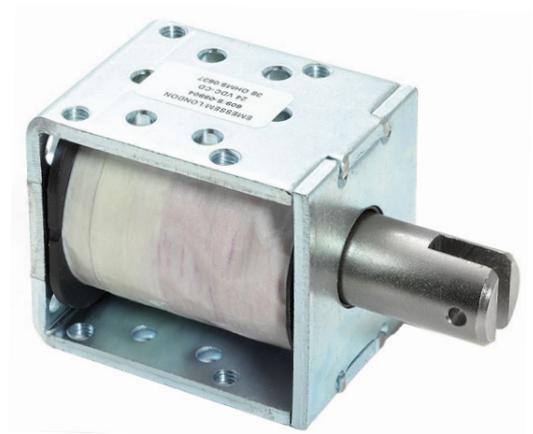


Fig. 1
Type 609

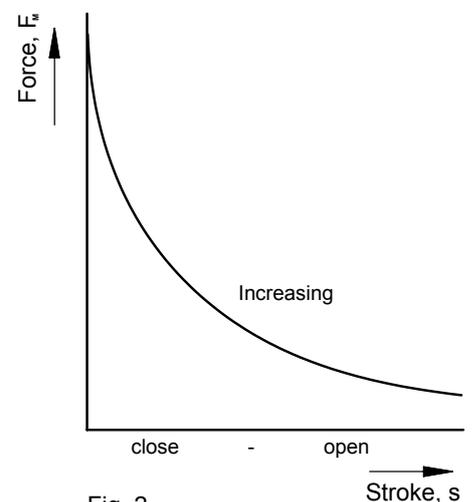


Fig. 2
Force characteristic



QUALITY SINCE 1912

Performance and dimensional data for type 609

		609		
Duty Rating		Continuous (CD) 100%	Intermittent (ID) 25%	Pulse (PD) 10%
Stroke s	(mm)	Magnetic force F_M (N)		
	0	62.4	90.3	110.8
	2	27.4	59.9	92.7
	4	17.1	43.4	80.1
	8	8.5	26.1	58.9
	12	5.2	16.4	42.4
	16	3.3	10.7	30.6
	20	1.9	6.5	20.8
	25	0.56	2.4	9.1
Power Consumption P_{25}	(Watts)	13	40	130
Armature Weight m_A	(kg)	0.091		
Solenoid Weight m_M	(kg)	0.491		

0mm is completion of energised stroke

TABLE BASIS

24V / Continuous - Intermittent - Pulse duty
Mounted on steel plate 152 x 152 x 3mm
Horizontal working
Tolerance +/- 10% (inherent and manufacture)

Ambient temperature 25°C
Free air mounted
Pull arrangement

MAGNETIC FORCE (F_M)

is listed in HOT condition at RATED voltage
Adjust for armature weight

RESIDUAL MAGNETISM

With low force applications, plungers may hold in under residual magnetism when the coil is deenergised. To prevent this, anti-residual springs are available, but the force/stroke characteristic will be modified as a result

POWER CONSUMPTION (P_{25})

is listed with 25°C coil temperature (decrease/HOT)

DUTY RATING

The proportion of time that the solenoid is energised per operation cycle normally shown in %
Max. energised time/cycle: Continuous (100%): Intermittent (25%) - 60secs: Pulse (10%) - 0.1secs

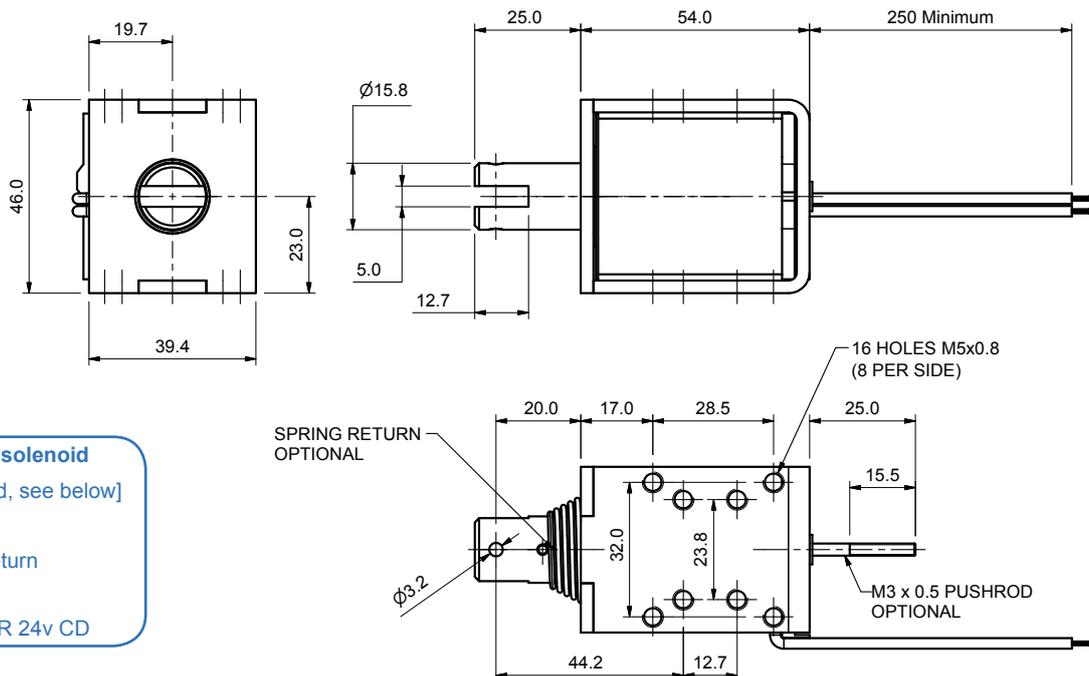
$$\frac{t(\text{on})}{t(\text{on}) + t(\text{off})} \times 100$$

SUPPLY VOLTAGE

Standard DC: 6V, 12V, 24V - other voltages on request
Rectifier can be provided for AC Supply

Fig. 3 Type 609

Dimensions in [mm]
Solenoid drawn in energised condition



Order code for Type 609 solenoid

609 - [add suffixes as required, see below]

Voltage / Duty

- R - for spring-return
- P - for push-rod

Order Example 609 - R 24v CD