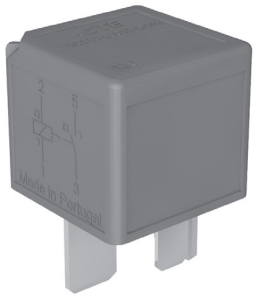
Power Relay F7 A Latching

- **Magnetically latched, ISO plug-in relay**
- **One coil with set and reset function**
- **Pin assignment similar to ISO 7588 part 1**
- **Customized versions available (colour, parallel or serial components etc.)**
- **Mini version (40A with 6.3mm terminals) available on request**



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Typical applications
Cross carline, e.g. Power outlet switch off, start-stop, energy management

Contact Data

Contact arrangement	1 form A, 1 NO
Rated voltage	12VDC
Limiting continuous current	
23°C	80A
85°C	60A
125°C	35A
Limiting making current[1)]	300A
Limiting breaking current	70A
Limiting short-time current	
overload current, ISO 8820-3[2)]	1.35 x 50A, 1800s 2.00 x 50A, 5s 3.50 x 50A, 0.5s 6.00 x 50A, 0.1s
Contact material	Silver based
Min. recommended contact load[3)]	1A at 5VDC
Initial voltage drop,	
NO contact at 10A, typ./max.	15/300mV
Frequency of operation at nominal load	6 ops./min (0.1Hz)
Set/reset time typ.	2/1ms
Electrical endurance	
at cyclic temperature -40/+23/+85°C, 14VDC, 2s (on), 2s (off)	
resistive load 300A (on)/ 30A (off)	>2x10^{5}ops
motor load L=0.2mH, 200A (on)/ 40A (off)	>1x10^{5}ops
Mechanical endurance	>1x10^{7}ops

Coil Data

Magnetic system	bistable (one coil system)			
Rated coil voltage	12VDC			
Min./Max. energization duration	10ms/100ms			
Polarity for set/reset energization	set		reset	
	- pin 2	+ pin 1	- pin 1	+ pin 2
Max. coil temperature	155°C			

Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Impulse length ms
031	12	6	6	25	10-100

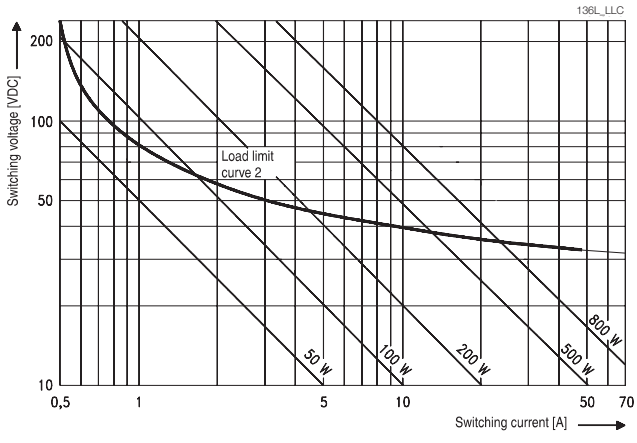
All figures are given for coil without pre-energization, at ambient temperature +23°C.

Insulation Data

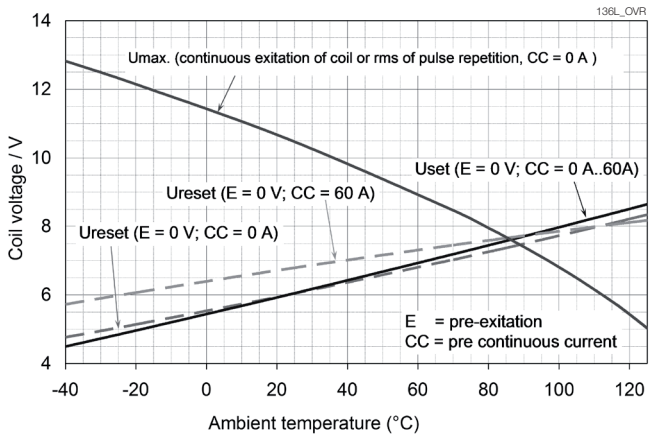
Initial dielectric strength	
between open contacts	500V$_{rms}$
between contact and coil	500V$_{rms}$
between adjacent contacts	500V$_{rms}$
Load dump test	
ISO 7637-1 (12VDC), test pulse 5	V_S=+86.5VDC
ISO 7637-2 (24VDC), test pulse 5	V_S=+200VDC

1) The values apply to a resistive or inductive load with suitable spark suppression and at maximum 14VDC for 12VDC load voltages. For a load current duration of maximum 3s for a make/break ratio of 1:10.
2) Current and time are compatible with circuit protection by a typical 50A automotive fuse. Relay will make, carry and break the specified current.
3) See chapter Diagnostics of Relays in our Application Notes or consult the internet at http://relays.te.com/appnotes/

Max. DC load breaking capacity



Coil operating range



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Power Relay F7 A Latching (Continued)

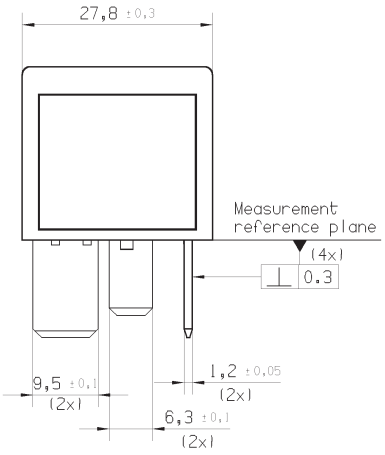
Other Data	
EU RoHS/ELV compliance	compliant
Protection to heat and fire according UL94	HB or better[4]
Climatic cycling with condensation	
EN ISO 6988	6 cycles, storage 8/16h
Temperature cycling	
IEC 60068-2-14, Nb	10 cycles, -40/+85°C (5°C/min)
Damp heat cyclic	
IEC 60068-2-30, Db, Variant 1	6 cycles, upper air temp. 55°C
Damp heat constant, IEC 60068-2-3, Ca	56 days
Category of environmental protection,	
IEC 61810	RT I – dustproof
Degree of protection, IEC 60529	IP54 – dustproof
Vibration resistance (functional)	
IEC 60068-2-6 (sine sweep)	10 to 500Hz, min. 10g[5]
Shock resistance (functional)	
IEC 60068-2-27 (half sine)	6ms, min. 30g[5]
Drop test, free fall, IEC 60068-2-32	1m onto concrete[6]

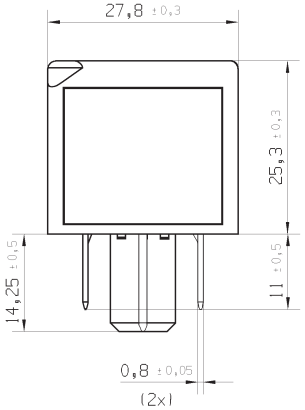
Other Data (continued)	
Terminal type	Plug-in, QC
Cover retention	
axial force	150N
pull force	200N
push force	200N
Terminal retention	
pull force	100N
push force	100N
Weight	approx. 35g (1.2oz)

4) Refers to used materials.
5) No change in the switching state >10µs. Valid for open contacts, for closed contact values significantly higher.
6) Contact status can change due to drop.

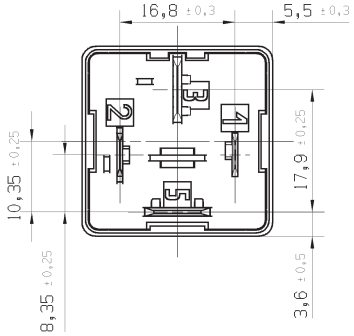
Accessories	
For details see datasheet	Connector for Maxi ISO Relays

Dimensions



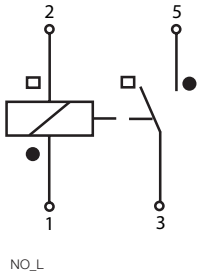


View of the terminals (bottom view)



Terminal Assignment

1 form A, NO latching



Product code structure

Typical product code **V23136 -L 0 031 -D642**

Type
V23136 Power Relay F7 A
Feature
L Latching
Cover
0 Standard
Coil
031 12VDC
Terminal/arrangement
D642 Standard version
Xnnn Customized version

Other types on request.

Product code	Arrangement	Feature	Cover	Circuit	Coil	Contact material	Terminals	Part number
V23136-L0031-D642	1 form A, 1 NO	Latching	Standard	NOL	12VDC	Silver based	Plug-in, QC	4-1904060-6

Other types on request.

单击下面可查看定价，库存，交付和生命周期等信息

>>TE Connectivity(泰科)