

Shrouded Power Relay F7 A

Pin assignment similar to ISO 7588 part 1

Customized versions on request

- Integrated components (e.g. resistor, diode)
- Customized marking/color
- Special cover with bracket

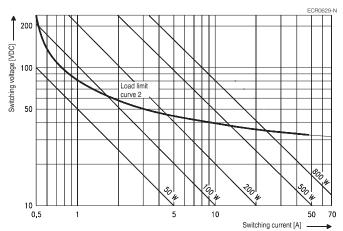
Typical applications

Cross carline up to 70A for example: ABS control, blower fans, cooling fan, energy management, engine control, fuel pump, heated front screen, ignition, lamps: front, rear, fog light, main switch/supply relay, wiper control.

Contact Data

1 form A, 1 NO
12VDC
70A
50A
30A
240A
70A
1.35 x 50A, 1800s
2.00 x 50A, 5s
3.50 x 50A, 0.5s
6.00 x 50A, 0.1s
24VDC for 5min,
conducting nominal current at 23°C
Silver based
1A at 5VDC
nax. 15/300mV
ad 6 ops./min (0.1Hz)
8.5/4ms ⁴⁾
>2x10 ⁵ ops.
50A, 14VDC

Max. DC load breaking capacity



Load limit curve 1: arc extinguishes during transit time (changeover contact). Load limit curve 2: safe shutdown, no stationary arc (make contact). Load limit curves measured with low inductive resistors verified for 1000 switching events.

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Datasheets and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section.



F136_fcw1_bw

Contact Data (continued)

Mechanical endurance

- >1x107 ops 1) The values apply to a resistive or inductive load with suitable spark suppression and at maximum 14VDC for 12VDC or 28VDC for 24VDC 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 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/
- 4) For unsuppressed relay coil. A low resistive suppression device in parallel to the relay coil increases the release time and reduces the lifetime caused by increased erosion and/or higher risk of contact tack welding.

Coil Data

|--|

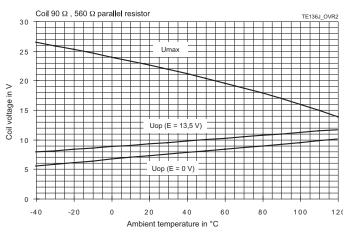
Coil versions, DC coil

00111011					
Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance ⁵⁾	power ⁵⁾
	VDC	VDC	VDC	Ω±10%	W
004	12	7.2	1.6	90	1.6
		.			

5) Without components in parallel.

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

Coil operating range



Does not take into account the temperature rise due to the contact current E = pre-energization

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Datasheets, product data, 'Definitions' section, application notes and all specifications are subject to change

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Shrouded Power Relay F7 A (Continued)

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	

Other Data

compliant
UL94 HB or better ⁶⁾
-40 to 125°C
6 cycles, storage 8/16h
10 cycles, -40/+85°C (5°C/min)
6 cycles, upper air temp. 55°C
Ca 56 days
RT III – sealed
IP67 (sealed)
only with special connector
10 to 500Hz, min. 10g ⁷⁾
6ms, min. 30g ⁷⁾
1m onto concrete

Other Data (continued)	
Terminal type	plug-in, QC/ PCB
Cover retention	
axial force	150N
pull force	200N
push force	200N
Terminal retention ⁸⁾	
pull force	100N
push force	100N
Weight	approx. 60g (2.1oz)
Packaging unit	108 pcs.
6) Refers to used materials.	

No change in the switch.ing state >10µs. Valid for NC contacts, NO contact values significantly higher.

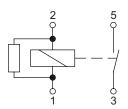
8) Values apply 2mm from the end of the terminal. When the force is removed, the terminal must not have moved by more than 0.3mm.

Accessories

For fitting connectors please contact us via online Support Center

Terminal Assignment

NOR 1 form A, NO with resistor



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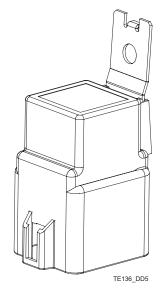
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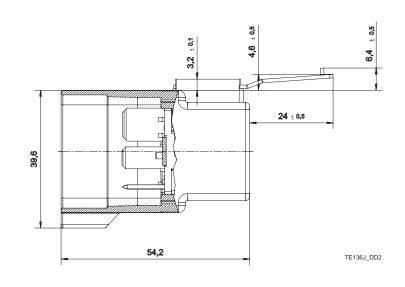


Automotive Relays Plug-in Maxi ISO Relays

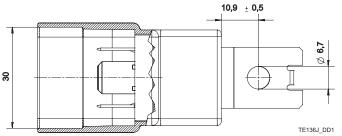
Shrouded Power Relay F7 A (Continued)

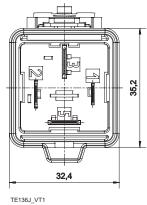
Dimensions

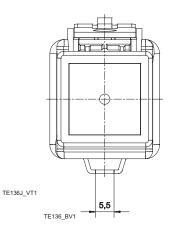




View of the terminals (bottom view)







Prod	uct co	de structure	Typical product code	V23136	-J	1	004	-X050
Туре				1				
	V2313	6 Power Relay F7 A						
Conta	ct arra	ngement						
	J	1 form A, 1 NO						
Cover	•							
	1	Bracket at terminal 30 ISO						
Coil								
	004	12VDC						
Termi	nal/arra	angement						
		Customized: resistor 560Ω						

Product code	Product code Arrangement Cover Coil suppr. Circuit ¹⁾ Coil Contact materialTerminals I							
V23136-J1004-X050 1 Form A, 1 NO Standard Resistor 560Ω NOR 12VDC Silver based Plug-in, QC 1-14								
1) See terminal assignment diagrams.								
Other trippe on request								

Other types on request.

This list represents the most common types and does not show all variants covered by this datasheet.

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