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Power Relay K-S

Very low voltage drop

Wide voltage range

Typical applications

ABS control, blower fans, cooling fan, engine control, glow plug, heated rear screen, ignition, main switch/supply relay, preheating system, valves, wiper control.



C071S_fcw1b

12VDC, 24VDC⁶⁾

Contact Data	12VDC	24VDC			
Contact arrangement	1 form A, 1 NO				
Rated voltage	12VDC	24VDC			
Rated current	70	AC			
Limiting continuous current					
23°C	70	AC			
85°C	50A				
Limiting making current	300A ¹⁾²⁾	150A ¹⁾²⁾			
Limiting breaking current	70A ¹⁾	35A ¹⁾			
Contact material	AgNi0.15				
Min. recommended contact load	1A at 5VDC ³⁾				
Initial voltage drop at 10A, typ./max.	. 10/300mV				
Frequency of operation	20 op	os./s4)			
Operate/release time max.	typ. 4	/3ms ⁵⁾			
Electrical endurance					
resistive load,	>5x10 ⁴ ops.	>1x10 ⁵ ops.			
	at 13.5VDC, 50A	at 27.5VDC, 15A			
Mechanical endurance	>106	ops.			

Max. DC load breaking capacity



Max. DC load breaking curve: safe shutdown, no stationary arc. Load limit curves measured with low inductive resistors verified for 1000 switching events.

 The values apply to a resistive or inductive load with suitable spark suppression and at maximum 13.5VDC for 12VDC or 27VDC for 24VDC load voltages.

 2) For a load current duration of maximum 3s for a make/break ratio of 1:10.
3) See chapter Diagnostics of Relays in our Application Notes or consult the internet at http://relays.te.com/appnotes/

4) With load the values depend on PCB layer design and max. environmental temperature.

5) 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 (monostable version only).

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Coil Data

Rated coil voltage

6) Other nominal voltages available on request.

Coil versions, DC coil

Coll vers		11			
Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	W
009	12	6.9	1.2	64	2.3
010	24	14.1	2.4	234	2.5

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



Does not take into account the temperature rise due to the contact current $\mathsf{E}=\mathsf{pre}\text{-}\mathsf{energization}.$

500VACrms

Insulation Data

Initial dielectric strength between contact and coil

Datasheets and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at http://relays.te.com/definitions

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

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Power Relay K-S (Continued)

Other Data							
EU RoHS/ELV compliance	compliant						
Ambient temperature	-40 to +85°C ⁶⁾						
Category of environmental protection,							
IEC 61810	RT II – fluxproof						
Vibration resistance (functional)							
IEC 68-2-6 (sine pulse form), 10 to 20	00Hz 20 to 40g						
no change in the switching state >10	μs						
Shock resistance (functional)							
IEC 68-2-27 (half sine form single pulses), 8ms 30g							
open form A (NO) contact will not close >10µs							
Terminal type PCB							
Weight	approx. 19g (0.68oz)						
Resistance to soldering heat THT							
IEC 60068-2-20, Tb, method 1A,	10s+/-1s						
	with shielding						
Storage conditions	according IEC 600687)						
Packaging unit 400 pcs.							

6) See graph: coil operating range.

7) For general storage and processing recommendations please refer to our Application Notes and especially to Storage in the Definitions or at http://relays.te.com/appnotes/

Dimensions



max. 1.5 mm



Terminal Assignment Bottom view on solder pins

1 form A, 1 NO



Note:

Check polarity and frame connection (ground) * For mounting only, not for electrical connection.

PCB Layout

Bottom view on solder pins 18.85 ±0.05 🛏 13.0 ±0.05 8.8 ±0.05 -ø 2.3 +0.1 2.85 ±0.05 2.2 ±0.1 1.1 +0.05 0.45 5.4 ۷. 2 4ŧ 1.0 +0.05 ø 1.3 +0.1 ø 2.5 +0.1 12.1 +0.1 ø 2.1 +0.1 ◄-ø 2.3 +0.1 ø 2.3 +0.1 1.0 +0.05 5.1 ±0.05 TE0594-R2 16.1 ±0.05 🖛

Produ	ict co	ode structure			Typical product code	V23071	-A	1	009	-A	13	2
Туре	V2307	71 Power Relay K-S]						
		l enclosure					I					
	Α	PCB, open (RT II)										
Design	ı							-				
	1	Single relay										
Coil												
	009	12VDC	010	24VDC								
Contac	ct type	•										
	Α	Single contact										
Contac	ct mat	erial										
	13	AgNi0.15										
Contac	ct arra	ngement										
	2	1 form A, 1 NO										
Contac												

Product code	Terminal/Encl.	Design	Coil	Contact type	Cont. material	Arrangement	Part number
V23071-A1009-A132	PCB, open	Single relay	12 VDC	Single contact	AgNi0.15	1 form A, 1 NO	1393276-3
V23071-A1010-A132			24 VDC				1393276-7

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