

Power PCB Relay T9E

Cycles

- 1 pole 30A, 1 formA(NO) or 1 formC(CO)
- High breaking capacity 7500 VA
- **PCB and PCB/quick connect terminals**
- UL class F insulation as standard
- Ambient temperature up to 105°C
- Plastic materials according to IEC60335-1

Typical applications

HVAC, power supplies, domestic appliances, measurement and control.









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VDE 40027903, UL E58304

Technical data of approved types on request.

Contact Data		
Contact arrangement	1 form A (NO)	1 form C (CO)
Rated voltage	24	40VAC
Max. switching voltage	250VAC (VI	DE); 300VAC (UL)
Rated current	30A	20A/10A
Limiting continuous current	30A	
Breaking capacity max.	7500VA	5000/2500VA
Contact material	AgSnOlnO (AgCdO optional)
Min. recommended contact load	1A, 5VD	OC or 12VAC
Initial contact resistance	75 mΩ at 1A a	at 5VDC or 12VAC
Frequency of operation, with/without	ut load 6	6/120min ⁻¹
Operate/release time max., including	ig bounce 15	5/15ms

Load

Contact ratings					
Type	Contact				
IEC 618	310				
A ~ C ~ O I	11A/ a a il				

IEC 618	10		
AgSnOln	O, 1W coil		
1	NO	30A, 250VAC, cosφ=1, 60°C	20x10 ³
1	NO	20A, 250VAC, cosφ=1, 85°C	100x10 ³
2	NO	20A, 250VAC, cosφ=1, 70°C	100x10 ³
1, 2	CO	20A / 10A, 250VAC, cosφ=1, 60°C	20x10 ³
AgSnOln	O, 900mW co	il	
1	NO	17A, 250VAC, cosφ=1, 105°C	100x10 ³
1	NO	20A, 250VAC, cosφ=1, 85°C	100x10 ³
EN 6073	80-1		
AgSnOln	O, 1W coil		
1	NO	12(12)A, 240VAC, 60°C	100x10 ³
UL 508	1)		
AgSnOln	O, 1W coil		
1, 2	NO	30A, 240VAC, general purpose, 25°C	100x10 ³
AgSnOln	O, 900mW co	il	
1, 2	NO	TV-8, 125VAC, 25°C	25x10 ³

Mechanical endurance	10x10 ⁶ ops.
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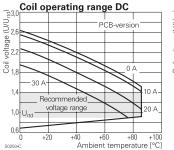
Coil Data		
Coil voltage range	6 to 110VDC	
Max. coil power	110% of nominal	
Max. coil temperature	155°C	
Coil insulation system according UL	Class F	

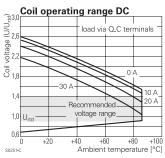
Coil Data (continued)

Coil vers	sions, DC co	oil			
Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	W
Code D	(1W) coil				
6	6	4.5	0.6	36	1
9	9	6.75	0.9	81	1
12	12	9	1.2	144	1
18	18	13.5	1.8	324	1
22	22	16.5	2.2	484	1
24	24	18	2.4	576	1
48	48	36.2	4.8	2304	1
110	110	82.5	11	12100	1
Code L	(900mW) coil				
6	6	4.5	0.6	40	.9
12	12	9	1.2	155	.9
18	18	13.5	1.8	380	.9

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

Insulation Data	
Initial dielectric strength	
between open contacts	1500V _{ms}
between contact and coil	2500V
Initial surge withstand voltage	IIIO
between contact and coil	6kV (1.2µs/50µs impulse wave)
Initial insulation resistance	
between insulated elements	1x10 ⁹ Ω
Clearance/creepage	
between contact and coil	≥3mm/4mm





Coil operating ranges shown above are for 1W coils.

1) Additional UL 508 ratings are available.



Power PCB Relay T9E (Continued)

O.	th	er	D	ata

Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at

www.te.com/customersupport/rohssupportcenter

Ambient temperature

DC coil

-40°C to 85°C / 105°C

Category of environmental protection IEC 61810

RTII - flux proof (T9EV) RTIII - wash tight (T9ES)

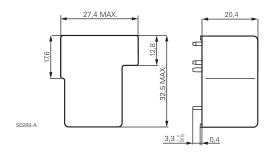
Vibration resistance (functional) Shock resistance (functional) Shock resistance (destructive)

1.5mm, 10-55 Hz 10g for 11msec 100g

Other Data (Continued)	
Terminal type	PCB-tht and PCB-tht + quick
connect	
Weight	26g mounting code 1
	33g mounting codes 2 and 5
Resistance to soldering heat THT	
IEC 60068-2-20	260°C
Packaging/unit	tray/50 pcs., box/250 pcs.

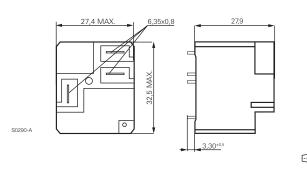
Dimensions

PCB version





PCB/quick connect version





Terminal assignment

Bottom view on pins

1 form A

1 form C

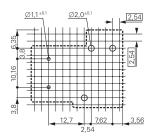




PCB layout

Bottom view on pins

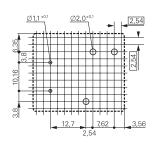
PCB version



Only necessary terminals are present on single throw models. Consequently, some holes will be unnecessary for single throw models

S0261-AA

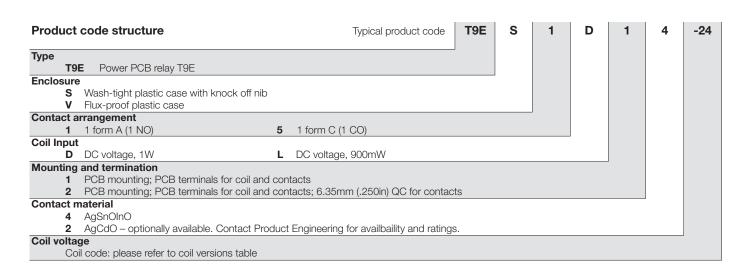
PCB/quick connect version



Only necessary terminals are present on single throw models. Consequently, some holes will be unnecessary for single throw models.



Power PCB Relay T9E (Continued)



Product Code	Enclosure	Mounting	Contact material	Contacts	Coil version	Coil voltage	Part number
T9ES1L14-18	wash tight	PCB terminals	AgSnOlnO	1 form A, 1 NO	900mW	18VDC	1-2027234-8
T9ES1D14-12					1W	12VDC	2027234-2
T9ES1D14-24						24VDC	2027234-7
T9ES1D12-12			AgCdO			12VDC	1-2027234-0
T9ES1D24-12		PCB + quick connect	AgSnOlnO			12VDC	2027234-8
T9ES1D22-12			AgCdO			12VDC	1-2027243-3
T9ES5D14-12		PCB terminals	AgSnOlnO	1 form C, 1 CO		12VDC	2027234-6
T9ES5D12-24			AgCdO			24VDC	2027234-4
T9ES5D24-12		PCB + quick connect	AgSnOlnO			12VDC	2027234-9
T9EV1D14-22	flux proof	PCB terminals		1 form A, 1 NO		22VDC	2027234-5

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