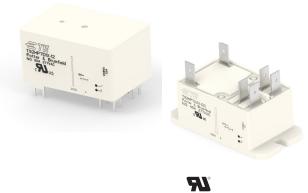


Rated coil

power

## **T92H Series Two-pole Power Relay**

- 45A/50A switching capability
- Meets requirements of UL 508 and UL 873 spacings 8mm through air, 9.5mm over surface
- Meets requirements of 8mm spacing, 4kV dielectric coil-to-contact
- Meets requirements of UL Class F construction



### Typical applications

HVAC, residential / commercial appliances, industrial controls, charging

## Approvals

UL E22575 Technical data of approved types on request.

Contact Data	
Туре	T92H
Contact arrangement	2 form A (NO)
Rated voltage	277VAC
Max. switching voltage	600VAC
Rated current	50A (DC coil) / 45A (AC coil)
Overload current*	75A (DC coil) / 67.5A (AC coil)
Contact material	Ag Alloy
Min. recommended contact load	500mA (NO), 12VAC or 5VDC
Frequency of operation, with load	360 cycles per hour
Operate/release time max.,	
including bounce	25/25ms
Initial contact resistance	< 100 mΩ at 6VDC 1A
*Noto: Minimum alactrical and uranco 50	

\*Note: Minimum electrical endurance 50 cycles

### Contact ratings<sup>1)</sup>

UL508					
Туре	Load	Cycle			
NO	50A, 277VAC, resistive, 85°C (DC coil)	6x10 <sup>3</sup>			
NO	45A, 277VAC, resistive, 85°C (AC coil)	6x10 <sup>3</sup>			
1) Conta	ct ratings tested with relay properly vented. For wash tight	version,			
recommend user remove the white tape on the product after the soldering, coating or washing process to ensure the product specification.					
or washin	ig process to ensure the product specification.				

Mechanical endurance	
T92H	1x10 <sup>6</sup> ops

Coil Data	
Coil voltage range	12 to 48VDC; 12 to 277VAC
Max. coil power	1.7W (DC coil) / 4.0VA (AC coil)
Max. coil temperature	155°C
Coil insulation system according UL	Class F

Coil vers	sions, DC co	il <sup>2)</sup> (D type)			
Coil	Rated	Operate	Release	Coil	Rated coil
code	voltage	voltage	voltage	resistance	power
	VDC	VDC	VDC	Ω±10%	W
12	12	9	1.2	86	
18	18	13.5	1.8	197	1.7W/
22	22	16.5	2.2	294	Min. 0.41W
24	24	18	2.4	350	hold
36	36	27	3.6	767	
48	48	36	4.8	1390	

2) After the energization time of 100ms with rated voltage, the coil requires a reduction of the coil voltage to 50% of rated voltage.

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

### Coil Rated Frequency Operate Release Coil voltage code voltage voltage resistance

Coil versions, AC coil<sup>3)</sup> (A type)

	VAC <sup>3)</sup>	Hz	VAC, 60Hz	VAC, 60Hz	Ω±10%	VA	
12	12	60	9.6	1.2	9.1	4	
24	24	60	19.2	2.4	36.6	4	
110	110	60	88	11	793	4	
120	110/120	50/60	96	12	950	4	
208	208	60	166.4	20.8	2841	4	
240	220/240	50/60	192	24	3800	4	
277	250/277	50/60	221.6	27.7	5485	4	
3) After the energization time of 100ms with rated voltage, the coil requires a							

reduction of the coil voltage to 90% of rated voltage

### **Insulation Data** Initial dielectric strength 1500V<sub>rms</sub> between open contacts between contact and coil 4000V<sub>rms</sub> between adjacent contact 2000V<sub>rms</sub> Initial surge withstand voltage between contact and coil 8kV Initial insulation resistance (@500VDC) between insulated elements 1x10<sup>9</sup>Ω Clearance/creepage between contact and coil 8mm clearance/9.5mm creepage

### **Other Data**

Matarial compliance: ELL DoUS/ELV	China DaLLS DEACH Halagan contant				
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen conten					
refer to the Product Compliance Support Center at					
www.te.com/c	ustomersupport/rohssupportcenter				
Ambient temperature					
DC coil	-55°C to 85°C				
AC coil	-55°C to 85°C				
Category of environmental protection	n				
IEC 61810	RTI - dust protected,				
	RTII - flux proof, RTIII - wash tight				
Vibration resistance (functional)	1.65mm max amplitude, 10-55 Hz				
Shock resistance (functional)	10G for 11msec				
Shock resistance (destructive)	100G				
Terminal type	PCB / Quick Connect				
Weight	86g				
Resistance to soldering heat (for PC	B Terminal)				
IEC 60068-2-20	260°C, 10s				
Packaging/unit	tray/30 pcs., box/120 pcs.				

Catalog 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

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

1

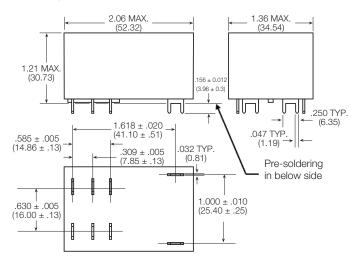


# General Purpose High Power PCB Relays

# T92H Series Two-pole Power Relay (Continued)

### Dimensions

Mounting and termination code 1

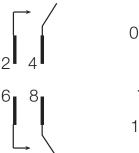


Note: Dimensions of the pins after tin soldering a) +0.3mm for the width and the thickness b) +1.0mm for the length

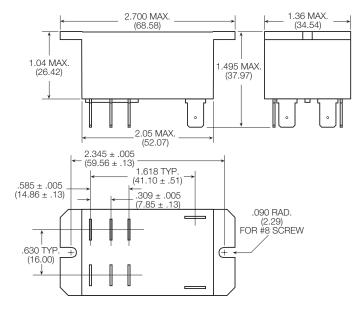
## Terminal assignment

Bottom view on pins





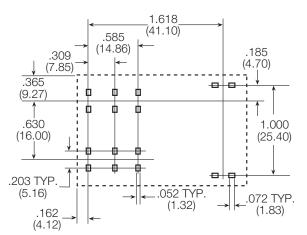
Mounting and termination code 2



## PCB layout

Bottom view on pins

Mounting and termination code 1



An alternate PC board layout utilizes .076  $\pm$  .003 (1.93  $\pm$  .076) diameter holes on the same center-to-center spacing shown above. Use of the rectangular holes is recommended for improved solderability.

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

2

Catalog and product specification according to IEC 61810-1 and to be used only together with the 'Definitions' section. Catalog and product data is subject to the terms of the disclaimer and all chapters of the 'Definitions' section, available at <a href="http://relays.te.com/definitions">http://relays.te.com/definitions</a>

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



# T92H Series Two-pole Power Relay (Continued)

Product co	ode structure	Typical product code	T92H	Ρ	7	D	1	x	-12
Туре	Power relay T92 High Performance		]						
Enclosure									
P	Dust protected plastic case								
S	Wash-tight, tape sealed, plastic case (Mounting and term	nination code 1)							
Contact arra		,			1				
7	2 form A (2 NO)								
Coil Input									
D	DC voltage A AC Voltage								
Mounting an	d termination								
1	Printed circuit board mount; printed circuit board termina								
2	Panel mount via flanged cover; .250" (6.35mm) x .032" (.	.81mm) QC terminal							
Contact mat	erial								
X S	pecial Ag Alloy X (Cd Free)								
Coil voltage									,
Č	Coil code: please refer to coil versions table								

Product code	Enclosure	Contacts	Coil	Mounting	Contact Material	Coil	Part number
T92HP7D1X-12	Plastic dust cover	2 form A, 2 NO	DC	PCB terminals	Special Ag Alloy X (Cd Free)	12VDC	6-1423008-6
T92HP7D1X-24						24VDC	6-1423008-7
T92HP7D1X-48						48VDC	6-1423008-9
T92HS7D1X-24	Wash-tight					24VDC	7-1423008-5
T92HP7A2X-120	Plastic dust cover	2 form A, 2 NO	AC	Panel mount + quick connect	Special Ag Alloy X (Cd Free)	120VAC	7-1423008-2

Note. This list represents the most common types and does not show all variants covered by this datasheet, other types on request.

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