

T92 Series Two-pole 30A PCB or Panel Mount Relay

- 40A, 2 form A (NO) and 2 form C (CO) switching capability
- Designed to control compressor loads to 3.5 tons, 110LRA / 25.3FLA
- Meets requirements of UL 508 and UL 873 spacings 8mm through air, 9.5mm over surface
- Meets requirements of VDE 8mm spacing, 4kV dielectric coil-tocontact
- Meets requirements of UL Class F construction
- UL approved for 600VAC switching (1.5HP)
- New screw terminal version (consult factory for availability, ratings)

Typical applications

HVAC, residential / commercial appliances, industrial controls.



UL E58304 (Recognized and Listed); CSA LR48471; VDE 40019600 Technical data of approved types on request.

Contact Data	
Contact arrangement	2 form A (NO), 2 form C (CO)
Rated voltage	277VAC
Max. switching voltage	600VAC
Rated current	30A NO; 3A NC
Limiting continuous current	40A NO; 3A NC
Limiting making current	40A NO; 3A NC
Limiting breaking current	40A NO; 3A NC
Contact material	AgSnOlnO, AgCdO
Min. recommended contact load	500ma (NO)/ 100ma (NC), 12VAC
Frequency of operation, with load	360hr
Operate/release time max., including	bounce 25/25ms

Contact ratio	ngs 1)

Type	Load	Cycles
UL508		
AgCdO		
NO	40A, 277VAC, resistive	6x10 ³
NO	30A, 120/277VAC, resistive	100x10 ³
NO	10A, 600VAC, general purpose	100x10 ³
NO	1HP, 120VAC	100x10 ³
NO	3HP, 240VAC	1x10 ³
NO	1.5HP, 480 or 600VAC	100x10 ³
NO	110LRA/25.3FLA, 240VAC (DC coil only)	100x10 ³
NO	60LRA/14FLA, 240VAC (AC coil only)	100x10 ³
NO	3A, 240VAC, pilot duty	100x10 ³
NO	20A, 28VDC, resistive	100x10 ³
NO	TV10, 120VAC	100x10 ³
NC	3A, 277VAC	100x10 ³
NC	2A, 480VAC	100x10 ³
NC	1A, 600VAC	100x10 ³
AgSnOlnO		
NO	30A, 120/277VAC, resistive (DC coil only)	200x10 ³
NO	30A, 120/277VAC, resistive (AC coil only)	100x10 ³
NO	20A, 480VAC, resistive	100x10 ³
NO	1.5HP, 120VAC, 2 pole making/breaking (Fig.1)	100x10 ³
NO	3HP, 240VAC, 3 phase (DC coil only)	100x10 ³
NO	3HP, 480VAC, 3 phase (DC coil only)	100x10 ³
NO	2HP, 600VAC, 3 phase (DC coil only)	100x10 ³
VDE		
AgCdO, flange	,	
NO	20A, 400VAC	100x10 ³
NC	3A, 400VAC	$30x10^3$
CO	20A NO / 3A NC, 400VAC	$30x10^3$
AgCdO, PC mo		
NO	30A, 400VAC	100x10 ³
NC	3A, 400VAC	30x10 ³
CO	30A NO / 3A NC, 400VAC	$30x10^3$











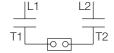
Contact ratings 1) (continued)

ARI 780-86 Endurance Test (section 6.6): HVAC Definite Purpose Contactor Standard

Normally Open Contacts

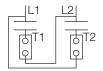
Single Phase/Two Pole (Both poles together switching a single load) 110 LRA, 25.3 FLA, 200K operations (DC Coil)

Figure 1



Single Phase Per Pole (Single load per pole) 110 LRA, 18 FLA, 200K operations (DC Coil). 60 LRA, 14 FLA, 200K operations (AC Coil).





1) Contact ratings at 25°C (unless otherwise noted) with relay properly vented. FLA, LRA ratings are compatible with 3.5 ton compressor applications.

Mechanical endurance 10x10⁶ ops.

Coil Da	ıta					
Coil volta	ge range		5 to 110VDC; 12 to 240VAC			
Max. coil	power		1	.7W; 4.0VA		
Max. coil	temperature			155°C		
Coil insulation system according UL				Class F		
Coil versions, DC coil						
Coil	Rated	Operate	Release	Coil	Rated coil	
code	voltage voltage		voltage	resistance	power	
	VDC VDC		VDC	Ω±10%	W	
6	6 4.5		0.6	22	1.7	
9	9 6.75		0.9	48	1.7	
12	12	12 9		86	1.7	
18	18	13.5	1.8	197	1.7	
24	24	18	2.4	350	1.7	
48	48	48 36		1390	1.7	
110	10 110 82.5		11	7255	1.7	

Coil versions, AC coil							
Coil	Rated	Frequency	Operate	Release	Coil	Rated coil	
code	voltage		voltage	voltage	resistance	power	
	VAC	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	
120	110/120	50/60	96	12	950	4	
240	220/240	50/60	192	24	3800	4	
277	250/277	50/60	222	28	5485	4	

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



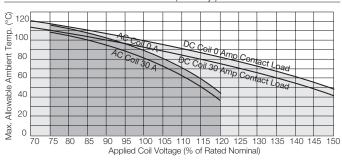
T92 Series Two-pole 30A PCB or Panel Mount Relay (Continued)

Coil Data (continued)

Ambient temperature vs. coil voltage

Assumptions:

- 1. Thermal resistance = 35°C per Watt (DC only.)
- 2. Still air.
- 3. Nominal coil resistance.
- 4. Max. mean coil temperature = 155°C (change of resistance method).
- 5. Coil temperature rise due to load = 6.3°C @ 30 amps.
- 6. Curves are based on 1.7W at 25°C (DC only.).



Insulation Data	
Initial dielectric strength	
between open contacts	1500V _{rms}
between contact and coil	4000V _{rms}
between adjacent contact	2000V _{rms}
Initial surge withstand voltage	
between contact and coil	6kV
Initial insulation resistance	
between insulated elements	1x10 ⁹ Ω
Clearance/creepage	
between contact and coil	8mm clearance/9.5mm creepage

Other Data

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 -55°C to 85°C AC coil -55°C to 65°C

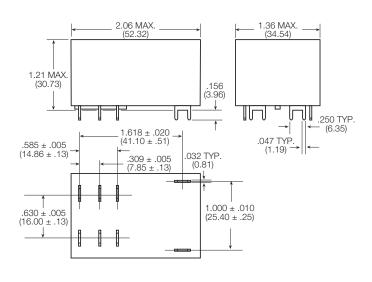
Category of environmental protection

IEC 61810 RTI - dust protected,

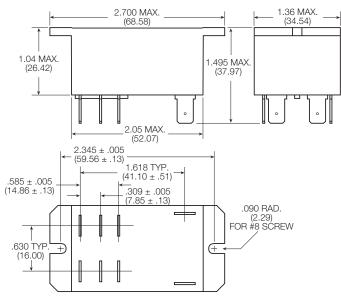
RTII - flux proof, RTIII - wash tight Vibration resistance (functional) 1.65mm max excursions, 10-55 Hz 10g for 11msec Shock resistance (functional) Shock resistance (destructive) 100g PCB-tht or quick connect Terminal type Weight 86g Resistance to soldering heat THT 250°C IEC 60068-2-20 Packaging/unit tray/30 pcs., box/120 pcs.

Dimensions

T92 - Mounting and termination code 1



T92 - Mounting and termination code 2, 3 and 4

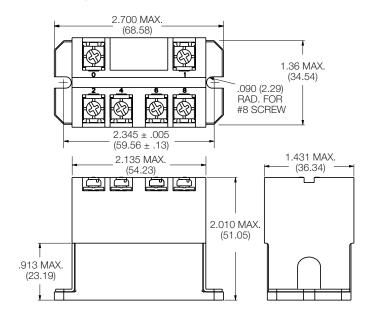




T92 Series Two-pole 30A PCB or Panel Mount Relay (Continued)

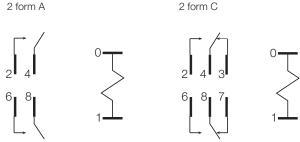
Dimensions

T92 - Mounting and termination code 5



Terminal assignment

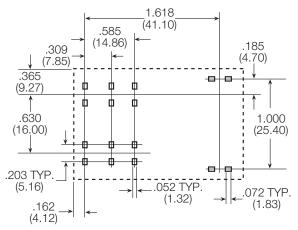
Bottom view on pins



PCB layout

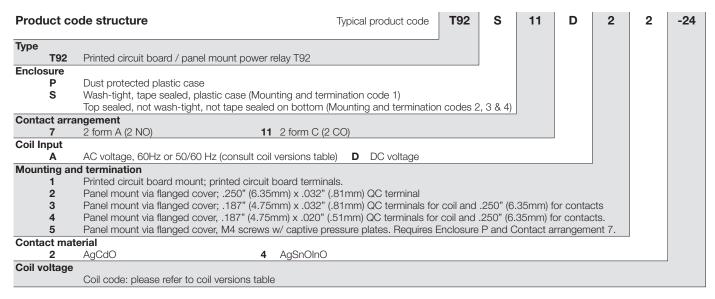
Bottom view on pins

T92 - 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.





T92 Series Two-pole 30A PCB or Panel Mount Relay (Continued)

Product Code	Enclosure	Contacts	Coil	Mounting	Contact Material	Coil	Part Number
T92P7A22-24	Plastic dust cover	2 form A, 2 NO	AC	Panel mount + quick connect	AgCdO	24 VAC	6-1393211-0
T92P7A22-120						120 VAC	5-1393211-7
T92P7A22-240						240 VAC	6-1393211-2
T92P7A22-277						277 VAC	6-1393211-3
T92P7A24-240					AgSnOlnO	240 VAC	3-1423008-3
T92P7A52-120				Panel mount + screw terminals	AgCdO	120 VAC	1423008-8
T92P7A52-240						240 VAC	1-1423008-2
T92P7D12-12			DC	PCB terminals		12 VDC	6-1393211-5
T92P7D12-24						24 VDC	6-1393211-6
T92P7D22-12				Panel mount + quick connect		12VDC	6-1393211-9
T92P7D22-24						24 VDC	7-1393211-1
T92P7D22-48						48 VDC	7-1393211-2
T92P7D24-12					AgSnOlnO	12VDC	2-1423008-2
T92P7D24-24						24 VDC	1423008-9
T92P7D42-24					AgCdO		7-1393211-5
T92P7D52-12				Panel mount + screw terminals	Ü	12 VDC	1-1423008-0
T92P7D52-24						24 VDC	1423967-1
T92P11A12-120		2 form C, 2 CO	AC	PCB terminals		120 VAC	3-1393211-8
T92P11A22-12				Panel mount + quick connect		12 VAC	3-1393211-9
T92P11A22-24						24 VAC	4-1393211-3
T92P11A22-120						120 VAC	4-1393211-0
T92P11A22-240						240 VAC	4-1393211-4
T92P11A22-277						277 VAC	4-1393211-6
T92P11A24-240					AgSnOlnO	240 VAC	3-1423008-7
T92P11A42-120					AgCdO	120VAC	4-1393211-8
T92P11D12-12			DC	PCB terminals	, igodo	12 VDC	5-1393211-0
T92P11D22-12			DO	Panel mount + quick connect		12 100	5-1393211-3
T92P11D22-24				Tarier meant 1 quien connect		24 VDC	5-1393211-4
T92P11D24-12					AgSnOlnO	12 VDC	3-1423008-5
T92P11D24-24					7 1901101110	24 VDC	3-1423008-6
T92S7A12-24	Wash tight	2 form A, 2 NO	AC	PCB terminals	AgCdO	24 VAC	9-1393211-8
T92S7A12-120	vvaori tigrit	2 10111171, 2 110	7.0	1 OB terminals	7 (godo	120 VAC	9-1393211-7
T92S7A12-120						240 VAC	9-1393211-9
T92S7A22-24	Top sealed			Panel mount + quick connect		24 VAC	1393212-4
T92S7A22-120	Top scaled			Tarior mount + quiek connect		120 VAC	1393212-2
T92S7A22-240						240 VAC	1393212-5
T92S7D12-12	Wash tight		DC	PCB terminals		12 VDC	1393212-8
T92S7D12-12	VVasirtigitt		DO	1 OD terminais		24 VDC	1-1393212-0
T92S7D12-48						48 VDC	1-1393212-1
T92S7D12-110						110 VDC	1393212-7
T92S7D12-110					AgSnOlnO	24 VDC	1-1423008-8
T92S7D14 24	Top sealed			Panel mount + quick connect	AgCdO	12 VDC	1-1393212-4
T92S7D22-18	Top soulou			Tarior modific in quion confident	/ igodo	18 VDC	1-1393212-5
T92S7D22-16						24 VDC	1-1393212-7
T92S7D22-110						110 VDC	1-1393212-3
T92S11A12-24	Wash tight	2 form C, 2 CO	AC	PCB terminals		24 VAC	8-1393211-1
T92S11A12-120	vvasii tigiit	2 101111 0, 2 00	70	1 OD terrilliais		120 VAC	8-1393211-0
T92S11A12-120						240 VAC	8-1393211-2
T92S11A12-240	Top sealed			Panel mount + quick connect		12 VAC	8-1393211-3
T92S11A22-12	Top sealed			Tarier mount + quick connect		24 VAC	8-1393211-6
T92S11A22-24						120 VAC	8-1393211-4
						240 VAC	
T92S11A22-240	Mach tight		DC	PCB terminals			8-1393211-7
T92S11D12-12	Wash tight		DC	POD Lemmas		12 VDC	8-1393211-9
T92S11D12-24						24 VDC	9-1393211-0
T92S11D12-48						48 VDC	9-1393211-1
T92S11D12-110	Top coded			Donal may not a suital asset a		110 VDC	8-1393211-8
T92S11D22-12	Top sealed			Panel mount + quick connect		12 VDC	9-1393211-3
T92S11D22-24						24 VDC	9-1393211-4

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