DA(UL) Series

3 cynergy^{3™}

UL Approved*, Normally Open, High Voltage Relays - 10kV, 7.5kV & 5kV



Recently approved by UL, very high isolation voltages (up to 10kV) are achieved through the use of high vacuum reed switches with either Rhodium or Tungsten contacts and make these relays suitable for high reliability applications, such as cardiac defibrillators, test equipment and high voltage power supplies.

A choice of 5kV, 7.5kV and 10kV isolation voltages is available

The Rhodium contact relays have low contact resistance, while the Tungsten contact relays can switch higher voltages.

PCB or Panel Mount, via Nylon studs, versions are available.

Connection options, for the HV, include PCB, solder turret(wire wrap), flying lead and 0.25" spade terminals.

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ISO9001 CERTIFIED

DA(UL) 2019

- Choice of 10kV, 7.5kV or 5kV Isolation
- Low Contact Resistance
- PCB or Panel Mount
- HV connections via Flying Leads, Solder Turret (wire wrap), or 1/4" Spade Terminals
- Excellent AC characteristics



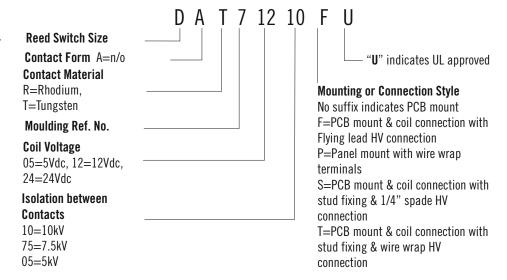
Contact Specification	Unit	Condition	10kV		7.5kV		5kV	
Contact Form			N/O (normally open)					
Contact Material			Rhodium	Tungsten	Rhodium	Tungsten	Rhodium	Tungsten
Isolation across contacts	kV	DC or AC peak	10	10	7.5	7.5	5	5
Switching Power Max.	W		50	50	50	50	50	50
Switching Voltage Max.	٧	DC or AC peak	1000	7000	1000	5000	1000	3500
Switching Current Max.	Α	DC or AC peak	3	2	3	2	3	2
Carry Current Max	Α	DC or AC peak	4	3	4	3	4	3
Capacitance across	pF	coil to screen	<0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
contacts		grounded						
Lifetime operations		dry switching	10°	10°	10°	10°	10°	10°
		50W switching	10 ⁶	10^6	10 ⁶	10^6	10 ⁶	10 ⁶
Contact Resistance	mΩ	max (typical)	50 (15)	250(100)	50 (15)	250(100)	50 (15)	250(100)
Insulation Resistance	Ω m	in (typical)	10 ¹⁰	(10^{13})	1010	(10^{13})	1010	(10^{13})
Coil Specification				5\	I 1	12V	24V	
Must Operate Voltage	٧	DC		3.	7	9	20	
Must Release Voltage	٧	DC		0.9	5	1.25	4	
Operate Time	ms	diode fitted		3.0	0	3.0	3.0	
Release Time	ms	diode fitted		2.0	0	2.0	2.0	
Resistance	Ω			28	3	150	780	
Note. The operate / release voltag	e and	coil resistance will change at a i	ate of 0.4% per	degree C. Value	s are stated at	room temperat	ure (20 degrees	C)
Relay Specification								
Isolation contact/coil kV			17					
Insulation resistance contact			- 10 12					
to all terminals Ω min (typical)			$10^{10} (10^{13})$					
Environmental								
Operating Temp range	°C					0 to +70		

*Consult factory for UL ratings

These products have been UL approved for use as per pollution degree 2 classification.

If you require further information as to how this my affect product usage, please contact sales@cynergy3.com.

Part Numbering System



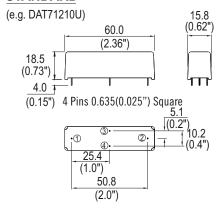


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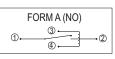


MECHANICAL

STANDARD



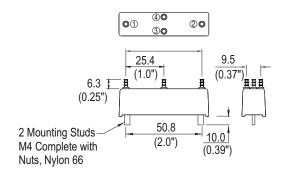
CIRCUIT DIAGRAMS (ALL VARIANTS)



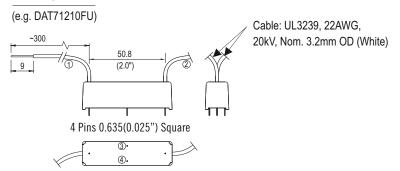
NOTE: COIL POLARITY IS NOT SIGNIFICNAT

PANEL MOUNT

(e.g. DAT71210PU)



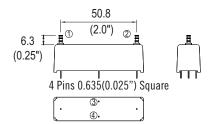
FLYING LEAD



NOTE: PINS WHICH ARE NOT NUMBERED HAVE NO ELECTRICAL CONNECTION.

TURRET (Wire Wrap)

(e.g. DAT71210TU)

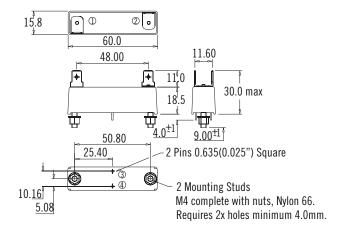


NOTE: PINS WHICH ARE NOT NUMBERED HAVE NO ELECTRICAL CONNECTION.

SPADE TYPE

(e.g. DAT71210SU)

'S' Suffix denotes the 0.250" 'Push On' blade connectors, M4 fixing bolts and Epoxy potting.



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