

Latching relay single phase 120A relay TP41-34

Features

- It applied in electronic energy meter.
- 120A Switching Capability.
- Dimension: 43.0×37.0×22.0(mm).
- Low Coil Power Consumption.
- Environment protection(ROSH Compliant).
- Immune to external magnetic field 0.5T if required.
- Conform to IEC62055-31 UC3.



Order information

TP41 34 120 12 B D

Latching relay

Part number

Rated current: 120A

Coil voltage: 9VDC,12VDC,18VDC,24VDC,48 VDC

Contact form B: Normal closed

S:Single coil D: Double coil

Technical data

Contact parameters

Contact form	1A 1B
Contact resistance ⁽¹⁾	≤1.0 mΩ (1A、6VDC)
Contact materials	AgSnO ₂
Rated load	120A/250VAC
Max switching voltage	250VAC
Max switching current	120A
Max switching Power	30000VA
Mechanical endurance	1×10 ⁵ ops

Materials

Relay plastic parts	PBT, V0 level ,ISO75-2, 1.85MPa, HDT150℃
Relay Metal parts	CopperT2Y2, Cu(%)99.96%
Relay Contacts	AgSnO ₂ , Contact surface layer: Silver

Electrical endurance

Rated current	Rated voltage	PF	ON/OFF	Cycles
100A	250VAC	cosφ=1	10s:20s	5000
		cosφ=0.5	10s:20s	5000

Coil parameters

Rated coil power(2)		Single: 3W double: 6W	
Single coil			
Rated voltage (VDC)	Operation voltage range (VDC)	Impulse width (recommended value) ms	Coil resistance (1±10%) Ω
6	≤4.8	≥50	12
9	≤7.2	≥50	27
12	≤9.6	≥50	48
24	≤19.2	≥50	192
Double coil			
Rated voltage (VDC)	Operation voltage range (VDC)	Impulse width (recommended value)ms	Coil resistance (1±10%) Ω
6	≤4.8	≥50	6+6
9	≤7.2	≥50	13.5+13.5
12	≤9.6	≥50	24+24
24	≤19.2	≥50	96+96

Memo: (1) The above value is the initial value.

(2) The rated coil power can be customized.

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Performance parameters

Dielectric strenght	Coil /Contact(1min)		4000VAC 50/60Hz
	Btw contacts (1min)		2000VAC 50/60Hz
Creepage distance			6.4mm
Close time(Rated voltage)			≤20ms
Recovery time(Rated voltage)			≤20ms
Insulation	Btw open contacts		1000MΩ（500VDC）
	Contact /coil		1000MΩ（500VDC）
Shock	Stability		98m/s ²
	Strength		980m/s ²
Vibration			10Hz~55Hz 1.5mm Double amplitude
Fault current making capacity（3KA）			Meet requirement
Short-circuit current carrying capacity（6KA）			Meet requirement

Humidity		5%~85%RH
Environment		-40℃~+85℃
Terminals	Coil terminals	PCB mounting
	Load terminals	Busbar, braid cables quick connection
High temperature		85℃±2℃,16H
Low temperature		-40℃±2℃, 2H
Sealing		Dust sealing

Outline dimensions and circuit diagram

