

Three phase 120A latching relay TP41-19

Features

- It applied in electronic energy meter.
- Three phase 120A Switching Capability.
- Dimension: 116×52×24(mm).
- Low Coil Power Consumption.
- Environment protection(ROSH Compliant).
- Conform to IEC62055-31 UC3.



Order information

	TP41	19	120	12	B	D
Latching relay						
Part number						
Rated current: Three phase 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	3A 3B
Contact resistance ⁽¹⁾	≤1.0 mΩ (1A、6VDC)
Contact materials	AgSnO ₂
Rated load	3×120A/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

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

Coil parameters

Rated coil power ⁽²⁾		Single: 2.5W double: 5W	
Single coil			
Rated voltage (VDC)	Operation voltage range (VDC)	Impulse width (recommended value) ms	Coil resistance (1±10%) Ω
6	≤4.8	≥50	14.4
9	≤7.2	≥50	32.4
12	≤9.6	≥50	57.6
24	≤19.2	≥50	230.4
Double coil			
Rated voltage (VDC)	Operation voltage range (VDC)	Impulse width (recommended value)ms	Coil resistance (1±10%) Ω
6	≤4.8	≥50	7.2+7.2
9	≤7.2	≥50	16.2+16.2
12	≤9.6	≥50	28.8+28.8
24	≤19.2	≥50	115.2+115.2

(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°C~+85°C
Terminals	Coil terminals	PCB mounting
	Load terminals	Busbar, braid cables quick connection
High temperature		85°C±2°C,16H
Low temperature		-40°C±2°C, 2H
Sealing		Dust sealing

Outline dimensions and circuit diagram

