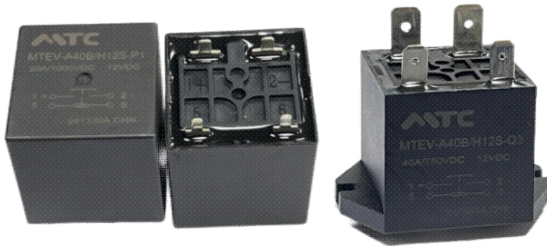


MTEV-A10(20)B Series

High pressure direct current relay



Characteristic:

- 10A~20A 85℃ Long-term current-carrying capacity
- 1 form A (NO), GAP>3.5mm
- PCB&QC terminal two installation methods
- Small volume, light weight, safe and reliable;
- Appearance size:PCB(29.2x30x30.1)mm, QC(44.0x30.0x42.0)mm

Application:

- New energy vehicles; Charging equipment;
- Industrial control; Energy storage

RoHs compliant

Main contacts data

Main contacts feature	1 form A (NO), polarized	
Contact resistance ⁽¹⁾	≤5mΩ (at 6A)	
Current (continue)	10A Series	20A Series
	10A/750VDC 5A/1000VDC	20A/750VDC 20A/1000VDC
Maximum interrupting current	40A/450VDC 5A/1000VDC	80A/450VDC 10A/1000VDC
Current tolerance	10A continuous, 20A/30min,40A/10S	20A continuous, 40A/30min,80A/10S
Maximum switching voltage	1000VDC	
Minimum applicable load	6VDC 1A	
Mechanical durability	2x10 ⁶ cycles Min(No load)	
Electrical durability	Switch:2x10 ⁴ cycles@10A/450V	Switch:2x10 ⁴ cycle@20A/450V
	Switch:2x10 ³ cycles@10A/750V	Switch:2x10 ³ cycle@20A/750V
	Switch:1x10 ³ cycles@5A/1000V	Switch:1x10 ³ cycle@10A/1000V
	Connected: 5x10 ⁴ cycles@10A	Connected: 5x10 ⁴ cycle@20A

Note:(1)The value of main contacts parameters are measured at +23℃;

Coil data

Coil power(Approx)	3W				
Keep the voltage	40%~120%Un (at 23℃)				
	45%~80%Un (at 85℃)				
Nominal voltage VDC	Pick up voltage VDC	Drop out voltage VDC	Max voltage VDC	Coil currentmA±10%	Rated coil resistance Ω±10%
12	≤9.0	≥1	15.6	250	48
24	≤18.0	≥2	31.2	125	192

Note: (1) The value of coil parameters are measured at +23℃ ;

(2) The maximum voltage is the maximum voltage value that the relay coil can withstand in a short period of time;

(3) At room temperature, the relay coil is applied with a voltage above 75% of the rated value.

Electrical Characteristics

Insulation (initial)	1000MΩ(1000VDC)	
Dielectric Voltage (initial)	Contacts and coil	3000VAC 1min
	Main contacts	2000VAC 1min
Action time	≤30ms	
Release time	≤10ms	
Shock	Mistake action	196m/s ²
	Durability	490m/s ²
Vibration	10~55Hz,1.5mm Double amplitude	
Humidity range	5%~85%	
Temperature range	-30~+85℃(No dew, frost)	
Coil lead form	Coil terminal: plug terminal #187, thickness 0.5mm	
Load lead form	QC terminal: plug-in terminal #250, thickness 0.8mm	
Installation method	M4 screw base installation (torque 1.8~2.7 N.m)	
Weight	55g	

Note:

(1) The above values are initial values;

(2) Detailed temperature rise of the coil is shown in the performance curve chart;

Ordering information

	MTEV	-A	20B	/H	12	S	-Q	3	,000
Product Family									
Seal form	A=Air type								
Current Rating	10A=10A ,20=20A								
Load voltage type	H=1000VDC								
Rated Coil Voltage	12=12VDC, 24=24VDC								
Coil type	S=Single coil								
Coil lead form	Q=QC terminal,P=PCB terminal								
Load lead form	1=PCB terminal, 2=QC terminal(No base), 3=QC terminal+Base installation								
Additional numbers and or letters	000-999, AAA-ZZZ, aaa-zzz or blank, which does not represent electrical changes, only for specific customer requirements								

Outline drawing、Wiring diagram、Installation hole size

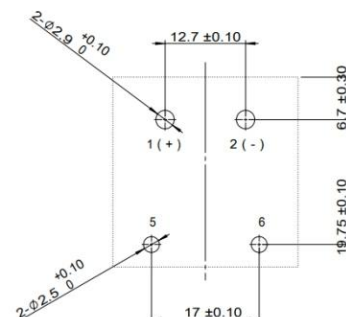
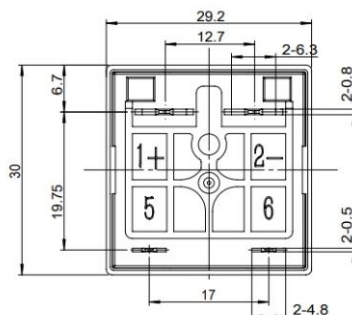
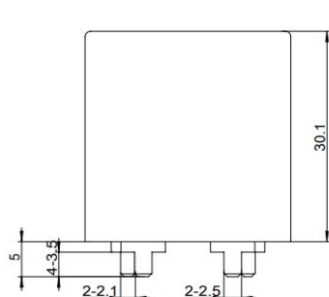
Unit: mm

Outline drawing

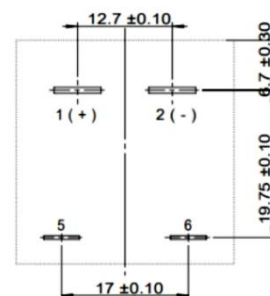
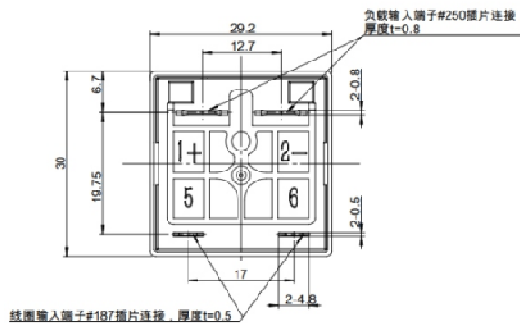
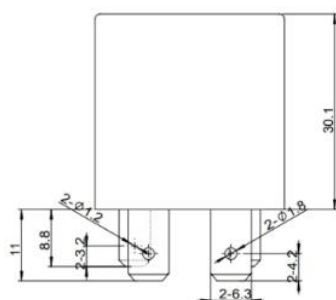
Installation hole size

(Bottom view)

P1 type: PCB terminal



Q2 type: QC terminal



Unit: mm