

## 91L Series Thermal Circuit Breaker

### Single Pole Push to Reset



#### •Technical data

- Current rating range 2~20A
- Input voltage rating 125/250VAC; 50VDC
- Interrupting Capacity 125/250VAC x 1,000A(UL 1077)
- Typical life 1,000 operations at 200% overload.
- Insulation co-ordination Rated impulse withstand voltage 2.5kV
- Dielectric Strength > 1,500VAC/min.
- Insulation Resistance >100MOHM (DC 500V)
- Degree of protection Terminal area IP00, operating area IP40



#### •Mechanical/Environmental Data

- Operating Ambient Temperature: -10°C to +60°C
- Termination: 250''(6.35mm) quick connects or solder terminals
- Mounting: Various options. See Ordering Information and drawings

#### •Compliance with Rohs

The product accords with the requirement of ROHS( 2011/65/EU)  
Contacts use Exempted item of RoHS Directive 2010/571/EU 8(a)

#### •Compliance with REACH, PAHS, PH1, PH2, PH3

#### •Typical applications

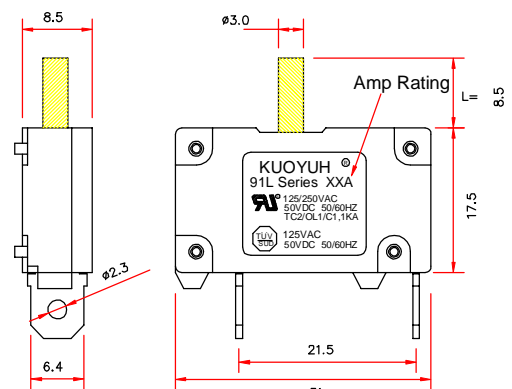
Transforms, Motors, Battery chargers, Power supplies,  
appliances, extra low voltage systems, machinery.

#### •Calibration(at25°C)

- 100% of Rated Current: Hold , No Trip
- 150% of Rated Current: Trip Within 1 Hour.
- 200% of Rated Current: 5.00-40.0 sec Trip
- 300% of Rated Current: 1.0-5.0 sec Trip

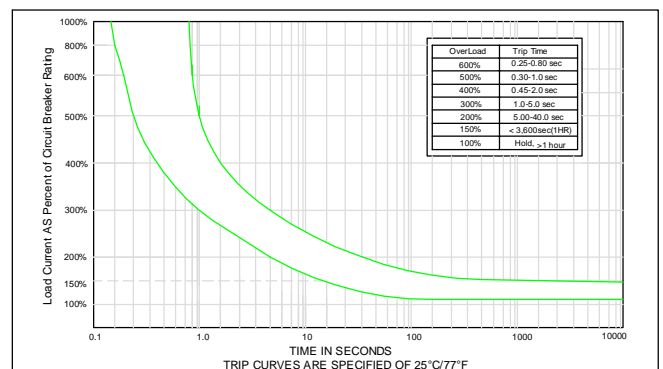
#### •Approval

Approval & File No.	Rated current	Rated voltage
•CUL UL E155159	2-20A	125/250VAC; 50VDC
•TUV SUD B150158611006	5-20A	125VAC; 50VDC



\* Dimension in mm.

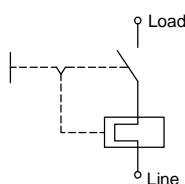
#### •91L Series 2A~20A Trip Time Curves



#### •Max.Internal Resistance

2.0-5.0Amp	<0.450 ohms
5.1-7.0Amp	<0.150 ohms
7.1-10.0Amp	<0.105 ohms
10.1-12.0Amp	<0.075 ohms
12.1-15.0Amp	<0.055 ohms
15.1-17.0Amp	<0.035 ohms
17.1-20.0Amp	<0.025 ohms

#### •Internal connection diagram



#### •Ambient Temperature Correction Factor

Ambient temperature	-10°C	0°C	10°C	25°C	35°C	40°C	50°C	60°C
Multiplication factor	*1.30	*1.20	*1.10	1.00	*0.94	*0.85	*0.73	*0.68

The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping. Please multiply the circuit breaker current ratings by the derating factor shown below.

Example : Normal Continuous Current = 10A  
Ambient Temperature = 45°C  
Multiplication Factor = 0.85  
Recommended Rating = 10A/0.85=11.8A

Order Guide	<b>91L</b> Series No.	<b>- 10A -</b> Rating Amp	<b>D</b> Button Length	<b>Y</b> Button Color	<b>N</b> Bracket Type	<b>Q</b> Nut Type	<b>6</b> Terminal Type	<b>N</b> Terminal Finish
係列號								
電流額定	<b>2A.....20A</b>							
按鍵長度								
推桿顏色	<b>Y=Yellow    R=Red</b>							
固定方式								
螺母配件	<b>N</b> =None	<b>P</b> Type (Plastic 18.5) P1=M11*P1.0 P3=3/8'-27t	<b>Q</b> Type (Plastic 14.5) Q1=M11*P1.0 Q3=3/8'-27t	<b>B</b> Type (Metal 14.0) B1=M11*P1.0 B3=3/8'-27t	<b>S</b> Type (Metal 12.0) S3=3/8'-27t			
		3.2	2.8±0.1 14.5±0.1	3.0±0.2	3.0±0.2			
端子種類	<b>6</b> =6.35mm; 0.25" TAB <b>4</b> =4.8mm; 0.187" TAB							
端子電鍍	<b>S</b> =Plate with Tin <b>N</b> =Plate with Nickel							