

## Thermal Circuit Breaker

38 Series

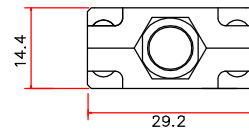
### Technical Data

- Current rating range 3~30A
- Input voltage rating 125/250VAC; 32/50VDC
- 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

- Ignition Proof Yes, UL PEQZ2. E466099

### Typical applications

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

### Calibration (at 25°C)

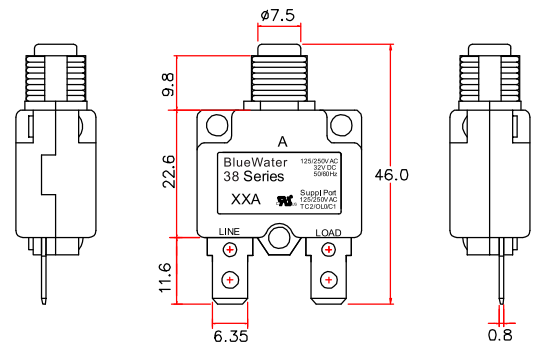
- 100% of Rated Current: Hold , No Trip
- 150% of Rated Current: Trip Within 1 Hour.
- 200% of Rated Current: 5-30 sec Trip
- 300% of Rated Current: 1.5-5.0 sec Trip

### Approval

- Approval & File No. Rated current Rated voltage
- CUL UL E466099 3-30A 125/250VAC; 50VDC

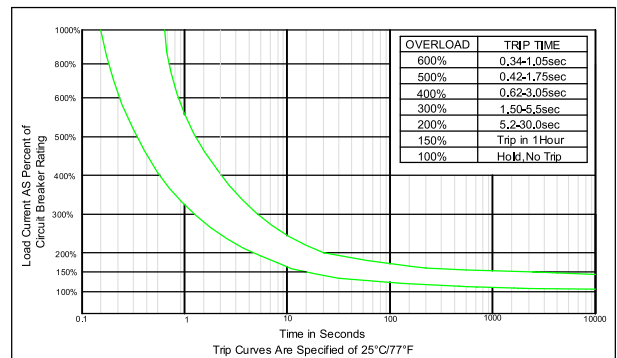
### Max. Internal Resistance

| Amp rating     | Max resistance |
|----------------|----------------|
| 3.0 - 5.0Amp   | <0.225 Ohms    |
| 6.0 - 8.0Amp   | <0.175 Ohm     |
| 9.0 - 12.0Amp  | <0.125 Ohm     |
| 13.0 - 16.0Amp | <0.050 Ohm     |
| 17.0 - 20.0Amp | <0.040 Ohm     |
| 21.0 - 25.0Amp | <0.030 Ohm     |
| 26.0 - 30.0Amp | < 0.020 Ohm    |



\* Dimension in mm:

### •38Series 3A-30A Trip Time Curves



### •Ambient Temperature Correction Factor

| Ambient temperature | -10°C | 0°C   | 10°C  | 25°C | 35°C  | 40°C  | 50°C  | 60°C  |
|---------------------|-------|-------|-------|------|-------|-------|-------|-------|
| Division 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  
Division Factor = 0.85  
Recommended Rating= 10A/0.85=11.8A  
Select the Nearest Rating = 12A