

## 88AR Thermal Circuit Breaker

### Single Pole Auto-Reset



- **Technical data**
- Current rating range 3~30A
- Input voltage rating 125/250VAC; 32/50VDC
- Contact Endurance 125Vac X150% of rated current >500 cycles  
125Vac X200% of rated current >200 cycles
- Insulation Resistance >100MOHM (DC 500V)
- Dielectric Strength > 1,500VAC/min.
- Degree of protection Terminal area IP00, operating area IP40
- **Mechanical/Environmental Data**
- Operating Ambient Temperature: -10°C to +60°C
- Termination: 110"(2.8mm) 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,

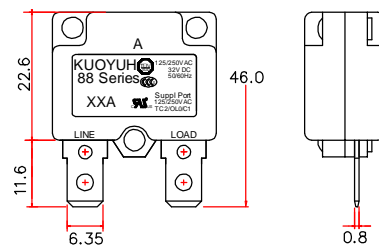
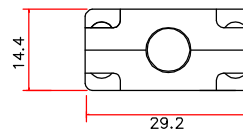
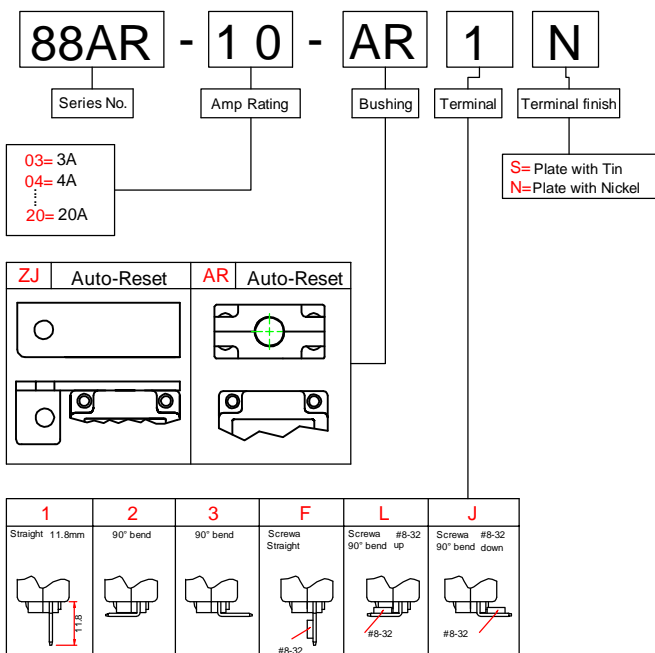
#### • Calibration(at25°C)

- 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

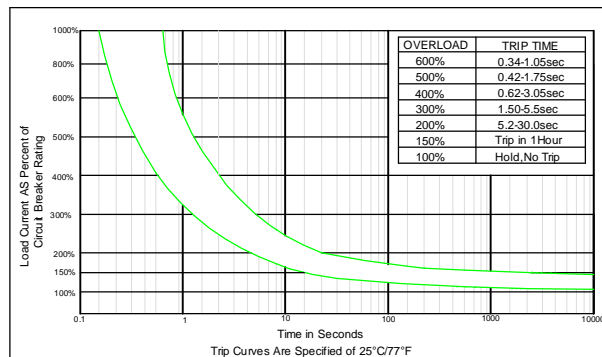
- Approval & File No. Rated current Rated voltage
- CUL UL E155159 3-20A 24VDC
- TUV SUD B15 09 58611 007 3-20A 125/250VAC; 32VDC

#### • Order Guide



\* Dimension in mm:

#### • 88AR Series 3A-20A 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
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  
Select the Nearest Rating = 12A

#### • Max. Internal Resistance

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

#### • Internal connection diagram

