

TU1400 Series

Communicating SCR Power Controllers



The TU Series quad units with four independent electrically isolated single phase SCR assemblies mounted on a space saving heatsink are available in four versions. They address the needs of simple resistive and complex loads with communications. These units handle loads from 25A–125A per channel, up to 500Vac and can be used with the model 260 Diagnostic Unit.

TU1450/TU1470 - The TU1450 is a communicating small frame quad unit available in a 25A or 40A rating as a time proportioned SCR for simple resistive loads. It includes front panel LED's and optional load current measurement. It is available with analog inputs, fast or single cycle firing, PLF detection, alarms, and digital communications with automatic switch-over to analog setpoints during a communications failure. The TU1470 large frame unit is the same as the TU1450, but extends ratings up to 125A per channel.

TU1451/TU1471 - These quad units add phase angle and fast cycle/softstart firing options for control of simple resistive, variable resistive, IR and inductive heating loads to both the small and large frame TU1450/ TU1470 models.

Specifications

TU1451 and TU1471

Burst and Phase Angle firing for all loads

Rating:

Current: TU1451: 25A and 40A
TU1471: 40A, 60A, 75A,
100A, 125A

Voltage: 100Vac to 500Vac

Dimensions:

TU1451: 25-40A: 458H x 144W x
193D mm; 11kg

TU1471: 40-125A 675H x 144W x
206D mm; 15.5kg (fan cooled)

Load type:

Resistive or inductive

Inputs:

Voltage: 0-5V, 1-5V, 0-10V, 2-10V

Current: 0-20mA, 4-20mA

Firing mode

Phase-angle or Burst-firing

Comms:

Modbus®, Jbus, El-Bisynch, Profibus®

Fuses:

External high speed fuses (ordered
separately)

Operating temperture:

0 to 45°C, 5-95% RH, non-condensing

Features

- 25–125 amp, 500Vac max.
- four independent single phase zones
- selectable control and firing modes
- El Bisynch, JBus, Modbus® or Profibus® communication protocols

Specifications

TU1450 and TU1470

Burst firing units for resistive loads

Rating:

Current: TU1450: 25A and 40A

TU1470: 40A, 60A, 75A, 100A, 125A

Voltage: 100Vac to 500Vac

Dimensions:

TU1450: 25-40A: 458H x 144W x 193D mm;
11kg

TU1470: 60-125A: 675H x 144W x 206D mm;
15.5kg (fan cooled)

Load type:

Resistive

Input:

Voltage: 0-5V, 1-5V, 0-10V, 2-10V

Current: 0-20mA, 4-20mA

Firing mode:

Burst-firing

Comms:

Modbus®, Jbus, El-Bisynch, Profibus®

Fuses:

External high speed fuses (ordered separately)

Operating temperature:

0 to 45°C, 5 to 95% RH, non-condensing

Ordering codes

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|-----|---|---|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | CCC | 8 | 9 | 10 | 11 | 00 |
|---|---|---|---|---|---|---|-----|---|---|----|----|----|

| Basic Product (1) | 1 Current (1) | 2 Voltage | 4 Input | 5 Firing Mode | 7 Control Option |
|--|--|--|--|---|--|
| TU1450 TU1450 TU1451 TU1451 TU1470 TU1470 TU1471 TU1471 | 25A 25 amps 40A 40 amps 60A 60 amps 75A 75 amps 100A 100 amps 125A 125 amps | 100V 100 volts 110V 110 volts 115V 115 volts 120V 120 volts 200V 200 volts 220V 220 volts 230V 230 volts 240V 240 volts 380V 380 volts 400V 400 volts 415V 415 volts 440V 440 volts 480V 480 volts 500V 500 volts | 0V5 0-5 volts 1V5 1-5 volts 0V10 0-10 volts 2V10 2-10 volts 0mA20 0-20mA 4mA20 4-20mA | FC1 Single cycle (1 cycle) FC8 Fast cycle (8 cycles) *PA Phase Angle *SFC8 Phase Angle Fast cycle soft start <i>*Analog firing units only (TU1451 and TU1471)</i> | CCC Control and communications Board |
| | | | | 6 Language | 8 Protocol |
| | | | | ENG English FRA French GER German | EIP EI Bisynch MOP MODBUS™ JBP JBUS™ PFP PROFIBUS |
| | | | | | 9 Control Mode |
| | | | | | V2 Voltage W Power |
| | | | | | 10 Load Type (PLF) |
| | | | | | RES Resistive IR Infra-red |
| | | | | | 11 Comms Mode |
| | | | | | CTRL Monitor only Remote control 96 9600 bauds 192** 19200 bauds AUTO Profibus |
| | | 4 Fan Supply | | | |
| | | 000 No fan 115V 115 volts 230V 230 volts | | | |

1) Current range dependent on basic product, see specifications.

For cooling information see specifications.

External fuseholders and fuses required, see pages 3-47 to 3-49.