

# TC1027/TC1028

## Single Phase High Current SCR Controllers



The TC1027 and TC1028 provide simple, safe and compact high current power control for both resistive and complex single phase loads. Voltage feedback compensation for supply variations is standard and internal fusing is optional.

**TC1027** - available as a solid state contactor or a burst fired SCR assembly that is optimized for resistive control from 300A to 500A at 120Vac to 500Vac. The SSC version accepts a DC or AC logic input and the SCR version accepts a selectable DC analog input or local potentiometer control.

**TC1028** - a compact single phase high current SCR assembly that provides enhanced control performance for resistive and complex loads up to 1650A and 690V. The TC1028 is rich in control features, with selectable inputs and firing modes. It also offers retransmission, PLF, current limit, fuse fail detection, and other options. The TC1028 accepts the Model 260 diagnostic unit for testing and troubleshooting. The unit is available in its standard configuration up to 1200A. At 1650A (and optionally from 750A to 1200A), it must be split into a separate SCR assembly and driver unit (MC1028).

### Dimensions

≤500A:	570H x 133W x 268D mm
750A:	560H x 373W x 510D mm
900A/1200A:	560H x 381W x 510D mm
1650A:	600H x 422W x 302D mm

### Features

- single phase 300-1650 amps, 690Vac max.
- selectable input signals and firing modes
- resistive or complex loads
- load diagnostics

### Specifications

#### Load type:

TC1027: resistive

TC1028: resistive (fixed or variable), transformer coupled or inductive

#### TC1027 Inputs:

*DC Logic-voltage:* 10V (>5V ON:<1V OFF),  
input impedance 390Ω

*DC Logic-current:* 20mA (>4mA ON: <0.2mA OFF),  
input impedance 390Ω

*AC Logic-voltage:* 100V to 264V (>85V ON:<10V OFF),  
input impedance 10K

*DC Voltage:* 0-5V, 1-5V, 0-10V, 2-10V  
(impedance 68K)

*DC Current:* 0-20mA, 4-20mA  
(impedance 250Ω)

#### TC1028 Inputs:

*DC Voltage:* 0-5V, 1-5V, 0-10V, 2-10V  
(impedance 50K)

*DC Current:* 0-20mA, 4-20mA  
(impedance 250Ω)

#### Firing mode:

*TC1027:* fast cycle with supply voltage compensation.

*TC1028:* fast cycle, single cycle, slow cycle, fast or slow cycle with soft start, and phase angle (with current limit)

#### Operating temperature:

0 to 45°C

#### Mounting:

Panel mounting

## Ordering codes

TC1027	1	2	3	4	5	6	00
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1 Current ††	2 Voltage	3 Auxiliary Supply	4 Input	5 Language																						
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All models are fan cooled. Total Aux. supply: 35VA.

††Other current ratings available, consult Eurotherm.

**6 Option**

FUMS Fuse Fail Microswitch
FUSE Standard fuse

For replacement fuses, see pages 3-47 to 3-49.

TC1028	1	2	3	4	5	6	7	8	7	8	00
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† Above 500A SCRs can be external to drive (option MC)

1650A unit must use option MC.

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For replacement fuses, see pages 3-47 to 3-49.