

PRODUCT SPECIFICATION AND APPLICATION INFORMATION

TC-1

FUSE and ALARM MODULE

1.0 GENERAL DESCRIPTION

The TC-1 is a rack mountable, fused power distribution panel with local and remote alarm capability. The TC-1 has 2 redundant 30 amp circuits and is designed to operate in a 48 (-) VDC environment.

1.1 FEATURES

NEG 48 VDC

30A Input Circuit Breaker - Push (ON), Pull (Off)

Fail Alarm Connections - Screw Down Terminal Block

Color - Clear Anodized Aluminum

Panel Space: - 1.75" (nom)

Rack Mounting - 19"

External Connections:

Input - Barrel Lug

Output - Barrier Strip with Phillips Head Screws

1.2 USE AND CURRENT RATING

The TC-1 Fuse Panel provides distribution and overload protection for 20 circuits using GMT fuses and can distribute up to 30 amps of current (using 30A circuit breakers) from each of two separate current sources (60A total). Alarm output connections and front panel indicators are provided to signal power failure.

GMT fuses are available in sizes from 0.20A to 15A. The panel is rated for use with any GMT fuse within this range. GMT fuses are designed so that when a fuse is subjected to a current overload of sufficient duration a small colored "flag" on the fuse indicates the position of the failed fuse.

1.3 FRONT PANEL CONFIGURATION

Fuse Positions - Two fuse holders for 10 GMT fuses each

Circuit Designation Label - Small plastic covered paper strip across the top of the unit allows identification of the circuits or equipment connected to the TC-1.

Fuse Fail Alarm - Front panel LEDs contain red elements for indication of fuse failures.

Input Circuit Breaker - 30A per side (Push On, Pull Off)

1.4 REAR PANEL CONFIGURATION

Power Input A and B - Barrel type power input terminal blocks are provided on the rear of the panel for both A and B circuits. Each input block has two positions, one for negative voltage and one for positive ground.

Power Output A and B - Two 10 position barrier terminal strips are used on each side, A and B, to secure negative and ground voltage output connections. Maximum 14AWG wire is secured to these terminals with #6 Phillips head screws.

Remote Alarm Output - External audible and visible alarms for the fuse alarm circuits may be operated from the TC-1 fuse panel. Phillips screw terminal blocks are provided on the rear panel for access to the alarm relay contacts. When a fuse activation condition exists a change in position of the relay changes normally open and normally closed contacts on the terminal. The 2 Form C fail relay contacts may be used to activate external audible and visible alarms.

2.0 Application Information

The TC-1 should be connected to two independent, redundant power supplies and is designed to provide this redundant power to 10 or fewer pieces of equipment. The TC-1 has two arrays of power output connections with 10 connect points in each array. Each of these connect points is individually fused.

Two independent, redundant power supplies may be connected to the TC-1, each through one of two barrel connectors on the back of the TC-1 chassis.

3.0 Current Overload Protection

Each of the 20 power connection circuits is protected with a GMT style fuse. In addition each of the 2 master circuits is protected with a 30 amp master circuit breaker.

4.0 Power Failure Warning

In the event of a blown fuse, a red power failure light on the front of the chassis will light and appropriate connected external warning systems will be triggered.

5.0 Remote Alarm Connection

The TC-1 features alarm output connections on the back of the chassis for normally open or normally closed terminals. These can be used to activate remote alarm annunciators.

In the event of a fuse warning the current path on the appropriate output connections will change. The normally open terminals will be closed and the normally closed terminals will be open. These terminals provide a contact closure only, with no voltage.

6.0 Technical Specifications

Panel Capacity.....	20 GMT fuses in 2 groups of 10
Current Capacity.....	0.2A to 15A per fuse, 30A per side, 60A total
Dimensions.....	19.0"W x 5.0"D x 1.75"H
Weight.....	5 lbs
Input Voltage.....	Negative 48VDC
Alarm Contact Relays.....	2A at 24VDC
Environmental Temperature Range.....	0 to 120°F

7.0 Mounting

The TC-1 is shipped with mounting brackets for standard 19" equipment racks. If desired, the mounting brackets on the TC-1 can be attached to the unit with the mounting flanges to the rear so the front of the unit is forward of the front plane of the rack mounting rails.

8.0 Wiring

Input Terminals - will accept 6 - 14 AWG wire. Wire leads should be stripped approximately 0.35". After inserting the wire, these terminals should be torqued to approximately 16 in-lbs.

Output Terminals - Barrier terminal strip requires Phillips head screwdriver. Will accept maximum 14AWG wire size.

9.0 Warranty

Juice Goose warrants as the only warranty that the TC-1 shall display freedom from defects in materials and workmanship when operated under intended and normal use and service for three years from the original purchase date of the unit. If during the warranty period a defect should occur, the product may be repaired or replaced at the option of Juice Goose. Juice Goose shall not be liable for any consequential or indirect damage of any type or nature nor for any cost of removal or reinstallation.

Juice Goose will not be liable for any damage or injury resulting from the use of the TC-1 in a manner inconsistent with this documentation. The user should determine prior to use whether the TC-1 is adequate, suitable and safe for the intended application. The user should also determine that he is qualified to safely and properly conduct the installation and use of the TC-1.

Should any service or assistance be required, contact Juice Goose at:

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