

TOPIC: DESCRIPTION OF SIGNALS (PF, INHIBIT, AND O/T) LOCATED ON THE 12-PIN CONNECTOR

NOTE: The signals and functions described remain active anytime proper AC power is provided to the power supply.

1. Input Power Fail (PF) Warning Signal

What is the purpose of this signal?

This signal indicates the status of the high voltage DC bus that powers the output modules. If the AC fails, this DC bus will start discharging through the output modules. Due to internal storage capacitors, the output modules continue to provide full output power briefly following loss of adequate AC power. This feature provides the user with a warning time before the outputs drop out of regulation. A minimum of five milliseconds warning time is provided. With PFC front ends, this time is not AC line voltage dependent. There are four logic option choices for configuration of this signal as indicated in Table 1.

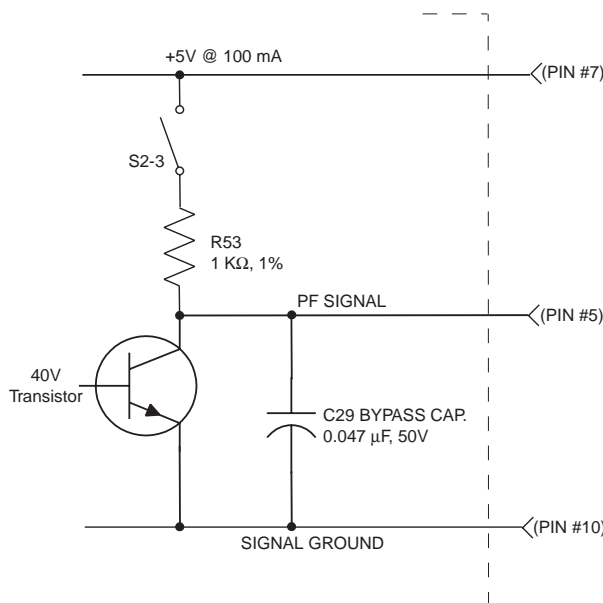


Figure 1. Internal Circuitry for the Power Fail Warning Signal

Table 1. Switch Positions for the Power Fail Signal Options

Pull-down Current:
48 mA MIN.

OPTION	S2-3	LOGIC (On AC Fail)
Standard	Closed	High-to-Low Transition
M	Closed	Low-to-High Transition
N	Open	Collector Conducts
P	Open	Collector Opens

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2. Inhibit Signal

What is the purpose of this signal?

By activating this signal, the end user can inhibit all output modules simultaneously. This signal interfaces with the pulsewidth modulation circuitry of all modules and turns the pulsewidth modulation IC either ON or OFF. There are four logic option choices for configuration of this signal, as indicated in Table 2.

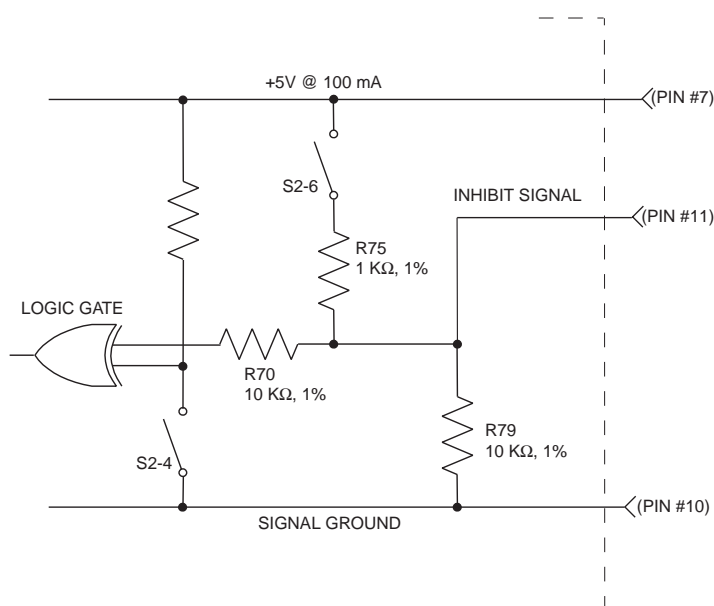


Figure 2. Internal Circuitry for the Inhibit Signal

Table 2. Switch Positions for the Inhibit Signal Options

OPTION	S2-4	S2-6	LOGIC
Standard	Open	Closed	Inhibit = TTL Low Enable = Open Ckt. or TTL High
A	Closed	Open	Inhibit = TTL High Enable = Open Ckt. or TTL Low
B	Closed	Close	Inhibit = Open Ckt. or TTL High Enable = TTL Low
C	Open	Open	Inhibit = Open Ckt. or TTL Low Enable = TTL High

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3. Overtemperature (O/T) Warning Signal

What is the purpose of this signal?

This signal activates if an overtemperature condition is detected. This signal is normally a logic-high level. However, if an overtemperature condition is detected the signal will go to a logic-low level for a minimum of 10 milliseconds before an overtemperature shutdown is initiated. The shutdown is latching and AC power must be recycled after the overtemperature condition is removed.

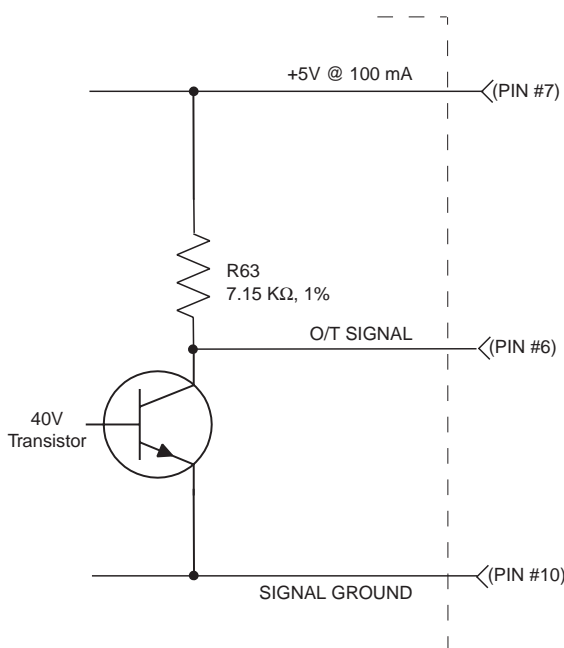


Figure 3. Internal Circuitry for the Overtemperature (O/T) Signal
(Pull-Down Current = 48 ma MIN)

4. Recommendations

Use of bypass capacitors at the opposite end of the interface cables to reduce noise picked up by the cables is recommended. Capacitors used for noise reduction should be metal film or ceramic disc type which are useful for high frequency filtering. A typical value for use is 0.1μF at 50V or higher.