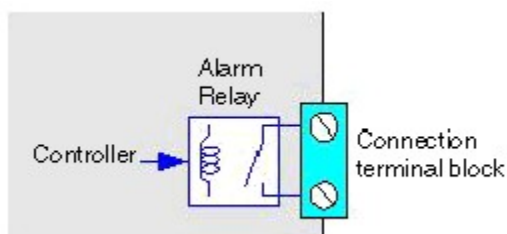


Alarm Relay


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Description

The alarm relay located in each power supply module has a potential free contact accessible on a 2-pin removable terminal block:



Relay Alarm Operation

DANGER

LOSS OF ABILITY TO PERFORM SAFETY FUNCTIONS

Always use a redundant device when using the alarm relay in a functional safety application.

Failure to follow these instructions will result in death or serious injury.

Relay Status	Conditions
closed: The alarm relay is closed when <i>all</i> of these conditions are met.	24V_BAC is OK.
	3V3_BAC is OK.
	ALARM_CPU_N is high ⁽¹⁾ or there is no CPU.
	The RESET button is not activated.
open: The alarm relay is open when <i>any</i> of these conditions is met:	24V_BAC is not OK.
	3V3_BAC is not OK.
	ALARM_CPU_N is low. ⁽²⁾
	The RESET button is activated.
(1) No CPU blocking errors are detected and the PLC is in RUN mode. (2) A CPU blocking error is detected or the PLC is in STOP mode.	

Alarm Relay Characteristics

Characteristic	Description
rated switching voltage/current	24 Vdc 2 A (resistive load)
	240 Vac 2 A (cos Φ = 1) point
minimum switching load	5 Vdc 1 mA

maximum switching voltage	62.4 Vdc
	264 Vac
contact type	normally open
contact time	OFF → ON: 10 ms or less
	ON → OFF: 12 ms or less
built-in protection against overload or short circuits:	none NOTE: Fit a fast-blow fuse.
built-in protection against inductive overvoltage in alternating current:	none NOTE: Fit an RC circuit or a MOV [ZNO] suppressor that is appropriate to the voltage in parallel to the terminals of each pre-actuator.
built-in protection against inductive overvoltage in direct current:	none NOTE: Fit a discharge diode to the terminals of each pre-actuator.
dielectric strength	contact vs. ground: 3000 Vrms, 50 Hz, 1 min.(altitude = 0...2000 m)
insulation resistance	100 MΩ or more under 500 Vdc

Alarm Relay Service Life

Electrical	Alternating current	200 Vac / 1.5 A 240 Vac / 1 A $\cos \Phi = 0.7$	≥ 100,000 cycles
		200 Vac / 0.4 A 240 Vac / 0.3 A $\cos \Phi = 0.7$	≥ 300,000 cycles
		200 Vac / 1 A 240 Vac / 0.5 A $\cos \Phi = 0.35$	≥ 100,000 cycles
		200 Vac / 0.3 A 240 Vac / 0.15 A $\cos \Phi = 0.35$	≥ 300,000 cycles
	Direct current	24 Vdc / 1 A 48 Vdc / 0.3 A L/R = 7 ms	≥ 100,000 cycles
		24 Vdc / 0.3 A 48 Vdc / 0.1 A L/R = 7 ms	≥ 300,000 cycles
Mechanical	20 million cycles		