



AC RM CCTV Supply

Rack Mount AC CCTV Power Supply

Operating and Installation Instructions

52-341 Rev A.03

Warnings and Notices

- WARNING - To reduce the risk of fire or electric shock, do not expose this product to rain or moisture
- WARNING - This installation and all servicing should be made by a qualified service person and should conform to all local codes
- NOTICE - This equipment shall be installed in a manner which prevents unintentional operation from employees, janitors and cleaners working about the premises, by falling objects, by customers, by building vibration and by similar causes
- NOTICE - This equipment is not intended for use within the patient care areas of a Health Care Facility
- NOTICE - In order to comply with CSA Requirements, mount in rack only. Installer sur support de montage seulement

Symbol Definitions



WARNING - Read the instruction manual to avoid personal injury or property damage



WARNING - Risk of electric shock. Service to be performed by a qualified service person

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Section 1

Introduction

The RM series of rackmount AC power supplies provides either 24 or 28 VAC for powering CCTV or similar low voltage AC operable equipment.

The units are intended for mounting within a standard nineteen inch electronics rack and may not be exposed to rain, moisture, or temperature conditions outside the stated range of operation.

All units:

- Are single phase, cord connected, and operate on 120VAC @ 60 Hz.
- Are user configurable by output zone for either 24 or 28 VAC (except for RM-248(F) and RM2416(F) - 24VAC only) and are initially set for 24 VAC. Zone voltage may be set without removing unit from rack.
- Provide a green LED visual indicator for presence of output voltage by zone on the front panel.
- Utilize a combination master ON/OFF switch and circuit breaker to control primary power.
- Feature a plug-in cord with computer-style power entry module.
- Feature screw-secured plug-in field wiring terminal strips.
- Provide frontal access for changing fuses or zone output voltage configuration.
- Utilize easily-obtainable ATM style 3A fuses unless PTC protected.
- Provide enhanced surge and transient protection.
- Are standard rack mount at 19" width and 3.5" (2RU) height, depth is 10".

Section 2

Applicable Standards / Documents

NFPA Standards

NFPA 70 National Electrical Code

NFPA 731 Standard for the Installation of Electronic Premises Security Systems

Underwriters Laboratories (UL)

UL 2044 Commercial Closed-Circuit Television Equipment

Canadian Standards Association (CSA)

CSA C22.2 No. 1-98 Audio, Video, and Similar Equipment

Other

Applicable Local and State Building Codes

Requirements of the Local Authority Having Jurisdiction (LAHJ)

Section 3

System Overview

3.1 Electrical Ratings and Specifications

Manufactured By

AlarmSaf

6 Ledgerock Way, Unit 7

Acton, MA 01720

Tel: 800.987.1050

978.658.6717

www.alarmsaf.com

Model Numbers

This guide covers the following model numbers:

Fuse Protected Products	PTC Protected Products
RM-248F	RM-248
RM-2416F	RM-2416
RM-2816F-300	RM-2816-300
RM-2832F-300	RM-2832-300
RM-2816F-600	RM-2816-600
RM-2832F-600	RM-2832-600

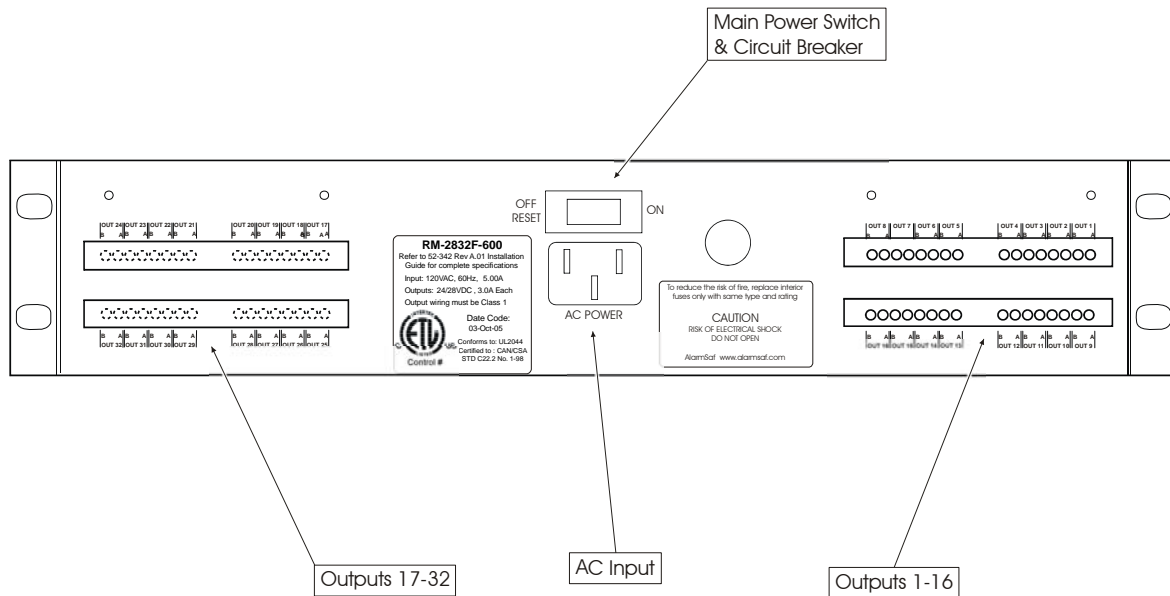
Electrical Ratings

Fuse Protected Products						
Model #	Input Voltage	Input Current	Output Voltage	Total Output Current	Output Zones	Maximum Current per Zone
RM-248F	120 VAC	0.83 Amp	24 VAC	4 Amp	8	3 Amp
RM-2416F	120 VAC	2.7 Amp	24 VAC	12.5 Amp	16	3 Amp
RM-2816F-300	120 VAC	2.7 Amp	24/28 VAC	12.5/10 Amp	16	3 Amp
RM-2832F-300	120 VAC	2.7 Amp	24/28 VAC	12.5/10 Amp	32	3 Amp
RM-2816F-600	120 VAC	5.4 Amp	24/28 VAC	25/20 Amp	16	3 Amp
RM-2832F-600	120 VAC	5.4 Amp	24/28 VAC	25/20 Amp	32	3 Amp
PTC Protected Outputs						
RM-248	120 VAC	0.83 Amp	24 VAC	4 Amp	8	1.6 Amp
RM-2416	120 VAC	2.7 Amp	24 VAC	12.5 Amp	16	1.6 Amp
RM-2816-300	120 VAC	2.7 Amp	24/28 VAC	12.5/10 Amp	16	1.6 Amp
RM-2832-300	120 VAC	2.7 Amp	24/28 VAC	12.5/10 Amp	32	1.6 Amp
RM-2816-600	120 VAC	5.4 Amp	24/28 VAC	25/20 Amp	16	1.6 Amp
RM-2832-600	120 VAC	5.4 Amp	24/28 VAC	25/20 Amp	32	1.6 Amp

Product Use

When installed in accordance with all standards listed in Section 2 of this document, the AlarmSaf Rack Mount AC CCTV Power Supply line provides AC power for cameras and related accessories or other AC powered devices.

3.2 Terminal Descriptions



- 120 VAC Input: cord set - AlarmSaf Part#: 00018
- 24/28VAC Outputs: Removable terminal blocks with locking screws
- Wire size range: 12 - 26 AWG - Size appropriately for voltage drop
- Use Class 1 wiring for fuse protected units
- Use Class 1 or Class 2 wiring for PTC protected units
- Terminal designation 'A' indicates protected zone output, terminal designation 'B' indicates zone common.
- All outputs are Class 2 power limited on PTC protected units.

Section 4

Installation

4.1 Mounting

4.1.1 Mount the unit in locations that meet the following temperature and humidity requirements. Do not expose to conditions outside of these ranges.

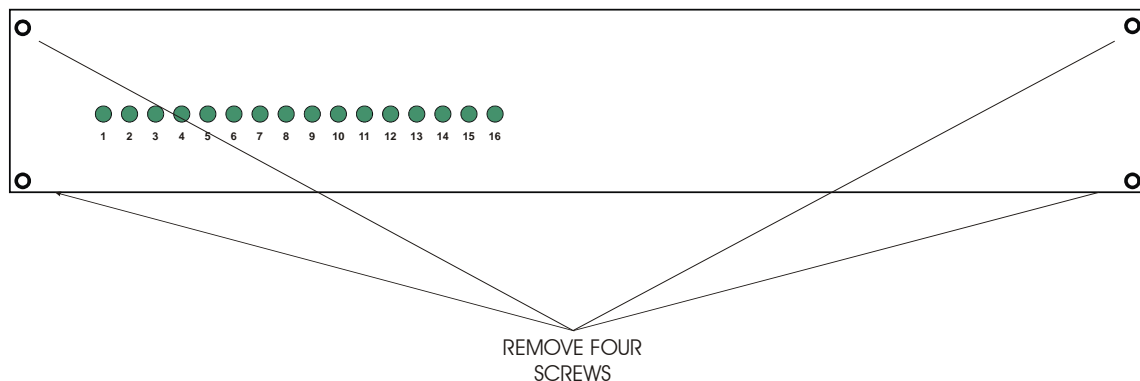
Temperature	0 °C to 49 °C (32 °F to 120 °F)
Humidity	32 °C (90 °F) @ 93%

Mount the unit in a standard 19" equipment rack using the supplied 10-32 X ¾" machine screws.

- Locate an open 2RU slot in the rack and remove the filler panel(s) (if present)
- Slide the unit into the open slot from the front of the rack
- Install the four supplied 10-32 X ¾" machine screws into the end brackets of the unit

4.1.2 Removing the faceplate of the unit

To remove the faceplate of the AC Rack Mount Power Supply, remove the four screws at the corners of the faceplate. Pull out gently on the faceplate to disengage the LEDs from the holes in the faceplate.



4.1.3 Replacing the faceplate of the unit

Gently slide the faceplate over the output LEDs and secure with the four screws removed when the faceplate was removed.

4.2 Wiring

4.2.1 Wire Routing

All wiring must be installed in accordance with NFPA70 [NEC760] and all local code requirements.

Power Limited wiring requires that power limited and nonpower limited wiring remain physically separated. All power limited circuits must remain at least one quarter inch (1/4") away from any nonpower limited circuit wiring.

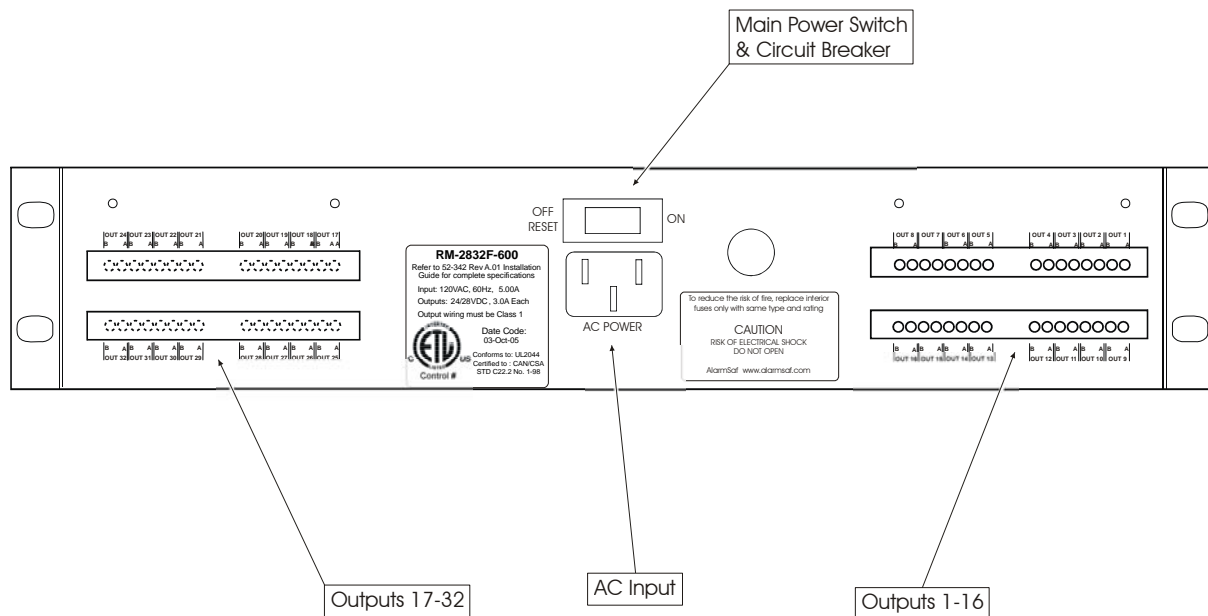
4.2.2 AC Power Connection

Before using the distributed power outputs, the unit must be connected to the main electrical power. Use the supplied cord set to plug the unit into the rack power strip and verify that the AC indicator light built into the main ON/OFF switch on the rear panel and the Green LED's on the front panel are illuminated when the unit is turned on.

Shut off the electrical power to the location of the unit, and then complete the general installation.

4.2.3 Output Wiring

Locate the output terminal wiring blocks on the back panel of the unit and remove the terminal block from the header (there are two locking screws on either end of the terminal block). Connect the wiring for the equipment to be powered to the terminal block. The back panel of the enclosure is labeled with the output numbers and phase indications (See also section 3.2). Replace the terminal block on the header and tighten the locking screws.

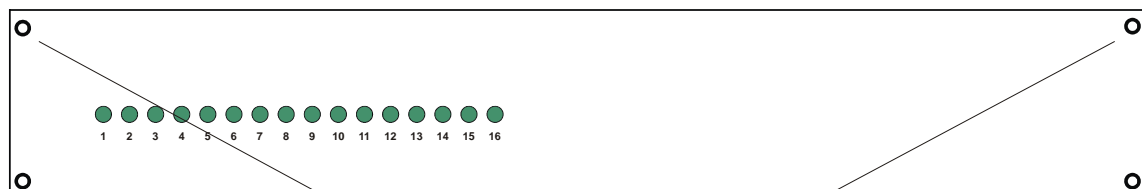


Section 5

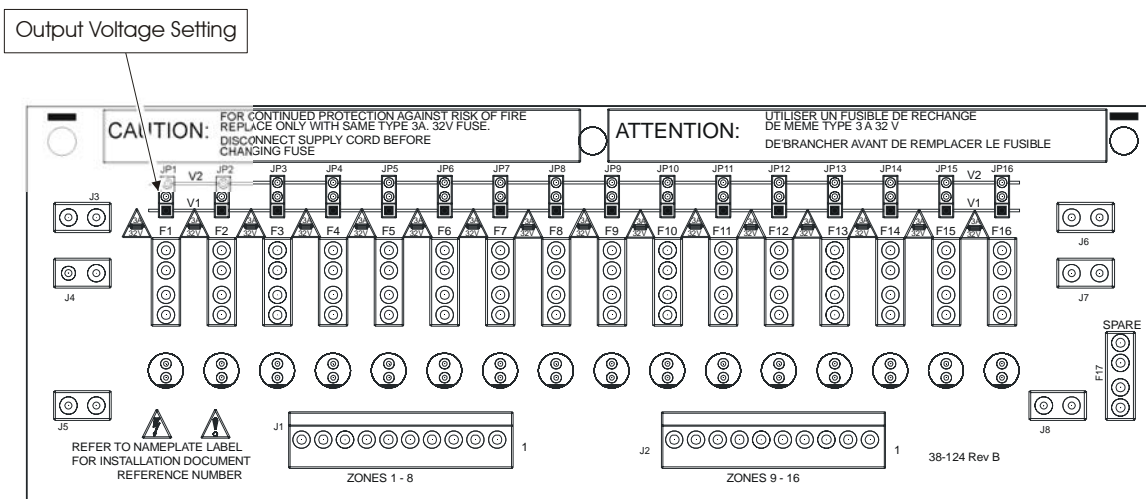
Operating the AC Rack Mount Power Supply

5.1 Jumper Configuration

Each individual zone may be configured for an output of either 24 or 28VAC (except on 8-zone units - 24VAC only), the output voltage setting is controlled by the movable jumper plugs behind the front panel (JP1-JP16). The upper setting (V2) is for a 28V output, the lower setting (V1) is for a 24V output.



REMOVE FOUR
SCREWS



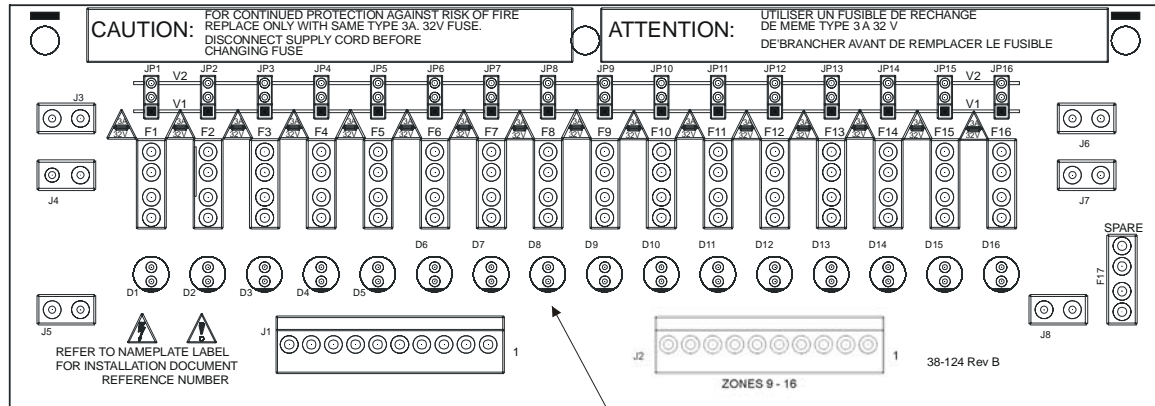
5.2 Visual Indicators

5.2.1 Illuminated Power Switch / Circuit Breaker

The power switch will light up red when the power switch is in the “on” position and power is present.

5.2.2 Output Power Visual Indicators (D1-D16)

A green LED is provided to indicate power availability for each zone. A LED which is lit indicates a zone with power available at it's output.



5.3 Troubleshooting

WARNING - Installation and service should only be performed by a qualified service person and should conform to all local codes

Condition	Possible Cause	Solution
No green output LEDs lit and no output voltages present	Power cord unplugged	Verify both ends of the power cord are plugged in
	No power to Rack's power strip	Verify power to Rack
	Power switch off	Verify that the power switch on the back panel is in the "On" position
	Tripped circuit breaker	The power switch also serves as a circuit breaker. Switch to "Off/Reset" for 30 seconds, verify output wiring integrity, then switch back to "On"
One zone's green output LED is not lit and it's output isn't present	Blown fuse (Fused models only)	Verify output wiring integrity, then replace fuse (Power down unit while changing fuse)
	Tripped PTC (Power-Limited models only)	Verify output wiring integrity, then pull voltage selection jumper for 30 seconds (note it's position before removing)
	Missing or damaged jumper	Verify that the zone's jumper is present and intact
Output Zone LEDs vary in brightness	Normal	This is a normal condition. 28V zones will have a brighter output LED than 24V zones

Section 6

Specifications

6.1 Electrical Specifications

6.1.1 Input Voltage	120VAC nominal
6.1.2 Input Current	See table in Section 3.1
6.1.3 Input Frequency	60Hz

6.2 Temperature Specifications

6.2.1 Ambient Temperature Range	0°C to 49°C (32°F to 120°F)
6.2.2 Ambient Humidity	93% at 32°C (90°F) maximum
6.2.3 BTU Output	See chart below

Model Number	Maximum BTU Output
RM-248(F)-UL	13 BTU
RM-2416(F)-UL	85 BTU
RM-2816(F)-300-UL	85 BTU
RM-2832(F)-300-UL	85 BTU
RM-2816(F)-600-UL	170 BTU
RM-2832(F)-600-UL	170 BTU

6.3 Mechanical Specifications

6.3.1 Weight	See chart below
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Model Number	Weight in lbs.
RM-248(F)-UL	
RM-2416(F)-UL	18 lbs
RM-2816(F)-300-UL	18 lbs
RM-2832(F)-300-UL	20 lbs
RM-2816(F)-600-UL	25 lbs
RM-2832(F)-600-UL	26 lbs

6.3.2 Overall Size	19.00"W x 10.75"D x 3.50"H <i>Note: Depth includes terminal strips on back panel and LEDs on front panel</i>
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6.3.3 CAD Drawing

