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DIN-Rail DC UPS

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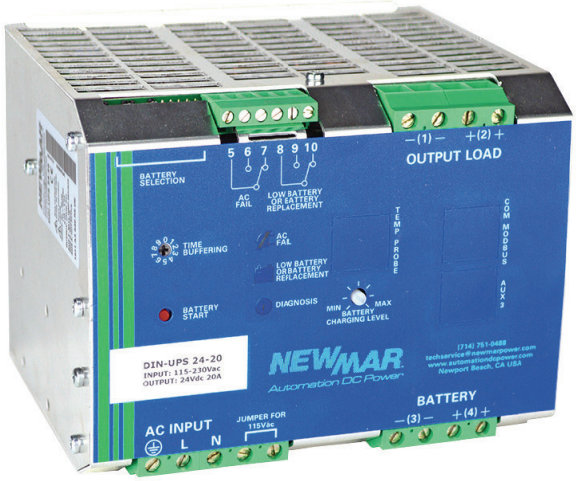
Costa Mesa, Ca 92627

DIN-UPS 12-10
(Case Size A)

DIN-UPS 24-10/48-5
(Case Size B)



DIN-UPS 12-35/24-20/48-10
(Case Size C)

Powers Loads and Charges Back-Up Battery, Ideal for Automation and Wireless System Transmitter Applications

- Combines all system power functions: power supply, battery charger, UPS circuitry and status monitoring in ONE compact DIN rail mount unit
- Separate outputs for load and battery
- "Load priority" circuit ensures power is dedicated first to the load, with remainder then allocated to battery charging, thus preventing a discharged battery from impacting operation of critical loads.
- 3 step charging for rapid battery recovery, programmable for battery type, with optional temperature compensation sensor
- Battery automatically supports load anytime AC fails
- Low voltage disconnect protects battery from total discharge
- Automatic periodic battery health diagnosis
- High operating temperature range to 70˚ C
- Alarm contacts: AC fail, battery fault
- Communication MODBUS via RS-45 Interface (DIN-UPS-48-10/24-20/12-35)
- CE Approved/Designed to UL 1950

Model	Output		MODBUS	Dimensions (H x W x D)	Weight (Lbs.)
	Voltage	Power			
DIN-UPS 12-10	12 VDC	10 Amps	NA	4.5" x 2.6" x 5.3"	2
DIN-UPS 12-35	12 VDC	35 Amps	Yes	4.5" x 5.9" x 5.3"	4
DIN-UPS 24-10	24 VDC	10 Amps	NA	4.5" x 3.9" x 5.3"	2
DIN-UPS 24-20	24 VDC	20 Amps	Yes	4.5" x 5.9" x 5.3"	4
DIN-UPS 48-5	48 VDC	5 Amps	NA	4.5" x 3.9" x 5.3"	2
DIN-UPS 48-10	48 VDC	10 Amps	Yes	4.5" x 5.9" x 5.3"	4

DIN-Rail DC UPS

Specifications

Front Panel LED Indicators:
- Power Source: AC or on back up
- Battery and System Diagnostics (via blink code)

Settings/Selectors:
- Battery Type: Lead Acid, Gel-Cell
- Charge Current Limit: 20 - 100% of charge rating
- Back-Up Run Time on Batteries:
  - Programmed time limit: 1 - 60 min. (48-10, 24-20, and 12-35 models only)

  Or
  - Until LVD disconnect (all models)
- Power Restore Button: re-connects battery without AC present

Signal Outputs (form C):
- AC Fail - operating on back-up power
- Battery abnormal condition (summary contact): Discharged, damaged, disconnected
- MODBUS Communication (DIN-UPS 48-10/24-20/12-35 only)

Temperature: -25 to +70˚ C. Continuous to 50˚, de-rate 2.5% per˚ C >50˚ C (50% output @ +70˚ C)

Cooling: Free air, convection

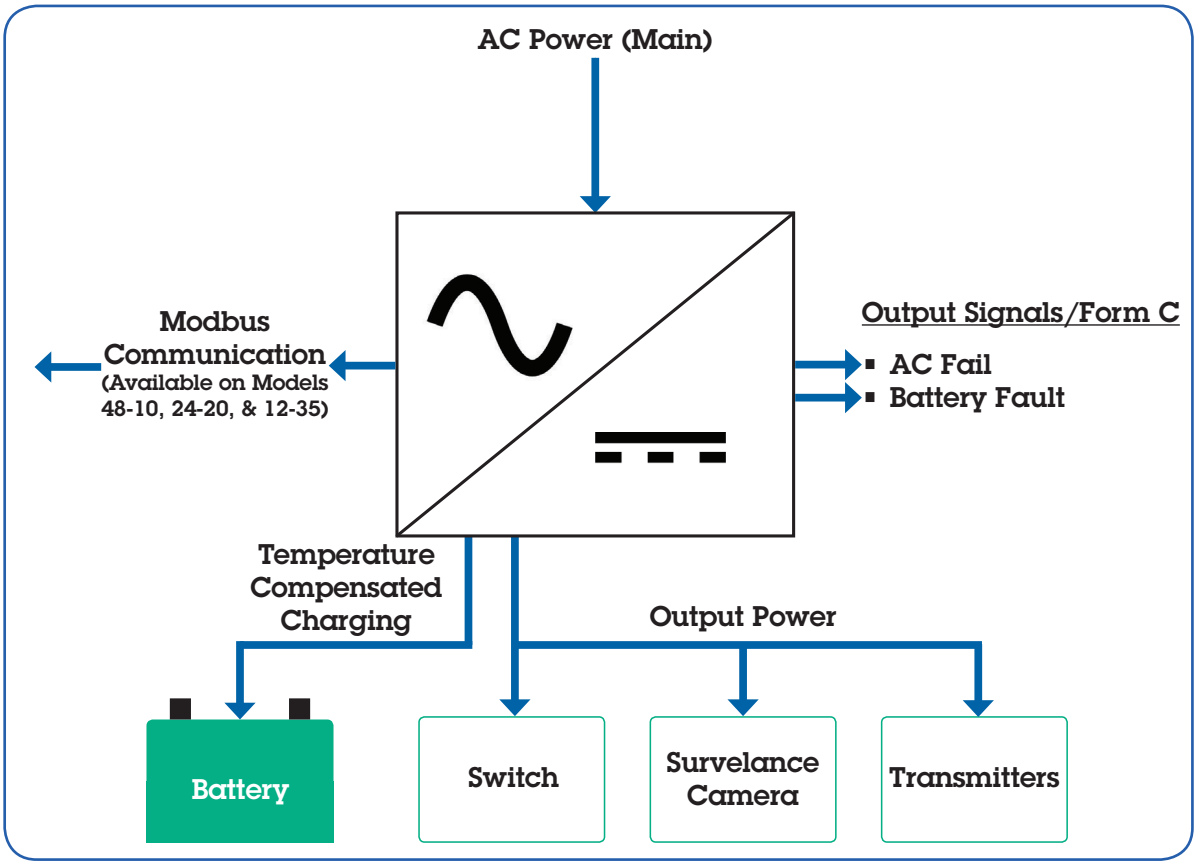
Protection:
- Low Voltage disconnect at 1.5 volts per cell
- Internal fuse
- Current limiting
- Short circuit and reverse polarity protection
- Thermal overload shut down and recovery

Terminal Blocks: Screw type

Mounting: DIN Rail Bracket (35mm)

Optional:
- Battery temp. comp. probe (468-4510-0)
- BDA/DAS version w/ NFPA compliant alarm signals (models DIN-UPS 48-10, 24-10 and 12-10)

Typical DC UPS Application



Site Power Monitor

Web-enable and integrate intelligence of automation and process control power with 24/7 monitoring, alarm condition notification, and data logging of vital electrical functions. All programmable, accessible, and managed via the Internet: TCIP or SNMP. View current conditions and log 30 day history of DC and AC power status at remote sites before dispatching personnel.

The Site Power Monitor is designed specifically for monitoring power supplies, rectifiers, batteries, converters, inverters, UPS, distribution panels, and AC power for automated industrial applications via Ethernet or Wireless connection. The palm sized unit is DIN Rail mounted and is easily adapted to virtually any make of power system via nine sensor input ports which capture and stream critical data via the Internet for analysis and logging of site history. Web page based programs are easily user configured for site parameters with up to 50 desired alarm conditions settings and multiple automatic notification options by e-mail and text message.

Sites without Internet access can use the monitor solely as a data logger that captures and retains 30 days' data, ready for download to lap top for site history file and analysis of component performance and failure conditions.

Sensors/Inputs

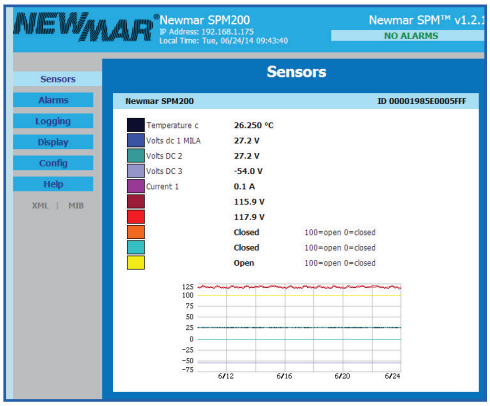
- DC Bus/Battery Voltage
- DC System Amperage/Battery Charge-Discharge Current
- AC Voltage
- Ambient Temperature
- Dry Contacts/Alarms
- Ethernet Camera

Firmware

- Programmable Alarms
- Data Logging
- Remote Firmware Update Capable

Reporting Via

- Internet – Built-in Web Server
- E-Mail
- Text Message
- SNMP



Sensors Web Page Screen Shot

Model	Input Voltage	Monitoring Ports				Dimensions (H x W x D)	Weight (Lbs.)
		VAC	VDC	DC Current	Dry		
SPM-200	9-60 VDC	2	3	1	3	3.27" x 4.66" x 2.18"	1

Site Power Monitor

Specifications

Inputs

Power Source Voltage: 9-60V DC negative/positive ground, 250 mA max.

Monitor Inputs: 9 Total

VDC: 3 Ports

- 2 each: 0-40 VDC
- 1 each: 36-60 VDC
- Accuracy: +/- 2%

VAC: 2 Ports

- 120/240 (90-264) utility power (L-N or L-L)
- 120/240 inverter output (floating)
- Accuracy: +/-2%

DC Current: 1 Port

- +/- 100mv, 100 amp differential shunt voltage
- Read battery charge/discharge current, or load current
- Shunt provided
- Accuracy: +/-3%

Dry Contact Switch Sensors: 3 Ports

- Possible uses: door open, water leak detection, smoke alarm, component fail, breaker trip, high temperature

Reporting/Alarms

- Ethernet Port connection: RJ-45, 10/100 auto-sense
- HTTP – Web Access, Self-generated Web-page
- SNMP – MIB with Gets, Traps, and Clears
- Alarms – HIGH and LOW trip, 50 max, user-programmable
- Logging – Excel logs created, time stamped, continuous graphing

- **Data Screens**

- Sensors
- Alarm settings (customized web page)
- Data logging
- IP Camera feeds (4 max.)

Data logging: Remote Or Download Locally:

- 30 days + rolling history with 30 second interval refresh, CSV file compatible

Diagnostics LED Indicators

- Input Power ON/OK, System OK, Flashing Activity Indicator Ethernet port

Mechanical

- Aluminum, Powder Coat
- Connections via plug-in terminal block
- 35mm DIN Rail mount

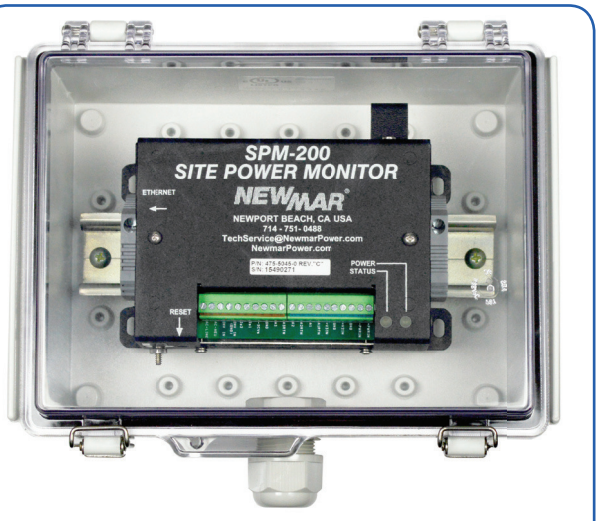
- **Environmental**

Operating Temperature range -20° C to 60° C

Warranty: 2 years

Installation Options

- NEMA 4x Enclosure with 35MM DIN Rail Installed Model: **DIN-ENC-748** (7.75" H x 4" D x 8.65" W)
- 19" Rackmount Bracket Model: SPM-RM
- RJ-45 Ethernet Surge Protector for Cat 5e networks. See catalog page 8 for information on the DIN-ETH Surge Protector series.



NEMA 4X Enclosure Optional

DIN Mount Battery Brackets

DIN Mount Battery Brackets

These DIN Rail mount battery brackets simplify integrating reserve power in 12 and 24 volt DC UPS applications. Various capacities are available to select the proper size for your installation. The lower power model (DIN-BAT), 2.4 and 1.2 AH, are supplied with batteries already installed. For the higher capacity brackets, (DIN-BKT B & C) order the battery separately (see battery selection page opposite page).

All models have 35mm DIN Rail clips and an integral fuse for protection. The larger brackets (size B and C) also include 4 hanging points to transfer battery weight from the DIN Rail to the back wall of the mounting surface.

Size A Bracket with Battery Installed

The DIN Rail mount assembly contains two 1.2 amp-hour batteries. This versatile battery pack is allows user to select 12 or 24 volt configuration by inserting jumpers on the front panel. Over-current protection provided by integral 15 amp self-resetting fuse. See battery operation specifications on page 5.

Model

DIN-BAT-A 12/24

Size A
Voltage Selectable by Jumper
12V, 2.4 AH, 24V, 1.2 AH
Battery Included

Size B: Single 7 Amp-Hour Battery Bracket (Order Battery Separately)

DIN Rail Mount bracket with back wall hanging points for supplemental mounting strength in high vibration installations accommodates one 7 amp-hour battery. Bracket assembly includes battery wiring with insulated fast-on connectors, output terminal block, and 25 amp fuse for over current protection.

Model

DIN-BKT-B

Size B Bracket Shown with Battery Installed

Size B Bracket

Size C: Dual 7 Amp-Hour Battery Bracket (Order Battery Separately)

DIN Rail Mount bracket with back wall hanging points for supplemental mounting strength in high vibration installations accommodates two 7 amp-hour battery. Bracket assembly includes battery wiring with insulated fast-on connectors, output terminal block, and 25 amp fuse for over current protection.

Model

DIN-BKT-C

Size C Bracket Shown with Batteries Installed

Size C Bracket

Model	Voltage	Capacity	Battery	*Dimension (H x W x D) mm	Weight with Battery	Weight w/out Battery
DIN-BAT-A 12/24	12/24	2.4/1.2	Included	98 x 48 x 55	3	N/A
DIN-BKT-B	12	7.0	Order Separately	155 x 105 x 125	7	1
DIN-BKT-C	12/24	14.0/7.0	Order Separately	155 x 170 x 125	14	1

With battery installed

Batteries

BATT 1.2 Amp-Hour

Application: 2 each used in Model DIN-BAT-A 12/24

VRLA Type: 12 Volt

General Specifications

Capacity Ratings	Amp Hour
20 hour to 1.75 vpc 30° C	1.2
10 hour to 1.75 vpc 20° C	1.1
5 hour 1.70 20° C	1.0
1 hour to 1.6 vpc 20° C	0.7

Discharge Ratings	Amps
Maximum	12
Short circuit	36

Operating Temperature	°C
Charge	-15 to 50
Discharge	-20 to 60

Dimensions/Weight	(L x W X H) mm/Lbs.
	97 x 48 x 55/2

BATT 7 Amp-Hour

Application:

- 1 each used in DIN-BKT-B
- 2 each used in DIN-BKT-C

VRLA Type: 12 Volt

General Specifications

Capacity Ratings	Amp Hour
20 hour rate of 0.35 A to 10.5 V	7.0
10 hour rate of 0.65 A to 10.5 V	6.5
5 hour rate of 1.19 A to 10.2 V	5.95
1 hour rate of 4.2 A to 9.6 V	4.2

Discharge Ratings	Amps
Maximum	40
Short circuit	210

Operating Temperature	°C
Charge	-15 to 50
Discharge	-20 to 60

Dimensions/Weight	L x W X H mm/Lbs.
	150 x 65 x100/2