

RAD-SYS-NEMA4X...

NEMA 4X enclosure with UPS DC power supply for wireless systems



Data sheet
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1 Description

To simplify the selection and installation of wireless devices, Phoenix Contact now offers the RAD-SYS-NEMA4X-900 enclosure system to complement the RAD series of industrial radios.

The prewired control cabinet provides a 24 V DC power supply, backup UPS system, surge protection for the line power and antenna connections, and terminal blocks for easy connectivity, all mounted on standard NS 35 mounting rail. The 2 A power supply provides sufficient power for the radio and several additional components, if necessary, which can be mounted on the 25 cm (10 in.) of available rail mounting space.

The selected components provide a robust, consistent signal acquisition system for remote data collection. Simply add a radio and antenna, and connect the sensors to complete the system.

2 Features

- 24 V DC power supply/UPS and external 24 V backup battery
- 2 amp fuse
- MAINS-PLUGTRAB surge protection for the line input (100 - 240 V AC)
- COAXTRAB surge protection for the antenna connection
- Prewired cabinetry with extra terminal blocks for simple, flexible installation
- NEMA 4X enclosure provides protection against the weather
- Panel and pole mounting kits available



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This document is valid for all products listed in the "Ordering data" on page 2.

3 Ordering data

Products

Description	Type	Order No.	Pcs./Pkt.
Enclosure , for 900 MHz radio includes power supply, UPS, battery back-up and surge protection	RAD-SYS-NEMA4X-900	2917188	1

Accessories

Description	Type	Order No.	Pcs./Pkt.
Pole mounting kit	RAD-SYS-BKT	2900038	1
One-way wireless system , for one 4-20 mA and two discrete signals, 900 MHz	RAD-ISM-900-SET-UD-ANT	2867102	1
Two-way transceiver set , for one 4-20 mA in/out and two discrete signals in/ out. Accepts expandable I/O modules, 900 MHz	RAD-ISM-900-SET-BD-BUS	2867089	1
Multipoint-to-point transceiver set , accepts expandable I/O modules, 900 MHz, custom order		5605715-XXXX	1
Bidirectional transceiver , 900 MHz, for wireless transmission of serial and I/O data	RAD-900-IFS	2901540	1
RS-232 serial data radio , 900 MHz	RAD-ISM-900-RS232-BD	2867555	1
RS-232/485/422 serial data radio , 900 MHz	RAD-ISM-900-DATA-BD	2867131	1
RS-232/485/422 serial data radio , 900 MHz, accepts expandable I/O modules	RAD-ISM-900-DATA-BD-BUS	2867296	1

4 Technical data

General data

Dimensions (H x W x D)	359 x 311 x 156 mm (14.1 x 12.3 x 6.1 in.)
Material	Fiberglass
Conduit connections	1/2-in.
Antenna connection	N, female

MINI-DC-UPS/24DC/2 (Order No. 2866640)

Input voltage range nominal	100 - 240 V DC
Current consumption	0.6 A @ 230 V AC 1.0 A @ 115 V AC
Output current	2 A
Nominal output voltage	24 V DC
Output voltage range (normal mode)	22.5 - 29.5 V DC
Output voltage range (buffer mode)	27.2 - 19.2 V DC

MINI-BAT/24DC/0.8AH (Order No. 2866666)

Nominal output voltage	24 V DC
Nominal capacity	0.8 Ah

PT 2-PE/S-230AC-ST (Order No. 2839347)

Maximum continuous operating voltage	253 V AC
Leakage current @ MCOV (L-N)	≤1.1 mA
Leakage current to ground	≤1.5 μA
Maximum discharge surge current (8/20 μs) per mode	10 kA

CN-UB-70DC-6-BB (Order No. 2803166)

Maximum continuous operating voltage	70 V DC/50 V AC
Nominal current I_N	10 A
Operating current I_C at U_C	$\leq 1 \mu\text{A}$
Nominal discharge surge current (8/20 μs)	5 kA
Maximum discharge surge current (8/20 μs)	10 kA
Output voltage threshold at 1 kV/ μs	$\leq 650 \text{ V}$
Protection level U_p (C2 (4 kV/2kA))	$\leq 800 \text{ V}$
Response time t_A	$\leq 100 \text{ ns}$
Cut-off frequency (3 dB) in a 50 Ω system	$> 6 \text{ GHz}$
Standing wave frequency (SWR) in a 50 Ω system, typical	1.15 (6 GHz)
Permissible HF power at SWR=1.1/ ∞ in a 50 Ω system	30 W (VSWR = 1.15)
Capacitance, typical	1.5 pF
Connection	N-type, female, 50 Ω