

LORN series surge protective devices for marine-grade electrical distribution equipment



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PROTECTOR

CORPORATE HEADQUARTERS
5805 S. Gordon Ave • Tampa, Florida 33611
813-805-9506 • Fax 813-837-5754
Eaton Electrical - Innovative Technology
<http://www.apowersystems.com>

Introduction

LORN series of fused, surge protective devices

Harsh environmental conditions and increasing onboard technology present challenges for maintaining reliable power aboard a vessel or a rig. Whether a modest commercial vessel or a vast, multi-level cruise ship, one small power transient can impact critical safety and navigation equipment.

Applications

Innovative Technology LORN series surge protective device (SPD) solutions have been specifically designed and tested for marine environments to protect vital pieces of equipment, safeguard personnel, and minimize downtime. The solution is also easy to install and requires no regular maintenance—providing the highest return on investment of any piece of power quality equipment.

Features

- 20-year replacement warranty
- UL® 1449 4th Edition Listed—E316410-VZCA
- Internally threaded conduit fitting and multi-point mounting feet
- Operating temperature: -40 °F to +185 °F
- Typical 4–6 month return on investment

Standards and certifications

UL 1449 3rd Edition recognized component for the United States and Canada, certified by Underwriters Laboratories certification and follow-up service.

Performance data

Table 1. Part number performance data

Part number	Product type	Voltage (Vac)	Voltage range	Enclosure	Phase ①	Protection modes	VPR (Vpk)	I _n (kA)	Maximum continuous operating voltage
LORN-1S120AC-NM	Type 2 SPD	120	100–130	NEMA® 4	Single-phase	L-G	700	5	150
	Type 2 SPD	120	100–130	NEMA 4	Single-phase	L-L	700	5	150
LORN-1S120A-C-NMX	Type 2 SPD	120	100–130	NEMA 4X	Single-phase	L-G	700	5	150
	Type 2 SPD	120	100–130	NEMA 4X	Single-phase	L-L	700	5	150
LORN-3Y120/208AC-NM	Type 2 SPD	120/208	174–220	NEMA 4	Three-phase wye	L-L	1200	3	320
	Type 2 SPD	120/208	174–220	NEMA 4	Three-phase wye	L-N	600	3	150
	Type 2 SPD	120/208	174–220	NEMA 4	Three-phase wye	L-G	600	3	150
	Type 2 SPD	120/208	174–220	NEMA 4	Three-phase wye	N-G	700	3	150
LORN-120NNC-NM	Type 2 SPD	120	100–130	NEMA 4	Three-phase delta	L-L	700	5	150
	Type 2 SPD	120	100–130	NEMA 4	Three-phase delta	L-G	700	5	150
LORN-120NNC-NMX	Type 2 SPD	120	100–130	NEMA 4X	Three-phase delta	L-L	700	5	150
	Type 2 SPD	120	100–130	NEMA 4X	Three-phase delta	L-G	700	5	150
LORN-240NNC-NM	Type 2 SPD	240	200–240	NEMA 4	Three-phase delta	L-L	1200	3	320
	Type 2 SPD	240	200–240	NEMA 4	Three-phase delta	L-G	1200	3	320
LORN-1S480C-NM	Type 2 SPD	480	400–480	NEMA 4	Single-phase	L-L	1800	5	552
	Type 2 SPD	480	400–480	NEMA 4	Single-phase	L-G	1800	5	552
LORN-480NNC-NM	Type 2 SPD	480	400–480	NEMA 4	Three-phase delta	L-L	1800	3	552
	Type 2 SPD	480	400–480	NEMA 4	Three-phase delta	L-G	1800	3	552
LORN-480NNC-NMX	Type 2 SPD	480	400–480	NEMA 4X	Three-phase delta	L-L	1800	3	552
	Type 2 SPD	480	400–480	NEMA 4X	Three-phase delta	L-G	1800	3	552

① D = delta, Y = wye, S = single-phase

② L = line, N = neutral, G = ground

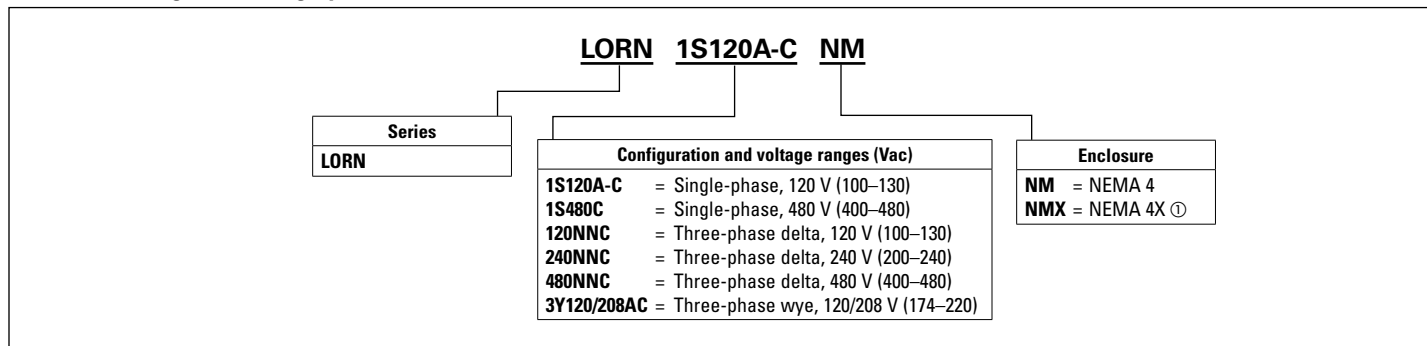


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Product selection

Table 2. Catalog numbering system



① Only available in split-phase 120 V, three-phase delta 120 V, and three-phase delta 480 V.

Technical data

Table 3. Specifications

Description	Specification
Peak surge current	
LORN-1S120AC-NM	160 kA per phase
LORN-1S120A-C-NMX	160 kA per phase
LORN-1S480C-NM	160 kA per phase
LORN-120NNC-NM	120 kA per phase
LORN-120NNC-NMX	120 kA per phase
LORN-240NNC-NM	120 kA per phase
LORN-480NNC-NM	120 kA per phase
LORN-480NNC-NMX	120 kA per phase
LORN-3Y120-208AC-NM	160 kA per phase
Warranty	20-year replacement
Unit listing	UL 1449 4th Edition and UL 1283 5th Edition
System voltages	
Single-phase	120/240 V, 480 V
Three-phase wye	120/208 V
Three-phase delta	120 V, 240 V, 480 V
Manufacturer qualifications	ISO® 9001 ISO 14001
Input power frequency	10–2240 Hz
Response time	≤1 nanosecond
Protection modes	
Single-phase 120 V	L-G, L-L
Three-phase wye	L-L, L-N, L-G, N-G
Three-phase delta	L-G, L-L
Circuit diagnostics	LED indicator, 1 per phase
Internal protection	Internal, replaceable, 30 A
Operating temperature	–40 °F to +180 °F



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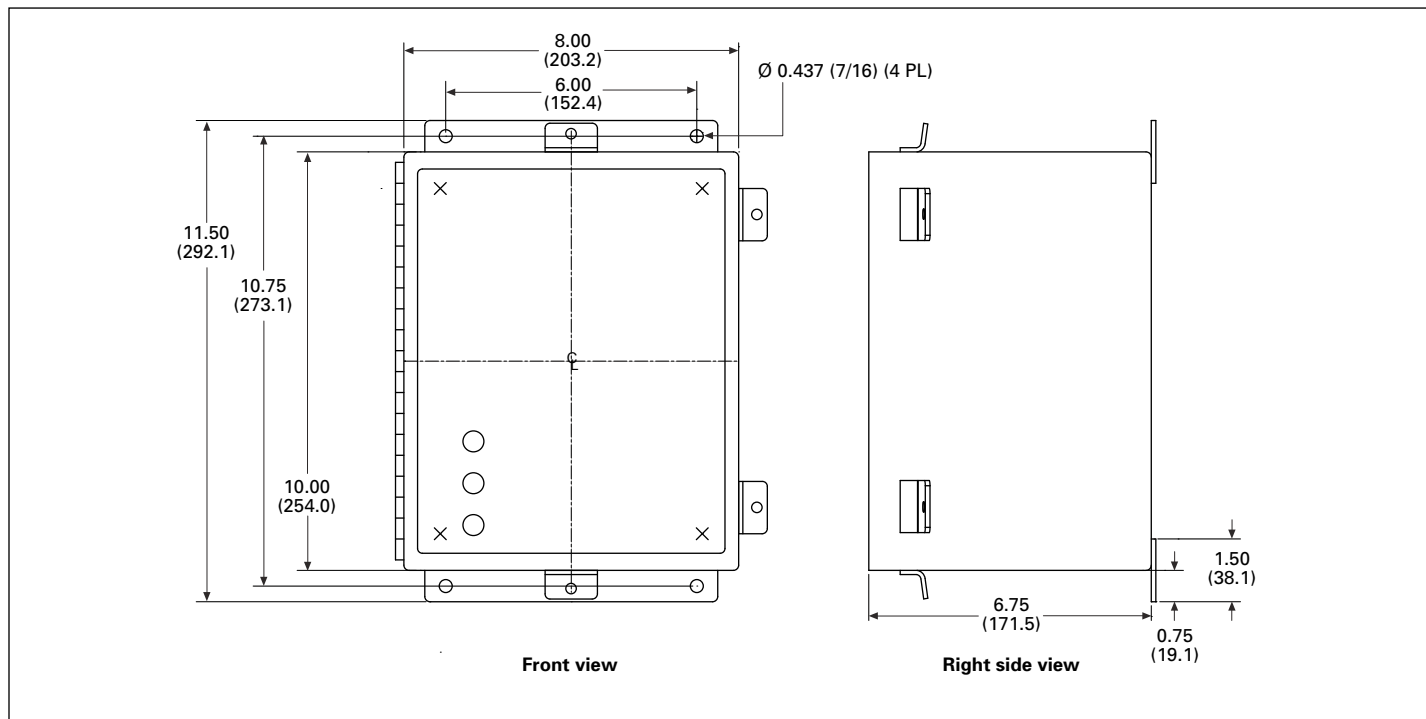


Figure 1. LORN dimensions in inches (mm)



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