

GENERAL DESCRIPTION

The NEMA Series Exit provides excellent emergency signage and lighting while withstanding industrial and wet environments. The NEMA Series Exit should be used when durability and harsh environments are a concern.

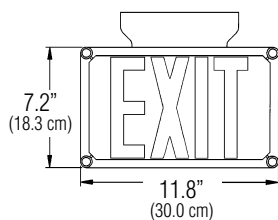
ILLUMINATION

Illumination of the NEMA Series Exit is accomplished with the use of direct view LEDs to provide illumination in excess of UL 924 requirements that enhance visibility and which improve the safety benefits in industrial environments. LEDs offer low maintenance replacement costs and long life.

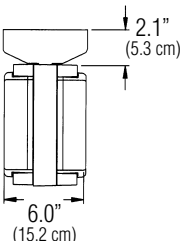
DIMENSIONS

Double Face Version

Front View

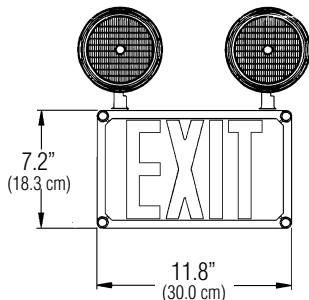


Side View

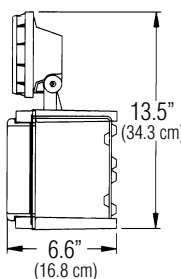


Single Face and Two Head Version

Front View



Side View



NEMA Series Exits

NEMA 3, 3r, 4, 4x, 12 & 13 Areas

AC Only and Emergency Operation

Direct View LED Illumination

HOUSING

Watertight enclosure is constructed of fiberglass reinforced polyester with a polycarbonate lens cover that provides excellent resistance to impact. The NEMA Series Exit housing is rated for NEMA 3, 3r, 4, 4x, 12 and 13 environments.

The two head combination emergency/exit features fully adjustable 6 volt, 6 watt Par 36 halogen sealed beam lamp heads that are enclosed in watertight polycarbonate housings.

Test switch and LED indicator light (emergency only)

ELECTRONICS

AC Only - 120/277 VAC dual voltage input is standard on all LED models.

Emergency Operation - 120/277 VAC dual voltage input with surge-protected, solid-state charging circuitry provides for a reliable charging system.

Charging system is complete with low voltage disconnect, AC lockout, brownout protection, AC indicator LED and test switch.

BATTERY

Maintenance free, sealed nickel cadmium battery with an estimated service life of 10 years, and operating within temperatures of 20°F (-7°C) to 95°F (35°C)

The two head combination emergency/exit model uses a maintenance free, sealed lead calcium battery with an estimated service life of 5 years, and operating within temperatures of 65°F (19°C) to 85°F (30°C)



SHOWN: N2HLR

CODE COMPLIANCE

UL 924 listed

Optional damp location listing; optional wet location listing (single face only)

NFPA 70 and 101, NEC and OSHA standards

Optional NSF listing available

PERFORMANCE

Input power requirements at 120 VAC

AC Only

6 watts

Emergency Operation

10 watts

WARRANTY

Three year full electronics warranty

Five year full, five year pro-rata nickel cadmium battery warranty

One year full, four year pro-rata lead calcium battery warranty

ORDERING INFORMATION

N2H

**SERIES/
POWER**

NAC = AC Only
NDC = AC/DC Operation ³
NSP = Emergency Operation,
Nickel Cadmium
N2H = Two Head Combination,
Lead Calcium ²

L

**LAMP
TYPE**

L = LED

1

**# OF
FACES**

1 = Single
2 = Double
Blank = Two Head

R

**STENCIL FACE/
LETTER COLOR**

R = Red LEDs
G = Green LEDs

1

**VOLTAGE
INPUT
AC Only**

1 = 120 VAC
2 = 277 VAC
Blank = 120/277 VAC

1

MOUNTING

**Double
Face Only**
T = Top
E = End

TP

**FACTORY INSTALLED
OPTIONS ¹**

EX = Special Input Transformer ¹
(Specify voltage and frequency)
F = 24 VDC Fire Alarm Interface
(Specify voltage and frequency)
N = NSF Listing
S = Shatter Resistant Lamp Head Lens
TP = Tamperproof Lockup
W = Wet Location Listing ²
Z = Damp Location Listing

NOTES:

1) Some option combinations may impact UL listing. Consult factory for specifics.

2) Available on single face only.

3) Accepts 8 to 48 VDC as an emergency only power source.



Specification Data for NEMA Series Exit

HOUSING

The NEMA Series Exit is housed in a fiberglass reinforced polyester enclosure with a clear polycarbonate cover, which provides a watertight fit.

The enclosure is suitable for the following NEMA environments:

NEMA 3: Provides a degree of protection against windblown dust and windblown rain.

NEMA 3r: Provides a degree of protection against falling rain.

NEMA 4: Protects enclosed equipment against all types of water entry.

NEMA 4x: Same as NEMA 4 with addition of corrosion resistance.

NEMA 12: Protects enclosed equipment against entry of fibers, dirt and dust.

NEMA 13: Provides a degree of protection against lint, dust seepage, external condensation, and spraying of water, oil and noncorrosive liquids.

ILLUMINATION

Illumination of the NEMA Series Exit is accomplished with the use of direct view LEDs.

EXIT ACCESSORIES

The following accessories for the NEMA Series Exit must be ordered separately:

EMF = External Mounting Feet

NTPTOOL = Tamper Proof Tool

NCKIT = Mounting Canopy

NOTE: Consult factory for DC Conversion Kits

ELECTRONICS

AC Only

LED versions provide 120/277 VAC dual voltage input with surge protection.

Emergency Operation

120/277 VAC dual voltage input with surge-protected, solid-state charging circuitry provides for a reliable charging system. The charging system is furnished with low voltage disconnect, AC lockout, brownout protection, AC indicator lamp and test switch.

The low voltage disconnect (LVD) feature will disconnect the battery prior to an unacceptable deep discharge, but not before the required 90 minute emergency operation.

The AC lockout feature prevents battery drain prior to the initial energizing of utility power, and allows the installer to complete all wiring and electrical connections without energizing the emergency circuit.

The brownout protection circuitry will automatically switch the unit into the emergency mode if the utility voltage sags below 20% of nominal.

Battery charging circuitry is entirely solid-state, and utilizes a constant current charger for nickel cadmium battery units. A fully automatic, voltage regulated charger is used for lead calcium battery units.

Battery recharge time after full discharge is less than the required UL 924 standard.

Line sensitive electronics cause an instantaneous transfer to battery power if utility power is lost, or a brownout condition is detected. When line voltage is present and stabilized, the transfer circuitry switches back to normal operation and begins recharging the battery. The transfer circuitry can be tested via a momentary test switch located on the housing.

BATTERY

Supplied standard with a maintenance free, sealed lead calcium or nickel cadmium battery.

Battery service life at optimum operating temperature is estimated at 5 years (lead calcium) or 10 years (nickel cadmium).

Suggested operating temperature range for lead calcium batteries is 65°F (19°C) to 85°F (30°C). Suggested operating temperature range for nickel cadmium batteries is 20°F (-7°C) to 95°F (35°C).

The NEMA Series Exit will provide a full 90 minutes of illumination at full rated lumen output.

Periodic testing of the unit (for three minutes, every 30 days) is encouraged to ensure compliance with most local fire codes, and will not adversely affect service life of the battery.

The maintenance free, sealed lead calcium and nickel cadmium batteries contain an integral air expansion chamber which allows normal battery gassing created during charging to expand and recombine with battery electrolyte without passing to the external atmosphere. Under abnormal conditions, battery construction will allow for gas expansion to the outside atmosphere, but only to prevent violent rupture of the battery case.

PERFORMANCE

Input power requirements at 120 VAC

AC Only

6 watts

Emergency Operation

10 watts

CODE COMPLIANCE

The NEMA Series meets or exceeds all performance standards as required by UL 924, NFPA 101, NEC BOCA and OSHA.

SUGGESTED SPECIFICATION

Furnish and install Chloride Systems' NEMA Series exit sign model _____. The exit shall be constructed to meet Underwriter's Laboratories, Inc. Standard #924 and the National Electrical Code (NEC).

INSTALLATION AND OPERATION - Exit shall be easily field connected to a 120 or 277 VAC, 60 hertz, unswitched power source. Installation must comply with the NEC as well as other applicable codes. (Emergency Operation Only) - Upon utility power failure or brownout, the unit shall automatically transfer to battery power and maintain the required illumination level for a minimum period of 90 minutes. Upon restoration of utility power, the charger shall restore the battery to full charge within UL 924 requirements following a rated discharge of not more than 90 minutes.

CHARGER (Emergency Operation Only) - Product shall utilize either a constant current (nickel cadmium) or fully automatic, voltage regulated (lead calcium) charging system. The charging system shall maintain the battery at full capacity without the need for periodic exercising or equalization. The following features shall be standard: Low voltage disconnect (LVD), brownout protection and AC lockout.

BATTERY (Emergency Operation Only) - The battery shall be either a maintenance free, sealed nickel cadmium or lead calcium battery. The nickel cadmium battery shall utilize sintered plate construction and polypropylene separators for trouble-free operation in ambient temperatures up to 95°F (35°C). The lead calcium battery shall provide trouble-free operation in temperatures up to 85°F (30°C). Nickel cadmium batteries shall be supplied with a five year full warranty, and sealed lead calcium batteries shall be supplied with a one year full warranty.

ILLUMINATION - The NEMA Series Exit shall be illuminated by direct view LEDs. The LED version shall operate 87 diodes connected in parallel. Each LED panel shall consume less than 6 watts.

HOUSING - The exit sign be housed in a watertight enclosure constructed of fiberglass reinforced polyester with a clear polycarbonate cover. The housing shall be rated for NEMA 3, 3r, 4, 4x, 12 and 13 areas.