

NC (NEMA 4X) UV SYSTEMS

The NC (NEMA 4X) high output germicidal UV Systems are mounted externally with only the lamp(s) inserted in the air handler or duct to disinfect the airstream. The NC systems include weather-resistant NEMA 4X housing that makes them ideal for outdoor HVAC units.

Applications

NC (NEMA 4X) fixtures are installed on the exterior of rooftop A/C units or ductwork and enable easy access to difficult to reach outdoor locations. They are available in one-lamp and two-lamp configurations and can be installed vertically or horizontally. Only the lamp(s) and input power wiring penetrate the HVAC unit, while ballast and lamp harness remain external (housed inside the NEMA 4X enclosure).



NC (NEMA 4X) Fixtures utilize high-output “green” lamps (≤ 8 mg of mercury; 2-year guarantee) with five-year ballasts (non-prorated 5-year warranty) into a convenient kit that delivers the best and longest-lasting UVC

performance available. Independent tests show that the NC fixtures deliver greater output than any other ultraviolet devices under HVAC operating conditions (45° F at 400 fpm air velocity), and the increased output of our lamps provide the most reliable germicidal performance and longest service life.

NC (NEMA 4X) systems utilize high-output, (800mA), T5 diameter lamps, constructed of hard glass tubing for superior UV transmittance. They come in lengths of 14, 16, 24, 33 and 45 inches to meet different size requirements. The lamps produce no ozone and retain, at a minimum, 80% of their initial output after 2 years (17,000 hours). The NC fixtures are available with four voltage options (115/208/230/277 VAC, 50/60 Hz, single phase).

Benefits:

- f* Improves Indoor Air Quality (IAQ) by reducing bacteria, viruses and mold that either grow or pass through the packaged equipment. Reduces the risk of cold, flu, allergies and other illnesses associated with room unit HVAC systems
- f* High-output, “green” lamps contain ≤ 8 mg of mercury
- f* Two-year (17,000 hours) guarantee on lamps with only 20% decrease in output over the two years
- f* Five-year non-prorated warranty on the ballast
- f* Reduces HVAC energy costs by restoring heat transfer and net cooling capacity
- f* Continuously cleans coils and drain pans, eliminating costly cleaning programs and the use of harmful chemicals and disinfectants
- f* Produces no ozone or other secondary contaminants
- f* Quick and easy snap-in installation

SPECIFICATIONS:

The NC Systems lamp and power supply are factory assembled and tested. Each assembly shall consist of NEMA 4X housing, electronic ballast(s), lamp(s) and wiring harness.

FIXTURE: Housing shall be powder coated aluminum to withstand the elements and HVAC environments, and shall meet NEMA 4X requirements. Housing shall be equipped with a bottom electrical opening to facilitate wiring fixture to the HVAC unit’s power. It shall incorporate all components into one integral assembly

that maximizes integrity and serviceability. It shall be designed for mounting from outside the airstream with only the lamp(s) in the conditioned air. The lamp mounting shall allow for quick and easy removal during lamp replacement.

BALLAST: The solid-state ballast (furnished with this kit) is a Class P rapid start with a power factor minimum of .95. It is available as a 120, 208, 230 or 277 VAC 50/60 Hz, single phase, and is designed to maximize photon production in air temperatures of 35-170° F. Minimum ballast start temperature is – 20 degrees F. Ballasts have a RFI - EMI rating as defined by FCC part 18A for industrial/commercial applications in regards to suppression. Ballast is UL listed for use in HVAC applications.

LAMPS: NC (NEMA 4X) systems utilize high-output (800mA), T5 diameter lamps, constructed of hard glass tubing for superior UV transmittance. Lamps are “green” containing ≤ 8mg of mercury and they produce no ozone. Lamps shall retain, at a minimum, 80% of initial output after 2 years (17,000 hours) of use. Electrodes are designed to maximize plasma convection and stability for superior lamp performance and life. Lamps are rated to produce 11.7 µW/cm² per linear inch of lamp arc length at a distance of 1 meter in a 45° F and 400 fpm airstream.

INDEPENDENT TESTING: Units are tested by an independent test laboratory in accordance with the general provisions of IES Lighting Handbook, 1981 Applications Volume, and provide output per inch of glass of not less than 11.7 µW/cm² at 1 meter in a 400 fpm airstream of 45° F.

Single Lamp NC Systems - Ordering Specifications

1-lamp Models	Insertion Depth	Lamp	Voltage
NC14-1-120	14"	SBL410	120
NC14-1-230	14"	SBL410	208/230
NC14-1-277	14"	SBL410	277
NC16-1-120	16"	SBL430	120
NC16-1-230	16"	SBL430	208/230
NC16-1-277	16"	SBL430	277
NC24-1-120	24"	SBL415	120
NC24-1-230	24"	SBL415	208/230
NC24-1-277	24"	SBL415	277
NC33-1-120	33"	SBL420	120
NC33-1-230	33"	SBL420	208/230
NC33-1-277	33"	SBL420	277
NC45-1-120	45"	SBL445	120
NC45-1-230	45"	SBL445	208/230
NC45-1-277	45"	SBL445	277

Double Lamp NC Systems - Ordering Specifications

2-lamp Models	Insertion Depth	Lamp 2 needed	Voltage
NC14-2-120	14"	SBL410	120
NC14-2-230	14"	SBL410	208/230
NC14-2-277	14"	SBL410	277
NC16-2-120	16"	SBL430	120
NC16-2-230	16"	SBL430	208/230
NC16-2-277	16"	SBL430	277
NC24-2-120	24"	SBL415	120
NC24-2-230	24"	SBL415	208/230
NC24-2-277	24"	SBL415	277
NC33-2-120	33"	SBL420	120
NC33-2-230	33"	SBL420	208/230
NC33-2-277	33"	SBL420	277
NC45-2-120	45"	SBL445	120
NC45-2-230	45"	SBL445	208/230
NC45-2-277	45"	SBL445	277

Replacement Lamps and Ballasts for the NC systems

Model	Description
SBL410	Lamp for all NC14 Fixtures
SBL430	Lamp for all NC16 Fixtures
SBL415	Lamp for all NC24 Fixtures
SBL420	Lamp for all NC33 Fixtures
SBL445	Lamp for all NC45 Fixtures
TXG270	Ballast for all 120V NC Fixtures
TXG275	Ballast for all 230/208V NC fixtures
TXG280	Ballast for all 277V NC fixtures