



Catalog
1

Active Harmonic Filter



CONTENTS

	Page
Descriptions	
General Information	2
Technical Specification	3
Ordering Information.....	4
Application Data	5-7



Closed Loop Active Filter

General Information

System Features

Nominal voltage 200 V AC -480 V AC,

3 level inverter topology,

Real time control with FFT+, each module has an independent controller. In case of parallel modules installation, the failure of one module would not interrupt the operation of the remaining.

Units can filter 2nd to 50th harmonics fully selectable and programmable up to the 25th harmonic order in Selectable mode.

Unit operation Modes: All Harmonics, All Harmonics but not fundamental and Selectable Harmonics.

These units have unlimited scalability and the load is shared evenly between parallel modules.

Conformal coating on all PCB's.

Forced air temperature-controlled fans.

Connections

Current Transducer (CT) Network and Load Side, the minimum CT class accuracy needs to be 1.0 or better. No limitations on the primary side, and 1 amp/5 amps load currents on the secondary side, with auxiliary currents less than 5 amps.

Units have 5 digital inputs per potential free programmable ports, 6 digital output per potential free programmable ports, HMI provides 3 per operational inputs and 4 per operational outputs.

Interface

7" touch screen with multilingual graphical display
1 to 7 modules connections in one HMI and unlimited number of HMI can be used in a system.

HMI's software can be updated via an ethernet cable or USB drive.

Communication to the HMI can be achieved by Ethernet USB or Modbus TCP/IP.



Mechanical Features

Conformal coating on all PCB's, enclosure is galvanized steel, cooled by temperature-controlled fans. Typical noise at full load between 60 DB - 70 DB per enclosure.

Installation and Operation

Operating temperature 5°C - 40 ° C and a maximum 85% of non-condensing humidity, up to 1000 m altitude without derating.

The enclosure allows for both top and bottom main cable entry.

Pricing and Ordering Information

To create the ordering part number

Apex- amperage rating- Enclosure type- System Voltage – D- Main line switch option- Other options

Example for 50 amps, NEMA 1, 480 V AC, no options

Apex50G4DN1YYY

Amperage Rating	Number of Filters	Rated Frequency
50	1	50 - 560 Hz
100	1	50 - 560 Hz
150	1	50 - 560 Hz
200	1	50 - 560 Hz
300	2	50 - 560 Hz
400	2	50 - 560 Hz
500	3	50 - 560 Hz
600	3	50 - 560 Hz
700	4	50 - 560 Hz
800	4	50 - 560 Hz

Enclosure Types

NEMA 1 = G

NEMA 1 2 = A

NEMA 3R = W

System Voltage Options

240 V AC = 2

480 V AC = 4

Main Line Disconnect Options

No Disconnect = N1

Schneider Electric Molded Case Switch = D2

Rockwell Molded Case Switch = D3

Siemens Molded Case Switch= D4

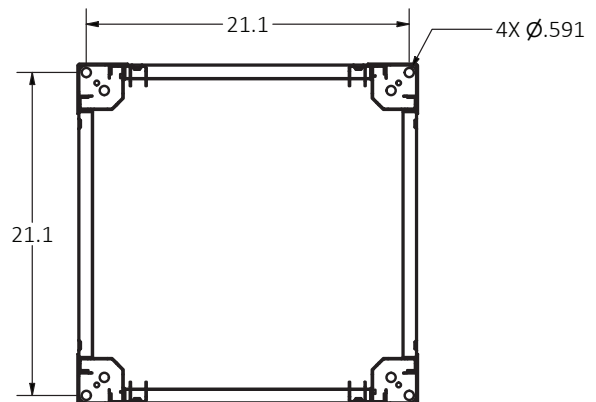
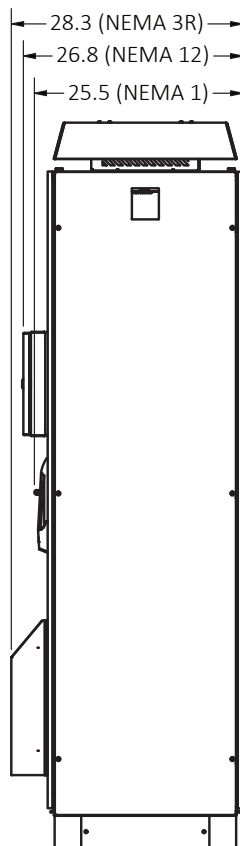
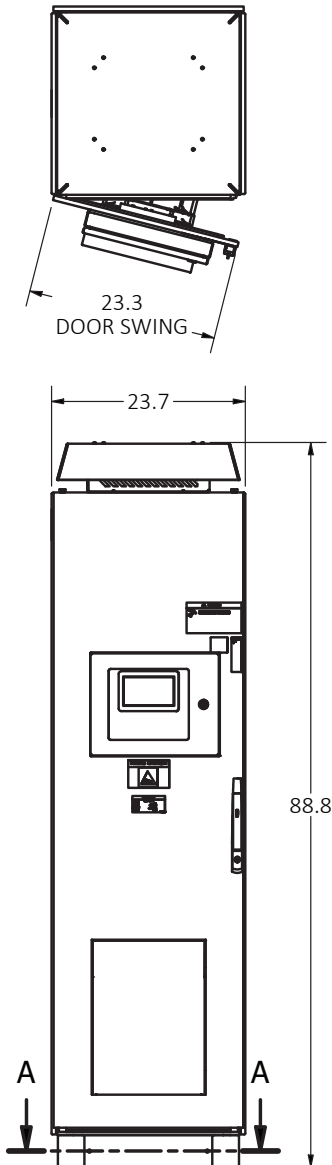
Eaton Molded Case Switch = D5

Space Heater Options

No options = YYY

Thermostat Controlled Space Heater = H18

24 INCH NEMA 1, 12, OR 3R 50A - 400A NO BREAKER



SECTION A-A
24IN FLOOR BOLT PATTERN

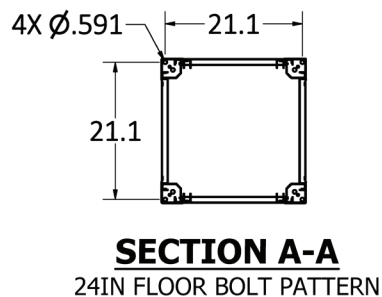
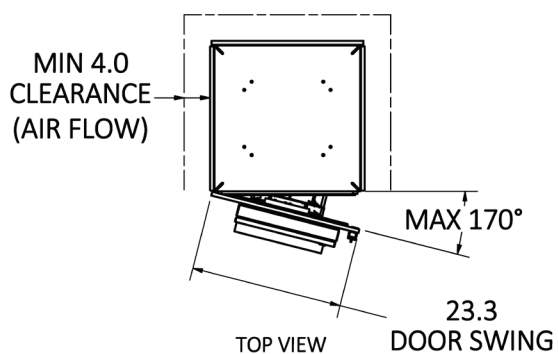
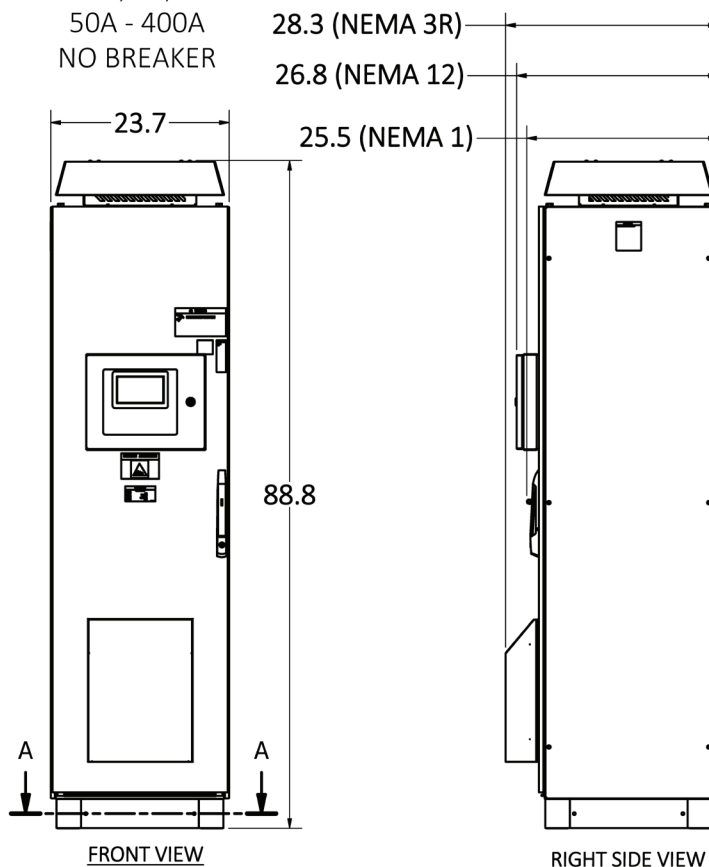
Closed Loop Active Filter



NON CIRCUIT BREAKER SELECTION MATRIX			
	NEMA 1	NEMA 12	NEMA 3R
50A-400A	24"	24"	24"
500A-800A	48"	48"	48"

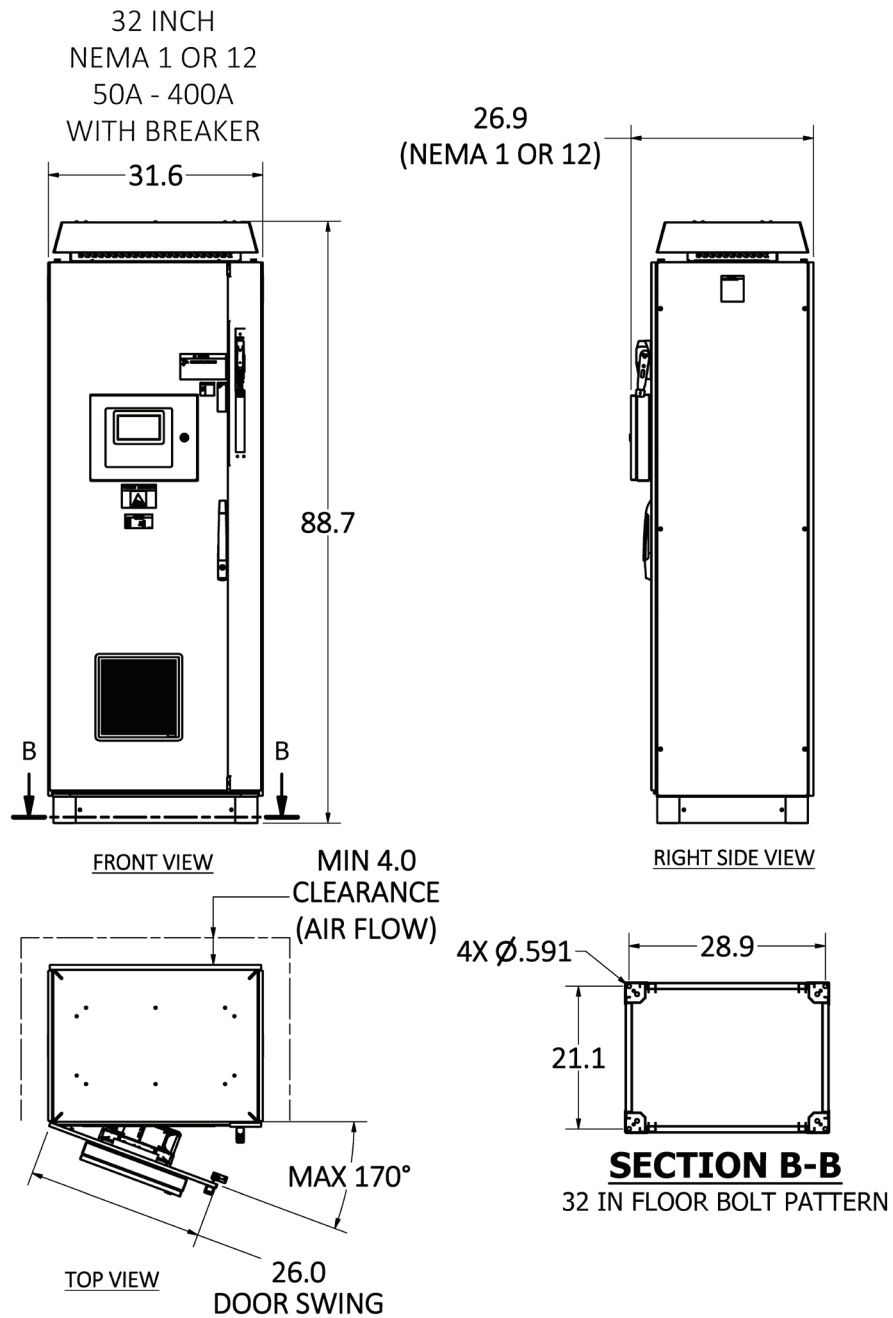
CIRCUIT BREAKER SELECTION MATRIX			
	NEMA 1	NEMA 12	NEMA 3R
50A-400A	32"	32"	39"
500A-800A	56"	56"	63"

24 INCH
NEMA 1, 12, OR 3R
50A - 400A
NO BREAKER

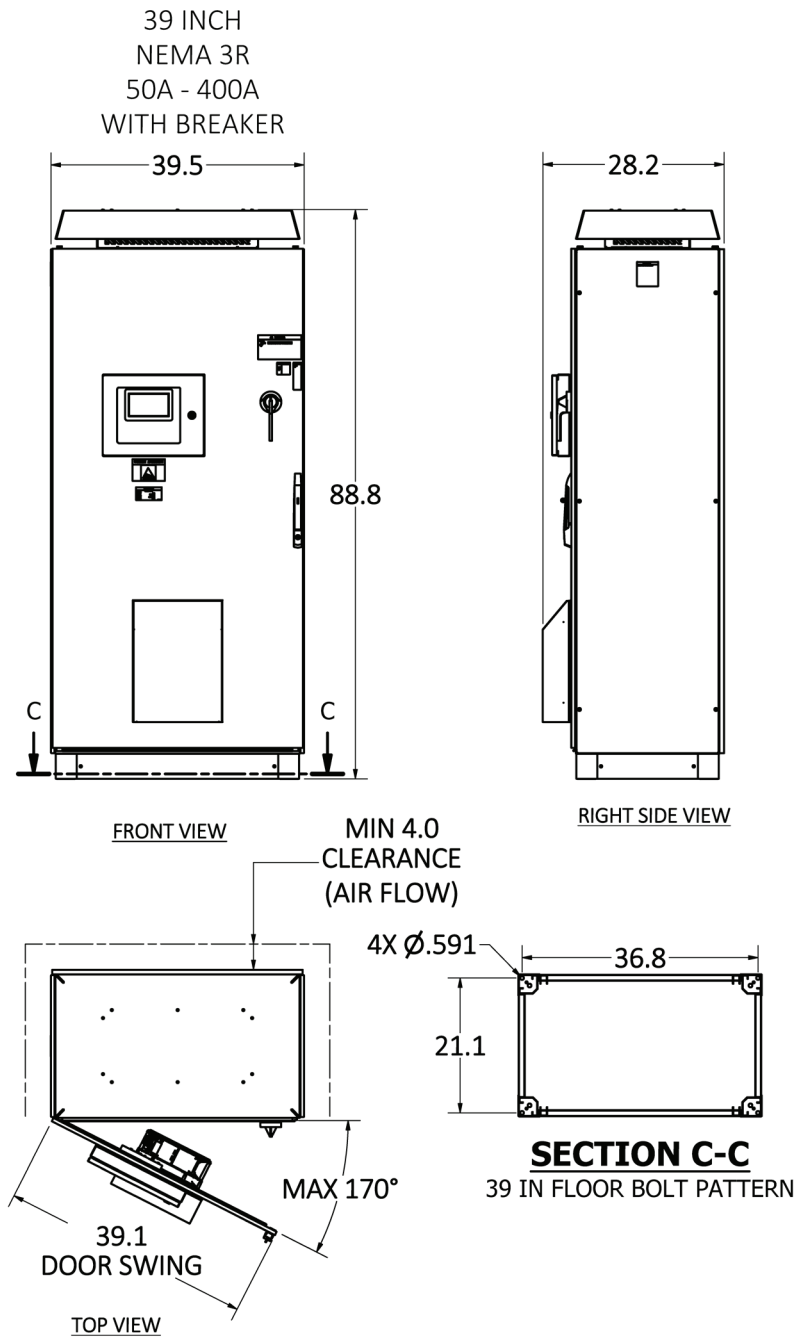




Closed Loop Active Filter

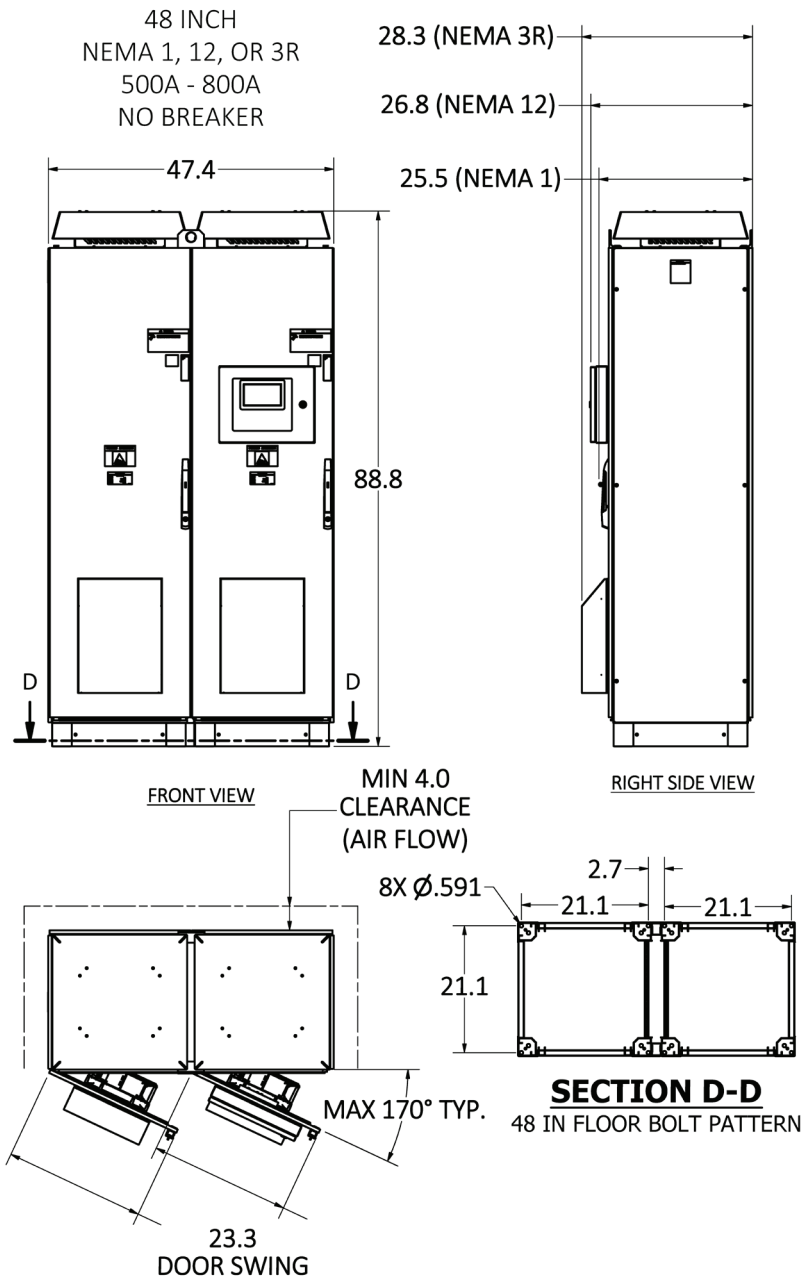


Closed Loop Active Filter

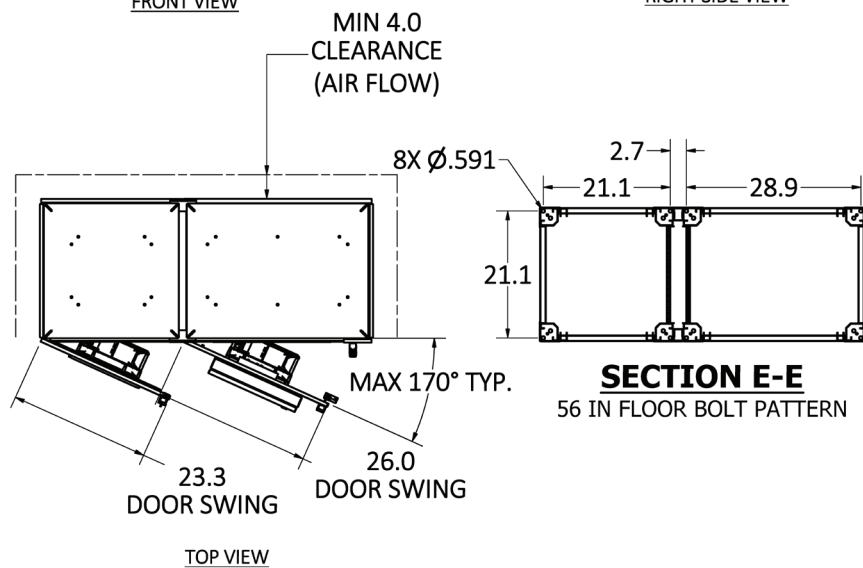
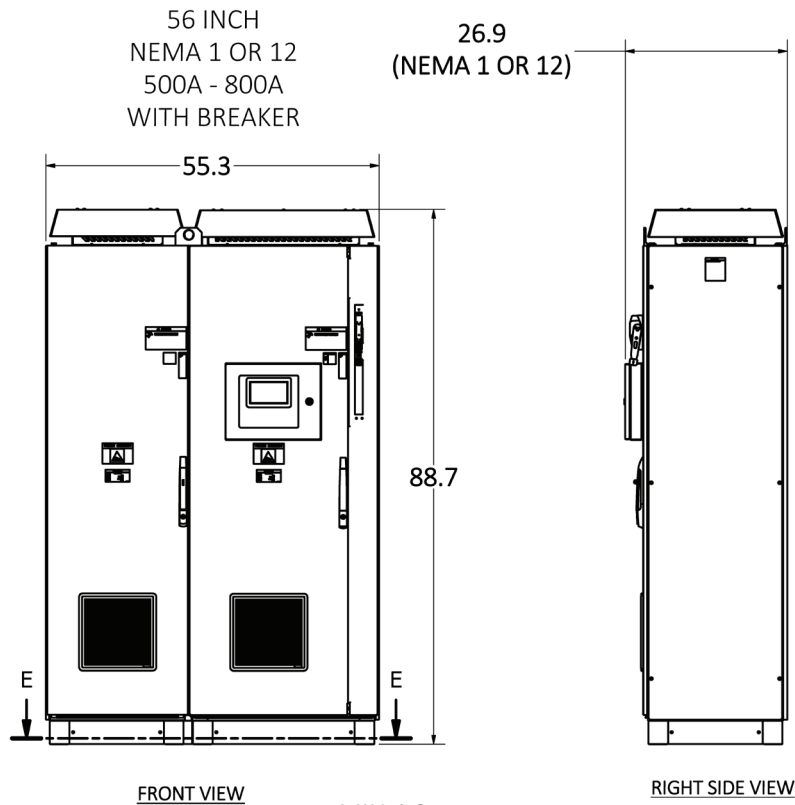




Closed Loop Active Filter



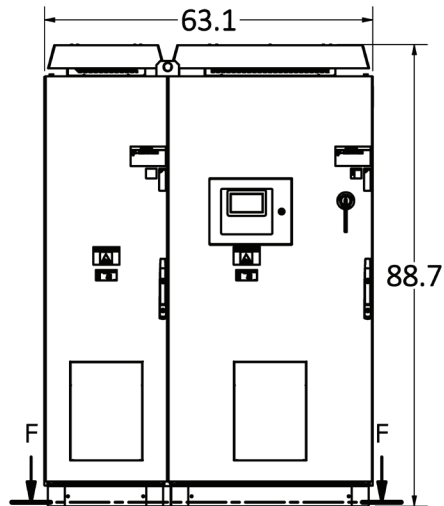
Closed Loop Active Filter



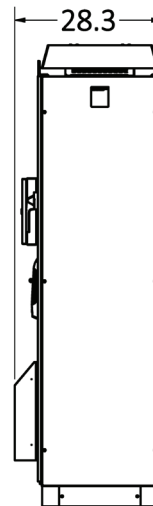


Closed Loop Active Filter

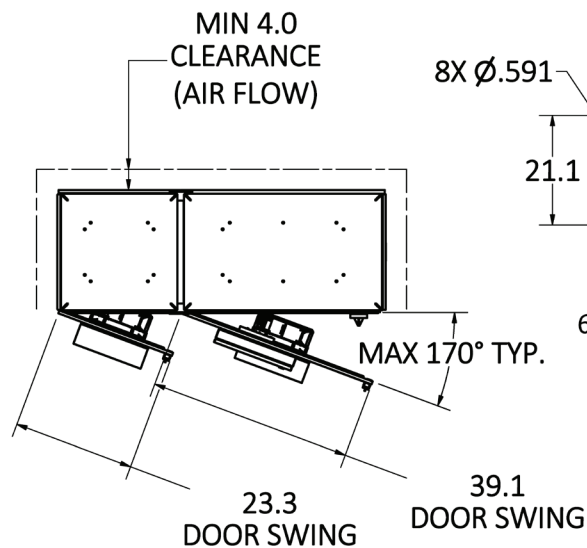
63 INCH
NEMA 3R
500A - 800A
WITH BREAKER



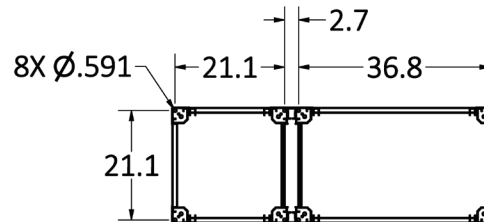
FRONT VIEW



RIGHT SIDE VIEW

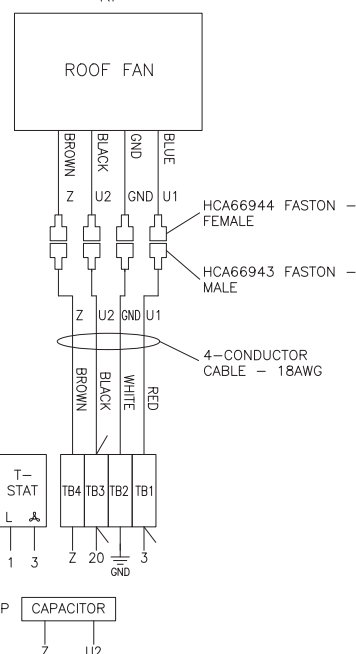


TOP VIEW



SECTION F-F
63 IN FLOOR BOLT PATTERN







Closed Loop Active Filter

