FC Series - *NEMA 3R outdoor enclosures with UL Listed _fans, filters, and thermostats_*

BW-124-8-FC
24"W x 24"H x 8"D with a 115V, 131 cubic-foot/min. fan and thermostat

BW-124FC
24"W x 24"H x 12"D with a 115V, 300 cubic-foot/min. fan and thermostat

BW-136FC
24"W x 36"H x 12"D with a 115V, 300 cubic-foot/min. fan and thermostat

BW-RACKFC
22"W x 12RU H x 24"D with a 120V, 300 cubic-foot/min. fan, thermostat, and an internal 19" rack

Add a "W" at the end of these part numbers for an optional window in the door.

BW-FC16147
16"W x 14"H x 7"D non-metallic, with a 115V, 81 cubic-foot/min. fan and thermostat

BW-FC181610
18"W x 16"H x 10"D non-metallic, with a 115V, 81 cubic-foot/min. fan and thermostat

NEW **BW-FC20168**
20"W x 16"H x 8"D non-metallic, with two 115V, 81 cubic-foot/min. fans and thermostat

BW-FC242410
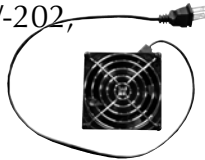24"W x 24"H x 10"D non-metallic, with two 115V, 81 cubic-foot/min. fans and thermostat
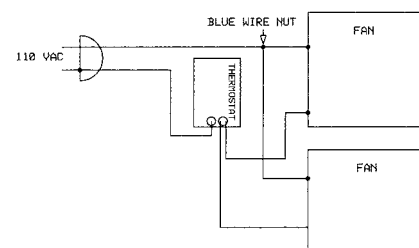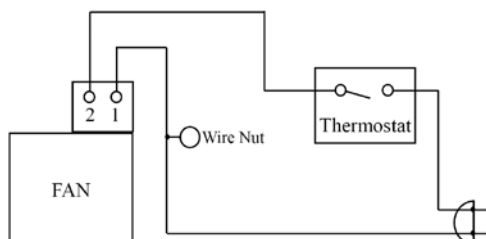
Accessory Fans for Enclosures

* **BW-120V FAN** - 80mm, 115-Volt AC, 3.25 x 3.25 x 1.5, 50/60HZ, 9 Watt, continuous-duty fan used on Mier's NEMA 1 INDOOR NVR/DVR Lockboxes such as the BW-200, BW-201, BW-202, BW-224, BW-225, BW-230, BW-235, BW-240, BW-244, etc.

* **BW-12V FAN** - 80mm, 12-Volt DC, 3.25 x 3.25 x 1.0, 0.3 Amp, continuous-duty fan. These can be interchanged with any of the models using the BW-120VFAN above for applications needing 12V DC operation.

* **BW-F81 FAN** (*formerly the BW-F41*)- 120mm, 115-Volt AC, 4.75 x4.75 x 1.0, 50/60HZ, .15 Amp, 14-Watt, 81 cubic-foot-per- minute continuous-duty fan used on Mier's NEMA 3R outdoor <u>NON-METALLIC enclosure line</u> with models including the BW-FC16147, BW-FC181610, BW-FC20168, BW-FC242410, etc. These models also come with a thermostat for the fan (see wiring diagram below)

* **BW-F131 FAN** - 120mm, 115-Volt AC, 4.75 x 4.75 x 1.5, 50/60HZ, .18 Amp, 22-Watt, 110 cubic-foot-per-minute continuous-duty fan used on Mier's NEMA 3R outdoor BW-1248FC. This model also comes with a thermostat for the fan (see wiring diagram below)

* **BW-F300 FAN** - 172mm, 115-Volt AC, 6.75 x 6.00 x 2.0, 50/60HZ, .40 Amp, 50-Watt, 300 cubic-foot-per-minute continuous-duty fan used on Mier's NEMA 3R <u>Large Outdoor Metal enclosure line</u> with models including the BW-124FC, BW-136FC, and BW-RACKFC. These models also come with a thermostat for the fan (see wiring diagram below).
  These are also used on Mier's indoor NEMA 1 Rack Enclosures such as the BW-RACKBOX and BW-RACKCART.

NOTE: Mier also offers 12V, 24V, 48V, and 230V DC versions of the fans above.

Wiring Diagrams for hooking one or two fans up to a Mier BW-THERMFC thermostat for fans

BW-THERMFC
has a blue dial

Installation Instructions
Mier Products' Non-Metallic, Fan-Ventilated, NEMA 3R, Enclosures

BW-FC16147   **BW-FC181610**   **BW-FC242410**

The **BW-FC16147** and **BW-FC181610** have one fan and two shrouds. The larger **BW-FC242410** has two fans and four shrouds.

1. Connect the Fan Cord to the Terminals on the Fan
2. Snap the Filter Retainer and the Filter off the Filter Bracket, and set them aside for later assembly
3. Assemble the Fan to the upper fan opening, putting the Fan on the INSIDE, and the Filter Bracket on the fan itself. Use four (4) #8x32x1¾ inch screws and nuts. FAN AIRFLOW SHOULD BE _OUT_ OF THE ENCLOSURE.
4. Install the lower Filter Bracket(s) using four (4) #8x32x¾ inch screws and nuts. Leave a little slack in the Fan Cord so it does not pull from the Fan Terminals.
5. Install the Rain Shrouds at the top and bottom openings with the Air-Entrance Holes at the bottom (i.e. facing down). Use the six (6) screws and flat washers supplied for each Rain Shroud.
6. Install Filters and Retainers by snapping onto the Filter Brackets
7. Fan may now be plugged into 115VAC for continuous duty
8. Openings in the bottom of the Rain Shrouds should be checked periodically for debris blocking air flow
9. Fan Filter(s) should be cleaned or replaced a minimum of every six months. Do so more often in dust/pollen/debris/ ridden areas.

FAN THERMOSTAT CONTROL INSTALLATION

1. Cut the 115VAC Plug off the Fan Cord after mounting the Fan and Rain Shrouds
2. Set the Thermostat Control to about 70 to 75 degrees Fahrenheit for most installations. However, before determining the Thermostat setting for your specific application: you must consider the operating parameters of the equipment you are installing, specifically the operating temperatures, and you must take into consideration the temperature of the installation environment, seasonal changes, and the heat load of the electronics within. If the electronics are less than 100 Watts and the installation is in a normal indoor temperature controlled setting, it is recommended to set the Thermostat to 80 degrees Fahrenheit.
3. Wire the Thermostat in series with the Fan: one Fan Cord Wire to the Thermostat and the other Fan Cord Wire to a 115VAC Plug. Another Wire from the 115VAC Plug goes to the other Thermostat Terminal.
4. Mount the Thermostat to the MIDDLE RIGHT SIDE of the Enclosure using the Two-Sided-Tape supplied.
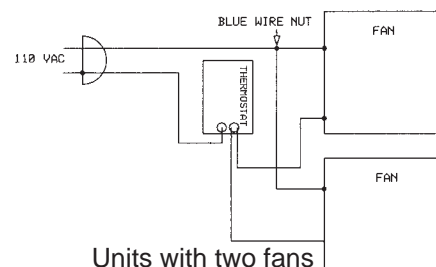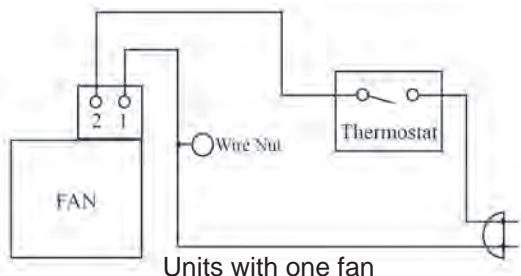
Units with one fan

Units with two fans

Installation Instructions
Mier Products' Non-Metallic, Fan-Ventilated, NEMA 3R, Enclosures

NOTE: These "FC" fan-cooled units simply exchange internal air for the external air. Therefore, **Fan-Cooled models are not recommended for high-temperature or low temperature environments.** Because these units pull external air into the enclosure through a filtering system, they do not meet the NEMA 4 standards of Mier's air-conditioned and heated models (ACE or ACHT). However, they are designed to NEMA 3R specifications. Therefore, **Fan-Cooled models are not recommended for applications where internal components need to be protected from wash down conditions. When using these models you must keep the filters clean and must not block the fan, air intake, or air-flow with items mounted inside the enclosure.**
If your installation is in warmer or cooler exterior or interior temperatures than these, if your internal heat load is greater, or if you are installing in a coastal or highly corrosive area call Mier Products for advice on our other models.
Mier recommends only installing units with clear doors in <u>shaded areas</u>; as interior temperatures of these units reach 20^0 higher than units without windows or clear doors.

See the Warranty & Return Policy shipped with this enclosure. Warranty protection and information for each component such as fans, filters, and thermostats are provided by their respective OEMs.

• This enclosure is properly installed when the top & bottom mounting ears are flush against the wall and held securely with appropriate bolts, and the hinges face to the left side after the enclosure has been mounted on the wall
• Watertight fittings must be used on all openings.
• The door-gasket around the opening of the enclosure must remain in place and never be removed or altered.
• The fans and shrouds must be mounted using the appropriate pre-cut holes on the enclosure, and strictly following OEM installation guidelines.
• **If you have ANY questions regarding the installation of these products, call Mier Products at 1-800-473-0213**

Your Fans have been placed in a carton and stored inside the enclosure for shipment to protect them. Please CAREFULLY remove them along with the Shrouds, Filters and Hardware and place them aside for installation. Please read the other side of this page for installation instructions. If you have any questions please call Mier Products at 1-800-473-0213 between 8am and 5pm EST.

1-800-473-0213 | www.mierproducts.com

Wireless Vehicle Detection | Driveway Alarms | Drive-Up Window Detection | Buried Sensor Systems | Instrument Boxes | DVR/CPU Lockboxes
NEMA Enclosures | Outdoor Enclosures | Temperature Controlled Enclosures | UL/NEMA Non-Metal Enclosures | Rack Enclosures, Shelves, and Drawers | Siren/Speaker Cabinets | Bell Boxes | Structured-Wiring Flush-Mount Cabinets | Power Supply Boxes | Battery Cabinets
Transformer Covers | Custom Fabrication, Powder Coat, and Screening

Mounting Examples for Mier Products'
TEMPERATURE CONTROLLED ENCLOSURES

Mounted inside the gate-house at a gated community

Wall-mount

Using metal tubing or angle-iron and a concrete slab

Using metal tubing and angle-iron

Along a gate using metal tubing to run wiring from one enclosure to another

Rack Enclosure mounted on a wall

Installer made mounting surface

Pole-Mount Kits available for our enclosures to be mounted on 4" to 14" poles. Call us and specify the enclosure you want to use, and the pole size, for help choosing the correct pole-mount kit.

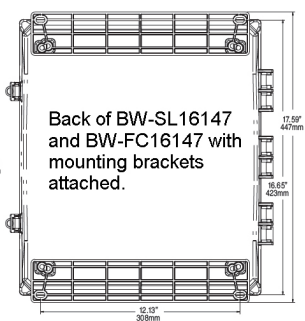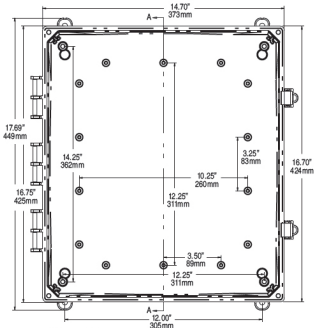**NOTE: Do Not Mount On Apartment/Condo/Office Walls**
Home and office AC units are mounted a few feet away from a home or on the roof of an office building in order to avoid vibration noise from becoming a nuisance to those who live/work within. For that same reason, Mier recommends installers mount our temperature-controlled enclosures on concrete slabs with angle-iron or poles as pictured, or on walls that are not common to living or office space.

Our engineers recommend the following options around **RGS fittings** in holes installers might cut into the enclosures, in order to keep NEMA ratings:
- If not using conduit or flex-cable, and running your cords directly into the enclosure, we recommend drilling your holes in the bottom of the enclosure and using a Heyco fitting appropriate for your specific cord size, and able to fit in our 3/16" enclosure wall thickness. These fittings can be found at: http://www.heyco.com/Liquid_Tight_Cordgrips/index.cfm
- If you are using conduit or flex-cable, we recommend drilling your holes in the bottom of the enclosure and using an appropriate fitting such as:
    - SealCon DS21AA-BK = ¾" Liquid-Tight Conduit Fitting with DOUBLE Lock - http://www.sealconusa.com/conduit/product/double-seal.html
    - SealCon ST21NA-BK = ¾" Liquid-Tight Conduit Fitting with SINGLE Lock - http://www.sealconusa.com/conduit/product/condsttwist-npt.html
    - McMaster Carr 7119K13 = ¾" Liquid-Tight Conduit Fitting/Heavy-Duty - http://www.mcmaster.com/#7119k13/=vg864m

Mier PRODUCTS, INC.

800-473-0213 ~ E-mail: info@mierproducts.com ~ www.mierproducts.com

14.70" / 373mm

17.69" / 449mm

16.75" / 425mm

A—

A—

14.25" / 362mm

3.25" / 83mm

10.25" / 260mm

12.25" / 311mm

3.50" / 89mm

12.25" / 311mm

12.00" / 305mm

16.70" / 424mm

Back of BW-SL16147 and BW-FC16147 with mounting brackets attached.

17.59" / 447mm

16.65" / 423mm

12.13" / 308mm

@ TOP OF BACKPANEL

15.87" / 403mm

B—

B—

8.38" / 213mm

B— SECTION A-A

@ TOP OF BACKPANEL

13.87" / 352mm

7.86" / 195mm

7.18" / 182mm

SECTION B-B

Front

.73"
19mm

16.91"
430mm

A

19.69"
500mm

18.75"
476mm

16.25"
413mm

14.25"
362mm

2.50"
64mm

12.25"
311mm

18.91"
480mm

3.06"
78mm

A

14.00" 356mm

Back

BW-FC181610

19.71"
501mm

18.77"
477mm

14.16"
360mm

Rain Shrouds

5.0"
127mm

1.5"
38.1mm

10.75"
273mm

12.75"
323.9mm

B

SECTION A-A

16" wide 406.4mm
@ TOP OF BACKPANEL

Fan

Top

.75" 19mm

1.5"
38.1mm

.5"
12.7mm

5.0"
127mm

9.5"
241.3mm

9.52"
241.8mm

10"
254mm

Standoffs sit off the back of the enclosure .48"

SECTION B-B