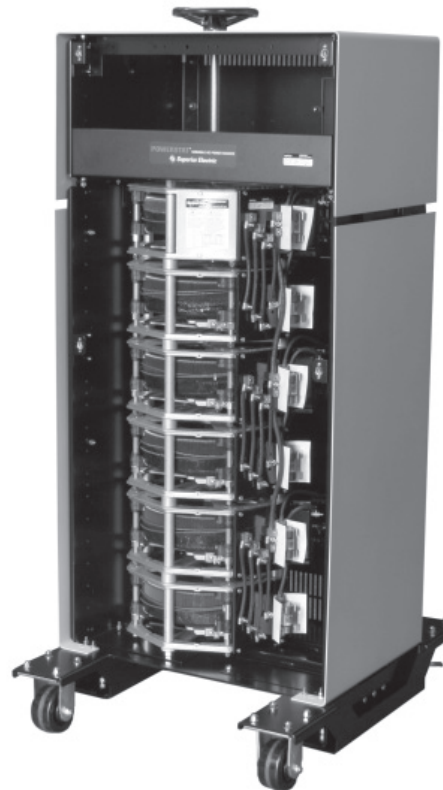


**Installation  
Instructions  
for  
PBA50 Series  
POWERSTAT® Variable Transformer  
Enclosures  
for  
Floor Mounting,  
Manual and Motorized  
1156DU, 1256DU and 1296DU Models**



Note: Enclosure types PBA50-N01-A through PBA50-N01E can be fitted (customer installed) with optional Caster Kit for ease of transport.



## INSPECTION

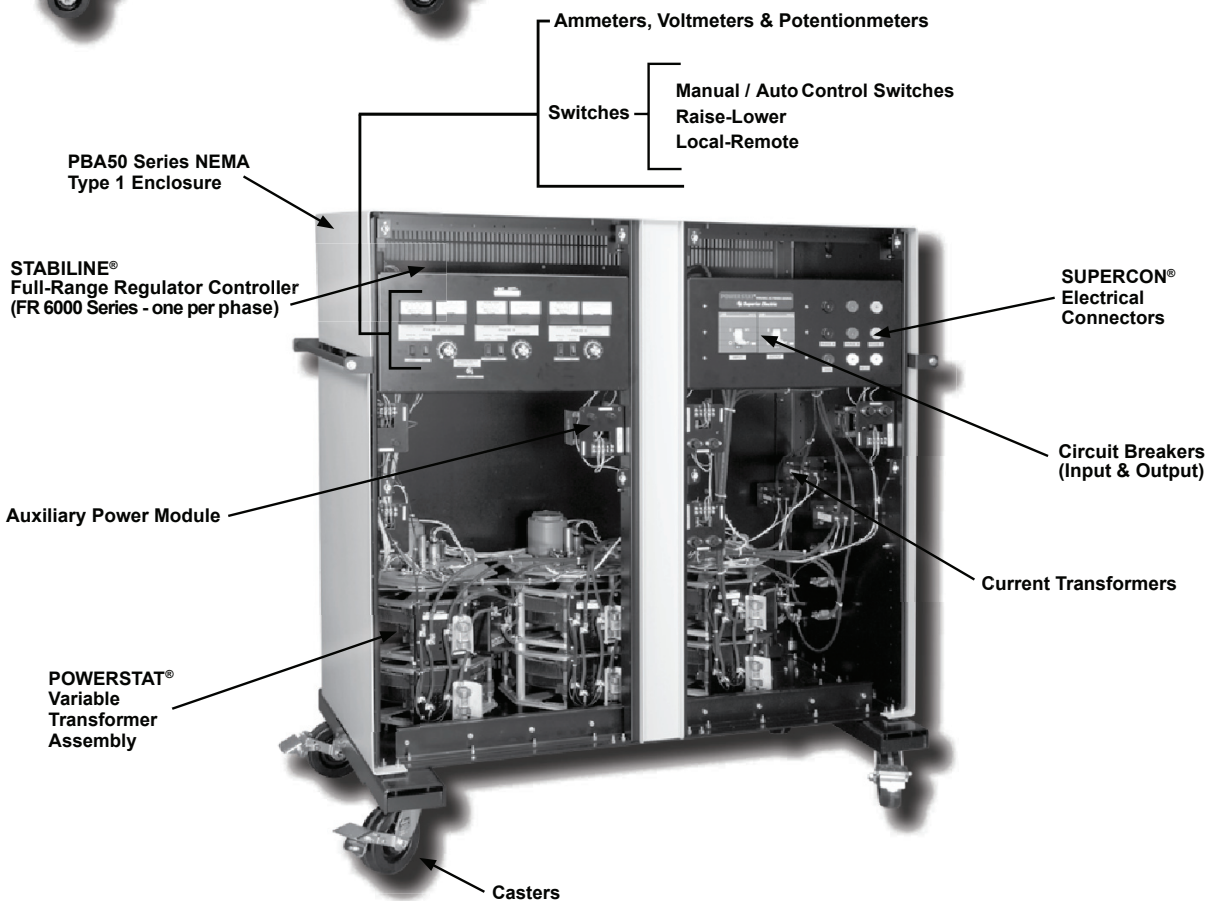
Examine the Enclosure carefully for shipping damage or for missing parts. The "Damage and Shortage" instructions packed with the unit outline the procedures to follow if any parts are damaged or missing. In addition to the POWERSTAT Enclosure, a carton containing the shaft extension, a shaft coupling and a hardware pack containing all hardware needed to mount the POWERSTAT Variable Transformer inside the Enclosure is supplied.

**Hardware Pack 218743-001** contains the following items:

<u>Quantity</u>	<u>Description</u>	<u>Part Number</u>
4	Screw, Self-Tapping, 6-32 x 3/8" Long	203510-179-AB
4	Setscrew, Hex Socket, 1/4"-28 x 3/8" Long	203513-278-BH
4	Screw, 1/2"-20 x 3/4" Long	203505-358-AB
4	Washer, Lock Spring, 1/2"	203604-116-AC
4	Nut, 1/2"-20	203600-118-AB
1	Nipple, Conduit Fitting	219261-001
1	Lock Nut, Conduit Fitting	018719-001



Superior Electric has been manufacturing POWERSTAT Variable Transformers since 1938. Special units and "value-add" assemblies are regularly built to meet specific customer requirements. The Customer Satisfaction Group will be pleased to share with you its extensive experience in the application and use of POWERSTAT Variable Transformers.



## DESCRIPTION

PBA50 Series Enclosures are for use with manual and motor driven, single units as well as, two-gang through six-gang POWERSTAT Variable Transformers of the 1156DU, 1256DU and 1296DU Series. Five Enclosures are available for use as indicated in the following charts.

### MANUALLY OPERATED MODELS

Series	Ganged Assemblies	POWERSTAT Variable Transformer Type	Enclosure Type
1156D, 1256D & 1296D	1	1156DU, 1256DU, 1296DU	PBA50-N01-A
	2	1156DU-2, 1256DU-2, 1296DU-2	PBA50-N01-B
	3	1156DU-3, 1256DU-3, 1296DU-3	PBA50-N01-C
	4-5	1156DU-4, 1256DU-4, 1296DU-4 1156DU-5, 1256DU-5, 1296DU-5	PBA50-N01-D
	6	1156DU-6, 1256DU-6, 1296DU-6	PBA50-N01-E

### MOTOR-DRIVEN MODELS

Series	Ganged Assemblies	POWERSTAT Variable Transformer Type	Enclosure Type
1156D, 1256D & 1296D	1	MB1156DU, MB1256DU, MB1296DU DM1156DU, DM1256DU, DM1296DU	PBA50-N01-B
	2	MB1156DU-2, MB1256DU-2, MB1296DU-2 DM1156DU-2, DM1256DU-2, DM1296DU-2	PBA50-N01-C
	3-4	MB1156DU-3, MB1256DU-3, MB1296DU-3 DM1156DU-3, DM1256DU-3, DM1296DU-3 MB1156DU-4, MB1256DU-4, MB1296DU-4 DM1156DU-4, DM1256DU-4, DM1296DU-4	PBA50-N01-D
	5-6	MB1156DU-5, MB1256DU-5, MB1296DU-5 DM1156DU-5, DM1256DU-5, DM1296DU-5 MB1156DU-6, MB1256DU-6, MB1296DU-6 DM1156DU-6, DM1256DU-6, DM1296DU-6	PBA50-N01-E

PBA50 Series Enclosures are designed for use with open construction (suffix U) POWERSTAT Variable Transformers. They are constructed of heavy gauge sheet metal and are supplied completely assembled. The Enclosures have a full range of knockouts for wire entry and exit and are supplied with all hardware necessary for mounting the POWERSTAT assembly in the Enclosure.

A PBA50 Enclosure is a NEMA Type 1 Enclosure as defined in NEMA Standard 250. It is designed to protect personnel from accidental contact with the enclosed POWERSTAT Variable Transformer.

Enclosures of the PBA50 Series are intended for use indoors in areas where unusual service conditions do not exist. They are designed for floor mounting and provide the ventilation needed to allow operating the enclosed POWERSTAT Variable Transformer at its maximum rating.

#### CAUTION:

**These Enclosures have been designed and tested to provide the ventilation needed to permit operation of the POWERSTAT Variable Transformer at its full rating in ambient temperature to 40°C. When ambient temperature exceeds 40°C, the current rating of the POWERSTAT unit must be reduced as shown in the curve found in the instruction manual for your POWERSTAT model.**

## MOUNTING

Follow these steps to mount the Enclosure.

### Floor Mounting, Manually Operated Models

1. PBA50 enclosures have four 7/16" diameter holes in their bases for fastening the enclosures in place. Refer to the correct dimensional drawing for your Enclosure model to find the hole locations. Depending on the method of mounting, either drill through holes in the mounting surface for 3/8" diameter bolts or drill and tap for 3/8" diameter mounting screws. Fasten the enclosure in place with suitable mounting hardware (not supplied).

PBA50 Enclosures are designed for floor mounting. When mounting the unit, allow a minimum clearance of 4 inches (100 mm) behind the unit for proper ventilation. All internal components and wiring connections are accessible through the front panels. A 3 foot (1000 mm) area in front of the unit should be kept clear for installation and service.

2. Remove the front panel of the enclosure as follows: Using a flat blade screwdriver, release the fasteners which hold the front panel in place and lift the panel off the base of the enclosure.
3. Remove the top cover of the enclosure as follows: Remove the four nuts located at the top of the frame. Spread the sides of the cover outward to disengage the hook and eye type fasteners and lift upward to remove the cover.
4. Single-, two- and three-gang POWERSTAT assemblies have internally threaded standoffs at their base ends. Align these standoffs with the holes in the base of the enclosure. Be sure that the terminal panel and paralleling choke (if applicable) of the Variable Transformer are facing to the right when looking at the front of the enclosure. Bolt the POWERSTAT assembly in place using four 1/2"-20 x 3/4" long bolts and lock washers (supplied).
5. On four-, five- and six-gang units, remove the base from the POWERSTAT Variable Transformer before placing it in the enclosure. Align the POWERSTAT assembly so that its terminal panel faces to the right when looking at the front of the enclosure. Extend the studs of the POWERSTAT assembly through the mounting holes in the base of the enclosure and fasten the unit in place using the four 1/2"-20 nuts and lock washers.
6. Remove the handwheel and the dial from the Variable Transformer. Punch out the shaft clearance hole in the top cover of the enclosure and reinstall the cover on the enclosure. Install the conduit fitting in this hole and secure it with the conduit fitting lock nut. Fasten the dial to the top cover with the self tapping screws supplied in the hardware pack. Be sure that the dial indications are oriented correctly with respect to the Variable Transformer brush positions.
7. Attach the shaft coupling and the shaft extension to the Variable Transformer shaft. Secure the coupling to the shaft and the shaft extension using the four socket head set screws supplied. Fasten the handwheel to the shaft with its pointer oriented correctly with respect to the dial indications.
8. Complete all wiring to the POWERSTAT Variable Transformer before replacing the front cover. A ground stud is provided inside the enclosure and hardware for this stud is supplied. Several knockouts are provided in the enclosure for wire entry and exit.

**NOTE:** Floor mounted, 26 inch wide (single door) Enclosure types PBA50-N01-A through PBA50-N01-E can be fitted (customer installed) with optional Caster Kit 218832-001 (4 wheels) for ease of transport. When using Caster Kit 218832-001, the PBA Enclosure height increases by 1.9 inches, width increases by 1 inch and depth increases by 13.25 inches. See outline DIMENSIONS on page six. A wheel "lock" feature is included with the Caster Kit. Caster Kit 218832-001 is not recommended for use with the PBA50-N01-F type Enclosure because of height/stability issues.

## MOUNTING (continued)

### Floor Mounting, Motorized Single-Gang and Two-Through Six Gang Models

1. PBA50 enclosures have four 7/16" diameter holes in their bases for fastening the enclosures in place. Refer to the correct dimensional drawing for your Enclosure model to find the hole locations. Depending on the method of mounting, either drill through holes in the mounting surface for 3/8" diameter bolts or drill and tap for 3/8" diameter mounting screws. Fasten the enclosure in place with suitable mounting hardware (not supplied).

PBA50 Enclosures are designed for floor mounting. When mounting the unit, allow a minimum clearance of 4 inches (100 mm) behind the unit for proper ventilation. All internal components and wiring connections are accessible through the front panels. A 3 foot (1000 mm) area in front of the unit should be kept clear for installation and service.

2. Remove the front panel of the enclosure as follows:  
Using a flat blade screwdriver, release the fasteners which hold the front panel in place and lift the panel off the base of the enclosure.
3. Remove the top cover of the enclosure as follows:  
Remove the four nuts located at the top of the frame. Spread the sides of the cover outward to disengage the hook and eye type fasteners and lift upward to remove the cover.

4. Single-, two- and three-gang POWERSTAT assemblies have internally threaded standoffs at their base ends. Align these standoffs with the holes in the base of the enclosure. Be sure that the terminal panel and paralleling choke (if applicable) of the Variable Transformer are facing to the right when looking at the front of the enclosure. Bolt the POWERSTAT assembly in place using four 1/2"-20 x 3/4" long bolts and lock washers (supplied).
5. On four-, five- and six-gang units, remove the base from the POWERSTAT Variable Transformer before placing it in the enclosure. Align the POWERSTAT assembly so that its terminal panel faces to the right when looking at the front of the enclosure. Extend the studs of the POWERSTAT assembly through the mounting holes in the base of the enclosure and fasten the unit in place using the four 1/2"-20 nuts and lock washers.
6. Complete all wiring to the POWERSTAT Variable Transformer before replacing the front cover. A ground stud is provided inside the enclosure and hardware for this stud is supplied. Several knockouts are provided in the enclosure for wire entry and exit.

**NOTE:** The outline DIMENSIONS shown on page six for PBA50-N01-F and page seven for PBA50-N01-DD through PBA50-N01-GG Enclosures, are designed for use with Manual 7 through 9-Gang and Motorized 7-Gang through 30-Gang POWERSTAT Variable Transformer types. These PBA Enclosures are not offered separately and must be ordered and shipped as factory installed assemblies with the desired POWERSTAT Variable Transformer. These Enclosures are supplied with fans of the properly specified size and voltage to prevent heat buildup and to assure full POWERSTAT Variable Transformer unit ratings. When these combined Enclosure / Variable Transformer assemblies are ordered, the Variable Transformer type suffix letter U is replaced with N01 in the type number and the PBA50 type number is not referenced.

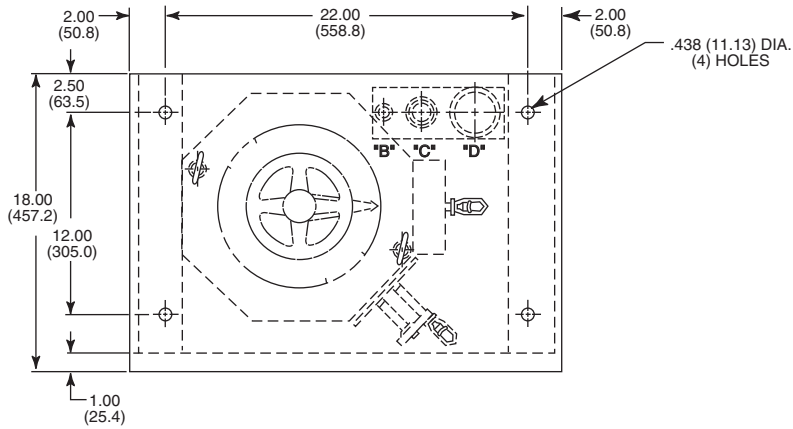
PBA50-N01-DD through PBA50-N01-GG Enclosures can be equipped with a Caster Kit Option (4 wheels, side handle bars, wheel "lock"), however it is available on a factory installed only basis. Contact the factory for changes to the outline DIMENSIONS.

Example:

**60MB1296DN01K-7P**

Substitute Designation for  
POWERSTAT Variable Transformer,   
and NEMA 1 (PBA Series) Enclosure Combination,  
and Caster Kit/Option Type

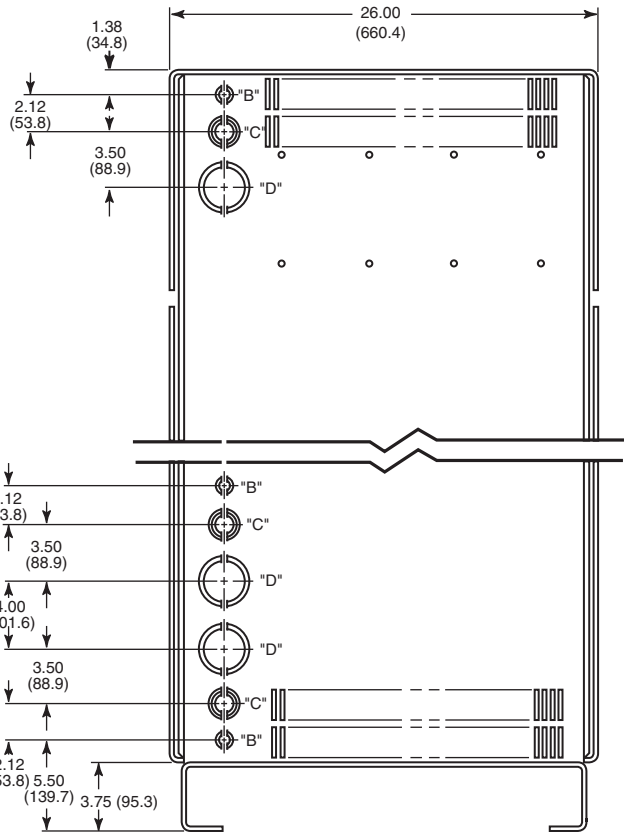
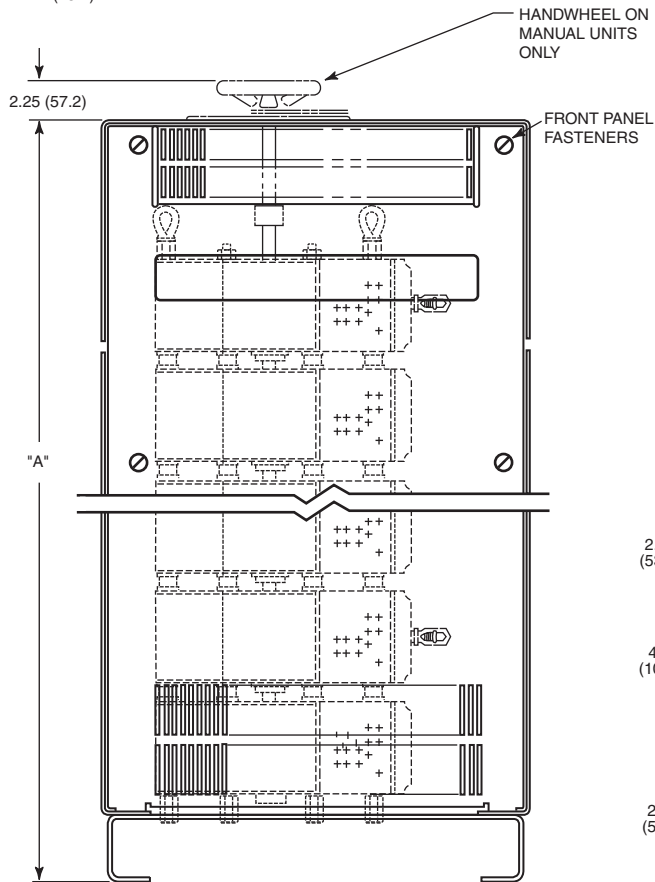
# DIMENSIONS



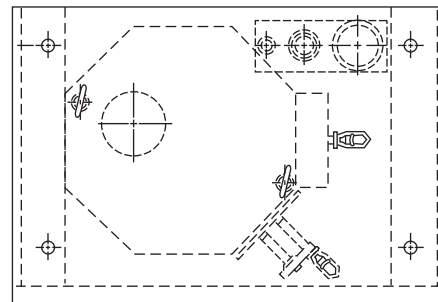
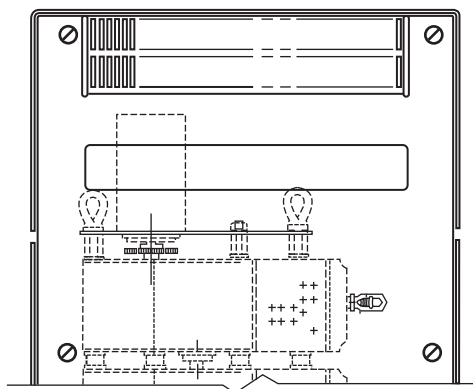
Type	Dimension "A"
PBA50-N01-A	16.25 (412.75)
PBA50-N01-B	24.25 (615.95)
PBA50-N01-C	34.25 (869.95)
PBA50-N01-D	46.25 (1174.75)
PBA50-N01-E	56.25 (1428.75)
PBA50-N01-F	74.25 (1885.95)

## Concentric Knockouts

Designation	Diameter: Inches (Millimeters)
"B"	.88 (22.3) & 1.12 (28.5)
"C"	1.38 (35.0), 1.75 (44.5) & 2.00 (50.8)
"D"	2.50 (63.5) & 3.00 (76.2)



## MANUALLY OPERATED

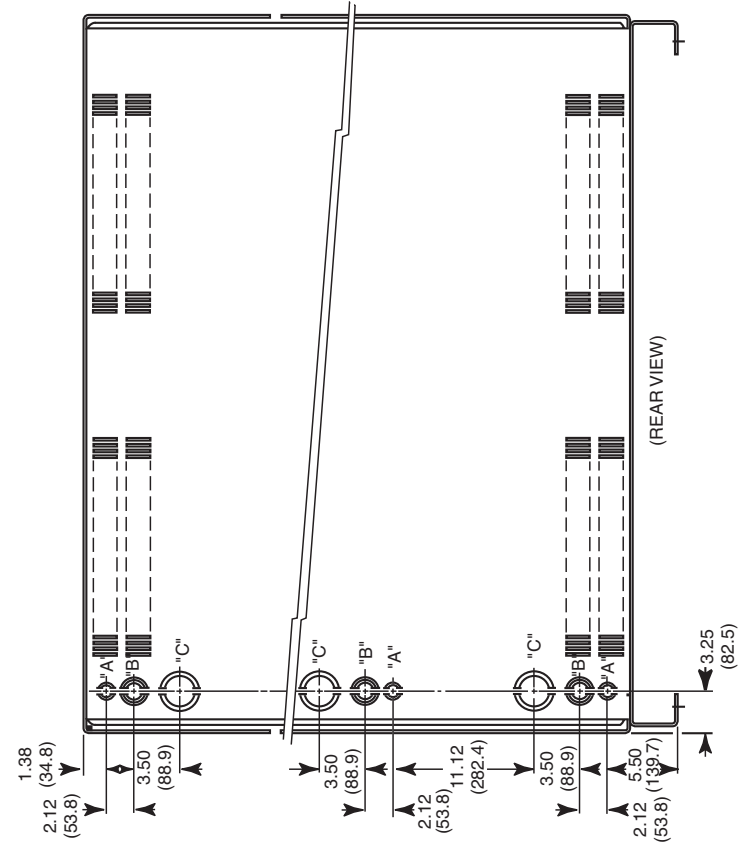
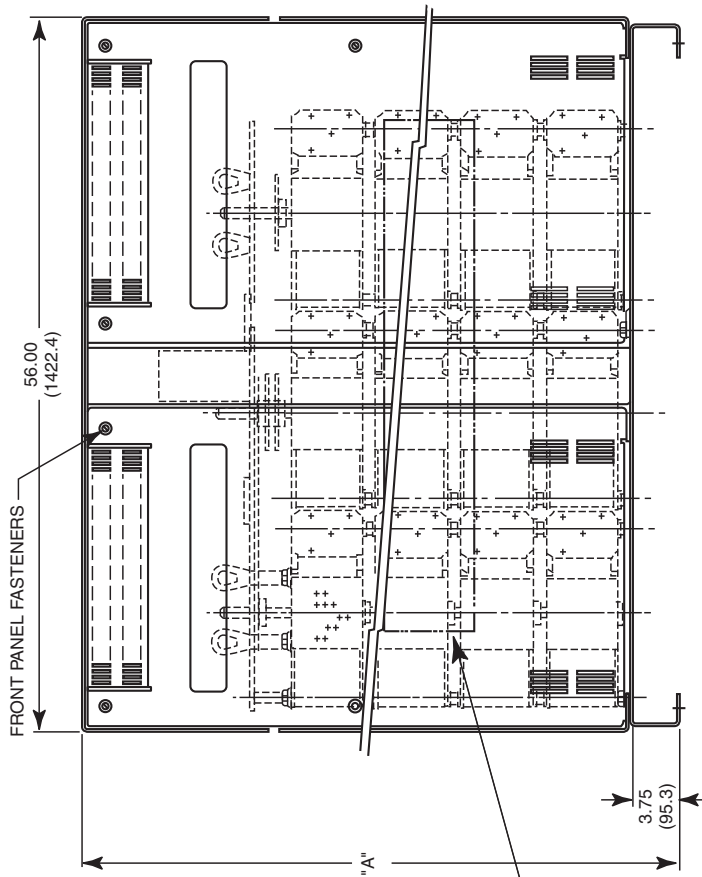
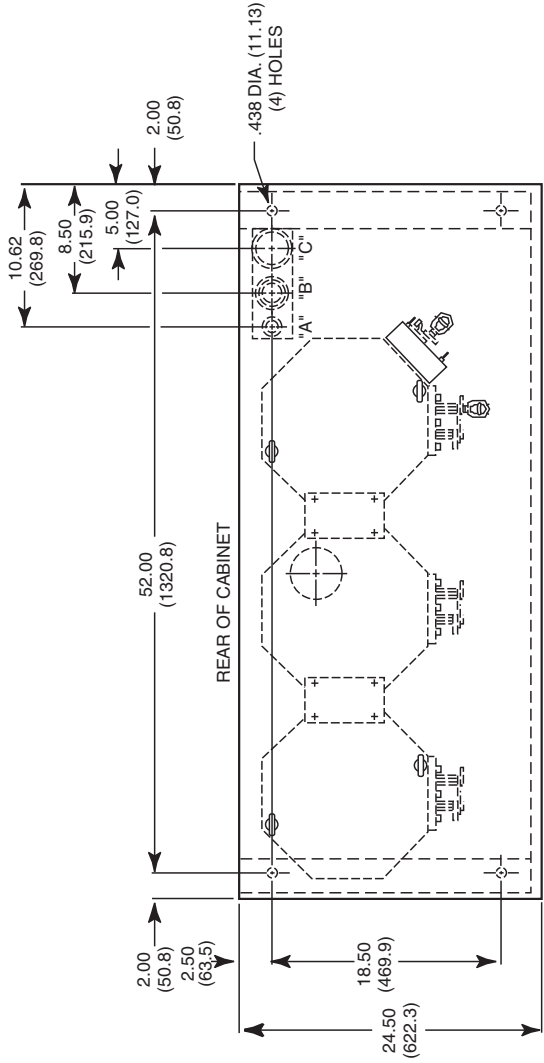


## MOTOR DRIVEN

Type	Dimension "A"
PBA50-N01-DD	46.25 (1174.75)
PBA50-N01-EE	56.25 (1428.75)
PBA50-N01-FF	74.25 (1885.95)
PBA50-N01-GG	88.25 (2241.55)

**Concentric Knockouts**

Designation	Diameter: Inches (Millimeters)
"A"	.88 (22.3) & (1.12 (28.5))
"B"	1.38 (35.0), 1.75 (44.5) & 2.00 (50.8)
"C"	2.50 (63.5) & 3.00 (76.2)



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Voltage Control Components are available worldwide through an extensive Authorized Stocking Distributor network. These Distributors offer literature, technical assistance and a wide range of models off-the-shelf for fastest possible delivery and service.

## Power Quality Products

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- STABILINE®** Transient Voltage Surge Suppressors
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- STABILINE®** Power Conditioners

STABILINE Power Quality Solutions are available worldwide through an extensive Authorized Distributor and Reseller network which offer literature, technical assistance and a select range of models off-the-shelf for fastest possible delivery and service.

In addition, Superior Electric Manufacturer's Representatives are available to provide prompt attention to customer needs. Call or fax for ordering and application information or for the address of the closest Manufacturer's Representative, Authorized Distributor or Reseller.



The right to make engineering refinements on all products is reserved. Dimensions and other details are subject to change.

### Telephone and Fax Numbers

Telephone 860-507-2025  
Fax 860-507-2050  
Customer Service 860-507-2025, Ext. 70782  
Product Application 860-507-2025, Ext. 72058

### Toll-Free (in USA and Canada only)

Telephone 1-800-787-3532  
Fax 1-800-821-1369  
Customer Service 1-800-787-3532, Ext. 70782  
Product Application 1-800-787-3532, Ext. 72058

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