

Install *Phaseback VSGR* (voltage stabilizing ground reference).
No other changes required. It's that simple!

Phaseback VSGR low voltage units are simple to select

Phaseback VSGR Protects all equipment on the secondary, making other devices unnecessary, such as HRG, TVSS (SPDs), Voltage Regulators, Snubber circuits.

For 3phase Systems including:

Delta, Wye, Impedance Grounded, ungrounded, solidly grounded.

3 Phase Voltage	<i>Phaseback VSGR</i>	Design Capacity KVA	Amperage of Board 240V-208V / 480V	Enclosure Size
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240 or 480V	PB240(480)D250WFC	250	600 / 300	24"W x 20"H x 10"D
240 or 480V	PB240(480)D750WFC	750	1800 / 900	24"W x 20"H x 10"D
240 or 480V	PB240(480)D3000WFC	3000	7200 / 3600	30"W x 30"H x 12"D
240 or 480V	PB240(480)D6000WFC	6000	14500 / 7200	36"W x 30"H x 12"D
240V Hi-Leg	PB150HLD high leg delta	150	360	16"W x 20"H x 8"D

PB for Phaseback VSGR **480** for Line to Line voltage **250** for 250 kVA transformer it protects
D for Delta or **Y** for Wye **W** for Water Treatment Plant Version **F** Flange Mnted Disc. **C** Counter

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To properly size VSGR, requires that we answer a couple of questions:

- ***System Voltage, needing protection?***
- ***kVA rating of the supply Transformer?*** If you know this, great, go the table.
- If you don't know the kVA rating, the circuit breaker, fed by the transformer can help. Example: 1200A main CB (use Trip rating).

Formula: Transformer kVA is approximately equal to (Volts x CB Amp rating x 1.732) / 1000.

Example 1, 480V Main Circuit Breaker, rated 800A,
 ((480X800) X 1.732) / 1000 = 665kVA. Select 750kVA model # PB480Y750WFC

Example 2, for 480V Main Circuit Breaker, rated 250A,
 ((480X250) X 1.732) / 1000 = 208kVA. Select 250kVA model# PB480Y250WFC

Voltages phase / ground will be good up to any high impedance loads, such as transformers, Drives, UPS systems, so they will have good Voltage input.

VSGR provides needed Voltage protection!

- * *No Transients*
- * *No Single Phase Sags*
- * *Phase Angles are corrected*
- * ***NO SINGLE PHASE GROUND FAULTS!***