

PGN-3000 SERIES

High-Resistance Grounding System



Description

The PGN-3000 High-Resistance Grounding Systems are used to ground power systems by inserting a resistor between system neutral and ground to lower the ground-fault current to a predetermined value.

Properly sized resistance grounding systems solve two problems of ungrounded systems—transient overvoltages and the difficulty of locating ground faults. The PGN-3000 Series High-Resistance Grounding System includes all necessary components to convert or design a resistance grounded system.

The PGN-3000 includes a pulsing circuit and optional PGR-5701 ground-fault relays to provide a method for locating ground faults. It also significantly reduces damage caused by ground faults on solidly grounded systems. The current limitation eliminates the Arc-Flash Hazards associated with the first ground fault. The hazards associated with phase-to-phase electrical faults must still be mitigated by using current-limiting fuses and other methods.

Applications

High-resistance grounding is typically applied on transformers and generators where safety and up-time are paramount. Since the ground-fault current is typically 5 A or less, there is no Arc-Flash Hazard associated with the first ground fault and the faulted feeder can remain in operation until it is safe to repair the fault. When ordering, the number of feeders to be monitored should be specified.

Features/Benefits

- All PGN-3000 Systems include resistor monitoring and ground-fault detection (using an additional PGR-5330 relay)
- Pulsing circuit to locate ground faults (pulsing current 5 A above the selected resistor current is standard; other pulsing options available upon request)
- Optional test circuit to simulate a ground fault
- Continuous-rated resistors
- Stainless steel elements prevent corrosion
- Available from 240 V– 4160 V and from 5 A– 25 A
- Can convert an existing ungrounded or a 3-wire solidly grounded system to a resistance grounded system; for more information on how to convert, see page 56

Ordering Information

PGN – 3	CONFIGURATION	SYS. VOLTAGE	RES. CURRENT	ENCLOSURE TYPE	# OF FEEDERS	CUSTOM
	X	X	X	X	X	XXX
	0 = Other	0 = Other	0 = Other	0 = Other	0 = 0	000 = Standard
	W = Wye	1 = 240 V	1 = 5 A	N = No Enclosure	1 = 1	XXX = Drawing #
	D = Delta	2 = 480/277 V	2 = 10 A	F = Outdoor Free Standing	2 = 2	
		3 = 600/347 V	3 = 15 A	W = Outdoor Wall Mount	3 = 3	
		4 = 2400/1390 V	4 = 20 A		4 = 4	
		5 = 4160/2400 V	5 = 25 A		5 = 5	
					6 = 6	
					7 = 7	
					8 = 8	
					9 = Other	

RESISTANCE GROUNDING SYSTEMS