



BENEFITS OF THE GROUND FAULT PROTECTION PANELS:

- Prevent Electrocutions
- Sensitive Ground Fault detection
- Models available for solidly grounded, resistance grounded and ungrounded systems
- All types are CSA approved
- UL recognized (10mA sensitivity and above)
- Built in compliance with Canadian Electrical Code, Part 1, 26-956
- Meet IEC requirements for people protection

GP PANELS

The I-Gard Ground Fault Protection Panels are designed to prevent shock hazards, to protect equipment and personnel as they trip when the ground leakage current on the load side exceeds a safe level.

The use of panels is recommended for areas which could present shock hazard to personnel or livestock.

I-Gard panels are suitable for any type of single and 3-phase applications, particularly those feeding pump motors for decorative pools, irrigation systems, water fountains, pipe lines or any motor, heater or similar load, located in damp or wet areas such as marinas, shipyards, dairies, food processing plants and especially breweries.

There are two types of Ground Protection Panels:

- The GPD/GPFJ type is equipped with a non automatic breaker.
- The GP/GPA type also known as “Lifeguard” is used to trip any other disconnecting devices.



Ground leakage trip levels available: 5, 10, 20, 35 and 50 mA. The trip level is factory set and non adjustable by user

Models available for any type of grounded systems

Systems voltage levels 208, 240, 480 and 600V

Built-in self test provides assurance of proper functionality

Pump protection

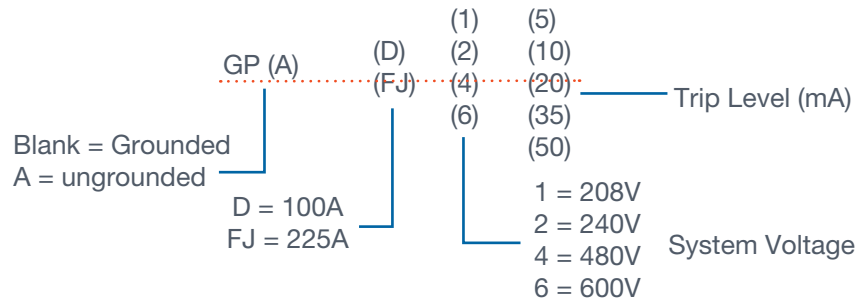
GPD/GPFJ PANELS EQUIPPED WITH A NON-AUTOMATIC BREAKER

Types GPD/GPFJ Ground Fault Protection Panels were developed to provide sensitive protection against low value ground fault currents. Multiple models operate up to 600 volts and are equipped with non automatic breaker of either 100 or 225 amperes. Trip level settings range from 5 to 50mA.

The part number on each panel indicates which options are available as shown below.

There are two basic panels: 100A (GPD/GPAD) and 225A (GPFJ/GPAFJ), both equipped with a non-automatic breaker*. *a thermo magnetic breaker is available as an additional option, with the indicated current capacities.

Types GPD and GPFJ are designed for grounded or resistance grounded systems while types GPAD and GPAFJ are designed for ungrounded systems.



DIMENSIONS

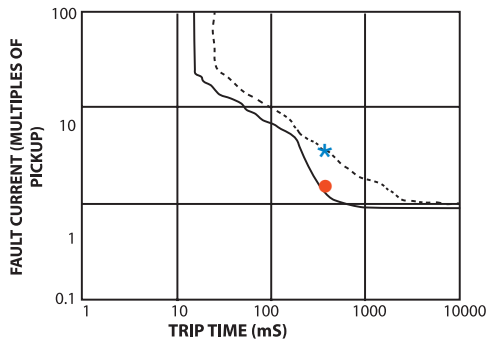
Panel Type	Height		Breaker
	in	cm	
GPD	22	57.20	100 Amp
GPAD	22	57.20	100 Amp
GPFJ	31	78.74	225 Amp
GPAFJ	31	78.74	225 Amp

The GPD, GPAD, GPFJ and GPAFJ panels contain a ground fault detector having a non-adjustable pick-up setting from 5 to 50mA nominal, a non-automatic circuit interrupter, 2 in. diameter current sensor and a 25VA control transformer, which provides a 120V AC tripping supply to the interrupter shunt trip.

TECHNICAL SPECIFICATIONS

Maximum Rating	Rated Voltage +10%	Ground Fault Current 15,000A
Performance	Trip Level Accuracy $\pm 10\%$	
Temperature	Operating Range -35°C to +60°C	Storage Range -40°C to +100°C
Humidity	Operating Range 10% to 95% R.H.	
Dielectric Strength	Line-to-ground 2200V AC rms 1 minute	
Endurance Interrupter (min)	10,000 operations	
Approval	a) CSA File LR65287 b) UL - File E107725 Type GPD and GPFJ (for 10mA sensitivity and above) UL - File E232710 Type GPAD and GPAFJ (for 10mA sensitivity and above)	

Figure #1:
TYPICAL CLEARING TIME CHARACTERISTICS OF GPD/GPFJ



Notes:

1. For GPD & GPAD 100 A panels, phase wires (maximum # 3 copper cable only) should be fed through sensor window
2. For GPFJ and GPAFJ 225 A panels, phase wires (maximum 4/0, copper cable only) should be fed through sensor window
3. Dotted line indicates CSA maximum limits

- Class A curve
- * CSA maximum limits

GP/GPA PANELS “LIFEGUARD”

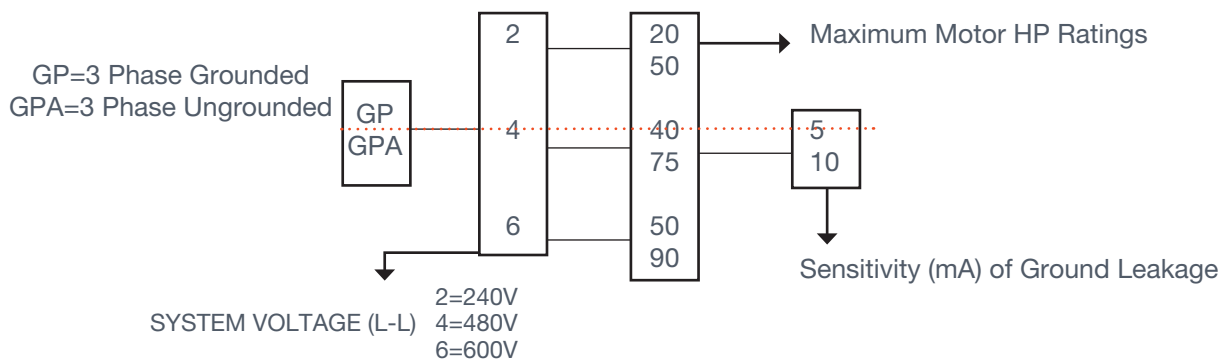


The I-Gard GP/GPA Ground Fault Protection Panels are designed to provide complete electrical safety in areas where personnel may come in contact with dangerous ground leakage currents when the normal grounding system has become unreliable because of corrosion, mechanical damage, wear or just the aging of the wire insulation.

They are conceived to provide instantaneous ground fault protection up to 600 volts and 90 amperes with a maximum of 5 or 10 milliamperes of ground leakage current.

TRIP CONTACTS OUTPUT:

The part number of each panel indicates which options are available as shown below.



UNGROUND

SYSTEM	VOLTAGE	MAX. HP	MAX. CURRENT	PANEL #
3 Phase Ungrounded	600	90	85	GPA-6-90
		50	60	GPA-6-50
	480	75	85	GPA-4-75
		40	60	GPA-4-40
	240	35	85	GPA-2-35
		20	60	GPA-2-20

GROUNDED

SYSTEM	VOLTAGE	MAX. HP	MAX. CURRENT	PANEL #
3 Phase Grounded	600	90	85	GPA-6-90
		50	60	GPA-6-50
	480	75	85	GPA-4-75
		40	60	GPA-4-40
	240	35	85	GPA-2-35
		20	60	GPA-2-20

TECHNICAL SPECIFICATIONS

Operating time at rated sensitivity	Inverse current/time curve of the leakage current to ground. The contact rating of the internal relay is standard pilot duty, 5 amps at 120 V AC 60Hz
Accuracy	Pickup levels accurate to 10%
Output Ratings	a) Contact 1 - Form A contacts 120V, 5A (Fused) b) Contact 2 - Form C contacts 120V, 5A (Fused)
Control Power Requirements	All panels are rated for the nominal system voltage $\pm 10\%$, 50 VA. Minimum supply of up to 55% of the system voltage (compliant with UL1053)
Dielectric Strength	a) System Terminals to chassis or low voltage circuits: $V_p = (2 \times V_s) + 1000$ for 1 minute (VHP = Dielectric Voltage (V); V_s = System Voltage) b) Output Terminals to chassis or other circuits: VHP = 1800 V for 1 minute
Approval	a) CSA File LR65287 b) UL - File E107725 Type GP (for 10mA sensitivity) UL - File E232710 Type GPA (for 10mA sensitivity)

High-resistance grounding (HRG) is becoming more prevalent in industrial and commercial electrical power systems because it eliminates un-scheduled downtime due to ground faults, and improves personnel safety by

preventing ground faults from escalating into arc-flash incidents. Resistance grounding is highly recommended for generators, to protect them from damage due to excessive ground fault currents.