

GENERATOR & SINGLE-FUNCTION PROTECTION

PGR-4300 Generator Ground-Fault Relay



Features/Benefits

- No CTs required
- Provides a simple method for tripping a ground-fault condition on generators
- Use with 3- or 4-pole transfer switches
- Monitors neutral-to-ground integrity
- Adjustable pick-up settings from 100 to 1200 A
- Adjustable time-delay settings from 0 to 1 sec

Specifications

IEEE Device Numbers 50G/N, 51G/N
Dimensions **H** 75 mm (3.0")
W 55 mm (2.2")
D 115 mm (4.5")
Communications Analog Output
Warranty 5 Year

Web Resources

littelfuse.com/pgr-4300

ORDERING NUMBER	SPECIFICATIONS	ACCESSORIES
PGR-4300-12	12 Vdc Control Power	
PGR-4300-24	24 Vdc Control Power	PGA-0500 Analog Current Meter
PGR-4300-120	120 Vac Control Power	

G2000 Power Relay



Features/Benefits

- Detects power level for protection, control and monitoring
- PC configuration for forward power or reverse power functionality
- User configured scales and setpoints suits a broad variety of applications
- 63 Vac to 690 Vac systems can be monitored by the same unit

Specifications

Supply 8-36 Vdc/0.75 W at 24 Vdc
Input Voltage 63-690 Vac \pm 30%
Input Current 5 A CT, max. 10 A
Frequency 35-75 Hz
Dimensions **H** 73 mm (2.9")
W 75 mm (3.0")
D 114 mm (4.5")

Web Resources

littelfuse.com/g2000

ORDERING NUMBER	SPECIFICATIONS	ACCESSORIES
G2000.0010	24 Vdc, 5 A Control Power	G0100 Programming Kit

G3000 Frequency Relay



Features/Benefits

- Frequency monitor generators, busbars or other distribution systems
- PC configuration for over and under frequency protection one unit
- User configured scales and setpoints suits a broad variety of applications
- 63 Vac to 690 Vac systems can be monitored by the same unit

Specifications

Supply 8-36 Vdc/0.75 W at 24 Vdc
Input Voltage 63-690 Vac \pm 30%
Input Current 5 A CT, max. 10 A
Frequency 35-75 Hz
Dimensions **H** 73 mm (2.9")
W 75 mm (3.0")
D 114 mm (4.5")

Web Resources

littelfuse.com/g3000

ORDERING NUMBER	SPECIFICATIONS	ACCESSORIES
G3000.0010	24 Vdc Control Power	G0100 Programming Kit

GENERATOR & SINGLE-FUNCTION PROTECTION

G3300 Voltage Relay

CE



Features/Benefits

- Monitors voltage on generators, busbars or other distribution systems
- PC configuration for over and undervoltage protection in one relay
- User configured scales and setpoints suits a broad variety of applications
- Phase symmetry monitor enables use in grid connection applications
- 63 Vac to 690 Vac systems can be monitored by the same unit

Specifications

Supply 8-36 Vdc/0.75 W at 24 Vdc
Input Voltage 63-690 Vac \pm 30%
Frequency 35-75 Hz
Dimensions H 73 mm (2.9")
W 75 mm (3.0")
D 114 mm (4.5")

Web Resources

littelfuse.com/g3300

ORDERING NUMBER	SPECIFICATIONS	ACCESSORIES
G3300.0010	24 Vdc Control Power	G0100 Programming Kit

T2000 Reverse Power Relay

CE



Features/Benefits

- Protects the generator from being run as an electric motor
- Accepts high supply voltage variation to ensure correct operation in spite of voltage supply fluctuations
- Visual indication of power, pick-up and output trip provides quick and concise status information

Specifications

Trip level 2-20% I_N
Delay 2-20 sec.
Max. Voltage 660 V
Dimensions H 70 mm (2.8")
W 100 mm (3.9")
D 115 mm (4.5")

Web Resources

littelfuse.com/t2000

ORDERING NUMBER	TERMINALS 1-3	TERMINALS 2-3	I_N	SUPPLY
T2000.0010	230 V		5 A	L-N
T2000.0020	450 V	400 V	5 A	L-L
T2000.0030	127 V	120 V	5 A	L-N
T2000.0040	110 V	100 V	5 A	L-L
T2000.0050	110 V	100 V	5 A	L-L
T2000.0060	230 V		1 A	L-N
T2000.0070	660 V		5 A	L-L
T2000.0080	450 V	400 V	5 A	L-N
T2000.0090	127 V	120 V	5 A	L-L
T2000.0100	110 V	100 V	1 A	L-L
T2000.0110	450 V	400 V	5 A	L-L
T2000.0120	480 V	415 V	5 A	L-L
T2000.0130	230 V		5 A	L-N
T2000.0140	230 V		5 A	L-L
T2000.0150	480 V	415 V	1 A	L-L
T2000.0160	450 V	400 V	1 A	L-L

T2100 Excitation Loss Relay

CE



Features/Benefits

- Protects against loss of excitation in a synchronous generator
- Accepts high supply voltage variation to ensure correct operation in spite of voltage supply fluctuations
- Visual indication of power, pick-up and output trip provides quick and concise status information

Specifications

Trip level 0.5-1.5 x I_N
Delay 2-20 sec.
Max. Voltage 660 V
Dimensions H 70 mm (2.8")
W 100 mm (3.9")
D 115 mm (4.5")

Web Resources

littelfuse.com/t2100

ORDERING NUMBER	TERMINALS 1-3	TERMINALS 2-3	I_N	SUPPLY
T2100.0010	230 V		5 A	L-N
T2100.0020	480 V	415 V	5 A	L-L
T2100.0030	450 V	400 V	5 A	L-L
T2100.0040	110 V	100 V	1 A	L-L
T2100.0050	110 V	100 V	5 A	L-L
T2100.0060	110 V	100 V	5 A	L-L
T2100.0070	480 V	415 V	5 A	L-L
T2100.0080	110 V	100 V	5 A	L-L

GENERATOR & SINGLE-FUNCTION PROTECTION

T2200 3-Phase Overcurrent Relay

CE

Features/Benefits

- Designed for generator or feeder protection against overcurrent in each of the 3 phases
- Accepts high supply voltage variation to ensure correct operation in spite of voltage supply fluctuations
- Visual indication of power, pick-up and output trip provides quick and concise status information



Specifications

Trip level	0.5-1.4 x I _N
Delay	3-30 sec.
Max. Voltage	660 V
Dimensions	H 70 mm (2.8") W 100 mm (3.9") D 115 mm (4.5")

Web Resources

littelfuse.com/t2200

ORDERING NUMBER	TERMINALS 1-3	TERMINALS 2-3	I _N	FUNCTION
T2200.0010	450 V	400 V	5 A	Latching output, resetable
T2200.0020	450 V	400 V	5 A	Normally energized output, latching, resetable
T2200.0030	230 V		5 A	Latching output, resetable
T2200.0040	230 V	110 V	5 A	Latching output, resetable
T2200.0050	230 V		1 A	Latching output, resetable
T2200.0060	450 V	400 V	5 A	Normally energized output, latching, resetable
T2200.0070	110 V	100 V	5 A	Latching output, resetable
T2200.0080	480 V	415 V	5 A	Latching output, resetable
T2200.0090	24 Vdc		5 A	Latching output, resetable
T2200.0100	450 V	400 V	5 A	Instantly extra output relay
T2200.0110	450 V	400 V	1 A	Instantly extra output relay

T2300 3-Phase Short-Circuit Relay

CE

Features/Benefits

- Designed for protection of generators, power transmissions and consumer's supply against short circuit
- Accepts high supply voltage variation to ensure correct operation in spite of voltage supply fluctuations
- Visual indication of power, pick-up and output trip provides quick and concise status information



Specifications

Trip level	1.0-4.0 x I _N
Delay	0.1-1.0 sec.
Max. Voltage	660 V
Dimensions	H 70 mm (2.8") W 100 mm (3.9") D 115 mm (4.5")

Web Resources

littelfuse.com/t2300

ORDERING NUMBER	TERMINALS 1-3	TERMINALS 2-3	I _N	FUNCTION
T2300.0100	230 V		5 A	
T2300.0020	450 V	400 V	5 A	
T2300.0030	24 Vdc		5 A	
T2300.0040	24 Vdc		1 A	
T2300.0050	450 V	400 V	5 A	Normally de-energized output
T2300.0060	480 V	415 V	5 A	
T2300.0070	230 V		1 A	

T2400 3-Phase Dual Overcurrent Relay

CE

Features/Benefits

- Includes 2 combined overcurrent designed for protection or monitoring of generators and power transmissions
- Accepts high supply voltage variation to ensure correct operation in spite of voltage supply fluctuations
- Combining 2 relays is an economic solution for non-essential load tripping and occupying less space in the switch panel



Specifications

Trip level	0.5-1.4 x I _N
Delay	3-30 sec.
Max. Voltage	660 V
Dimensions	H 70 mm (2.8") W 100 mm (3.9") D 115 mm (4.5")

Web Resources

littelfuse.com/t2400

ORDERING NUMBER	TERMINALS 1-3	TERMINALS 2-3	I _N	FUNCTION
T2400.0010	230 V		5 A	
T2400.0020	450 V	400 V	5 A	
T2400.0030	110 V	100 V	5 A	
T2400.0040	450 V	400 V	5 A	Latching output on relay 1, 6-60 sec. delay on relay 1
T2400.0050	480 V	415 V	5 A	
T2400.0060	450 V	400 V	1 A	
T2400.0070	450 V	400 V	5 A	Latching output on relay 1, normally energized relay 1
T2400.0080	127 V	120 V	5 A	
T2400.0090	24 Vdc		5 A	

GENERATOR & SINGLE-FUNCTION PROTECTION

T2500 Overcurrent and Short-Circuit Relay



Features/Benefits

- The short-circuit relays protects against faults causing high currents and the overcurrent relay protects against thermal damage
- Accepts high supply voltage variation to ensure correct operation in spite of voltage supply fluctuations
- Combining 2 relays is an economic solution, occupying less space in the switch panel

Specifications

Trip level	0.5-1.4 x I _N
Delay	3-30 sec.
Max. Voltage	660 V
Dimensions	H 70 mm (2.8") W 100 mm (3.9") D 115 mm (4.5")

Web Resources

littelfuse.com/t2500

ORDERING NUMBER	TERMINALS 1-3	TERMINALS 2-3	I _N	FUNCTION
T2500.0010	450 V	400 V	5 A	Latching output, resetable
T2500.0020	230 V		5 A	Latching output, resetable
T2500.0030	480 V	415 V	5 A	Latching output, resetable
T2500.0040	450 V	400 V	1 A	Latching output, resetable
T2500.0050	24 Vdc		5 A	Latching output, resetable
T2500.0060	230 V		5 A	De-energized extra output relay
T2500.0070	450 V	400 V	5 A	De-energized extra output relay
T2500.0080	450 V	400 V	5 A	De-energized extra output relay, latching outputs
T2500.0090	480 V	415 V	5 A	De-energized extra output relay
T2500.0100	24 Vdc		1 A	De-energized extra output relay
T2500.0110	450 V	400 V	5 A	De-energized extra output relay, latching short circuit output
T2500.0120	24 Vdc		5 A	De-energized extra output relay, de-energized relay 1, no internal power backup

T2700 Power Relay



Features/Benefits

- Detects power levels for protection, control or monitoring and will protect against excessive active loads
- Accepts high supply voltage variation to ensure correct operation in spite of voltage supply fluctuations
- Visual indication of power, pick-up and output trip provides quick and concise status information

Specifications

Trip level	15-150 x I _N
Delay	2-20 sec.
Max. Voltage	660 V
Dimensions	H 70 mm (2.8") W 100 mm (3.9") D 115 mm (4.5")

Web Resources

littelfuse.com/t2700

ORDERING NUMBER	TERMINALS 1-3	TERMINALS 2-3	I _N	SUPPLY	FUNCTION
T2700.00	230 V		5 A	L-N	
T2700.02	450 V	400 V	5 A	L-L	
T2700.03	230 V	400 V	5 A	L-L	
T2700.04	110 V	100 V	5 A	L-L	Normally energized output
T2700-08	127 V	120 V	5 A	L-N	

T2900 3-Phase Differential Relay



Features/Benefits

- Monitors current leakage in generators and measures the differential current of each of the 3 phases
- Accepts high supply voltage variation to ensure correct operation in spite of voltage supply fluctuations
- Visual indication of power, pick-up and output trip provides quick and concise status information

Specifications

Trip level	0.04-0.4 x I _N
Delay	1-10 sec. (0.1-1 sec. bridging terminals 18/19)
Max. Voltage	660 V
Dimensions	H 70 mm (2.8") W 100 mm (3.9") D 115 mm (4.5")

Web Resources

littelfuse.com/t2900

ORDERING NUMBER	TERMINALS 1-3	TERMINALS 2-3	I _N
T2900.0010	450 V	400 V	5 A
T2900.0020	230 V		5 A
T2900.0030	480 V	415 V	5 A
T2900.0040	110 V	100 V	5 A

GENERATOR & SINGLE-FUNCTION PROTECTION

T3000 Frequency Relay

CE

Features/Benefits

- Frequency monitor generators, busbars or other distribution systems
- Accepts high supply voltage variation to ensure correct operation in spite of voltage supply fluctuations
- Visual indication of power, pick-up and output trip provides quick and concise status information
- Combining 2 relays is an economic solution for monitoring both underfrequency and overfrequency in the same unit

Specifications

Overfrequency Level Delay 45-65 Hz
1-10 sec.
Underfrequency Level Delay 45-65 Hz
1-10 sec.
Max. Voltage 660 V
Dimensions H 70 mm (2.8")
W 100 mm (3.9")
D 115 mm (4.5")

Web Resources

littelfuse.com/t3000



ORDERING NUMBER	TERMINALS 1-3	TERMINALS 2-3
T3000.0010	230 V	
T3000.0020	450 V	400 V
T3000.0030	110 V	100 V
T3000.0040	480 V	415 V
T3000.0050	127 V	120 V

T3100 Voltage Relay

CE

Features/Benefits

- Monitors voltage on generators, busbars or other distribution systems
- Signals when voltage is out of its limits
- Consists of two, one for overvoltage and one for undervoltage monitoring
- Accepts high supply voltage variation to ensure correct operation in spite of voltage supply fluctuations

Specifications

Overvoltage level Delay 100-120%
1-10 sec.
Undervoltage Level 80-100%
Max. Voltage 660 V
Dimensions H 70 mm (2.8")
W 100 mm (3.9")
D 115 mm (4.5")

Web Resources

littelfuse.com/t3100



ORDERING NUMBER	TERMINALS 1-3	TERMINALS 2-3
T3100.0010	230 V	
T3100.0020	450 V	400 V
T3100.0030	110 V	100 V
T3100.0040	480 V	415 V
T3100.0060	127 V	120 V

T3300 3-Phase Voltage Relay

CE

Features/Benefits

- Monitors voltage on generators, busbars or other distribution systems
- Signals when voltage is out of its limits
- Consists of two, one for overvoltage and one for undervoltage monitoring
- Accepts high supply voltage variation to ensure correct operation in spite of voltage supply fluctuations

Specifications

Overvoltage Level Delay 100-120%
1-10 sec.
Undervoltage Level 80-100%
Max. Voltage 660 V
Dimensions H 70 mm (2.8")
W 150 mm (5.9")
D 115 mm (4.5")

Web Resources

littelfuse.com/t3300



ORDERING NUMBER	TERMINALS 17-19, 21-23, 25-27	TERMINALS 18-19, 22-23, 26-27
T3300.0010	230 V	
T3300.0020	450 V	400 V
T3300.0030	110 V	100 V
T3300.0040	480 V	415 V