

Ground Fault Equipment Protector (GFEP) Information tool

What is a ground fault?

- A ground fault is caused by an insulation loss between a live conductor and an exposed conductive part that causes a flow of current to the ground.

What is a ground fault equipment protector (GFEP) and why is it necessary?

- A ground fault equipment protector is a device intended to provide protection of equipment against damaging line-to-ground currents by disconnecting all ungrounded conductors of the faulted circuit.
- By adding a GFEP to the system, ground faults are detected immediately, preventing serious damage.
- GFEPs are also referred to as residual current circuit breakers (RCCBs) in countries outside of the US and Canada. RCCBs are part of the residual current device (RCD) family, which also includes RCBOs (residual current circuit breaker with overcurrent protection).

Determining if GFEPs are needed:

1. Do you have old, potentially deteriorated wiring?
2. Do you have vital equipment that could take days to repair if damaged by a ground fault?
3. Are water or humidity present?

General information:

1. 80% of short circuits initially manifest as ground faults.
2. GFEPs are not usable for people protection in the US.
3. GFEPs can be applied to most electrical networks in the US, up to 480VAC.
4. GFEPs are required for fixed outdoor electric deicing and snow melting equipment (NEC 2011 - 426.28) and electric heat tracing and heat panels, (NEC 2011 - 427.22).

Where are GFEPs installed?

- Distribution panels
- Critical equipment

What is the typical equipment?

- 2 pole F202 GFEPs for single phase networks
- 4 pole F204 GFEPs for split phase, Delta and Wye networks

How to purchase?

Please contact your local ABB sales representative or call 888-385-1221.

Additional product information:

Refer to the technical data chart on the reverse side of this document or visit our website at www.abb.us/lowvoltage.



Technical data

Item	F200AC	F200A	F200A AP-R	F200A S
Standards:				
UL	1053	1053	1053	1053
CSA	-	-	-	-
VDE	-	-	-	-
IEC	61008	61008	61008	61008
Number of poles:	2, 4	2, 4	2, 4	2, 4
Rated currents:	16, 25, 40, 63, 80, 100, 125 A ^①	16, 25, 40, 63, 80, 100, 125 A ^①	25, 40, 63, 80, 100, 125 A ^①	40, 63, 100, 125 A ^①
Operating voltage:	480Y/277 VAC	480Y/277 VAC	480Y/277 VAC	480Y/277 VAC
Sensitivity I _{Δn} :	10, 30, 100, 300, 500, 1000 mA	10, 30, 100, 300, 500, 1000 mA	10, 30, 100, 300, 500, 1000 mA	10, 30, 100, 300, 500, 1000 mA
Pick up current:	0.65 x Sensitivity I _{Δn}	0.65 x Sensitivity I _{Δn}	0.65 x Sensitivity I _{Δn}	0.65 x Sensitivity I _{Δn}
Rated conditional short-circuit current Inc=I _{Δc} with gG fuse 100 A ^② :	10 kA	10 kA	10 kA	10 kA
Rated residual breaking capacity I _{Δm} =I _m :	1 kA	1 kA	1 kA	1 kA
Working temperature:	-25...+55°C	-25...+55°C	-25...+55°C	-25...+55°C
CPI:	yes	yes	yes	yes
Protection category:	IP20	IP20	IP20	IP20
Depth of unit per DIN 43880:	68 mm/ 2.68 in.	68 mm/ 2.68 in.	68 mm/ 2.68 in.	68 mm/ 2.68 in.
Mounting position:	vertical, horizontal	vertical, horizontal	vertical, horizontal	vertical, horizontal
Standard mounting:	35 mm DIN rail	35 mm DIN rail	35 mm DIN rail	35 mm DIN rail

① 125 A versions are not UL approved.

② For 125 A F200, the fuse is gG 125 A.

ABB Inc.

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