Enphase Q Relay (single phase)

In Enphase installations, the Q Relay (network system relay controller) acts as a physical disconnection device relay controller for single-phase installations.

During specified grid abnormalities, the Q Relay disconnects the Enphase Microinverters from the AC grid, and when the voltages return to normal and the grid frequency is in the acceptable range, the Q Relay reconnects the system.

The Q Relay works in series with the Envoy-S to break both line and neutral, when needed, per grid requirements.



Easy to Install

- Lightweight and simple
- DIN rail mount for quick installation

Reliable

- Dependable load control
- Automatically resets when normal voltage resumes

Smart

- Performs voltage and frequency ride-through
- Remote upgrade capability
- Easy to read LEDs

Enphase Q Relay

SPECIFICATIONS Q-RELAY-1P-INT	Single-phase network system relay controller (50 Hz) with support for DC injection
Over voltage category	III
Pollution degree	2
Nominal input voltage (Vnom)	230 to 240 Vrms
Operating AC voltage range for power supply	85 to 270 Vrms
Nominal input frequency	50 Hz
Voltage and frequency acquisition time on valid input during normal operation	100 ms (5 line cycles @ 50Hz)
Number of voltage inputs to monitor	1
Number of IQ Microinverters supported	Up to 19 Enphase IQ 7 Microinverters or 16 Enphase IQ 7+ Microinverters
Number of Q Relays per system	Limit of four active Q Relay devices per system
Output	Two single pole, single throw contacts, normally open (L1 and N)
Output power rating	4.8kVA
Output rating (typical)	230 to 240 Vrms, 20A
Power consumption	10 VA
LEDs	Two red/green LEDs: one for under/over voltage trip, the other for under/over frequency and DCI
Mounting	35 mm DIN rail (standard)
Width	53 mm
Surge - L1 N output	Combination (1kV 2Ω)
Operating temperature range	-40 °C to 50 °C
IP rating	IP 20 (Must be used in a protected environment)
Relative humidity	0 to 95 non-condensing
Compliance	IEC 61010
Conducted and radiated EMI	IEC 61326-1, BS EN 61000-3-2, BS EN 61000-3-3, BS EN 50065-1, BS EN 50065-2-2
Warranty	5 years

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ENPHASE

Enphase Q Relay (multiphase)

In Enphase IQ installations, the multiphase Q Relay acts as a grid monitoring and disconnection device and includes a built-in phase coupler to distribute power line communication signals across phases. An external phase coupler is not needed when the Q Relay is installed. The Q Relay physically isolates the IQ Series Microinverters from the grid when abnormalities are sensed or as required by grid regulations, and it automatically reconnects when valid grid conditions resume.

The 4-pole Q Relay isolates all phase and neutral lines and works together with the Enphase Envoy-S gateway.



Easy to Install

- Lightweight and simple
- DIN rail mount for quick installation

Reliable

- Dependable control
- Automatically resets when normal voltage resumes

Smart

- Can be configured to monitor 1, 2, or 3 phases
- Remote upgrade capability
- 25A rating allows more microinverters per AC circuit
- Easy to read status LEDs
- Built-in power line communication phase coupler

Enphase Q Relay

SPECIFICATIONS Q-RELAY-3P-INT	Multiphase network system relay controller (50 Hz) with support for DC current detection
Over voltage category (EN 61010-1)	III
CAT III	GRID terminal is rated for measurement category III.
Pollution degree (EN 61010-1)	2
Operating AC voltage range for power supply	85 to 265 VAC
Nominal input voltage (Vnom)	230 Vrms
Nominal input frequency	50 Hz
Voltage and frequency acquisition time on valid input during normal operation	100 ms (5 line cycles @ 50Hz)
Number of phases	Single-, 2- or 3-phase modes
Number of Q Relays per system	Limit of 20 active Q Relay devices per system
Output	Four pole normally open relay (L1, L2, L3, and N)
Output rating (typical)	230 Vrms, 25A
Built-in phase coupler	Suitable for 2- or 3-phase systems with line-to-line voltages up to 440 VAC
Power consumption	18 VA
LEDs	Four red/green LEDs: three for under/over voltage trip, one for under/over frequency and DC current
Mounting	35 mm DIN rail (standard)
Width	107 mm
Surge - L1 N output	Combination (1kV 2Ω)
Ambient temperature range	-40 °C to 50 °C
IP rating	IP 20 (Must be used in a protected environment)
Relative humidity	0 to 95 non-condensing
Compliance	IEC 61010, EN 61010-1, AS/NZS 61010.1
Conducted and radiated EMI	IEC 61326, BS EN 50065-1 & 2-2, BS EN 61326-1&2, BS EN 61000-3-11&12
Warranty	5-year limited

To learn more about Enphase offerings, visit enphase.com/au

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