POWERSIDE®

All our energy, in your power

Data Sheet

PQ1
Power Quality Sensor

Overview

The compact PQ1 Power Quality Sensor detects power quality problems on your AC power mains.
It operates 3 normally closed relays: impulse/swell, major sag, minor sag.

The PQ1 is extremely cost-effective, less than 10% of the cost of a traditional power quality monitor. It quickly pays for itself by reducing service calls.

Combine 3 PQ1 for 3 phase applications.

Features

- Detects the following: sags/dips, swells, interruptions, and impulses (down to 500 nanoseconds)
- Comes pre-programmed with standard thresholds: SEMI F47, ITIC, CBEMA, IEC, ZA, MIL-STD, EN50160, IEC 61000-2-4, IEC 61000-4-11 and more
- No software and/or computer required
- Simple to install; AC in, relay contacts out

Application

- Automatic manufacturing systems, semiconductor tools
- Elevator controls
- Medical equipment
- Servers and data centers
- Machine tools, HVAC controls
- SCADA systems, PLC systems

Product Description

TECHNICAL SPECIFICATIONS	
Nominal Voltage Inputs	100 / 110 / 120 / 200 / 208 / 220 / 230 / 240 Vrms May be installed phase-to-neutral or phase-to-phase, provided nominal voltage is in range Installation Category: CAT II
Frequency	50 / 60 / 400 Hz
Nominal AC Current	Minimum < 10 mA | Maximum < 100 mA
Relay Outputs	300 mA, 30 Vac or Vdc, normally closed dry relay contacts 3 Relay output: Impulse/swell, minor sag, major sag Contacts open when a power disturbance is detected, recloses at end of the event Minimum duration of open contacts is 3 seconds, regardless of the event duration
Built-In Standard Thresholds	SEMI F47, ITIC, CBEMA, IEC, ZA NRS048, JN (Japan), MIL-STD 704E (Aircraft), MIL-STD-3900 (Shipboard), IEC 61000-2-4 (Class I, Class II, Class III), IEC 61000-4-11 , EN50160 (Utility), EN50082-1 (Residential/Commercial), EN50082-2 (Industrial)
Relay Contact Isolation From AC Input	1500 Vrms, provides "Basic Insulation" per IEC 61010
Environmental	Indoor use Temperature range: 0 to 50° C (32° to 122° F) Humidity: maximum of 80% at 31° C (88° F), 50% at 40° C (104° F) Pollution degree 1 (no pollution or only dry, non-conductive pollution occurs)
Impulses	Detects impulses down to 500 nanoseconds
Rms Threshold Accuracy	0.5% typical, 1.5% maximum
Impulse Threshold Accuracy	450 Vpk typical (min/max: 400/500 Vpk)
Rms Voltage Immunity	Max 300 Vrms, exceeds levels of IEC 61000-6-2 section 4.4 and 4.5
Fast Transient Immunity	+/-2 kV, 5/50 ns, 5 kHz rep (testing std IEC 61000-4-4) Exceeds levels of IEC 61006-2 section 4.2
Surge Immunity	+/4 kV, 500 A, 100 kHz ring wave (testing std IEC 61000-4-5) Exceeds levels of IEC 61006-2 section 4.3
Rf Common Mode Immunity	10 V, 150 to 80 MHz, 1 kHz AM (testing standard IEC61000-4-6) Exceeds levels of IEC 61006-2 section 4.1

PRODUCT	PART NUMBER
PQ1 Power Quality Sensor	PQ1-01-001

Contact Us

Canada
7850 Trans-Canada Highway
Saint-Laurent (QC) H4T 1A5
1 (877) 333-8392

United States
980 Atlantic Ave
Alameda, CA 94501
1 (888) 736-4347

sales@powerside.com
powerside.com

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