POWER STANDARDS LAB

DATA SHEET

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Industrial Power Corruptor

OVERVIEW

PSL's Industrial Power Corruptor (IPC) generates bad quality power, reliably and repeatedly.

It is the standard generator for equipment certification: SEMI f47, IEC 61000-4-11, IEC 61000-4-34.

Once it is connected to AC power and equipment under test, all tests can be run from user-friendly front panel interface. There is no need to connect and disconnect voltage probes, current sensors, etc. Tests can be done both rapidly and safely with personnel of any experience level.

APPLICATIONS

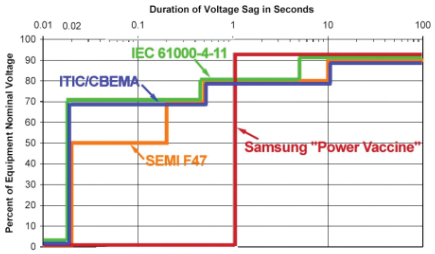
THE IPC IS THE IDEAL TOOL TO HELP ANSWER A WIDE RANGE OF QUESTIONS ON YOUR NEW OR EXISTING EQUIPMENT:

- Will your new or existing equipment work with local power disturbances?
- Does your equipment meet the upcoming CE requirements for industrial equipment voltage sag immunity?
- Do you need to self certify to SEMI F47and SEMI E6 standards?
- How many kilowatt-horus does it take to process your product?
- How much inrush current does your equipment really require- could you use a smaller breaker?

FEATURES

- 100Vrms to 480Vrms nominal, 50/60 Hz, single-phase, three-phase delta, and three-phase wye/star
- Up to 200 amps continuous per phase
- Built-in 28 channel data acquisition system/digital oscilloscope with voltage and current sensors
- User-friendly front panel control switches and displays
- Optional spectrum analyzer and vector scope optimized for power system harmonic monitoring
- Customized padded rugged polyethylene shipping crate for safe transportation between test sites

BUILT IN STANDARDS



- SEMI F47
- SEMI E6
- SEMI S23
- IEC 61000-4-11
- IEC 61000-4-34
- SAMSUNG POWER VACCINE
- FAA
- MIL SPEC
- CBEMA
- ITIC
- AND MORE

Part Number: IPC-480V-XXXX

SPECIFICATIONS

GENERAL INFORMATION	
Functional	Voltage Sag/Dip and Swell testing per SEMI F47, IEC 61000-4-11, CBEMA, ITIC, MIL, STD, FAA, SAMSUNG, and other international standards. With Power Flow Analysis option, also performs to SEMI E6, current inrush testing, harmonic current testing, and more.
Agency approvals	Designed to meet U.S. and Canadian safety standards, CE certification requirements, FCC requirements. Fully meets requirements of IEC-1010, and IEC-61000-4-11. Fully meets requirements and recommendations of SEMI F47.
Equipment ratings	Rated as Class I equipment. Rated for Installation Category II (local level, appliances, portable equipment). Rated for Pollution Degree 2 (Normally, only non-conductive pollution occurs.)
Operating environment	Indoor use. Altitude up to 2000 m. Temperature between 5°C and 40°C. Max relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C.
Instrument Power	100 to 240 Vac (±10%), 50/60 Hz, 4 Amps max
Software	Industrial Power Corruptor program for setup/operation of IPC, viewing real-time and downloaded data, and collecting information for test report generation. With Power Flow Analysis option, software includes vector scope, real-time oscilloscope, and real-time spectrum analyzer. ChannelScope II software for viewing, zooming, scrolling, and synchronizing power waveforms. FlowScope software for graphing and examining power flow over time. Requires PC with Windows 98 or XP
Communications	Front panel RJ-45 jack for serial connection to PC
Physical	19 inch rack-mount unit in rugged polyethylene case measuring 21in. W x 11in. H x 30in. L (50cm x 28cm x 76cm). 130lb (59Kg)
PERMISSIBLE TEST CONDITIONS	
Voltage Range	100-480 Vrms, 50 or 60 Hz, 1-phase or 3-phase Voltage is limited to 240Vrms on some model numbers
Voltage Configuration	Single phase or 3-phase (Y or delta) connection to unit. Voltage dropout testing can occur on all phases simultaneously. Voltage sag and swell testing on a single pair of phases, or phase to neutral. Phase selection for events is done with front panel dial.ully meets requirements and recommendations of SEMI F47.
Load Current	Up to 200 Amps per phase continuous, depending on model number, 600 Amps peak. Front panel dial for user selection of current trip point
SAG / SWELL TESTING	
Magnitude	0% (high impedance) to 125% of nominal voltage in 2.5% steps, limited a maximum of 550Vrms
Duration	User selected duration from 1 cycle to 34 seconds in 1 cycle steps
Magnitude/Duration Margin	A front panel switch allows quick 5% or 10% increase in event magnitude and duration
Phase Angle	Manual front panel "Arm" and "Fire" switches locally trigger event. Rear panel BNC connectors provide bi -directional 24V logic level (falling edge) trigger output and input capability
Event Trigger Input/Output	100 to 240 Vac (±10%), 50/60 Hz, 4 Amps max
Semiautomatic Sequencing	As well as manual event configuration, the user can semi-automatically step through an industry standard recipe on a single or 3-phase system
Switching Method	High speed, gapless switching, IGBT package with patented override design for long duration events
THREE PHASE VOLTAGE DROPOUT AND CURRENT INRUSH TESTING	
Magnitude	Full voltage and current rating of Industrial Power Corruptor
Max instantaneous current recording	±600A instantaneous
Interruption Duration	0.3 to 34 seconds
Phase Angle	0 degrees to 355 degrees in 5 degree steps. Referenced to user selected voltage channel
Switching Method	Mechanical relays, with calibrated switching times to 0.4 milliseconds
DATA ACQUISITION	
Internal Analog Input Channels	13 internal voltage channels, 6 internal current channels, 3 protective earth current monitoring channels
External Analog Input Channels	3 front panel ±600V (AC or DC) channels, 6 front panel ±100V (AC or DC) channels
Analog Input Viewing	Three front panel meters (including min. and max. values) can be selected to display any data acquisition channel in real-time. Alternatively, these channels can be monitored using a connected PC and the software provided
Resolution	15 bits equivalent per individual sample on 1000V / 1000A channels, 12 bits per individual sample on other channels, 1 6 bit equivalent for average and RMS measurements
Accuracy	Guaranteed accuracy ±1,0% FS on voltage and current. Typical accuracy ±0,25% FS (voltage and current), ±0,5% FS (power parameters), ±1,0% FS (harmonics), ±1° (between any voltage and current channel)
Sampling Rate	0.8 KHz to 7.68 KHz
Phase lock	With Power Flow Analysis option, software phase-lock to user-selected voltage channel - for precision harmonic and power flow calculations

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