General Specifications

Functional	Voltage Sag/Dip and Swell testing per SEMI F47, IEC 6100-4-11, 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.
Load Current	Up to 200 Amps per phase continuous, depending on model number, 600 Amps peak. Front panel dial for user selection or current trip point.

Voltage Sag / Swell Testing

Magnitude	0% to 125% of nominal voltage in 2.5% steps, limited a maximum of 550Vrms on IPC's rated for 480V (300Vrms on IPC's rated for 240V). User can select 0% sag to be either high impedance or low impedance.
Duration	User selected duration from 0.1 cycles to 34 seconds in 0.1 cycle steps.
Magnitude/Duration Margin	A front panel switch allows quick 5% or 10% increase in event magnitude and duration.
Phase Angle	0 to 359 degrees in 1-degree steps.
Event Trigger Input/Output	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.
Semiautomatic Sequencing	As well as manual event configuration, the user can semi-automatically step through a industry standard recipe on a single or 3-phase system.
Switching Method	High speed, gapless switching, IGBT package with patent-pending override design for long duration events.

Three Phase Voltage Dropout and Current Inrush Testing

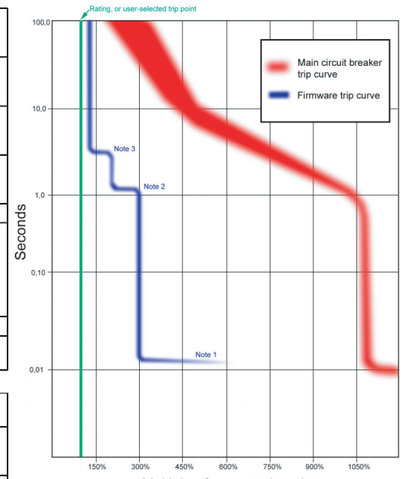
Magnitude	Full voltage and current rating of Industrial Power Corruptor
Max instantaneous current recording	±1 000A instantaneous
Interruption Duration	0.3 to 34 seconds.
Phase Angle	0 degrees to 355 degrees in 5 degree steps. Referenced to user selected voltage channel.
Switching Method	Mechanical relays, 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, 16 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.

Standard Accessories Included

CD-ROM	Includes the latest software and diagnostics for the IPC, and the IPC User's Manual
Power cord	IEC-compatible power cord with North American plug
BNC caps	Protective, military-style metallic caps for every front-panel BNC connector
Wire Adapters	Set of 10 custom designed wire adapters required for connection to terminal blocks when using smaller gauge wire.
Communication cable	RJ-45 to DB-9 serial communication cable for connecting IPC to serial port on Windows computer
Re-useable shipping crate with custom padding	Custom, furniture-grade wooden shipping crate, with high-density fitted foam inserts and external shock absorbing feet. Wing-nut fasteners for easy re-use. The IPC must always be shipped in this case.



Choosing a current rating

The green line is the IPC's rated current. However, the IPC can handle even more current than its rating for brief periods of time. The blue curve shows where the firmware will trip the main breaker, and the red curve shows the trip curve of the breaker itself. For more information, see the User's Manual, Appendix C.

주 문 방 법

1. 최대 최대전압과 전류에 따라 표준 모델 번호를 지정합니다.

① IPC-240V-25A
② IPC-480V-50A
③ IPC-480V-100A
④ IPC-480V-200A

2. 다음의 옵션을 선택합니다.

- Power Flow Analysis,
- Motor Operated Circuit Breaker,
- Extended Test Lead Kit,
- Laptop Controller

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www.jsdata.co.kr

Industrial Power Corruptor®

PSL's Industrial Power Corruptor makes bad quality electric power, repeatedly and reliably.

Handling single-phase and three-phase power, the IPC works with systems from 100V to 480V, and from 1 amp to 200 amps continuous per phase. And every IPC works with 50 Hz and 60 Hz.

Will your new design work with Korean power? Exactly how many kilowatt-hours does it take to process a wafer? Do you need to self-certify to SEMI F47 and SEMI E6 standards? Does your design meet the upcoming CE requirements for industrial equipment voltage sag immunity? How much inrush current does your equipment really require? Could you use a smaller circuit breaker? Do you have harmonic current issues?

Use the IPC to answer all of these questions, and more!

Voltage sags and swells, from 0% to 125% of nominal, from 200 µSec to 30 seconds

100 Vrms to 480 Vrms nominal. True phase-to-phase sags and swells - no neutral required.

Built-in standards: SEMI F47, SEMI E6, IEC 61000-4-11, IEC 61000-4-34, SAMSUNG, FAA, MIL SPEC, CBEMA, ITIC, and more

Safe, knob-selected phase-to-phase or phase-to-neutral sags and swells

Built-in 28-channel data acquisition system / digital oscilloscope with voltage and current sensors, complete with optional spectrum analyzer and vector scope optimized for power system harmonics

PSL's unique TestingPartner™ program lets you perform your own certification testing

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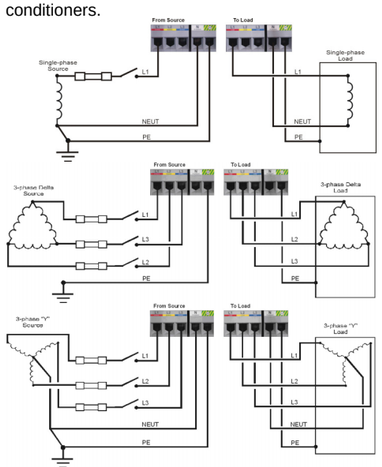
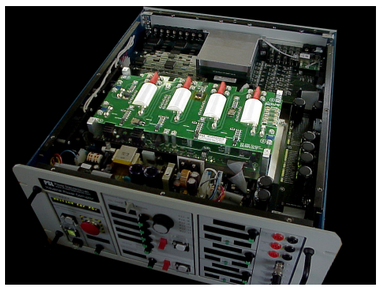
Typical result of a voltage sag - the tool's DC bus collapses (top). The Industrial Power Corruptor created a 12-cycle, 50% voltage sag (middle), typical of sags that hit semiconductor fabs around the world. The solution: increase the size of the bulk capacitors on the DC bus - there's no need for expensive power conditioners.



Just insert the IPC between your AC source and your AC load. The IPC is happy with any nominal voltage between 100V and 480V, and currents up to 200 amps per phase (continuous). Both 50 Hz and 60 Hz will be accepted by any IPC. And the IPC generates true phase-to-phase sags, not simulated phase-to-phase sags generated by some other sag generators.



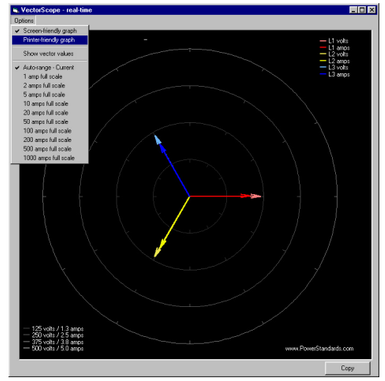
The IPC uses advanced, patent-pending switching technology to generate perfect voltage transitions. Special new technology permits 480V, 200 amp, 3-phase control in a single, clean, portable package less than 9 inches (23 cm) high.

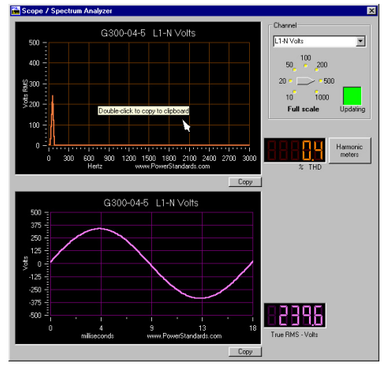
And every IPC can be upgraded to higher currents and voltages, at a very reasonable cost. Ask us about upgrading classic PSL sag generators, too!

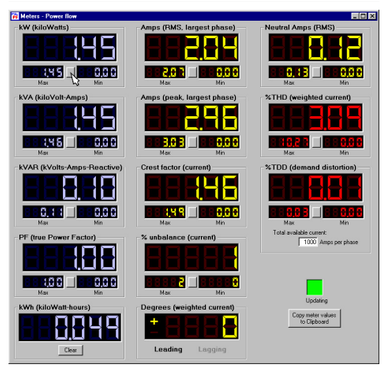
Connecting the IPC is simple. Just connect your AC source to the gray terminals on the left, and connect your load to the gray terminals on the right. The standard terminals accomodate larger conductors. Every IPC comes complete with a set of wire size adaptors for safely connecting smaller wires, too. Use the same terminals for single-phase, three-phase delta, and three-phase wye / star systems.

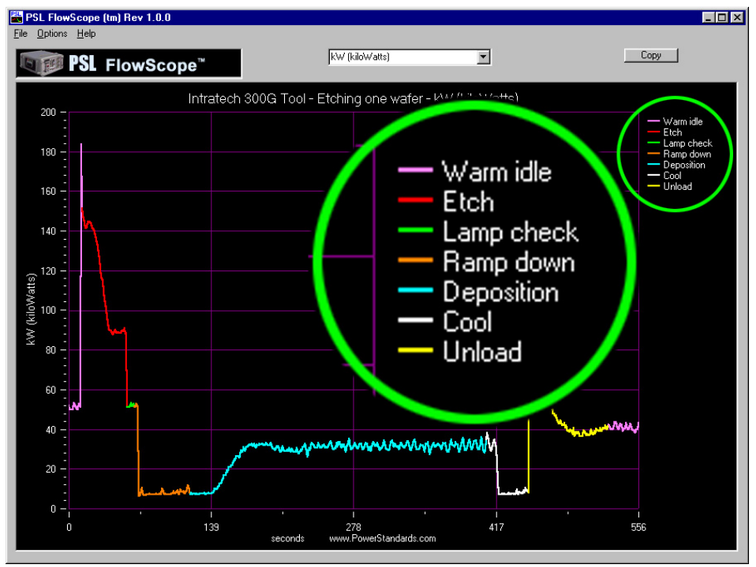
PSL's unique TestingPartner™ program lets you perform your own certification testing, with PSL's guidance and cooperation, and receive a universally-accepted PSL Certificate. The IPC software provides unique documentation and cross-checking that allows PSL to issue Certificates rapidly and accurately, even when you do the testing yourself.

PSL
Power Standards Lab









The Power Flow Analysis option turns the IPC into a powerful power flow recorder, meter, oscilloscope, spectrum analyzer, and vector scope. Record kW, kVA, kVAR, PF, THD, phase angles, and more, all optimized for analyzing power consumption in industrial equipment. Easily added to any IPC.

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