IPC34xx Series

Single Phase North American and International use
120 V, 240 V, 15amp, 20amp, 30amp Input
Individual outlet control via Computer, Modem, or LAN

IPC34xx Front Panel

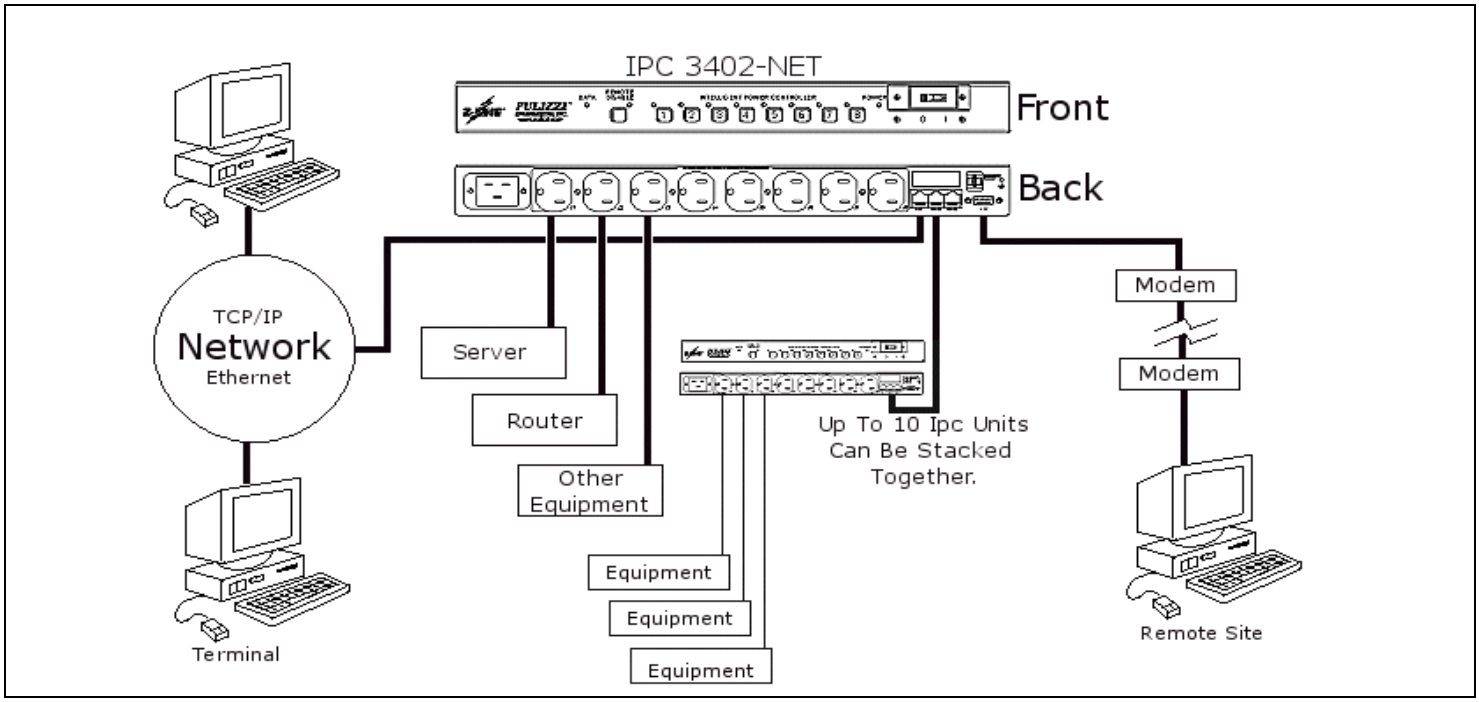
IPC3402-2756 Rear

IPC3401 Rear

IPC3402 Rear

CONTROL YOUR POWER
VIA INTERNET, INTRANET, DIAL-UP AND DIRECT (RS232) CONNECTIONS

FEATURES	BENEFITS
Local On/Off control of each outlet through Ethernet, Serial, Modem, or local buttons on the unit.	Individual control of outlets lets you operate your equipment with out affecting other equipment attached to the same PDU.
Connect up to 10 IPC units together for the ability to control up to 80 outlets with a single serial or Ethernet connection.	Save time, money and recourses by using only 1 line or IP address to manage up to 80 outlets. The RJ485 serial connection between units allows distances of up to 1000 feet!
Voltage range of 100-240VAC via a C20 inlet and C13 outlets. (IPC3401 and IPC3401-NET)	This will allow you to use simple universal designs for equipment that can be used in any country!
Connect via Telnet, Web browser interface, Serial, or Modem (with external modem connect to serial port.)	Many interfaces allow you to use this unit in many ways as well as providing back up methods incase of other equipment failure.
IPC units designed with EMI/RFI Filtering, TVSS (spike/ surge suppression), and UL listed circuit breakers	Units are designed with the latest safety requirements, provide clean power, and of the highest quality to make certain your equipment stays up and running saving you time and money.



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IPC34xx Specifications

CHASSIS
- 1.75" (1U) x Depth 9.5" x Width 19.0"
- Weighs approximately 19lbs
- 16 GA. Steel, Painted Black

RACK MOUNTED
- EIA standard for 19" racks
- Hole spacing to IEC 297
- Adjustable mounting to front or rear panel
- Optional vertical or under counter mounting brackets 001-1928-1 (2 required)

NEMA or IEC 320 OUTLETS
- IPC 3401 has 8 IEC60320 Type C13 (computer style) outlets
- IPC 3402 and IPC3402-2930 have 8 NEMA 5-15R outlets
- IPC 3402-A2 has 8 NEMA 5-20R outlets
- IPC3402-2756 has 4 NEMA 5-15R and 4 NEMA 5-20R

11 INDICATOR LIGHTS
- Power available to system-CB "on"
- Power "on" to outlets 1-8
- Data acquisition
- Remote Disable

REMOTE or LOCAL CONTROL
- Serial RS232 port (DB9 Male) for direct or modem connection
- RS485 input/output ports for strapping up to 10 systems together over a CAT.5 cable
- Local: one on/off switch for each outlet
- Ethernet connection to your local area network (-NET models only).

BAUD RATE
- Default: 9600 baud

AVS™ (AUTO-VOLTAGE SELECTABLE)
- The IPC3401-NET is auto-voltage sensing for operation 100-250VA input/output

EMI/RFI FILTERING
- Common Mode - Line to Ground
- Differential Mode - Line to Line
- Filtered inlet isolates noise before entering the system

SPIKE/SURGE SUPPRESSION
- Line to Neutral, Line to Ground, Neutral to Ground
- External Ground MOV removal switch for easy hi-pot testing

LISTED OVERLOAD CIRCUIT BREAKER PROTECTION
- Listed Main Disconnect Breaker, with a long time delay curve, which provides both manual on/off switching and open (trip) automatically with an overload condition
- Circuit Breaker (Kick) Guard's are provided

POWER INPUT
- IEC60320 Type C20 EMI/RFI Filtered Inlet with optional retaining clip or cable tray.
- Optional power cable assemblies are available – see below

OUTLET STATUS
- Query the IPC for Outlet and Watch Dog status, i.e. outlets are "on" or "off"

STRAPPING
- Strapping allows up to 10 IPC's (80 outlets) to be controlled at one address.
- Units are connected together via the RS485 serial buss for distances up to 1000'.

REMOTE DISABLE
- With the push of a button, disable remote access to the IPC when needed

PATENTED MULTIPLE TIME DELAY™ (MTD™)
- Sequence power up and power down to outlets with a four second time delay (factory set)
- User Programmable:
  - Set power "on" sequence to any combination of outlets
  - Set the MTD™ timing from 1 second to 999 seconds, i.e. 009 = 9 seconds

ADDRESSING
- The IPC comes with a default address but you can also create your own with any four alphanumeric characters
- Strapping allows for connection of up to 10 units at one address

AUTO-EVENT COMMAND RESPONSE
- The IPC will automatically update the status of it's outlets ("on" or "off")

SOFTWARE CONTROL
- Multi-platform support
- Control via Terminal Emulation Software such as PCAnywhere, Hyper Terminal, VT100, and many others.
- Simple command structures allows for easy programming of scripts or batch programs.
- Easy to use Web Browser interface.

OUTLET NAMING
- Give each outlet its own individual 8 character name. ******

****** (Only available in units built after 10/1/03).

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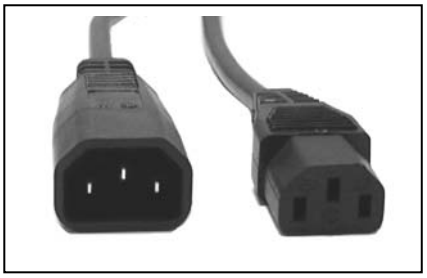
IPC34xx Specifications

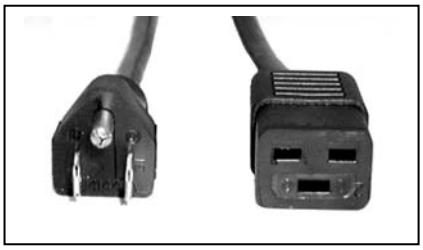
SPECIFICATIONS:	IPC3401	IPC3401-NET	IPC3402	IPC3402-NET	IPC3402-A2	IPC3402-A2-NET	IPC3402-2756	IPC3402-2930
Voltage 50/60Hz:	120V~ or 240V~	120V~ or 240V~	120V~	120V~	120V~	120V~	120V~	120V~
Current Input:	20A @ 120V~ 16A @ 240V~	20A @ 120V~ 16A @ 240V~	20A	20A	20A	20A	30A	30A
Current Output:	16A	16A	16A	16A	16A	16A	24A	24A
Full Load V/A:	1920VA @ 120V 3840VA @ 240V	1920VA @ 120V 3840VA @ 240V	1920VA	1920VA	1920VA	1920VA	2880VA	2880VA
Ethernet Card:	NO	YES	NO	YES	NO	YES	YES	YES
Outlets:	IEC C13	IEC C13	NEMA 5-15R	NEMA 5-15R	NEMA 5-20R	NEMA 5-20R	(4) 5-20R & (4) 5-15R	NEMA 5-15R
Circuit Breaker:	20/20A	20/20A	20A	20A	20A	20A	20A/10A	15A/15A
EMI/RFI Filter:	20A	20A	20A	20A	20A	20A	NO	NO
TVSS	YES	YES	YES	YES	YES	YES	YES	YES
Power cable / Inlet:	C20 Inlet	C20 Inlet	C20 Inlet	C20 Inlet	C20 Inlet	C20 Inlet	15' Cable	15' Cable
Cable/plug:	Not Included	Not Included	Not Included	Not Included	Not Included	Not Included	L5-30P	L5-30P

Part Number	IEC Jumper Cable (from IPC3401 to "computer" style inlet)
010-0025	C13 to C14: 8' LENGTH JUMPER CABLE
010-0027	C13 to C14: 6' LENGTH JUMPER CABLE
010-0028	C13 to C14: 4' LENGTH JUMPER CABLE
010-0029	C13 to C14: 2' LENGTH JUMPER CABLE

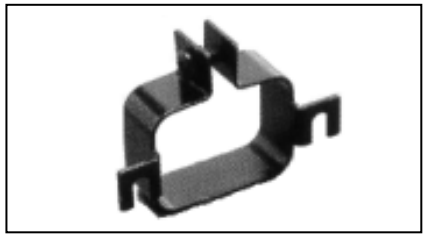


C13 to C14 cable assembly

Part Number	Power Cable Description (C19 end connects to IPC34xx)
010-9334	C19, 8', 14/3 SJT, NEMA 5-15P (125V, 15A) STRAIGHT
010-9335	C19, 8', 12/3 SJT, NEMA 5-20P (125V, 20A) STRAIGHT
010-9336	C19, 8', 14/3 SJT, NEMA 6-15P (250V, 15A) STRAIGHT
010-9337	C19, 8', 12/3 SJT, NEMA 6-20P (250V, 20A) STRAIGHT
010-9338	C19, 8', 14/3 SJT, NEMA L5-15P (125V, 15A) TWISTLOCK
010-9339	C19, 8', 12/3 SJT, NEMA L5-20P (125V, 20A) TWISTLOCK
010-9340	C19, 8', 14/3 SJT, NEMA L6-15P (250V, 15A) TWISTLOCK
010-9341	C19, 8', 12/3 SJT, NEMA L6-20P (250V, 20A) TWISTLOCK
010-9342	C19, 8', 12/3 SJT, C20 MALE (20 AMP)
010-9343	C19, 2.5m, 1.5mm/3 HAR, CEE7-7 (250V, 16A) EUROPEAN
010-9344	C19, 2.5m, 1.5mm/3 HAR, BS546A (250V, 15A) BRITISH
010-9345	C19, 2.5m, 1.5mm/3 HAR, AS/NZS 3112 (250V, 15A) AUSTRALIAN
010-9346	C19, 2.5m, 1.5mm/3 HAR, SI32 (250V, 16A) ISRAELI
010-9347	C19, 2.5m, 1.5mm/3 HAR, CEI23-16 (250V, 16A) ITALIAN



C19 To plug required



C19 Retaining clip

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IPC34xx Specifications

COMMAND STRUCTURE: UPPER CASE ONLY, FOLLOWED BY “Enter”, “Carriage Return” or “Line Feed”.
NOTE: The lower case “xx” or “n” in command code represents: xx=outlet number 01-80 and n= the unit number 0-9.

8 BIT ASCII	DESCRIPTION	8 BIT ASCII	DESCRIPTION
@@@@	Initialize IPC. If you have assigned an address, then enter the address instead of the factory default @@@@	AEn	Auto status update enabled YES / NO
A1n	Turn all outlets ON	WE0	Watchdog enabled for unit “0” only
A0n	Turn all outlets OFF	WT0	Watchdog timeout set for unit “0” only
Nxx	Turn ON any outlet	WD0	Watchdog disabled for unit “0” only
Fxx	Turn OFF any outlet	PWn	Enter user password (3 characters)
S1n	Sequence all outlets in unit “n” ON with preset delays (factory set at 4s)	PDn	Password disabled
S0n	Sequence all outlets in unit “n” OFF with preset delays (factory set at 4s)	SR0	Outlet 1 in unit 0 will automatically reboot in 5s
ADn	Enter new IPC user name (4 characters)	LO	Logout
ISn	Set Power up/down sequence. IPC will ask for (P) Preset or (D) Default? (D) = Previous setting and (P) = Enter new	CNnx	Set outlet x name on unit n up to eight charters.
DXn	Display outlet status ON or OFF, Watchdog and Remote Status	DNn	Display outlet status with names, Watchdog and Remote Status
		?	Display Command menu

TVSS (Transient Voltage Surge Suppression)

MOV SPECIFICATIONS	
Continuous AC Voltage	270VAC
Continuous DC Voltage	360VDC
Maximum DC Leakage	200μA
Low Varistor Voltage Limit	389VDC
High Varistor Voltage Limit	453VDC
Nominal Varistor Voltage	424VDC
Current For Varistor Voltage	1mA
Maximum Clamp Voltage 8x20μs	680V
Maximum Clamp Voltage Test Current	100A
Peak Current Rating (1 Pulse) 8x20μs	10000A
Peak Current Rating (2 Pulse) 8x20μs	6500A
Energy Rating (10x100μs)	325J
Energy Rating (8x20μs)	325.00J
Capacitance	970 pF
Impulse Response Time	50ns

EMI/RFI FILTERING

Rated Voltage/Current:
- 125V/20A UL and CSA
- 250V/16A UL, CSA and VDE

Operating Frequency:
- 50/60 Hz.

Hi-pot rating 1 minute:
- 2250 VDC Line-Ground
- 1450 VDC Line-Line

Maximum Leakage Current (each line-ground):
- .5 mA @ 250V~ 50Hz

UL #E72928, CSA #LR97784, VDE #1104884

COMMON MODE INSERTION LOSS
(Line to Ground in 50ohm circuit)

Mhz.	.01	1	10	20	50	100
dB.	8	29	40	50	68	40

DIFFERENTIAL MODE INSERTION LOSS
(Line to Line in 50ohm circuit)

Mhz.	.01	1	10	20	50	100
dB.	8	23	45	58	32	28

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