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IPC 3100F, IPC 3101F and IPC 3102F

Intelligent Power Control From a Local Terminal, Modem or Ethernet LAN

IPC 3100F
Front Panel



Rear Panel

IPC 3101F Front Panel



Rear Panel

IPC 3102F Front Panel



Rear Panel

UL/cUL Recognized to UL
1950/CSA 950

FILE NUMBER E 94081

ALL UNITS ARE FCC CERTIFIED
TO ARTICLE 15, CLASS A

TABLE TOP or RACK MOUNTED

- IPC 3100F Height 2.5" x Depth 9.0" x Width 5.75". Approximate shipping weight 6 lbs.
- IPC 3101F and IPC 3102F Height 1.75" (1U) x Depth 9.5" x Width 19.0". Approximate shipping weight 15 lbs.
 - EIA standard for 19" racks
 - Hole spacing to IEC 297
 - 16 GA. Steel, Zinc Plated

NEMA or IEC 320 OUTLETS

- IPC 3100F has 4 NEMA outlets
- IPC 3101F has 8 IEC 320 (C13 type) outlets
 - Rated by UL/CSA 125V~/15A or 250V~/15A
 - Rated by VDE 250V~/10A each
 - Mating connector is C14 type
- IPC 3102F has 8 NEMA outlets
- Other NEMA outlets are optional.

4 -8 INDICATOR LIGHTS

- Power "on" to outlets 4-8

VOLTAGE SELECTABLE

- The IPC 3101F is voltage selectable for 120V~ or 240V~.

BUAD RATE

- Communications must be at 2400 baud only.
- Data terminal emulation software required to communicate with the IPC internal command codes such as Telex, ProComm and many others.

MODEM ACCESS

- Modem must be put in auto-answer mode prior to making contact with the IPC.

EMI/RFI FILTERING

- Common Mode - Line to Ground
- Differential Mode - Line to Line

SPIKE/SURGE SUPPRESSION

- IPC 3100F and IPC 3102F Line to Neutral, Line to Ground, Neutral to Ground
- IPC3101F is Line to Line

OVERLOAD CIRCUIT PROTECTION

- IPC 3100F utilizes a thermal reset breaker
- IPC 3101F and IPC 3102F utilize a precision electromagnetic breaker, with a long time delay curve, which provides both manual on/off switching and open (trip) automatically with an overload condition.
- Kick Guard's are provided.

POWER INPUT

- IPC 3100F and IPC 3102F: Power cable with plug is attached to unit through the rear panel cable grip.
- IPC 3101F: IEC 320 (C20 type) power inlet, cable not provided.
 - Rated by UL/CSA 125V~/20A or 250V~/16A
 - Rated by VDE 250V~/16A
 - Mating power connector PEI part number 010-0321 (C19 type).

OUTLET STATUS

- Query the IPC for Outlet and WatchDog status, i.e. outlets are "on" or "off".

DAISY CHAIN

- Connect up to 6 units over a total of 50 feet for a maximum total of 48 outlets.
- The "Y" adapter cable for the DB-25 pin RS-232 port is PEI p/n: sub-pwrcord-281.

MULTIPLE TIME DELAY™ (MTD™)

- Turn outlets "on" or "off" at one time.
- Sequence power up and power down to outlets 1 - 4 or 1 - 8 with a four second time delay (factory set).
- 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 three alphanumeric characters.
- When connecting more than one unit together, each must have it's own address.

PASSWORD PROTECTION

- For added security, a password feature is included which allows the user to assign a three alphanumeric character password.
- When connecting more than one unit together, each must have it's own password.

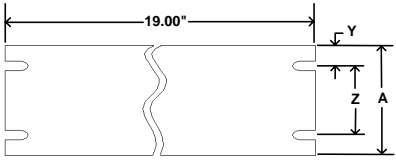
WATCH-DOG/AUTO-REBOOT

- The IPC will monitor the control connection and automatically reboot itself if the connection locks up. The auto-reboot is activated by the Time Out Period running down to zero. When this occurs the IPC will shut down all outlets for four seconds and restart in the default or user defined sequence.
- Set the Time Out Period to any number 0-9 where each digit represents 30 seconds, i.e. 3 = 120 seconds (user defined).

FOR USING THE IPC ON YOUR ETHNET LAN, PLEASE REFERENCE THE RS-232 TO ETHNET CONVERTER PART NUMBER MSS1 PRODUCT SPECIFICATIONS.

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Federal ID: 95-3411351, Dun & Bradstreet: 09-273-5521, Cage/Supply Code & FSCM:70513, SIC: 3612,
ANSI/ISO/ASQC Q9004-1-1994 and ANSI/NC SL 2540-1 (Calibration)

SPECIFICATIONS FOR IPC:	3100F	3101F	3102F-A	3102F
Agency Approval:	UL/cUL	UL/cUL, TUV, CE	UL/cUL	UL/cUL
Voltage Input/Output (50/60Hz):	120V~	120V~ or 240V~	120V~	120V~
Current Input:	15A	20A @ 120V~ 16A @ 240V~	15A	20A
Current Output De-rated:	12A	16A	12A	16A
Full Load Volt/AMP De-rated:	1440VA	1920VA @ 120V~ 3840VA @ 240V~	1440VA	1920VA
Outlets (rear panel):	5-15R	IEC 320 type C13	5-15R	5-15R
Circuit Breaker:	15A reset	20/20A	15A	20A
EMI/RFI Filter:	20A	20A	20A	20A
Power Cord/Length (rear panel):	14/3, 9'	N/A	14/3, 9'	12/3, 15'
Power Input Plug:	5-15P	N/A	5-15P	5-20P

		
HOLE SPECIFICATION TABLES		
A	Y	Z
1.750	.250	1.250
<ul style="list-style-type: none"> Federal ID #:95-3411351 Dun & Bradstreet #:09-273-5521 Cage Code, also known as Supply Code for Manufacturers or Government FSCM is #:70513 MIL-I-45208A. MIL-STD-45662 Quality Stds. 		

MULTI-STAGE SPIKE AND SURGE SUPPRESSION

Response time is approximately 50 nanoseconds. Exceeds recommended specifications for High Exposure Areas per ANSI/IEEE C62.41-1980, Class B. **CAUTION:** If the ground MOV's are exposed to an improper voltage level, they will fail. Please check your power source for proper wiring prior to plugging in the PEI system.

MAXIMUM RATINGS (85°C)				CHARACTERISTICS (25°C)					
CONTINUOUS		TRANSIENT		VARISTOR			MAXIMUM		
V- RMS	V - DC	Energy (10/100µs)	Peak Current (8/20µs)	VOLTAGE @1 mA DC Test Current			Clamping Voltage V _C @ Test Current (8/20µs)		
V _{m(ac)}	V _{M(dc)}	W _{tm}	I _{tm}	MIN.	V _{N(de)}	MAX.	V _C	I _p	f=0.1 - 1MHz
VOLT	VOLT	JOULE	AMP	VOLT	VOLT	VOLT	VOLT	AMP	PICOFARAD
IPC 3100F and IPC 3102F: (1) 275V L - N and (3) 150V L - N, L - G, N - G									
IPC 3101F: (1) 320V and (1) 275V L - L only									
320	420	160	6500	462	510	540	810	100	750
275	369	140	6500	389	430	453	680	100	900
150	200	80	6500	212	240	243	360	100	1600

EMI/RFI FILTERING FOR IPC 3101F and IPC 3102F:

Rated Voltage/Current: 120V~/20A or 250V~/16A
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 @ 120V~ 60 Hz,
1.0mA @ 250V~ 50Hz
UL #E48570, CSA Class 2221 #LR46870, VDE #7064-4730, SEV
#J1.21/257.

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

Mhz.	.15	.50	1.0	5.0	10.0	30.0
dB.	6	19	28	42	45	50

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

Mhz.	.15	.50	1.0	5.0	10.0	30.0
dB.			30	50	30	30

EMI/RFI FILTERING FOR IPC 3100F:

COMMON MODE INSERTION LOSS

Mhz.	.2	1.0	2.0	10.0
dB.	15	25	45	50

DIFFERENTIAL INSERTION LOSS

Mhz.	.2	1.0	2.0	10.0
dB.	10	22	32	50

8 BIT ASCII	RESPONSE	DESCRIPTION	8 BIT ASCII	RESPONSE	DESCRIPTION
@@@	IPC @@@ or IPC XXX	Initialize IPC (sets up bi-directional communications).	A1	DONE	Turn all outlets "on"
XXX	password	If you have assigned an address, then enter the address instead of the factory default @@@, i.e. 123.	PD	DONE	Disable the password
A0	DONE	Turn all outlets "off"	Nx	DONE	Turn "on" a specific outlet (X = 1-4 or 1-8)
Fx	DONE	Turn "off" a specific outlet (X = 1-4 or 1-8)	S1	DONE	Turn all outlets "on" in sequence (factory set at 4 seconds)
S0	DONE	Turn all outlets "off" in reverse sequence (factory set at 4 seconds).	AD	ENTER NEW ADDRESS	Change IPC address (XXX is the alphanumeric address)
PW	ENTER NEW ADDRESS	Create a password (any three alphanumeric characters)	XXX	IPC XXX	This is response to address change
XXX	RE-ENTER NEW PASSWORD	The IPC responds to your new password with this prompt to re-enter for verification. After the password is set, the IPC will ask for the password each time it is initialized.	IS	PRESET OR DEFAULT POWER "ON" SEQUENCE? (PD)	Set-up power-on sequence. If your response is P, the IPC will respond with each port starting with outlet 1-4 or 1-8.
D	DONE	Default is always the previous setting. This setting is stored in the EPROM.	P	OUTLET 1-4 or 1-8	Enter the duration for each outlet, i.e. 003 = 3 seconds up to 999. 000 will disable outlet.
WE	DONE	Enable Watch Dog Timer. Setting the Watch Dog Timer "WT" does not enable the Watch Dog Feature.	WT	WD TIME PERIOD?	Set the Watch Dog time out period from 0-9 with each increment approximately 30 seconds
DX	1-4 or 1-8 WATCH DOG ENABLED	Display outlet and Watch Dog Timer status. Note that if "WT" is not set, only outlet status will display.	WD	DONE	Disable Watch Dog Timer