



## INSTALLATION AND OPERATING INSTRUCTIONS FOR iMP1-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XX

### BEDIENUNGSANLEITUNG

To comply with the published safety standards, the following must be observed when using this power supply.

Um den zur Zeit gültigen Sicherheitsbestimmungen zu genügen, müssen die nachstehenden Maßnahmen beim Einsatz dieser Netzgeräte berücksichtigt werden.

- Maximum ambient temperature around the power supply must not exceed 50 deg C at full load. Output is reduced by 2.5% per °C from 50°C to 70°C ambient temperatures except on +5VSB output.

Die maximale Umgebungstemperatur beträgt 50°C bei voller Last. Die Ausgangslast reduziert sich um 2,5% je 1°C. 50% Last bei 70°C.
- The power supply is intended for use as a component part of other equipment. When installing the power supply and making input and output connections, the relevant safety standards e.g. UL 60950-1; IEC60950-1; EN 60950-1; VDE 0805; CSA C22.2 No. 60950-1-03 must be complied with, especially the requirements for creepage distances, clearances and distance through insulation between primary wiring and earth or secondary (SELV) wiring.

Ein Netzgerät ist ein Einbauteil in einem entsprechenden Gerät und bei Herstellung der elektrischen Verbindungen im und am Gerät sind die einschlägigen Bestimmungen wie z.B. UL 60950-1; IEC60950-1; EN60950-1; VDE 0805; CSA C22.2 No. 60950-1-03 zu beachten und einzuhalten, insbesondere die Anforderungen für Kriech und Luftstrecken und Dicke der Isolation zwischen Primär- und Schutzleiter- Kreis und Primär-zum Sekundärstromkreis (SELV-Kreis).
- The power supply is approved and certified for the rated voltage range AC 100V-240V/200-240V or DC 120Vmin-350Vmax/254Vmin-350Vmax.

Dieses Netzgerät ist für den Spannungsbereich range AC 100V-240V/200-240V oder DC 120Vmin-350Vmax/254Vmin-350Vmax geprüft und genehmigt.
- The fuses (F201 & F202) should only be replaced by 20A, 250V, Type ABC manufactured by Bussmann, or Type 324020 by Littelfuse.

Die Sicherung (F201 & F202) darf nur durch Sicherungen 20A, 250V, Hersteller Bussmann Typ ABC, oder Hersteller Littelfuse Typ 324020 ersetzt werden.
- The disconnection from the line must be in the end system.

Die Trennung vom Netz muß im Endgerät durchgeführt werden.
- The AC/DC input connector has not been evaluated at component level. Evaluation shall be made when it is connected to the end system.

Der Gerätestecker des AC/DC Einganges ist nicht aus der Ebene der Komponente bewertet. Die Beurteilung kann gemacht werden nur nachdem es mit dem Endsystem verbunden ist.
- Hazardous voltage exists in the primary circuits. Disconnect power supply before servicing.

Gefährliche Spannung im Primärkreis. Vor der Reparatur die Verbindung zum Netz entfernen.
- In case of failure, this power supply must be returned to Astec Authorized Service Station for Servicing to ensure compliance with safety requirements.

Im Fehlerfall muß dieses Gerät an eine von Astec autorisierte Servicestation zurückgesendet werden, um sicher zu gehen das alle Sicherheitsbestimmungen eingehalten sind.
- The power supply has a double pole input connector and equipped with a fuse on the neutral line.

Caution: Double pole/neutral fusing power supply

Das Schaltteil hat eine Sicherung in der Phase und in dem Neutralleiter.

Achtung: Doppelpolsicherung!



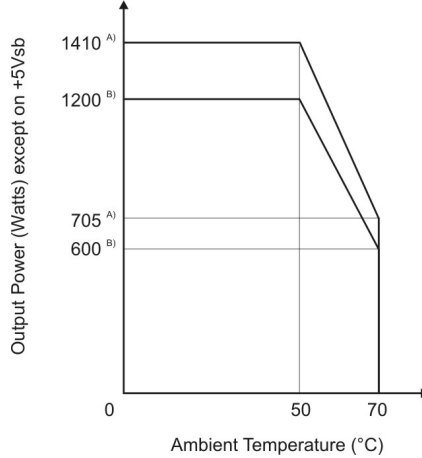
## INSTALLATION AND OPERATING INSTRUCTIONS FOR iMP1-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XX

10. The earth wire must be connected only to the earthing point, which is marked with the earth symbol. If the earth wire is connected by a screw, the wire must have an annular eyelet and has to be adequately locked against accidental loosening.  
  
Der Schutzleiter muß an der mit dem Schutzleitersymbol bezeichneten Stelle angeschlossen werden. Bei Schraubanschluß ist der Schutzleiter mit einer Ringöse zu versehen und muß gegen Lockern gesichert sein.
11. This Power Supply is designed for TN-S-power system.  
  
Dieses Gerät ist geeignet für TN-S-Netzwerke.
12. This power supply is part of an EDP-System. It is not equipped with a power cord. A safety agency (e.g. UL, CSA, VDE) approved power cord and plug, with appropriate wire gauge for the rated input current, must be provided together with EDP-System by the End System Manufacturer.  
  
Dieses Netzteil ist Teil eines EDP-Systems. Es ist nicht mit einer Netzanschlußleitung ausgestattet. Eine für den Eingangsstrom entsprechend zugelassene (UL, CSA, VDE) Netzanschlußleitung mit Netzstecker muß vom End System Hersteller bereitgestellt werden.
13. This power supply is CE marked following the provisions of the Low Voltage Directive, 73/23/EEC  
  
CE  
  
Das Netzgerät ist nach der Bestimmungen von Niederspannungsrichtlinie, 73/23/EEC, CE markiert.  
  
CE
14. WARNING: HIGH TOUCH CURRENT AT 440HZ, EARTH CONNECTION ESSENTIAL BEFORE CONNECTING SUPPLY.  
  
Achtung. Hoher Ableitstrom. For Anschluss des Netzteiltes die Erdverbindung herstellen.
15. This equipment is considered Class I according to protection against electric shock.  
  
Dieses Netzteil ist ein Isolationsklasse I Geraet.



# INSTALLATION AND OPERATING INSTRUCTIONS FOR iMP1-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XX

## POWER DERATING CURVE VS. TEMPERATURE



Notes:

- <sup>A)</sup> -200-240 Vac / 254Vmin - 350Vmax dc input voltage (High Range)
- <sup>B)</sup> -100-240 Vac / 120Vmin - 350Vmax dc input voltage (Wide Range)

### Output Rating Configuration

i	M	P		-		Slot #1		Slot #2		Slot #3		Slot #4		Slot #5 (6 & 7)		-	A	-	X	X	X						
<b>Intelligent</b>	<b>Medium</b>	<b>Power</b>	Case Power		O/P Module Code	O/P Voltage Code	O/P Voltage Code	I Module Option	O/P Module Code	O/P Voltage Code	O/P Voltage Code	O/P Voltage Code	I Module Option	O/P Module Code	O/P Voltage Code	O/P Voltage Code	I Module Option	O/P Module Code	O/P Voltage Code	O/P Voltage Code	I Module Option	Parallel Code	Option Code	Software Code	Modify Code	Modify Code	Modify Code
<b>Case Code Standard</b> 4 = 5"x10", 5 slot, 400-600W 6 = 5"x11", 5 slot, 600-800W 8 = 7"x10", 6 slot, 800-1000W 1 = 8"x11", 7 slot, 1000-1200W				<b>O/P Module Code</b> 1 = 210 W Single 1 Slot 2 = 360 W Single 2 Slot 3 = 600 W 750W Single 3 Slot 4 = 144 W Dual 1 Slot 5 = 1500W Single 4 Slot _ = 36 W Triple 1 Slot				<b>O/P Voltage Code</b> A=2V    N=15V B=2.2V   O=18V C=3V    P=20V D=3.3V   Q=24V E=5V    R=28V F=5.2V   S=30V G=5.5V   T=33V H=6V    U=36V I=8V    V=42V J=10V   W=48V K=11V   X=54V L=12V   Y=60V M=14V   Z=Special				<b>Parallel Code</b> 0 = no paralle 1 = slots 1 & 2 2 = slots 2 & 3 3 = slots 3 & 4 4 = slots 4 & 5 5 = slots 3 & 4 & 5 6 = slots 5 & 6 7 = slots 4, 5 & 6				<b>Option Code</b> 0 = no options 1 = Reverse Air 3 = Global Enable 4 = Fan off with Inhibit 5 = opt 1 & 3 6 = opt 1 & 4 7 = opt 3 & 4 8 = opt 1, 3 & 4 9 = Future M = Low Leakage N = Low Leakage + opt P = Low Leakage + opt R = Low Leakage + opt											
<p>Note: A "*" after the Module/Voltage code in place of the "-" indicates that this module has been modified for use with remote sensing after redundant (Or-ing) diodes.</p>																											



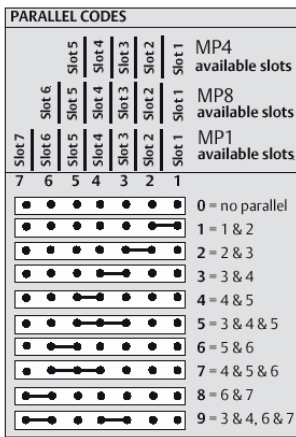
# INSTALLATION AND OPERATING INSTRUCTIONS FOR iMP1-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XX

Rev. 11.21.05  
iMP Series  
3 of 4

## Output Module Voltage/Current

Voltage	Voltage Code	Single Output Module Code			Dual Output		Triple Output		
		1	2	3	V1	V2	V1	V2	V3
2V	A	35A	60A	150A	—	10A	—	—	2A
2.2V	B	35A	60A	150A	—	10A	—	—	2A
3V	C	35A	60A	150A	—	10A	—	—	2A
3.3V	D	35A	60A	150A	—	10A	—	—	2A
5V	E	35A	60A	150A	10A	10A	—	—	2A
5.2V	F	35A	60A	150A	—	10A	—	—	2A
5.5V	G	34A	58A	137A	—	10A	—	—	2A
6.0V	H	23A	42A	80A	—	10A	—	—	2A
8.0V	I	20A	36A	80A	—	—	1A	1A	1A
10V	J	18A	32A	75A	—	—	1A	1A	1A
11V	K	17A	31A	68A	—	—	1A	1A	1A
12V	L	17A	30A	62.5A	10A	4A	1A	1A	1A
14V	M	14A	21A	53.5A	9A	4A	1A	1A	1A
15V	N	14A	20A	50A	8A	4A	1A	1A	1A
18V	O	11A	19A	41.6A	—	—	—	0.5A	0.5A
20V	P	10.5A	18A	37.5A	—	—	—	0.5A	0.5A
24V	Q	8.5A	15A	31.3A	4A	2A	—	0.5A	0.5A
28V	R	6.7A	12.8A	26.8A	3A	2A	—	0.5A	0.5A
30V	S	6.5A	12A	25A	—	—	—	—	—
33V	T	6.2A	11A	22.7A	—	—	—	—	—
36V	U	5.8A	10A	20.8A	—	—	—	—	—
42V	V	4.2A	7.5A	17.9A	—	—	—	—	—
48V	W	4.0A	7.5A	15.6A	—	—	—	—	—
54V	X	3.7A	6.0A	13.9A	—	—	—	—	—
60V	Y	3.5A	6.0A	12.5A	—	—	—	—	—

### Ordering Information



Non-std\* Z *Special Voltage - Consult Factory for specifications*

\* Note: Increments of current not shown can be achieved by paralleling modules (add currents of each module selected).

Case Size	Module/Voltage/Option Codes First - Module Code Second - Voltage Code Third - Option Code	Case Option Codes	Software Code	Hardware Code
<b>iMP1</b>	<b>- 3L1 - 2E2 - 1Q1 - 4LL1 -</b>	<b>00</b>	<b>AAA</b>	<b>###</b>
<b>Case Size</b> 4 = 2.5" x 5" x 10"; 700W - 900W, 5 Slots 8 = 2.5" x 7" x 10"; 1000W - 1200W, 6 Slots 1 = 2.5" x 8" x 11"; 1200W - 1500W, 7 Slots	<b>Module Codes</b> Module/Voltage/Option Codes Module Codes: (None) = 36W Triple O/P (1 slot) 1 = 210W Single O/P (1 slot) 2 = 360W Single O/P (2 slot) 3 = 750W Single O/P (3 slot) 4 = 144W Dual O/P (1 slot) 5 - 9 = Future  <b>Voltage Codes:</b> See <i>Output Module Voltage/Current</i> table above  <b>Option Codes:</b> 0 = Standard 1 = Module Enable 2 = Constant Current 3 - 9 = Future	<b>Case Option Codes</b>  First Digit 0 - 9 = Parallel Code  Second Digit 0 = No Options 1 = Reverse Air 2 = Extended Hold Up (1 slot)* 3 = Global Enable 4 = Fan Off w/Inhibit 5 = Opt 1 + Opt 3 6 = Opt 1 + Opt 4 7 = Opt 3 + Opt 4 8 = Opt 1 +3 +4 9 = Future  *Meets Semi F47	Factory Assigned for Modified Standards	

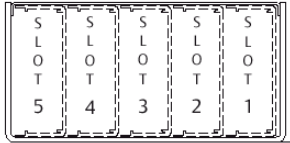


# INSTALLATION AND OPERATING INSTRUCTIONS FOR iMP1-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XX

Rev. 11.21.05  
iMP Series  
4 of 4

## iMP Module Specifications

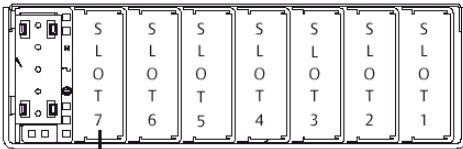
### iMP4



iMP4 = 2.5" x 5" x 10" 5 available slots

<b>90-264VAC</b>	<b>180-264VAC</b>
700W max.	1100W max.

### iMP8 and iMP1



<p>iMP8 = 2.5" x 7" x 10" 6 available slots</p> <p>iMP1 = 2.5" x 8" x 11" 7 available slots</p>	<table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;"><b>85-264 VAC</b></td> <td style="text-align: center;"><b>180-264VAC</b></td> </tr> <tr> <td style="text-align: center;">1000W max.</td> <td style="text-align: center;">1200W max.</td> </tr> <tr> <td style="text-align: center;">1200W max.</td> <td style="text-align: center;">1500W max.</td> </tr> </table>	<b>85-264 VAC</b>	<b>180-264VAC</b>	1000W max.	1200W max.	1200W max.	1500W max.
<b>85-264 VAC</b>	<b>180-264VAC</b>						
1000W max.	1200W max.						
1200W max.	1500W max.						

## Astec Power

5810 Van Allen Way  
Carlsbad, CA 92008  
USA  
Telephone: +1 760 930 4600  
Facsimile: +1 760 930 0698  
Technical Support: +1 888 41 ASTEC  
or +1 407 241 2752

Waterfront Business Park  
Merry Hill, Dudley  
West Midlands, DY5 1LX  
United Kingdom  
Telephone: +44 (0) 1384 842 211  
Facsimile: +44 (0) 1384 843 355

Units 2111-2116, Level 21

Tower 1, Metroplaza  
223, Hing Fong Road  
Kwai Fong, New Territories  
Hong Kong  
Telephone: +852 2437 9662  
Facsimile: +852 2402 4426

For global contact, visit:

[www.astecpower.com](http://www.astecpower.com)  
[technicalsupport@astec.com](mailto:technicalsupport@astec.com)

While every precaution has been taken to ensure accuracy and completeness in this literature, Astec Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Printed in USA

## Emerson Network Power.

The global leader in enabling business-critical continuity.

- AC Power
- Connectivity
- DC Power
- **Embedded Power**
- Inbound Power
- Integrated Cabinet Solutions
- Outside Plant
- Precision Cooling
- Site Monitoring and Services

**EmersonNetworkPower.com**

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2005 Emerson Electric Co.

## Pin Connectors

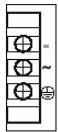


Figure 1. AC Input

### AC Input

Pin No.	Function
1	AC Neutral
2	AC Line (Hot)
3	Chassis (Earth) Ground

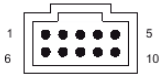


Figure 2. Connector J1

### PFC Input Connector (control and signals)

Pin No.	Function
1	Input ACOK - "Emitter"
2	Input ACOK - "Collector"
3	Global DCOK - "Emitter"
4	Global DCOK - "Collector"
5	External Sync
6	Global Inhibit / Optional Enable Logic "0"
7	Global Inhibit / Optional Enable Logic "1"
8	Global Inhibit / Optional Enable Return
9	+5VSB Housekeeping
10	+5VSB Housekeeping Return

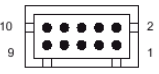


Figure 3. Connector J2

### 1°C Bus Output Connector

Pin No.	Function
1	5VCC External Bus
2	Serial Data Signal
3	Secondary Return
4	Serial Clock Signal
5	Address Bit 2
6	Address Bit 1
7	Address Bit 0
8	No connection