

# AC/DC und DC/DC - Wandler für den freien Aufbau

## Series PCHS/TPCHS

**AC/DC or DC/DC Power Supply  
up to 6 outputs at 600 Watt  
with PFC**

- Outputs Set by DIP Switches
- Advanced "CellularPower"™ Architecture
- Up to 5 Outputs Plus 5V, ¼ A Standby
- 508 Different Models
- Hot-Swap or Chassis Mount Versions
- 1.8 to 12VDC Outputs
- AC or DC Input
- I2C Serial Data Bus Option
- Integral LED Status Indicators
- 6.8 Watts/Cubic Inch Power Density
- Power Factor Corrected (AC Input)
- Low Profile: 1.6 Inches High (1U)
- Hot-Swappable Connector
- Staged Pin Lengths
- ORing Diodes on All Outputs
- Two- or Three-Unit 19" Racks\*
- Active Current Sharing on V1, V2 & V3
- Universal 85 to 264VAC Input
- Class B EMI Input Filter
- Wide Range 36 to 72 VDC Input
- DC Input Reverse Polarity Protected
- Optimized Thermal Management
- No Minimum Load, Any Output
- Control & Monitoring Features
- UL, CSA, EN
- \*For TPCHS Models



## ORDERING GUIDE

SERIES	AC or DC INPUT	V1 OUTPUT	I2C OUTPUT	V1 to V5 OUTPUTS
PCH = Chassis Mount TPCH = Hot Swap	Q = DC B* = AC	29332-S = 1.8-5V Out 32332-S = 12V Out	Z = I2C B* = No I2C	Use 5 Letters From Tables: (Pages 2/44 + 2/45)

NOTE: B\* means "leave blank" (no letter)

For model Series PCL/TPCL 1 1/2 U high, up to 6 outputs at 800 Watt please contact factory

### Examples:

**Model TPCH29332-S-DBFGE** is a Hot-Swap version with AC input, no I2C,  
V1 = 5V/70A, V2 = 2.5V/50A, V3 = 12V/10A, V4 = -12V/3A and V5 = -5V/3A

**Model PCHQ32332-SZ-FCOGE** is a Chassis Mount version with DC input, I2C output,  
V1 = 12V/35A, V2 = 3.3V/50A, V3 = No Output, V4 = -12V/3A and V5 = -5V/3A

### Two-and Three-Unit Racks:

For ordering information on these racks, see data sheet on  
"Multi-Output PowerCassette® 19-Inch Racks".

Typical at Nominal 115/230VAC Line or 48VDC, Full Load and 25° C Unless Otherwise Noted.

**OUTPUT SPECIFICATIONS**

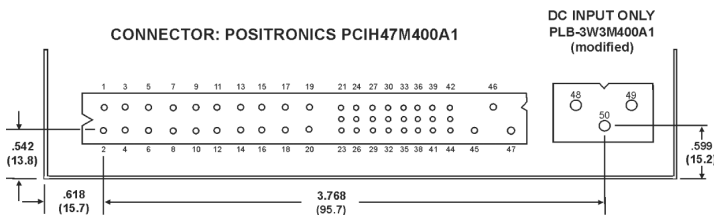
Total Output Power, Continuous, Max	600 Watts
Voltage Adjustment Range, Min.	±5%
Total Regulation <sup>1</sup> , V1, V2, V3	2.0%
Total Regulation <sup>1</sup> , V4, V5,	3.0%
Ripple & Noise, Pk-Pk <sup>2</sup>	1% or 50mV
Holdup Time	20mS
Dynamic Response <sup>3</sup>	300µS
Temperature Coefficient	±0.02%/°C
Minimum Load, Any Output	0A
Overload Protection	Auto Recovery
Overvoltage Protection, V1, V2, V3	Latched Shutdown
Remote Sense, V1, V2, V3	Up to 0.25V Per Wire
Current Share, V1, V2, V3	±10% Full Load Rating
Standby Output	+5V, 250mA
Output Power Good Signal	Logic High
Input Power Fail Signal	Logic High
Global Inhibit	Logic Low
Enable	Logic Low
Thermal Warning	Logic Low

**AC INPUT SPECIFICATIONS**

Input Voltage Range	85-264VAC
Power Factor	0.99
Input Frequency	47-63Hz
Inrush Current Limiting	30A Peak
Input EMI Filter <sup>6</sup>	EN55022 Curve B FCC20780 pt. 15J Curve B EN61000-3-2
Harmonic Distortion	
Input Immunity, Conducted	
Fast Transients, Line-Line	±2kV (EN61000-4-4 Level 3)
Surges, Line-Line	±2kV (EN61000-4-5 Level 3)
Surges, Line-Ground	±4kV (EN61000-4-5 Level 4)
Input Protection	Internal Fuse, 15A

**DC INPUT SPECIFICATIONS**

Input Voltage Range	36-72VDC
Inrush Current Limiting	10A Peak
Input EMI Filter	Standard
Input Immunity, Conducted	
Fast Transients, Line-Line	±2kV (EN61000-4-4 Level 3)
Surges, Line-Line	±500V (EN61000-4-5 Level 1)
Surges, Line-Ground	±500V (EN61000-4-5 Level 1)
Input Protection	Internal Fuse, 25A



All Dimensions in (mm)

PIN STAGING	
PINS	LENGTH
1-20	.300"
21-26	.250"
27	.150"
28-44	.250"
45-47	.450"
48-5-	.250"

MATING INTERFACE BOARD	MATING CONNECTOR KIT
For Single PCHS/TPCHS PowerCassette (AC or DC) Order No. 009-3708-0000	AC Input: Order Kit No. 775-1429-0000 DC Input: Order Kit No. 775-1445-0000

**GENERAL SPECIFICATIONS**

Efficiency <sup>4</sup>	75% at Full Load
Switching Frequency, PFC Converter (AC Input)	48-110kHz
Output Converters	275kHz Nominal
Isolation, Class I, min.5	
Input-Output (AC Input/DC Input)	3000VAC/1500VDC
Input-Ground (AC Input/DC Input)	1500VAC/1500VDC
Output-Ground (AC Input/DC Input)	50VDC/50VDC
MTBF (Bellcore)	200,000 Hours
Safety Standards	EN60950, UL1950, CSA22.2 No.950

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature	0°C to 70°C Ambient
Derating	2.5% / °C, 50°C to 70°C
Storage Temperature	-40°C to +85°C
Cooling	Integral Ball Bearing Fans

**PHYSICAL SPECIFICATIONS**

Case Material	Aluminum
Dimensions, Inches(mm)	1.6 H x 5.0 W x 11.0 D (40.6 x 127 x 279)
Weight	3.3 lbs. (1.5 kg.)

NOTES:

- 1.No load to full load, including line regulation and load regulation.
- 2.Whichever is greater. 20MHz bandwidth. Measure with 0.1µF ceramic and 10µF tantalum capacitors in parallel across the output. For outputs of 2.5V or lower, the figure is 2% maximum.
- 3.<4% deviation recovering to within 1% for 25% load change.
- 4.Typical efficiency for 4 output unit with one high-current output of 5V or lower. Efficiency can vary 5% or more depending on combination of outputs.
- 5.Input-output isolation figure is for isolation components only. 100% production Hipot tested.
6. When installed in compatible rack. Consult factory.

PIN CONNECTIONS			
PIN	Function	PIN	Function
1	+V1 Out	26	+5V, 250mA Standby
2	+V1 Out	27	Enable*
3	+V1 Out	28	Spare/ADD GA1*
4	+V1 Out	29	V1 External Trim
5	+V1 Out	30	+V1 Sense
6	+V1 Out	31	-V1 Sense
7	V1 & V2 Return	32	V2 External Trim
8	V1 & V2 Return	33	+V2 Sense
9	V1 & V2 Return	34	-V2 Sense
10	V1 & V2 Return	35	V1 Current Share
11	V1 & V2 Return	36	+V3 Sense
12	V1 & V2 Return	37	-V3 Sense
13	V1 & V2 Return	38	Output Power Good/SDA*
14	+V2 Out	39	Global Inhibit
15	+V2 Out	40	Overtemp. Warning/SCLK*
16	+V2 Out	41	V2 Current Share
17	+V2 Out	42	Input Power Fail
18	+V2 Out	43	Spare/Interrupt*
19	V3 Return	44	V3 Current Share
20	+V3 Out	45	Chassis Ground
21	V4 Out	46	AC Line
22	Signal Ground	47	AC Neutral
23	V5 Out	48	+DC Input
24	V4 & V5 Return	49	-DC Input
25	Spare/ADD GA0*	50	Chassis Ground

\*NOTES: For unit to operate, pin 27 must be at logic LO or shorted to pin 22. Pins 25, 28, 38, 40 and 43 function as I2C outputs when that option is present. All returns and signal ground are connected together.

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## Model Suffix Selector

V1	V2	V3	V4	V5	MODEL SUFFIX
12V/35A	2.5V/50A		-12V/3A	-5V/3A	FBOGE
12V/35A	2.5V/50A		-12V/3A	5V/3A	FBOGD
12V/35A	2.5V/50A			-5V/3A	FBOOE
12V/35A	2.5V/50A		-12V/3A	-5.2V/3A	FBOGK
12V/35A	2.5V/50A	5V/10A		1.8/3A	FBJOA
12V/35A	2.5V/50A	5V/10A			FBJOO
12V/35A	3.3V/50A		-12V/3A	-5V/3A	FCOGE
12V/35A	3.3V/50A		-12V/3A	5V/3A	FCOGD
5V/70A	3.3V/50A	12V/10A	-12V/3A	-5V/3A	DCFGE
5V/70A	3.3V/50A	12V/10A	-12V/3A		DCFGO
5V/70A	3.3V/50A	12V/10A		2.5V/3A	DCFOB
5V/70A	3.3V/50A		-12V/3A	1.8V/3A	DCOGA
5V/70A	3.3V/50A		-12V/3A	-5V/3A	DCOGE
5V/70A	3.3V/50A	12V/10A	-12V/3A	2.5V/3A	DCFGB
5V/70A	3.3V/50A				DCOOO
5V/70A	3.3V/50A	12V/10A		-5V/3A	DCFOE
5V/70A	3.3V/50A		12V/3A	-5V/3A	DCFOF
5V/70A	3.3V/50A		12V/3A	2.5V/3A	DCOFB
5V/70A	3.3V/50A			2.5V/3A	DCOOB
5V/70A	3.3V/50A	12V/10A		-5.2V/3A	DCFOK
5V/70A		12V/10A	-12V/3A	-5V/3A	DOFGE
5V/70A		12V/10A	-12V/3A	3.3V/3A	DOFGC
5V/70A		12V/10A		2.5V/3A	DOFOB
5V/70A		12V/10A		3.3V/3A	DOFOC
5V/70A					DOFOO
5V/70A			-12V/3A	2.5V/3A	DOOGB
5V/70A		12V/10A	-12V/3A		DOFGO
5V/70A		12V/10A		-5V/3A	DOFOE
5V/70A			-12V/3A	1.8V/3A	DOOGA
5V/70A			-12V/3A	3.3V/3A	DOOGC
5V/100A		12V/10A	-12V/3A	-5V/3A	LDFGE
5V/100A		12V/10A	-12V/3A	3.3V/3A	LDFGC
5V/100A		12V/10A		2.5V/3A	LDFOB
5V/100A			12V/3A	-5V/3A	LDOFE
5V/100A			-12V/3A	2.5V/3A	LDOGB
5V/100A		12V/10A	-12V/3A		LDFGO
5V/100A		12V/10A		-5V/3A	LDOFE
5V/100A			-12V/3A	3.3V/3A	LDOGC
5V/100A			-12V/3A	-5V/3A	LDOGE
5V/100A		12V/10A		3.3V/3A	LDFOC
5V/100A		12V/10A		-5.2V/3A	LDFOK
3.3V/70A	2.5V/50A	12V/10A	-12V/3A	-5V/3A	CBFGE
3.3V/70A	2.5V/50A	12V/10A	-12V/3A		CBFGO
3.3V/70A	2.5V/50A	12V/10A		-5V/3A	CBFOE
3.3V/70A	2.5V/50A			-5V/3A	CBOOE
3.3V/70A	2.5V/50A		12V/3A	-5V/3A	CBOFE
3.3V/70A	2.5V/50A		12V/3A	5V/3A	CBOFD
3.3V/70A	2.5V/50A	12V/10A		5V/3A	CBFOD
3.3V/70A	2.5V/50A	5V/10A		-5.2V/3A	CBJOO
3.3V/70A	2.5V/50A	12V/10A	-12V/3A		CBFGK
3.3V/70A	2.5V/50A	5V/10A		1.8V/3A	CBJOA
3.3V/70A	2.5V/50A		12V/3A	1.8V/3A	CBOFA
3.3V/70A	2.5V/50A	12V/10A	-12V/3A	1.8V/3A	CBFGA
2.5V/70A	5V/50A	12V/10A	-12V/3A	-5V/3A	BDFGE
2.5V/70A	5V/50A	12V/10A	-12V/3A	3.3V/3A	BDFGC
2.5V/70A	5V/50A	12V/10A		2.5V/3A	BDFOB
2.5V/70A	5V/50A		12V/3A	-5V/3A	BDOFE
2.5V/70A	5V/50A		-12V/3A	3.3V/3A	BDOGC
2.5V/70A	5V/50A		12V/3A	1.8V/3A	BDOFA
2.5V/70A	5V/50A		-12V/3A	1.8V/3A	BDOGA
2.5V/70A	5V/50A		-12V/3A		BDOGO
2.5V/70A	5V/50A	12V/10A			BDFOO
2.5V/70A	5V/50A	12V/10A		-5V/3A	BDFOE
2.5V/70A	5V/50A	12V/10A		3.3V/3A	BDFOC
2.5V/70A	5V/50A			3.3V/3A	BDOOC

V1	V2	V3	V4	V5	MODEL SUFFIX
12V/35A	3.3V/50A			-5V/3A	FCOOE
12V/35A	3.3V/50A		-12V/3A	-5.2V/3A	FCOGK
12V/35A	3.3V/50A	5V/10A		1.8V/3A	FCJOA
12V/35A	3.3V/50A	5V/10A			FCJOO
12V/35A	5V/50A		-12V/3A	-5V/3A	FDOGE
12V/35A	5V/50A		-12V/3A	3.3V/3A	FDOGC
12V/35A	5V/50A		-12V/3A	2.5V/3A	FDOGB
12V/35A	5V/50A		-12V/3A	-5.2V/3A	FDOGK
12V/35A	5V/50A		-12V/3A		FDOGO
12V/35A	5V/50A				FDOOO
5V/70A	2.5V/50A	12V/10A	-12V/3A	-5V/3A	DBFGE
5V/70A	2.5V/50A		-12V/3A	3.3V/3A	DBOGC
5V/70A	2.5V/50A	12V/10A		2.5V/3A	DBFOB
5V/70A	2.5V/50A	12V/10A		-5V/3A	DBFOE
5V/70A	2.5V/50A		-12V/3A		DBOGO
5V/70A	2.5V/50A			-5V/3A	DBOOE
5V/70A	2.5V/50A		12V/3A	3.3V/3A	DBOFC
5V/70A	2.5V/50A	12V/10A	-12V/3A	2.5V/3A	DBFGB
5V/70A	2.5V/50A		-12V/3A	-5V/3A	DBOGE
5V/70A	2.5V/50A		12V/3A	1.8V/3A	DBOFA
5V/70A	2.5V/50A		-12V/3A	1.8V/3A	DBOGA
5V/70A			-12V/3A	-5V/3A	DOOGE
5V/70A				3.3V/3A	DOOOC
5V/70A				2.5V/3A	DOOOB
5V/70A				1.8V/3A	DOOOA
5V/70A			12V/3A	1.8V/3A	DOOFA
5V/70A			12V/3A	2.5V/3A	DOOFB
5V/70A			12V/3A	3.3V/3A	DOOFC
5V/70A			12V/3A		DOOFO
5V/70A				-5.2V/3A	DOOOK
5V/70A				-5V/3A	DOOOE
3.3V/70A	5V/50A	12V/10A	-12V/3A	-5V/3A	CDFGE
3.3V/70A		12V/10A	-12V/3A	5V/3A	COFGD
3.3V/70A	5V/50A	12V/10A	-12V/3A		CDFGO
3.3V/70A	5V/50A			-5V/3A	CDOOE
3.3V/70A	5V/50A		-12V/3A	1.8V/3A	CDOGA
3.3V/70A		12V/10A		2.5V/3A	COFOB
3.3V/70A	5V/50A	12V/10A	-12V/3A	2.5V/3A	CDFGB
3.3V/70A	5V/50A			2.5V/3A	CDOOB
3.3V/70A	5V/50A		12V/3A	2.5V/3A	CDOFB
3.3V/70A			-12V/3A	2.5V/3A	COOGB
3.3V/70A		12V/10A	-12V/3A	-5V/3A	COFGE
3.3V/70A		12V/10A	-12V/3A		COFGO
3.3V/70A		12V/10A		-5V/3A	COFOE
3.3V/70A		12V/10A		5V/3A	COFOD
3.3V/70A		12V/10A		1.8V/3A	COFOA
3.3V/70A				2.5V/3A	COOOB
3.3V/70A		12V/10A	-12V/3A	-5.2V/3A	COFGK
3.3V/70A		12V/10A	-12V/3A	2.5V/3A	COFGB
3.3V/70A		12V/10A			COFOO
3.3V/70A		5V/10A			COJOO
3.3V/70A		5V/10A		1.8V/3A	COJOA
3.3V/70A		12V/10A		-5.2V/3A	COFOK
2.5V/70A	3.3V/50A	12V/10A	-12V/3A	5V/3A	BCFGD
2.5V/70A	3.3V/50A	12V/10A	-12V/3A	3.3V/3A	BCFGC
2.5V/70A	3.3V/50A	12V/10A		2.5V/3A	BCFOB
2.5V/70A	3.3V/50A		12V/3A	-5V/3A	BCOFE
2.5V/70A	3.3V/50A		12V/3A	5V/3A	BCOFD
2.5V/70A	3.3V/50A	12V/10A	-12V/3A	-5.2V/3A	BCFGK
2.5V/70A	3.3V/50A	5V/10A		1.8V/3A	BCJOA
2.5V/70A	3.3V/50A			-5V/3A	BCOOE
2.5V/70A	3.3V/50A		-12V/3A	1.8V/3A	BCOGA
2.5V/70A	3.3V/50A		-12V/3A	-5V/3A	BCOGE
2.5V/70A	3.3V/50A	12V/10A	-12V/3A	-5V/3A	BCFGE
2.5V/70A	3.3V/50A	12V/10A	-12V/3A		BCFGO

Model Suffix Selector

V1	V2	V3	V4	V5	MODEL SUFFIX
2.5V/70A			-12V/3A	-5V/3A	BOOGE
2.5V/70A			12V/3A	3.3V/3A	BOOFC
2.5V/70A			-12V/3A	5V/3A	BOOGD
2.5V/70A			12V/3A		BOOFO
2.5V/70A			-12V/3A	3.3V/3A	BOOGC
2.5V/70A			12V/3A	5V/3A	BOOFD
2.5V/70A			12V/3A	1.8V/3A	BOOFA
2.5V/70A			-12V/3A	1.8V/3A	BOOGA
2.5V/70A				1.8V/3A	BOOOA
2.5V/70A			-12V/3A		BOOGO
2.5V/70A			12V/3A	-5V/3A	BOOFFE
2.5V/70A				-5V/3A	BOOOE
2.5V/70A				5V/3A	BOOOD
1.8V/70A	3.3V/50A	12V/10A	-12V/3A	-5V/3A	ACFGE
1.8V/70A	3.3V/50A	12V/10A	-12V/3A	3.3V/3A	ACFGC
1.8V/70A	3.3V/50A	12V/10A		2.5V/3A	ACFOB
1.8V/70A	3.3V/50A		12V/3A	-5V/3A	ACOFE
1.8V/70A	3.3V/50A		12V/3A	3.3V/3A	ACOFD
1.8V/70A	3.3V/50A			5V/3A	ACOOD
1.8V/70A	3.3V/50A		-12V/3A		ACOGO
1.8V/70A	3.3V/50A		12V/3A	2.5V/3A	ACOFB
1.8V/70A	3.3V/50A		12V/3A	5V/3A	ACOFD
1.8V/70A	3.3V/50A	12V/10A	-12V/3A	-5.2V/3A	ACFGK
1.8V/70A	3.3V/50A		12V/3A		ACOFD
1.8V/70A	3.3V/50A	5V/10A			ACJOO
1.8V/70A	3.3V/50A			2.5V/3A	ACOOB
1.8V/70A	3.3V/50A		-12V/3A	2.5V/3A	ACOGC
3.3V/70A			12V/3A	5V/3A	COOFD
3.3V/70A			-12V/3A	-5V/3A	COOGE
3.3V/70A			-12V/3A	5V/3A	COOGD
3.3V/70A			12V/3A	-5V/3A	COOFFE
3.3V/70A				5V/3A	COOOD
3.3V/70A			12V/3A		COOFO
3.3V/70A				-5.2V/3A	COOOK
3.3V/70A			12V/3A	2.5V/3A	COOFB
3.3V/70A			-12V/3A	-5.2V/3A	COOGK
3.3V/70A			12V/3A	1.8V/3A	COOFA
3.3V/70A			-12V/3A	1.8V/3A	COOGA
2.5V/100A		12V/10A	-12V/3A	5V/3A	NBFGD
2.5V/100A		12V/10A			NBFOO
2.5V/100A		12V/10A		-5V/3A	NBFOE
2.5V/100A		12V/10A	-12V/3A	3.3V/3A	NBFGC
2.5V/100A			-12V/3A	3.3V/3A	NBOGC
2.5V/100A		12V/10A	-12V/3A		NBFGO
2.5V/100A			-12V/3A	1.8V/3A	NBOGA
2.5V/100A			12V/3A	1.8V/3A	NBOFA
2.5V/100A			12V/3A	3.3V/3A	NBOFC
2.5V/100A		5V/10A			NBJOO
2.5V/100A		5V/10A		1.8V/3A	NBJOA
2.5V/100A			12V/3A		NBOFO
2.5V/100A		12V/10A	-12V/3A	-5.2V/3A	NBFGK
2.5V/100A		12V/10A		5V/3A	NBFOD
1.8V/70A			-12V/3A	-5V/3A	AOOGC
1.8V/70A			-12V/3A	2.5V/3A	AOOCB
1.8V/70A			12V/3A	2.5V/3A	AOOFB
1.8V/70A			-12V/3A	3.3V/3A	AOOCG
1.8V/70A			12V/3A	-5V/3A	AOOFD
1.8V/70A			-12V/3A	5V/3A	AOOGD
1.8V/70A		5V/10A			AOJOO
1.8V/70A			12V/3A	3.3V/3A	AOOCF
1.8V/70A			12V/3A		AOOFD
1.8V/70A			-12V/3A	-5.2V/3A	AOOCG

V1	V2	V3	V4	V5	MODEL SUFFIX
1.8V/70A	5V/50A	12/10A	-12V/3A	-5V/3A	ADFGC
1.8V/70A	5V/50A	12/10A	-12V/3A		ADFGO
1.8V/70A	5V/50A	12/10A		-5V/3A	ADFOE
1.8V/70A	5V/50A	12/10A			ADFOO
1.8V/70A	5V/50A	12/10A		2.5V/3A	ADFOB
1.8V/70A	5V/50A	12/10A	-12V/3A	3.3V/3A	ADFGC
1.8V/70A	5V/50A	12/10A	-12V/3A	2.5V/3A	ADOGC
1.8V/70A	5V/50A	12/10A	-12V/3A	2.5V/3A	ADFGC
1.8V/70A	5V/50A	12/10A	12V/3A	3.3V/3A	ADFGC
1.8V/70A	5V/50A				ADFOC
1.8V/70A	5V/50A				ADFOO
1.8V/70A	5V/50A			3.3V/3A	ADFOC
1.8V/70A	5V/50A			2.5V/3A	ADFOO
1.8V/70A	5V/50A			3.3V/3A	ADFOO
1.8V/70A	5V/50A			-5V/3A	ADFOO
1.8V/70A	2.5V/50A	12V/10A	-12V/3A	-5V/3A	ABFGC
1.8V/70A	2.5V/50A	12V/10A	-12V/3A		ABFGO
1.8V/70A	2.5V/50A	12V/10A			ABFOE
1.8V/70A	2.5V/50A	12V/10A		5V/3A	ABFOD
1.8V/70A	2.5V/50A	12V/10A		-5V/3A	ABFOE
1.8V/70A	2.5V/50A		-12V/3A	-5V/3A	ABOGE
1.8V/70A	2.5V/50A	12V/10A		3.3V/3A	ABFOC
1.8V/70A	2.5V/50A	12V/10A	-12V/3A	3.3V/3A	ABFGC
1.8V/70A	2.5V/50A	12V/10A	12V/3A	3.3V/3A	ABOFC
1.8V/70A	2.5V/50A	5V/10A			ABJOO
1.8V/70A	2.5V/50A		12V/3A	5V/3A	ABOFD
1.8V/70A	2.5V/50A			3.3V/3A	ABOOC
1.8V/70A	2.5V/50A	12V/10A	-12V/3A	-5.2V/3A	ABFGK
1.8V/70A	2.5V/50A			5V/3A	ABOOD
3.3V/100A		12V/10A	-12V/3A	-5V/3A	MCFGC
3.3V/100A		12V/10A	-12V/3A		MCFGO
3.3V/100A		12V/10A		-5V/3A	MCFOE
3.3V/100A		12V/10A			MCFOO
3.3V/100A		12V/10A	-12V/3A	-5.2V/3A	MCFGK
3.3V/100A		12V/10A	-12V/3A	2.5V/3A	MCFGB
3.3V/100A		12V/10A	-12V/3A	1.8V/3A	MCOGA
3.3V/100A		12V/10A	12V/3A	1.8V/3A	MCOFA
3.3V/100A		12V/10A	-12V/3A	-5V/3A	MCOGE
3.3V/100A		12V/10A	-12V/3A	2.5V/3A	MCOGB
3.3V/100A		12V/10A	12V/3A	2.5V/3A	MCOFB
2.5V/70A		12V/10A	-12V/3A	-5V/3A	BOFGC
2.5V/70A		12V/10A	-12V/3A		BOFGO
2.5V/70A		12V/10A		-5V/3A	BOFOE
2.5V/70A		12V/10A	-12V/3A	5V/3A	BOFGD
2.5V/70A		12V/10A	-12V/3A	3.3V/3A	BOFGC
2.5V/70A		12V/10A			BOFOO
2.5V/70A		12V/10A		1.8V/3A	BOFOA
2.5V/70A			12V/3A	-5.2V/3A	BOOFK
2.5V/70A			-12V/3A	-5.2V/3A	BOOGK
2.5V/70A				3.3V/3A	BOFOC
2.5V/70A		12V/10A			BOJOO
2.5V/70A		5V/10A		-5.2V/3A	BOFGK
2.5V/70A		12V/10A	-12V/3A	1.8V/3A	BOJOA
2.5V/70A		5V/10A		-5.2V/3A	BOOOK
1.8V/70A		12V/10A	-12V/3A	-5V/3A	AOFGC
1.8V/70A		12V/10A	-12V/3A		AOFGO
1.8V/70A		12V/10A		-5V/3A	AOFOE
1.8V/70A		12V/10A			AOFOO
1.8V/70A		12V/10A		3.3V/3A	AOFOC
1.8V/70A		12V/10A		5V/3A	AOFOO
1.8V/70A		12V/10A		-5.2V/3A	AOFOK
1.8V/70A		12V/10A		2.5V/3A	AOFOB
1.8V/70A		12V/10A	-12V/3A	3.3V/3A	AOFGC
1.8V/70A		12V/10A		3.3V/3A	AOFOC

# AC/DC und DC/DC - Wandler für den freien Aufbau

## Application Notes

1. Maximum power must not exceed the following: 500 watts for V1 and V2 combined, 171 watts for V3, V4 and V5 combined, or 600W for total unit.
2. For units with V1 over 70 amps, that output actually consists of the V1 and V2 outputs in parallel. In this mode the V1 and V2 output pins must be connected to one another and the V1 and V2 current share pins connected to each other. The V1 plus sense and minus sense pins must be connected to the V2 plus sense and minus sense pins, respectively. All connections are external to unit.
3. For outputs of 2.5V or lower, the peak-to-peak ripple and noise is specified at 2% maximum.
4. The DC Power Good signal monitors the V1, V2 and V3 outputs only.
5. DESCRIPTION and INTERCONNECTION OF LOGIC SIGNALS. ENABLE, DC POWER GOOD, AC POWER FAIL, OVERTEMP WARNING and INHIBIT pin connections come from the equivalent of an open collector circuit with an internal pull up 10K resistor to +5V.

**ENABLE.** This pin must be shorted to ground in order for outputs to function. The connection may also be achieved by means of an external open collector or open FET drain circuit, i.e., when the external transistor is turned on, the power supply is enabled. This is the inverse of the Inhibit function below.

**OUTPUT POWER GOOD.** Provides Logic High signal when V1, V2 and V3 reach a prescribed level.

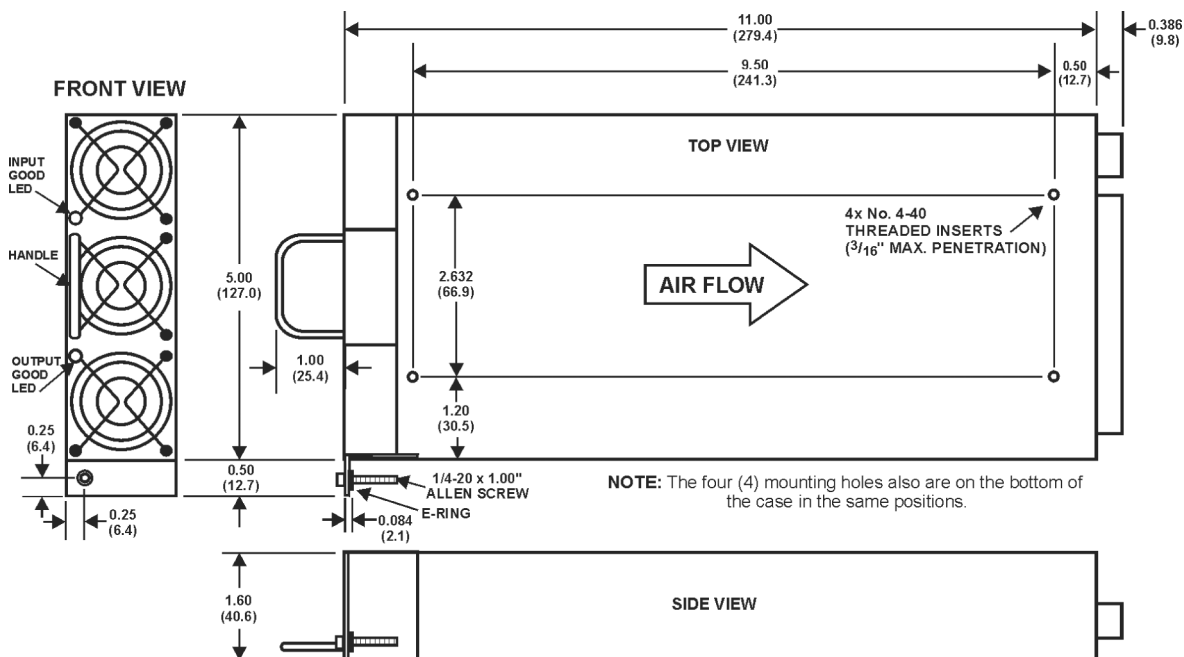
**INPUT POWER FAIL.** Provides a Logic High signal pulse when the AC line voltage ceases. Pulse occurs a minimum of 4 milliseconds before outputs go out of regulation. Pulse duration is 4 milliseconds up to tens of milliseconds, depending on load. Signal is Logic High rather than low (typical in non-redundant power supplies) so that there is no signal ambiguity when redundant power supplies are operated from different AC phases.

**OVERTEMP. WARNING.** Provides a Logic Low signal when exit air temperature approaches an unacceptable level.

**GLOBAL INHIBIT.** Shuts down the outputs but not the standby supply or the fans. As with the Enable pin above, it is achieved by shorting the pin to ground or turning on an external transistor. Should be connected through a 10K ohm resistor to +5V Standby Output. Acts as the inverse of the Enable pin.

6. CONNECTING ALL OUTPUT SIGNALS TOGETHER FOR UNITS IN AN N+1 RACK: Normally signals are used for identifying status of each module in paralleled unit configuration. If it is desired to connect all the signals together to treat the complete rack as a single power supply, the following (or equivalent) must be done. The Input Power Fail, Output Power Good and Overtemp. Warning signals of each module are each connected to the anode of a BAV99 diode, the other side of which goes to the base of a 2N2222A. The collectors of all the Input Power Fail transistors are connected to form a single Input Power Fail chassis signal. The same is done for the Output Power Good and Overtemp. Warning signals. The resultant system warning signals then give a Logic Low for Input Power Fail and a Logic High for Output Power Good and Overtemperature Warning.

7. **MTBF.** 200,000 hours at 35°C using Bellcore method.



**NOTE:** The TPCHS Model is shown. The PCHS version does not have handle or mounting bracket with bolt. The AC input version does not have DC input connector (pins 48-50).

ALL DIMENSIONS IN INCHES (mm).

All specifications subject to change without notice.