

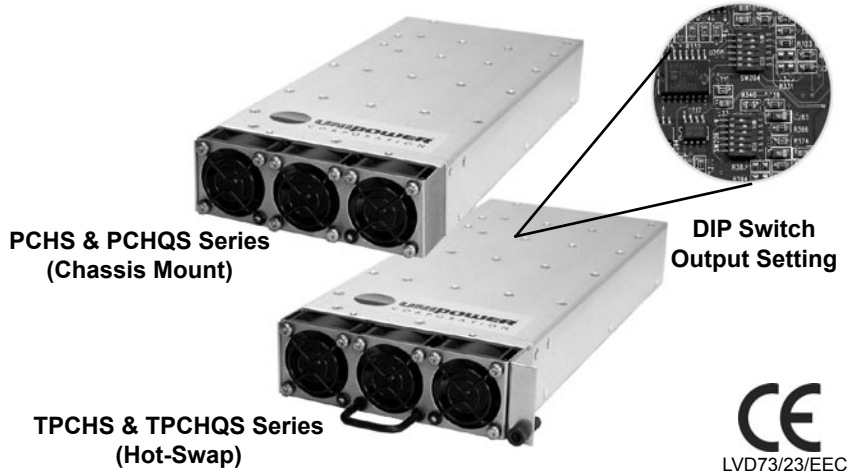
QUICK-SET PowerCassette®: MULTI-OUTPUT SWITCHER

1U High, Up to 6 Outputs at 600 Watts, AC or DC Input
Outputs Instantly Set at Factory

FEATURES

- 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

*For TPCHS Models



TWO-YEAR WARRANTY

SAFETY STANDARDS

- UL1950
- CSA22.2, No. 950
- EN60950

Patents Issued & Pending

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 = I ² C B* = No I ² C	Use 5 Letters From Tables: -XXXXX (Pages 3 & 4)

NOTE: B* means “leave blank” (no letter)

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”.

QUICK-SET PowerCassette® MODEL SUFFIX SELECTOR

V1	V2	V3	V4	V5	MODEL SUFFIX	V1	V2	V3	V4	V5	MODEL SUFFIX
12V/35A	2.5V/50A		-12V/3A	-5V/3A	FBOGE	12V/35A	3.3V/50A			-5V/3A	FCOOE
12V/35A	2.5V/50A		-12V/3A	5V/3A	FBOGD	12V/35A	3.3V/50A		-12V/3A	-5.2V/3A	FCOGK
12V/35A	2.5V/50A			-5V/3A	FBOOE	12V/35A	3.3V/50A	5V/10A		1.8V/3A	FCJOA
12V/35A	2.5V/50A		-12V/3A	-5.2V/3A	FBOGK	12V/35A	3.3V/50A	5V/10A			FCJOO
12V/35A	2.5V/50A	5V/10A		1.8V/3A	FBJOA	12V/35A	5V/50A		-12V/3A	-5V/3A	FDOGE
12V/35A	2.5V/50A	5V/10A			FBJOO	12V/35A	5V/50A		-12V/3A	3.3V/3A	FDOGC
12V/35A	3.3V/50A		-12V/3A	-5V/3A	FCOGE	12V/35A	5V/50A		-12V/3A	2.5V/3A	FDOGB
12V/35A	3.3V/50A		-12V/3A	5V/3A	FCOGD	12V/35A	5V/50A		-12V/3A	-5.2V/3A	FDOGK
						12V/35A	5V/50A		-12V/3A		FDOGO
						12V/35A	5V/50A				FDOOO
5V/70A	3.3V/50A	12V/10A	-12V/3A	-5V/3A	DCFGE	5V/70A	2.5V/50A	12V/10A	-12V/3A	-5V/3A	DBFGE
5V/70A	3.3V/50A	12V/10A	-12V/3A		DCFGO	5V/70A	2.5V/50A		-12V/3A	3.3V/3A	DBOGC
5V/70A	3.3V/50A	12V/10A		2.5V/3A	DCFOB	5V/70A	2.5V/50A	12V/10A		2.5V/3A	DBFOB
5V/70A	3.3V/50A		-12V/3A	1.8V/3A	DCOGA	5V/70A	2.5V/50A	12V/10A		-5V/3A	DBFOE
5V/70A	3.3V/50A		-12V/3A	-5V/3A	DCOGE	5V/70A	2.5V/50A	12V/10A			DBFOG
5V/70A	3.3V/50A	12V/10A	-12V/3A	2.5V/3A	DCFGB	5V/70A	2.5V/50A		-12V/3A		DBOGO
5V/70A	3.3V/50A				DCOOO	5V/70A	2.5V/50A			-5V/3A	DBOOE
5V/70A	3.3V/50A	12V/10A		-5V/3A	DCFOE	5V/70A	2.5V/50A		12V/3A	3.3V/3A	DBOFC
5V/70A	3.3V/50A		12V/3A	-5V/3A	DCOFE	5V/70A	2.5V/50A	12V/10A	-12V/3A	2.5V/3A	DBFGB
5V/70A	3.3V/50A		12V/3A	2.5V/3A	DCOFB	5V/70A	2.5V/50A		-12V/3A	-5V/3A	DBOGE
5V/70A	3.3V/50A			2.5V/3A	DCOOB	5V/70A	2.5V/50A	12V/3A	1.8V/3A		DBOFA
5V/70A	3.3V/50A	12V/10A		-5.2V/3A	DCFOK	5V/70A	2.5V/50A		-12V/3A	1.8V/3A	DBOGA
5V/70A		12V/10A	-12V/3A	-5V/3A	DOFGE	5V/70A			-12V/3A	-5V/3A	DOOGE
5V/70A		12V/10A	-12V/3A	3.3V/3A	DOFGC	5V/70A				3.3V/3A	DOOOC
5V/70A		12V/10A		2.5V/3A	DOFOB	5V/70A				2.5V/3A	DOOOB
5V/70A		12V/10A		3.3V/3A	DOFOC	5V/70A				1.8V/3A	DOOOA
5V/70A		12V/10A			DOFOO	5V/70A			12V/3A	1.8V/3A	DOOFA
5V/70A			-12V/3A	2.5V/3A	DOOGB	5V/70A			12V/3A	2.5V/3A	DOOFB
5V/70A		12V/10A	-12V/3A		DOFGO	5V/70A			12V/3A	3.3V/3A	DOOFC
5V/70A		12V/10A		-5V/3A	DOFOE	5V/70A			12V/3A		DOOFO
5V/70A			-12V/3A	1.8V/3A	DOOGA	5V/70A				-5.2V/3A	DOOOK
5V/70A			-12V/3A	3.3V/3A	DOOGC	5V/70A				-5V/3A	DOOOE
5V/100A		12V/10A	-12V/3A	-5V/3A	LDFGE	3.3V/70A	5V/50A	12V/10A	-12V/3A	-5V/3A	CDFGE
5V/100A		12V/10A	-12V/3A	3.3V/3A	LDFGC	3.3V/70A	5V/50A	12V/10A	-12V/3A	5V/3A	COFGD
5V/100A		12V/10A		2.5V/3A	LDFOB	3.3V/70A	5V/50A	12V/10A	-12V/3A		CDFGO
5V/100A			12V/3A	-5V/3A	LDOFE	3.3V/70A	5V/50A			-5V/3A	CDOOE
5V/100A			-12V/3A	2.5V/3A	LDOGB	3.3V/70A	5V/50A		-12V/3A	1.8V/3A	CDOGA
5V/100A		12V/10A	-12V/3A		LDFGO	3.3V/70A	5V/50A	12V/10A		2.5V/3A	COFOB
5V/100A		12V/10A		-5V/3A	LDFOE	3.3V/70A	5V/50A	12V/10A	-12V/3A	2.5V/3A	CDFGB
5V/100A			-12V/3A	3.3V/3A	LDOGC	3.3V/70A	5V/50A			2.5V/3A	CDOOB
5V/100A			-12V/3A	-5V/3A	LDOGE	3.3V/70A	5V/50A		12V/3A	2.5V/3A	CDOFB
5V/100A		12V/10A		3.3V/3A	LDFOC	3.3V/70A	5V/50A		-12V/3A	2.5V/3A	COOGB
5V/100A		12V/10A		-5.2V/3A	LDFOK						
3.3V/70A	2.5V/50A	12V/10A	-12V/3A	-5V/3A	CBFGE	3.3V/70A		12V/10A	-12V/3A	-5V/3A	COFGE
3.3V/70A	2.5V/50A	12V/10A	-12V/3A		CBFGO	3.3V/70A		12V/10A	-12V/3A		COFGO
3.3V/70A	2.5V/50A	12V/10A		-5V/3A	CBFOE	3.3V/70A		12V/10A		-5V/3A	COFOE
3.3V/70A	2.5V/50A			-5V/3A	CBOOE	3.3V/70A		12V/10A		5V/3A	COFOD
3.3V/70A	2.5V/50A		12V/3A	-5V/3A	CBOFE	3.3V/70A		12V/10A		1.8V/3A	COFOA
3.3V/70A	2.5V/50A		12V/3A	5V/3A	CBOFD	3.3V/70A				2.5V/3A	COOGB
3.3V/70A	2.5V/50A	12V/10A		5V/3A	CBFOD	3.3V/70A		12V/10A	-12V/3A	-5.2V/3A	COFGK
3.3V/70A	2.5V/50A	5V/10A		-5.2V/3A	CBJOO	3.3V/70A		12V/10A	-12V/3A	2.5V/3A	COFGB
3.3V/70A	2.5V/50A	12V/10A	-12V/3A		CBFGK	3.3V/70A		12V/10A			COFOO
3.3V/70A	2.5V/50A	5V/10A		1.8V/3A	CBJOA	3.3V/70A		5V/10A			COJOO
3.3V/70A	2.5V/50A		12V/3A	1.8V/3A	CBOFA	3.3V/70A		5V/10A		1.8V/3A	COJOA
3.3V/70A	2.5V/50A	12V/10A	-12V/3A	1.8V/3A	CBFGA	3.3V/70A		12V/10A		-5.2V/3A	COFOK
2.5V/70A	5V/50A	12V/10A	-12V/3A	-5V/3A	BDFGE	2.5V/70A	3.3V/50A	12V/10A	-12V/3A	5V/3A	BCFGD
2.5V/70A	5V/50A	12V/10A	-12V/3A	3.3V/3A	BDFGC	2.5V/70A	3.3V/50A	12V/10A	-12V/3A	3.3V/3A	BCFGC
2.5V/70A	5V/50A	12V/10A		2.5V/3A	BDFOB	2.5V/70A	3.3V/50A	12V/10A		2.5V/3A	BCFOB
2.5V/70A	5V/50A		12V/3A	-5V/3A	BDOFE	2.5V/70A	3.3V/50A		12V/3A	-5V/3A	BCOFE
2.5V/70A	5V/50A		-12V/3A	3.3V/3A	BDOGC	2.5V/70A	3.3V/50A		12V/3A	5V/3A	BCOFD
2.5V/70A	5V/50A		12V/3A	1.8V/3A	BDOFA	2.5V/70A	3.3V/50A	12V/10A	-12V/3A	-5.2V/3A	BCFGK
2.5V/70A	5V/50A		-12V/3A	1.8V/3A	BDOGA	2.5V/70A	3.3V/50A	5V/10A		1.8V/3A	BCJOA
2.5V/70A	5V/50A		-12V/3A		BDOGO	2.5V/70A	3.3V/50A			-5V/3A	BCOOE
2.5V/70A	5V/50A	12V/10A			BDFOO	2.5V/70A	3.3V/50A		-12V/3A	1.8V/3A	BCOGA
2.5V/70A	5V/50A	12V/10A		-5V/3A	BDFOE	2.5V/70A	3.3V/50A		-12V/3A	-5V/3A	BCOGE
2.5V/70A	5V/50A	12V/10A		3.3V/3A	BDFOC	2.5V/70A	3.3V/50A	12V/10A	-12V/3A	-5V/3A	BCFGE
2.5V/70A	5V/50A			3.3V/3A	BDOOC	2.5V/70A	3.3V/50A	12V/10A	-12V/3A		BCFGO

QUICK-SET PowerCassette® MODEL SUFFIX SELECTOR (CONTINUED)

V1	V2	V3	V4	V5	MODEL SUFFIX	V1	V2	V3	V4	V5	MODEL SUFFIX
2.5V/70A			-12V/3A	-5V/3A	BOOGE	1.8V/70A	5V/50A	12/10A	-12V/3A	-5V/3A	ADFGE
2.5V/70A			12V/3A	3.3V/3A	BOOFC	1.8V/70A	5V/50A	12/10A	-12V/3A		ADFGO
2.5V/70A			-12V/3A	5V/3A	BOOGD	1.8V/70A	5V/50A	12/10A		-5V/3A	ADFOE
2.5V/70A			12V/3A		BOOFO	1.8V/70A	5V/50A	12/10A			ADFOO
2.5V/70A			-12V/3A	3.3V/3A	BOOGC	1.8V/70A	5V/50A	12/10A		2.5V/3A	ADFOB
2.5V/70A			12V/3A	5V/3A	BOOFD	1.8V/70A	5V/50A	12/10A	-12V/3A	3.3V/3A	ADFGC
2.5V/70A			12V/3A	1.8V/3A	BOOFA	1.8V/70A	5V/50A		-12V/3A	2.5V/3A	ADOGB
2.5V/70A			-12V/3A	1.8V/3A	BOOGA	1.8V/70A	5V/50A	12/10A	-12V/3A	2.5V/3A	ADFGB
2.5V/70A				1.8V/3A	BOOOA	1.8V/70A	5V/50A		12V/3A	3.3V/3A	ADOFB
2.5V/70A			-12V/3A		BOOGO	1.8V/70A	5V/50A				ADOOO
2.5V/70A			12V/3A	-5V/3A	BOOFE	1.8V/70A	5V/50A			3.3V/3A	ADOOB
2.5V/70A				-5V/3A	BOOOE	1.8V/70A	5V/50A			2.5V/3A	ADOOA
2.5V/70A				5V/3A	BOOOD	1.8V/70A	5V/50A			-5V/3A	ADOOE
1.8V/70A	3.3V/50A	12V/10A	-12V/3A	-5V/3A	ACFGE	1.8V/70A	2.5V/50A	12V/10A	-12V/3A	-5V/3A	ABFGE
1.8V/70A	3.3V/50A	12V/10A	-12V/3A	3.3V/3A	ACFCG	1.8V/70A	2.5V/50A	12V/10A	-12V/3A		ABFGO
1.8V/70A	3.3V/50A	12V/10A		2.5V/3A	ACFOB	1.8V/70A	2.5V/50A	12V/10A			ABFOO
1.8V/70A	3.3V/50A		12V/3A	-5V/3A	ACOFB	1.8V/70A	2.5V/50A	12V/10A		5V/3A	ABFOD
1.8V/70A	3.3V/50A		12V/3A	3.3V/3A	ACOFD	1.8V/70A	2.5V/50A	12V/10A		-5V/3A	ABFOE
1.8V/70A	3.3V/50A			5V/3A	ACOOD	1.8V/70A	2.5V/50A		-12V/3A	-5V/3A	ABFOG
1.8V/70A	3.3V/50A		-12V/3A		ACOGO	1.8V/70A	2.5V/50A	12V/10A		3.3V/3A	ABFOC
1.8V/70A	3.3V/50A		12V/3A	2.5V/3A	ACOFB	1.8V/70A	2.5V/50A	12V/10A	-12V/3A	3.3V/3A	ABFGC
1.8V/70A	3.3V/50A		12V/3A	5V/3A	ACOFD	1.8V/70A	2.5V/50A		12V/3A	3.3V/3A	ABOFC
1.8V/70A	3.3V/50A	12V/10A	-12V/3A	-5.2V/3A	ACFGK	1.8V/70A	2.5V/50A	5V/10A			ABJOO
1.8V/70A	3.3V/50A		12V/3A		ACOFB	1.8V/70A	2.5V/50A		12V/3A	5V/3A	ABOFD
1.8V/70A	3.3V/50A	5V/10A			ACJOO	1.8V/70A	2.5V/50A			3.3V/3A	ABOOC
1.8V/70A	3.3V/50A			2.5V/3A	ACOOB	1.8V/70A	2.5V/50A	12V/10A	-12V/3A	-5.2V/3A	ABFGK
1.8V/70A	3.3V/50A		-12V/3A	2.5V/3A	ACOGB	1.8V/70A	2.5V/50A			5V/3A	ABOOD
3.3V/70A			12V/3A	5V/3A	COOFD	3.3V/100A		12V/10A	-12V/3A	-5V/3A	MCFGE
3.3V/70A			-12V/3A	-5V/3A	COOGE	3.3V/100A		12V/10A	-12V/3A		MCFGO
3.3V/70A			-12V/3A	5V/3A	COOGD	3.3V/100A		12V/10A		-5V/3A	MCFOE
3.3V/70A			12V/3A	-5V/3A	COOFE	3.3V/100A		12V/10A			MCFOO
3.3V/70A				5V/3A	COOOD	3.3V/100A		12V/10A	-12V/3A	-5.2V/3A	MCFGK
3.3V/70A			12V/3A		COOFO	3.3V/100A		12V/10A	-12V/3A	2.5V/3A	MCFGB
3.3V/70A				-5.2V/3A	COOOK	3.3V/100A		12V/10A	-12V/3A	1.8V/3A	MCOGA
3.3V/70A			12V/3A	2.5V/3A	COOFB	3.3V/100A		12V/10A	12V/3A	1.8V/3A	MCOFA
3.3V/70A			-12V/3A	-5.2V/3A	COOGK	3.3V/100A		12V/10A	-12V/3A	-5V/3A	MCOGE
3.3V/70A			12V/3A	1.8V/3A	COOFA	3.3V/100A		12V/10A	-12V/3A	2.5V/3A	MCOGB
3.3V/70A			-12V/3A	1.8V/3A	COOGA	3.3V/100A		12V/3A	2.5V/3A		MCOFB
2.5V/100A		12V/10A	-12V/3A	5V/3A	NBFGD	2.5V/70A		12V/10A	-12V/3A	-5V/3A	BOFGE
2.5V/100A		12V/10A			NBFOO	2.5V/70A		12V/10A	-12V/3A		BOFGO
2.5V/100A		12V/10A		-5V/3A	NBFOE	2.5V/70A		12V/10A		-5V/3A	BOFOE
2.5V/100A		12V/10A	-12V/3A	3.3V/3A	NBFGC	2.5V/70A		12V/10A	-12V/3A	5V/3A	BOFGD
2.5V/100A			-12V/3A	3.3V/3A	NBOGC	2.5V/70A		12V/10A	-12V/3A	3.3V/3A	BOFGC
2.5V/100A		12V/10A	-12V/3A		NBFGO	2.5V/70A		12V/10A			BOFOO
2.5V/100A			-12V/3A	1.8V/3A	NBOGA	2.5V/70A		12V/10A		1.8V/3A	BOFOA
2.5V/100A			12V/3A	1.8V/3A	NBOFA	2.5V/70A			12V/3A	-5.2V/3A	BOOFK
2.5V/100A			12V/3A	3.3V/3A	NBOFC	2.5V/70A			-12V/3A	-5.2V/3A	BOOGK
2.5V/100A		5V/10A			NBJOO	2.5V/70A		12V/10A		3.3V/3A	BOFOC
2.5V/100A		5V/10A		1.8V/3A	NBJOA	2.5V/70A		5V/10A			BOJOO
2.5V/100A			12V/3A		NBOFO	2.5V/70A		12V/10A	-12V/3A	-5.2V/3A	BOFGK
2.5V/100A		12V/10A	-12V/3A	-5.2V/3A	NBFGK	2.5V/70A		5V/10A		1.8V/3A	BOJOA
2.5V/100A		12V/10A		5V/3A	NBFOD	2.5V/70A				-5.2V/3A	BOOOK
1.8V/70A			-12V/3A	-5V/3A	AOOGC	1.8V/70A		12V/10A	-12V/3A	-5V/3A	AOFGE
1.8V/70A			-12V/3A	2.5V/3A	AOOGB	1.8V/70A		12V/10A	-12V/3A		AOFGO
1.8V/70A			12V/3A	2.5V/3A	AOOFB	1.8V/70A		12V/10A		-5V/3A	AOFOE
1.8V/70A			-12V/3A	3.3V/3A	AOOGC	1.8V/70A		12V/10A			AOFOO
1.8V/70A			12V/3A	-5V/3A	AOOFB	1.8V/70A		12V/10A		3.3V/3A	AOFOC
1.8V/70A			-12V/3A	5V/3A	AOOGD	1.8V/70A				5V/3A	AOFOO
1.8V/70A		5V/10A			AOJOO	1.8V/70A		12V/10A		-5.2V/3A	AOFOK
1.8V/70A			12V/3A	3.3V/3A	AOOFB	1.8V/70A		12V/10A		2.5V/3A	AOFOB
1.8V/70A			12V/3A		AOOFB	1.8V/70A		12V/10A	-12V/3A	3.3V/3A	AOFGC
1.8V/70A			-12V/3A	-5.2V/3A	AOOGK	1.8V/70A				3.3V/3A	AOFOC

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.

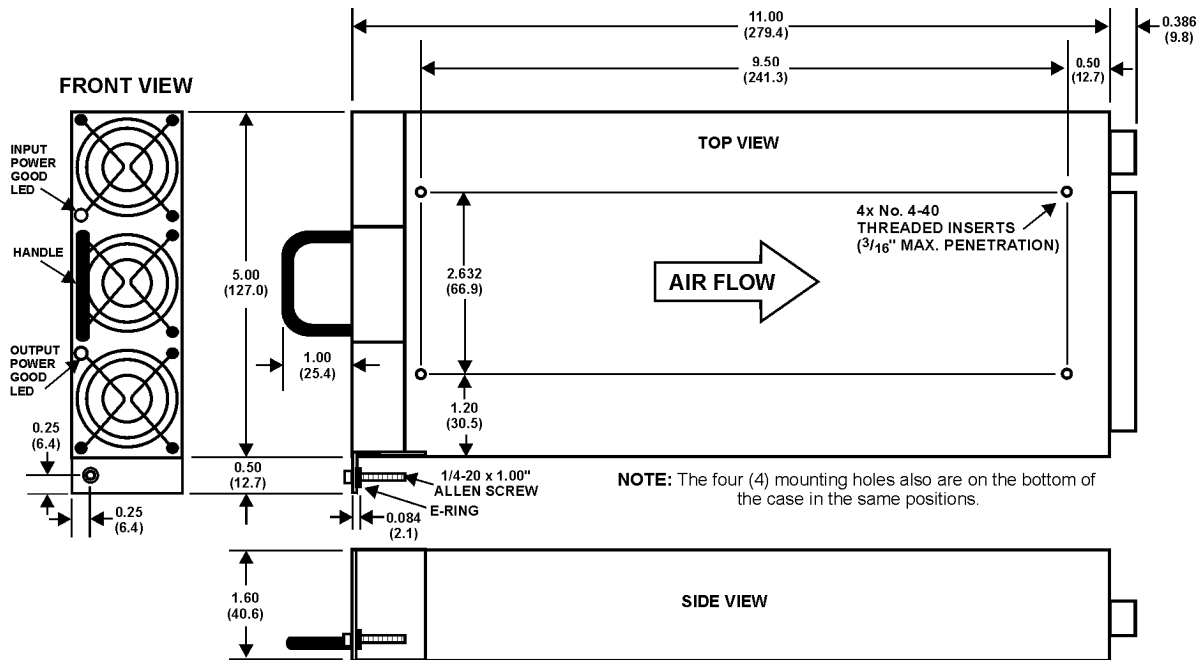
INPUT POWER FAIL. Provides a Logic High signal pulse when the AC line voltage ceases. Pulse occurs a minimum of 4 milliseconds before outputs go out of regulation. Pulse duration is 4 milliseconds up to tens of milliseconds, depending on load. Signal is Logic High rather than low (typical in non-redundant 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.