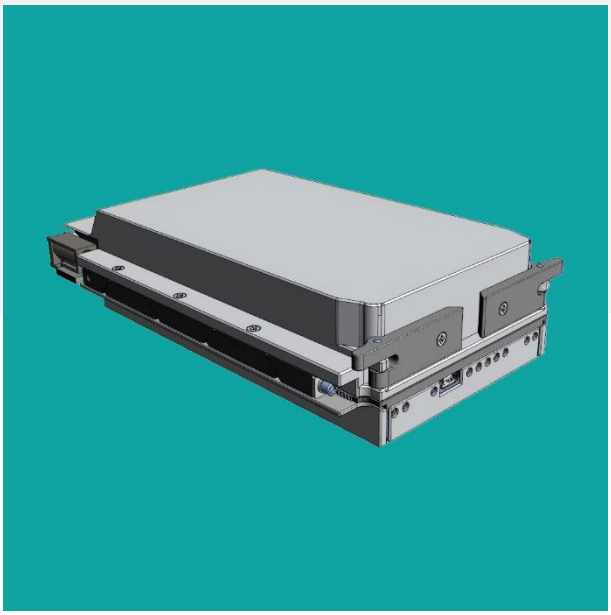

TECHNICAL DATASHEET

VITA 62 3U ISOLATED 1200W 115 VAC 400Hz POWER SUPPLY

This 3U power supply works with a 115VAC 3phase input and can be used for input frequencies from 380Hz to 440Hz and isolates each phase from the input voltage ground to the output voltage ground.

Designed into this power supply is a state of the art 3 Phase DSP controlled Power Factor Correction.

The power supply is conduction cooled, uses digital poly-phase technology on all output rails and can provide up to
1200 watts. It is suitable for use in mission critical rugged applications.

PRODUCT

PRODUCT NAME
BETESO 800.170

PRODUCT CODE
BETESO 800.170

CATEGORY
Power Supplies

RETAIL PRICE
On request

PRODUCT WARRANTY
Two Years

Features

- Digital On/Off control for low standby power
- Output Voltage rail setting /adjustment
- Power supply history logging and fault management
- Monitoring all output voltages, currents and power
- Automatic temperature drift compensation for all outputs
- Communication via SMB/I2C (PMB)for Vita 46.11 system management
- Collects data from temperature sensors for over temperature protection
- Precision compensation of all output voltages using integrated 5ppm voltage reference

Overview	
P/N	PCI_800.170
Hold Up time	TBD
VITA Compliant	VITA 62
Size	3U
Temp. Range	-40 +85 C
Input (AC or DC)	AC with PFC
Input Range (AC)	3x115
Active EMI Filtering	YES
Power (W, max.)	1200
Efficiency (%, typ.)	89
# of outputs	6

FEATURES	
Over-current Protection	YES
Over-voltage Protection	YES
Over-temperature Protection	YES
Current Sharing	NO
Remote Sense	YES
Standard Control	YES, VITA62
Extended Control	YES

Designed to meet the following standards, additional circuitry in the chassis may be required	
VITA62	YES
MIL-STD-704 (B-F)	YES
MIL-STD-461	YES
MIL-STD-810G	YES
* ESD Protection	YES
* Shock	YES
* Vibration	YES
* Rapid Decompression	YES
* Corrosion Resistance	YES
* Fungus Resistance	YES
* Altitude	YES
* Humidity	YES

OUTPUTS (Total output not to exceed 600W)	
VS1,V@A	+28V@40A
VS2, V@A	
VS3, V@A	+28V@40A
AUX, V@A	+3.3@4A
AUX, V@A	
AUX, V@A	

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Geschäftsführer: Fredrik Ljungman
Unternehmenssitz: 64807 Dieburg
Handelsregister: Frankfurt/M HRB 120479
USt. ID-Nr.: DE 334491379

INPUT CHARACTERISTICS					
Parameter	*Min.*	*Typ.*	*Max.*	*Units*	*Notes*
Absolute Maximum Ratings					
Input Voltage					
- Non-Operating, Vrms			265	V	Continuous
- Operating, Vrms			140	V	Continuous
- Operating Transient Protection, Vrms			300	V	1ms transient
Isolation Voltage			1500	V	
Operating Temperature	-40		85	C	
Storage Temperature	-55		105	C	
Electrical Characteristics					
Input Voltage					
- Continuous, Vrms	100	115	125	V	
- Transient, Vrms	80		180	V	Transient for 10 ms
Under-Voltage Lockout					
- Turn-On Input Voltage Threshold, *Vrms*	100		105	V	

INPUT VOLTAGE SPIKES SUPPRESSION (Vin Centered) Designed to meet the following standards, additional circuitry in the chassis may be required	
+/- 450V, 100 us	MIL-STD-1275E
+/- 490V, 10 us	MIL-STD-461C (CS06); DEF-STAN 61-5
+/- 450V, 5 us	MIL-STD-461C (CS06)
+/- 600V, 10 us	RTCA/DO-160E

Parameter	*+28V*	*+28V*	*+3.3V aux*	*Notes*
Output Voltage Set Point, V	28	28	3.3	Vin = 115Vrms
- Drift -40 deg.C to 85degC +/- %	0.01	0.01	0.01	Over Line/load/temp.
Output Voltage Trim Range, V	+/- 10%	+/- 10%	+/- 10%	Digitally adjustable
Output Voltage Ripple (pk-pk), mV	80	80	40	Full load with 1 uF + 10 uF tantalum capacitor **on each slot**
Operating Current Range, A	0-40	0-40	0-4	1200W Total, combined Output
Over-Voltage Protection, V	30	30	3.5	**Digitally adjustable**
Current Limit Inception, A	41	41	4.5	**Digitally adjustable**
Maximum Output Capacitance, mF	10	10	5	

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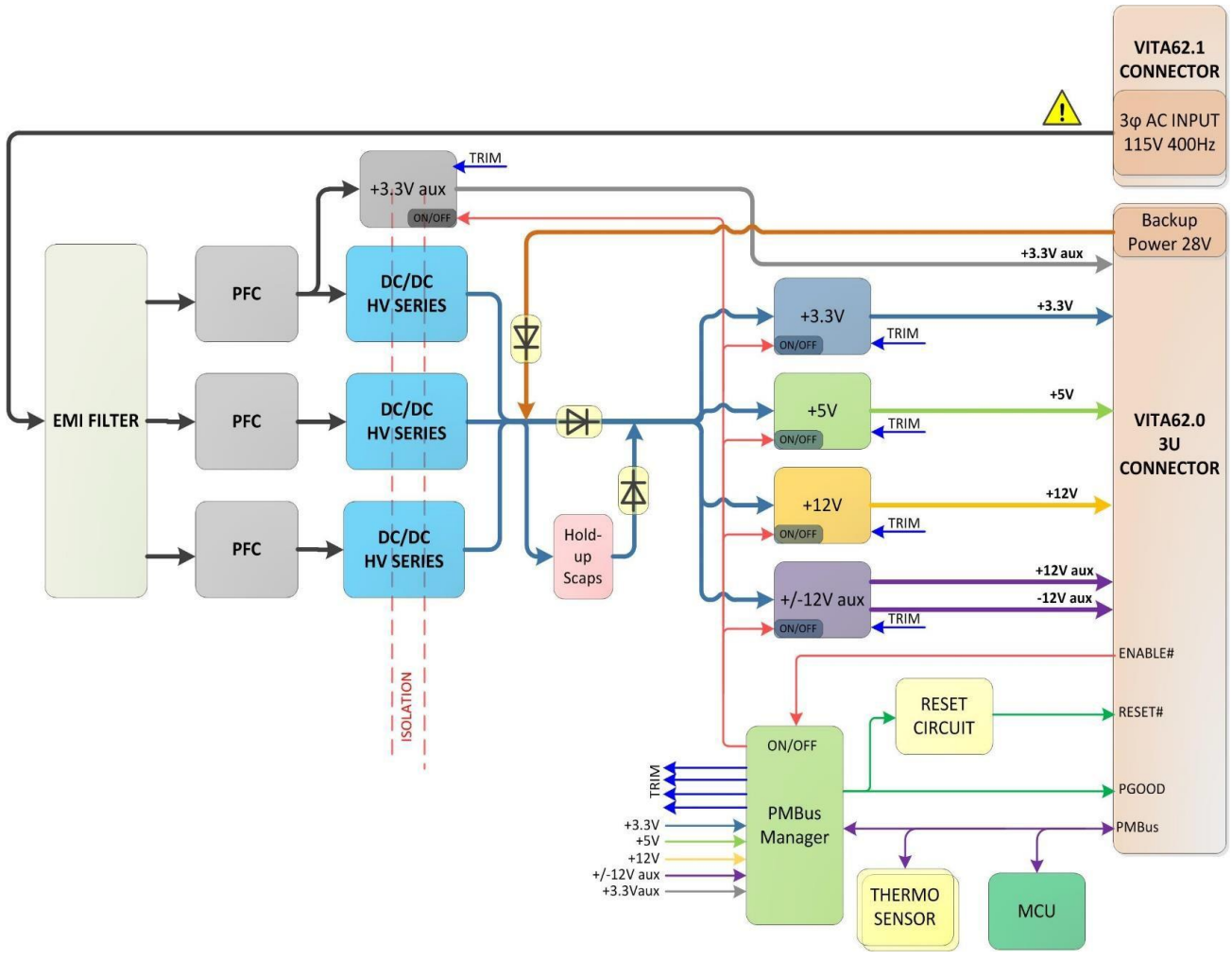
Designed to meet the following test standards, additional circuitry in the chassis may be required	
Test Name	*Method*
Random Vibration	MIL-STD-810, 514.6 - Procedure I, Class V3
Shock	MIL-STD-810, 516.6 - Procedure I, VI, Class OS2
Altitude	MIL-STD-810, 500.5 - Procedure I, II, III
Fungus Resistance	MIL-STD-810, 508.6
Corrosion Resistance	ASTM G85, Annex A4
Humidity	MIL-STD-810, 507.5 - Procedure II
High Temperature	MIL-STD-810, 501.5 - Procedure I, II
Low Temperature	MIL-STD-810, 502.5 - Procedure I, II
Temperature Cycling	MIL-STD-202, 107 - Class C4
ESD	EN61000-4-2, Level 4; 15kV Air Discharge

RELIABILITY CHARACTERISTICS

Calculated MTBF per MIL-HDBK-217F (GB) at 70 deg C. 4.1 280.000 Hrs.

Estimated MTBF in Airborne application 250.000 hours

Power factor is better than 0.95.



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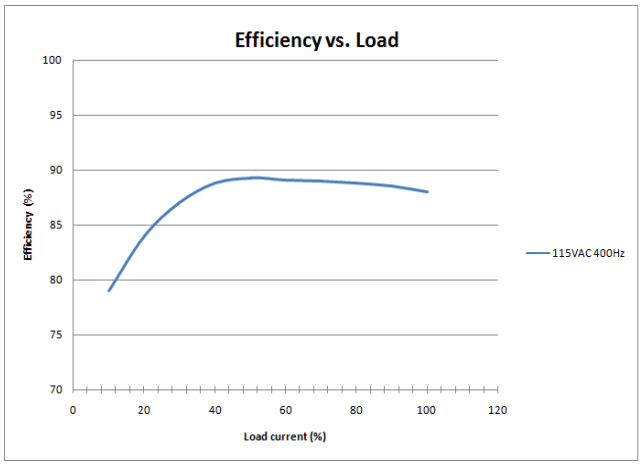
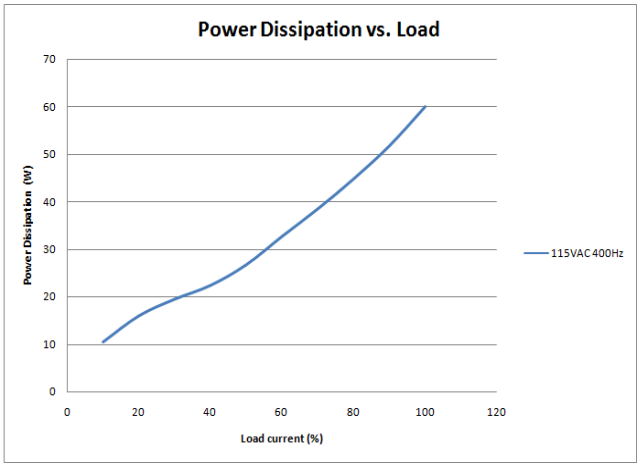
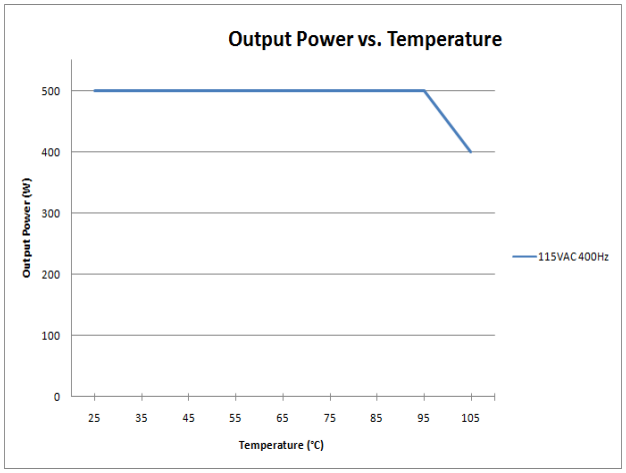
Pin-out: Based on VITA 62 and VITA 61.1 specification
Mechanical Dimensions: Based on VITA 62 specification (2" pitch)

Characteristic curves:







Thermal derating
Max. Output Power vs. temperature at thermal interface. (Delta T to wedgelock 7°C)

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