



SREGS-P3-5000U-01

5000 Watt Power Management Unit

Typical Applications:

- Unmanned Air Vehicles (UAV's) and Unmanned Ground Vehicles (UGV's)
- Remote Power Generation
- Power Regulation from Alternative sources, ex. wind or solar

Featuring:

- 3 Phase AC primary input, 15 - 85 VACrms.
- Very high power density, < 20W/in³ (1.2W/cm³)
- 24 - 32 VDC 180 Amp Primary Output
- MIL-SPEC circular connectors
- Operates up to 92% peak efficiency
- Lightweight aluminum enclosure with active thermal management



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Specifications



Output:	Conditions	Min	Max	Input:	Conditions	Min	Max
Main Output:	180A/5000W Max	24 VDC*	32 VDC*	Alternator Input Voltage:	3Ø 0 - 1 KHz	15 VAC	85 VAC
Secondary Output:	N/A			Backup Battery:		24 VDC	32 VDC
Tertiary Output:	N/A						
Maximum Total Power:			5000 Watts	External Shore Power:	DC	24 VDC	32 VDC
Efficiency:	Peak		92%	Battery Switch Time:	N/A		
Self Protection:	Overvoltage, Undervoltage, Overcurrent, Reverse EMF			Mechanical: Conditions			
Maximum Overload Current:	Up to 10mS duration		125%	Enclosure Material:	Black Anodized Aluminum		
Output Ripple, Maximum:	p-p All Outputs		500mV	Dimensions:	310 mm x 180 mm x 120 mm		
Voltage Regulation:	All outputs		+/-500mV	Weight:	4750g		
Status Signal:	5V High Impedance			Connectors:	MIL-SPEC Circular Connectors		
Battery Charger Type:	Basic, Cell monitoring, or Full balance charging options available			Design Standard:	MIL-STD 1275D		
Back-up Battery Charging:	LiPO, Lilon, LifePO4, NiCad, NiMH, SLA, Lead Acid*		2000mA	Conformal Coating:	MIL-I-46058C Type UR		
				Cooling:	2x56 CFM Fans, may be replaced by forced air		
				Operating Temperature:	-20C to 55C Ambient		
				Storage Temperature:	-40C to 85C		

*Factory Adjustable

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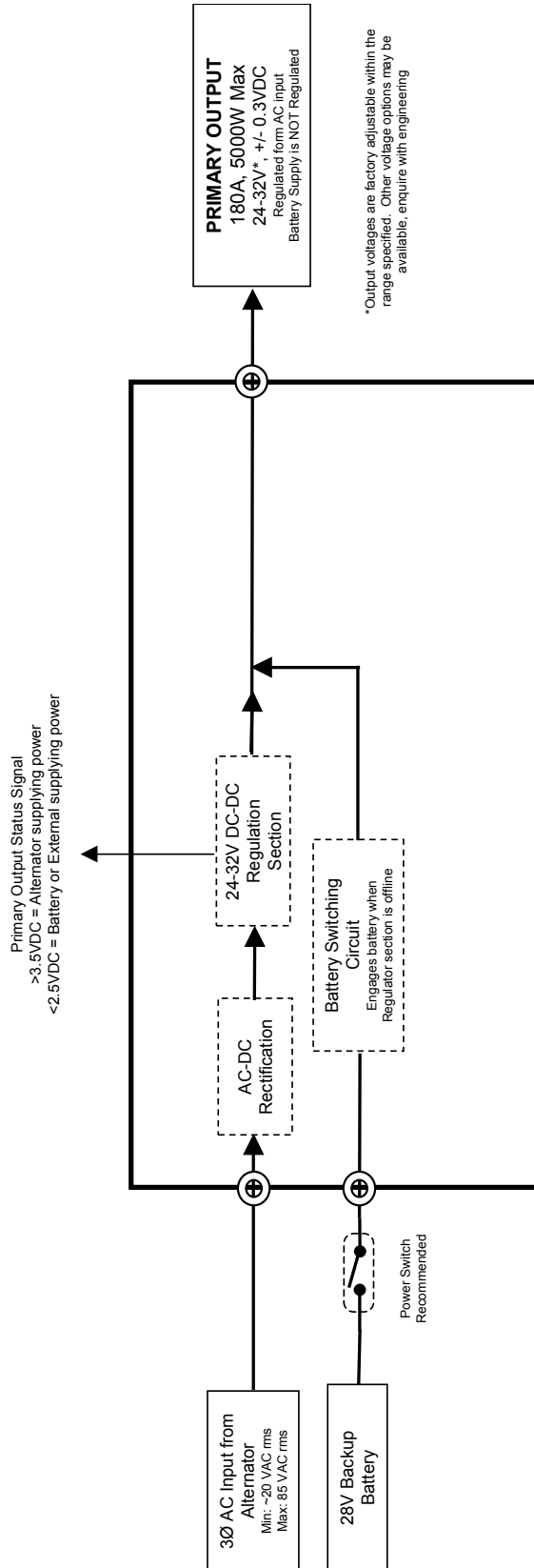
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8950 Yellow Brick Rd
Baltimore MD 21237
(410) 732-3500
www.sullivanuv.com

SULLIVAN UV SREGS-P3-5000-01 PMU Block Diagram

Created: April 9, 2015
Revised: June 1, 2016



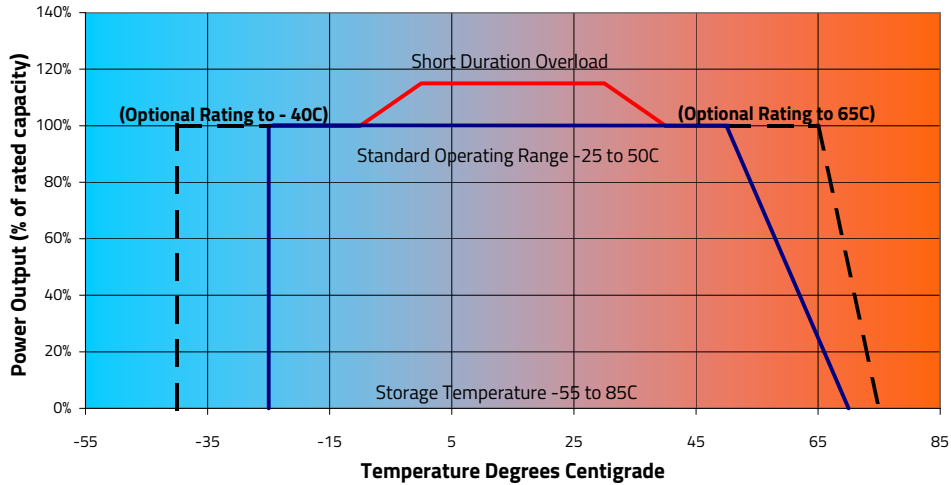
General Notes:

- Customer responsible for fusing all loads
- Enclosure type: Welded Aluminum, Black Anodize
- All connections are Circular Connectors: MIL-DTL-5015 type
- All outputs are filtered to 100Mhz to 1 Ghz and include protection against Reverse Polarity and Transients

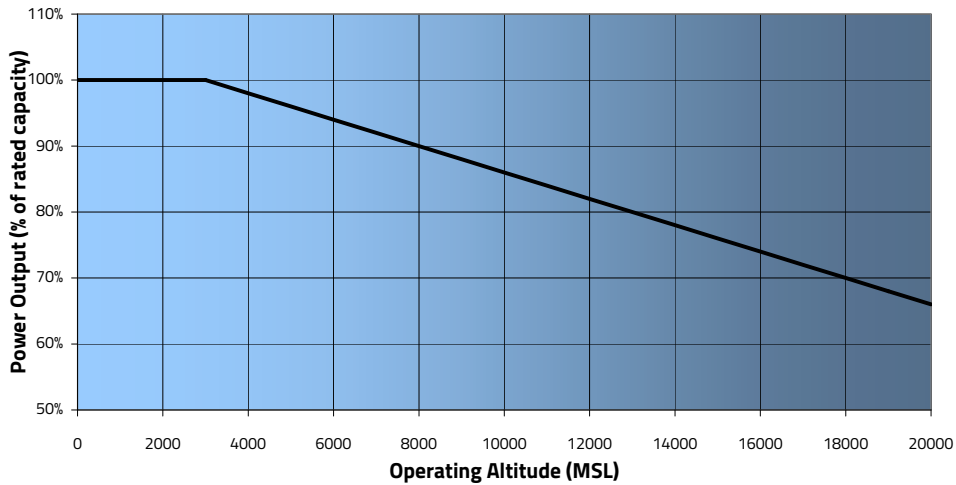
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For further information contact:
Sullivan Products
(410) 732-3500
www.sullivanuv.com

Performance

Allowable Storage and Operating Temperature Profile

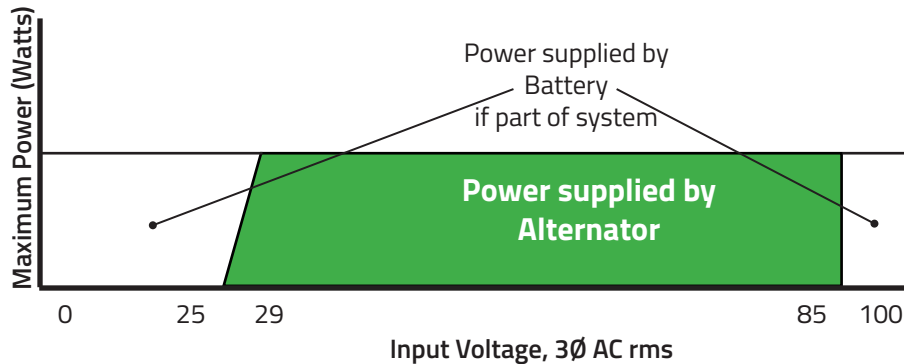


Power Derating due to Altitude



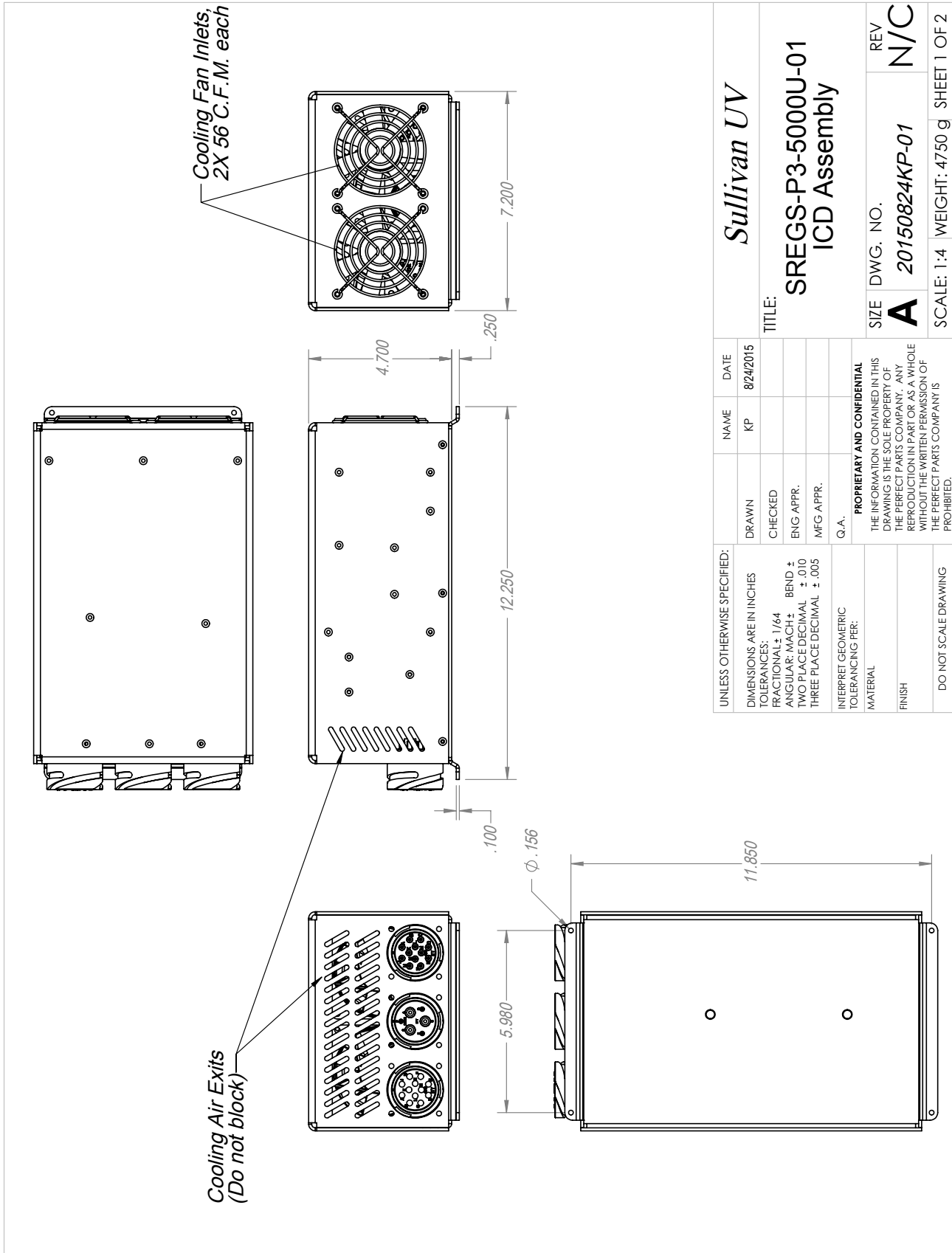
Alternator Input Range

28V Primary Output



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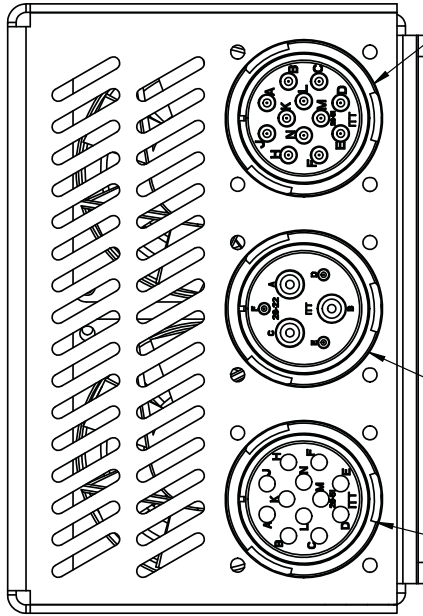
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UNLESS OTHERWISE SPECIFIED:		NAME	DATE	Sullivan UV	
DIMENSIONS ARE IN INCHES		KP	8/24/2015	TITLE:	
TOLERANCES:		DRAWN		SREGS-P3-5000U-01	
FRACTIONAL: $\pm 1/64$		CHECKED		ICD Assembly	
ANGULAR: MACH \pm		ENG APPR.		SIZE	DWG. NO.
TWO PLACE DECIMAL $\pm .010$		MFG APPR.		A	20150824KP-01
THREE PLACE DECIMAL $\pm .005$		Q.A.		SCALE: 1:4	WEIGHT: 4750 g
INTERPRET GEOMETRIC TOLERANCING PER:		<p>PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF THE PERFECT PARTS COMPANY. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF THE PERFECT PARTS COMPANY IS PROHIBITED.</p>		REV	N/C
MATERIAL				SHEET 1 OF 2	
FINISH				1	
DO NOT SCALE DRAWING				2	
				3	
				4	
				5	

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Connector J1: Regulated DC Output
 ITT CANNON MIL-C-5015 CA-Bayonet
 P/N: CA3102E28-51SB109
 Mates with: CA3106E28-51PBF80
 Pins A thru F: Output, 28VDC (+)
 Pins H thru N: Output, 28VDC (-)
 Note: 12 AWG wires for all

Connector J2: Alternator AC Input
 ITT CANNON MIL-C-5015 CA-Bayonet
 P/N: CA3102E28-22PB109
 Mates with: CA3106E28-22SBF80
 Pin A: Alternator Phase U*, 4 AWG
 Pin B: Alternator Phase V*, 4 AWG
 Pin C: Alternator Phase W*, 4 AWG
 Pin D: Status signal (+) 16-20 AWG
 Pin E: Status signal (-) 16-20 AWG
 Pin F: Not Used
 Note: * Phase order does not matter for AC input

Connector J3: Backup Battery Input
 ITT CANNON MIL-C-5015 CA-Bayonet
 P/N: CA3102E28-51PB109
 Mates with: CA3106E28-51SBF80
 Pins A thru F: Battery (+)
 Pins H thru N: Battery (-)
 Note: 12 AWG wires for all

UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN INCHES	KP	8/24/2015
TOLERANCES:		
FRACTIONAL: ± 1/64		
ANGULAR: MACH ± BEND *		
TWO PLACE DECIMAL ± 0.10		
THREE PLACE DECIMAL ± .005		
INTERPRET GEOMETRIC TOLERANCING PER:		
MATERIAL		
FINISH		
DO NOT SCALE DRAWING		

Sullivan UV	
TITLE:	SREGS-P3-5000U-01 ICD Assembly
SIZE	DWG. NO. A 20150824KP-01
REV	N/C
SCALE: 1:2	WEIGHT: 4750 g SHEET 2 OF 2

1 2 3 4 5