

UPS-3PH-5300VA-115VAC

4000 WATTS/5300VA

THREE PHASE 115VAC DELTA INPUT
ACTIVE POWER FACTOR CORRECTION

UPS-5300VA-BP

54AH BATTERY BANK
LEAD ACID MAINTENANCE FREE



Switching Power Inc. ©

UPS-3PH-5300VA-115VAC

UPS-3PH-5300VA-115VAC KEY FEATURES:

- True Online Rugged SINEWAVE UPS
- 4000 Watts in 19" Rack Mount 5U High.
- 3 Phase 115V/60Hz Input with Active Power Factor Correction(Greater Than 0.99)
- Meets MIL-STD-1399, Section 300A (Type I) power for the Voltage Range Specified.
- Input Current THD not Exceeding 4%.
- Ruggedized Modular Design, with Efficiency Exceeding 80%.
- Provides Very High Quality Pure Sinewave Output(2% THD)
- Capable of driving non-linear loads such as non-PFC Switching Power Supplies up to 5300VA.
- Low Weight(less than 85lbs without Batteries).
- Specifically Designed for Submarine and Shipboard Applications in Compliance to MIL-STD-1399, MIL-STD-461F, and MIL-STD-810G.
- Contains a High Efficiency Three Stage Battery Charger to Optimally Control the Charge and Hold cycle for Sealed Lead Acid Batteries.
- Optimal Charging conditions are maintained over an Extended Temperature Range with an Internal Reference that tracks the Nominal Temperature Characteristics of the Lead Acid Cell.
- Micro USB and SNMP Interface with Monitoring Software Supplied.

Rev D (04/01/2014)



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UPS-3PH-5300VA-115VAC

Nominal Input Voltage	115V 3-Phase, four wire	Isolated TTL Logic signals:	AC INPUT OK_H AC OUTPUT OK_H TEMP OK_H FAN OK_H BAT OK_H; BAT MODE_H BEEPER ON_H
Input Frequency	60Hz ± 5% (50Hz Available)	Isolated Inhibit Signal	Contact Closure to Signal RTN turns off output
Operational Input Voltage Range	115V ±10% with excursions of ±20% for up to 2 minutes	State of Charge(SOC) Beeper On/Off	Isolated 0-2.5V signal Switch located on front panel and also can be turned off using BEEPER ON/OFF signal
Input Current THD	Input Power Factor exceeding 0.99 at full load	Indicators	LEDs provided for all signals and LED ARRAY for SOC
Input Load Balance	<4% at full load	Micro USB/SNMP/HTTP	Communication Interface (See app. note for more info)
Inrush Current	Current loading for any phase does not exceed the average of the currents in all 3 phases by more than 5%	Cooling	Forced Air Cooled (Front to Back design)
Fusing	Less than 5msec. 25Apk at 132 VAC	Size	19" sub-rack 5U high x 20" DP
Input Circuit Breaker	(3 x 40 Ampere)/480VAC, Very fast acting	Weight	85Lbs max
Input Current Leakage	Located on front panel, 3 Pole 35A/250V	Environmental Designed to meet MIL-STD-810G:	
Efficiency	Less than 5.0mA max at 132 VAC	Operating Temp 0°C to 50°C(method 501.5),	
Turn on Time	82% Typical at full load	Non-Operating Temp -40°C to 85°C(method 502.5),	
AC Output Voltage	1 sec max from power up	Humidity(method 507.5),	
Frequency	Waveform Pure Sinusoidal	Altitude up to 10,000 ft operational(method 500.5),	
Load Current	115Vrms ± 3%	Altitude up to 40,000 ft non-operational(method 500.5),	
Peak Load Current	60Hz ± 0.5%	Fungus(method 508.6), Salt Fog(method 509.5),	
Load Power Factor	35A RMS	Sand and Dust(method 510.5, Procedures 1,2),	
Load Crest Factor	105A	Vibration(method 514.6 Category 24 Procedure I),	
Total Harmonic Distortion	0-1.0 (leading or lagging)	Shock 15g for 40ms, half sine, each direction all axes,	
Output Circuit Breaker	<3:1	EMI: MIL-STD-461F	
Input and Output Isolation	2% (4000W resistive load)		
Over Voltage Protection	2 pole 40A/250V (Front panel On/Off push button)		
Over Temperature Protection	2200VDC from Input to Output, and from I/O to Chassis		
Current Limiting	Shutdown at 110-115% of nominal Vout Recycle input power to reset		
Battery Run Time	Unit shuts down if overheated Recycle input power to reset		
	Current clamped to less than 120Apk Power limited to 4500W max		
	Greater than 10 minutes with SPI external Battery Rack		

Rev D (04/01/2014)

BATTERY BANK



UPS-5300VA-BP



UPS-5300VA-BP

UPS-5300VA-BP

KEY FEATURES:

- **54AH battery bank is a rugged battery option that consists of four valve regulated lead-acid, maintenance-free 54AH batteries.**
- **Contains a 125A/80VDC output circuit breaker. Each battery individually fused with very fast acting 20A/125VDC fuses. Fuses are rear panel mounted for easy access. Front panel LEDs provide indicating fuse status.**
- **Provides greater than 10 minutes of back up run time at 4000W/5300VA load when powering SPI model UPS-3PH-5300VA-115VAC.**
- **The batteries are housed in a 6U rack mount enclosure providing easy serviceable battery replacement.**
- **Provides a TEMP signal to monitor battery bank temperature.**
- **Wide operating temperature range -20°C to +60°C.**
- **Ruggedized mechanical design to meet MIL-STD-810G environmental requirements.**
- **Size: 19" sub-rack 6U High X 22" DP**
- **Weight: 195 Lbs max.**

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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPRVD
G		REVISED, C024793	27FEB14	MJH

J1 - AC INPUT POWER MS3452W24-22P	
PIN NO.	DESCRIPTION
A	PHASE A
B	PHASE B
C	PHASE C
D	EARTH GND

J2 - AC OUTPUT MS3452W24-10S	
PIN NO.	DESCRIPTION
A	115VAC/35A RMS
B	115VAC/35A RMS
C	115VAC/35A RMS
D	115VAC RTN
E	115VAC RTN
F	115VAC RTN
G	EARTH GND

J3 - EXTERNAL BATTERY MS3452W32-17P	
PIN NO.	DESCRIPTION
A	48VDC/100A
B	48VDC/100A
C	48VDC RTN
D	48VDC RTN

J4 - BATTERY SIGNALS D38999/20WD5SN	
PIN NO.	DESCRIPTION
A	N/C
B	N/C
C	+15V
D	SIG RTN
E	TEMP

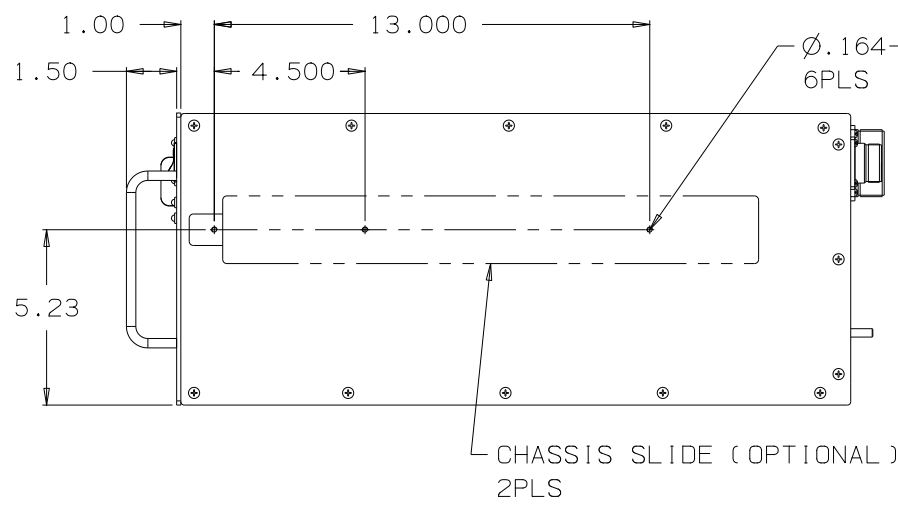
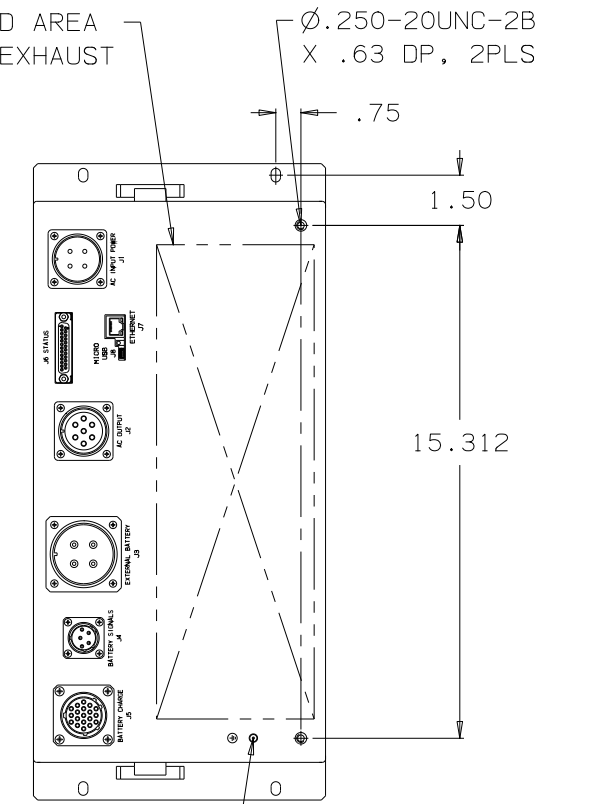
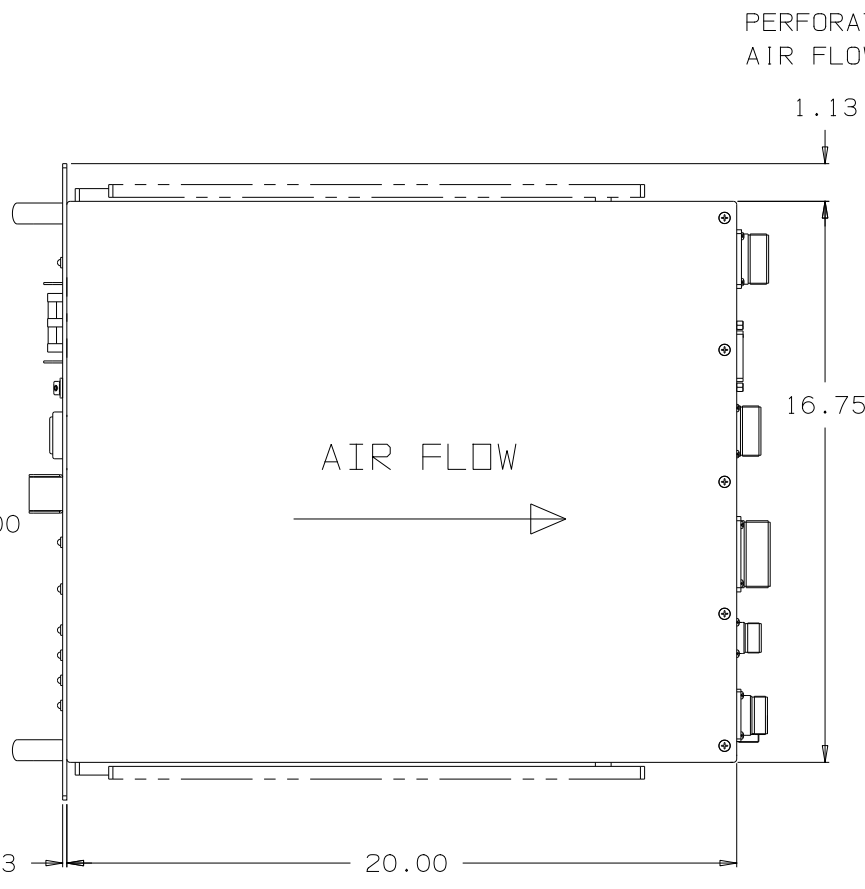
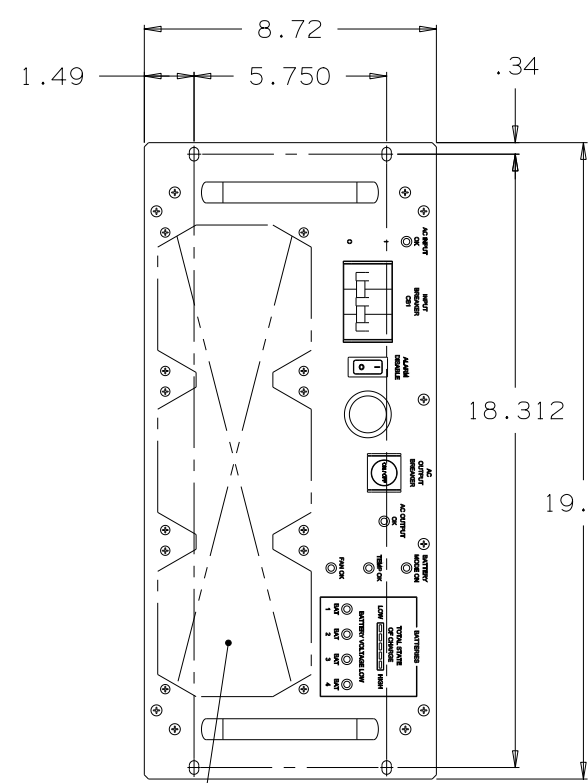
J5 - BATTERY CHARGE D38999/20WJ19SN	
PIN NO.	DESCRIPTION
A	BAT 1 (+)
B	BAT 1 (-)
C	BAT 1 PRESENT
D	N/C
E	BAT 2 (+)
F	BAT 2 (-)
G	BAT 2 PRESENT
H	N/C
J	BAT 3 (+)
K	BAT 3 (-)
L	BAT 3 PRESENT
M	N/C
N	BAT 4 (+)
P	BAT 4 (-)
R	BAT 4 PRESENT
S	N/C
T	N/C
U	N/C
V	V BAT

J6 - STATUS 25 PIN D-SUB (FEMALE)	
PIN NO.	DESCRIPTION
1	BEEPER ON_H
2	SIG RTN
3	AC OUTPUT OK_H
4	SIG RTN
5	BATTERY MODE H
6	SIG RTN
7	TEMP OK H
8	SIG RTN
9	AC INPUT OK H
10	SIG RTN
11	BEEPER ON/OFF
12	SIG RTN
13	BAT OK H
14	SIG RTN
15	FAN OK H
16	SIG RTN
17	INHIBIT
18	SIG RTN
19	SDC
20	SIG RTN
21	N/C
22	N/C
23	N/C
24	N/C
25	N/C

J7 - ETHERNET RJ45 RECEPTACLE	
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J8 MICRO USB	
PIN NO.	DESCRIPTION
1	+5V
2	DATA -
3	DATA +
4	N/C
5	SIG RTN

LED DEFINITION	
LED POSITION	DESCRIPTION
AC INPUT OK	GREEN (OK)
AC OUTPUT OK	GREEN (OK)
BATTERY MODE ON	AMBER (ON)
TEMP OK	GREEN (OK)
FAN OK	GREEN (OK)
STATE OF CHARGE	5 POS GREEN BAR (LOW-HIGH)
BAT 1	OFF (CHARGED) AMBER (DISCHARGING) RED (DISCHARGED)
BAT 2	OFF (CHARGED) AMBER (DISCHARGING) RED (DISCHARGED)
BAT 3	OFF (CHARGED) AMBER (DISCHARGING) RED (DISCHARGED)
BAT 4	OFF (CHARGED) AMBER (DISCHARGING) RED (DISCHARGED)



CLASSIFICATION OF CHARACTERISTICS UNLESS OTHERWISE SPECIFIED:		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON	SWITCHING POWER, INC. 3601 VETERANS HWY. RONKONKOMA, N.Y. 11779	
ALL CHARACTERISTICS ARE MINOR MAJOR CHARACTERISTICS ARE IDENTIFIED WITH THIS SYMBOL: M			OUTLINE UPS-3PH-5300VA-115VAC	
STANDARD TA23360	UPS-3PH-5300VA-115VAC	FRACTIONS ± 1/64 ANGLES ± 1° DEC. .XX ± 0.03 DEC. .XXX ± 0.010	SIZE D	CODE ID NO. 59529
NEXT ASSY	USED ON	MATERIAL: N/A	DRAWN: M. HERRINGER CHECKED: J. ACCARDI	
APPLICATION	FINISH: N/A	APPD: D. KRAVITZ	SCALE: 1/1	21161
			SHEET: 1 OF 1	

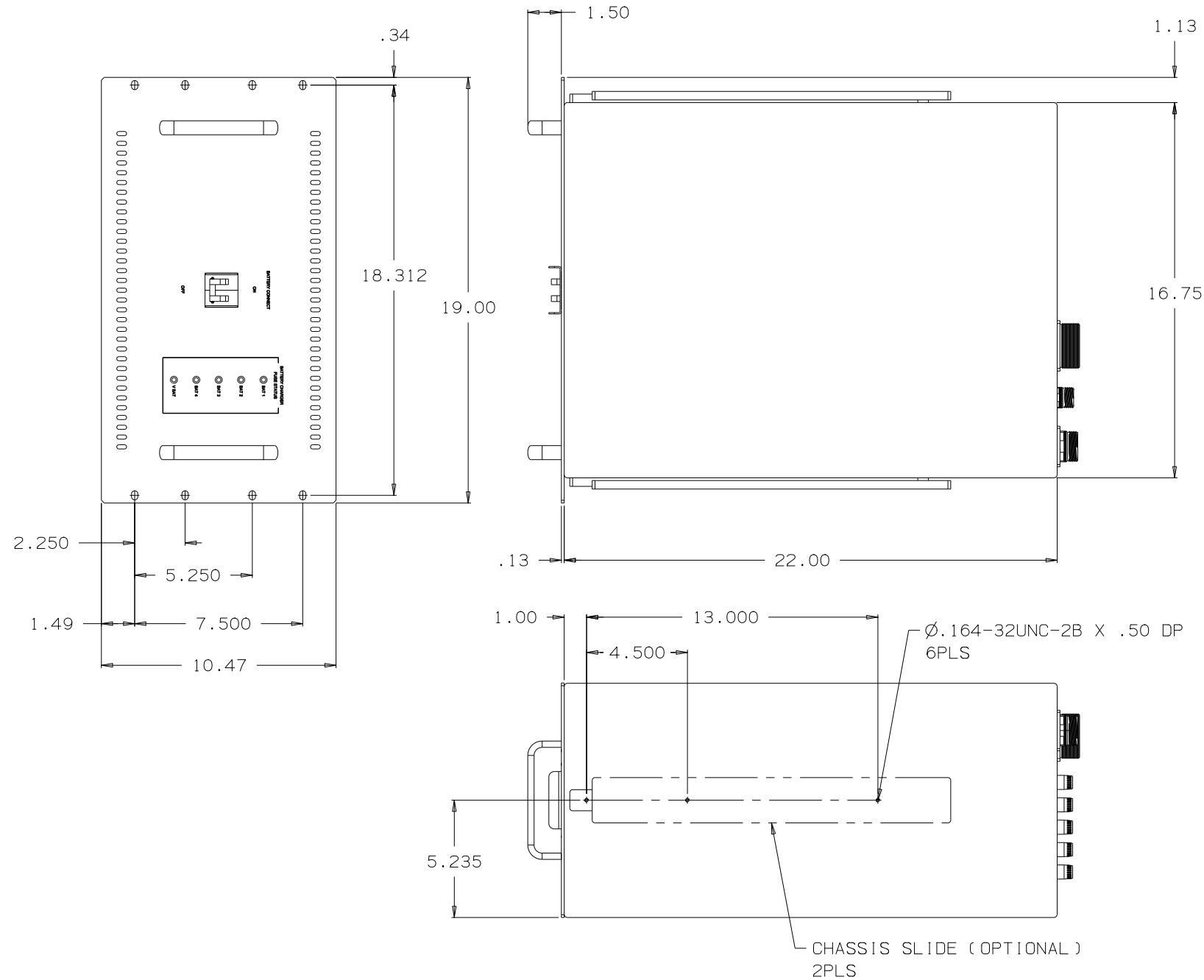
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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPRVD
	D	REVISED AND REDRAWN, C024793	26MAR14	MJH

J3 - BATTERY MS3452W32-17S	
PIN NO.	DESCRIPTION
A	48VDC/100A
B	48VDC/100A
C	48VDC RTN
D	48VDC RTN

J4 - BATTERY SIGNALS D38999/20WD5PN	
PIN NO.	DESCRIPTION
A	N/C
B	N/C
C	+15V
D	SIG RTN
E	TEMP

J5 - BATTERY CHARGE D38999/20WJ19PN	
PIN NO.	DESCRIPTION
A	BAT 1 (+)
B	BAT 1 (-)
C	BAT 1 PRESENT
D	N/C
E	BAT 2 (+)
F	BAT 2 (-)
G	BAT 2 PRESENT
H	N/C
J	BAT 3 (+)
K	BAT 3 (-)
L	BAT 3 PRESENT
M	N/C
N	BAT 4 (+)
P	BAT 4 (-)
R	BAT 4 PRESENT
S	N/C
T	N/C
U	N/C
V	V BAT



Ø.250-20UNC-2B X .63 DP, 2PLS

CHASSIS SLIDE (OPTIONAL)
2PLS

CLASSIFICATION OF CHARACTERISTICS UNLESS OTHERWISE SPECIFIED: ALL CHARACTERISTICS ARE MINOR MAJOR CHARACTERISTICS ARE IDENTIFIED WITH THIS SYMBOL: M CRITICAL CHARACTERISTICS ARE IDENTIFIED WITH THIS SYMBOL: C		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS ± 1/64 ANGLES ± 1° DEC. .XX ± 0.03 DEC. .XXX ± 0.010	SWITCHING POWER, INC. 3601 VETERANS HWY. RONKONKOMA, N.Y. 11779
STANDARD TA24940 LPS-5300VA-BP	NEXT ASSY USED ON	DRAWN: P. HERRINGER CHECKED: J. ACCARDI	OUTLINE LPS-5300VA-BP
APPLICATION	FINISH: N/A	APPD: D. KRAVITZ	SIZE D
			CODE ID NO. 59529
			25738
			SCALE: 1/1
			SHEET: 1 OF 1