

LiquaBlade

16.5kW Water-Cooled Power Supply



Providing high operating efficiency along with excellent reliability, compact size, and easy maintainability; LiquaBlade™ power supplies are the ideal choice for high power DC systems in industrial and military applications. The converter features automatic load sharing and international power input.

Agency/Compliance:

- EN61000-4-4 1995 Electrical Fast Transient/Burst - Severity Level 3
- EN61000-4-5 1995 Surge - Severity Level 4
- SEMI F47-0706 - Criteria A (Operating at less than 11kW Load)
- EMI: Designed to meet CISPR 11 Class A Group 1 2004 with external filter (consult factory)
- UL60950-1, 2nd Edition
- EN60950-1/A12:2011
- IEC60950-1, 2nd Edition, CE Marked (LVD)

BENEFITS

Reduced System Complexity and Time to Market

Wide range of models with fully adjustable outputs. Multiple control modes provide ultimate application flexibility.

High Reliability for Critical Applications

Astrodyne TDI's comprehensive reliability assurance processes, including design to the rigorous requirements of NAVSO P3641A, HALT, DFMEA and our unique Highly Accelerated Stress Screening (HASS) on 100% of production units, assure the ultimate in unit reliability and performance.

High Power Density

Up to 16.5kW power in a 1U high, 19" rack space.

FEATURES

- SEMI-F47
- DC Outputs Options: 0-60V, 0-120V, 0-180V, 0-500V (Adjustable)
- Alarm Outputs
- CanBus Controls
- Constant Voltage / Constant Current / Constant Power Control Modes
- High Efficiency: 92% power conversion efficiency
- Liquid Cooled – Water, DI Water, WEG compatible
- Blind Mate/Hot Swappable
- High Reliability: 100% HASS Tested
- 1U / 19" Rack Compatible
- Parallel / Series compatible
- Designed to NAVSO P-3641A
- Full PFC - High Power Factor –
- Low Input Current THD

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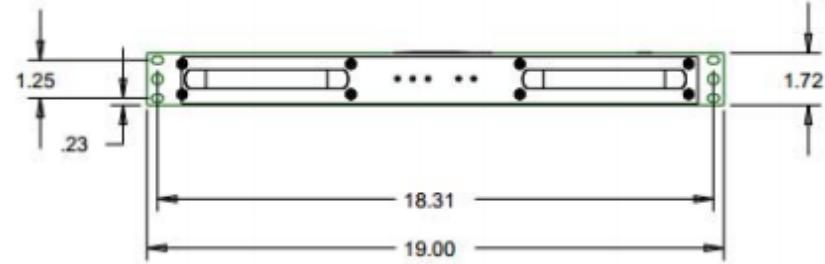
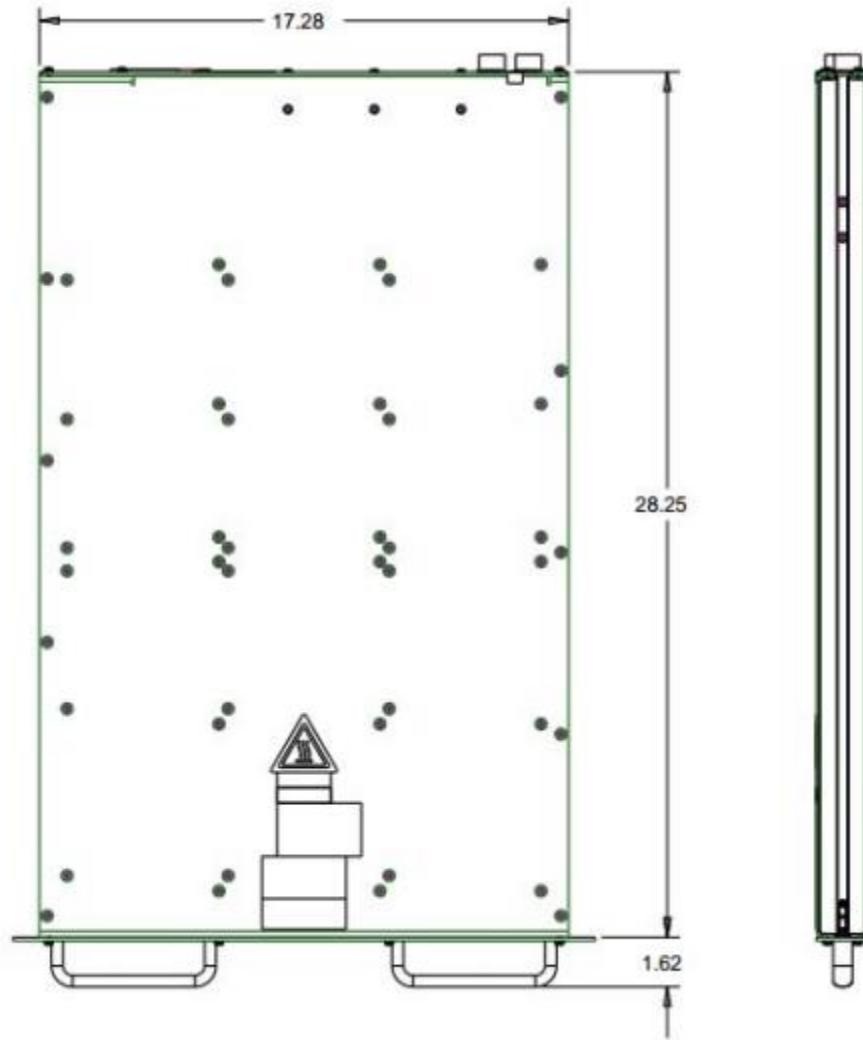
16.5kW Water-Cooled Power Supply

MODEL NUMBER	PART NUMBER	DESCRIPTION
SPS5930-1-LF	T100103091-1-LF	RECTIFIER, 0-60V, 0-360A, 16.5kW, L-Droop CS
SPS6011-1-LF	T100108057-1-LF	RECTIFIER, 0-120V, 0-240A, 16.5kW, L-Droop CS
SPS5975-1-LF	T100104286-1-LF	RECTIFIER, 0-180V, 0-120A, 16.5kW, Droop CS
	T100117293-1-LF	RECTIFIER, 0-500V, 0-45A, 16.5kW, L-Droop CS
SPS5936-LF	T100103270-LF	SHELF, LiquaBlade
PARAMETER		
Input AC	380-480 VAC, three phase	
AC Frequency	50/60 Hz	
Max Input Current	31A	
Power Factor	>.93 at full power	
Outputs, DC	0-60V Model 0-120V Model 0-180V Model 0-500V Model For fixed output options contact factory	
Output Power	16.5kW Maximum	
Efficiency	>92%	
Ripple/Noise	Less than 300mVpk-pk with 20Mhz bandwidth	
Line Regulation	+1% of output voltage	
Protection Features	Output Over Voltage Protection: Power Supply will latch off. Output Over Current Protection: Automatic electronic current limit circuitry. Over Temperature Protection: Unit shuts down if temperatures exceed safe limits. Unit will automatically power back on after cool down.	
Visual Indicators	Front panel LED	
Operating Temp.	+5 to +50°C	
Storage Temp.	-40 to +85°C	
Humidity	0% to 95% non-condensing	
Isolation	Input to Output: 3000Vac or 4242VDC Input to Ground: 2164Vac or 3060VDC Output to Ground: 1000Vdc	
Connections	AC Input: Phoenix Contact Terminal Block DC Output: 5/8" Stud Signals: CAN BUS: RJ11 RS-232: DB9	
Harmonics	Meets IEC61000-3-4 1998 Emissions of Harmonic Currents	
Dimensions (inches)	1.72" x 17.5" x 31.2" (1U)	
Cooling	Liquid Cooling Nominal: 2 GPM	
Warranty	1 Year	

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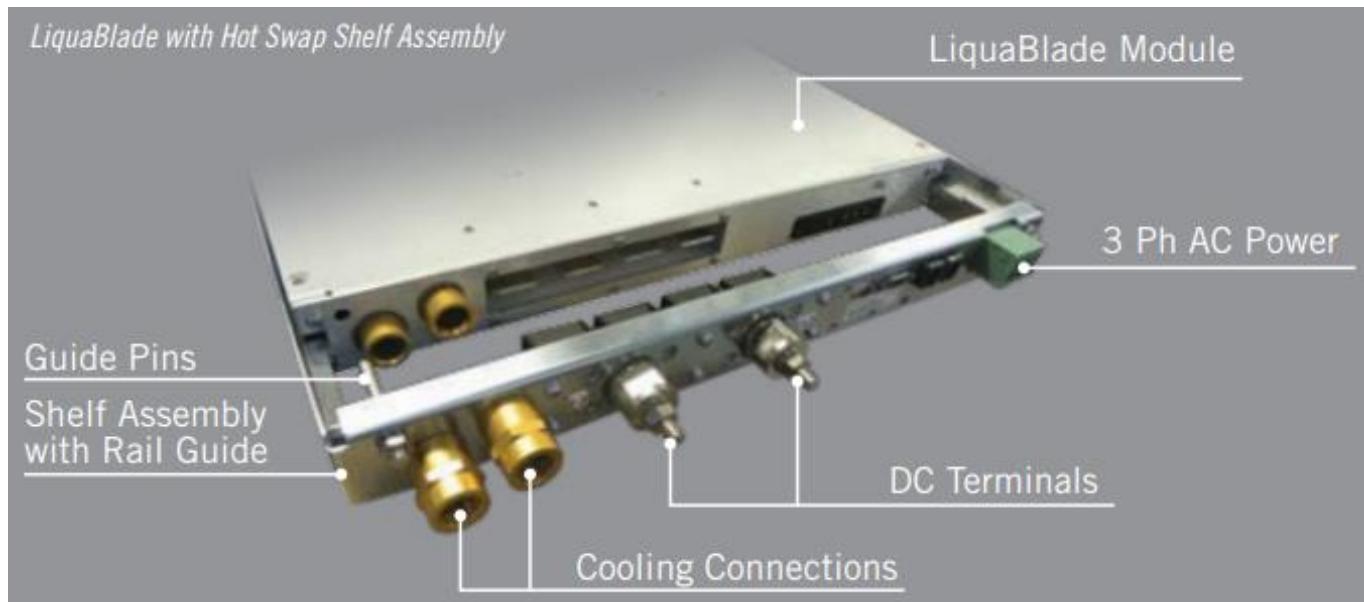
Module and Shelf Outline:



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Module to Shelf Connection:



Block Diagrams:

