

LIQUACORE™

5.5KW WATER COOLED POWER SUPPLY

Providing high operating efficiency along with excellent reliability, compact size, and easy maintainability, LiquaCore™ power supplies are the ideal solution for embedded DC systems in demanding industrial and military applications. A fully adjustable, wide-range DC output is configurable via a digital interface with real-time feedback. Packaged in a 2U chassis, this AC DC liquid-cooled power supply will deliver up to 5.5kW from a 380 480VAC, three-phase power input. LiquaCore™ modules can be connected in parallel to deliver increased power for ultimate scalability in industrial process applications.

MAIN CHARACTERISTICS:

- ✓ DC Output Range: 0 60V (Adjustable)
- ✓ CANbus Control Interface
- ✓ Constant Voltage / Constant Current / Constant Power Control Modes
- ✓ High Efficiency: 93% power conversion efficiency
- ✓ Liquid Cooled Water, DI Water, WEG compatible
- ✓ High Reliability: 100% HASS Tested
- ✓ Designed to NAVSO P 3641A
- ✓ 380V 480V (+/- 10%)

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 and IPC9592B HALT, DFMEA and our unique Highly Accelerated Stress Screening (HASS) on 100% of production units, assure the ultimate in unit reliability and performance.



FEATURES

UNIVERSAL AC INPUT

380V - 480V (+/- 10%) three phase

WIDE RANGE OUTPUTS

0 - 60 V (For additional options contact the factory)

DIGITAL REMOTE CONTROL

CANBus Control Interface

PARALLEL AND REDUNDANT OPERATION

Automatic current sharing, output fault isolation device, and hot hot-swap compatible

AGENCY/COMPLIANCE:

EN61000 4 4 1995 Electrical Fast Transient/Burst

Severity Level 3

EN61000 4 5 1995 Surge Severity Level 3

EN61000 4 2, 1995 Electrostatic Discharge, Level 3

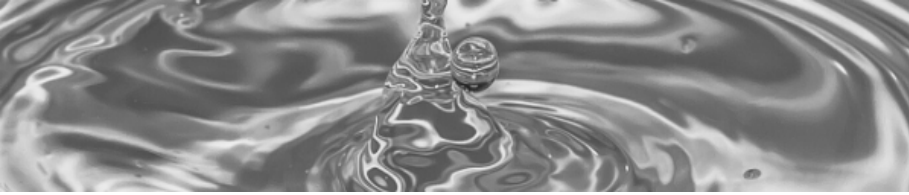
stand alone.

EN61000 4 3, 1996 Electromagnetic Immunity, Level 2

stand alone.

EMI: Designed to meet **CISPR 11 Class A Group 2 2004**

IEC/EN/UL 62368 1



LIQUACORE™

5.5KW WATER COOLED POWER SUPPLY

PARAMETERS

LIQUACORE™

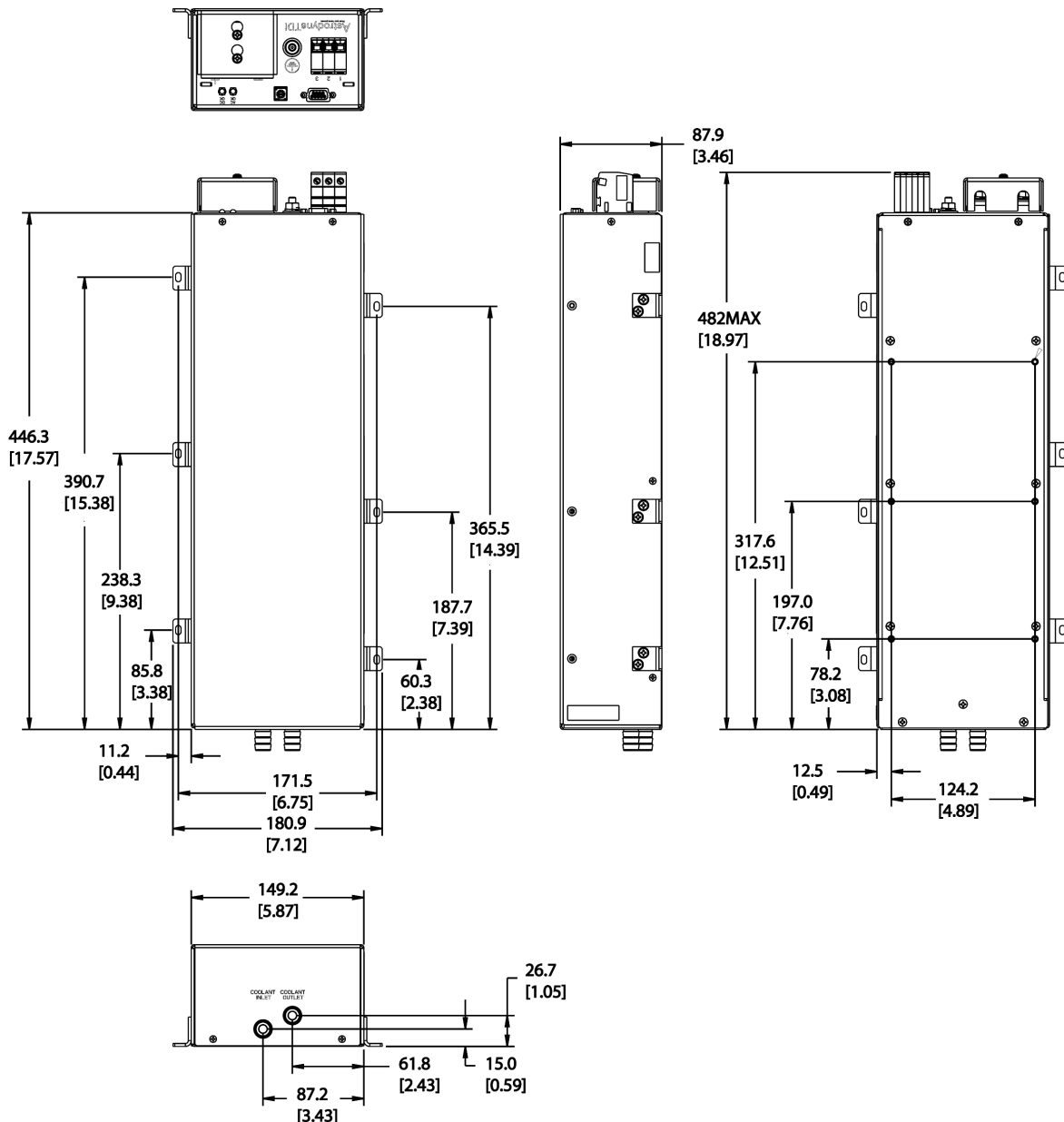
| | |
|-------------------------------|---|
| Input AC | 380V - 480V (+/-10%) three phase |
| AC Frequency | 47-63Hz |
| Max Input Current | 13A |
| Power Factor | >.90 at full power |
| Outputs, DC | 0-60V (For additional options contact factory) |
| Output Power | 5.5 kW Maximum |
| Efficiency | >93% |
| Ripple/Noise | Less than 300 mVpk pk with 20 Mhz bandwidth |
| Line Regulation | +/-1% of output voltage |
| Protection Features | Output Over Voltage Protection: Automatic electronic OVP set to 15% higher than maximum voltage range. Output Over Current Protection: Automatic electronic current limit circuitry. Over Temperature Protection: The unit shuts down if temperatures exceed safe limits. |
| Visual Indicators | Front panel LED indicators ✓ AC Good Indicator: Multi-colored LED ✓ DC Good/Fault Indicator: Multi-colored LED |
| Operating Temperature | Water: +5 to +50°C 50/50 WEG: -40 - 55°C |
| Storage/Transportation | -40 to +85°C |
| Humidity | 0% to 95% non-condensing |
| Isolation | Input to Output: 6000VDC Input to Ground: 4000VDC Output to Ground: 1000VDC |
| Connections | AC Input: Terminal Block (No Lug / Compression Type) DC Output: Heavy-Duty Bus Bars Signals: CAN BUS: DB9 Receptacle |
| Harmonics | Meets IEC61000-3-4 1998 Emissions of Harmonic Currents |
| Dimensions (inches) | Module: 19.7" long X 5.87" wide X 3.46" high Module with optional mounting: 19.7" long X 7.00" wide X 3.46" high |
| Cooling | Liquid Cooling Nominal: 2 GPM |
| Warranty | 1 Year |



LIQUACORE™

5.5KW WATER COOLED POWER SUPPLY

MODULE OUTLINE



MODEL NUMBER

SPS6136 LF

PART NUMBER

T100116107-LF

T100116612-LF

DESCRIPTION

RECTIFIER, 0-60V, 0-120A, 5.5kW, L-Droop CS

KIT, MOUNTING BRACKETS FOR SINGLE UNIT*

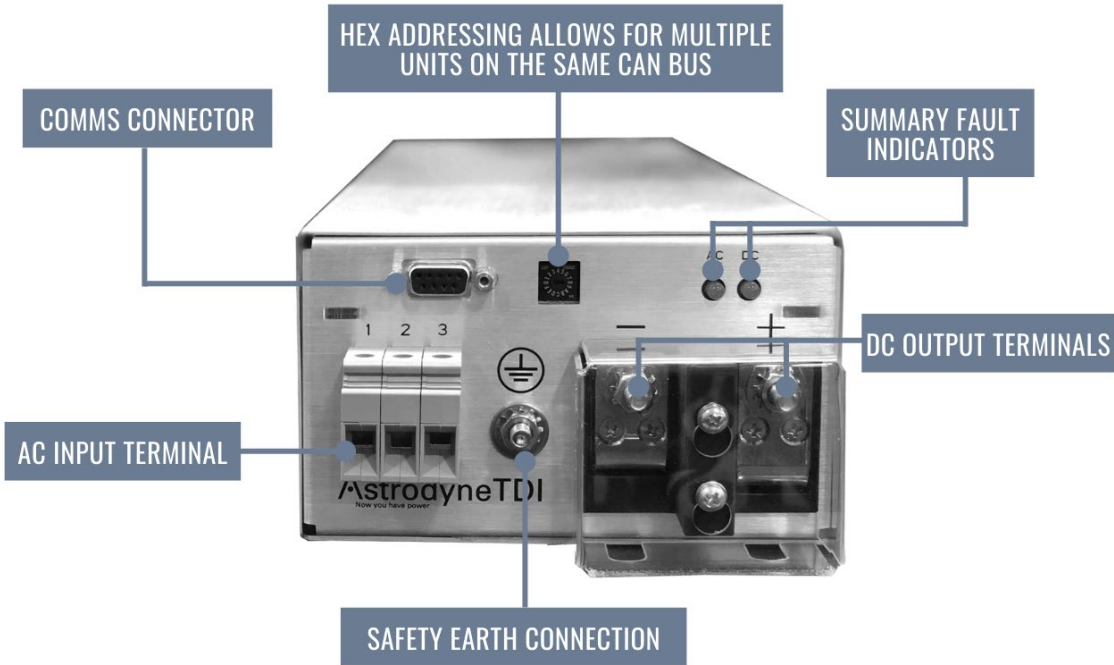
*For additional options please contact the factory



LIQUACORE™

5.5KW WATER COOLED POWER SUPPLY

MODULE CONNECTIONS



OUTPUT DE-RATING WITH TEMPERATURE

