

PowerNode

Mercury Flex Power System



AstrodyneTDI's PowerNode 10kW Power System provides industrial grade DC power for process power, semiconductor manufacturing, medical imaging, test and burn in, and other applications. Housed in a compact 2U high chassis, Mercury Flex sub-modules assure reliability for critical applications. PowerNode assemblies can be connected in parallel for increased power, providing ultimate flexibility for modern processes.

Main Characteristics:

- Front panel Touch Panel LCD Display
- Remote User Interface
- Front panel mounted Circuit Breaker
- N+1 redundancy
- CE Mark/Power Supply Modules NRTL (UL Recognized) approved and marked.
- Blind Mate Field Replaceable Modules for low MTTR
- Constant Voltage, Constant Current, Constant Power mode with automatic cross over

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 10kW power in a 2U high, 19" rack space.

FEATURES

Three Phase AC Input
180VAC – 253VAC, three phase delta

Wide Range Outputs
125V (10V-125V)
250V (15V-450V)
450V (10V-250V)

Up to 10kW power
Constant voltage, current, or power operating modes

Controls:

- Industry standard analog controls
- CAN-BUS interface and controls
- Ethernet (ModBus TCP) controls

Variable Speed Fan Control

Minimizes audible noise and maximizes fan life

Astrodyne TDI
Now you have power.

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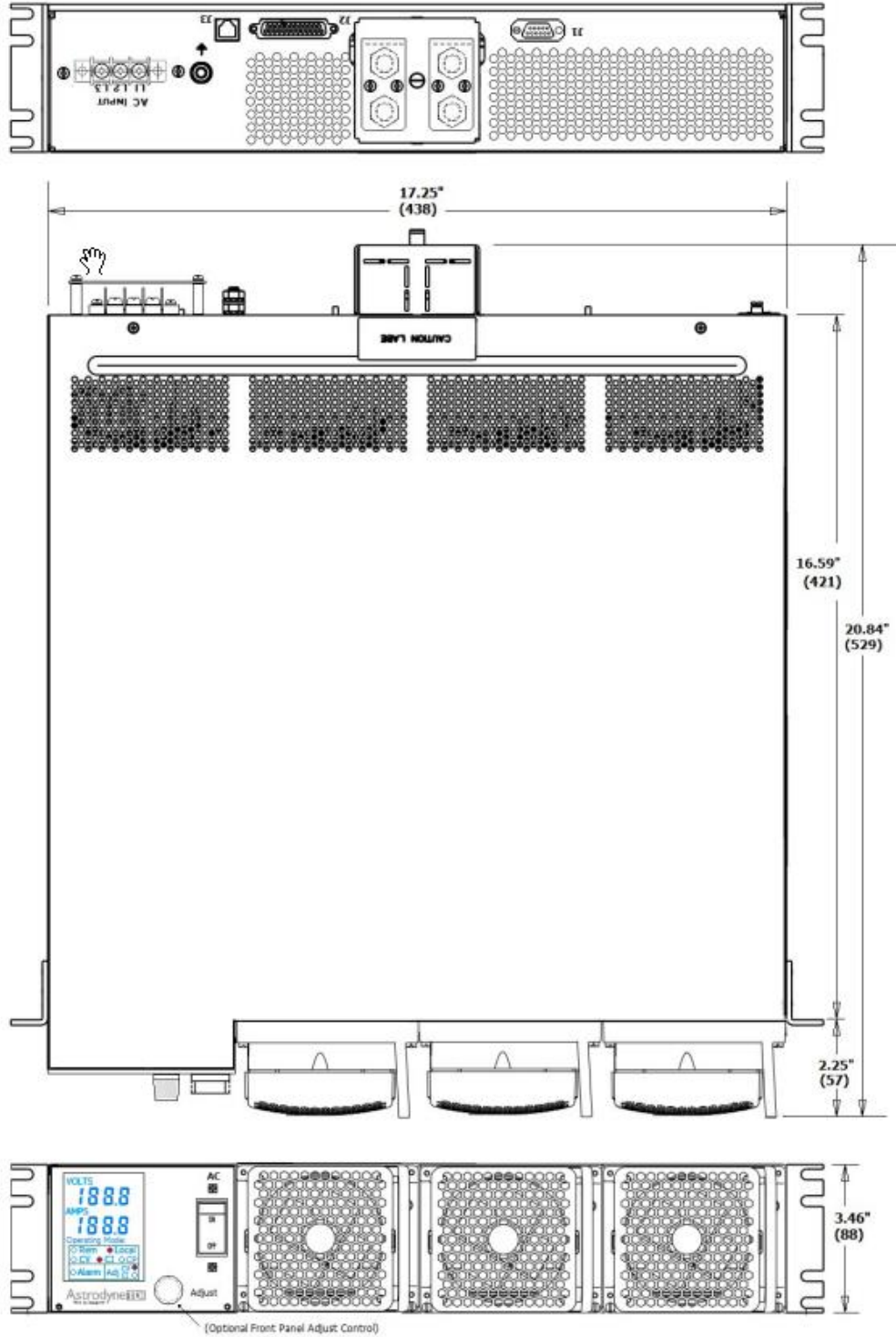
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MODEL NUMBER	PART NUMBER	DESCRIPTION
SPS6075-LF	T100112517-LF	SYSTEM, 10KW MERCURY FLEX POWER SYSTEM *For other options please contact the factory

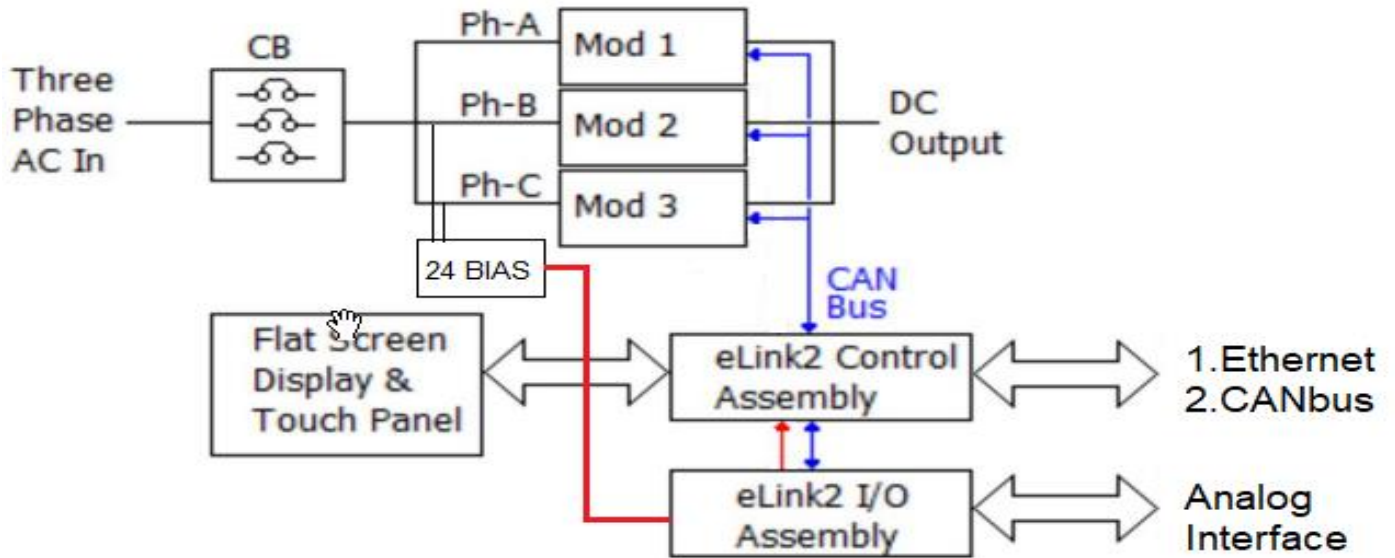
PARAMETER	POWERNODE
Input AC	180-253VAC, three phase delta
AC Frequency	47-63Hz
Max Input Current	36A for 1800VAC at 10kW output power
Power Factor	>.98 / IEC61000-2 Compliant
Outputs, DC	125V (10V-125V) @ I up to 103.5A 250V (15V-450V) @ I up to 52.5A 450V (10V-250V) @ I up to 30A
Output Power	10,000 W Maximum
Efficiency	>93%
Ripple/Noise	Less than 4Vpk-pk, 200mV(rms)
Load Regulation	2% (8V) droop from no load to full load
Protection Features	Front Panel Circuit Breaker LED's on individual modules
Visual Indicators	Front panel LCD display
Operating Temperature	-30 to +55°C (full rated)
Storage/Transportation	-40 to +85°C
Humidity	0% to 95% non-condensing
Isolation	Input to Output: 3000 Vrms Input to Ground: 1625 Vrms Output to Ground: 1674 Vrms
Connections	AC Input: Terminal Block DC Output: Heavy Duty Bus Bars Analog Control: 25 pin DSUB Ethernet RJ45 CAN Bus: RJ11
EMC	Radiated and conducted emissions meet FCC Part 15, Subpart A class A, and EN55022, Class A
Dimensions (inches)	17.25" x 20.84" x 3.46" 25lbs
Safety	UL/IEC/EN 60950-1
Cooling	Internal Variable Speed Fan, front air draw
Warranty	1 Year



Module Outline:



Block Diagram:



Connections:

