

**Astrodyne TDI**  
Monica R. Cintron-Ortiz  
Digital Marketing Manager  
Phone: (908) 850-5088 ext. 1640  
Email: [monica.cintron@astrodynetdi.com](mailto:monica.cintron@astrodynetdi.com)

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## Introducing the Highly-Anticipated 3-Phase Input Option for the Powerful 3.8kW MercuryFlex

*Discover Enhanced Flexibility with the Expanded MercuryFlex Range!*



**Hackettstown, NJ – November 2023** - Astrodyne TDI introduces an upgraded version of their impressive MercuryFlex 3.8kW programmable power supply. As a well-known global developer and manufacturer of power conversion and EMI/EMC solutions, Astrodyne TDI recognizes the diverse power requirements of various industries including industrial electronics, semiconductor fabrication, medical equipment, and high-power LED applications such as UV curing and heating. To meet these diverse needs, Astrodyne TDI has expanded its MercuryFlex line to include a three-phase input solution with three wires and earth, providing a wide voltage range of 342VAC to 528VAC. This expansion ensures increased flexibility and compatibility for power-hungry industries.

The enhanced MercuryFlex range now offers an expanded input range solution in a compact 2U form factor, measuring 4.25" x 3.42" x 15.20". With these capabilities, the MercuryFlex allows for parallel and redundant operation, accommodating up to three rectifiers in a 19" rack space. This configuration delivers an impressive power output of up to 15.2kW, featuring automatic current sharing, output fault isolation, and hot-swap compatibility. The MercuryFlex offers exceptional power density, incorporates full power factor correction, and achieves an impressive efficiency rating of up to 93%.

The MercuryFlex power supply provides seamless adjustments to voltage, current, and power through its innovative operating modes - constant voltage, constant current, or constant power. This unique feature simplifies fine-tuning the power supply to meet specific requirements, offering users unparalleled convenience and flexibility. Now, you can explore our expanded range of

MercuryFlex options with three-phase input, featuring output ranges of 125V and 180V, and additional output ranges of 28V, 56V, 250V, and 450V coming soon.

### *Additional Features and Compliance*

The MercuryFlex power supply stands out with a plethora of cutting-edge features and a strong commitment to regulatory compliance, guaranteeing optimal performance and safety. One notable feature is its Digital command capability, enabling users to effortlessly set the CAN-Address using two external digital bits connected to the module's main connector. This feature, in conjunction with the onboard CAN bus and shelf-level ethernet controller, greatly enhances the overall functionality and control of the power supply.



Moreover, the MercuryFlex is engineered to withstand AC line sag, making it SEMI F47 compliant with an impressive 20ms holdup at full power. This ensures a seamless power supply experience even in the face of challenging voltage conditions, providing unwavering reliability and stability for critical applications.

Astrodyne TDI has also placed significant emphasis on regulatory and safety standards with the MercuryFlex power supply. It complies with UL 62368-1: 2nd Edition, EN 62368-1, and IEC 62368-1: 2nd Edition, guaranteeing adherence to the highest levels of quality and safety. Additionally, the power supply proudly bears the CE Mark (LVD) and adheres to the ROHS/WEEE: EN50419.

In terms of EMC (Electromagnetic Compatibility), the MercuryFlex power supply meets the EMI (C) requirements of FCC Part 15, Sub Part J, Class A and EN55022, class. It is also compliant with EN61000-3-2, ensuring minimal electromagnetic interference and preserving exceptional performance across a wide range of operating environments.

With its array of advanced features and unwavering commitment to regulatory compliance, the MercuryFlex power supply from Astrodyne TDI sets an entirely new standard for flexibility, reliability, and safety in the realm of power conversion solutions.

### **Download Datasheet**

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*The MercuryFlex is ideally suited for:*

- Industrial Electronics
- Semiconductor Fabrication
- Medical Equipment
- High-power LED usage for tasks like UV curing and heating
- Burn-in Equipment
- Lasers
- Motor Controllers
- Industrial Printing

For additional information regarding this new 3-Phase MercuryFlex solution by Astrodyne TDI, please get in touch with Astrodyne TDI by visiting [www.astrodynetdi.com](http://www.astrodynetdi.com).

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### **About Astrodyne TDI**

Astrodyne TDI designs and manufactures innovative power solutions for demanding applications worldwide. The company's products include power supplies and EMI filters for industrial, semiconductor manufacturing, medical, consumer appliance, military, and aerospace markets. With over 60 years of power supply design experience, Astrodyne TDI is headquartered in Hackettstown, NJ, and has engineering and manufacturing centers in the USA and China. For more information, visit [www.AstrodyneTDI.com](http://www.AstrodyneTDI.com).