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PLUS POINT THERM

Power Supply Features

- Power supply ranges from 1.0 kW to 600 kW with frequency ranges from 5 KHz to 150 KHz
- Backed by over 50 years of RF engineering experience and state-of-the-art engineering design
- Modern, highly compact design
- Advanced shielding techniques, utilizing fiber optic cabling, minimizing RF noise and interference
- Working circuit is auto-protected against overload and/or no-load conditions
- Precise control of the output power through temperature proportional reference feedback technique
- Softstart system to reduce stress on capacitor and semiconductor components
- Trouble-free tuning and set-up
- Latest IGBT power semi-conductor technology
- Standard 0-10V and 4-20mA inputs for external control devices
- Water cooling temperature to 104 degrees Fahrenheit
- RF output and display panels on the front of the unit
- High reliability, fewer spare parts required
- Operating conversion efficiency up to 95%
- Simple, quiet operation
- Pulsing or always-on operation, with built-in timer

TN – SERIES

Solid-State Compact RF Generators



Model TN 20

Operation and Controls

The TN-Series frequency converter design is based on a parallel oscillating circuit. The values of the power capacitors and the induction coil determine the working frequency. The design does not allow the load current to flow through the semiconductors (IGBT's), which translates into low IGBT losses. The working frequency is equal to the resonant frequency of the oscillating circuit, which leads to no switching losses for the H-Bridge IGBT's. Precise power control is part of the design, based on feedback from the temperature proportional reference. The equipment runs with input voltages between 360-440 volts, which is the optimal environment for the semiconductors. Autotransformers are provided for customers running systems outside the required input range.

The power level can be controlled via a potentiometer from 2-100% full power. Indicator lights signal errors for water flow, excessive voltage across the chopper, over-current and water temperature. Indicator lights also illuminate for: Main switch on, remote control and limit conditions.

Power Supplies

| Generator | Nominal Power | Frequency Range | Main Power | Cooling Water | Weight | Dimensions |
|-----------|---------------|-----------------|------------|---------------|--------|----------------|
| | (kW) | (kHz) | (kVA) | (L/min) | (lbs) | WxDxH (inches) |
| TN 1 | 1 | 50-150 | 1.2 | variable | 11 | 12x12x6 |
| TN 5 | 5 | 20-150 | 6 | 12 | 110 | 15x20x23 |
| TN 10 | 10 | 20-150 | 11 | 14 | 110 | 15x20x23 |
| TN 15 | 15 | 20-150 | 16 | 14 | 110 | 15x20x23 |
| TN 20 | 20 | 20-150 | 23 | 20 | 120 | 15x20x23 |
| TN 30 | 30 | 20-150 | 34 | 25 | 135 | 14x30x20 |
| TN 50 | 50 | 5-150 | 57 | 38 | 1100 | 34x32x60 |
| TN 60 | 60 | 5-150 | 69 | 40 | 1720 | 34x32x60 |
| TN 100 | 100 | 5-20 | 120 | 65 | 1720 | 36x40x60 |
| TN 150 | 150 | 5-20 | 175 | variable | 2200 | 48x40x79 |
| TN 200 | 200 | 5-20 | 235 | variable | 2685 | 48x40x79 |
| TN 300 | 300 | 5-20 | 350 | variable | 3700 | 55x40x79 |
| TN 600 | 600 | 5-20 | 700 | variable | 5500 | 55x40x118 |

(Specifications subject to change)



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