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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° 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 a 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 references. The equipment runs with input voltages between 360-440 volts, the optimal operating 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)



Brazing



Epitaxial Growth



Heat Treating



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