

UNIPOWER® UP16

Transistorized Induction Heating Power Supplies

Features/Benefits:

- 3, 10, 30 and 50 kHz with models available from 50 kW to 300 kW
- Rated for continuous or intermittent duty
- Variable ratio output isolation transformer for load impedance matching
- Internal load matching capacitors for full power operation over a wide range of load conditions
- Input power factor is 0.95 under all operating conditions
- Output regulation accuracy is $\pm 1\%$ of rated power with $\pm 10\%$ line variance to ensure precise process control
- Single control board. Field replaceable without adjustment for easy maintenance
- Tempering mode for consistent very low power operation
- Restart circuitry eliminates nuisance shutdowns caused by voltage transients, ground faults and shorted or arcing loads

Power Supply For General Purpose Induction Heating

The UNIPOWER® UP16 is a self-contained, solid state transistorized power supply for hardening, tempering, bonding, coating, brazing and many other induction heating applications. A wide variety of single-turn and other low impedance heating coils can be properly matched with built-in load tuning capacitors and multi-tap output isolation transformer.

Unitized Design For Stand-Alone Operation

Simply connect three phase 480 V input power, cooling water and heating coil and you're ready to begin heating. The cabinets are designed to accommodate a variety of fixtures, conveyors and part handling machines. Complete stand-alone control and monitoring include: Manual start/stop push buttons, heat level control with 10-turn lockable dial, four meters and annunciator lights to monitor all operating parameters.

Remote or Computer Controlled Operation

Remote control can be accomplished by connection to the user interface provided. Heat level can be controlled by a remote potentiometer or 0-10 V analog signal from a PLC. Options include a 4-20 mA process control signal or RS-232/485 interface for remote computer monitoring, data logging and control.



UP16 150 kW / 30 kHz

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SPECIFICATIONS:

ELECTRICAL OUTPUT				UTILITY INPUT REQUIREMENTS		CABINET DIMENSIONS Width x Depth x Height in. (mm)	
kW Rating at Given Frequency				kVA	Cooling Water gpm (lpm)		
3kHz	10 kHz	30kHz	50kHz				
			50	62	14 (53)	36 x 30 x 76	(915 x 760 x 1930)
75	75	75		94	14 (53)	36 x 30 x 76	(915 x 760 x 1930)
			100	125	14 (53)	36 x 30 x 76	(915 x 760 x 1930)
150	150	150		187	18 (68)	36 x 30 x 76	(915 x 760 x 1930)
			200	250	22 (84)	52 x 40 x 76	(1320 x 1015 x 1930)
300	300	300		375	26 (98)	52 x 40 x 76	(1320 x 1015 x 1930)

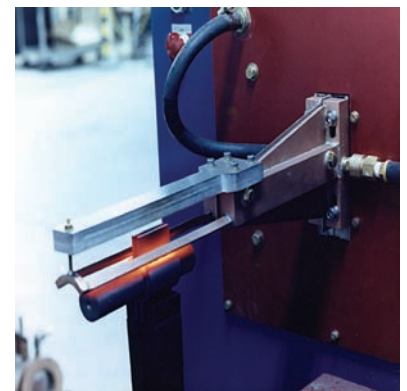


Induction heating & quenching

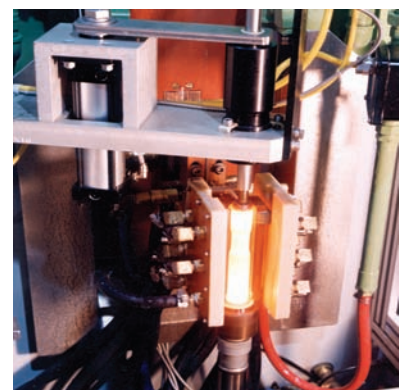
COMMON FEATURES:

Energy Conversion Efficiency	85% minimum
Input Power Factor	0.95
Output Regulation	Voltage, power or current
Regulation Accuracy	±1% with ±10% line variance
Water Requirements	95° F (max.) (35° C)
Power Requirements	480 V, 3 phase, 50/60 Hz
Operator Controls	Panel-mounted analog meters for voltage, frequency, current and output power. LED operation and diagnostic indicators. 10-turn potentiometer for control of output power, voltage or current. On/Off push buttons.
Safety Features	Door interlocked disconnect switch and fast-acting semiconductor-type fuses. External, inlet and outlet cooling water pressure gauges. Water pressure differential switch and manual reset temperature switches on each water circuit.
Options	Unicool water cooling system, 4-20mA power level control, RS-232/485 interface, digital meters, 0-10 volt meter signals, PLC interface. Timer Control with selector switch. Inductor Ground.

* Specifications are subject to change without notice.



Induction heating for brazing



Single shot induction hardening
(Quench block removed for photo)



QS9000-TE Certified

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