



ADVANTAGES

Ultraflex SmartPower™ Compac Systems are a breakthrough innovation in the induction heating technology, featuring the Direct Digital Step™ control algorithm and a unique configurable modular approach.

- Configurable and field upgradable power supplies with output power from 50kW to 400kW.
- Wide output frequency range – two ranges available from 6kHz to 60kHz and from 40kHz to 200kHz.
- Zero down time can be achieved if additional module (N+1) is installed in the system.
- Latest SiC transistor technology and proprietary digital control algorithms ensure optimal performance and maximum efficiency in a wide frequency range.
- Ultra-flexible, wide range load impedance matching by utilizing multiple transformer ratios and configurable capacitor banks.
- Configurable to work with a single or multiple, independently controlled RF outputs from one cabinet.
- Can operate with optional heat stations allowing the load coils to be placed remotely.
- Durable and reliable design with built-in tuning, safety and diagnostics features.

FEATURES

Operation

- Precise power control from 0 to 100% of rated power
- Output regulation: Voltage, Power, Current
- Parameter Monitoring: Current, DC Volts, Output Volts, Power, Frequency
- Control modes: Automatic, Remote or Local control
- RF Amplifier modules operating in a wide frequency range (6kHz – 200kHz)
- Automatic frequency scanning and load tuning
- Fast dynamic response and ramp-up time for short heating cycles
- Variable ratio transformer for matching to a wide range of loads and coils

User Interface

- Industrial control panel – 12" LCD touch, full color
- Advanced and intuitive user interface
- Multiple heating programs and profiles for automatic process control
- High accuracy cycle-by-cycle energy monitoring
- Built-in temperature control and monitoring features
- Data logging of process and operating parameters

Control

- 0-10V or 4-20mA external control and remote Start/Stop operation
- Ethernet and USB connectivity for firmware upgrades and diagnostics
- R485 (MODBUS) serial interface for remote control and monitoring



INDUCTION HEATING SYSTEMS

SMART POWER COMPAC SPECIFICATIONS

SMARTPOWER SYSTEM MODEL	USP-C-100		USP-C-200		USP-C-400		USP-CD-100	
Description	Single Output Full Rack		Dual Output Full Rack		Quad Output Full Rack		Single Output Double Rack	
Number of PA Modules	2 - 8		2 - 8		2 - 8		10 - 16	
RF Outputs	1		2		4		1	
Power Amplifier Type	MF 25/60	WF 25/200	MF 25/60	WF 25/200	MF 25/60	WF 25/200	MF 25/60	WF 25/200
Frequency Range	6-60 kHz	40-200 kHz	6-60 kHz	40-200 kHz	6-60 kHz	40-200 kHz	6-60 kHz	40-200 kHz
Output Power Range	50 kW (2x25kW Modules) to 200 kW (8x25kW Modules)		50 kW (2x25kW Modules) to 200 kW (8x25kW Modules)		50 kW (2x25kW Modules) to 200 kW (8x25kW Modules)		250 kW (10x25kW Modules) to 400 kW (16x25kW Modules)	
AC Line, VAC 3-phase (50/60Hz)	380/480±10%		380/480±10%		380/480±10%		380/480±10%	
Dimensions (WxDxH)	23.6"x28.3"x72" (600 x 720 x 1820mm)		23.6"x28.3"x72" (600 x 720 x 1820mm)		23.6"x28.3"x72" (600 x 720 x 1820mm)		47.2"x28.3"x72" (1200 x 720 x 1820mm)	
Weight	400lb – 660lb (180kg - 300kg)		400lb – 660lb (180kg - 300kg)		400lb – 660lb (180kg - 300kg)		1050lb – 1320lb (480kg - 600kg)	

PA Modules Installed	PA1	PA2	PA3	PA4	PA5	PA6	PA7	PA8	Voltage Range
Input Current maximum [A] (RMS per Phase)	34.7	69.4	104.1	138.8	173.5	208.3	243.0	277.7	min 380V-10%
Input Current maximum [A] (RMS per Phase)	31.5	62.9	94.4	125.9	157.4	188.8	220.3	251.8	max 480V+10%

REMOTE HS MODEL	HSP-50M	HSP-100M	HSP-200M	HSP-50W	HSP-100W	HSP-200W	HSP-400W
Output Power Range	40 – 50kW	50 – 100kW	100 – 200kW	50kW	50 – 100kW	100 – 200kW	400kW
Frequency Range	6 – 60 kHz	6 – 60 kHz	6 – 60 kHz	40 – 200 kHz	40 – 200 kHz	40 – 200 kHz	50 – 150 kHz
Dimensions (WxDxH)	15x24,5x19,1" (38,2x62,4x-48,5cm)	15x24,5x19,1" (38,2x62,4x-48,5cm)	22,9x26,5x19,1" (58,2x67,4x-48,5cm)	15x24,5x19,1" (38,2x62,4x-48,5cm)	22,9x26,5x19,1" (58,2x67,4x-48,5cm)	22,9x26,5x19,1" (58,2x67,4x-48,5cm)	16,5x32,3x19,1" (42x82x48,5cm)
Weight	176 lb. (80kg.)	200 lb. (90kg.)	215 lb. (98kg.)	176 lb. (80kg.)	200 lb. (90kg.)	215 lb. (98kg.)	198 lb. (90kg.)

HEADQUARTERS

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