

# Weldac® 500



Less power consumption, a smaller footprint and easier operation are three hallmarks of the latest generation of Weldac systems. These features, coupled with the reliability of IGBT transistors, translate into:

### **More uptime**

EFD Induction's patented switching pattern lets Weldac use rugged IGBT transistors. These transistors are virtually short-circuit proof, considerably boosting Weldac's reliability.

### **More output**

Continuous electronic load matching secures full power output across a wide range of tube sizes, ensuring maximum welding speed for each size. No operator action is needed, simply change the coil size.

### **Lower costs**

Weldac's efficiency from input at the rectifier to output at the coil is 85-87%. Cooling water consumption is low, with no need for expensive de-ionized water. Weldac eliminates the need for costly reactive power compensation capacitors by using diode rectifiers that result in a high, constant power factor (0.95) at all power levels.



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## PRODUCT FEATURES

### One-cabinet design

The entire Weldac converter is housed in one cabinet. This minimizes the total converter footprint. The need for an HF cable to a heating station or a DC cable from a rectifier unit is eliminated. The use of one cabinet also simplifies transportation and minimizes installation cost and time.

### Power savings

Weldac features a diode rectifier with a constant power factor of 0.95 at all power levels. There is no reactive power cost, and no need for compensating capacitors.

### Rugged IGBT transistors

Our patented driver technology lets Weldac use standard reliable IGBT transistors for better uptime and output.

### Full output power

Weldac's automatic load matching ensures full output power across a wide range of tube sizes. There are no 'unsafe' operating areas. When a different-sized coil is fitted, Weldac automatically matches to the best setting.

### Clean weld bead

Weldac's low ripple results in a clean weld bead—making it ideal for stainless steel and aluminum welding.

### Short circuit resistant

IGBT transistors, together with an advanced switching pattern and intermediate transformer design, make Weldac short-circuit resistant.

### On-site upgrades

Weldac's modular design makes it possible to upgrade power in order to handle future production increases.

### Advanced MMI

Weldac features the latest in Man/Machine Interface (MMI) control panels. Moreover, Weldac can operate with most currently available major bus interfaces.



## OPTIONS / ADDITIONALS

One- or three-axis positioning tables, water/water, plate-type heat exchanger, quality monitoring system (QMS), field bus communication, temperature monitoring/control systems, input auto transformer, tacho generator, impeders and coils.

## TECHNICAL DATA

Model	Weldac 500
<b>Output</b>	
Continuous output power	500 kW
Output power regulation range	10-100 %
Frequency range	160-240 kHz
Efficiency	> 0.85
<b>Supply</b>	
Supply voltage range	3x 480 V ± 10%
Frequency	50/60 Hz
Nominal line current	830 A (RMS)
Nominal apparent power	690 kVA
Power factor (cos φ)	> 0.95

### Cooling

Water consumption, min.	130 l/min
Water inlet temperature	max. 35°C
Water pressure min./max.	4.5/6 bar
Cooling water quality - ph	between 7.0 and 9.0

### Enclosure

Ambient operating temp.	+5°C - +50°C
Dimensions excl. busbar (LxWxH)	2430x600x2000 mm
Busbar length to coil connection	840 mm
Weight	885 kg
Enclosure protection	IP 54
Color	RAL 7035 Grey

Subject to modification