

# Weldac® 1800



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

### Modular design

Modular design with independent full-bridge IGBT inverters makes Weldac compact, saving valuable floor space and simplifying in-line integration and retrofitting. The high-power Weldac is housed in a two-cabinet design.

### 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 1800
<b>Output</b>	
Continuous output power	1800 kW
Output power regulation range	10-100 %
Frequency range	90-130 kHz
Efficiency	> 0.85
<b>Supply</b>	
Supply voltage range	3x 480 V $\pm$ 10%
Frequency	50/60 Hz
Nominal line current	2940 A (RMS)
Nominal apparent power	2400 kVA
Power factor (cos $\phi$ )	> 0.95
<b>Cooling</b>	
Water consumption, min.	235 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 REC (LxWxH)	2400x600x2100 mm
Dimensions IMC excl. busb. (LxWxH)	3354x800x2256 mm
Busbar length to coil connection	840 mm
Weight REC	1630 kg
Weight IMC	2700 kg
Enclosure protection	IP 54
Color	RAL 7035 Grey

Subject to modification