

Weldac[®] 50



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

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.



Weldac® 50

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.

Coil turns

The standard inductor for a 50 kW Weldac is a two-turn coil. The system can also be fitted with one-turn coils for profiles, or three-turn coils for non-magnetic materials.



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 50 | Cooling | |
|-------------------------------|----------------|---------------------------------|---------------------|
| Output | | Water consumption, min. | 70 l/min |
| Continuous output power | 50 kW | Water inlet temperature | max. 35°C |
| Output power regulation range | 10-100 % | Water pressure min./max. | 4.5/6 bar |
| Frequency range | 290-350 kHz | Cooling water quality - ph | between 7.0 and 9.0 |
| Supply | | Enclosure | |
| Supply voltage range | 3x 480 V ± 10% | Ambient operating temp. | +5°C - +50°C |
| Frequency | 50/60 Hz | Dimensions excl. busbar (LxWxH) | 1,550x600x1,800 mm |
| Nominal line current | 91 A (RMS) | Weight | 670 kg |
| Nominal apparent power | 76 kVA | Enclosure protection | IP 54 |
| Power factor (cos φ) | > 0.95 | Color | RAL 7035 Grey |

Subject to modification