



eldec PICO-SC

**Mobile
Induction Heating**

eldec

PICO-SC: Compact, Complete, Mobile

PICO-SC's are compact, plug and play devices designed for the induction heating of a wide range of workpieces and materials. By integrating the active cooler and generator into a single housing, our design has simplified the stationary and mobile housing, stationary and mobile induction soldering, annealing, cut edge hardening and many other applications in a practical way.

The series can be supplied in mid or high frequencies, with power classes ranging from 5 - 30 kW, and can be transported using standard rollers, a crane, or a forklift. In addition to being used with an inductor or soldering gun, they can also be used with annealing cables. Arms with a balancer can be supplied to ensure that the tools can be used ergonomically without needing to support their weight.

Occupational safety and maximizing machines available are extremely important to us, so our generators always feature electrical isolation. In addition, the generators temperature and delivery rates are continuously monitored.

PICO-SC devices have a surprisingly low cost primarily due to the high level of standardization, but they are still extremely powerful, and feature eldec's uncompromising quality. The 30 kW MF version of the PICO-SC deliver the highest power density available on the market.



Brazing carbide metal blades to a meat grinder



Brazing of flat copper wires to a stator



Brazing carbide metal pins to a road miller



Hardening of cut edges

Technical Design

- Short-circuit and idle-proof IGBT transistor technology
- Automatic adjustment to resonance frequency
- Automatic adjustment and power regulation by pulse width modulation (MF) and pulse package control (HF), even if the Curie temperature is exceeded
- Energy transfer using flexible hose package, 5 m (MF)
- Energy transfer using flexible hose package, 3 m (HF)
- Circuit topology with electrical isolation
- Temperature and delivery rate-monitored fluid circuits with alarm function
- High speed eldec regulating and control technology (response time <math>< 10 \mu\text{s}</math>)
- Precise energy output by controlling the power in 1% steps and 10 ms timer steps
- Interaction levels > 95% (depending on operating status)
- Housing with enclosure type IP40 (generator), IP20 (active cooler)
- Sensor signals to record temperature 0 - 5 V, 0 - 10 V, 0 - 20 mA and 4 - 20 mA
- Current limits possible (adjustable in 1% steps)



Equipment and Options

Equipment

- Intuitive operation using sealed keypad and display
- Operating modes: continuous, jog, and timer
- Control types: output, electricity, temperature (PID)
- 8 different timers with setpoint value ramps, each with a max. runtime of 600 seconds / 999 cycles
- Memory for recipe management, up to 50 recipes
- Connection for pyrometer, foot switch, or pedal
- External activation using hardware contacts
- Active cooler in 3 capacity classes: 7 kW, 10 kW, or 15 kW cooling capacity
- Tank capacity: 50 l



Options

- Mains voltage 480 V
- Pedal
- Foot switch
- Pyrometer
- eldec Heat Controller
- Heating cable (connection via cable box, with external isolating transformer)
- Holding the inductor / soldering gun weightlessly using an arm with balancer
- Hose package holder
- Energy transfer using flexible hose package, up to 15 m (MF)
- Energy transfer using flexible hose package, up to 5 m (HF)



Technical data

	Power output (kW, 100% duty cycle)	Mains connection (A), at 400 V, 50 Hz	Mains connection (A), at 480 V, 60 Hz	Tank capacity (l)	Capacity of active cooler (kW)	Weight (kg, tank empty)
PICO-SC 5 MF	05 kW	25 A	20 A	50 L	07 kW	225 k
PICO-SC 10 MF	10 kW	35 A	35 A	50 L	07 kW	225 k
PICO-SC 15 MF	15 kW	50 A	35 A	50 L	07 kW	230 k
PICO-SC 20 MF	20 kW	63 A	50 A	50 L	10 kW	270 k
PICO-SC 30 MF	30 kW	100 A	63 A	50 L	15 kW	280 k
PICO-SC 5 HF	05 kW	25 A	20 A	50 L	07 kW	220 k
PICO-SC 10 HF	10 kW	32 A	35 A	50 L	07 kW	225 k
PICO-SC 15 HF	15 kW	50 A	35 A	50 L	07 kW	230 k

- MF frequency range 8 – 20 kHz or 16 – 40 kHz HF frequency range 70 – 175 kHz or 140 – 350 kHz
- Dimensions of PICO-SC (H x W x D) 1347 x 850 x 957 mm
- Maximum ambient temperature 35°C



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AR-based Service

With our AR glasses, you are directly in contact with our service specialists at the machine. Quick fault diagnosis and repair saves time, costs, and gets your machine up and running again as quickly as possible



For more information, please contact our service colleagues in Dornstetten, see contacts above.