



Inverter-Capacitor Charging Technology

Maximum welding rates
Minimum energy consumption
Minimum weight
Maximum efficiency

Only power unit in its class (66.000 µF), which officially fulfills the requirements of the Technical Bulletin 0903 „Capacitor-discharge stud welding with tip ignition“ for studs diameter M8 with a required charging voltage of 220 V.

CDi 1502

Stud Welding Unit (with digital display)
For CD stud welding (capacitor discharge welding)
according to current standards

Technische Daten

Automatic	Option
Welding range	Studs M3 to M8, dia. 2 to 8 mm; cupped head pins dia. 2 and 2.7 mm; insulation pins dia. 2 and 3 mm
Welding material	Mild steel, stainless steel, aluminium and brass
Welding rate	M3 = 40 studs/min. (Charging voltage 60 V) M8 = 14 studs/min. (Charging voltage 200 V) M8 = 12 studs/min. (Charging voltage 220 V)
Capacitance	66,000 µF
Welding time	1 to 3 msec
Energy	1,600 Ws
Charging voltage	50 to 220 V (stepless voltage regulation)
Primary power	230 V, 50/60 Hz, 10 AT
Power source	Capacitor
Cooling type	F (temperature controlled cooling fan)
IP-code	IP 23 (92-10-1502), IP 21 (92-10-1504)
Dimension L x W x H	400 x 205 x 250 mm (without handle)
Weight	14 kg
Order No	92-10-1502 92-10-1504 (Automatic)

General Information

Application

- Especially suitable for thin sheets (at least 0.5 mm)
- ISO – especially suitable for fixing heating, ventilation and air-conditioning mats (HVAC)

Process variants

- **Contact welding**
- **Gap welding**

Advantages

Features

- **Microcontroller** – for precise process times, optimal functional reliability and maximum operating convenience
- **Function monitoring** – automatic function test following power-up; monitoring of all internal system functions
- **Display of error codes** – on digital display
- **Library function** – automatic specification of charging voltage through selection of stud diameter according to welding range; fine adjustment via arrow keys

Structure

- **Extremely easy to operate**
- **Compact**
- **Robust** – Powder coated steel housing withstands rough treatment in shop and on site

Safety

- With integrated **mains filter** (protection against voltage peaks)
- **Optimal for construction sites with large mains voltage fluctuations** – use even with critical voltage supply (- 25% + 20%)
- **EMC test** (DIN EN 60974-10)
- **High-voltage test with log** (DIN EN 60974-1)
- Logged **capacitor forming** for quality control of the stud welding capacitors
- **Self-forming capacitors** provide a longer life period and higher reliability
- **Retriggering lock-out** – prevents welding on a welding element that has already been set
- **Thermal monitoring of charging unit and internal temperature of stud welding unit**– automatic shutdown in case of overheating
- **Temperature controlled cooling fan** – reduces noise and dust in the stud welding unit (greater system reliability)
- **Optimal protection against external interferences**
- **IP-code: IP 23** (92-10-1502) / **IP 21** (92-10-1504)

Welding

- **Display** – infinitely adjustable power setting (charge reversal via set-point switch); easy monitoring of all functions via LED displays
- **Powerful** – built-in power reserves
- **Trouble-free changing** of welding voltage polarity possible by reconnecting welding current and ground cables
- **Use of special capacitors** (developed for stud welding)

Suitable welding guns/-heads

- **C 08**
- **CA 08**
- **CI 03**
- **PAH-1 (only suitable for automatic version)**

Issue 08/12
(Technical data may change)