



## Inverter-Capacitor Charging Technology

Maximum welding rates  
Minimum energy consumption  
Minimum weight  
Maximum efficiency

Provides a charging voltage of 220 V, thus fulfills the requirements arising from the technical bulletin DVS 0903 „Capacitor-discharge stud welding with tip ignition“ during M8 welding

### CDi 1502

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

#### Technische Daten

<b>Automatic</b>	Option
<b>Welding range</b>	Studs #4 to 5/16", dia. 14 ga to 5/16"; cupped head pins dia. 14 ga and 12 ga; insulation pins dia. 14 ga and #4 (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)
<b>Welding material</b>	Mild steel, stainless steel, aluminum and brass
<b>Welding rate</b>	M3 = 40 studs/min. (Charging voltage 60 V) M8 = 14 studs/min. (Charging voltage 200 V) M8 = 12 studs/min. (Charging voltage 220 V)
<b>Capacitance</b>	66 000 µF
<b>Welding time</b>	1 to 3 ms
<b>Energy</b>	1 600 Ws
<b>Charging voltage</b>	50 to 220 V (stepless voltage regulation)
<b>Primary power</b>	115 V/230 V, 50/60 Hz, 10 AT
<b>Power source</b>	Capacitor
<b>Cooling type</b>	F (temperature controlled cooling fan)
<b>IP-code</b>	IP 23 (92-12-1502B), IP 21 (92-12-1504B)
<b>Dimension L x W x H</b>	15.75" x 8.07" x 9.84" (400 x 205 x 250 mm) without handle
<b>Weight</b>	30.87 lbs (14 kg)
<b>Order No</b>	<a href="#">92-12-1502B</a> <a href="#">92-12-1504B (Automatic)</a>

#### 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** (92-12-1502B) / **IP 21** (92-12-1504B)

### 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)**

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(Technical data may change)