



## Inverter-Capacitor Charging Technology

Maximum welding rates  
Minimum energy consumption  
Minimum weight  
Maximum efficiency

### CDi 2302

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

#### Technische Daten

Welding range	#4 to 5/16" (7/16" limited), dia. 14 ga to 5/16" (dia. 3/8" limited) (M3 to M8 (M10 limited), dia. 2 to 8 mm (dia. 10 mm limited))
Welding material	Mild steel, stainless steel, aluminum and brass
Welding rate	M3 = 33 studs/min. (Charging voltage 60 V) M8 = 12 studs/min. (Charging voltage 170 V) (M10 = 9 studs/min. (Charging voltage 210 V))
Capacitance	99 000 µF
Welding time	1 to 3 ms
Energy	2 400 Ws
Charging voltage	50 to 220 V (stepless voltage regulation)
Primary power	115 V/230 V, 50/60 Hz, 10 AT
Power source	Capacitor
Cooling type	F (temperature controlled cooling fan)
IP-code	IP 23
Dimension L x W x H	18.90" x 8.07" x 9.84" (480 x 205 x 250 mm) without handle
Weight	37.48 lbs (17 kg)
Order No	<a href="#">92-12-2302B</a>

#### General Information

##### Application

- Especially suitable for thin sheets (at least 0.5 mm)

##### 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**

#### 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**

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(Technical data may change)