



Inverter-Capacitor Charging Technology

Maximum welding rates
Minimum energy consumption
Minimum weight
Maximum efficiency

CDi 3102

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

Technische Daten

| | |
|----------------------------|--|
| Welding range | #4 to 7/16", dia. #4 to 3/8" (M3 to M10, dia. 3 to 10 mm) |
| Welding material | Mild steel, stainless steel, aluminum and brass |
| Welding rate | M3 = 20 studs/min. (Charging voltage 50 V) M8 = 10 studs/min. (Charging voltage 140 V) M10 = 6 studs/min. (Charging voltage 200 V) |
| Capacitance | 132 000 µF |
| Welding time | 1 to 3 ms |
| Energy | 3 200 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 | 39.68 lbs (18 kg) |
| Order No | 92-12-3102B |

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)