



SC 2401

Stud Welding Unit

for short cycle drawn arc stud welding according to current standards

Technical Data

Welding range	Short Cycle: #4 to 3/16", dia. 14 ga to 3/16" (M3 to M5, dia. 2 to 5 mm)
Welding material	Mild steel, stainless steel
Welding rate	10 to 15 studs/min (depending on application and stud dia.)
Capacitance	99,000 µF
Welding current	800 to 2,200 A (by charging voltage)
Welding time	10 msec
Energy	2,400 Ws
Charging voltage	70 to 220 V (stepless voltage regulation)
Primary power	115/230 V, 50/60 Hz, 10 AT
Power source	Capacitor
Cooling type	F (temperature controlled cooling fan)
Insulation class	IP 23
Operational and storage conditions	According to current standards
Dimension L x W x H	20.08" x 7.09" x 9.84" (510 x 180 x 250 mm) without handle
Weight	57.32 lbs (26 kg)
Order No.	91-12-2401

General Information

Application

- **ISO** – especially suitable for attaching cut-to-length ARC-ISO and Fiberfix pins; also material with high heat resistance; excellent for insulation applications in building construction and fire-resistant insulation (FRI)

Process variants

- **Short cycle drawn arc 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** – metal housing withstands rough treatment in shop and on site
- **115 V mains connection** (instead of 460 V 3-phase current connection) – optimal for construction sites since 3-phase current is not universally available

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**
- **High-voltage test with log**
- **Retriggering lock-out** – prevents welding on a welding element that has already been set
- **Thermal monitoring of transformer and internal temperature of stud welding unit** – automatic shutdown in case of overheating
- **Temperature-regulated ventilator** – reduces noise and dust in the stud welding unit (greater system reliability)
- **Optimal protection against external interferences**
- **Protection class IP 23**
- Also permits operation outdoors

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 stud welding gun

- **AI 06**

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(Technical data may change)