



IT 3002

Stud Welding Unit
for ARC stud welding
according to current standards

Technical Data

| | |
|------------------------------------|--|
| Gas | Option |
| Welding range | #4 to 1", dia. 14 ga to 1" (M3 to M24, dia. 2 to 25 mm) |
| Welding material | Mild steel, stainless steel, aluminum |
| Welding rate | Dia. 1" = 6 studs/min (dia. 25 mm = 6 studs/min) Through deck welding 3/4" = 12 studs/min (300 feet, AWG 4/0) Industrial application 3/4" = 14 to 15 studs/min |
| Welding current | 2,600 A (max.) |
| Current adjustment range | 300 to 2,600 A (stepless) |
| Welding time | 5 to 1,500 msec (stepless) |
| Primary power | 480/460 V, 3 phases, 50/60 Hz, 125 AT (alternative input voltages available) |
| Connected load | 150 KVA (with 400 V mains), 120 kw |
| Cooling type | F (temperature controlled cooling fan) |
| Protection class | IP 23 |
| Operational and storage conditions | According to current standards |
| Dimension L x W x H | 25.6" x 22" x 50.8" (650 x 560 x 1,290 mm) without handle |
| Weight | 352.7 lbs (160 kg) |
| Order No. | 93-66-3211 (1 Gun connection) |

General Information

Application

- Especially suitable for thicker sheets of about 2 mm or higher
- Especially suitable for welding of concrete anchors/shear connectors for job site applications
- Suitable for through deck welding

Process variants

- **Short cycle drawn arc welding**
- **Drawn arc welding**

Equipment

- **Welding with ceramic ferrule (series)**



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
- **Lift test** – for gap welding guns and stud welding heads
- **Library function** – automatic specification of welding current and welding time through selection of stud diameter according to welding range (with and without shielded gas); fine adjustment via arrow keys

Structure

- **Extremely easy to operate**
- **Compact**
- **Mobile** – highly mobile thanks to compact dimensions and low weight (50% weight savings vis-à-vis conventional stud welding units)
- **Robust** – metal 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 (- 10% + 10%)
- **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** – automatic shutdown in case of overheating
- **Temperature-regulated ventilator** – reduces noise and dust in the stud welding unit (greater system reliability)
- **Control unit galvanically separated from welding lines** – high degree of functional safety
- **Optimal protection against external interferences**
- **Protection class IP 23**
- Also permits operation outdoors

Welding

- **Display** – infinitely adjustable power setting; easy monitoring of all functions via LED displays; easy operation via membrane keyboard and digital display; setting of welding parameters, programs, shielding gas (optional); digital display of current, welding and gas-preflow time; separate settings for welding current and welding time
- **Powerful** – built-in power reserves
- **Trouble-free changing** of welding voltage polarity possible by reconnecting welding current and ground cables
- **Outstanding welding quality** – very high arc stability even at weak welding currents
- **High process flexibility** – high clock frequency (30 kHz) of stud welding unit allows highly dynamic regulation of welding process

Suitable stud welding guns

- **A 12**
- **A 16**
- **A 22**
- **A 25**
- **AI 06**