



Inverter

- Maximum welding quality
- Maximum welding rates
- Minimum energy consumption
- Minimum weight
- Maximum efficiency

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	93-66-3211: 352.74 lbs (160 kg) 93-66-3221: 394.63 lbs (179 kg)
Order No.	93-66-3211 (1 Gun connection) 93-66-3221 (2 Gun connections)

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
- **2 gun connections** (optional)

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**

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(Technical data may change)