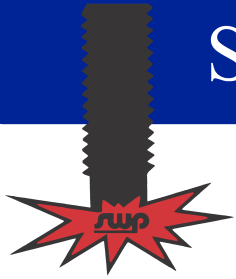


STUD WELDING PRODUCTS, INC.



IT 1002

Preliminary Technical Data Sheet



IT 1002

Stud Welding Unit
for ARC stud welding
according to current standards

Technical Data

Gas/Automation/Process control	Series/Option/Option
Welding range	#4 to 5/8", dia. 14 ga to 9/16" (M3 to MR16, dia. 2 to 14 mm)
Welding material	Mild steel, stainless steel, aluminum
Welding rate	1/2" (M12) = 25 studs/min
Welding current	1,000 A (max.)
Current adjustment range	Stud welding 100 to 1,000 A, electrode 50 to 400 A (stepless)
Welding time	5 to 1,000 msec (stepless)
Primary power	480/460 V, 3 phases, 50/60 Hz, 35 AT (alternative input voltages available)
Connected load	50 KVA (with 400 V mains), 40 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	26 " x 11" x 13.4" (660 x 280 x 340 mm) without handle
Weight	63.9 lbs (29 kg)
Order No.	93-66-1202 (Gas) 93-66-1204 (Gas/Automation) 93-66-1206 (Gas/Automation/Process control)

General Information

Application

Especially suitable for thicker sheets of about 2 mm or higher

Process variants

Short cycle drawn arc welding
Drawn arc welding

Equipment

Welding with ceramic ferrule (series)
Welding with shielding gas (series)
Automation (optional)
Process sequence control (optional)

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

Lift test – for gap welding guns and 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

Process monitoring – recording and analysis of factors affecting the welding process; after each weld, the reference and actual values are compared; display of the welding energy input; switchable automatic welding stop if limits are exceeded

RS232 interface – for data output; data and time of day are stored; welding parameters of each weld are logged (only for version gas/automation/process control)

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, automation and process monitoring possible; digital display of current, welding and gas-preflow time (optional: pneumatic feed time for automation); 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

2 in 1 – switchable from drawn-arc ignition to electrode welding

Suitable stud welding guns/ -heads

A 12, A 16, AI 06

CA 08

PAH-1 (only suitable for automatic version)

KAH 412 (only suitable for automatic version)

Issue 06/08

(Technical data may change)

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