CDM 2401

Technical Data Sheet

CDM 2401

Stud Welding Unit (with wide range power supply) for CD stud welding (capacitor discharge welding) according to current standards

Technical Data

Automation	Series
Welding range	M3 to M8 (M10 limited), dia. 2 to 8 mm (dia. 10 mm limited)
Welding material	Mild steel, stainless steel, aluminum and brass
Welding rate	20 to 40 studs/min (depending on application and stud dia.)
Capacitance	99,000 µF/33,000 µF*
Welding time	1 to 3 msec
Energy	2,400 Ws/800 Ws*
Charging voltage	50 to 220 V (stepless voltage regulation)
Primary power	85 to 265 V ~ wide range selection, 50/60 Hz, 10 AT
Power source	Capacitor
Cooling type	F (temperature controlled cooling fan)
Protection class	IP 21
Operational and storage conditions	According to current standards
Dimension L x W x H	600 x 240 x 280 mm (without handle)
Weight	26 kg
	* with change over of capacitors
Order No.	**92-10-2241 (Automation)**

General Information

Application

- Especially suitable for thin sheets (at least 0.5 mm)

Process variants

- **Contact welding**
- **Gap welding**

Equipment

- **Automation** (series)

HBS Bolzenschweiss-Systeme GmbH & Co. KG
Felix-Wankel-Strasse 18
85221 Dachau / Germany
Phone +49 (0) 8131 511-0
Fax +49 (0) 8131 511-100
post@hbs-info.com
www.hbs-info.com

CDM 2401

Technical Data Sheet

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 LCD display
- **Lift test** – for gap welding guns and stud welding heads
- **Library function** – 8 programs (charging voltages) can be stored; library with stored welding parameters; additional customer-specific entries possible; user interface available in various languages; display of charging voltage in volts
- **Process monitoring** – recording and analysis of factors affecting the welding process by means of the process-analysis factor (PAF); after each weld, the reference PAF value is compared with the actual value; display of the actual and reference values; switchable automatic welding stop, if limits are exceeded; limits selectable in increments; manual entry of PAF value possible
- **RS232 interface** – for data output; data and time of day are stored; welding parameters of each weld are logged

Structure

- **Extremely easy to operate**
- **Compact**
- **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** – safe to operate with mains voltages ranging between 85 to 265 V (wide range power supply); use even with critical voltage supply
- **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)
- **Control unit galvanically separated from welding lines** – high degree of functional safety
- **Optimal protection against external interferences**

Welding

- **Display** – infinitely adjustable power setting (charge reversal via set-point switch); easy monitoring of all functions via LCD display; user-friendly operation via large LCD display
- **Powerful** – built-in power reserves
- **Electronic regulation of charging** – allows high clock rates
- **Trouble-free changing** of welding voltage polarity possible by reconnecting welding current and ground cables
- **Use of special capacitors** (developed for stud welding)
- **Capacitance switching** – 33,000 µF or 99,000 µF

Suitable stud welding guns/ -heads

- **C 08**
- **CA 08**
- **PAH-1**
- **KAH 412**
- **KAH 412 LA**

Issue 11/08
(Technical data may change)

HBS Bolzenschweiss-Systeme GmbH & Co. KG
Felix-Wankel-Strasse 18
85221 Dachau / Germany
Phone +49 (0) 8131 511-0
Fax +49 (0) 8131 511-100
post@hbs-info.com
www.hbs-info.com