



## HF-2700A, HF-2500A - Fuente de poder para soldadura por puntos con inversor de alta frecuencia (anteriormente conocido como HF27 y HF25)

Los controles que se encuentran en la HF-2700A y HF-2500A de soldadores de bucle cerrado abordan los retos de las microuniones. Las soldaduras en miniatura son muy sensibles a las pequeñas fluctuaciones del perfil térmico en el proceso de soldadura por resistencia. Un exceso de calor deforma y destruye las piezas, mientras que la falta de calor produce una unión débil e inaceptable. Para lograr unas soldaduras constantes y fiables de piezas pequeñas y microminiaturas, el calentamiento se tiene que controlar de forma exacta, lo que requiere un control superior de la energía producida.

### Especificaciones HF-2700A, HF-2500A - Fuente de poder para soldadura por puntos con inversor de alta frecuencia

- > Control digital ultrarrápido (25 kHz) para soldadores de bucle cerrado y retroalimentación adaptable
- > Monitor de soldadura integrado con pantalla gráfica
- > Límites y alarmas definidos por el usuario
- > Puertos E/S RS-232 y RS-485 para el control remoto de programas de soldadura y salida de datos de soldadura
- > Varias interfaces de cabezales de soldadura

Specifications HF-2700A, HF-2500A - Fuente de poder para soldadura por puntos con inversor de alta frecuencia (anteriormente conocido como HF27 y HF25) 1/2

| Número de modelo                                                                  | HF-2500A/240                                                                                                                                                     | HF-2500A/400                                                                                                                                                     | HF-2500A/480                                                                                                                                                     |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Voltaje nominal de línea (trifásico)                                              | 240 VAC                                                                                                                                                          | 400 VAC                                                                                                                                                          | 480 VAC                                                                                                                                                          |
| Rango de voltaje de línea (vca)                                                   | 192 to 264                                                                                                                                                       | 320 to 440                                                                                                                                                       | 384 to 528                                                                                                                                                       |
| Clasificación del circuito de entrada (por fase)                                  | 25 A                                                                                                                                                             | 20 A                                                                                                                                                             | 13 A                                                                                                                                                             |
| Entrada KVA a 3% ciclo de trabajo                                                 | 30 KVA                                                                                                                                                           | 30 KVA                                                                                                                                                           | 30 KVA                                                                                                                                                           |
| Salida KW @ máx. demanda                                                          | 12 KW                                                                                                                                                            | 12 KW                                                                                                                                                            | 12 KW                                                                                                                                                            |
| Tensión del transformador de salida a máx. corriente de salida nominal            | 5.2 V                                                                                                                                                            | 5.2 V                                                                                                                                                            | 5.2 V                                                                                                                                                            |
| Voltaje de salida máx. de circuito abierto en línea nominal                       | 11.5 V                                                                                                                                                           | 11.5 V                                                                                                                                                           | 11.5 V                                                                                                                                                           |
| Rangos de ajuste                                                                  | Current – 100 A to 2400 A;<br>Voltage – 0.2 V to 10 V; Power – 50 W to 10 kW                                                                                     | Current – 100 A to 2400 A;<br>Voltage – 0.2 V to 10 V;<br>Power – 50 W to 10 kW                                                                                  | Current – 100 A to 2400 A;<br>Voltage – 0.2 V to 10 V;<br>Power – 50 W to 10 kW                                                                                  |
| Corriente de salida                                                               | 2400 A @ 3% duty cycle                                                                                                                                           | 2400 A @ 3% duty cycle                                                                                                                                           | 2400 A @ 3% duty cycle                                                                                                                                           |
| Tiempo de respuesta de retroalimentación de salida (corriente, voltaje, potencia) | 40 Microseconds                                                                                                                                                  | 40 Microseconds                                                                                                                                                  | 40 Microseconds                                                                                                                                                  |
| Regulación de salida frente a variación de voltaje de línea                       | 2%                                                                                                                                                               | 2%                                                                                                                                                               | 2%                                                                                                                                                               |
| Regulación de salida frente a variación de resistencia de carga                   | 2%                                                                                                                                                               | 2%                                                                                                                                                               | 2%                                                                                                                                                               |
| Corriente, voltaje, potencia ± de ajuste de repetibilidad de salida               | 2%                                                                                                                                                               | 2%                                                                                                                                                               | 2%                                                                                                                                                               |
| Rango de períodos de soldadura                                                    | All segments except squeeze and hold 0.10 ms to 10 ms, 0.1 ms steps; 10 to 99 ms, 1 ms steps; squeeze and hold 0 to 999 ms, 1 ms steps                           | All segments except squeeze and hold 0.10 ms to 10 ms, 0.1 ms steps; 10 to 99 ms, 1 ms steps; squeeze and hold 0 to 999 ms, 1 ms steps                           | All segments except squeeze and hold 0.10 ms to 10 ms, 0.1 ms steps; 10 to 99 ms, 1 ms steps; squeeze and hold 0 to 999 ms, 1 ms steps                           |
| Precisión de ajuste de energía de soldadura                                       | Current: 2% of setting or 2 A, whichever is greater; Voltage: 2% of setting or 0.050 V, whichever is greater; Power: 5% of setting or 20 W, whichever is greater | Current: 2% of setting or 2 A, whichever is greater; Voltage: 2% of setting or 0.050 V, whichever is greater; Power: 5% of setting or 20 W, whichever is greater | Current: 2% of setting or 2 A, whichever is greater; Voltage: 2% of setting or 0.050 V, whichever is greater; Power: 5% of setting or 20 W, whichever is greater |
| WELD HEAD PROFILE FUNCTIONS                                                       |                                                                                                                                                                  |                                                                                                                                                                  |                                                                                                                                                                  |
| Control de pulso de soldadura                                                     | Dual pulse with independent control of current, voltage, power or combo mode (HF27) on each pulse.                                                               |                                                                                                                                                                  |                                                                                                                                                                  |
| Segmentos programables de pulso de soldadura                                      | Squeeze, upslope 1, weld 1, downslope 1, cool, upslope 2, weld 2, downslope 2, hold.                                                                             |                                                                                                                                                                  |                                                                                                                                                                  |
| Memoria de programación de soldadura                                              | Save up to 100 different weld schedules, protected from unauthorized changes.                                                                                    |                                                                                                                                                                  |                                                                                                                                                                  |

|                                            |                                                                                                                                                                                        |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Parámetros de medición                     | Independent monitor of current, voltage, power, and resistance on each pulse. Envelope, time limits and energy monitor (HF27).                                                         |
| Pantalla gráfica                           | Back-lit LCD displays programmed and actual weld current, voltage or power, upper and lower limits, and resistance.                                                                    |
| Measurement selection                      | Peak or average                                                                                                                                                                        |
| Rango / precisión de medida de corriente   | 50.0 A to 2.400 KA/±2% of reading or ±2 A, whichever is greater.                                                                                                                       |
| Rango de medición de voltaje / precisión   | 0.2 V to 9.999 V/±2% of reading or ±0.05 V, whichever is greater.                                                                                                                      |
| Rango de medición de potencia / precisión  | 0.01 KW to 9.999 KW/±5% of reading or ±20 W, whichever is greater.                                                                                                                     |
| Alarmas                                    | Display alert, four user programmable AC/DC relays; audio alarm.                                                                                                                       |
| Límite de energía de soldadura programable | Terminates weld energy when exceeding user defined current, voltage, or power limits.                                                                                                  |
| Comprobación previa a la soldadura         | Inhibit second weld pulse when first test pulse exceeds user programmed limits.                                                                                                        |
| Acondicionador activo de partes            | First pulse current limit in constant power allows second pulse to fire.                                                                                                               |
| I/O AND DATA COMMUNICATIONS                |                                                                                                                                                                                        |
| Input: Input Isolation                     | All inputs and outputs are fully isolated.                                                                                                                                             |
| Input: Control voltages                    | Selectable: +5 V, +24 V, sourcing or sinking inputs.                                                                                                                                   |
| Input: Firing switch initiation            | 1-level foot switch, 2-level foot switch, mechanical or opto firing switch.                                                                                                            |
| Input: Remote control                      | Remote weld schedule select, process inhibit, emergency stop.                                                                                                                          |
| Input: RS232                               | Change weld schedules and individual parameters.                                                                                                                                       |
| Input: RS485                               | Change weld schedules and individual weld parameters; “Daisy Chain” unit to unit, unit(s) to host computer.                                                                            |
| Input: Electrode voltage                   | Weld voltage signal for voltage feedback operation (0 to 10 V peak).                                                                                                                   |
| Weld head air valve driver                 | 24 VAC, 1 A; timing controlled by HF-2500A/HF-2700A. Operates new EZ-Air.                                                                                                              |
| Relés de alarma                            | Four user-programmable mechanical relays; programmable normally open or normally closed; contacts: 250 VAC at 5 A; 30 VDC at 5 A. Conditions: weld, end of weld, alarm, out of limits. |

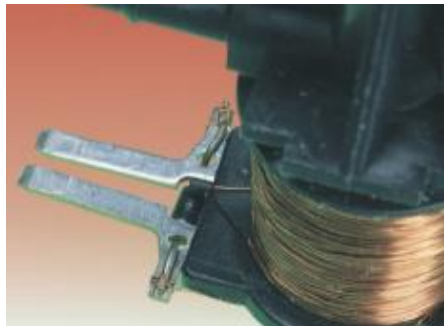
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|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| DISPLACEMENT OPTION (HF-2700A ONLY)         |                                                                                                                           |
| Capacidades                                 | Part detection, final thickness measurement, set down measurement, energy stop (weld to limit)                            |
| Exactitud de las lecturas de desplazamiento | ± .003 in (0.076 mm)                                                                                                      |
| Repetibilidad                               | ± 1.0 %                                                                                                                   |
| Recorrido máximo                            | 1 in (25 mm)                                                                                                              |
| Relés de alarma                             | Additional conditions: any LVDT, initial Lo/Hi, final Lo/Hi, displacement Lo/Hi, initial NG, displacement NG, energy stop |
| Salida de datos                             | Initial thickness, final thickness, displacement, and any alarm condition                                                 |
| FORCE CONTROL AND MONITOR (HF-2700A ONLY)   |                                                                                                                           |
| Force input                                 | 0 - 10 V input signal from signal conditioner or load cell                                                                |
| Medida de fuerza                            | End of squeeze, end of hold                                                                                               |
| Er? kimenet                                 | 0 - 10 V for use with proportional valve                                                                                  |
| Programación de la fuerza                   | lbs, kg. N. force can be stored by schedule                                                                               |
| WEIGHT & DIMENSIONS                         |                                                                                                                           |
| Dimensiones (LxAxAI)                        | 460 mm x 230 mm x 325 mm (18 in x 9 in x 12.8 in)                                                                         |
| Peso                                        | 25 kg (54 lb)                                                                                                             |

Specifications HF-2700A, HF-2500A - Fuente de poder para soldadura por puntos con inversor de alta frecuencia (anteriormente conocido como HF27 y HF25) 2/2

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| Corriente de salida                                                               | 2400 A @ 3% duty cycle                                                                                                                                           | 2400 A @ 3% duty cycle                                                                                                                                           | 2400 A @ 3% duty cycle                                                                                                                                           |
| Tiempo de respuesta de retroalimentación de salida (corriente, voltaje, potencia) | 40 Microseconds                                                                                                                                                  | 40 Microseconds                                                                                                                                                  | 40 Microseconds                                                                                                                                                  |
| Regulación de salida frente a variación de voltaje de línea                       | 2%                                                                                                                                                               | 2%                                                                                                                                                               | 2%                                                                                                                                                               |
| Regulación de salida frente a variación de resistencia de carga                   | 2%                                                                                                                                                               | 2%                                                                                                                                                               | 2%                                                                                                                                                               |
| Corriente, voltaje, potencia ± de ajuste de repetibilidad de salida               | 2%                                                                                                                                                               | 2%                                                                                                                                                               | 2%                                                                                                                                                               |
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| <b>WELD HEAD PROFILE FUNCTIONS</b>                                                |                                                                                                                                                                  |                                                                                                                                                                  |                                                                                                                                                                  |
| Control de pulso de soldadura                                                     |                                                                                                                                                                  |                                                                                                                                                                  |                                                                                                                                                                  |
| Segmentos programables de pulso de soldadura                                      |                                                                                                                                                                  |                                                                                                                                                                  |                                                                                                                                                                  |
| Memoria de programación de soldadura                                              |                                                                                                                                                                  |                                                                                                                                                                  |                                                                                                                                                                  |
| Parámetros de medición                                                            |                                                                                                                                                                  |                                                                                                                                                                  |                                                                                                                                                                  |
| Pantalla gráfica                                                                  |                                                                                                                                                                  |                                                                                                                                                                  |                                                                                                                                                                  |
| Measurement selection                                                             |                                                                                                                                                                  |                                                                                                                                                                  |                                                                                                                                                                  |
| Rango / precisión de medida de corriente                                          |                                                                                                                                                                  |                                                                                                                                                                  |                                                                                                                                                                  |

|                                             |
|---------------------------------------------|
| Rango de medición de voltaje / precisión    |
| Rango de medición de potencia / precisión   |
| Alarmas                                     |
| Límite de energía de soldadura programable  |
| Comprobación previa a la soldadura          |
| Acondicionador activo de partes             |
| I/O AND DATACOMMUNICATIONS                  |
| Input: Input Isolation                      |
| Input: Control voltages                     |
| Input: Firing switch initiation             |
| Input: Remote control                       |
| Input: RS232                                |
| Input: RS485                                |
| Input: Electrode voltage                    |
| Weld head air valve driver                  |
| Relés de alarma                             |
| DISPLACEMENT OPTION (HF-2700A ONLY)         |
| Capacidades                                 |
| Exactitud de las lecturas de desplazamiento |
| Repetibilidad                               |
| Recorrido máximo                            |
| Relés de alarma                             |
| Salida de datos                             |
| FORCE CONTROL AND MONITOR (HF-2700A ONLY)   |
| Force input                                 |
| Medida de fuerza                            |
| Er? kimenet                                 |
| Programación de la fuerza                   |
| WEIGHT & DIMENSIONS                         |
| Dimensiones (LxAnxAI)                       |
| Peso                                        |

Product applications HF-2700A, HF-2500A - Fuente de poder para soldadura por puntos con inversor de alta frecuencia (anteriormente conocido como HF27 y HF25)



Anti-lock brake system solenoid



Critical parts fabrication



Switch assembly



Implantable device interconnects

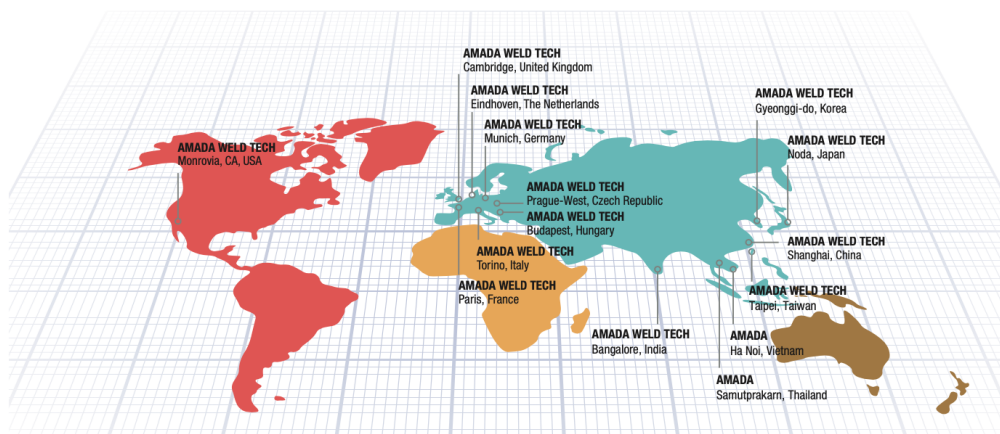
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**AMADA WELD TECH GmbH**  
Lindberghstrasse 1 • DE-82178 Puchheim, Germany  
T: +49 (0) 89 83 94 030 • Fax : +49 (0) 89 839403 68  
info@amadaweldtech.eu • www.amadaweldtech.eu  
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