



HT-1080 HEAT TREATMENT INVERTER

HT-1080 HEAT TREATMENT INVERTER is designed primarily for weld preheating and stress relieving of materials after welding to reduce stress, reduce hydrogen content and for preheating before welding up to 1050°C. HT-1080 HEAT TREATMENT INVERTER has the option of higher-level programming designed especially for weld preheating and stress relieving. It also enables multizone mode, linking and copying programs, setting more control values and others. Recording time is 64 hours.

HT-1080 HEAT TREATMENT INVERTER

USE

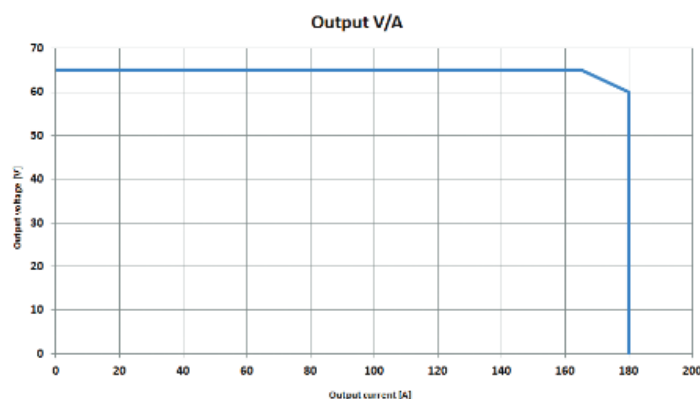
- Controlled preheating and cooling of welded materials
- Thermal annealing and tempering and other material thermal processing
- The DHC source is applicable in production, maintenance, and repairs activities.

SPECIFICATIONS

- High output with small dimensions and low weight -10 kW at 17 kg
- Possible connection of resistance elements from 24 to 65 V, 10.8 kW
- Simple handling and easy-to-read display
- Possible interconnection of more units of the master-slave type for gaining higher output
- Continuous regulation of input power (voltage)
- Complete set consisting of the source, regulator, and recorder
- Programmable temperature regulator -25 °C to 1,200 °C
- Saving up to 20 thermal profiles with max. 180 segments
- Control according to a set thermal profile or manually to required temperature or output
- Two settable alarms
- Integrated recorder of temperature and output with up to 64 hr of ecording
- Possible connection of external recorder

OUTPUT CHARACTERISTICS OF THE INVERTER

- 1 ON button to start / stop heating
- 2 PV, SV and MV displays
- 3 Control buttons for process programming and recording
- 4 SET selection button
- 5 + and – buttons for value selection
- 6 Connector for connecting a thermocouple
- 7 Connector for connecting another MASTER/SLAVE inverter and for downloading data from the recorder
- 8 Quick-couplers + and – for connecting elements



TECHNICAL DATA OF THE INVERTER

Output voltage/current	0-65 V / 160 A, 0-65 V / 180 A, continuously regulated, CV/CC
Load	Resistance heating elements 24-65 V (30/60 V type)
Supply voltage/current	3~400 V, 50/60 Hz, 23 A
Feed protection	25 A
Thermal sensor	K-type thermocouple, galvanically insulated output
Measuring/regulation range	-40 °C to 1,350 °C / -25 °C to 1,200 °C
Alarm	2 settable (deviation SV/PV, reaching temperature, etc.)
Failure detection	Thermocouple disconnection, overloading, overheating, short-circuit on output, etc.
Multizonal regulation	Yes, master/slave type, max. 9 units
Operating temperature / protection	-20 °C to 40 °C (with limited output up to 50 °C)
Dimensions and weight	170x370x405 mm, 17 kg
Certification	CE

INTEGRATED DIGITAL REGULATOR AND RECORDER

Temperature may be controlled with any of 20 user-settable thermal profiles/programmes with up to 180 segments, or directly to the user-set temperature which may be changed at any time. The user may set the heating/cooling temperature, time for which a set temperature is to be maintained, and target temperature, independently in each segment of the profiles as well as in the temperature control manual mode. The heating power may be controlled also directly. The regulator is equipped with a user lock in the menu for locking the PID values setting. The device is fitted with an integrated digital recorder of the heating process with 64 hr recording capacity. Data may be transmitted to a PC for further processing in order to document the heating process or its control. This provides the maximum complexity as well as simplicity of using the device the control of which is easy to learn

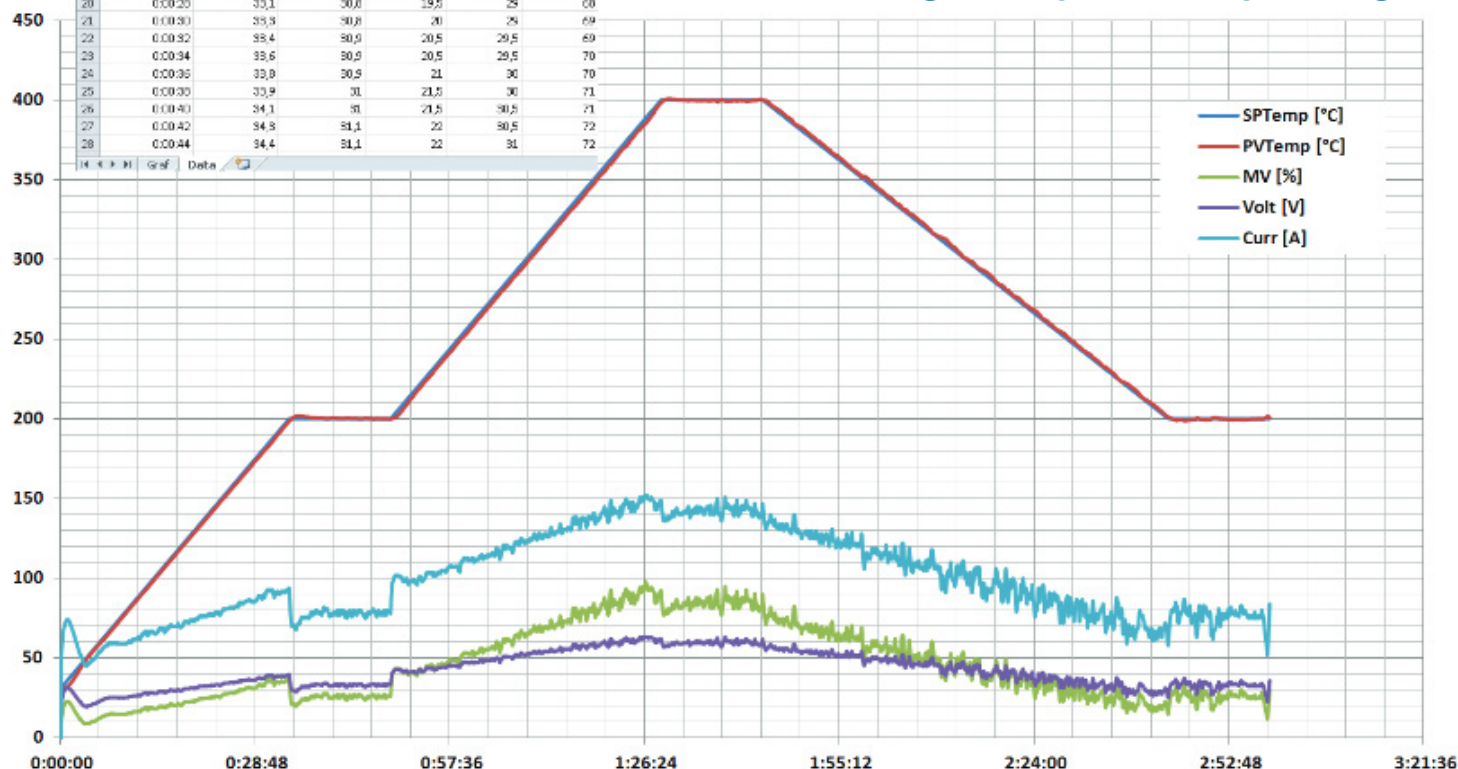
TABLE OF MEASURED DATA

	A	B	C	D	E	F
4	File Name:	2011-11-07_CH01_P02				
5						
6	RecTime [h:m:s]	SPTemp [°C]	PVTemp [°C]	MV [%]	Volt [V]	Curr [A]
7	0:00:02	30,9	30,8	8	0	0
8	0:00:04	31,1	30,8	6	16	36
9	0:00:06	31,3	30,8	8,5	19	44
10	0:00:08	31,4	30,8	10,5	21	49
11	0:00:10	31,5	30,8	12	22,5	52
12	0:00:12	31,8	30,8	13	23,5	55
13	0:00:14	31,9	30,8	14	24,5	58
14	0:00:16	32,1	30,8	15	25,5	60
15	0:00:18	32,3	30,8	16	26	61
16	0:00:20	32,4	30,8	17	27	63
17	0:00:22	32,5	30,8	17,5	27,5	64
18	0:00:24	32,8	30,8	18	28	66
19	0:00:26	32,9	30,8	19	28,5	67
20	0:00:28	33,1	30,8	19,5	29	68
21	0:00:30	33,3	30,8	20	29	69
22	0:00:32	33,4	30,9	20,5	29,5	69
23	0:00:34	33,5	30,9	20,5	29,5	70
24	0:00:36	33,8	30,9	21	30	70
25	0:00:38	33,9	31	21,5	30	71
26	0:00:40	34,1	31	21,5	30,5	71
27	0:00:42	34,3	31,1	22	30,5	72
28	0:00:44	34,4	31,1	22	31	72

VALUES WRITTEN IN THE RECORDER

SPTemp	[°C]	Setting Value – required temperature
PVTemp	[°C]	Process Value – actual measured temperature
MV	[%]	Manipulation Value – output power
Volt	[V]	Measured output voltage
Curr	[A]	Measured output current

GRAPHIC DATA PRESENTATION



TECHNICAL DATA OF THE REGULATOR AND RECORDER

Control	Temperature regulation acc. to a set thermal programme Regulation to a set temperature Regulation of heating (output) power
Thermal profile	20 settable profiles with 9 segments each, max. 180 segment
Profiles lining / cycling	Yes / Yes
Segment parameters	Ramp OFF / 1 ... 999 °C/hr Setpoint -25 °C ... 1,200 °C Hold time OFF ... 9,999 min
Regulator	Digital PID, user-settable
Recorder	64 hr of recording, saving PV/SP/MV and error conditions
Data download	With 485/USB to a PC into a text editor (direct import to excel)

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