

Heat Treatment Power Source, 6 Output

50kVA Stock Reference: 10027/06/11/000

70kVA Stock Reference: 10026/06/11/000

Are you losing money and wasting time using more heat treatment sets than you actually need?

Do you have to run heat treatment sets two or three times to get the job done?

If so, Cooperheat's new Heat Treatment Power Sources provide the cost-effective solution you need!

Cooperheat equipment is manufactured incorporating ISO 9001:2000 quality controlled designs.

These designs are based upon the results of third party testing for compliance with European Safety Directives and Cooperheat's extensive experience in the field of heat treatment engineering.



The new Cooperheat 50kVA and 70kVA, 6 Output, Heat Treatment Power Sources have been developed to meet the real needs of the heat treatment engineering industry. Our design is based on almost 50 years experience as the worldwide market leader in the field of heat treatment.

Our designs were driven by the need to meet five key criteria:

Value for money

When you compare the functionality and versatility of the new Cooperheat Heat Treatment Power Sources with other, similar, products in the market you will find that they significantly outperform our competitors, delivering a rapid return on investment.

Versatility

- Instant access to output channels that can be used to power either 30V or 60V heating elements without the need to change any tapings on the transformer or connect a wasted additional heating element in series
- Digital temperature controllers operate in degrees Centigrade or degrees Fahrenheit
- Temperature controllers display both set point temperature and actual work piece temperature
- Transformer secondary tapings can be changed to allow for supplying power to 40V and 80V heating elements

Utilising the integral heating and cooling ramp features allows the operator to carry out up to six separate pre-heats or full heat treatment cycles simultaneously with a single power source as indicated in the application table overleaf.

Ease of operation and maintenance

- Clear, illuminated digital displays showing actual and set point temperatures
- LED indicator light indicating 'power on' for each output channel
- Input/output sockets and instruments located on front panel allowing the back of the unit to be located against a wall when working space is limited
- Simple access to transformer tapping board and for maintenance to input/output sockets and instruments by means of a swing hinged front panel
- Connectors provided for simple connection of primary supply cable

Fitness for purpose

- Constructed from high-grade stainless steel giving excellent protection against corrosion including marine offshore applications
- Large castor wheels to facilitate mobility in normal site conditions

Safety

- CE marked in compliance with European Safety Directives
- Safe voltages employed. Voltage to earth from any single output socket is 32.5V a.c.
- Automatic protection against transformer coil becoming over heated by inclusion of thermostats in the core windings
- Primary over-current protection provided by a three-phase circuit breaker

Cost Efficient, Innovative,
Reliable, Safe

At Cooperheat we do whatever it takes to deliver excellence in the design, manufacture and product support of Heat Treatment Equipment.

Contact us today for all your heat treatment requirements.



Cooperheat locations worldwide:

- United Kingdom
- The Netherlands
- Kuwait
- Saudi Arabia
- United Arab Emirates
- Australia
- Malaysia
- New Zealand

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Cooperheat is a member of the Stork Materials Technology group of companies

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50kVA POWER SOURCE		70kVA POWER SOURCE	
TRANSFORMER CORE:			
<ul style="list-style-type: none"> ■ Three phase, natural air cooled, class H, 50kVA ■ Primary winding connected in delta ■ Secondary winding connected in star ■ Auxiliary winding: 110V a.c. 3.3 kVA single phase 		<ul style="list-style-type: none"> ■ Three phase, forced air cooled, class H, 70kVA ■ Primary winding connected in delta ■ Secondary winding connected in star ■ Auxiliary winding: 110V a.c. 3.3 kVA single phase 	
PRIMARY SUPPLY:			
<ul style="list-style-type: none"> ■ Primary Voltage: 380V, 415V, 440V, 480V ■ Primary current: 76A, 70A, 66A, 60A ■ Frequency 50/60 Hz 		<ul style="list-style-type: none"> ■ Primary Voltage: 380V, 415V, 440V, 480V ■ Primary current: 106A, 97A, 92A, 84A ■ Frequency 50/60 Hz 	
PROTECTION:			
<ul style="list-style-type: none"> ■ Three phase 80A circuit breaker with shunt trip ■ Three primary core winding over temperature thermostats linked to circuit breaker shunt trip 		<ul style="list-style-type: none"> ■ Three phase 125A circuit breaker with shunt trip ■ Three primary core winding over temperature thermostats linked to circuit breaker shunt trip 	
SECONDARY OUTPUTS:			
<ul style="list-style-type: none"> ■ Factory setting output: 32.5V – 0V – 32.5V (for 30V and 60V heating element operation) ■ Outputs of 42.5V - 0V – 42.5V (for 40V and 80V heating element operation) available by changing the internal, secondary tapings ■ Auxiliary outputs: Three 110V, 10A, 50/60Hz output sockets ■ Number of temperature controlled output channels: 6 channels 			
<ul style="list-style-type: none"> ■ Maximum load per output channel: 8.1kW (e.g. three 60V, 2.7kW heating elements) ■ Maximum current per output channel: 135A 		<ul style="list-style-type: none"> ■ Maximum load per output channel: 10.8 kW (e.g. four 60V, 2.7kW heating elements) ■ Maximum current per output channel: 180A 	
CONSTRUCTION:			
Case:	316 Stainless Steel case fitted with four 150mm nylon wheels	Case:	316 Stainless Steel case fitted with four 150mm nylon wheels
Weight:	300 kg	Weight:	300 kg
Dimensions:	1045mm high x 640mm wide x 670mm deep	Dimensions:	1195mm high x 640mm wide x 670mm deep
TEMPERATURE CONTROL FEATURES:			
<ul style="list-style-type: none"> ■ Factory setting units of temperature measurement, display and control: Degrees Centigrade ■ User may also select Degrees Fahrenheit ■ Hold/Soak temperature set point setting ■ Automatic ramp up rate in degrees per hour to specified hold/soak temperature set point setting ■ Operator selects final temperature set point setting and ramp down rate in degrees per hour once the required hold/soak period has passed ■ Reset button for resetting set point to actual process temperature 			
OPERATING MODE:			
Selector switch for selection of: <ul style="list-style-type: none"> ■ Auto mode (external temperature control by heat treatment programmer/controller) ■ Manual mode (internal temperature control by integral Jumo temperature controllers) ■ Off mode: switches off all power to outputs 			
SWITCHING:			
Six double pole, 180A, contactors with 110V a.c. coil.			
ADDITIONAL OPTIONS:		STOCK REFERENCE CODE	
Three auxiliary 32.5V-0V-32.5V outputs for use with auxiliary contactor box		****/**/**/**4	
3m supply cable fitted to the unit (Note: Standard build does not include supply cable)		****/**/**/**5	
If no Jumo temperature controllers are required		****/**/0/**	
If phase indicator lights are required		****/**/**/**/pl	

Application Table

	CHANNEL 1	CHANNEL 2	CHANNEL 3	CHANNEL 4	CHANNEL 5	CHANNEL 6
Process	Post Weld Heat Treatment	Pre Heat	Post Weld Heat Treatment	Pre Heat	Post Weld Heat Treatment	Post Weld Heat Treatment
Heating elements used	30V	60V	60V	30V	30V	60V
Heating rate	180°C per hour	150°C per hour	220°C per hour	100°C per hour	200°C per hour	150°C per hour
Holding temperature	600°C	250°C	640°C	150°C	600°C	600°C

