

# TTW90

Temperature controllers

## HEATING CAPACITY

3000 - 6000 W



### ELECTRICAL PANEL

Complete with motor starting, heating element and main disconnect switch with circuit breakers, electrical power connections with relay phase sequence control and alarm signal. The front of the panel incorporates indicator lights, green for correct operation, red for general, pump and heating element faults. Static power relays for heating temperature regulation.

### MANAGEMENT AND CONTROL

Temperature control with PID heating and cooling regulation with sensor fault diagnostics and water minimum and maximum temperature control. RS485 serial communication on request.

### MAIN ACCESSORIES (on request, ref. page 191)

- VO - Stop valves
- RU - Castors
- External temperature sensor kit
- Non-standard paint/coating
- Satin AISI 304 stainless steel framework
- Non-standard supply voltages possible

### STRUCTURE

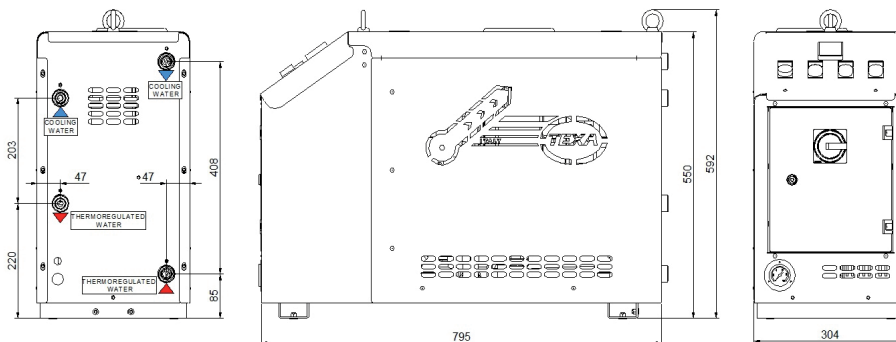
In powder-coated steel sheet, RAL 7035 textured finish. Easily removed panels

### LIQUID CIRCUIT

DIRECT cooling circuit (high-efficiency INDIRECT on request with plate heat exchanger). ON-OFF cooling solenoid valve, or modulating valve on request. Stainless-steel centrifugal pump. Reinforced heating elements with large heat-exchange area.

Flow switch, minimum pressure switch and mechanical maximum pressure valve are installed to protect the fluid circuit.

## Dimensions



Model		TTW90	
Type of heating/cooling		Direct	
Stepping	%	0-100	
Field of operation	°C	+5 - +95	
Temperature regulation precision	°C	+/-0.5	
Control action	-	PID	
<b>Heating section</b>			
Power	kW	3.0	6.0
Maximum temperature	°C	95	
Type	-	Electric	
Control	-	SSR	
<b>Pump</b>			
Pump type	-	Centrifugal	
Min/max fluid flow rate	l/min	36.0	60.0
Nominal head	bar	5.4	3.6
Max. power draw	kW	0.9	
Max. current draw	A	1.8	
Maximum pressure	bar	10	
<b>Electrical specifications</b>			
Supply voltage	V ph Hz	400V (+/-10%) 3ph 50Hz	
Secondary supply voltage	V	24 V AC	
Max. power draw	kW	3.8	6.8
Max. current draw	A	7.2	12
<b>Dimensions</b>			
Total volume	l	3.6	5.4
IN/OUT liquid connections	inch	3/4"	
IN/OUT cooling connections	inch	3/4"	
Net weight (approximate)*	kg	61	65
Width	mm	304	
Depth	mm	795	
Height	mm	550	
Noise**	dB(A)	50	
Colour	-	RAL7035	
IP rating	IP	44	

\* Weight without pallets, packaging and drained of fluid.

\*\* Sound pressure level, measured in a free hemispherical field at a distance of 1 m from the machine and 1.5 metres from the ground, per ISO 3746.

\*\*\* The electrical data refer to  $\cos \phi = 0.8$ .