



Cooling/Heating Temperature Controllers

STC-607-3W



Refer carefully to this manual before operation.

STC-W Series

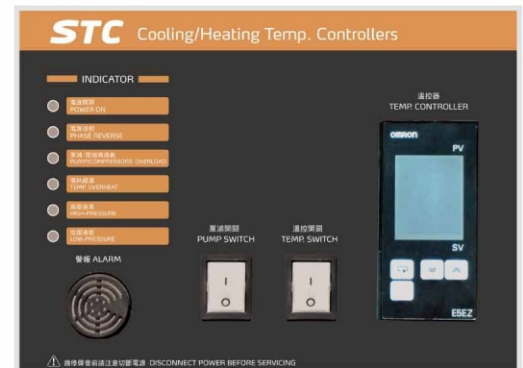
■ Coding Principle

STC - xx xx - xW - x

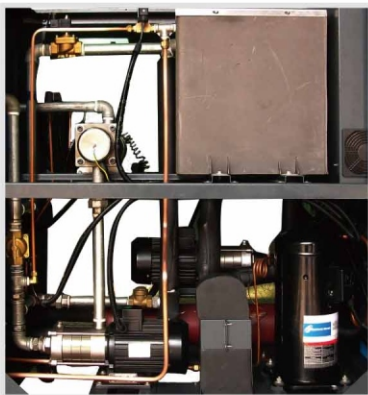
- No Code=R22, R1=R407C, R2=R410A
- W=Water-cooled
- Compressor Power (HP)
- Pump Power (indicated by double-digit, 1HP=0.735kW)
- Heater Power (indicated by double-digit when over 10kW)
- SHINI Cooling / Heating Temperature Controller

■ Features

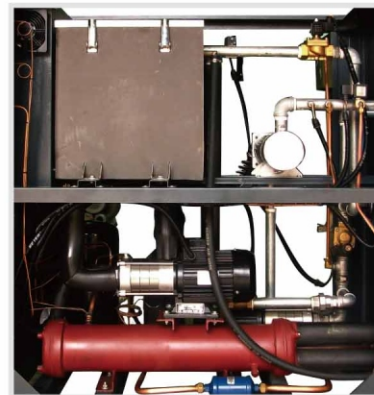
- Temperature control is between 7~120°C with an accuracy of $\pm 1^\circ\text{C}$.
- Stainless steel insulated water tank.
- Adopt imported compressor.
- Anti-freezing protection, over-temperature protection.
- R22 is employed as refrigerant, refrigeration effect is favorable.
- Refrigeration return circuit is controlled by high and low pressure switches.
- Overload protection is adopted for compressor and pump.
- Shell-tube styled condenser is adopted due to its excellent heat transfer and dissipation.
- Plate-type evaporator has a small size, occupying a small space.
- Simple operation and structure ensure easy maintenance.



Control Panel



Internal Structure 1



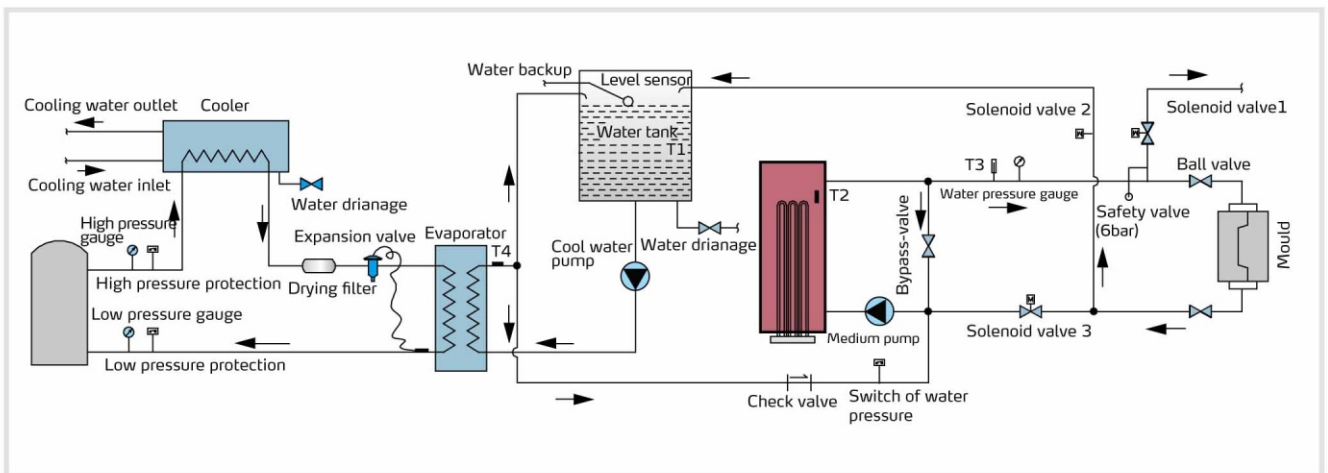
Internal Structure 2

Application

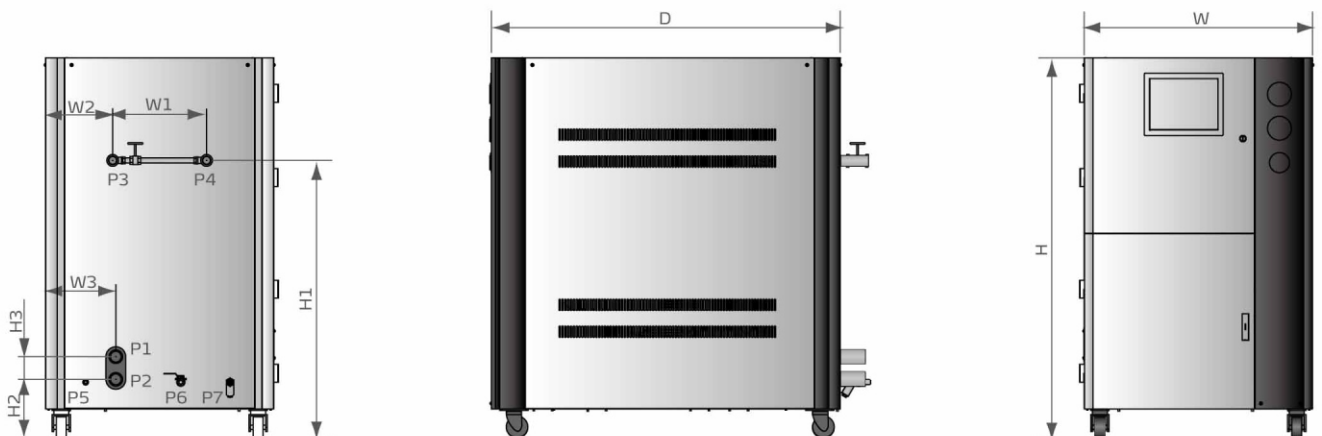
It is mainly applicable to long time cooling or heating of moulds, also suitable for patterns in which mould long heating shifts to cooling and vice versa.

Working Principle

When the system needs to be heated up, solenoid valve 1 and 2 close and solenoid valve 3 opens, heaters quickly heat up the system to required temperature. Then P.I.D. controller maintains the water temperature by controlling solenoid valve 1. And when the system needs to be cooled, solenoid valve 2 opens and 1 and 3 close, the temperature drops to the required temperature with the effects of chilled water in water tank. Quick heating and cooling can be achieved through solenoid valve controlling.



Outline Drawings



STC-W Series

Model	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	W (mm)	W1 (mm)	W2 (mm)	W3 (mm)	D (mm)	P1 (inch)	P2 (inch)	P3 (inch)	P4 (inch)	P5 (inch)	P6 (inch)	P7 (inch)	Weight (kg)
STC-607-3W	1340	980	207	80	805	330	235	250	1230	1	1	1	1	1/2	1/2	1/2	280
STC-910-5W	1340	980	207	80	805	330	235	250	1230	1	1	1	1	1/2	1/2	1/2	300
STC-1215-8W	1425	1040	240	130	845	330	270	235	1450	1 1/2	1 1/2	1 1/4	1 1/4	1/2	1/2	1/2	350
STC-2420-10W	1425	1040	240	130	845	330	270	235	1450	1 1/2	1 1/2	1 1/4	1 1/4	1/2	1/2	1/2	370

STC-W Structure Chart



- ① Stainless steel insulated water tank ② Compressor ③ Plate-type evaporator ④ Medium pump
- ⑤ Stainless steel heating barrel ⑥ Shell-tube styled cooler ⑦ Drying filter ⑧ Cool water pump

■ Specifications

Model		STC-607-3W	STC-910-5W	STC-1215-8W	STC-2420-10W	
		Item / parameter				
Refrigerating Output ⁽¹⁾	kW	8	13.5	21.6	27	
	Kcal/hr	6880	11607	18576	23220	
Electric Heating Capacity	kW	6	9	12	24	
Compressor	Type	Scroll Type				
	OutPut Power	kW	2.04	3.32	4.91	6.46
		HP	3	5	8	10
Refrigerant	Filling Amount (kg)	2.5	3.0	7.5	8	
	Control Mode	Thermostatic Expansion Valve				
	Type ⁽²⁾	R22				
Evaporator	Type	Plate Heat Exchanger				
Chilled Water In / Out Pipe (inch)		1	1	1 1/4	1 1/4	
Condenser	Type	Shell-tube Style				
	Flow(L/min)	30	50	80	100	
	Pipe (inch)	1		1 1/2		
Cool Water Pump	Power	0.75	0.75	1.1	1.5	
	Working Pressure (kgf/cm ²)	2.0	2.0	2.0	2.0	
Medium Pump	Power	0.55	0.75	1.1	1.5	
	Pump Flow (L/min)	45L/min	55L/min	160L/min	175L/min	
	Working Pressure (kgf/cm ²)	2~6	2~6	2~6	2~6	
Protector	Compressor	Overload Relay				
	Pump	Overload Relay				
	Chilling Water Return Circuit	High And Low Pressure Switch / Anti-freezing Switch				
	Water Return Circuit	Water Level Switch (option) / Bypass -valve				
Measures Exchange		1kW=860 kcal/hr 1RT=3,024 kcal/hr 10,000Btu/hr=2,520 kcal/hr				
Voltage Specification		3Φ, 400VAC, 50Hz				

Notes: 1) Refrigeration capacity is measured based on the flow 0.172 m³ / (h·k W) and the outlet temperature (7°C) of chilled water under the environment temperature of 35°C.

2) Environmental-friendly R407C refrigerant is optional.
(Add "R1" at model behind, such as STC-607-3W-R2)

We reserve the right to change specifications without prior notice.

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