

PVC-1000

Temperature Control Stage for the Reference Solar Cell



- This highly accurate Temperature Control Stage stabilizes temperature of the reference solar cell within $\pm 0.1^{\circ}\text{C}$.
- Use of our peltier controller driver TDC-1020AC in combination with the Temperature Control Stage realizes quick response and little drift.
- Suitable for daily calibration of a solar simulator.
- Easy to install.

1. Features

This equipment is a stage for controlling temperature of the reference solar cell equipped with a built-in temperature sensor. Being connected with our standard temperature controller, the Temperature Control Stage supplies the control current to a peltier device (TEC), using the digital PID control.

2. Specifications

2-1. Temperature Control Stage (PVC-1070)

Applicable Solar Cell	should have four mounting holes in conformity with WPVS (World PV Scale) standard pitches and a built-in PT100Ω temperature sensor.
Stage Dimensions	72 x 72 x 113 mm
Control Temperature Range	10°C to 70°C (non-condensing)
Connection Cable	PVC-1001

2-2. Peltier

TEC Maximum Voltage (Vmax)	17.5V
TEC Maximum Current (Imax)	8.5A
Max. Temperature Difference (Δtmax)	67°C
Max. Cooling Capacity (Qcmax)	80W

2-3. Fan

Operation Voltage	12V
Rated Current	0.21A (at 12V)
Airflow	28.3CFM (at 12V)

2-4. Heatsink

Cooling Method	Air cooling (fan motor)
Temperature Sensor for Monitoring Heat Radiation Side	Thermistor (R25=10kΩ, B=3435)

2-5. Temperature Controller

Recommended Controller	TDC-1020AC by Cellsystem
Control Method	Digital PID Control (with auto tuning function)
Control Stability	±0.03°C
Temperature Resolution	±0.01°C

2-6. General Specifications

Operating Temperature	0°C to +40°C
Storage Temperature	-10°C to +60°C
Operating Humidity	85%RH or lower (non-condensing)
Dimensions	128(W) x 300(D) x 132(H) mm (excluding protrusions)
Weight	5,700g (TDC-1020AC : 4,200g PVC-1070 : 1,500g)

* Specifications and design are subject to change without notice.

Manufacturer

Cell System Co., Ltd.
 1-2-8 Azaminominami, Aoba-ku,
 Yokohama-shi, Kanagawa, Japan
 TEL 045-914-4500 FAX 045-914-4505
 URL <http://www.cellsystem.co.jp/>
 MAIL sales@cellsystem.co.jp

Distributor