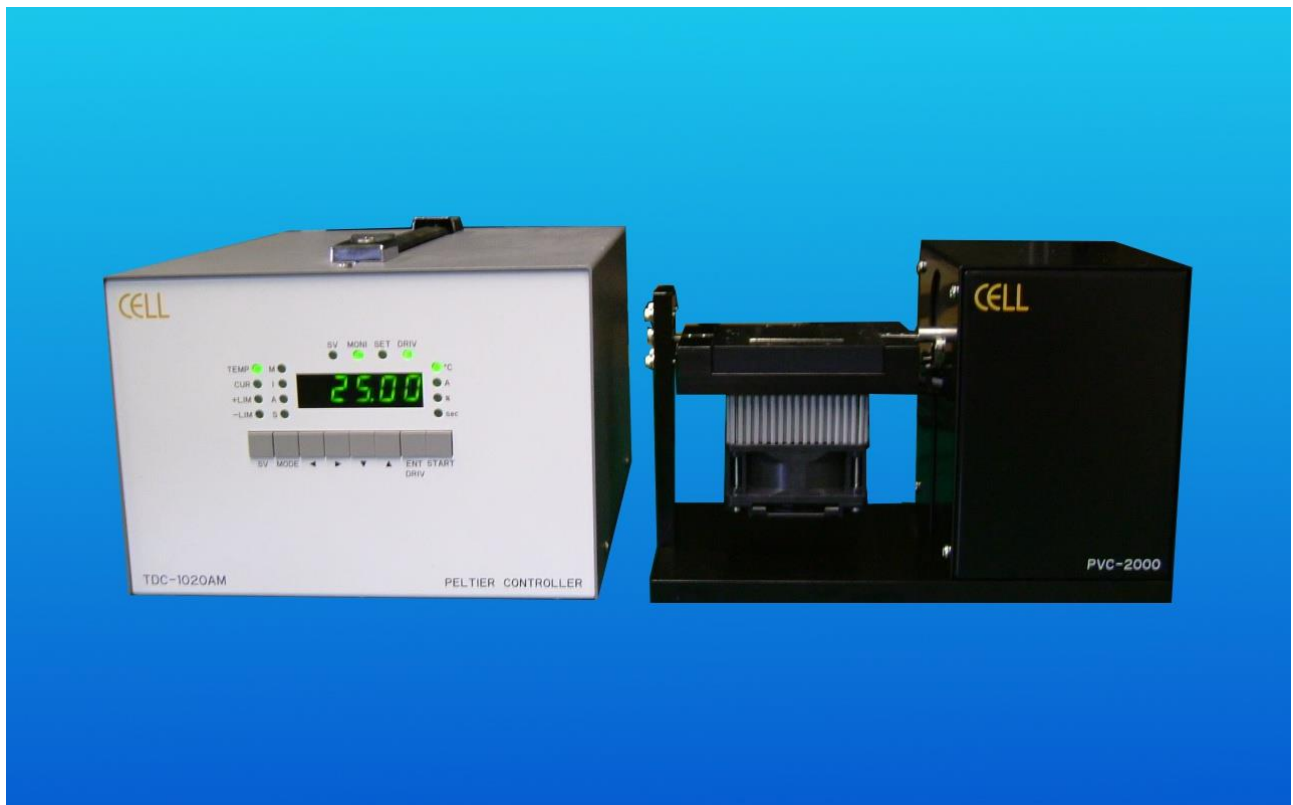


# PVC-2000

## Temperature Controlled Stage for Solar Cell (with angle adjustment)



### FEATURE

- With our temperature controller, TEC device is controlled to a target temperature within  $\pm 0.1^{\circ}\text{C}$ .
- Stage angle is adjusted to a target angle within  $\pm 0.1^{\circ}$ .
- Vacuum chucking can hold cells set to any angle.
- Corresponds to the solar cells of up to 40 x 40mm. (PVC-2000)
- Corresponds to the solar cells of up to 70 x 70mm. (PVC-2070)

## OVERVIEW

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. Can be changed in the range of  $90 \pm$  degree angle of the stage.

## SPECIFICATIONS

### 1. Temperature Control Stage

Stage Dimensions (PVC-2000) 40 × 40 mm (PVC-2070) 70 × 70 mm  
Control Temperature Range 10°C to 70°C (non-condensing)

### 2. Peltier

TEC Maximum Voltage (Vmax) 9.8 V  
TEC Maximum Current (Imax) 9.0 A  
Max. Temperature Difference( $\Delta$ max) 72 °C  
Max. Cooling Capacity (Qcmax) 47 W

### 3. Fan

Operation Voltage 24V  
Cooling Method 0.21A (at 24V)  
Airflow 25.4 CFM (at 24V)

### 4. Heatsink

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

### 5. Temperature Controller (With motor control)

Recommended Controller TDC-1020AM by Cellsystem  
Control Method Digital PID Control (with auto tuning function)  
Control Stability  $\pm 0.03^\circ\text{C}$   
Temperature Resolution  $\pm 0.01^\circ\text{C}$   
Angle resolution  $0.01^\circ$

### 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 TDC-1020AM : 193(W)x260(D)x132(H)mm(excluding protrusions)  
PVC-2000 : 170(W)x110(D)x106(H)mm(excluding protrusions)  
PVC-2070 : 225(W)x125(D)x146(H)mm(excluding protrusions)  
Weight TDC-1020AM : 5 kg PVC-2000 : 1.5 kg PVC-2070 : 3 kg

\* 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](mailto:sales@cellsystem.co.jp)

### Distributor