

# BD ARCTIC SUN STAT



## ABOUT

The **BD Arctic Sun Stat** hyper / hypothermia system is designed to help clinicians closely manage a patient's body temperature during critical care situations. The system works by circulating temperature-controlled water through adhesive pads applied to the patient's skin, allowing efficient heat exchange to either cool or warm the body as needed. Using a connected temperature probe, the unit continuously monitors the patient's temperature and automatically adjusts water temperature to reach and maintain a clinician-selected target. The Arctic Sun Stat can manage temperatures within a therapeutic range commonly used for temperature management protocols in both adult and pediatric patients. Its mobile design allows the system to be used in a variety of hospital settings, including emergency departments, operating rooms, and intensive care units.

## FEATURES

- Circulates temperature-controlled water through adhesive pads to deliver controlled warming or cooling therapy
- Monitors patient temperature and automatically adjusts water temperature to maintain the selected target
- Supports therapeutic temperature management within a range of approximately 32°C to 38.5°C (89.6°F to 101.3°F)
- Designed for use with ArcticGel pads to provide efficient conductive heat transfer
- Mobile control module designed for continuous operation in clinical environments



# SPECIFICATIONS



## DIMENSIONS

**Height:** 41 in (104 cm)

**Width:** 16 in (41 cm)

**Depth:** 20 in (51 cm)

**Weight:** 122 lb (55.3 kg), filled

## THERAPY MODES

**Normothermia:** Control Patient, Rewarming

**Hypothermia:** Cooling, Rewarming

## PATIENT TEMPERATURE

**Control Range:** 32°C to 38.5°C (89.6°F to 101.3°F)

**Display Range:** 10°C to 44°C (50°F to 111.2°F)

**Resolution:** 0.1°C / °F increments

**Measurement Accuracy:**

- ±0.4°C (10°C to 32°C / 50°F to 89.6°F)
- ±0.2°C (32°C to 38°C / 89.6°F to 100.4°F)
- ±0.4°C (38°C to 44°C / 100.4°F to 111.2°F)

**Probe Type:** YSI 400 Series compatible

**Temperature Inputs:**

- Temp In 1: Control, Monitor, Alarm
- Temp In 2: Monitor, Alarm

## HEATER

**Maximum Heater Power:** 814 Watts

## WATER TEMPERATURE

**Display Range:** 3°C to 45°C (37.4°F to 113°F)

**Control Range (Manual):** 4°C to 40°C

**High Water Temperature Limit:** 36°C to 40°C

**Low Water Temperature Limit:** 4°C to 25°C

**Resolution:** 1°C increments

## WATER SYSTEM

**Circulating Fluid:** Sterile Water with Cleaning Solution

**Reservoir Capacity:** 3.5 liters (average)

**Heating Time:** 25°C to 40°C in <15 minutes

**Cooling Time:** 25°C to 7°C in <15 minutes

## SYSTEM PERFORMANCE

**Settling Time:** ~4.5 hours

**Relative Overshoot:** <0.5°C

**Command Overshoot:** <0.5°C

**Response Time:**

- Warming (32°C to 37°C / 89.6°F to 98.6°F): ~8.5 hours
- Cooling (37°C to 33°C / 98.6°F to 91.4°F): ~2 hours

**Steady State Deviation:** 0

**Tracking Error:** 0

**Note:** Values derived from testing in simulated use