

Differential Temperature Controller

The EagleSun DTC-ES-1 is designed to provide maximum efficiency and flexibility in regulating solar thermal systems. With unique features, such as a variable speed drive and data transmitting, the DTC is one of the most advanced controllers available in the market today. Because it is provided by Alternate Energy Technologies, LLC., the largest solar thermal flat plate manufacturer in the country, today's innovative solar thermal industry can rely on its affordability, durability and reliability.



- **UL Listed**
- **LCD Display with Backlight for Low-light Conditions**
- **Data Transmitting to PC via RS-232**
- **Pump Speed and Time Setting**
- **Integral Variable Speed Drive**
- **Adjustable Differential Temperature Settings**
- **Holiday/Vacation Feature**
- **BTU Calculation (Flow Sensor Required)**
- **Four Temperature Sensor Ports**
- **Pump, Upper Limit, and Fault LED Light Indicators**

Specifications

Inputs

Line Voltage; Power Cord
 Collector Sensor, COL
 Storage Sensor, STO
 Auxiliary Sensor, AUX1
 Auxiliary Sensor, AUX2
 Flow Sensor, FLO, FS, GND, 5v

115 Vac (L, N, G,), 15Amps
 10k Thermistor, 5VDC circuit
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 5Vdc circuits

Outputs

Collector Pump: COL PUMP
 Storage Pump: STO PUMP
 Communications: COM

Phase controlled line voltage, Triac, 4Amps max
 Line voltage, Relay contacts:20A (or 2HP motor) @240VAC, NO
 5VDC power, TX (RS-232) at 10VDC, RJ45 jack

Produced by:



Feature	EagleSun DTC-ES-1
UL Listing	Yes
Digital Display	Yes
On Differential Adjustment	8° F – 24° F, default @ 10° F
Off Differential Adjustment	2° F – 8° F, default @ 4° F
Storage High Limit	110° F – 200° F, default @ 150° F
Collector Low Limit	50° F – 70° F, default @ 50° F
Variable Speed Output	Optimal Fixed
Minimum Speed Range	20% to 50%, default @ 30%
Freeze Recirculation Logic	Yes
Heat Dump For Glycol	N/A
Minimum Off Time Setting	3 to 10 Minutes, default @ 5 mins
Collector High Temp Limit	Fixed at 200° F in drainback mode
Drainback Logic With Time Out For 2 nd Collector Pump	Yes
Flow Sensor Compatible	Optional, Grundfos VFS Series
Available Flow Rates	.26 to 3.2 gpm, .34 to 5.3 gpm, .53 to 10.5 gpm, 1.3 to 26 gpm, 2.6 to 53 gpm, 5.2 to 106 gpm or Manual Input