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“Fireball 2001” Solar Water Heater Specifications, February 12, 2001

COLLECTOR

Trim & Frame Materials: Finished 27 mil Aluminum Trim and Frame = Total 54 mil (1.37 mm).
Absorber Material: “Black Crystal” coated - all Copper or copper tube with alum. fins
Glazing: Twinwall Polycarbonate UV Treated .236” (6.0 mm) . Acrylic or glass optional.
Dimension / Weight: 144.3”x 20.”x 3” 38 lb (3.67 m x 0.51 m x 0.076 m 17.24 Kg) 18.4 net s/f (1.71 m²)
Fluid Capacity: 4 Gallons
Recommended Flow Rate: 20 to .35 GPM (0.946 to 1.324 L/min)
Maximum Working Pressure: 150 PSI (10.21 atm).
Maximum Stagnation Temp: 250 °F (121.11 °C).
Heat Transfer Fluid: Potable water or Propylene glycol
Standard Components: Mounting brackets, tech screws
Color: Musket Brown (C101) + optional

CIRCULATORS

115 Volt AC: Taco 006 Bronze or equal
12 Volt Circulator (pump): “El Sid”, Hartell or equal.

PHOTOVOLTAIC PANEL

12 Volt DC PV Panel: 11 Watt, or 21 Watt, 12volt DC

FREEZE PROTECTION - Open Loop Options

Type: Passive Thermal Bleed Valve for light freeze protection down to 30F Opens at 45 °F
Type: Recirculation, jumper set in Differential Controller or with 12 Volt Circulator with 40° F Snap switch in collector and Transformer for light freeze protection

CONNECTING LINES, INSULATION (standard)

Tubing: 1/2” (12.7 mm) OD copper - 50’ (15.24 m)
Insulation 1/2” (12.7 mm) ID 1/2” (12.7 mm) or 3/4” (19.05 mm) wall

TUBING CONNECTION METHODS (standard)

Type: Brass Union, Compression, (Solder for Quad Rod to tank)

STORAGE TANK (Not Supplied)

Standard Connections: Use Existing or added 50 gal (189.27 L) -120 gal (454.25 L) tank
Heat Exchanger Option: Existing or added 50 - 120 gal. with side pressure relief port.
Max. Temp. - 190 °F (87.77 °C)
Max. Pressure - 150 psi (10.21 atm)

“QUAD ROD” HEAT EXCHANGER

Type: Thermosyphon, double wall, 3’ (.914 m) long, and 4’ (1.22 m) for 4 collector systems.
Fluid: Propylene Glycol (Sierra)
Components: Expansion Tank, floating check valve, fill, isolation and drain valves, pressure gauge.

80 GALLON RHEEM / RUDD HEAT EXCHANGE TANK (80HE) used as tank for System 5 or optional on system 4

12 Volt PUMP CONTROL (standard - non freeze application)

Type: PV Panel or 110 degree F normally open Snap Switch in collector with 110 Volt Transformer. Recirculation Freeze Protection utilizes a 40 Degree F normally open snap switch in collector.

DIFFERENTIAL CONTROL

Type: Independent Energy CM30 or Equal
Sensors: Two 10K Sensors with wire
Turn on Differential: 8 - 24 °F (Ave. set 12 °F)
Turn off Differential: 4 °F (fixed) Recirculate on: 38°F (3.33 °C)
Storage High Limit: 110 – 230 °F Set at 180 °F (82.2 °C)
Power requirements: 105-120VAC, 50/60hz,
Output power: 115VAC, 1/3HP (248.56 W)

**Although we will make every effort to give notice,
Specifications and prices subject to change without notice.**