

# TELECOM SPLIT COMFORT SERIES



The DC Comfort Series is designed to perform in residential and commercial on and off-grid applications. The system can be configured with solar, wind, hydro or grid tie input power options. The heart of the DC Comfort Series is the hermetically sealed brushless DC compressor (BLDC). This component allows the system to perform very efficiently while delivering maximum cooling capacity and minimal current draw. The system is 100% DC powered, eliminating the need for an inverter.



Thermostat controls are standard with the DC 8600, but the system can also be configured to operate with a lead lag controller when redundancy is required.



Optimized battery management is included in every DC Comfort Series system. The control board on the system monitors battery consumption and protects the components from over temperature through a low voltage disconnect.



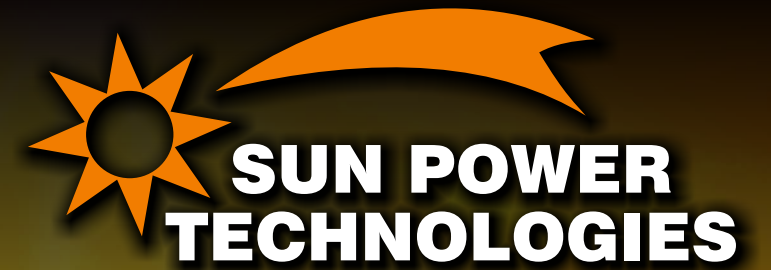
Sun Power Technology offers a wide range of grid tie, on grid and off grid battery and charge input systems to compliment the DC Comfort Series system. Please contact your Sun Power Representative to determine what you need.



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**TELECOM SPLIT  
COMFORT SERIES**



**DC8600  
DC11000  
DC17000**



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# Standard Features

## Designed for operation down to 0°F (-18°C)

- Low ambient control cycles condenser fan to maintain proper refrigerant pressures.
- Electric heat is optional.
- Timed low pressure bypass for low ambient start-up.

## Built-in Reliability

- High and low pressure switches with lockout relay protect refrigerant circuit.
- High pressure switch with lockout relay and frost sensor protect refrigerant circuit.
- Compressor time delay prevents rapid cycling of the compressor.

## Ease of Installation

- Factory installed disconnect.
- Can be installed on either side of splice chamber.
- Built-in mounting holes.

## Vandal Resistant

- All mounting holes are inside the ECU.
- Powder coated finish for long term durability

## Remote Alarm Capability

- Dry contacts can be used for remote alarm or notification upon lock-out.

## Rugged Construction

- Copper tube, aluminum fin evaporator and condenser coils.
- High efficiency compressor.
- Baked on neutral tan finish.
- Decorative coil guard.

## Ease of Service

- Simple access to all components.



**CLOSED-LOOP COOLING:** The enclosure interior airflow system is isolated from the ambient airflow system. Ambient air cannot invade the cool, dehumidified sensitive component compartment.

**BRUSHLESS DC MOTORS:** All fan motors are UL/CSA Recognized and include automatic-reset thermal overload protection and double-sealed or double-shielded precision ball bearings. Special permanent lubricants in the tube axial fans perform over a broad temperature range: -20°F [-28.9°C] to 250°F [121.1°C].

**RUGGED CONSTRUCTION:** Precision-engineered heavy gauge steel construction of all shells and blowers insures Air Conditioners will stand up under tough applications.

**TEXTURED BAKED POWDER FINISH:** Durable, baked-on textured beige powder nish is standard. Other finishes are available.

**POWER:** DC 24 or 48 Volt

**REFRIGERANT:** Ozone Friendly R134

**FILTERS:** Reusable/Washable

**LOW AMBIENT KIT:** Maintains sufficient operating pressures when ambient temperatures drop below 50°F [10°C]. Includes a compressor heater and pressure actuated condenser blower cycling control.

**LOW TEMPERATURE CONTROL:** Thermostatic Low Temperature Control prevents over-cooling and provides energy-ecient operation.

**CRANKCASE COMPRESSOR HEATER:** Optional

**HEAD PRESSURE CONTROL SWITCH:** A control device to minimize compressor cycling and prevent evaporator coil icing.

**POWER CORD:** Included to customer spec.

**INSULATION:** All cold components, lines and the evaporator compartment are insulated with high-performance insulation for maximum efficiency.

**GASKETING:** All units are fully gasketed for tight, leak proof installation, in compliance with the NEMA 3R Enclosure Rating.

**QUALITY ASSURANCE:** Refrigeration system components are kept sealed until charged with refrigerant; all brazed joints are thoroughly leak-tested; each unit is functionally tested before shipment.

**INSTALLATION:** Detailed Installation and Operator's Manual, with drawings, mounting plan and spare parts list is included with each unit.

**UL/CUL RECOGNIZED:** All DC Comfort T series models utilize UL/EUL recognized components. All models are available as Listed at added cost.

# Dimensions

Component	DC 8600	DC 11000	DC 17000
Evaporator / Control Unit	26" L X 14"W X 9.25 H	26" L X 14"W X 9.25 H	26" L X 14"W X 9.25 H
Condenser Unit	20"L X 9.5"W X 13.00"H	20"L X 9.5"W X 13"H	20"L X 9.5"W X 13"H
Weight	78 LBS	84 LBS	91 LBS



# DC Comfort Series Detailed Specifications

Maximum (Continuous Duty)Cooling Capacity	8,600 BTU / HR	11,000 BTU / HR	17,000 BTU / HR
Maximum Heating	N/A	N/A	N/A
Input Voltage	24 or 48 VDC (21 – 29 / 42.5 – 56)	48 - 350 VDC (42 - 360)	48 - 350 VDC (42 - 360)
Power Consumption	720 watts / HR Maximum 500 watts @ 70% Duty Cycle	880 watts / HR Maximum 610 watts @ 70% Duty Cycle	1500 watts Maximum 1050 watts @ 70% Duty Cycle
Recommended Batteries	AGM Deep Cycle or Lithium	AGM Deep Cycle or Lithium	AGM Deep Cycle or Lithium
Recommended Battery Bank (Special Battery Configurations Upon Request)	110 Ah @ 48VDC per 6 hour run time @ 70% Duty Cycle	110 Ah @ 48VDC per 5 hour run time @ 70% Duty Cycle	110 Ah @ 48VDC per 3 hour run time @ 70% Duty Cycle
DC 8600 Weight	78 LBS	84 LBS	91 LBS
Refrigerant	R134A - 2.2 LBS (36OZ)	R134A - 2.9 LBS (43OZ)	R134A - 3.2 LBS (52OZ)
Oil (With Green Dye for Leak Detection)	PAG100 – 6 oz	PAG100 – 8 oz	PAG100 – 10 oz
Compressor	Brushless DC (BLDC) Rotary – Hermetically Sealed	Brushless DC (BLDC) Rotary – Hermetically Sealed	Brushless DC (BLDC) Rotary – Hermetically Sealed
Low Voltage Protection	Yes	Yes	Yes
Sound	58 dB Maximum Condenser Unit	58 dB Maximum Condenser Unit	58 dB Maximum Condenser Unit
SEER	17.20	18.03	16.20
Controls	Thermostat Standard / Lead Lag (series) optional	Thermostat Standard / Lead Lag (series) optional	Thermostat Standard / Lead Lag (series) optional
Coating	Powder Coated or Galvanized Steel Standard	Powder Coated or Galvanized Steel Standard	Powder Coated or Galvanized Steel Standard



# System Specifications



## Capacity

DC Comfort 8600: 8,600 BTU/HR Cooling Only\*  
 DC Comfort 11000: 11,000 BTU/HR Cooling Only\*\*  
 DC Comfort 17000: 17,000 BTU/HR Cooling Only\*\*  
 Rated @ full capacity to 120F ambient



## Electrical

\*24 or 48 Volt DC Configurations  
 120 Volt AC Option

\*\*48, 100, 150, 300, 350 Volt DC Configurations / 120/240 Volt AC Option



## Description

Split design utilizing hermetically sealed compressor and R134A refrigerant. Evaporator and Condenser can be mounted up to 10' apart and are connected by a wiring harness and self sealing quick disconnect refrigerant lines.



# Custom Solutions Available!



Contact Sun Power Technology for Special Requests.