

DC Split Air Conditioner 3500



Display



CC0 Controller



Remote Climate Control

DC SPLIT AIR CONDITIONER 3500 FOR ELECTRONICS COOLING

Function

The Dantherm DC Split Air Conditioner 3500 is an efficient, DC-powered air conditioner. The solution eliminates the need for an inverter and has capabilities exceeding those of conventional comfort cooling systems.

Cooling in a closed-loop system, the DC Split Air Conditioner provides complete protection from outside contaminants. Combined with the benefits of true DC air conditioning, this solution is a safe and highly energy-efficient choice for sites in challenging environments, on- and off-grid sites and sites in weak power networks.

The DC Split Air Conditioner 3500 is ideal both as stand-alone and as part of a combined cooling solution. The built-in Dantherm controller ensures the most energy-efficient cooling strategy whichever the setup.

FEATURES AND BENEFITS

Energy efficiency and environment

- No power loss in conversion: True 48VDC compressor and fans.
- Minimum power consumption: Soft starting = low inrush current + capacity-controlled operation.
- Steady performance: Compressor/fan RPM independent from supply voltage fluctuations.
- Precise climate control: Variable speed compressor (50-100%).
- Ideal for weak power networks: Soft starting = low inrush current.
- Power blackout safety: Designed to run on battery backup.
- Longer backup battery life: Low voltage protection.

Installation and operation

- Easy and secure installation: Large accessory program.
- Easy installation on wall: Wall bracket for indoor unit.
- Easy replacement of existing Air-con unit: See large accessory program.
- No ingress of contaminants: Closed loop cooling.
- Service life: Min. 10 years.
- No hotspots / high air flow: Constant recirculation of internal air.
- Wide geographical usage: Operational temperature range from -15°C to +55°C.

Controller

- Ready for remote control: Built-in Dantherm CC0 controller, ready for remote climate control.
- Energy-saving strategy: Applies a minimum of energy to maintain temperature set point.
- Cooling On Demand: Maintains capacity-controlled room temperature when activated by master.
- Easy change of settings: User-friendly display (optional).
- Fast configuration: SD card interface and TTL link.
- Automation: Standard ModBus protocol over RS485 for easy connection to internet and customer interface.

Application

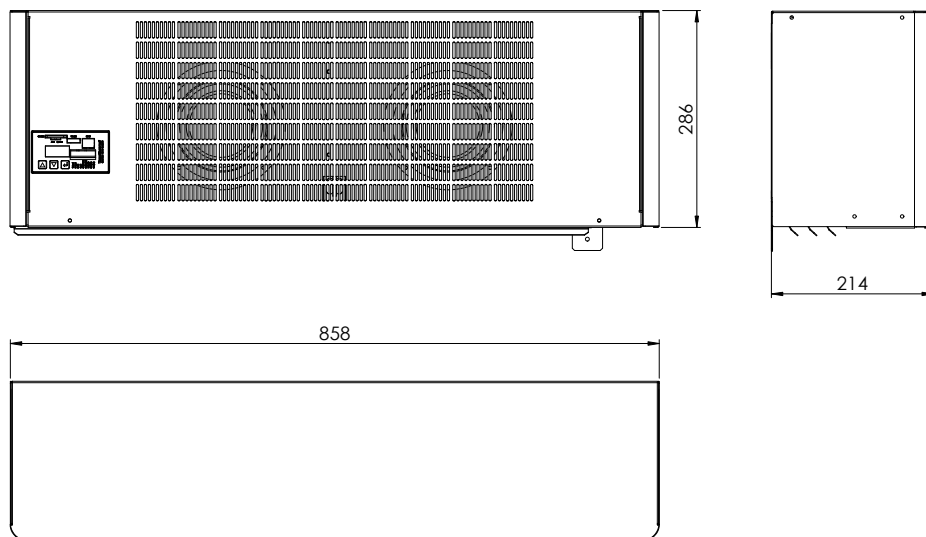
- On-grid and off-grid shelters, compartments and rooms
- Locations with unstable/intermittent grid power
- Sites with DC or AC generator sets
- Regions with high energy prices
- Temporary/mobile sites
- Hybrid sites

TECHNICAL DATA

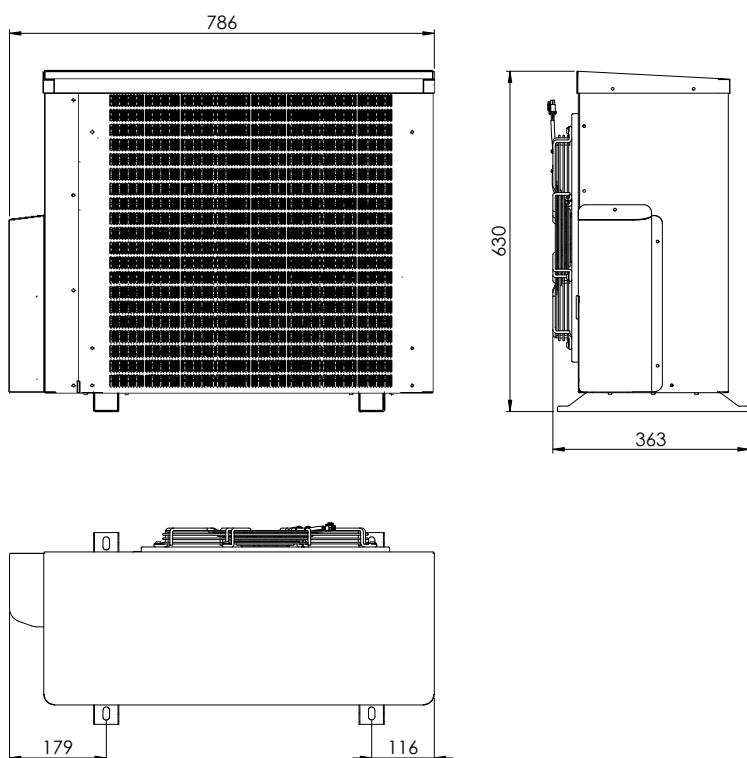
Product overview		Category
DC Split Air Conditioner 3500		DC Air Conditioning
Dantherm No.		364000
Capacity & Performance		
Operating range - temperature	°C	-15 to +55
Cooling capacity at 35°C internal and 35°C ambient	W	3624
Cooling capacity at 35°C internal and 25°C ambient	W	3822
Efficiency ratio at 35°C internal and 35°C ambient	COP	3.5
Airflow, max. internal	m³/h	860
Airflow, max. external	m³/h	1950
DC supply voltage connection	Type	Flying leads
Input voltage range	VDC	44 to 57
Power consumption (35°C int./35°C ext.)	W	1138
Max. current, 100%	A	30
Max. start current	A	5
Seasonal Energy Efficiency Ratio	SEER	4.5
Max. sound level, 1m distance from outdoor unit	dB(A)	57
Expected operation life	Years	10
Dimensions, weight & mounting		
Unit dimensions (H x W x D) indoor	mm	286 x 858 x 214
Unit dimensions (H x W x D) outdoor	mm	628 x 785 x 364
Net weight indoor / outdoor	kg	16 / 41
Single package weight incl. unit	kg	75
Single packing dimensions (H x W x D)	mm	785 x 980 x 640
Storage relative humidity, min./max.	RH %	-5 to +80
Storage temperature, min./max.	°C	-40 to +70
Mounting method		Wall-mounted
Controller details		
Controller	Dantherm CC0	Ready for remote climate control
Communication interface		RS485
Mounting method		Built-in
Certifications		
Outdoor unit protection according to EN 60529	IP	55
Indoor unit protection according to EN 60529	IP	21
Refrigerant		R134a / 1100gram
GWP		1430
Complies with standards	Code	EN60950 & EN60335-2-40
Colour	RAL	7035

DIMENSIONS & MOUNTING

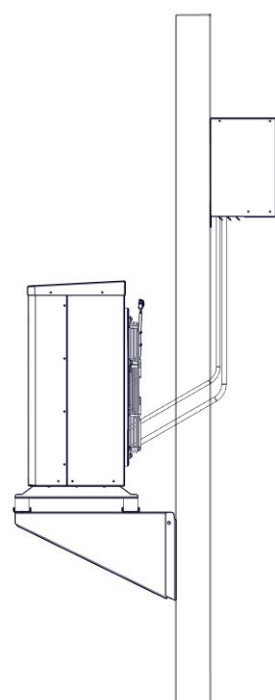
Indoor unit



Outdoor unit

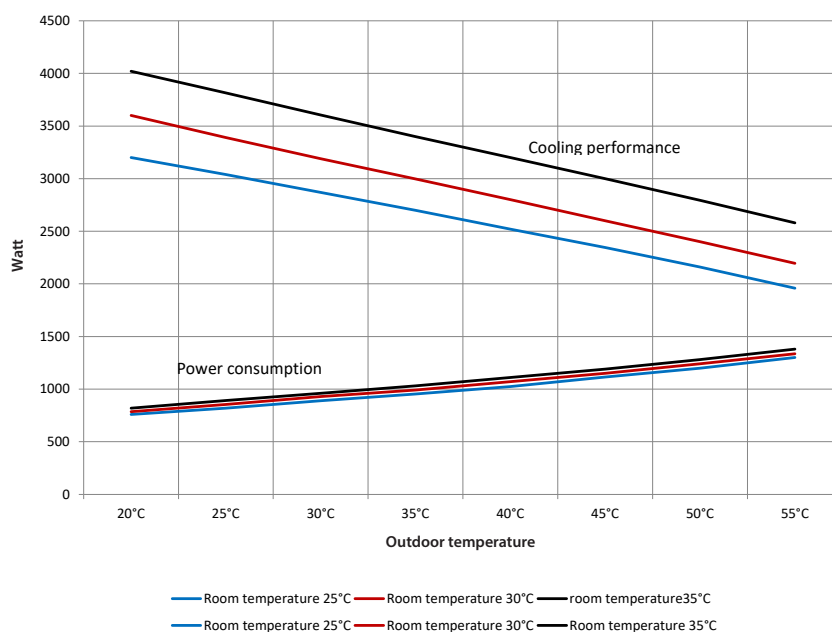


Installation example



All dimensions are in mm.

PERFORMANCE CHART



CAPACITY CONTROL COOLING RANGE

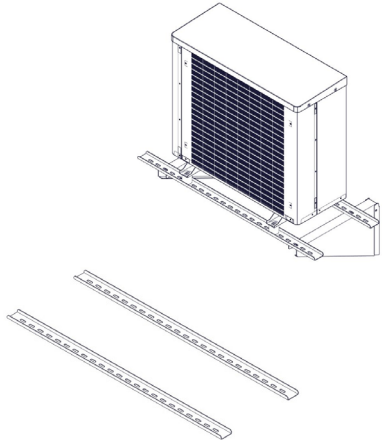




Capacity range	60%	100%
Cooling performance 35°C/35°C	2174W	3624W

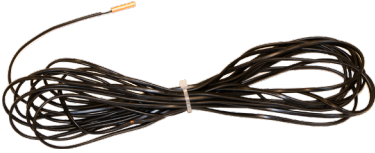

INCLUDED IN DC SPLIT AIR CONDITIONER PACKET

Description	Quantity	Please note
Indoor unit	1	-
Wall bracket, indoor unit	1	-
Outdoor unit	1	Incl. refrigerant R134a, 1100 gram.
Communication cable	10m	Installed at outdoor unit. Fit with connector for indoor unit.
Power supply cable, 2 x 4mm ²	9m	Installed at outdoor unit. Flying leads at opposite end.
Alarm connector 9 pin for Controller	1	-
Flare nut for 3/8" copper tube indoor unit	1	-
Flare nut for 1/2" copper tube indoor unit	1	-
Flare nut for 3/8" copper tube outdoor unit	1	-
Flare nut for 1/2" copper tube outdoor unit	1	-
Drainage hose for indoor drain pan	3m	1/2" Reinforced plastic.
Clamp for drainage hose	1	-
Manual	1	-

ACCESSORIES

Dantherm No.	Description	
092957	<p>Wall bracket and two bars for outdoor unit. Including screws.</p> <p>Dimension (H x L x W): 254 x 446 x 52mm</p>	
097025	<p>Light model rubber feet for outdoor unit made of durable recycled rubber. Reduces vibration from the unit and provides stability. Aluminium channel securely anchored in top for easy fixation of the unit.</p> <p>Quick and simple installation. Boxed kit with fixings. Including two bars and screws.</p> <p>Dimension (H x L x W): 95 x 450 x 160mm</p> <p>Weight: 4,8 kg</p>	
097026	<p>Heavy model rubber feet for outdoor unit made of durable recycled rubber which reduces vibration and provides stability. Aluminium channel securely anchored in top for easy fixation of the unit.</p> <p>Quick and simple installation. Boxed kit with fixings. Including two bars and screws.</p> <p>Dimension (H x L x W): 95 x 1000 x 160mm</p> <p>Weight: 10,3 kg</p>	
074666	<p>Shock and vibration absorber includes a set of four absorbers for outdoor units. The absorbers can be mounted on wall brackets or ground mats.</p>	

097027	<p>Adapter bars for mounting the outdoor unit on existing wall brackets. Including two bars and fixation.</p> <p>Length: 1000mm</p>	
097028	<p>Condensate pump for drainage for indoor unit.</p> <p>Voltage: 230V/50Hz Max: 1,6Amps Max. 200 litres per hour at lift height 4m. Tank capacity: 1,8 litre</p> <p>For indoor use only.</p> <p>Kit includes:</p> <ul style="list-style-type: none"> • Pump with tank and level sensor • 5m 3/8" tube for drainage outlet • Wall bracket is built in the tank 	
097079	<p>3m copper tubes 3/8" & 1/2" with 10mm insulation and UV protection. Tubes are prepared for easy connection with flares and flare nuts.</p>	
097029	<p>5m copper tubes 3/8" & 1/2" with 10mm insulation and UV protection. Tubes are prepared for easy connection with flares and flare nuts.</p>	
097030	<p>10m copper tubes 3/8" & 5/8" with 10mm insulation and UV protection. Tubes are prepared for easy connection with flares and flare nuts.</p>	

096873	Hot spot sensor with 8000mm cord.	
075210	Dantherm RS485 display unit.	
087432	SD card 2GB for logging data.	