



## ACE

AMBIENT COOLING ENERGY  
ENERGY-EFFICIENT,  
AMBIENT AIR-COOLING  
VENTILATOR



### COOLS & VENTILATES:

- Wireless Telecom Huts
- Electrical/UPS Rooms
- Traffic Cabinets
- Data Centre/IT Rooms
- Power Distribution
- Solar Farm Switch Rooms
- Industrial Control Rooms



The efficient, low-cost cooling  
alternative for electronic, electrical,  
and telecom data shelters.



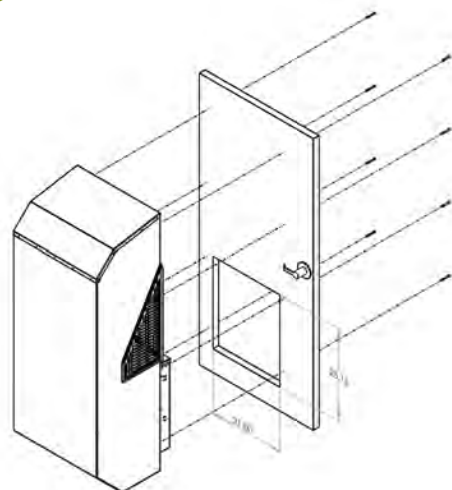
**TEMSPEC.COM**



## FREE AMBIENT AIR COOLING!

Data and communication centres consume 2% of the world's energy. 30% of that energy is used to cool the equipment within.

The traditional approach to cooling and recirculating the air for electronic and electric equipment is an air conditioning unit. In addition to consuming alarming amounts of energy and being costly to operate, A/C units emit harmful greenhouse gases and have been shown to release millions of tons of carbon dioxide into the atmosphere each year, contributing to climate change. Temspec's engineers have developed a low-cost, energy-efficient, green alternative to traditional cooling. The **ACE** uses state-of-the-art fans to cool and ventilate the building or enclosure by drawing in and filtering free outside air with fan modulation for precise flatline temperature control. Easy installation, remote monitoring and minimal low-tech maintenance are added benefits that this revolutionary, environmentally safe cooling and ventilation system provides.



## SIMPLE INSTALLATION

**Mounts onto a standard 36" x 80" 2", 18 gauge, 3 hinged steel door.**

Complete installation including electrical hook-ups take less than 2 hours.



## TECHNICAL SUPPORT

888-TEMSPEC • 888-836-7732





## ACE FEATURES

- **LIGHTWEIGHT ALUMINUM CONSTRUCTION**  
Door mounted to meet many applications and it does not occupy any space in the room
- **EASY SERVICE ACCESS**  
All components are servicable through the filter access
- **DURABLE POWDER COATED FINISH**  
Protection against corrosion and UV discoloration
- **PROGRAMMABLE CONTROLLER**  
Unit comes complete with pre-programmed plug and play PLC controller for telecom applications or a programmable controller with analog fan control for commercial or industrial cooling/ventilating applications
- **PROTECTION AGAINST DUST & LIQUID INGESTION**  
International protection (IP) EN 60529 IP55 (Dust and water protected)

**The ACE delivers The most EFFICIENT FAN TECHNOLOGY on the market today!**



The **ACE** uses state-of-the-art 48 VDC fans to cool and ventilate telecom enclosures by drawing in outside air with fan modulation for precise flatline temperature control. The positive pressure design prevents dust and dirt infiltration.



**SIMPLE DESIGN, SIMPLE TO SERVICE**  
**QUALITY COMPONENTS, ROBUST CONSTRUCTION**

**TECHNICAL SUPPORT**

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# ACE

## AMBIENT COOLING ENERGY SPECIFICATIONS & PERFORMANCE

### ENERGY EFFICIENCY

Express cost savings for free cooling over air conditioning range from 50% to 90% depending on the climate. EC fans (electronically commutated DC motors) have to up to 45% higher efficiency than 3-phase AC motors, up to 65% higher efficiency than single-phase AC motors and up to 35% higher efficiency than AC motors with variable speed drives.

### TEMPERATURE CONTROL

Modulating fan speed offers **precise flatline temperature** control compared to on/off control which produces peak electrical demands and un-even temperature control.

### CLEAN CONDITIONED SPACE

With the ACE unit, the air is filtered through a MERV 8 filter and there is no building infiltration due to the positive pressure fan arrangement. The unique airflow path prevents weather elements from entering the space.

### TEMSPEC ACE UNIT VS EXHAUST FAN

Energy Consumption Comparison	TEMSPEC ACE	Traditional Wall Exhaust Fan
Filtration	Yes	No
Airflow	1750 CFM	1750 CFM
Fan Energy	550 Watts	860 Watts
Annual Energy Consumption 3500 hrs	1925kWh	3010kWh
Annual Energy Cost@\$0.15/kWh	\$288.75	\$451.50

### TEMSPEC ACE FC-17 SPECIFICATIONS

AC Power		DC Power
Dimensions	70" H x 26"W x 20"D 1780mm x 660mm x 510mm	
Airflow	1700 CFM, 2888M3/hr	1766CFM, 3000M3/hr
Weight	65 lbs, 29 Kg	
Cooling Capacity	33,100BTU@18F $\Delta$ T9.7kW@10C $\Delta$ T	34,460 BTU@18F $\Delta$ T 10.1kW@10C $\Delta$ T
Construction	16 gauge aluminum in powder coated ACE gray textured finish	
Filter	20" x 24" x 2" MERV 8 Pleated	
Voltage	200-277-1-50/60	36-57, Nominal 48
Amps	2.17@230V	6
Fan Motor	500 Watts	285 Watts
FLA	2.19@230V	6.02
MCA	2.71	7.5
Operating Temp. Range	-25C to +60C	-25C to +40C
Fan Speed Control Input	0-10VDC	0-10VDC
Output	10VDC, 10mA	n/a
Filter Service Indicator	Yes	Yes
Soft Start	Yes	Yes
Motor Current Limit	Yes	Yes
Power Limiter	Yes	Yes
Thermal Overload Protection	Yes	Yes
Integrated PID Controller	Yes	No
Alarm Output	Yes	No
Temperature Control Module (optional)	Yes	Yes



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