



DELTEK™



Hybrid diesel-electric technology comes to transport refrigeration and APUs.



Winner of 2005 TWNA
Technology
Achievement
Award



DELTEK. THE INDUSTRY'S FIRST HYBRID TRANSPORT REFRIGERATION SYSTEM. EXCLUSIVELY FROM CARRIER.

Reliability

Presenting DELTEK™ hybrid diesel-electric technology from Carrier Transicold. DELTEK technology is the first hybrid refrigeration system in the transport industry. This engineering exclusive from Carrier combines a diesel engine with a generator with patented electric technology to deliver the best performance, highest reliability, and lowest life-cycle cost in its class. DELTEK technology's simplified design features a sealed cooling-only refrigeration system, electric heating, and an electric-driven sealed compressor. It has up to 16 fewer parts compared to conventional systems. The cooling-only refrigeration system reduces serviceable parts, simplifies diagnostics and service, and ensures a tighter compressor operating envelope, increasing compressor reliability and life. Gone are dampers, clutches, drive belts, shaft seals, and idler pulleys commonly used in conventional refrigeration.

Performance

The cooling-only refrigeration system with electronic expansion and stepper valves ensures maximum cooling capacity. Best-in-class heating operates independently of ambient conditions. For multi-temperature applications, DELTEK can direct all refrigerant to a particular compartment, or cool one compartment while heating another, without reducing capacity.

Value

DELTEK technology will set the standard for low life-cycle cost. Increased reliability reduces maintenance and increases resale value. Sealed electric compressor, up to 16 fewer parts, lower refrigerant charge, and simplified refrigeration system also increase operating efficiency and reduce cost.

Environmentally Sound

DELTEK technology features a built-in electric standby motor to reduce fuel consumption, exhaust emissions, and noise. The closed refrigeration system is adaptable for use with natural refrigerants and requires up to half the refrigerant charge of conventional systems. DELTEK technology systems feature EPA-compliant diesel engines. Plus, they are fuel-cell ready.



DELTEK has fewer parts. And more to like.

DELTEK	CONVENTIONAL HOT GAS
Generator	Liquid return check valve*
Heater bars	Suction line check valve*
Condenser fan motors (host)	Suction line solenoid*
Evaporator fan motors (host)	Condenser inlet check valve*
Battery charger	Receiver tank pressure switch*
	Condenser check valve*
	Condenser inlet solenoid*
	Rear liquid return check valve*
	Rear suction line solenoid*
	Rear hot gas solenoid*
	Hot gas solenoid
	Suction vibrasorber
	Discharge vibrasorber
	Gearbox
	Fanshaft
	Clutch
	Damper assembly
	Drive belts
	Idler pulleys
	Compressor shaft seal
	Alternator



*Multi-temperature



Performance and efficiency you won't find with any other hybrid. There isn't one.

DELTEK. From innovative technology comes leading-edge performance.

DELTEK hybrid diesel-electric technology is the latest in a rich history of innovations from Carrier Transicold. Innovations like Auto Start/Stop, user- and technician-friendly controllers with touch screen interface, pretrip diagnostics, electric heating, IntelliSet™ and ProductShield® control features. Others include the efficiencies of combining continuous run with start-stop, the dual-discharge remote evaporator, and much more. DELTEK, the leading edge in refrigeration performance and environmental response.

Electric refrigeration system.

- 18 patents. Latest technology.
- Ensures maximum performance and optimal operation of all components.
- Built-in electric standby.
- Operates with generator or facility power.
- Easier diagnostics and service.
- Lower noise.

Industry-leading generator.

- The heart of the technology, provides power to all components on the road.
- Proven-reliable aircraft quality, manufactured by UTC/Hamilton Sundstrand and other premium vendors.
- Simplifies system design and eliminates mechanical maintenance items.
- Only one moving part.

Sealed compressor.

- No shaft seals, provides a closed refrigeration system.
- Higher reliability.
- Easier service.
- Integrated electric motor inside compressor housing ensures leak-tight refrigeration system.
- Proven in container refrigeration.
- Ready for alternative compression technologies and higher pressure natural refrigerants.

Electric heating.

- Delivers superior heating capacity and temperature control independently of outdoor temperature.
- Faster pulldown and temperature recovery.
- Ideal for multi-temperature applications. Can cool one compartment and heat another.

A/C electric fans.

- Driven by the generator or facility power.
- No belts, clutches, or pulleys required.
- Service-free, no brushes, easier service.

DELTEK technology is featured in select Carrier Transicold products like Vector™ 1800MT and ComfortPro™ APU.



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