DTS 31X1 | COOLING UNITS

3000 - 4000 Btu/h

The DTS 31X1 series cooling units utilize a long internal air path to capture heat above the components and provide cool air below. Available in 3 models; DTS 3141 (NEMA Type 12) for indoor use, DTS 3161 (NEMA Type 3R/4) designed for outdoor use, and the stainless steel DTS 3181 (NEMA Type 4/4x) designed for washdown applications.

Closed Loop Design
Designed to isolate the external ambient air from the internally conditioned air eliminating the risk of contaminants entering the cabinet.

Thermal Overload Protection
Compressor and fan motors are outfitted with integral temperature switches to shut down the unit in the event of excessive temperature. This increases the operating life of the compressor by preventing thermal overload trips.

Environmentally Friendly
Utilizes HFC-free R134a refrigerant versus a blended refrigerant for easier service and minimized negative impact to the environment.

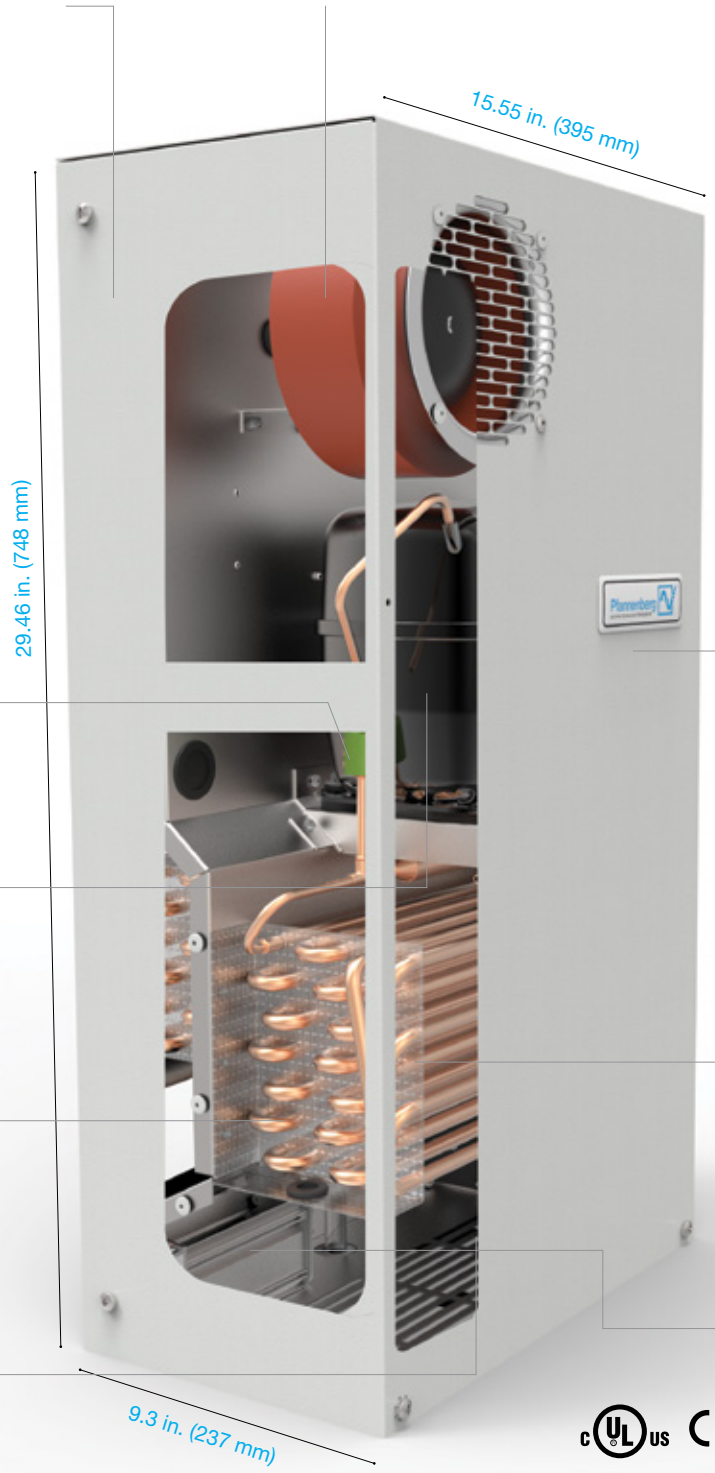
Pressure Overload Protection
High pressure cutout switch ensures safety by shutting off the compressor in the event of excessive pressure appearing in the refrigeration circuit.

Hermetically Sealed Compressor
The absence of any refrigerant fill valves eliminates leak paths. Recharging is never needed. 100% cooling capacity efficiency is ensured.

Corrosion Protection
Outdoor and washdown units have a special coating on pipes and coils on the ambient side of the unit to provide maximum protection from saltwater, sour gas, and other corrosive substances.

Thermal Expansion Valve
Regulates the flow of refrigerant based on thermal demand for efficient performance over the entire operating temperature range.

High Airflow Backward Curve Impeller Fan
Provides high airflow in a long lasting, single bearing design. Outperforms typical two-bearing blowers with nearly twice the lifespan.



ERP Efficiency Certified
As a component of the Kyoto Protocol to reduce carbon monoxide emissions, the European Energy Related Products (ERP) Directive includes an efficiency rating for fans. Pfannenberg proudly utilizes components which adhere to these requirements.

High Ambient Performance
The DTS 3000 Series Cooling Units were designed utilizing high temperature compressors and larger condensers. Both the indoor NEMA Type 12 units and outdoor units perform very well in environments that require cooling where the maximum ambient temperature is 131° F.

Rugged Design
Powder coated steel or stainless steel cover designed for manufacturing environments. Easily painted to match enclosure or machine.

Self Protected from Harsh Environments
Our unit is uniquely designed to protect itself in NEMA 3R, 4, and 4X environments. An example of this is the location of our control electronics within our dry, cool interior circuit.

Maintenance Free, Filterless Design
The wide fin spacing is less susceptible to clogging from dirt buildup which can cause the unit to work harder and hamper efficiency.

Active Condensate Management
Condensation is a natural by-product of refrigeration. The heated condensate collection pan boils this off thereby eliminating the need for drain tubes and buckets. To conserve power, this heater only activates when necessary.

For additional technical data, drawings and templates. www.pfannenbergusa.com

DTS 31X1 Series (3000 - 4000 Btu/h) Side-Mount Cooling Units

Model Number	Part Number	Voltage (VAC)	Frequency (Hz)	Power Consumption (W)	Nominal (Run) Current* @ 35A/35A °C	Fuse (maximum)** Class CC	Noise Level (according to EN ISO 3741) dB(A)	Weight (without packaging) lb (kg)
DTS 3141 Indoor Rated (NEMA Type 12)	13385444255	115	60	845	7.0	15	<70	84 (38)
	13385441255	230	50/60	795	4.0	15	<70	84 (38)
	13385436255	400/460	50/60	1200	2.0	15	<70	88 (40)
Design	**Housing:** galvanized sheet steel **Cover:** electrostatically powder coated RAL 7035 (light grey); for ANSI 61 grey use part no. ending in ...251							
DTS 3161 Outdoor Rated (NEMA Type 3R/4)	13385444355	115	60	845	7.0	15	<70	89 (40)
	13385441355	230	50/60	795	4.0	15	<70	89 (40)
	13385436355	400/460	50/60	1200	2.0	15	<70	92 (42)
Design	**Housing:** galvanized sheet steel **Cover:** electrostatically powder coated RAL 7035 (light grey); for ANSI 61 grey use part no. ending in ...351							
DTS 3181 Washdown (NEMA Type 4/4x)	13385444158	115	60	845	7.0	15	<70	92 (42)
	13385441158	230	50/60	795	4.0	15	<70	92 (42)
	13385436158	400/460	50/60	1200	2.0	15	<70	97 (44)
Design	**Housing:** galvanized sheet steel **Cover:** stainless steel 304							

Additional Data		DTS 3141	DTS 3161	DTS 3181	
Ambient Temperature Range		+ 59 … + 131 / + 15 … + 55	+ 32 … + 131 / + 0 … + 55		°F / °C
Control range (adjustable)	SC	+ 77 … + 113 / + 25 … + 45; factory setting + 95 / + 35			
Refrigerant	type	R134a			
	quantity	400			g
Condensate management		active condensate evaporation system with safety overflow			
Protection system according to NEMA Type		12	3R/4	4/4X	against enclosure when properly installed
		NEMA 1 towards the surroundings when properly installed			
Accessories		For spare part kits and additional accessories visit pgs. 74-75 in this catalog			

* For the MCA (Maximum Current Ampacity) value per UL, please consult product technical datasheets available on our website

** SCCR rating - See user manual for instructions to achieve 50 kA (230V) or 200 kA (460V) SCCR Rating

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Available Models:

DTS 3141 Indoor Rated (NEMA Type 12)

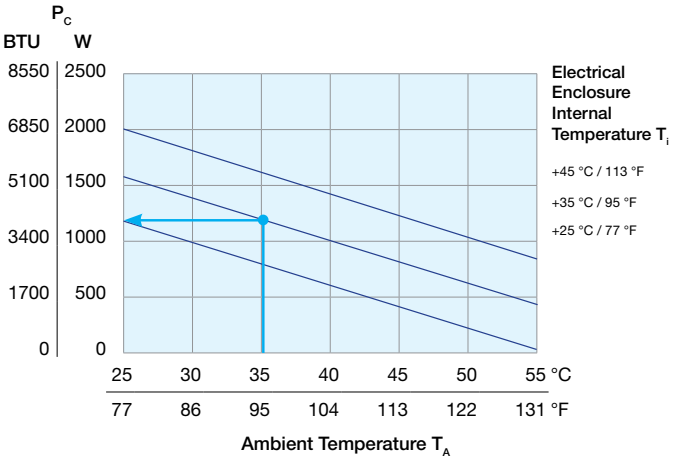
DTS 3161 Outdoor Rated (NEMA Type 3R/4)

DTS 3181 Washdown (NEMA Type 4/4x)

Cooling Capacity Performance Curve

How to use this chart

Example: @ 95 °F (ambient, X-axis), @ 95 °F (internal, diagonal lines) = 4100 Btu/h cooling capacity (Y-axis)



Note: Cooling capacity may vary between voltage and configurations.