

# 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

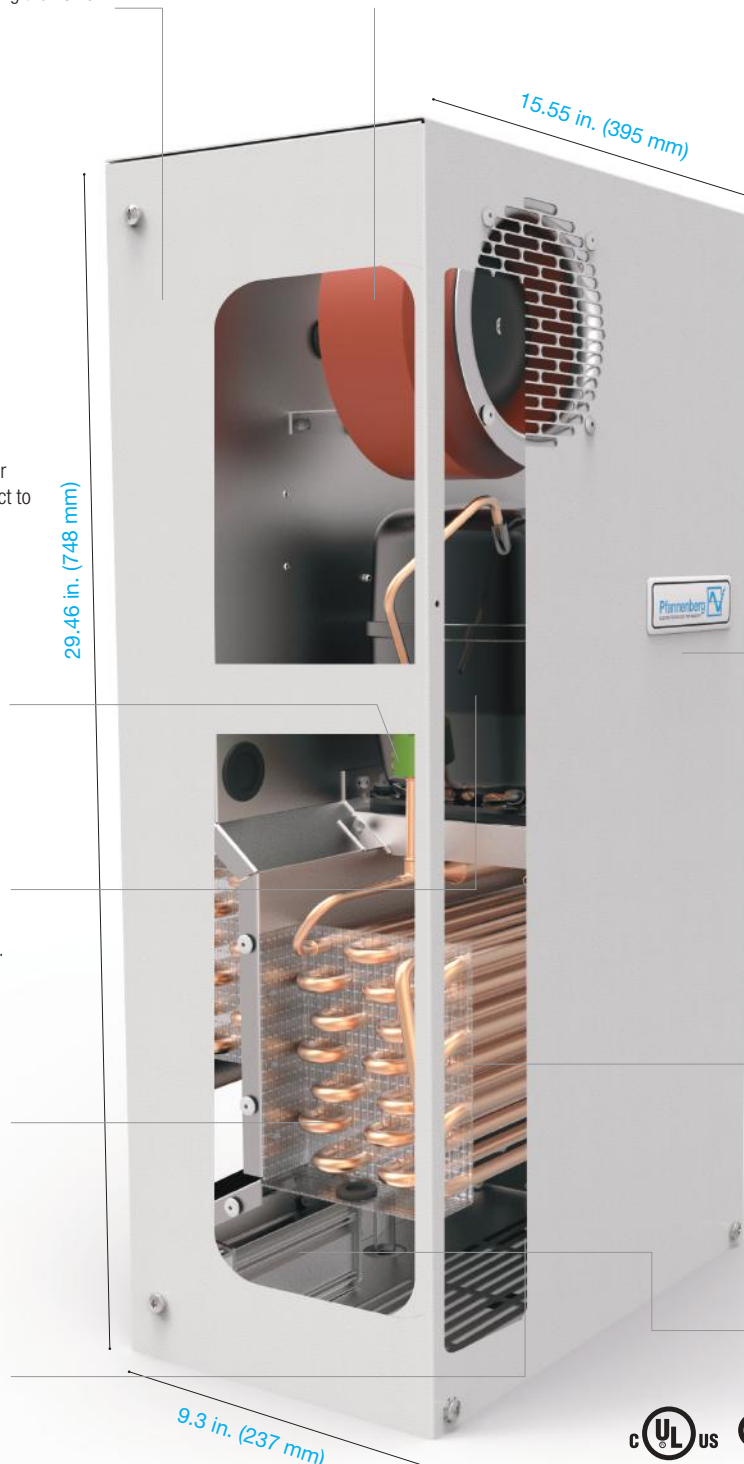
Our unit is uniquely designed to protect itself in NEMA 3R, 4, and 4X environments. An example of this is the location of our control electronics within our dry, cool interior circuit.

## 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.





## 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)
<b>DTS 3141</b> 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	<b>Housing:</b> galvanized sheet steel <b>Cover:</b> electrostatically powder coated RAL 7035 (light grey); for ANSI 61 grey use part no. ending in ...251							
<b>DTS 3161</b> 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	<b>Housing:</b> galvanized sheet steel <b>Cover:</b> electrostatically powder coated RAL 7035 (light grey); for ANSI 61 grey use part no. ending in ...351							
<b>DTS 3181</b> 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	<b>Housing:</b> galvanized sheet steel <b>Cover:</b> 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



For additional technical data, drawings and templates.  
[www.pfannenbergusa.com](http://www.pfannenbergusa.com)

### Available Models:



**DTS 3141**  
Indoor Rated  
(NEMA Type 12)



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

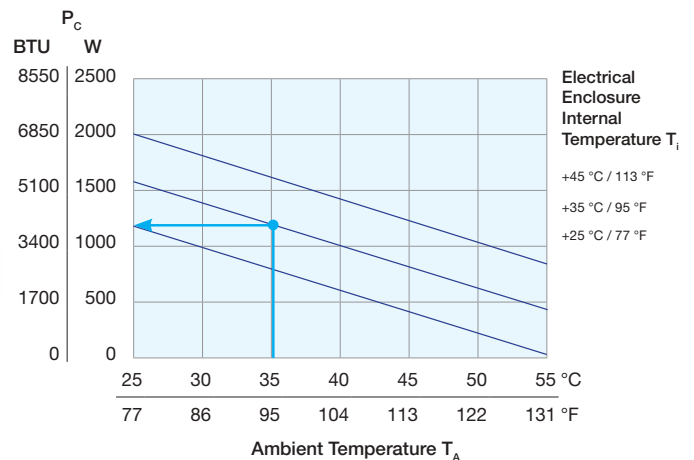


**DTS 3181**  
Washdown  
(NEMA Type 4/4x)

### 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.