Dr.PTAC

DR.PTAC Option

PATENTED TECHNOLOGY

The Dr. PTAC option is an add on system to our standard PTAC unit to provide conditioned make up air into a space thru the PTAC unit by providing up to 55 CFM of outdoor air 24/7 by forced fan and cycling dehumidifier compressor based on outdoor relative humidity levels.

Dr. PTAC was created to solve issues with dehumidification in rooms and to introduce fresh air due to deficiencies of oxygen levels. Dr. PTAC is not only a PTAC but a Conditioned Make Up Air unit. New ASHRAE studies show that many illnesses in hotel rooms can be attributed to oxygen-deficient atmospheres. Dr. PTAC solves this issue by introducing tempered conditioned make up air that satisfies both humidity level introduction and supplied oxygen.

Dr. PTAC is a two-stage system. The primary unit is responsible for control of Sensible Heat that is introduced into the room via make up air temperature and thermal load of the occupants. The secondary unit is primarily a dehumidification unit that provides up to 55 CFM of outside fresh air into the room. The correction of the Sensible Temperature comes from the main PTAC unit, which provides additional dehumidification with temperate correction. Overall unit efficiency over standard PTACs is approximately 3% improvement. The compressor/dehumidification process is controlled by a humidistat (factory set at 50% RH), which is monitoring the outdoor relative humidity level and is adjustable by a qualified servicer. When the outdoor humidity level rises above 50% RH, the compressor and dehumidification process starts. Below 50% RH compressor operation and dehumidification is stopped, however, fan operation continues to provide 55 CFM of outdoor air into the space.

The dehumidification system has a temperature switch that monitors both the refrigeration and the outdoor air temperatures. If the outdoor air falls below 38°F the compressor is disabled with fan operation continuing to provide outdoor air into the space. All dehumidifier controls and safeties are automatically reset. An optional air tempering heater is available for the fresh air system for applications where operation in cold winter climates is required. Condensate from the dehumidifier drains into the PTAC drain pan, where it is the also slung onto the condenser coil for re-evaporation outside when the A/C runs. Excess condensate is drained into the wall case, which can either drain to the outside through the louver or is piped to a drainage system via an optional drain kit.

Advantages of the Dr. PTAC System:

1. Lower installation/renovation costs than typical Dedicated Outdoor Air System (DOAS)
2. Decrease inconvenience to customer due to construction/installation of a DOAS* system
3. More humidity control in a room over use of a simple PTAC vent or Power Vent system
4. Allows fresh make up air to travel entirely across sleeping and living area of a room, exiting through a duct or under the door.

Dr. PTAC is designed with heavy duty materials and with a focus on indoor noise reduction, manufactured in accordance to ARI, UL, and AHAM standards and is ETL listed creating the premier PTAC unit of the future.

Problem Solving Benefits of Dr. PTAC:

100% Continuously Conditioned Make up air

Reduced Microbial Growth

Mildew control

Odor reduction

Solves indoor air quality issues

LEED Points Achieved:

1. Energy Efficient Design and compliance with ASHRAE 62.1 and ASHRAE 90.1
2. Indoor Environmental Quality with improved IAQ through make up air.
3. Innovation in Design through the use of a "Make Up Air PTAC".
4. Regional Design through the use of Dr. PTAC in high humidity climates.
5. Diverting Construction Debris through the use of re-usable containers.
6. Recycling/Reusing Dr. PTAC in secondary market where the "first costs" are prohibitive to owners.

DR.PTAC SPECIFICATIONS	
COMPRESSOR (AMPS)	1.02
COMPRESSOR (WATTS)	225
FAN (AMPS)	0.11
DEHUMIDIFICATION @60%RH (LITERS/DAY)	7.9
DEHUMIDIFICATION @82%RH (LITERS/DAY)	17.05
HEATER (WATTS)	250/400
HEATER (AMPS)	1.1/1.7
CONTROL TYPE	Automatic

Dehumidifier Capabilities:

Outdoor % RH	Outdoor Temp (°F)	H2O Removal (L/Day)
60	80	7.9
60	90	7.8
62	84	9.6
70	81	11.18
85	90	14.4
82	82	17.05

Distributed by Island PTACs / Jacksonville, Florida 32246 / 305-458-8321
e-mail: sales@islandptacs.com / www.islandptacs.com