



## IECS-SD

### Integrated Environmental Control System

# THAT PIGGYBACKS ON YOUR A/C OR HP CONDENSER!

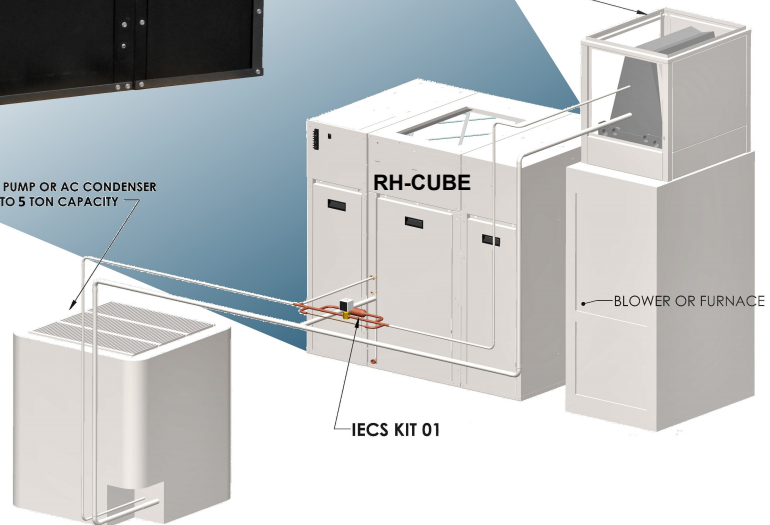
**RH-CUBE 18 DX  
DEHUMIDIFIER**



TYPICAL HEAT PUMP OR AC  
EVAPORATOR  
SIZES FROM 2 TO 5 TON CAPACITY

TYPICAL HEAT PUMP OR AC CONDENSER  
SIZES FROM 2 TO 5 TON CAPACITY

*Save installation time  
and money by using the  
existing Heat Pump or Air  
Conditioner Condenser!*



The IECS-SD is ideal for whole home dehumidification, for offices, retail space, dental offices, anywhere where increased dehumidification is needed.

Note: This system requires an Ecobee Smart thermostat.

DewAir’s IECS-SD is a high efficiency, high capacity, split-air dehumidifier and cooling system that does not require its own condenser. Instead it shares the existing air conditioner or heat pump’s single or dual stage condenser.

- Serviceability - Easily serviceable for cleaning and maintenance from the front of the unit.
- Inexpensive to service - Built from easily sourced off-the-shelf HVAC components.
- Serviceable by any certified HVAC technician without the need for specialized training.

## IECS-SD Features

- Split-air architecture - DewAir’s IECS-SD systems do not add to the air conditioner’s heat load.
- High capacity - removes up to 75 gal (283 liters) per day.
- High efficiency - removes up to 6.2 liters of humidity per kWh.
- Decoupled operation for easy integration into existing HVAC systems – It operates independently of the air conditioner and can dehumidify twenty-four hours a day whether or not the air conditioner is running.
- Modular for easy installation – can be disassembled into three sections so that it can be maneuvered through narrow openings and tight spaces, and be installed by a single technician.
- Versatility - Four choices for delivery air duct connections simplifies installation

## How It Works

The IECS-SD consists of DewAir’s **RH-Cube 18** dehumidifier and an **IECS-KT01** adapter kit. The adapter kit allows the existing air conditioner’s condenser output to be shared between the air conditioner’s own evaporator coil and the evaporator coil inside the RH-Cube 18. The kit controls the amount of refrigerant that is directed to either coil based on the settings of the thermostat and dehumidistat.

When the dehumidistat calls for dehumidification, the air conditioner’s condenser is turned on (if it is not already on). The IECS-KT01 directs between 1 ton and 2 tons of cooling to the RH-Cube 18. The remaining cooling generated by the condenser is directed to the air conditioner’s evaporator coil and results in sensible cooling.

The table below shows how much water removal and how much (sensible) cooling an IECS-SD systems deliver for typical indoor conditions and for various sizes of air conditioning condensers.

## Dehumidification Performance

Below is a chart of DewAir’s IECS-SD’S performance for condenser sizes from 2 to 5 tons. It does not reduce air conditioner performance. For 2 stage condensers, the IECS-SD only operates while the condenser is in low-stage operation.

		2 Ton	2.5 Ton	3 Ton	3.5 Ton	3 Ton 2 stage	4 Ton 2 stage	5 Ton 2 stage
80°F / 60% RH	Cooling (BTU)	5000	6000	7000	13000	5000	6000	7000
	Water Removal (lbs/h)	16	19	23	23	16	19	23
78°F / 45% RH	Cooling (BTU)	6000	12000	18000	24000	6000	12000	18000
	Water Removal (lbs/h)	12	12	12	12	12	12	12
75°F / 50% RH	Cooling (BTU)	5000	11000	17000	23000	5000	11000	17000
	Water Removal (lbs/h)	10	12	12	12	10	12	12