

## DX COOLING COIL SYSTEM

# HE+DX COIL



AN ENGINEERED DEDICATED OUTDOOR AIR SYSTEM SOLUTION FOR ERVs

## - RENEWAIRE EVERYWHERE

EVERY GEOGRAPHY, EVERY CLIMATE, EVERY HOME, EVERY BUILDING AND EVERY APPLICATION

## **HE+DX COIL**

RenewAire's HE+DX Coil is an **ENGINEERED SOLUTION** comprised of a RenewAire HE Series energy recovery ventilator (ERV) with a DX cooling coil for split or VRF systems. This coil enables HE07 and HE10 ERVs to be **CONVERTED INTO DEDICATED OUTDOOR AIR SYSTEMS (DOAS).** Doing so provides 100% outdoor air and offers a cost-effective alternative to DOAS units. It also reduces lead times significantly and overcomes installation challenges posed by tight spaces.

#### **KEY BENEFITS**

#### **REDUCE COSTS**

Our economical and compact HE ERVs paired with the HE+DX Coil are a cost-efficient alternative for applications requiring 100% outdoor air.

**DECREASE LEAD TIMES** 

#### SAVE SPACE

In addition to be a cost-saving alternative, the HE+DX Coil package is also a space-saving solution. In contrast with bulkier units, these ventilation systems can fit into smaller and tighter spaces.

#### **PRODUCT OVERVIEW**

The HE+DX Coil engineered solution is designed specifically for RenewAire HE07 and HE10 ERVs. The DX coil has two copper connections, a liquid supply line and a suction line.

The suction header has an option to be equipped with an external equalizer line connection for TXV applications. Refrigerant controller valves are supplied by other vendors per the designer's specifications.

The DX cooling coil is mounted above a drain pan. The coil requires connection to other equipment. supplied by others. In addition, connection of condensate drain along with any required traps and piping must be supplied by others.

#### **FEATURES**

- Copper tubing with aluminum fins
- Coil sweat connections protrude from the housing making installation easier
- Housing constructed from 90G galvanized steel
- · Drain pans and drain standard
- R410a, R454b or R32 refrigerants
- Sized to meet the variable refrigerant flow (VRF) manufacturer's specification





CONNECTION

CONNECTIONS

Unlike unitary packaged DOAS units, the HE+DX systems have short production lead times allowing for faster delivery and project completions.

#### **APPLICATIONS**

This HE+DX Coil system is perfect for light commercial and DOAS applications, including schools, clinics, retails stores, gyms and office buildings. Our coils are designed to be compatible with all major VRF manufacturers and to meet their VRF system specifications.

#### **INSTALLATION**

The HE+DX Coil is mounted downstream of the unit with access panels on each side for maintenance. Ducts and access panels are not included with the HE+DX Coil system. They are to be provided separately by the HVAC contractor.



#### ACCESSORIES

### **CONDITIONED AIR SENSOR** (P/N 131318)

The Conditioned Air Sensor is required if using premium controls to provide heating and cooling functions.



#### HOW TO SELECT A HE+DX COIL IN CORES

1. When selecting HE07 or HE10 ERVs, select the option to upgrade to an HE+DX Coil System.

HIT TAS HETR + DX COIL	QUANTITY 1	LOCATION	AREA SERVED
ADD UNIT NOTES	ADD SUBMITTAL NOTES		
SSUMPTIONS HAVE BEEN MADE	NOULD YOU LIKE TO UPGRADE TO AN HE+DX COIL SYSTEM?		

3. If coil data is not specified, CORES will automatically select the best option for your application.

COIL TYPE	COIL HAND O	COIL FIN MEIGHT	COIL FIN LENGTH
Evaporator Coll •	Let •	Auto-Select *	Auto-Select *
COL BOWS	COLL FINS PER INCH	COL. TURE DEOMETRY	COIL CIRCUITING
Auto-Salact *	Auto-Select *	3/8" 1.000" x 0.888" *	Single Circuit •
IS THIS A VRF APPLICATION?	COIL FEEDS	COIL RETURN COMNECTION SIZE	EQUALIZER LINE REQUIRED FO
No *	Auto-Select *	Auto-Select *	USE WITH TXV7 O
CONDENSING UNIT O			
XYZ			

5. All of the performance data is ported over from the ERV selection. It can be customized to your specifications.

COIL AIRFL	OW CONDITIO	ONS		IS DESIRED REFRIGERANT	SELECTIO	N R-32 OR R-4548? O
900	SCFM			No		
ERV Airfle	w value is 9	00				
Face Veloci	ty					
385.7	ft/min					
Elevation		866	ft	COIL REFRIGERANT R-410A		
ERV Elev	ation value is	866				
				COIL REFRIGERANT COOL		TIONS
				Liquid Temperature	112	°F
COIL AIRSI	DE COOLING	CONDITIONS				
Entering Air	Dry Bulb	79.8	۴F	Evaporative Temperature	43	۰F
ERV Sup	ply Air DB va	lue is 79.8		Leaving Superheat	5	۴F
Entering Air	Wet Bulb	69.0	٩F			
ERV Sup	ply Air WB va	alue is 69.0				
Leaving Air	Dry Bulb	53	۰F			
Leaving Air	Wet Bulb	53	۴F			
Required C	apacity					
	Btuthr					

2. On the Unit Accessories page, select the Add DX Coil Module button.

Current Accessories for this I					1001
Туро	Part Number	Description	Quentity		Delete
Coll Module	DXCJ5014-14XNL1A10005	Coll Module	5	5	DELETE
Automatically Added Accessory	131318	(131318) TEMPERATURE SENSOR 10K-OHM CAREL	6	\$	
Automatically Added Accessory	131304	(131304) C C2-W CO2 CONTROL WALL MOUNT	8		
Heaters		Accessories & Ser	vice Pa	arts	
ADD RECTANGULAR		ADD ACCESSORIES &	SERVICE	PARTS	
ADD HOUND ELECTRI ADD GAS FURNACE	C HEATER				

4. All VRF coils are designed to meet each VRF manufacturer's specifications.

ARL NO M	UFACTURER		VRF MO	OEL O							
Dulkin			Sele	et =							
Hisens	10										
Johnsi	on Centrols Hite	dhi									
LG											
O Mitub	ishi .										
O Samou	ing										
Toshb											
Otear											
O OPH											
C one											
Oters											
	UMITS	Min. Fece	Velocity	Min. Inten	nal Volume	Min. Cool	ing Capacity	Win. Hoat	ing Capacity	Min. Retri	gerent Velocity
WRF COIL	LIMITS 247		Velocity Rimin		nal Volume cu. in.		Ing Capacity Bsuftr		ing Capacity Bhufty		gerent Volocity Trimin
VRF COIL Min. Airli:	LIMITS 247 SCFM	NIA		NIA		NA		NIA			

6. Once submitted, all of the coil data will appear on the submittal.

	14	in
Fin Length	24	in
Rows	5	
Fins Per Inch	11	
Fin Thickness	0.0075	in
Total Capacity	48293.1	Btultr
Sensible Capacity	26796.0	Btuthr
Leaving Superheat	5.5	۴F
Leaving Air Dry Bulb	52.8	۴F
Leaving Air Wet Bulb	52.1	۴F
Face Velocity	386.6	timin
Suction Line Velocity	1764.8	timin
Tube Vapor Velocity	1482.2	timin
Refrigerant Charge	0.95	lbs
Air Pressure Drop	0.49	in wo
Refrigerant Pressure Drop O	3.39	psi
Total Feeds	5	
Distributor #1	502-5-1/4-	3
Distributor #1 Conn. Size	0.625	in
Return Connection Size	0.875	in
Return Header Diameter	0.875	in
Internal Volume	214	cu. in.







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