

AP Precision DESIGN FEATURES

FRAME AND CABINET

The cabinet comprises an anodized aluminium frame of epoxy powder coated black color paint with nylon corners and removable steel sheet panels. All panels shall be externally installed onto the cabinet by using special stopper system without using screws. The stopper system shall also facilitate the removable of panels for additional ease of field installation, service and maintenance on the system. All panels and access doors shall be fabricated from sturdy heavy gauge of 1.0mm steel sheets with epoxy powder coated oven baked black color paint to provide a durable finish. All panels shall be of 25mm (1 inch) thick single skin and lined with minimum 2lbs/ft³ density thermal and acoustical fiberglass insulation with fire resistant of Class O [BS 476 Part 6, 7]. The system shall be designed for front access only with hinged and lock type full height doors.



COOLING COIL

Computer selected coil design, using interwoven coil surface increases unit efficiency at low loads. Air is drawn through the coil at low velocity providing effective surface exposure with minimum turbulence. This provides greater efficiency in the cooling and dehumidification process.

FAN SECTION

Blowers shall be belt driven double-inlet-double-width (DIDW), statically and dynamically balanced with multiple forward curved blades mounted on a solid steel keyed shaft. Heavy-duty V-belt fan drive [sized for 200% safety factor] with cast iron pulleys keyed and secured to the blower shaft shall be provided.



FILTERS

The system shall be provided with 2 inches (50mm) deep [for model 02-05] or 4 inches (100mm) deep [for model 07-26] extended surface pleated disposable type filters rated for MERV8 efficiency to ASHRAE 52.2 standard [equivalent to EU4]. Filters shall be withdrawable from the front of the unit.

ELECTRICAL REHEAT

The three stage stainless steel finned tubular reheat coils provide ample capacity to maintain room dry bulb conditions during a system call for dehumidification. Three equal stages give a more accurate controlled response to the requirements of the computer room. The heating elements are protected by thermal safety switches. The three stages of reheat create a noticeable lowering of energy use.

PERFORMANCE AND TECHNICAL DATA (R410A)

AIR COOLED DX SYSTEM @ 35° C (95°F) AMBIENT TEMPERATURE WITH OR WITHOUT HOT GAS REHEAT

MODEL		AP.ECBE/V 02 AP.ECSE/V 02	AP.ECBE/V 03 AP.ECSE/V 03	AP.ECBE/V 04 AP.ECSE/V 04	AP.ECBE/V 05 AP.ECSE/V 05	AP.ECBE/V 07 AP.ECSE/V 07	AP.ECBE/V 09 AP.ECSE/V 09
Return Air 75F/62.5F/50% RH (24C/17C/50% RH)	Total Cooling Capacity MBH (kW)	27.5 (8.1)	35.9 (10.5)	47.7 (14.0)	56.1 (16.4)	83.5 (24.5)	107.7 (31.6)
	Sensible Cooling Capacity MBH (kW)	26.9 (7.9)	33.0 (9.7)	43.2 (12.7)	51.6 (15.1)	74.4 (21.8)	102.3 (30.0)
	Sensible Heat Ratio (SHR)	0.98	0.92	0.91	0.92	0.90	0.95
Return Air 72F/60F/50% RH (22C/16C/50% RH)	Total Cooling Capacity MBH (kW)	27.5 (8.1)	33.3 (9.8)	47.2 (13.8)	55.6 (16.3)	82.1 (24.1)	107.0 (31.4)
	Sensible Cooling Capacity MBH (kW)	26.8 (7.9)	31.8 (9.3)	42.8 (12.5)	51.2 (15.0)	74.1 (21.7)	101.5 (29.7)
	Sensible Heat Ratio (SHR)	0.98	0.95	0.91	0.92	0.90	0.95
COMPRESSOR	Number of Compressor(s)	1	1	1	1	1	1
	Total Power Input (50Hz) kW	2.1	2.8	4.4	4.8	6.9	9.3
	Total Power Input (60Hz) kW	N/A	N/A	4.5	5.1	6.9	8.7
	Hot Gas; Liquid Lines, 50Hz In	1/2 ; 3/8	1/2 ; 3/8	1/2 ; 3/8	1/2 ; 3/8	7/8 ; 5/8	7/8 ; 5/8
	Hot Gas; Liquid Lines, 60Hz In	N/A	N/A	1/2 ; 3/8	1/2 ; 3/8	1/2 ; 3/8	7/8 ; 5/8
FAN & MOTOR (INDOOR)	Fan Size	10/8	10/8	10/8	10/8	15/15	15/15
	Air Volume CFM (m ³ /h)	1,500 (2,548)	1,500 (2,548)	2,000 (3,398)	2,500 (4,247)	4,000 (6,796)	5,000 (8,495)
	External Static Pressure (ESP) in H ₂ O (Pa)	0.3 (75)	0.3 (75)	0.3 (75)	0.3 (75)	0.5 (125)	0.5 (125)
	Motor (Standard Single Coil) Hp (kW)	1.0 (0.75)	1.0 (0.75)	1.0 (0.75)	2.0 (1.5)	2.0 (1.5)	3.0 (2.2)
COIL (DX)	Face Area ft ² (m ²)	5.6 (0.5)	5.6 (0.5)	5.6 (0.5)	5.6 (0.5)	12.2 (1.1)	12.2 (1.1)
	Face Velocity FPM (m/s)	270 (1.4)	270 (1.4)	360 (1.8)	450 (2.3)	327 (1.7)	409 (2.1)
	Condensate Drain O.D. In	7/8	7/8	7/8	7/8	7/8	7/8
FILTERS (ASHRAE 52.5 MERV 8)	20" x 20" x 2" Qty	2	2	2	2	N/A	N/A
	20" x 20" x 4" Qty	N/A	N/A	N/A	N/A	4	4
	20" x 25" x 4" Qty	N/A	N/A	N/A	N/A	N/A	N/A
REHEAT (Electric)	3-Stages (rated at 415V) MBH (kW)	20.5 (6.0)	20.5 (6.0)	20.5 (6.0)	20.5 (6.0)	41.0 (12.0)	41.0 (12.0)
STEAM HUMIDIFIER (OPTIONAL)	Capacity (max.) lbs/hr (kg/hr)	17 (8.0)	17 (8.0)	17 (8.0)	17 (8.0)	17 (8.0)	17 (8.0)
	Power Input (max.) kW	6.0	6.0	6.0	6.0	6.0	6.0
SOUND PRESSURE LEVEL (at 2m distance, free field, downflow)		dBA	56	56	57	57	62
							63

PHYSICAL DATA

Height	H	mm (inch)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)	1944 (76.5)
Width	W	mm (inch)	749 (29.5)	749 (29.5)	749 (29.5)	749 (29.5)	1464 (57.6)
Depth	D	mm (inch)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)	874 (34.4)
Weight	AP.ECBE	kg (lbs)	251 (552)	259 (570)	260 (572)	272 (598)	420 (924)
	AP.ECSE	kg (lbs)	265 (583)	273 (601)	274 (603)	286 (629)	442 (972)

Notes: 1.) Add 457mm (18inch) to height of unit for Discharge Plenum [optional] - Upflow Models only
2.) Add 32kg (71lbs)-Model 02 to 05, 51 kg(112 lbs)-Model 07 to 13; 80kg(176 lbs)-Model 14 to 26 to weight of unit for Discharge Plenum [optional]-Upflow Model only

