Single Frame HVAC with Dual Fan

WC Series for Analyzer Shelters and Equipment Room and Similar Enclosures

Single Frame Standard Unit | HOUSE Roof top | Separate Frame Redundant | Wall mount HOUSE | Free Standing off HOUSE

DESCRIPTIONS:

The Single Frame HVAC with Dual Fan unit is consist of one cooling unit and two individual forced ventilation fans (fully redundant) upon request, and this unit is suitable for controlling the positive pressure, temperature or humidity of the room inside. This system provides cooling, heating, and forced ventilation by positive pressure and using the unit to dilute the flammable gases, toxic gases or vapors inside room through the louvers of the room wall. Able to apply system redundancy(fully redundant) by two single unit separately install (see next page). Also able to apply as the rooftop type HVAC unit.

The WC series HVAC unit are suitable either for Safe areas or for Zone 1 (or Zone 2) classified areas (according to the EN 60079-10 standard).

MODEL IDENTIFICATION

Characteristics	Units	HVAC (Heating, Ventilation and Air Conditioning Unit)									
		WC07	WC10	WC12	WC14	WC16	WC20	WC24	WC28	WC33	WC35
Cooling Capacity	W	7,500	9,610	11,800	14,600	18,900	22,800	26,100	30,600	34,400	39,800
	BTUH	25,500	32,700	40,100	49,600	64,300	77,500	88,700	104,000	117,000	135,300
Heating Capacity (Steam – note.2)	KW	3 ~ 12				5 ~ 24					
Max. Power Consumption	KW	7.46	9.09	10.79	12.99	16.82	19.32	22.02	25.92	28.02	32.22
Dimension Type	-	2				3			4		
Power Input	V/P/F	380~480VAC / 3Ph / 50-60Hz									
System Redundancy	-	Single / Dual Frame									
Refrigerant	-	R134a, R407c									

1. Rated at +60ºC condensing temperature with 50Hz base (115% for 60 Hz) (R407c refrigerant is subject to have different capacity).
2. Steam Condition: Max. Pressure 6.0 barg / Max. Temperature 160 deg C.
3. Actual capacity may different depending on running condition.
4. Specifications are subject to change without notice.

ORDERING INFORMATION

WC	XX	-	XXX	X	XXX	X	X	-	X
Cooling Capacity		-	Volt-Ph-Hz	Classification	Heating	Mounting	Tamb	-	Options
7 ~35 KW			4: 3(4)xxV~	0: None	NON: N/A	F: Free standing	A: -20 ℃ to 50 ℃		1: Motorized damper
*see the table			3: 3Ph.	B: Zone2, IIB	STM: Steam	W: Wall mount	B: -20 ℃ to 55 ℃		2: Room DPS/DPI
XX.2X: Redundant (Dual frame)			6: 60Hz, 5: 50Hz	H: Zone1, IIB+H2	E03~24 KW: Electric	H: Horizontal	C: -20 ℃ to 60 ℃		3: Chemical filter
				C: Zone1, IIC					4: Humidity control
* Other specifications by request				M: Interior : IIC Exterior : IIB					(Multiple option selection available)

TECHNOLOGY | DESIGN | SIMULATION | PRODUCTION & COMPLETION | SERVICE & PROCESS

Ex APPROVAL

IECEx : IECEx DEK 17.0052X
II 2G Ex IIB / IIB+H2 / IIC T3 Gb

ATEX : DERKA 17ATEX0115X
II 2G Ex IIB / IIB+H2 / IIC T3 Gb

ATEX : SIRA 11ATEX6387X
Standard (Zone 1) : II 2G c IIC T3
Optional (Zone 2) : II 3G c IIB T3-External
(II 2G c IIC T3-Internal)

KCs : 16-KA2BO-0531
Ex d e px IIB+H2 T155°C
Standard : Zone 1 IIB+H2 T3

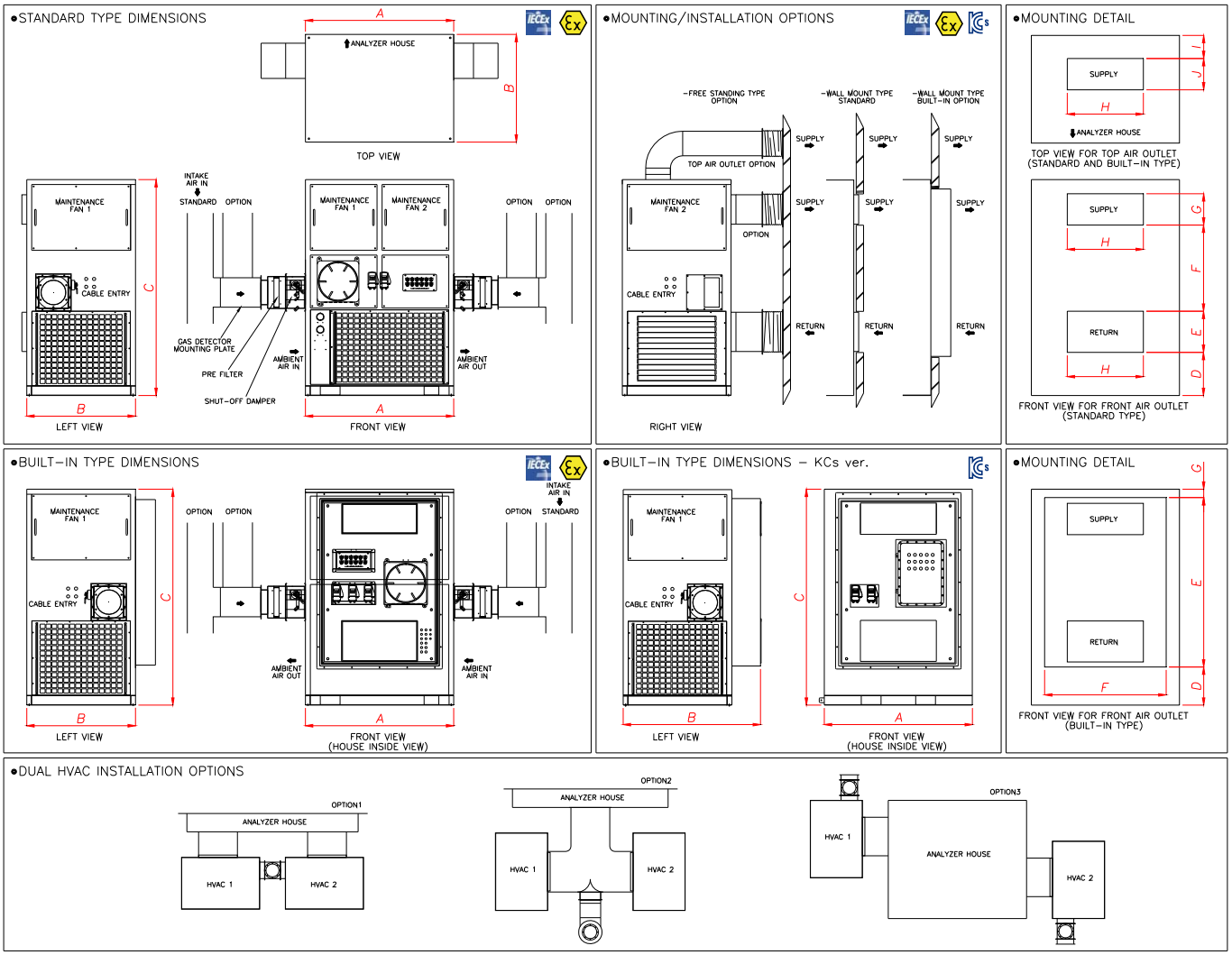
HVAC system Well-VAC™ WC Series

- Up to Zone 1, Gas Group IIB / IIB+H2 / IIC, T3
- Up to Zone 1, Gas Group IIB / IIC, T3 (200°C)
- Up to Zone 1, Gas Group IIB+H2, T155°C (T3)
- R134a Non-Ozone Depleting Refrigerant
- Cool, heat, & redundant pressurize unit which automatically back-up for seamless running
- Maintains positive room pressure 50 Pascal and provides make-up air for ventilation
- Ambient temperature (depending on used component) -20 / -40℃ to up +60℃
- Alarm lamps and the control switch for the HVAC units status control and monitoring system
- HVAC system control panel logic is done with PLC
- Temperature controller with indicator, Heating/Cooling mode or Cooling/High temperature alarm
- Wide range of voltage and frequencies available
- Free standing and Wall or Horizontal mount both available
- Fresh air stack connection with dust filter
- Low ventilation air flow switches

Optional Specification

- Control Box(station) Installation
  -Room inside(default) / -Room outside(alternative)
- Air Outlet (supplying to room)
  -Front outlet(default) / -Top outlet(alternative)
- Mounting Type
  -Wall mounting(default) / -Free standing off(alternative)
- Material
  -AISI304(default) / - AISI316(alternative)
- Emergency shut-down switch, Main power MCB, Room DPS/DPI, Room Temp. High Alarm, Sand filter, Chemical filter, Motorized damper, Safety(Detectors) integration and etc. available as an option(and by request)

DIMENSIONS AND APPLICATION



* ROOFTOP TYPE HVAC UNIT IS UPON REQUEST

mm	A	B	C
Type 2	1,500	1,100	2,200
Type 3	1,700	1,200	2,300
Type 4	1,900	1,400	2,400
Type 5	1,500	1,475	2,200

	mm	D	E	F	G	H	I	J
STANDARD	Type 2	440	420	880	320	770	236.5	320
	Type 3	440	520	880	320	770	266.4	390
	Type 4	440	620	880	320	770	231.4	460
BUILT-IN	Type 2	385	1,730	1,230	85	770	236.5	320
	Type 3	385	1,830	1,230	85	770	296.4	390
	Type 4	385	1,930	1,230	85	770	296.4	390
	Type 5	299	1,710	1,210	95	770	296.4	390

* Dimension is subject to change as per application.

APPLICATION DATA SHEET

* Other specifications by request

Area & Design Conditions:
Site Location:
Summer Dry Bulb: _____°C, Wet Bulb: _____°C, Humidity _____%RH
Winter Dry Bulb: _____°C, Wet Bulb: _____°C, Humidity _____%RH
Internal Requirement : _____°C, _____%RH

Heating Load:
Lights _____Watts, Equipment _____Watts, Personnel(No.) ____
Humidity Control ☐ is required ☐ is not required

Additional utilities & environment requirements:
Electric power: _____

Area classification: _____

Building & Internal Heat Load Information:
Dimensions _____ X _____ X _____ (LWH) Meters

Walls Insulation _____ Thickness _____
Roof Insulation _____Thickness _____
Floor Insulation _____Thickness _____

Building Ventilation and/or Pressurization:
☐ 0.2" W.C.(50Pascal) or _____ Air Changes per Hour _____

Additional:
* Additional: ☐ Fire damper ☐ High temp. alarm ☐ Room DPI/S
* Heating: ☐ Steam ☐ Elec._____ ☐ Purafil ☐ 316SS

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