



40VDS-W Series

Chilled Water Fan Coil Unit

51,700 - 232,180 BTU/H



World's No.1 Air Conditioning Expert

www.carrier.co.th

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40VDS-W Series



▲ 40VDS-W Series (Size : 004/006)



▲ 40VDS-W Series (Size : 007-020)

The New, Versatile & Energy Efficient 40VDS-W Chilled Water Fan Coil Unit.

The Carrier **40VDS-W** Horizontal Type Chilled Water Fan Coil Units come in 7 sizes covering an air flow range between (1,600-6,000) CFM. These units have been engineered for domestic and commercial application. 40VDS-W Fan Coil Units produce nominal capacities ranging from (51,700-232,180) Btu/hr.

Features

- **Direct Driven Forward Curved Centrifugal Fan - quiet operation.**
- **Carrier All Weather Cabinet - rugged and durable.**
- **Fire Retardant Insulation - minimises condensation & reduces sound levels.**
- **Filter(s) - easily serviceable.**

HIGH PERFORMANCE, ENERGY SAVINGS

If Air side fan coil unit are the answer to your job requirements, you can't afford to pass over Carrier's versatile and extensive range of fan coil units.

40VDS series fan coil units, in capacities from 1,600 to 6,000 cfm. Units are ideal for installations in hospitals, hotels, apartments and other multi-room buildings. provide unsurpassed year round comfort with high cooling performance.

40VDS series requires very little space and is easy to install. Piping, drain and wiring connections are readily accessible to save installation time and field labor expense.

Give you design and equipment location flexibility

- Wide range of popular capacities for 1,600 - 6,000 cfm
- Up to 7 sizes with Cabinet units
- Quiet operation

Fan coils for easy, low cost installation

- Easy wiring, piping connections
- Mounting holes, slots speed hanging
- Requires no expensive ductwork
- Ideal for new construction or renovation

Save you service and maintenance expense

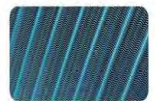
- Insulated drain pan
- Easy access to components
- Rugged construction
- Factory leak test
- Long life, heavy duty bearings

Save operating costs with Carrier fan coils

- Individual unit shut-off when not in use
- High efficiency heat transfer surface

Blue fin with Epoxy and Hydrophilic coating

- Prevents dirt from sticking to the fins
- Condensation water flows and water away dirt
- Anti-corrosion caused by oxidation
- Increases the efficiency of heat exchanger



Air Filter

- For the rough dust filtration in aerial engineering devices of all kinds air conditioning systems in office, department stores schools laboratory etc.
- Washable and re-usable / Low resistance
- Excellent frame retardant / Flexible, economical and practical



Specifications

Model		Packaged Chilled Water Fan Coil Unit								
		40VDS-W								
		004	006	007	009	012	015	020		
Nominal Capacity	Cooling Capacity *	btu/h	51,700	67,080	85,690	107,280	136,530	162,250	232,180	
	Air Flowrate	cfm	1,600	2,000	2,600	3,200	4,000	5,000	6,000	
Power Supply	V/Ph/Hz	220 / 1 / 50								
Power Consumption	watts	507	625	1014	1014	1250	1814	1908		
Operating Weight	kg	75	78	110	115	125	144	175		
Cooling Coil	Coil Arrangement	row / fpi	3/14	3/14	3/14	3/14	3/14	3/14	4/14	
	Coil Face Area	sq.ft	3.33	4.11	5.22	6.67	8.25	10.08	12.19	
	Coil / Fin Material		Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al	Cu/Al	
Fan	Fan Size	inch	10"x10"	10"x10"	10"x10"	10"x10"	10"x10"	12"x12"	12"x12"	
	Fan Q'ty		1	1	2	2	2	2	2	
			Direct drive							
Motor	Motor Current (RLA)	Amp	2.45	3.02	2.45 x 2	2.45 x 2	3.02 x 2	4.38 x 2	4.66 x 2	
	Motor speed	rpm	620/780/890/920	800/890/940/980	620/780/890/920	620/780/890/920	800/890/940/980	650/730/790/830	670/770/880/980	
	Type		Permanent split capacitor with internal thermal overload							
Insulation	Type		PE Foam							
	Thermal Conductivity		0.036 w/m.K							
	Thickness		10							
Air Filter	Type		Aluminum Filter (1.0") / (Synthetic filter G2 + Nylon net Filter with Optional)							
	Size	mm	425 x 930	425 x 555	425 x 685	480 x 685	540 x 775	540 x 925	640 x 925	
Dimension	Width	mm	1,040	1,220	1,480	1,480	1,660	1,960	1,960	
	Hight	mm	490	490	490	545	605	605	705	
	Depth	mm	675	675	675	675	675	780	780	
Pipe Connection	Chilled water inlet	inch	1"	1"	1"	1"	1-1/4"	1-1/4"	1-1/4"	
	Chilled water outlet	inch	1"	1"	1"	1"	1-1/4"	1-1/4"	1-1/4"	
	Chilled water pipe connection type		Male Pipe Thread							
	Condensate drain dia.		1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	
	Condensate drain connection type		Male Pipe Thread							

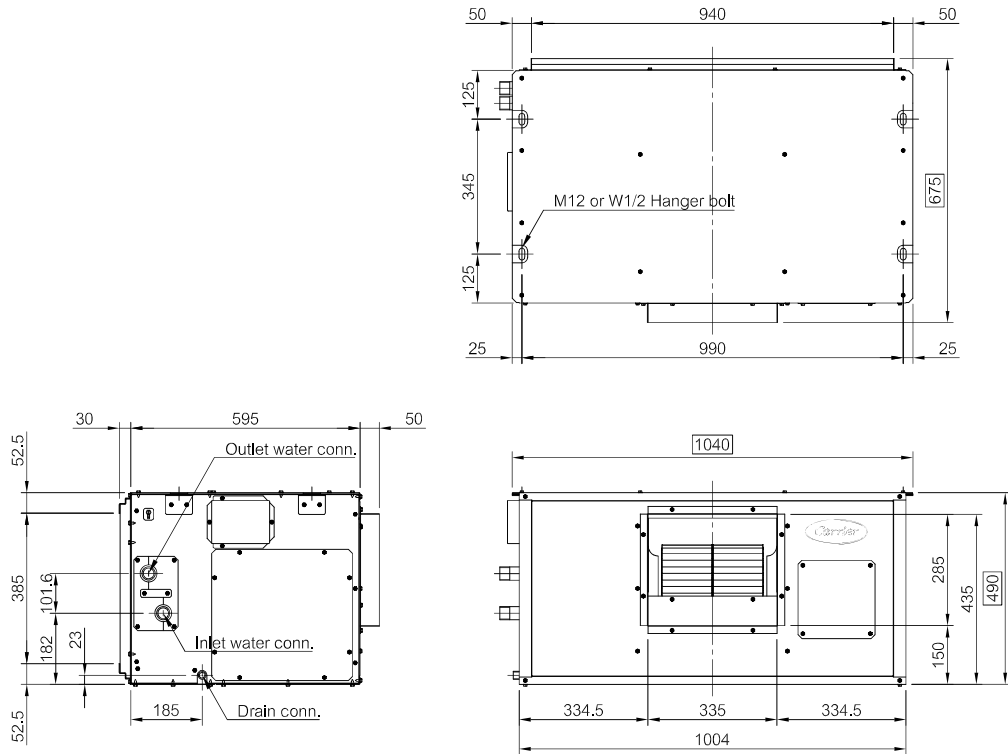
Remark : * Shown capacity based on : Ent. Air temp 80Fdb/67Fwb, Chilled water temp in/out 44/55F, Max air flowrate.

Performance

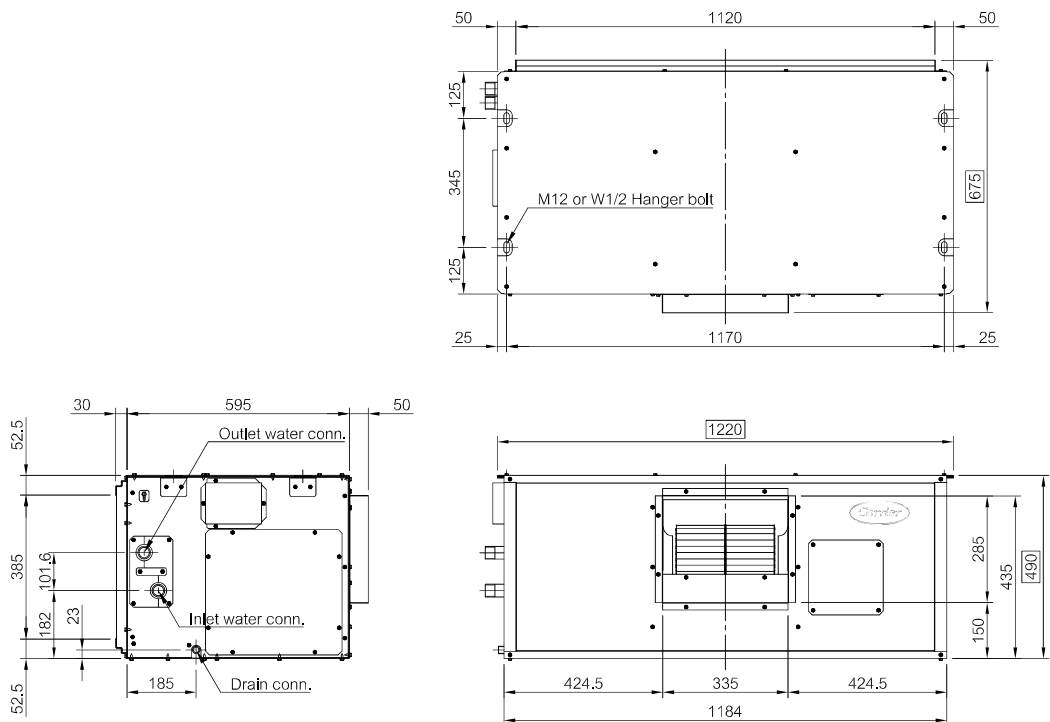
MODEL	CFM	Entering Chilled Water Temperature F	Entering Air Temp (Fdb / Fwb)															
			76 / 63				78 / 65				80 / 67				82 / 69			
			Total Capacity btu/h	Sensible Capacity btu/h	Chilled Water Flowrate gpm	Water Pressure Drop ft.wg.	Total Capacity btu/h	Sensible Capacity btu/h	Chilled Water Flowrate gpm	Water Pressure Drop ft.wg.	Total Capacity btu/h	Sensible Capacity btu/h	Chilled Water Flowrate gpm	Water Pressure Drop ft.wg.	Total Capacity btu/h	Sensible Capacity btu/h	Chilled Water Flowrate gpm	Water Pressure Drop ft.wg.
40VDS004W	1,600	40	48,441	38,946	9.65	8.66	55,756	41,386	11.11	11.08	63,677	43,886	12.68	14.00	72,379	46,383	14.42	17.63
		45	36,402	33,110	7.26	5.17	42,156	35,341	8.41	6.67	48,697	37,576	9.72	8.58	57,236	40,118	11.42	11.47
		50	27,108	27,067	7.26	3.06	30,907	29,882	8.41	3.83	35,587	31,839	9.72	4.87	42,543	34,065	11.42	6.70
40VDS006W	2,000	40	62,882	49,752	12.53	16.32	72,208	52,840	14.38	20.81	82,374	56,016	16.41	26.24	93,245	59,137	18.57	32.82
		45	47,325	42,292	9.44	9.76	54,848	45,129	10.94	12.62	63,245	47,970	12.62	16.19	74,227	51,211	14.81	21.60
		50	35,003	34,757	9.44	5.69	40,067	37,834	10.94	7.19	46,277	40,635	12.62	9.20	55,448	43,506	14.81	12.71
40VDS007W	2,600	40	80,430	64,004	16.02	13.90	92,426	67,992	18.41	17.74	105,465	72,064	21.01	22.37	119,492	76,081	23.80	28.00
		45	60,508	54,441	12.07	8.31	70,127	58,091	13.99	10.74	80,741	61,879	16.11	13.74	94,925	65,878	18.94	18.37
		50	44,859	44,700	12.07	4.87	51,223	48,694	13.99	6.13	59,132	52,311	16.11	7.83	70,831	55,984	18.94	10.80
40VDS009W	3,200	40	100,543	79,607	20.03	14.19	115,516	84,581	23.01	18.10	131,786	89,662	26.25	22.82	149,244	94,684	29.73	28.55
		45	75,661	67,697	15.09	8.49	87,720	72,239	17.50	10.98	101,151	76,799	20.18	14.08	118,730	81,973	23.69	18.78
		50	55,965	55,668	15.09	4.96	63,993	60,571	17.50	6.25	73,953	65,041	20.18	8.00	88,634	69,626	23.69	11.05
40VDS012W	4,000	40	127,933	100,512	25.48	20.34	146,825	106,773	29.25	25.91	167,358	113,167	33.34	32.63	189,168	119,436	37.68	40.68
		45	96,410	85,464	19.23	12.19	111,775	91,195	22.30	15.78	128,823	96,955	25.70	20.22	150,976	103,463	30.12	26.90
		50	71,073	70,424	19.23	7.07	81,518	76,505	22.30	8.96	94,185	82,077	25.70	11.48	112,997	87,899	30.12	15.89
40VDS015W	5,000	40	152,067	121,839	30.29	11.57	174,911	129,471	34.84	14.78	199,640	137,249	39.77	18.64	226,629	144,997	45.14	23.40
		45	114,322	103,517	22.81	6.92	132,503	110,561	26.44	8.94	152,902	117,578	30.51	11.47	179,622	125,479	35.84	15.30
		50	84,773	84,668	22.81	4.06	96,977	92,434	26.44	5.12	111,818	99,534	30.51	6.53	133,768	106,539	35.84	8.97
40VDS020W	6,000	40	216,738	165,969	43.17	9.20	248,839	176,624	49.56	11.71	282,865	187,403	56.34	14.65	319,952	198,324	63.73	18.26
		45	162,880	140,941	32.50	5.50	189,466	150,359	37.80	7.14	219,502	160,163	43.79	9.23	255,987	171,137	51.07	12.15
		50	119,676	117,069	32.50	3.18	137,968	126,479	37.80	4.06	160,604	135,348	43.79	5.26	191,782	145,019	51.07	7.20

Remark : Performance based on chilled water temperature rise 10F

Unit dimensions

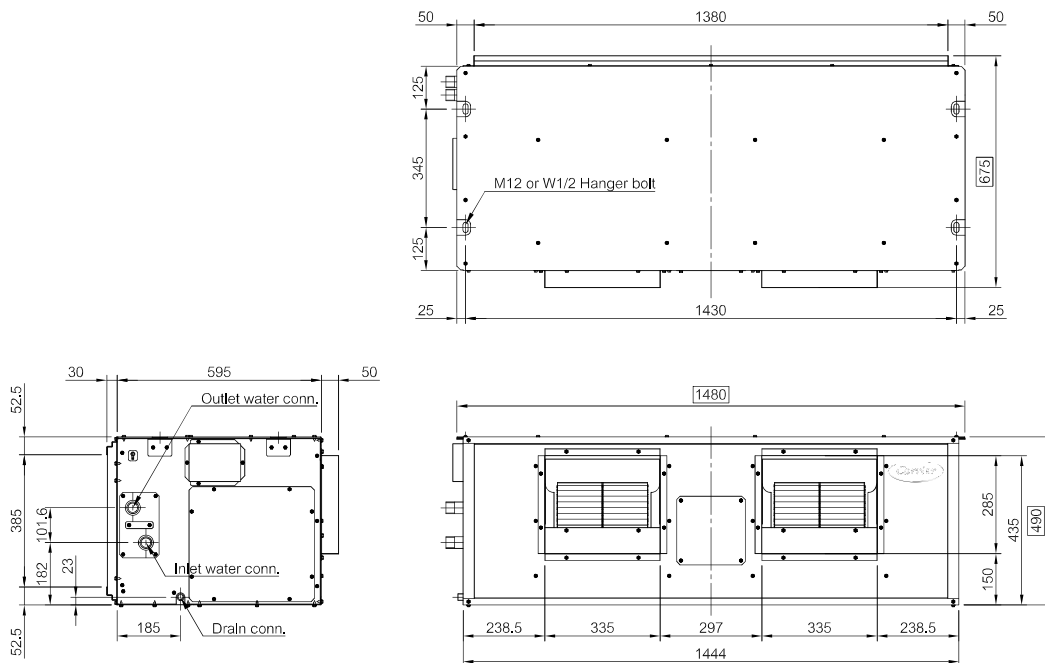


Model : 40VDS004W

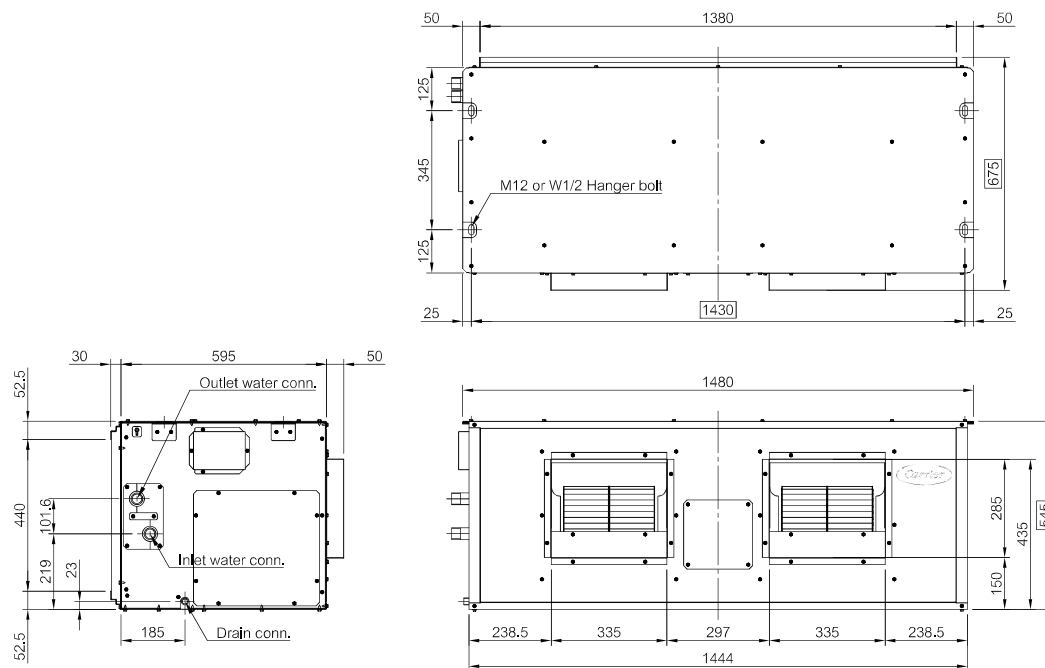


Model : 40VDS006W

Unit dimensions

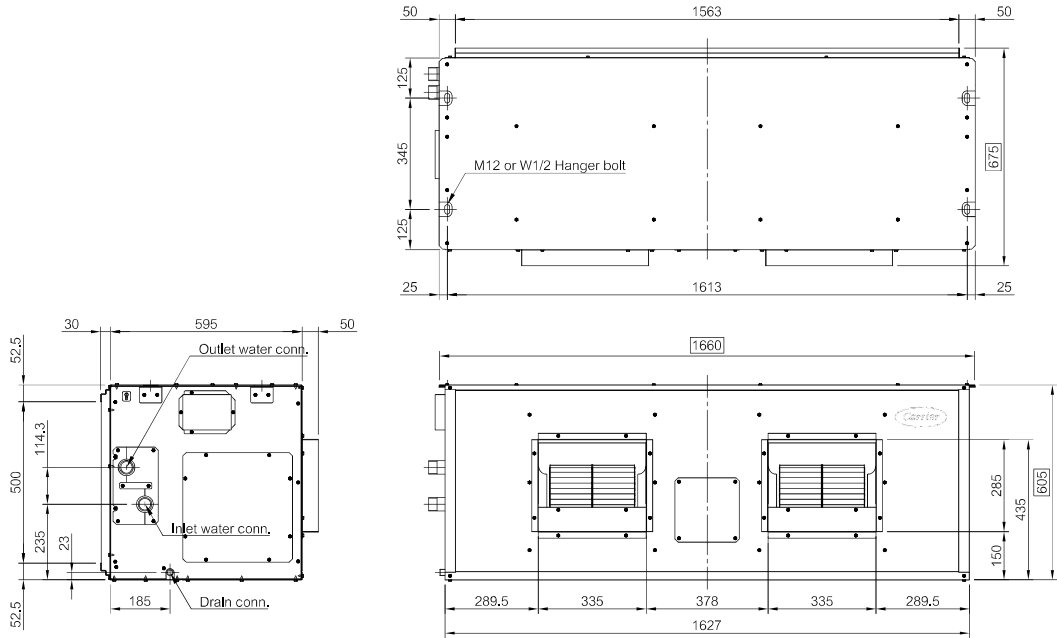


Model : 40VDS007W

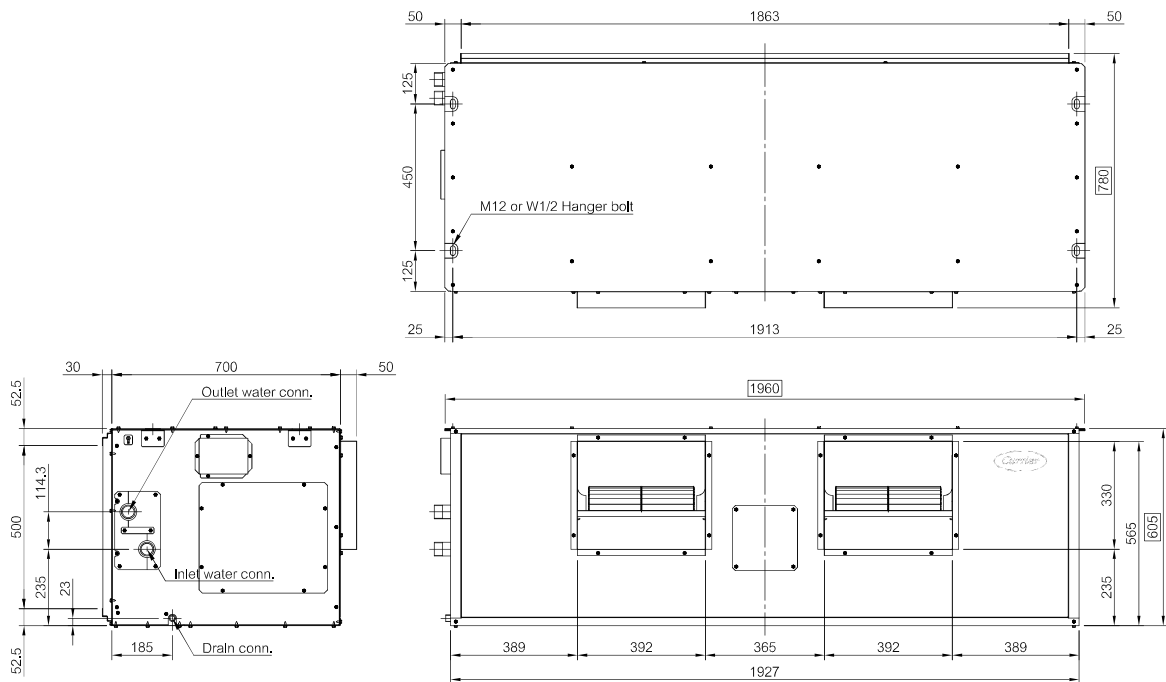


Model : 40VDS009W

Unit dimensions

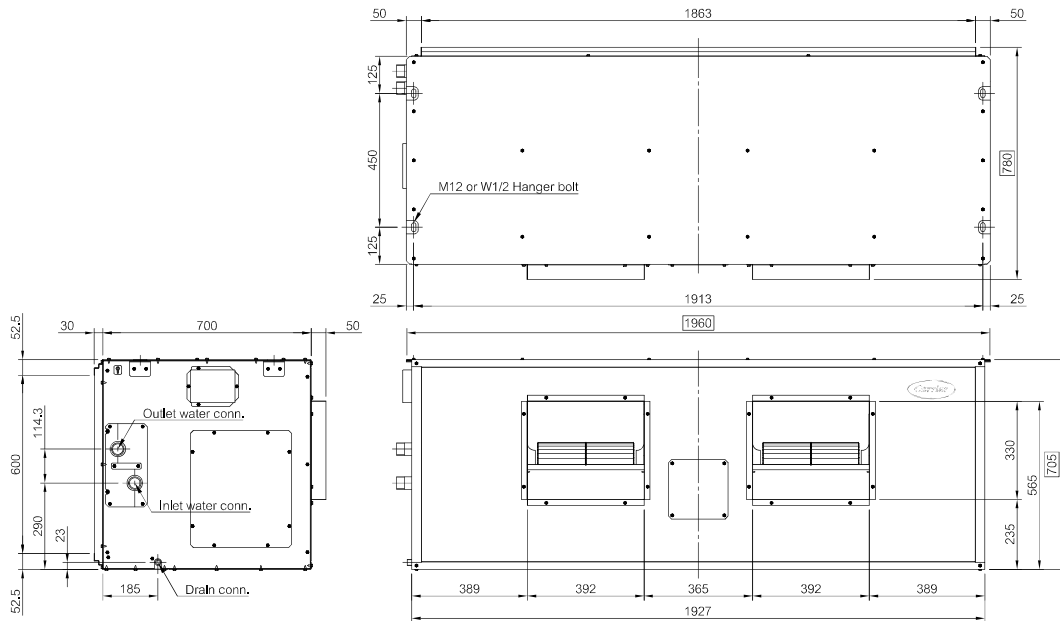


Model : 40VDS012W



Model : 40VDS015W, 40VDS020W

Unit dimensions



Model : 40VDS020W

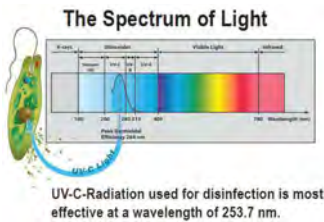
Accessories Optional

UV Lamps

In response to the current coronavirus epidemic situation, sterilization option using UltraViolet (UV) is available for FCU products.

UV light for kill germs in a wide range of wavelengths between 200 to 400 (nm) which is highly effective in killing bacteria and reduces the formation of viruses by breaking down the molecular bonds that hold their DNA and RNA together.

UV-C at this wavelength, is the wavelength that DNA can absorb well can be punched and disabled their growth. By destroying their DNA sequence when doing this, the virus will lose their ability to reproduce.



Advantages of UV-C lamp

- 253.7nm UV-C lamp, no generate ozone.
- Plug-in products for easy installation.
- High-energy UV-C, effective life is up to 8,000 hours.
- External control box, 220VAC standard power supply, simple wiring.
- Stainless steel reflector enhance the radiation intensity and avoids direct exposure to the human body.
- Able to kill bacteria in the air and prevent the virus from spreading through the host bacteria.



UV-C rays are not found in nature because these rays cannot pass through the ozone layer to the earth's surface.

The use of this type of radiation to destroy the infection requires a source of radiation. Including mercury lamps

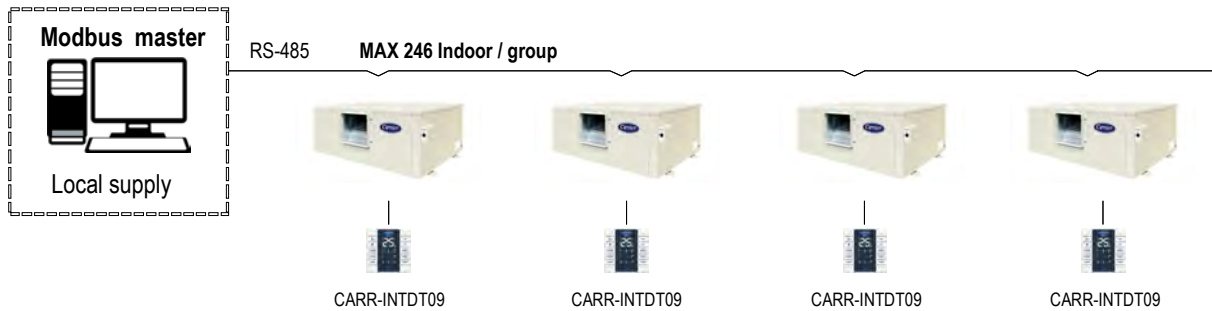
UVC LAMP DATA

MODEL	HEAT EXCHANGER (mm)		UVC LAMP Model	DISINFECTION At COIL SURFACE	IRRADIANCE		Remarks
	Height	Length			Min (uW/CM ²)	Max (uW/CM ²)	
40VDS005W	459	762	TUV 36 T5 HO 4P-SE	>99%	694.03	1,360.30	UVC T5 75W 1 Lamp
40VDS006W	459	740	TUV 36 T5 HO 4P-SE	>99%	694.03	1,360.30	UVC T5 75W 1 Lamp
40VDS008W	459	1,194	TUV 36 T5 HO 4P-SE	>99%	619.25	1,360.30	UVC T5 75W 1 Lamp
40VDS010W	508	1,220	TUV 36 T5 HO 4P-SE	>99%	619.25	1,360.30	UVC T5 75W 1 Lamp
40VDS012W	560	1,372	TUV 36 T5 HO 4P-SE	>99%	817.87	1,902.51	UVC T5 75W 2 Lamps
40VDS015W	560	1,676	TUV 64 T5 HO 4P-SE	>99%	444.02	1,032.36	UVC T5 145W 1 Lamp

BAS Controller (Option)

Model CARR-INTM9DT09X

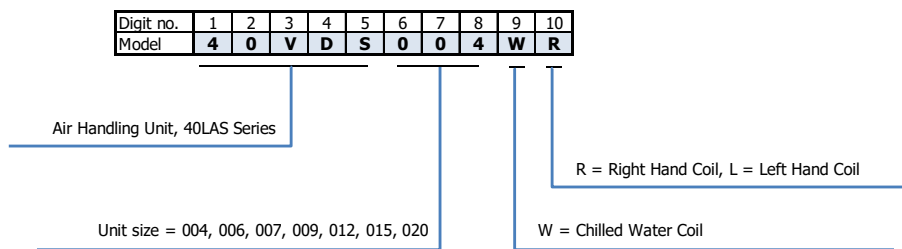
- Open communication protocol Modbus RS-485
- Manages the DC motor or EC motor
- Manages the valve actuator proportional type
- External contract for key card ON-OFF



Thermostat & Remote Control (Option)



Model Nomenclature



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Carrier reserves the right to make changes in specifications without prior notice.

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