



Water Loop Heat Pump

Split Type



Packaged Type



Summary

Water Loop Heat Pump units are new models developed by Vicot, characterized in high-efficiency and non-pollution. Cooling and heating can be selected by purpose that reduces running cost. It combined the merits of both central air conditioners and home air conditioners, so the air conditioning room temperature can be adjusted separated or centralized. Currently Water Loop Heat Pump is commonly applied to office buildings, hotels, health care facilities, banks, schools, condominium and apartments.

Water Loop Heat Pump units have split, packaged vertical and packaged horizontal three main models and hundreds of products for your choices.

Features

High-Efficiency

Compared with normal Chillers, the units have better performance, especially when cooling and heating are both working, the EER can reach over 4.0 and its running expenses can be decreased by 30~40%.

Low Investment

The units are no need of specialized refrigeration room constructed, so the space cost can be saved; with higher the transformer capability could be reduce nearly 30%, meanwhile the electricity cost is also saved.

Intelligent Control

Each unit is intelligently controlled by PC as split model through remote and line control; or at most 32 units can be controlled centralized also.

Security Design

The units resist from high pressure, superheat, and frostbite to work smoothly.

Simple Installation

The units can be installed either in suspended ceilings or under a floating floor in noise-sensitive environment, where sound levels must be at a minimum.

Independent Charges

When the system is used for rent apartment or office building, shops and residential compartments, each unit can have independent ammeter. The consumption of the power becomes lower simultaneously.

Low Running Cost

Water saving, water recycling and non pollution – one-off investment is only $\frac{1}{2}$ - $\frac{2}{3}$ of the normal air conditioner cost (winter $\frac{2}{3}$, summer $\frac{1}{3}$, compared with the normality).

Superior Configuration

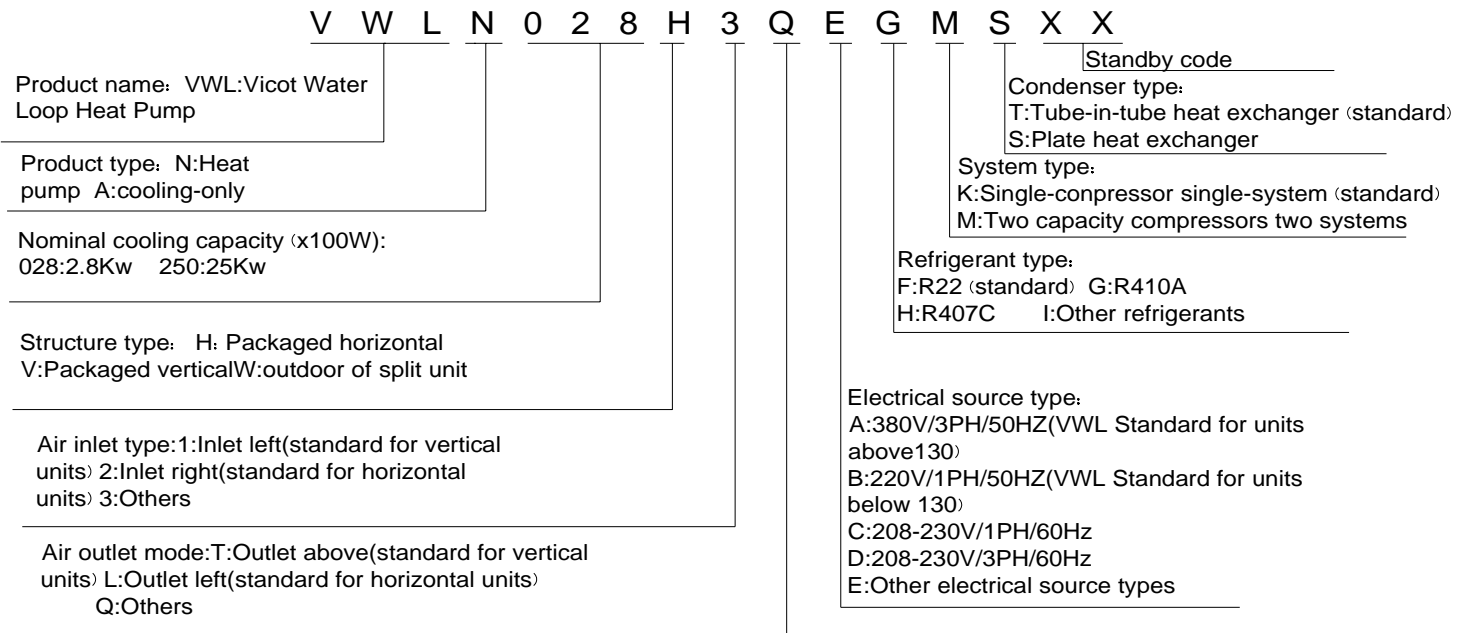
The frame hardware is fully insulated with meticulously studied soundproofing materials, which ensures the units run efficiently and smoothly.

More Choices

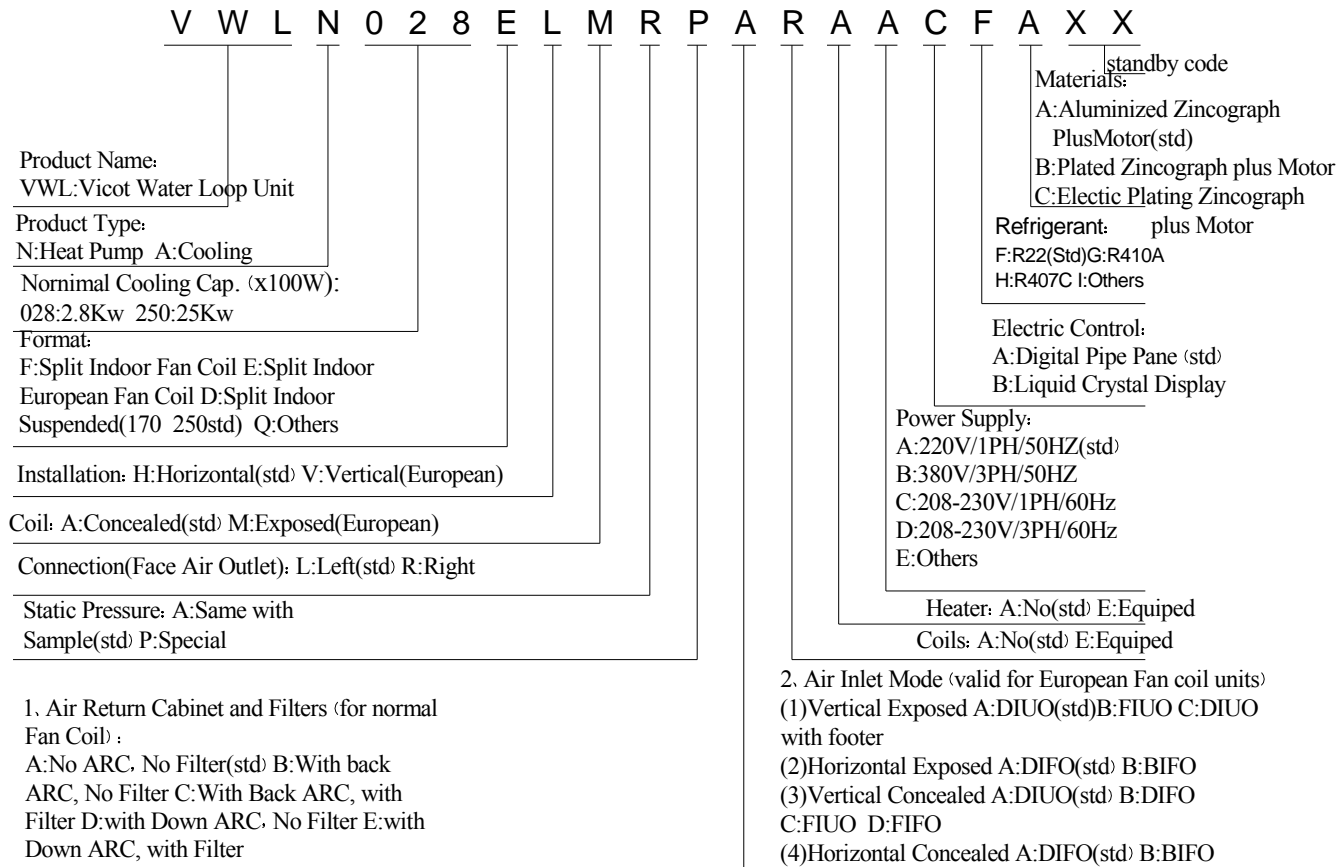
3 main models and hundreds of products could satisfy different customers' needs. Especially, the low-cost Split Indoor units and the honorable European Fan Coil models.

Nomenclature

Package & split units



Split Indoor Unit



Technical Data

Normal Split Fan Coil Units Technical Data

MODEL	OUTDOOR		VWLN025W	VWLN028W	VWLN032W	VWLN044W	VWLN050W	VWLN062W	VWLN078W	VWLN088W	VWLN095W	VWLN110W	VWLN130W	VWLN170W	VWLN250W	
	INDOOR		VWLN025F	VWLN028F	VWLN032F	VWLN044F	VWLN050F	VWLN062F	VWLN078F	VWLN088F	VWLN095F	VWLN110F	VWLN130F	VWLN170D	VWLN250D	
Nominal Cooling Capacity	kW		2.42	2.81	3.14	4.35	5.01	6.16	7.79	8.8	9.51	10.7	13.19	16.62	24.33	
Nominal Heating Capacity	kW		2.66	3.09	3.45	4.79	5.51	6.78	8.57	9.68	10.46	11.77	14.51	18.28	26.76	
Nominal Air Flow	m ³ /h		450	500	560	780	900	1100	1400	1600	1700	1930	2400	3000	4400	
	CFM		265	294	329	459	529	647	824	941	1000	1135	1412	1765	2588	
Static Pressure	Pa		10	10	10	30	30	30	30	30	30	30	50	80	100	
Power Cooling Input	W		620	700	800	1100	1240	1530	1940	2200	2000	2300	2840	3520	4730	
Power Heating Input	W		645	730	830	1150	1300	1600	2020	2080	2290	2390	2980	3690	4930	
Rated Cooling Current	A		3.1	3.5	4	5.5	6.2	7.65	9.7	10	11	11.5	5.7	7	9.1	
Rated Heating Current	A		3.2	3.7	4.2	5.8	6.5	8.0	10.1	10.4	11.5	12.0	5.9	7.2	9.4	
Refrigerant	Type		R22													
Compressor			Rotator								Scroll					
OUTDOOR	Condenser	Water Flow	m ³ /h	0.52	0.60	0.68	0.94	1.08	1.47	1.67	1.89	1.98	2.43	2.76	3.46	5.00
		Water Pressure Drop	kPa	12	23	45	21	27	40	42	40	45	68	40	51	62
		Inlet/outlet Pipes		Rc1/2	Rc1/2	Rc1/2	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc1
		Types		Tube in tube heat exchanger												
		Dimensions (mm)		Length	560	560	560	560	560	560	560	560	698	698	698	698
		Width	289	289	289	289	289	289	289	289	367	367	367	367	367	600
		Height	360	360	360	418	418	418	500	500	500	500	500	500	500	600
Weight	kg		26	28	30	34	36	40	60	62	64	71	76	90	110	

		Power Supply	V/pH/Hz	220V/1pH/50HZ									380V/3pH/50HZ			
INDOOR UNITS	Dimensions (mm)	Length		910	910	910	910	1060	1060	1260	1510	1510	1860	1860	1660	1660
		Width		493	493	493	493	493	493	493	493	493	493	493	915	915
		Height		230	230	230	230	230	230	230	230	230	230	230	230	480
	Weight	kg		17	17	18	19	21	23	30	34	34	35	37	90	100
	Power Supply	V/pH/Hz	220V/1pH/50HZ													
	Condenser Pipe	in		R3/4	R3/4	R3/4	R3/4	R3/4	R3/4	R3/4	R3/4	R3/4	R3/4	R3/4	R3/4	R1
Pipe Dimensions	Liquor	Φmm		6.35	6.35	6.35	6.35	6.35	6.35	6.35	12.7	12.7	12.7	12.7	12.7	12.7×2
	Air	Φmm		9.52	9.52	9.52	12.7	12.7	12.7	12.7	19.05	19.05	19.05	19.05	19.05	19.05×2

Note:

1. Noise data is measured in Semi-anechoic Rooms according to the relative national system requirements.
2. Nominal cooling capacity is measured in condition: indoor D.B.: t(d)=27 °C W.B.: t(w)= 19 °C; water inlet temperature: t=30 °C; water outlet temperature : t= 35 °C. Nominal heating capacity is measured in condition: indoor D.B.:t(d)=20 °C W.B.:t(w)=15 °C; water inlet temperature: t=20 °C.
3. Standard data will be varied with products improving, please take the data marked on nameplates of units as standard.

Split European Fan Coil Units

MODEL	OUTDOOR		VWLN025W	VWLN028W	VWLN032W	VWLN044W	VWLN050W	VWLN062W	VWLN078W	VWNL088W	VWLN095W	VWLN110W	VWLN130W		
	INDOOR		VWLN025E	VWLN028E	VWLN032E	VWLN044E	VWLN050E	VWLN062E	VWLN078E	VWLN088E	VWLN095E	VWLN110E	VWLN130E		
Nominal Cooling Capacity	kW		2.42	2.81	3.14	4.35	5.01	6.16	7.79	8.8	9.51	10.7	13.19		
Nominal Heating Capacity	kW		2.66	3.09	3.45	4.79	5.51	6.78	8.57	9.68	10.46	11.77	14.51		
Nominal Air Flow	m ³ /h		450	500	560	780	900	1100	1400	1600	1700	1930	2400		
	CFM		265	294	329	459	529	647	824	941	1000	1135	1412		
Static Pressure	Pa		0	0	0	30	30	30	30	30	30	30	50		
Power Cooling Input	W		620	700	800	1100	1240	1530	1940	2200	2000	2300	2840		
Power Heating Input	W		645	730	830	1150	1300	1600	2020	2080	2290	2390	2980		
Rated Cooling Current	A		3.1	3.5	4	5.5	6.2	7.65	9.7	10	11	11.5	5.7		
Rated Heating Current	A		3.2	3.7	4.2	5.8	6.5	8.0	10.1	10.4	11.5	12.0	5.9		
Refrigerant	Type	R22													
Compressor		Rotator									Scroll				
OUTDOOR UNIT	Condenser	Water Flow	m ³ /h	0.52	0.60	0.68	0.94	1.08	1.47	1.67	1.89	1.98	2.43	2.76	
		Water Pressure	kPa	12	23	45	21	27	40	42	40	45	68	40	
		Inlet/outlet Pipes		Rc1/2	Rc1/2	Rc1/2	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	
		Types		Tube in tube heat exchanger											
		Dimensions (mm)	L	560	560	560	560	560	560	560	560	698	698	698	698
		W	289	289	289	289	289	289	289	289	367	367	367	367	
		H	360	360	360	418	418	418	418	500	500	500	500	500	
	Weight	kg	26	28	30	34	36	40	60	62	64	71	76		
	Power Supply	V/pH/Hz	220V/1pH/50HZ											380V/3pH/50HZ	
	INDOOR UNIT	Dimensions (mm)	L	908	958	1058	1058	1058	1308	1908	1908	1908	2008	2008	

		W	235	235	235	235	235	235	235	235	235	235	235
		H	473	473	473	473	473	473	473	473	473	473	473
	Weight	kg	23	24	25	26	28	30	37	41	42	43	48
	Power Supply	V/pH/Hz	220V/1pH/50HZ										
	Condenser Pipe	in	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2
Pipe Dimensions	Liquor	Φmm	6.35	6.35	6.35	6.35	6.35	9.52	9.52	9.52	12.7	12.7	12.7
	Air	Φmm	9.52	9.52	9.52	12.7	12.7	15.88	15.88	15.88	19.05	19.05	19.05

Note:

- Noise data is measured in Semi-anechoic Rooms according to the relative national system requirements.
- Nominal cooling capacity is measured in condition: indoor D.B.: t(d)=27 °C W.B.: t(w)= 19 °C; water inlet temperature: t=30 °C; water outlet temperature : t= 35 °C. Nominal heating capacity is measured in condition: indoor D.B.:t(d)=20 °C W.B.:t(w)=15 °C; water inlet temperature: t=20 °C.
- Standard data will be varied with products improving, please take the data marked on nameplates of units as standard

Packaged Units

MODEL	Horizontal	VWLN025H	VWLN028H	VWLN032H	VWLN044H	VWLN050H	VWLN062H	VWLN078H	VWLN088H	VWLN095H	VWLN110H	VWLN130H	VWLN170H	VWLN250H
	Vertical	VWLN025V	VWLN028V	VWLN032V	VWLN044V	VWLN050V	VWLN062V	VWLN078V	VWLN088V	VWLN095V	VWLN110V	VWLN130V	VWLN170V	VWLN250V
Nominal Cooling Capacity	kW	2.42	2.81	3.14	4.35	5.01	6.16	7.79	8.8	9.51	10.7	13.19	16.62	24.33
Nominal Heating Capacity	kW	2.66	3.09	3.45	4.79	5.51	6.78	8.57	9.68	10.46	11.77	14.51	18.28	26.76
Nominal Air Flow	m ³ /h	450	500	560	780	900	1100	1400	1600	1700	1930	2400	3000	4400
	CFM	265	294	329	459	529	647	824	941	1000	1135	1412	1765	2588
Static Pressure	Pa	10	10	10	30	30	30	30	30	30	30	50	80	100
Power Supply	V/pH/Hz	220V/1pH/50HZ											380V/3pH/50HZ	
Power Colling Input	W	620	700	800	1100	1240	1530	1940	2200	2000	2300	2840	3520	4730
Power Heating Input	W	645	730	830	1150	1300	1600	2020	2080	2290	2390	2980	3690	4930
Rated Cooling Current	A	3.1	3.5	4	5.5	6.2	7.65	9.7	10	11	11.5	5.7	7	9.1
Rated Heating Current	A	3.2	3.7	4.2	5.8	6.5	8.0	10.1	10.4	11.5	12.0	5.9	7.2	9.4

Refrigerant		Type	R22													
Compressor		Rotator								Scroll						
Water Flow		m ³ /h	0.52	0.60	0.68	0.94	1.08	1.47	1.67	1.89	1.98	2.43	2.76	3.46	5.00	
Water Pressure Drop		kPa	12	23	45	21	27	40	42	40	40	40	40	43	62	
Inlet/outlet Pipe			Rc1/2	Rc1/2	Rc1/2	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc1	
DIMENSIONS	Horizontal	Length (mm)	1033	1033	1033	1033	1033	1033	1033	1233	1233	1233	1233	1333	1800	
		Width (mm)	535	535	535	535	535	535	535	535	715	715	715	715	790	1000
		Height (mm)	375	375	375	420	420	420	420	420	500	500	500	500	500	650
	Vertical	Length (mm)	550	550	550	550	550	550	550	550	550	630	630	630	710	710
		Width (mm)	550	550	550	550	550	550	550	550	550	630	630	630	710	1060
		Height (mm)	790	790	790	790	790	790	790	940	940	1090	1090	1190	1190	1190
Weight	Horizontal	kg	60	62	64	72	72	76	80	90	100	110	120	150	190	
	Vertical	kg	80	85	90	95	100	110	120	125	133	150	160	175	220	
Condenser Pipe		in	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R1/2	R3/4	

Note:

- Noise data is measured in Semi-anechoic Rooms according to the relative national system requirements.
- Nominal cooling capacity is measured in condition: indoor D.B.: $t(d)=27\text{ }^{\circ}\text{C}$ W.B.: $t(w)=19\text{ }^{\circ}\text{C}$; water inlet temperature: $t=30\text{ }^{\circ}\text{C}$; water outlet temperature : $t=35\text{ }^{\circ}\text{C}$. Nominal heating capacity is measured in condition: indoor D.B.: $t(d)=20\text{ }^{\circ}\text{C}$ W.B.: $t(w)=15\text{ }^{\circ}\text{C}$; water inlet temperature: $t=20\text{ }^{\circ}\text{C}$.
- Standard data will be varied with products improving, please take the data marked on nameplates of units as standard.

Correlation Factors

Indoor Conditions Correlation Factors

Cooling Return Air W.B. Temp.	Total Cooling Capacity	Cooling Power	Sensible heating capacity (different D.B. Temp)					Heating Return Air D.B. Temp.	Total Heating Capacity	Heating Power
			19℃	21℃	24℃	27℃	32℃			
10℃	0.75	0.92	/	/	/	/	/	12℃	1.06	0.92
15℃	0.85	0.94	0.79	0.85	/	/	/	15℃	1.04	0.96
17℃	0.93	0.97	0.51	0.72	0.93	1.13	/	17℃	1.02	0.98
19℃	1.00	1.00	0.38	0.56	0.79	1.00	1.22	20℃	1.00	1.00
23℃	1.13	1.03	/	/	0.53	0.73	0.93	23℃	0.98	1.02
24℃	1.19	1.05	/	/	/	0.51	0.73	27℃	0.96	1.05

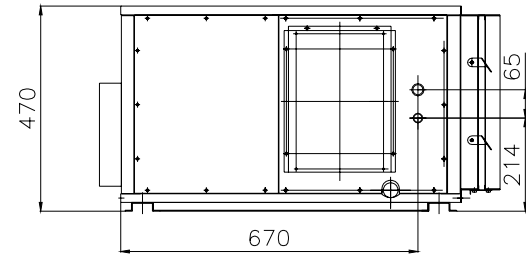
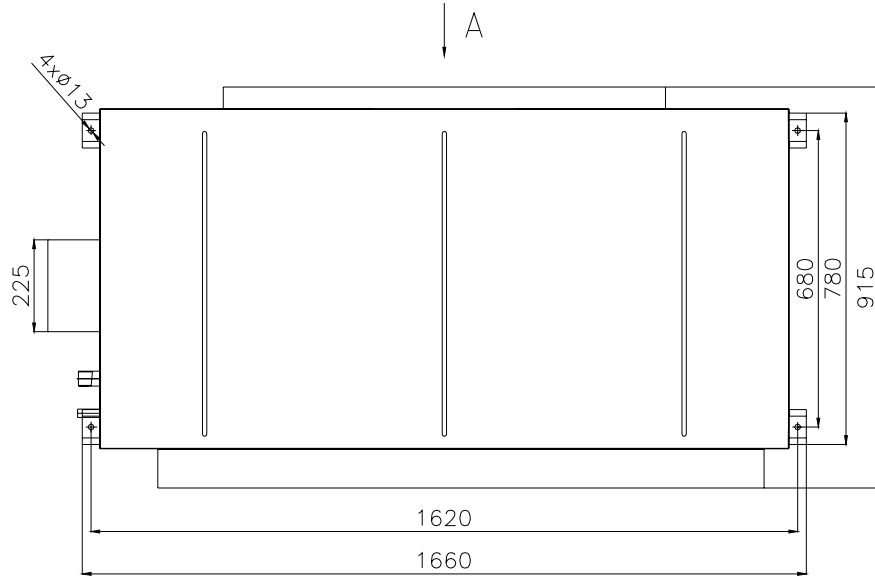
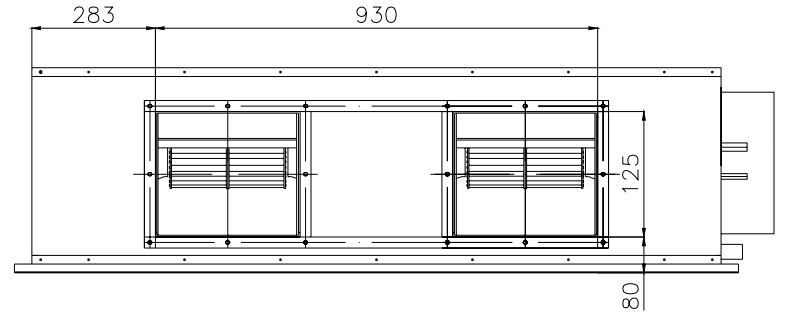
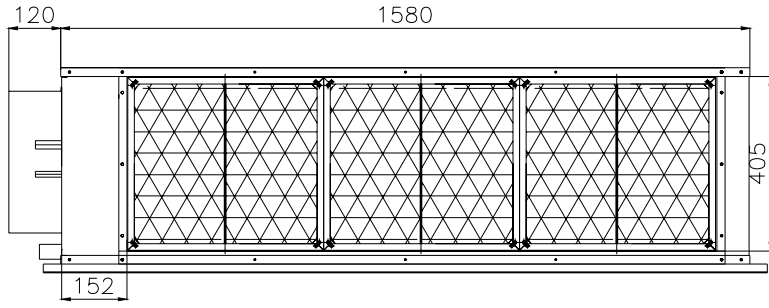
Entering Water Correlation Factors

Return Air Conditions 27/19℃			Return Air Conditions 20/15℃		
Temp. Water Inlet	Cooling Capacity	Cooling Power	Temp. Water Inlet	Heating Capacity	Heating Power
15℃	1.15	0.79	10℃	0.85	0.90
20℃	1.10	0.86	15℃	0.93	0.95
25℃	1.05	0.93	20℃	1.00	1.00
30℃	1.00	1.00	25℃	1.08	1.05
35℃	0.95	1.07	30℃	1.17	1.10
40℃	0.90	1.14	35℃	1.26	1.15

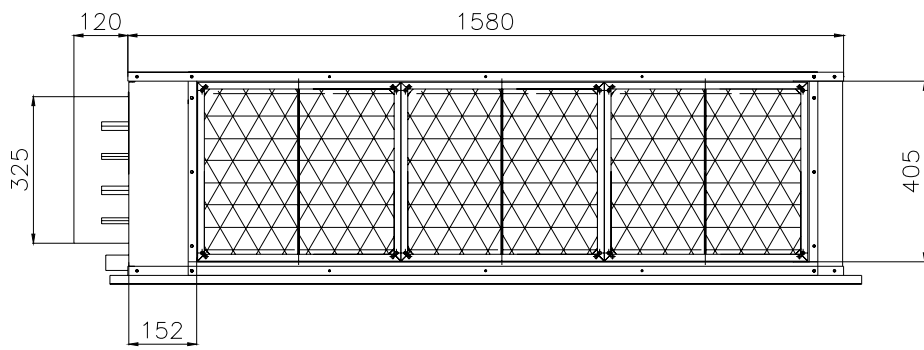
Water Temp. Difference Correlation Factors

Diff. Water Temp.	5℃	6℃	7℃	8℃	9℃	10℃
Water Flow Volume Correlation	1.00	0.85	0.73	0.64	0.57	0.51
Cooling Capacity Correlation	1.00	1.00	0.99	0.98	0.97	0.94

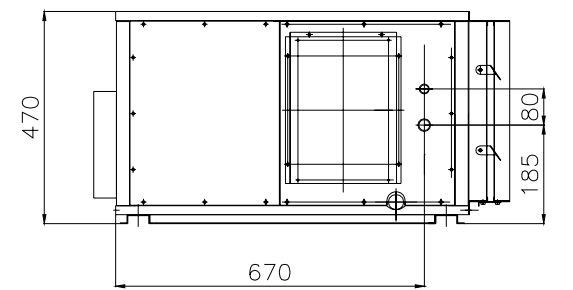
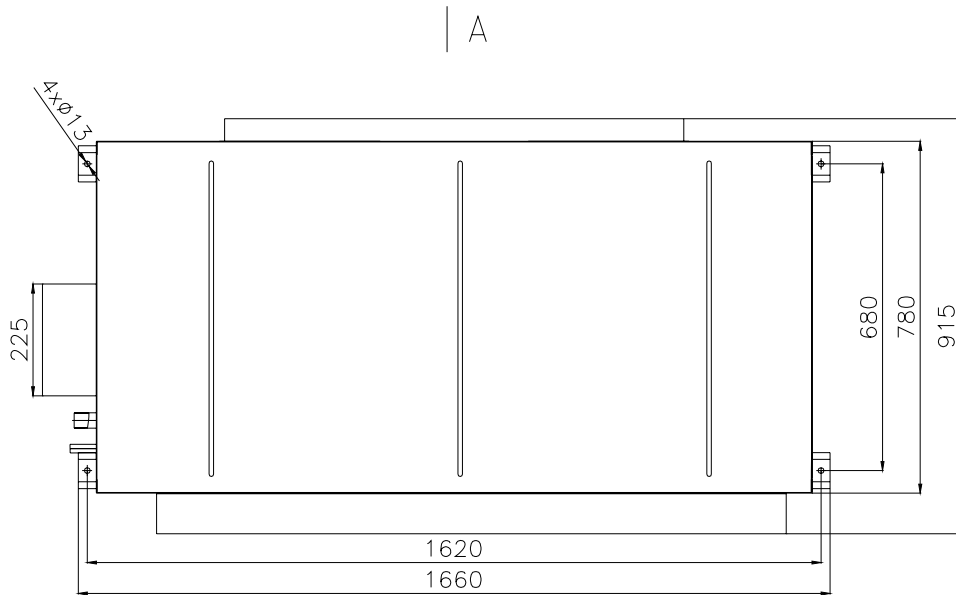
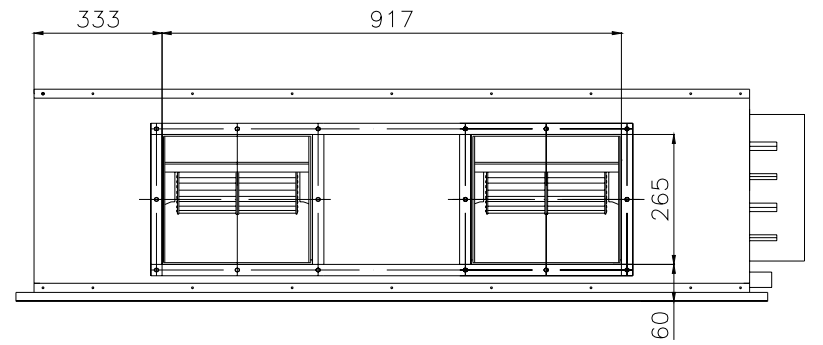
A direction



VWLN170D

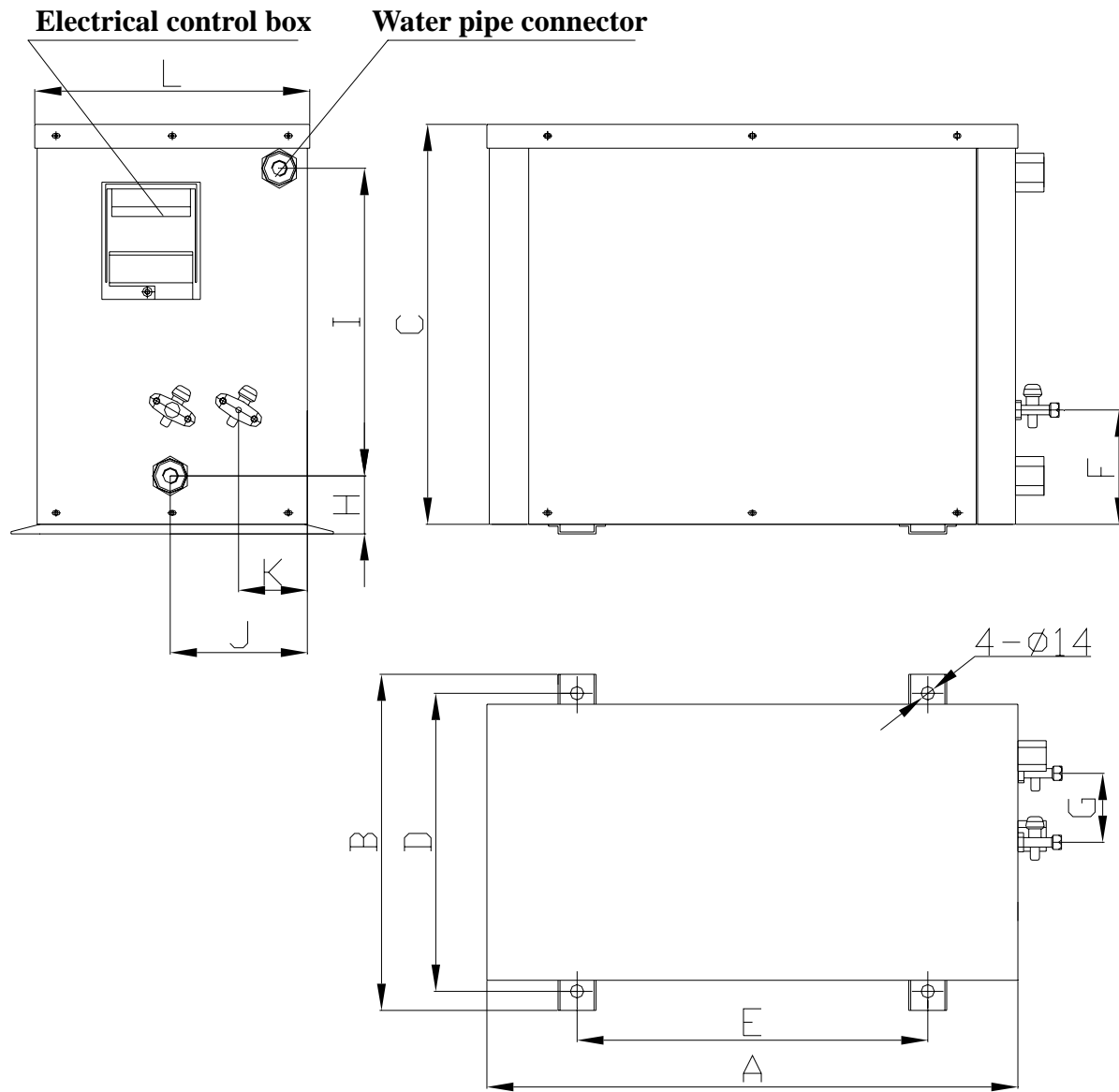


A direction



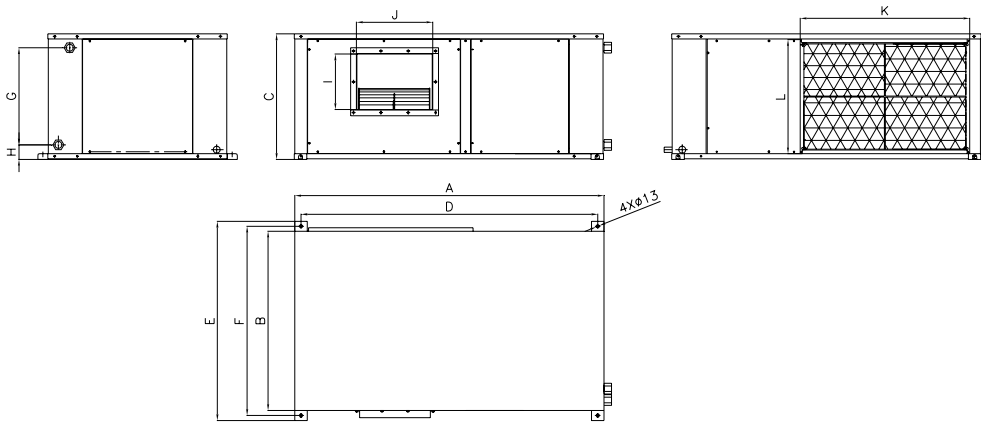
VWLN250D

Split Units



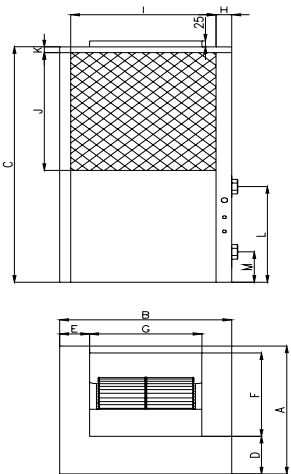
Model	VWLN025W	VWLN028W	VWLN032W	VWLN044W	VWLN050W	VWLN062W	VWLN078W	VWLN088W	VWLN095W	VWLN110W	VWLN130W	VWLN170W	VWLN250W
A	560	560	560	560	560	560	560	698	698	698	698	698	900
B	353	353	353	353	353	353	353	418	418	418	418	638	638
C	360	360	360	418	418	418	500	500	500	500	500	500	500
D	313	313	313	313	313	313	313	390	390	470	470	470	560
E	370	370	370	370	370	370	370	510	510	610	610	700	700
F	120	120	120	120	120	120	120	70	70	70	70	70	70
G	90	90	90	90	90	90	90	100	100	100	100	100	100
H	50	50	50	50	50	50	50	50	50	50	50	50	50
I	263	263	263	323	323	323	323	388	388	388	388	388	388
J	145	145	145	145	145	145	145	85	85	85	85	85	85
K	70	70	70	70	70	70	70	70	70	70	70	70	70
L	289	289	289	289	289	289	289	367	367	367	367	367	600

Packaged Horizontal Units



MODEL	VWLN025H	VWLN028H	VWLN032H	VWLN044H	VWLN050H	VWLN062H	VWLN078H	VWLN088H	VWLN095H	VWLN110H	VWLN130H	VWLN170H	VWLN250H
A	1033	1033	1033	1033	1033	1033	1033	1233	1233	1233	1233	1333	1800
B	535	535	535	535	535	535	535	715	715	715	715	790	1000
C	375	375	375	420	420	420	420	500	500	500	500	500	650
D	983	983	983	983	983	983	983	1183	1183	1183	1183	1283	1750
E	618	618	618	618	618	618	618	795	795	795	795	870	750
F	578	578	578	578	578	578	578	755	755	755	755	830	710
G	263	263	263	323	323	323	323	388	388	388	388	388	384
H	65	65	65	56	56	56	56	56	56	56	56	56	100
I	108	108	108	108	108	108	114	190	190	221	221	262	252
J	200	200	200	200	200	200	200	272	272	304	304	282	326
K	530	530	530	530	530	530	530	576	676	576	676	776	1358
L	325	325	325	370	370	370	370	458	458	458	458	458	405

Packaged Vertical Units



MODEL	VWLN025V	VWLN028V	VWLN032V	VWLN044V	VWLN050V	VWLN062V	VWLN078V	VWLN088V	VWLN095V	VWLN110V	VWLN130V	VWLN170V	VWLN250V
A	550	550	550	550	550	550	550	550	630	630	630	710	710
B	550	550	550	550	550	550	550	550	630	630	630	710	1060
C	790	790	790	790	790	790	940	940	1090	1090	1190	1190	1190
D	150	150	150	150	150	150	150	150	170	170	170	170	170
E	90	90	90	90	90	90	90	90	180	180	180	180	350
F	360	360	360	360	360	360	360	360	410	410	410	410	410
G	360	360	360	360	360	360	360	360	460	460	460	460	460
H	40	40	40	40	40	40	40	40	40	40	40	40	40
I	470	470	470	470	470	470	470	470	550	550	550	630	1000
J	350	350	350	350	350	350	460	460	460	460	650	650	650
K	20	20	20	20	20	20	20	20	20	20	20	20	20
L	100	100	100	100	100	100	100	100	100	100	100	100	150
M	323	323	323	323	323	323	374	374	374	400	400	400	400