

UDS Ceiling Concealed



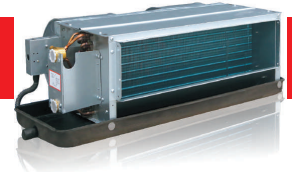
UDS 2 rows 2 pipes

UDS Ceiling Concealed		200H	300H	400H	500H	600H	700H	800H	1000H	1200H	1400H	
Air Flow m³/h	High	360	530	710	890	1060	1200	1420	1760	2120	2450	
	Medium	275	415	540	670	800	950	1100	1360	1620	2050	
	Low	200	280	360	450	580	690	770	1000	1130	1350	
Total Cooling Capacity W	High	2000	2750	3650	4300	4900	5600	6950	8200	9500	11400	
	Medium	1730	2365	3100	3700	4250	4800	6000	7200	8300	9700	
	Low	1400	1950	2550	3000	3450	3950	5000	5950	6750	8000	
Sensible Cooling Capacity W	High	1450	2000	2600	3050	3550	4050	5050	6000	6850	8300	
	Medium	1200	1700	2150	2500	3000	3350	4100	5000	5650	6900	
	Low	950	1350	1720	2020	2300	2650	3400	4000	4550	5500	
Heating Capacity W		High	3300	4650	6050	7400	8400	9550	11700	14000	19100	
Rated Power Input (AC Motor) W	12Pa	High	30	45	55	72	95	100	125	150	180	228
		Medium	27	38	43	58	80	90	105	130	145	185
		Low	23	30	35	48	68	75	90	110	115	150
	30Pa	High	38	56	65	82	100	120	140	170	190	253
		Medium	32	42	50	64	80	105	124	160	165	210
		Low	27	33	37	53	70	90	110	140	140	170
	50Pa	High	45	60	75	91	115	130	165	180	220	260
		Medium	36	54	65	86	105	110	150	175	190	230
		Low	30	47	55	73	90	96	125	155	160	200
Sound Pressure Level dB(A)	12Pa	High	36.5	36	39	40.5	45	46	44.5	47.5	48.5	50.5
		Medium	30	28.5	30.5	31.5	38.5	41	36.5	41	39.5	45
		Low	20.5	20	23	22.5	30.5	33	27.5	32	30.5	36
	30Pa	High	38	40	42	44	46.5	48	46.5	49	50	52
		Medium	30.5	32	34	37	38.5	45.5	39	42.5	43	47
		Low	23	25	25.5	27	30.5	38	31	33	34.5	37
	50Pa	High	42	42.5	45	47	49	50	50	52	52	53
		Medium	37	35	37	39	39	44.5	42.5	48	44	49
		Low	29	26.5	27	29.5	32	34.5	31	40.5	35	43
Fan	Type	Centrifugal(Blade:Forward-Curved)										
	Quantity	1	2	2	2	2	2	3	4	4	4	
Motor	Type	Split-capacitor motor with ball bearing										
	Insulation Class	B										
	Protection Class	IP20										
	Power Supply	220V~50Hz										
	Quantity	1	1	1	1	1	1	2	2	2	2	
Coil	Type	Seamless copper tube mechanically bonded to aluminum hydrophilic fin										
	Max. Working Pressure MPa	1.6										
	Pipe Connection	Rc3/4 (Taper Pipe Female Threaded)										
	Water Flow Rate m³/h	0.36	0.54	0.66	0.79	0.89	0.97	1.19	1.42	1.65	1.98	
Water Resistance	Cooling Mode kPa	30	30	30	30	40	40	35	40	40	50	
	Heating Mode kPa	20	20	25	25	35	35	30	35	35	45	
Condensate Drain Pan	Pipe Connection	Rc3/4 (Taper Pipe Male Threaded)										
Dimension (Without return air plenum)	L mm	670	805	905	965	1060	1205	1485	1530	1785	1785	
	W mm	470	470	470	470	470	470	470	470	490	490	
	H mm	230	230	230	230	230	230	230	230	250	305	
Net Weight (AC) kg	Without plenum box kg	10.9	12.4	14.8	15.7	17.5	18.6	23.8	26.1	30.5	33.3	
	With plenum box kg	13.2	14.9	18	18.9	21	22.3	28.2	30.8	26.5	39.5	

Note:

- Cooling capacity is based on the following:
 - Water temperature: 7°C (inlet)/12°C (outlet)
 - Air entering condition: 27°C DB/19.5°C WB
- Heating capacity is based on the following (with same water flow rate as cooling cycle):
 - Water temperature: 60°C (inlet)
 - Air entering condition: 21°C DB
- Low ESP means 0Pa with air vent & filter and 12Pa without air vent& filter.
- The air volume is tested under entering air condition of 20°C DB and dry coil condition.
- The sound pressure level is based on 11.5dB(A) hemi-anechoic room background noise.
- Can adjust left or right direction at site, but correct cooling & heating capacity must multiply correction factor 0.9 after adjustment.
- The manufacturer reserves the rights to make changes to the above specifications without prior notice.

UDS Ceiling Concealed



UDS 3 rows 2 pipes

UDS Ceiling Concealed		200H	300H	400H	500H	600H	700H	800H	1000H	1200H	1400H	
Air Flow m³/h	High	340	510	680	850	1020	1170	1360	1700	2040	2380	
	Medium	270	380	510	640	780	880	1030	1290	1540	1850	
	Low	190	280	340	450	560	610	740	890	1040	1255	
Total Cooling Capacity W	High	2210	3200	4150	5000	5950	6600	8100	9100	11250	13000	
	Medium	1990	2782	3570	4197	5200	5600	6882	8200	9613	11700	
	Low	1635	2304	2950	3298	4200	4600	5749	6700	7403	7560	
Sensible Cooling Capacity W	High	1590	2285	2880	3570	4200	4700	5880	6700	8260	9750	
	Medium	1400	1920	2420	2930	3570	3900	4880	5700	6935	8280	
	Low	1050	1555	1930	2210	2900	3200	3935	4500	5120	5945	
Heating Capacity W		High	3900	5200	6500	7870	9800	10900	13570	14900	22100	
Rated Power Input (AC Motor) W	12Pa	High	30	45	55	72	90	100	128	150	189	228
		Medium	27	36	43	58	80	97	112	130	165	198
		Low	23	30	35	48	68	78	95	110	136	165
	30Pa	High	38	55	65	82	100	120	148	170	212	253
		Medium	32	45	50	64	80	105	133	160	195	230
		Low	27	33	37	53	70	90	128	140	170	195
	50Pa	High	45	62	75	91	115	130	165	200	250	290
		Medium	36	50	65	86	105	110	150	190	230	270
		Low	30	42	55	73	90	96	122	170	200	250
Rated Power Input (Brushless DC Motor) W	12Pa	High	17	25	31	43	55	79	75	121	159	175
		Medium	11	12	15	24	28	40	33	57	58	97
		Low	7	8	9	12	15	20	19	27	30	39
	30Pa	High	25	31	47	57	79	97	89	145	190	195
		Medium	13	16	20	28	34	48	41	66	65	103
		Low	8	9	10	14	17	22	25	29	33	43
	50Pa	High	31	45	53	65	93	117	119	177	220	244
		Medium	17	19	24	35	47	56	50	76	80	127
		Low	9	11	12	16	23	24	25	30	37	48
Sound Pressure Level dB(A)	12Pa	High	35	38	39	41	45	46	46	47	49	51
		Medium	28.5	30	31	32	39	41	40	41	44	47
		Low	20.5	21	22	24	33	31	31	32	34	36
	30Pa	High	38	41	42.5	45	46.5	48	47	49	51	52
		Medium	30.5	32	34	38.5	38.5	41	40	43	46	48
		Low	23	22	22	29.5	31	32	32	34	35	36
	50Pa	High	42	43	45	47	49	50	50	52	53	53
		Medium	35.5	36	38	38.5	45	44	44	46	47.5	49
		Low	29	28	28	29	37	36	35	38	42	42
Fan	Type	Centrifugal (Blade: Forward-Curved)										
	Quantity	1	2	2	2	2	2	3	4	4	4	
Motor	Type	Split-capacitor motor with ball bearing										
		Brushless DC Motor (built-in AC-DC conversion module)										
	Insulation Class	B										
	Protection Class	IP20										
	Power Supply	220V~50Hz										
Coil	Type	Seamless copper tube mechanically bonded to aluminum hydrophilic fin										
	Max. Working Pressure MPa	1.6										
	Pipe Connection	Rc3/4 (Taper Pipe Female Threaded)										
	Water Flow Rate m³/h	0.42	0.55	0.72	0.87	1.05	1.12	1.39	1.67	1.90	2.23	
Water Resistance	Cooling Mode kPa	25	25	30	30	40	40	35	40	40	50	
	Heating Mode kPa	20	20	25	25	35	35	30	35	35	45	
Condensate Drain Pan	Pipe Connection	Rc3/4 (Taper Pipe Male Threaded)										
Dimension (Without return air plenum)	L mm	670	805	905	965	1060	1205	1485	1530	1785	1785	
	W mm	470	470	470	470	470	470	470	470	490	490	
	H mm	230	230	230	230	230	230	230	230	250	305	
Net Weight (AC) kg	Without plenum box kg	11.4	13	15.5	16.5	18.4	19.5	25	27.4	32	35	
	With plenum box kg	13.7	15.5	18.7	19.7	21.9	23.2	29.4	32.1	38	41.2	
Net Weight (DC) kg	Without plenum box kg	11.9	13.5	15.2	16	18	19.3	24.5	26	31	34	
	With plenum box kg	14.2	16	18.4	19.2	21.5	23	28.9	30.7	37	40.2	
Return air purifier	Model	TRP070BPF		TRD090BPF		TRP110BPF		TRP160BPF		TRP220BPF		
	Dimensions	836×276×54		1046×276×54		1246×276×54		1396×276×54		1546×276×54		
	Installation size	788×226		996×226		1196×226		1346×226		1496×226		
	Weight (kg)	2.8		3.4		3.9		4.3		4.9		
	Material	Aluminum										
Color	White											

Note:

- Cooling capacity is based on the following: a) Water temperature: 7°C (inlet)/12°C (outlet) b) Air entering condition: 27°C DB/19.5°C WB.
- Heating capacity is based on the following (with same water flow rate as cooling cycle): a) Water temperature: 60°C (inlet) b) Air entering condition: 21°C DB.
- Low ESP means 0Pa with air vent & filter and 12Pa without air vent & filter.
- The air volume is tested under entering air condition of 20°C DB and dry coil condition.
- The sound pressure level is based on 11.5dB(A) hemi-anechoic room background noise.
- Can adjust left or right direction at site, but correct cooling & heating capacity must multiply correction factor 0.9 after adjustment.
- FCU with return air purifier, correct air flow, cooling capacity and heating capacity must multiply by correction factor 0.85. In order to ensure enough air flow, cooling capacity and heating capacity, ESP 30Pa FCU is suggested to choose if ESP is 12Pa. ESP 50Pa FCU is suggested to choose if ESP is 30Pa.
- The manufacturer reserves the rights to make changes to the above specifications without prior notice.

UDS Ceiling Concealed



UDS 4 rows 2 pipes

UDS Ceiling Concealed		200H	300H	400H	500H	600H	700G	800H	1000H	1200H	1400H	
Air Flow m³/h	High	340	500	680	830	1000	1140	1340	1700	2040	2380	
	Medium	270	380	510	620	750	880	1030	1290	1540	1975	
	Low	190	240	340	420	560	610	720	890	1040	1255	
Total Cooling Capacity W	High	2600	3700	4800	5650	6850	7950	9500	11210	13200	15500	
	Medium	2250	3200	4150	4900	5900	6850	8200	9800	11350	13100	
	Low	1850	2660	3450	4000	5000	5700	6840	8150	9500	11000	
Sensible Cooling Capacity W	High	1810	2630	3400	3950	4900	5650	6750	8050	9400	10900	
	Medium	1560	2200	2850	3390	4150	4770	5700	6800	7900	9100	
	Low	1230	1700	2200	2660	3280	3740	4480	5350	6200	7150	
Heating Capacity W		High	4250	6000	7700	9100	11100	12800	15200	18000	21200	25000
Rated Power Input W	12Pa	High	32	45	55	73	91	100	120	148	187	228
		Medium	27	38	45	60	77	88	108	125	155	190
		Low	22	30	35	48	65	76	88	108	135	165
	30Pa	High	39	53	66	83	103	115	138	170	202	252
		Medium	32	42	50	66	88	100	120	155	175	218
		Low	28	34	38	55	77	86	105	135	150	190
	50Pa	High	45	60	73	90	112	130	162	175	219	265
		Medium	36	53	64	80	102	100	142	150	190	230
		Low	30	48	55	72	94	85	122	130	160	200
Sound Pressure Level dB(A)	12Pa	High	36.5	36	38.5	41.5	45	45	44	47	49	51
		Medium	30	30	30.5	33	39	39.5	37.5	41	38.5	46
		Low	21	20.5	22.5	24	32.5	33	28	32.5	29.5	37
	30Pa	High	38.5	40.5	42	44.5	46	47.5	47	49	50.5	52.5
		Medium	32	32.5	34.5	37.5	39	44	40	41	43	48
		Low	24	23	23.5	27.5	32	37.5	32	34	35.5	40
	50Pa	High	41.5	43.5	44.5	47	48.5	48.5	49	51.5	52	53.5
		Medium	37	38	37	41	41	43.5	44.5	46.5	46	50
		Low	30.5	29.5	27.5	32	33	35.5	33.5	38	37	45
Fan	Type	Centrifugal (Galvanized Steel Multi Blade:Forward-Curved)										
	Quantity	1	2	2	2	2	2	3	4	4	4	
Motor	Type	Split-capacitor motor										
	Insulation Class	B										
	Protection Class	IP20										
	Power Supply	220V~50Hz										
	Quantity	1	1	1	1	1	1	2	2	2	2	
Coil	Type	Seamless copper tube mechanically bonded to aluminum hydrophilic fin										
	Max. Working Pressure MPa	1.6										
	Pipe Connection	Rc3/4(Taper Pipe Female Threaded)										
	Water Flow Rate m³/h	0.46	0.67	0.87	1.01	1.23	1.42	1.7	2.02	2.43	2.87	
Water Pressure Drop kPa	(Cooling) kPa	20	20	25	25	35	35	35	35	35	45	
	(Heating) kPa	15	15	20	20	30	30	30	30	30	40	
Condensate Drain Pan	Pipe Connection	R 3/4(Taper Pipe Male Threaded)										
Dimension (Without return air plenum)	Length mm	670	805	905	965	1060	1205	1485	1530	1785	1785	
	Width mm	470	470	470	470	470	470	470	470	490	490	
	Height mm	230	230	230	230	230	230	230	230	250	305	
Net Weight	(Without return air plenum) kg	12.1	14	16.6	17.8	19.3	20.8	27.2	28.5	34	37.5	
	(With return air plenum) kg	14.4	16.5	19.8	21	22.8	24.5	31.6	33.2	40	43.7	

Note:

- Cooling capacity is based on the following:
 - Water temperature: 7°C (inlet)/12°C (outlet)
 - Air entering condition: 27°C DB/19.5°C WB
- Heating capacity is based on the following (with same water flow rate as cooling cycle):
 - Water temperature: 60°C (inlet)
 - Air entering condition: 21°C DB
- Low ESP means 0Pa with air vent & filter and 12Pa without air vent& filter.
- The air volume is tested under entering air condition of 20°C DB and dry coil condition.
- The sound pressure level is based on 11.5dB(A) hemi-anechoic room background noise.
- Can adjust left or right direction at site, but correct cooling & heating capacity must multiply correction factor 0.9 after adjustment.
- The manufacturer reserves the rights to make changes to the above specifications without prior notice.

UDS Ceiling Concealed



UDS 3+1 rows 4 Pipes

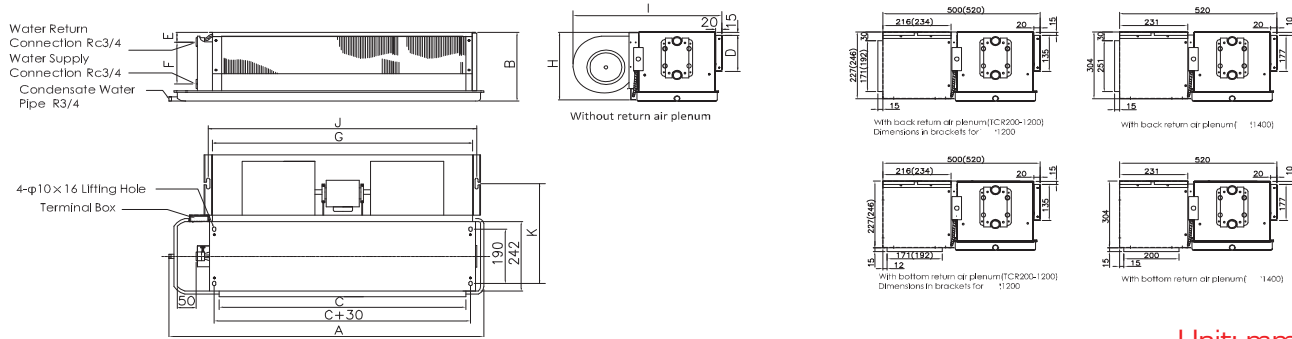
UDS Ceiling Concealed		200H	300H	400H	500H	600H	700H	800H	1000H	1200H	1400H	
Air Flow m³/h	High	340	500	680	830	1000	1140	1340	1700	2040	2380	
	Medium	270	380	510	620	750	880	1030	1290	1540	1975	
	Low	190	240	340	420	560	610	720	890	1040	1255	
Total Cooling Capacity W	High	2210	3200	4150	4800	5950	6800	7900	9200	10275	13500	
	Medium	1890	2782	3570	4150	5200	5900	6900	8000	8500	11000	
	Low	1500	2304	2950	3400	4200	5000	5800	6700	7450	9500	
Sensible Cooling Capacity W	High	1590	2285	2880	3400	4200	4700	5750	6600	7400	9400	
	Medium	1350	1920	2420	2880	3570	3900	4800	5500	6200	7900	
	Low	1050	1555	1930	2210	2900	3200	3700	4200	4930	6200	
Heating Capacity W		High	2050	3000	3850	4500	5650	6300	7550	8500	12700	
Rated Power Input (AC Motor) W	12Pa	High	32	45	55	73	91	100	120	148	187	228
		Medium	27	38	45	60	77	88	108	125	155	190
		Low	22	30	35	48	65	76	88	108	135	165
	30Pa	High	39	53	66	83	103	115	138	170	202	252
		Medium	32	42	50	66	88	100	120	155	175	218
		Low	28	34	38	55	77	86	105	135	150	190
	50Pa	High	45	60	73	90	112	130	162	175	219	265
		Medium	36	53	64	80	102	100	142	150	190	230
		Low	30	48	55	72	94	85	122	130	160	200
Sound Pressure Level dB(A)	12Pa	High	36.5	36	38.5	41.5	45	45	44	47	49	51
		Medium	30	30	30.5	33	39	39.5	37.5	41	38.5	46
		Low	21	20.5	22.5	24	32.5	33	28	32.5	29.5	37
	30Pa	High	38.5	40.5	42	44.5	46	47.5	47	49	50.5	52.5
		Medium	32	32.5	34.5	37.5	39	44	40	41	43	48
		Low	24	23	23.5	27.5	32	37.5	32	34	35.5	40
	50Pa	High	41.5	43.5	44.5	47	48.5	48.5	49	51.5	52	53.5
		Medium	37	38	37	41	41	43.5	44.5	46.5	46	50
		Low	30.5	29.5	27.5	32	33	35.5	33.5	38	37	45
Fan	Type	Centrifugal (Blade:Forward-Curved)										
	Quantity	1	2	2	2	2	2	3	4	4	4	
Motor	Type	Split-capacitor motor with ball bearing										
	Insulation Class	B										
	Protection Class	IP20										
	Power Supply	220V ~ 50Hz										
	Quantity	1	1	1	1	1	1	2	2	2	2	
Coil	Type	Seamless copper tube mechanically bonded to aluminum hydrophilic fin										
	Max. Working Pressure MPa	1.6										
	Pipe Connection	Rc3/4 (Taper Pipe Female Threaded)										
Water Flow Rate m³/h	Cooling Mode m³/h	0.39	0.63	0.73	0.86	1.04	1.17	1.39	1.65	1.90	2.23	
	Heating Mode m³/h	0.21	0.29	0.33	0.42	0.47	0.55	0.66	0.72	0.88	1.06	
Water Resistance	Cooling Mode kPa	25	25	30	30	40	40	40	40	40	50	
	Heating Mode kPa	10	15	20	25	30	30	30	40	35	45	
Condensate Drain Pan	Pipe Connection	Rc3/4 (Taper Pipe Male Threaded)										
Dimension (Without return air plenum)	L mm	670	805	905	965	1060	1205	1485	1530	1785	1785	
	W mm	470	470	470	470	470	470	470	470	490	490	
	H mm	230	230	230	230	230	230	230	230	250	305	
Net Weight (AC) kg	Without plenum box kg	12.1	14	16.6	17.8	19.3	20.8	27.2	28.5	34	37.5	
	With plenum box kg	14.4	16.5	19.8	21	22.8	24.5	31.6	33.2	40	43.7	

Note:

- Cooling capacity is based on the following:
 - Water temperature : 7°C (inlet)/12°C (outlet)
 - Air entering condition : 27°C DB/19.5°C WB
- Heating capacity is based on the following (with same water flow rate as cooling cycle):
 - Water temperature : 60°C (inlet)
 - Air entering condition : 21°C DB
- Low ESP means 0Pa with air vent & filter and 12Pa without air vent& filter.
- The air volume is tested under entering air condition of 20°C DB and dry coil condition.
- The sound pressure level is based on 11.5dB(A) hemi-anechoic room background noise.
- Can adjust left or right direction at site, but correct cooling & heating capacity must multiply correction factor 0.9 after adjustment.
- The manufacturer reserves the rights to make changes to the above specifications without prior notice.

Dimension

UDS Ceiling Concealed FCU 2 rows 3 rows

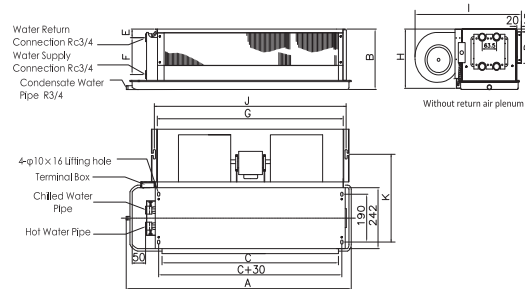


Unit: mm

Model	A	B	C	D	E	F	G	H	I	J	K	Motor Quantity	Fan Quantity
200	670	230	435	135	54	118	477	225	470	504	346	1	1
300	805	230	570	135	54	118	610	225	470	637	346	1	2
400	905	230	670	135	54	118	712	225	470	739	346	1	2
500	965	230	730	135	54	118	772	225	470	799	346	1	2
600	1060	230	825	135	54	118	867	225	470	894	346	1	2
700	1205	230	970	135	54	118	1012	225	470	1039	346	1	2
800	1485	230	1215	135	54	118	1257	225	470	1284	346	2	3
1000	1530	230	1255	135	54	118	1297	225	470	1324	346	2	4
1200	1785	250	1510	135	54	118	1552	240	490	1579	357	2	4
1400	1785	305	1510	177	54	160	1630	300	490	1657	358	2	4

Model	Length of return air plenum	Length of plenum wind-gap
200	483.6	422
300	615.6	557
400	725.6	657
500	775.6	717
600	870.6	812
700	1015.6	957
800	1260.6	1202
1000	1300.6	1242
1200	1555.6	1497
1400	1634	1596

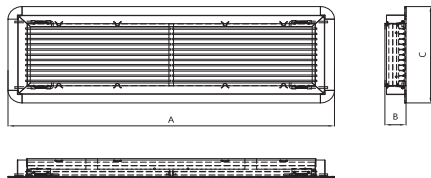
UDS Ceiling Concealed FCU (3+1 rows)



Model	A	B	C	D	E	F	G	H	I	J	K	Motor Quantity	Fan Quantity
200	670	230	435	135	54	118	477	225	470	504	346	1	1
300	805	230	570	135	54	118	610	225	470	637	346	1	2
400	905	230	670	135	54	118	712	225	470	739	346	1	2
500	965	230	730	135	54	118	772	225	470	799	346	1	2
600	1060	230	825	135	54	118	867	225	470	894	346	1	2
700	1205	230	970	135	54	118	1012	225	470	1039	346	1	2
800	1485	230	1215	135	54	118	1257	225	470	1284	346	2	3
1000	1530	230	1255	135	54	118	1297	225	470	1324	346	2	4
1200	1785	250	1510	135	54	118	1552	240	490	1579	357	2	4
1400	1785	305	1510	177	54	160	1630	300	490	1657	358	2	4

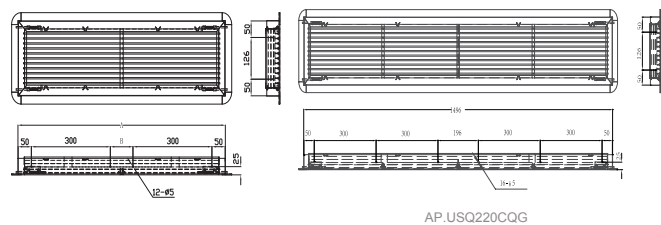
Return air purifiers

Outline Dimension



Model	A/(mm)	B/(mm)	C/(mm)
AP.USQ070CQG	836	54	276
AP.USQ090CQG	1046	54	276
AP.USQ110CQG	1246	54	276
AP.USQ160CQG	1396	54	276
AP.USQ220CQG	1546	54	276

Installation Dimension



Model	A/(mm)	B/(mm)
AP.USQ070CQG	786	86
AP.USQ090CQG	996	296
AP.USQ110CQG	1196	496
AP.USQ160CQG	1346	646