

AIR+PLUS

Air Conditioning Technologies



AP-FC-GTT Ceiling Type
Fan Coil Units

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Plug & Play

AP-FC-GTT-O Ceiling Type Fan Coil Units

AIRPLUS AP-FC-GTT- Medium Static Pressure Concealed Ceiling Type Fan Coil Units are the air conditioning devices of the individual use spaces in the buildings where central systems are installed. It is the essential air conditioning device of especially hotels, households, business centers, and shops and common spaces of Shopping Centers. AP-FC-GTT-O series concealed ceiling type fan coil devices are manufactured in three different models; four pipe-four row coil, two pipe-three row coil, and two pipe-two row coil.

► Product Material

AIRPLUS AP-FC-GTT-O Medium Static Pressure Concealed Ceiling Type Fan Coil Units series concealed ceiling type fan coils have a body, which is shaped with galvanized sheet. Internal and external bodies are formed by supported bending and press work to prevent noise and vibrations. Internal body is coated with 20 mm thick acoustic insulation. This insulation primarily prevents the noise as well as heat transfer on the body surface. High efficiency, low noise level (5 speed / 230 V /50 Hz) direct drive, double suction, and radial fan motors with pvc blades offers lower operating expenses and easy service.

Water coils are manufactured from high efficiency, seamless copper pipes and corrugated hydrophilic coated aluminum fins with increased surface area. Thanks to its hydrophilic coating, condensing water is transferred rapidly down to drain pan preventing additional pressure loss on the coil and providing desired constant air flow. Each coil is tested in factory conditions at 24 bar pressure and installed to the devices.

The drain pan is designed to retain condensation from the coil and the elements connected over the water inlet and outlet pipes thanks to its thermal insulation. The drain pan doesn't allow the condensate to condense on the surface of the pan until it goes to the drain line.

It provides easy of use and maintenance by its specially designed filter rail which makes it possible to remove filter from side or bottom and by its washable cassette filter which is made of propylene. Protection against impacts and water is provided by using special designed terminal box for electrical connections and BMS connection board installation.



► Optional Complementary Products

Fan Coil Mechanical Room Thermostat

- For FCU systems with two or four pipes
- Heating / Cooling mode selection
- 3-speed thermostatic fan control
- Motorized valve On/Off control
- Wall surface installation
- 230V AC, 50-60 Hz power supply
- 10°C -30°C temperature control range
- ± 1 ° C temperature accuracy
- 2A Max. current
- Thermostat in dimensions of 130 x 85 x 40 mm



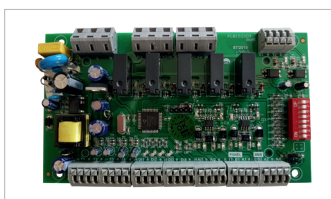
Fan Coil Digital Room Thermostat

- For FCU systems with two or four pipes
- Heating / Cooling mode selection
- 3-speed thermostatic fan control
- Motorized valve On/Off control
- Wall surface installation
- Illuminated LCD display
- 230V AC, 50-60 Hz power supply
- 2A Max. current



BMS-Compatible Fan Coil Control System

- Communication of Fan Coil unit with MODBUS
- For FCU systems with two or four pipes
- On/Off valve actuator in two pipe systems
- User parameters; fan speed, temperature set point
- Advanced parameters; hysteresis, dead band range
- on/off timing, warm-up
- Limitations on room panel, locking capability
- Able to be used with NTC10K and NTC50K
- Temperature setup capability for warm-up process, automatic activation option
- System turning Off/On according to the open/close state of the windows in the location
- 2-4 pipe floating valve control

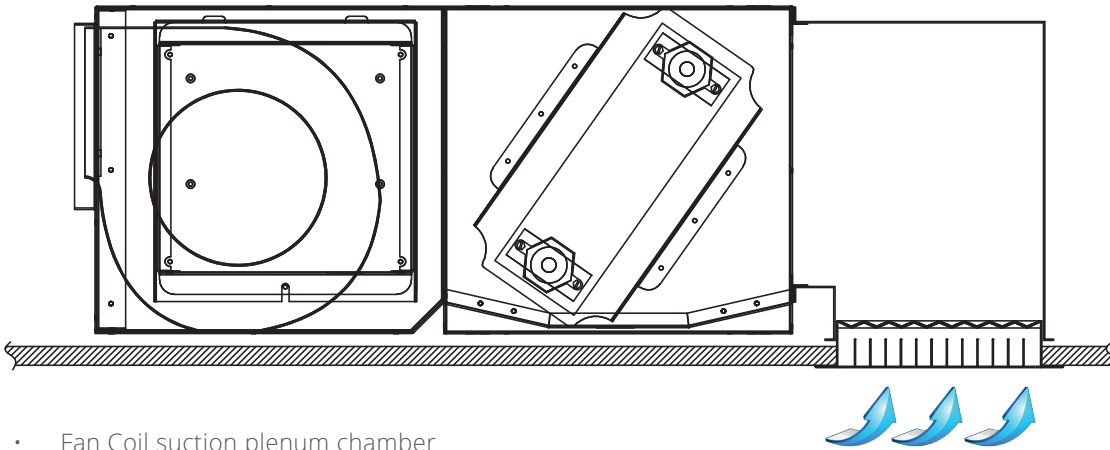


Motorized Valve

- Fan Coil internally thread valve body
- Two-wire 230V AC valve actuator



► Fan Coil Suction Plenum Chamber



- Fan Coil suction plenum chamber
- Grill with intervention cover
- Filter in the intervention cover

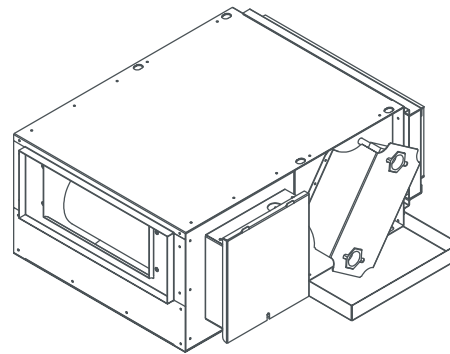
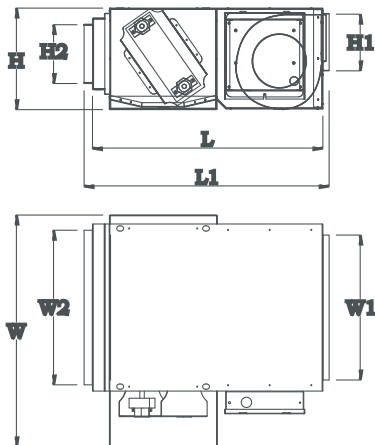
Type Switches for Selection of **AP-FC-GTT-O** Medium Static Pressure Concealed Ceiling Type Fan Coil Units

AP - FC - GTT - O - (4,2) - (2,3,4) - (CODE) - (L,R)

(L, R): Water connection couplings Left, Right
Model Names: 32, 34, 57, 50, 69, 78, 95, 133, 173
(CODE): Model Name (3-row coil; Model Name x
 10m³/h = High Flowrate of FCU(m³/h))
(2,3,4): 2-row Coil, 3-row Coil, 4-row Coil
(4,2): 4-pipe Coil, 2-pipe Coil
O: Medium Static Pressure
GTT: Hidden Ceiling Type
FC: Fan Coil
AP: AIRPLUS



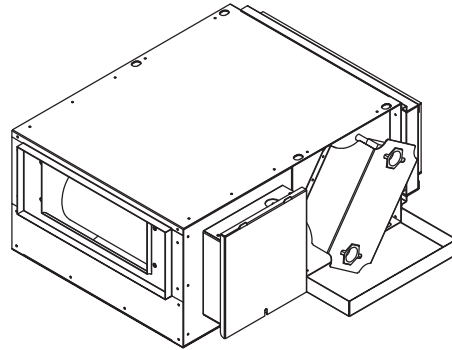
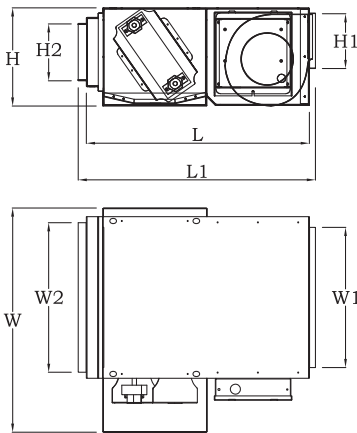
► Features, Dimensions, and Heating Capacities of AP-FC-GTT-O-(2)-(2) Two-Row Two-Pipe Medium Static Pressure Hidden Ceiling Type Fan Coil Units



Summer Inside KT Temperature and Inside YT Temperature are taken as 27 °C, and 19,5 °C respectively. Winter Inside KT Temperature and Inside YT Temperature are taken as 21 °C, and 14,6 °C respectively. Fluid Input/Output Temperature in Cooling is taken as 7-12 °C. Fluid Input/Output Temperature in Heating is taken as 80-60 °C. Devices have 230 V Voltage Rating.

MODEL			AP-FC-GTT-0-(2)-(2)-(CODE)-(L,R)								
CODE	SPEED	UNIT	32	34	47	50	69	78	95	133	173
NUMBER OF FANS			1	1	1	1	2	2	2	3	4
FLOWRATE	D (15 Pa)	m ³ /h	240	250	340	435	480	675	855	1015	1175
	O (25 Pa)		300	310	390	490	625	760	930	1175	1420
	Y (40 Pa)		335	350	490	510	710	815	960	1380	1800
Noise Level Lw	D	dB(A)	45	45	47	48	48	49	51	51	56
	O		50	50	50	51	52	53	54	55	58
	Y		52	52	53	53	55	56	57	59	60
Total Cooling Capacity	D	kW	1,1	1,3	1,6	2,1	2,4	3,2	3,7	4,6	5,8
	O		1,3	1,5	1,7	2,3	2,8	3,5	3,9	5,1	6,6
	Y		1,4	1,7	2,0	2,4	3,1	3,6	4	5,6	7,7
Sensible Heat Cooling Capacity	D	kW	0,8	1	1,2	1,6	1,8	2,4	2,9	3,5	4,3
	O		1	1,1	1,3	1,7	2,1	2,6	3,1	3,9	4,9
	Y		1	1,2	1,6	1,8	2,3	2,7	3,2	4,3	5,8
Heating Capacity	D	kW	2,8	3,2	4,2	5,3	5,9	8	9,9	11,9	14,3
	O		3,3	3,8	4,6	5,8	7,2	8,7	10,5	13,2	16,5
	Y		3,6	4,1	5,4	6	7,9	9,1	10,8	14,7	19,4
Pressure Loss of Fluid Side in Cooling	D	kPa	9	15,9	4,1	7,9	10,6	20,2	5,1	8,4	15,6
	O		11,6	20,6	4,9	9,1	14,6	23,1	5,7	10	19,5
	Y		13,2	23,8	6,5	9,6	16,9	25,1	5,9	12	25,5
Device Current Rating	D	A	0,2	0,2	0,23	0,26	0,4	0,46	0,51	0,68	0,84
	O		0,21	0,21	0,25	0,28	0,43	0,49	0,56	0,76	0,92
	Y		0,23	0,24	0,31	0,32	0,49	0,55	0,64	0,92	1,28
Device Power Rating	D	W	42	42	51	57	84	102	113	151	180
	O		46	46	56	63	94	111	126	168	208
	Y		51	54	71	74	110	123	148	213	293
Water Input-Output Pipe Dia		mm	3/4"								
DIMENSIONS / WEIGHT											
Width x Height (WxH)		mm	515x250	635x250	755x250	865x250	945x250	1055x250	1325x250	1515x250	1890x250
Length (L / L1)			515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550
Exhaust Opening (W1xH1)			325x130	445x130	565x130	675x130	755x130	865x130	1135x130	1325x130	1700x130
Suction Opening (W2xH2)			345x130	465x130	585x130	695x130	775x130	885x130	1155x130	1345x130	1720x130
Weight			kg	14	15	17	20	22	24	27	29

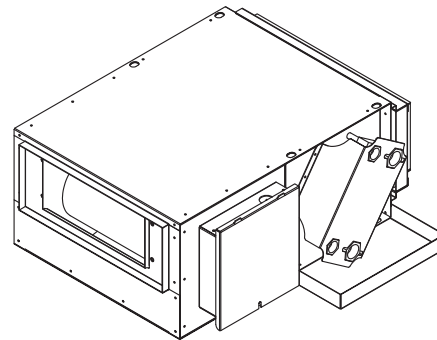
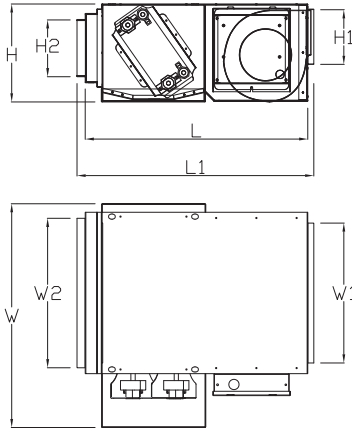
► Features, Dimensions, and Heating Capacities of AP-FC-GTT-O-(2)-(3) Three-Row Two-Pipe Medium Static Pressure Hidden Ceiling Type Fan Coil Units



Summer Inside KT Temperature and Inside YT Temperature are taken as 27 °C, and 19,5 °C respectively. Winter Inside KT Temperature and Inside YT Temperature are taken as 21 °C, and 14,6 °C respectively. Fluid Input/Output Temperature in Cooling is taken as 7-12 °C. Fluid Input/Output Temperature in Heating is taken as 80-60 °C. Devices have 230 V Voltage Rating.

MODEL			AP-FC-GTT-O-(2)-(3)-(CODE)-(L,R)								
CODE	SPEED	UNIT	32	34	47	50	69	78	95	133	173
NUMBER OF FANS			1	1	1	1	2	2	2	3	4
FLOWRATE	D (15 Pa)	m ³ /h	235	245	335	430	475	665	840	1000	1160
	O (25 Pa)		290	305	380	480	610	750	905	1155	1400
	Y (40 Pa)		320	340	470	495	685	780	945	1325	1730
Noise Level Lw	D	dB(A)	45	46	48	49	49	50	52	52	56
	O		50	51	51	52	53	54	55	56	58
	Y		53	53	54	54	56	58	58	60	61
Total Cooling Capacity	D	kW	1,2	1,5	2,2	2,6	3	4,1	5,2	5,8	7,3
	O		1,4	1,8	2,4	2,8	3,6	4,4	5,5	6,4	8,4
	Y		1,5	1,9	2,8	2,9	3,9	4,6	5,6	7,1	9,7
Sensible Heat Cooling Capacity	D	kW	0,9	1,1	1,5	1,9	2,1	2,9	3,7	4,2	5,2
	O		1,1	1,3	1,7	2,1	2,6	3,2	3,9	4,7	6
	Y		1,2	1,4	2	2,2	2,8	3,3	4	5,2	7
Heating Capacity	D	kW	3,3	3,7	5,1	6,3	7,1	9,6	12,3	14,3	17,2
	O		3,9	4,4	5,7	7	8,7	10,6	13	16,1	20
	Y		4,2	4,8	6,7	7,1	9,5	10,9	13,3	17,8	23,6
Pressure Loss of Fluid Side in Cooling	D	kPa	2,2	4,8	10,6	5,6	7,7	14,9	13,3	6,6	11,9
	O		3,4	6,5	12,8	6,6	10,7	17,3	14,6	7,9	15,2
	Y		3,9	7,5	16,7	6,9	12,4	18,2	15,1	9,4	19,8
Device Current Rating	D	A	0,19	0,2	0,23	0,26	0,4	0,46	0,5	0,67	0,82
	O		0,2	0,21	0,25	0,28	0,42	0,49	0,55	0,75	0,89
	Y		0,22	0,23	0,3	0,31	0,49	0,54	0,62	0,9	1,25
Device Power Rating	D	W	42	42	51	57	84	102	113	151	177
	O		46	46	56	63	93	111	126	167	201
	Y		50	54	70	73	110	123	147	211	290
Water Input-Output Pipe Dia		mm	3/4"								
DIMENSIONS / WEIGHT											
Width x Height (WxH)		mm	515x250	635x250	755x250	865x250	945x250	1055x250	1325x250	1515x250	1890x250
Length (L / L1)			515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550
Exhaust Opening (W1xH1)			325x130	445x130	565x130	675x130	755x130	865x130	1135x130	1325x130	1700x130
Suction Opening (W2xH2)			345x130	465x130	585x130	695x130	775x130	885x130	1155x130	1345x130	1720x130
Weight			kg	15	16	18	21	23	25	29	31

► Features, Dimensions, and Heating Capacities of AP-FC-GTT-O-(4) Four-Row Two-Pipe Medium Static Pressure Hidden Ceiling Type Fan Coil Units



Summer Inside KT Temperature and Inside YT Temperature are taken as 27 °C, and 19,5 °C respectively. Winter Inside KT Temperature and Inside YT Temperature are taken as 21 °C, and 14,6 °C respectively. Fluid Input/Output Temperature in Cooling is taken as 7-12 °C. Fluid Input/Output Temperature in Heating is taken as 80-60 °C. Devices have 230 V Voltage Rating.

MODEL			AP-FC-GTT-0-(4)-(4)-(CODE)-(L,R)								
CODE	SPEED	UNIT	32	34	47	50	69	78	95	133	173
NUMBER OF FANS			1	1	1	1	2	2	2	3	4
FLOWRATE	D (15 Pa)	m ³ /h	220	230	325	415	465	650	825	975	1130
	O (25 Pa)		270	285	380	460	580	750	915	1120	1360
	Y (40 Pa)		300	325	400	475	650	770	940	1315	1710
Noise Level Lw	D	dB(A)	47	47	48	49	49	51	52	53	56
	O		51	51	51	51	53	54	54	56	58
	Y		53	53	53	54	56	56	57	59	60
Total Cooling Capacity	D	kW	1,1	1,4	2,1	2,5	2,9	4	5,1	5,7	7,2
	O		1,3	1,7	2,4	2,7	3,4	4,4	5,5	6,3	8,2
	Y		1,4	1,9	2,5	2,8	3,7	4,5	5,6	7,1	9,7
Sensible Heat Cooling Capacity	D	kW	0,9	1	1,5	1,8	2,1	2,8	3,6	4,1	5,1
	O		1	1,2	1,7	2	2,5	3,2	3,9	4,6	5,8
	Y		1,1	1,4	1,8	2,1	2,7	3,3	4	5,2	7
Heating Capacity	D	kW	1,6	1,9	2,6	3,1	3,5	4,6	6,1	7,3	8,9
	O		1,8	2,1	2,9	3,3	4	5	6,5	8	10
	Y		1,9	2,3	3	3,4	4,3	5,1	6,6	8,8	11,6
Pressure Loss of Fluid Side in Cooling	D	kPa	1,8	4,4	10,3	5,4	7,5	14,4	13	6,4	11,5
	O		3	6	12,7	6,2	10	17,3	14,8	7,6	14,7
	Y		3,6	7,1	13,6	6,5	11,6	17,9	15,3	9,3	19,6
Device Current Rating	D	A	0,19	0,2	0,23	0,26	0,4	0,46	0,52	0,69	0,84
	O		0,21	0,21	0,24	0,27	0,42	0,48	0,54	0,78	0,92
	Y		0,21	0,23	0,26	0,31	0,46	0,51	0,63	0,93	1,28
Device Power Rating	D	W	41	42	51	57	84	102	114	153	180
	O		45	46	55	60	92	110	120	171	204
	Y		46	52	58	72	104	115	146	213	292
Cooling Water Input-Output Pipe Dia		mm	3/4"								
Heater Water Input-Output Pipe Dia			1/2"								
DIMENSIONS / WEIGHT											
Width x Height (WxH)		mm	515x250	635x250	755x250	865x250	945x250	1055x250	1325x250	1515x250	1890x250
Length (L / L1)			515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550	515 / 550
Exhaust Opening (W1xH1)			325x130	445x130	565x130	675x130	755x130	865x130	1135x130	1325x130	1700x130
Suction Opening (W2xH2)			345x130	465x130	585x130	695x130	775x130	885x130	1155x130	1345x130	1720x130
Weight		kg	16	17	19	21	23	26	29	31	50

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