

# AIR+PLUS

Air Conditioning Technologies



AP-FC-GDT Concealed  
Floor Type Fan Coil Units

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**AIR-PLUS**

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**Plug & Play**

# AP-FC-GDT

## Concealed Floor Type Fan Coil Units

AIRPLUS AP-FC Hidden Floor 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-GDT series concealed floor 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-Hidden Floor Type Fan Coil Units have a body, which is shaped with galvanized sheet. The entire inner body is manufactured with mounting holes drilled for wall mounting. Fan Coils include the main condensation pan coated with 3 mm thermal insulation, which will also prevent perspiration. The condensation from the elements connected to the inlet and outlet water pipes is prevented by adding additional drip pan. 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

### ► 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

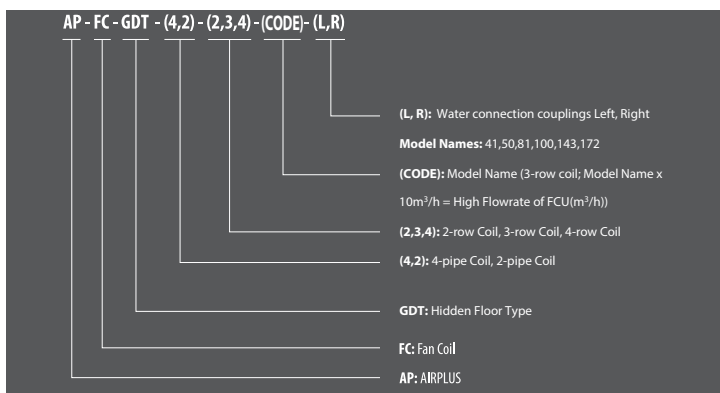


#### Motorized Valve

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



**AP-FC-GDT** Type Switches for Selection of Concealed Floor Type FanCoil Units

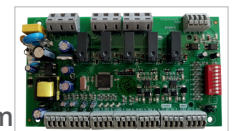


installed to the devices. It provides ease of operation and maintenance with its removable special designed filter skid and cassette filter made of polypropylene material suitable for washing with water. Protection against impacts and water is provided by using special designed terminal box for electrical connections and BMS connection board installation.



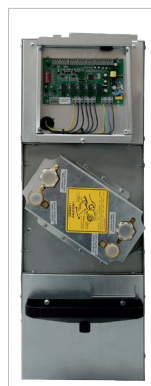
#### Fan Coil Digital Room Thermostat

- 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 energy supply
- 2A Max. current

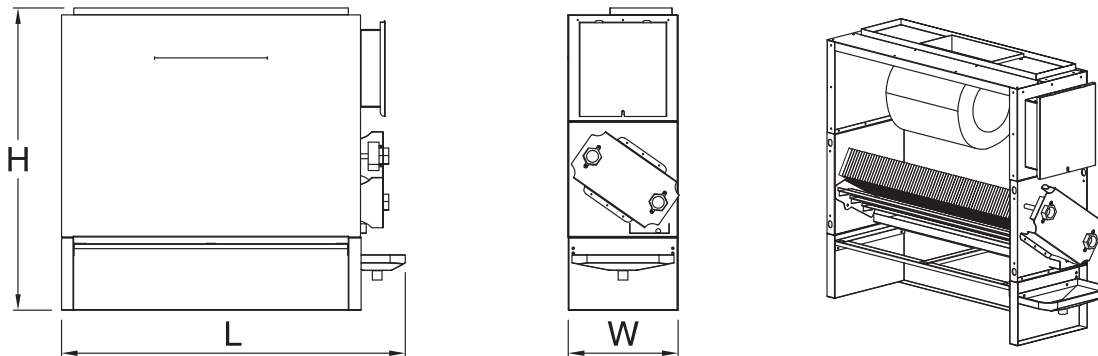


#### BMS-Compatible Fan Coil Control System

- 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 rate, 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



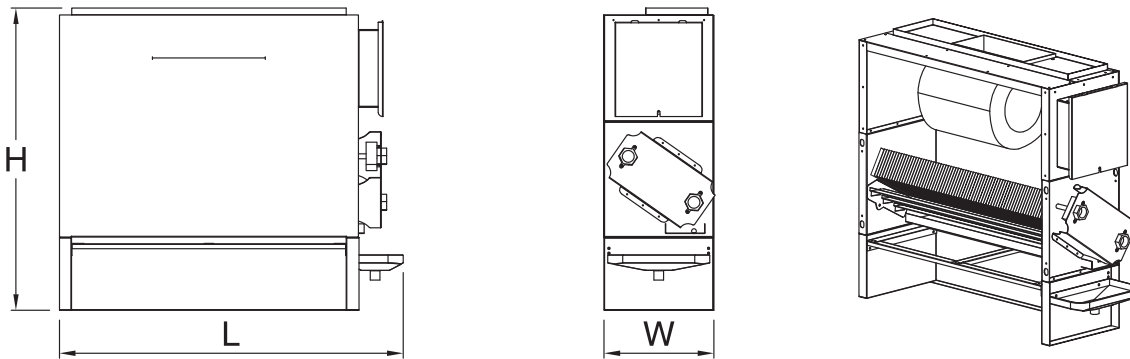
## ► Features, Dimensions, and Heating Capacities of AP-FC-GDT-(2)-(2) Two-Row Two-Pipe Hidden Floor Type Fan Coil Units



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 20 °C, and 13,8 °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. External Static Pressure 0 Pa.

MODEL			AP-FC-GDT-(2)-(2)-(CODE)-(L,R)					
<b>CODE</b>	<b>SPEED</b>	<b>UNIT</b>	41	50	81	100	143	172
<b>NUMBER OF FANS</b>			1	1	2	2	3	3
<b>FLOWRATE</b>	LOW	m <sup>3</sup> /h	260	360	520	720	1060	1310
	MEDIUM		350	440	700	880	1265	1560
	HIGH		420	520	840	1040	1500	1815
<b>Noise Level Lw</b>	LOW	dB(A)	41	46	44	49	51	54
	MEDIUM		46	49	49	52	55	55
	HIGH		50	50	53	53	56	58
<b>Total Cooling Capacity</b>	LOW	kW	1,2	1,8	2,9	3,5	5	6,4
	MEDIUM		1,4	2	3,5	4	5,6	7,2
	HIGH		1,6	2,3	4	4,5	6,3	7,9
<b>Sensible Heat Cooling Capacity</b>	LOW	kW	1	1,4	2,1	2,8	3,9	4,9
	MEDIUM		1,2	1,6	2,7	3,2	4,4	5,5
	HIGH		1,4	1,8	3	3,6	5	6,2
<b>Heating Capacity</b>	LOW	kW	3,4	4,8	7,2	9,5	13,3	16,5
	MEDIUM		4,2	5,5	8,9	11	15	18,6
	HIGH		4,8	6,2	10,1	12,3	16,8	20,6
<b>Pressure Loss of Fluid Side in Cooling</b>	LOW	kPa	2	5	17	5	10	18
	MEDIUM		3	7	24	6	12	22
	HIGH		4	8	29	7	15	25
<b>Device Current Rating</b>	LOW	A	0,21	0,23	0,42	0,46	0,68	0,76
	MEDIUM		0,23	0,26	0,45	0,51	0,76	0,84
	HIGH		0,25	0,28	0,50	0,56	0,83	0,98
<b>Device Power Rating</b>	LOW	W	43,8	50,0	87,6	100,0	148,7	167,7
	MEDIUM		49,3	56,2	98,6	112,4	166,4	189,0
	HIGH		55,4	63,0	110,8	126,0	185,4	224,6
<b>Water Input-Output Pipe Dia</b>		mm	3/4"					
<b>DIMENSIONS / WEIGHT</b>								
<b>Width x Height (WxH)</b>		mm	226 x 634	226 x 634	226 x 634	226 x 634	226 x 634	226 x 634
<b>Length (L / L1)</b>			605	730	1030	1300	1490	1765
<b>Weight</b>			kg	27	31	36	41	47

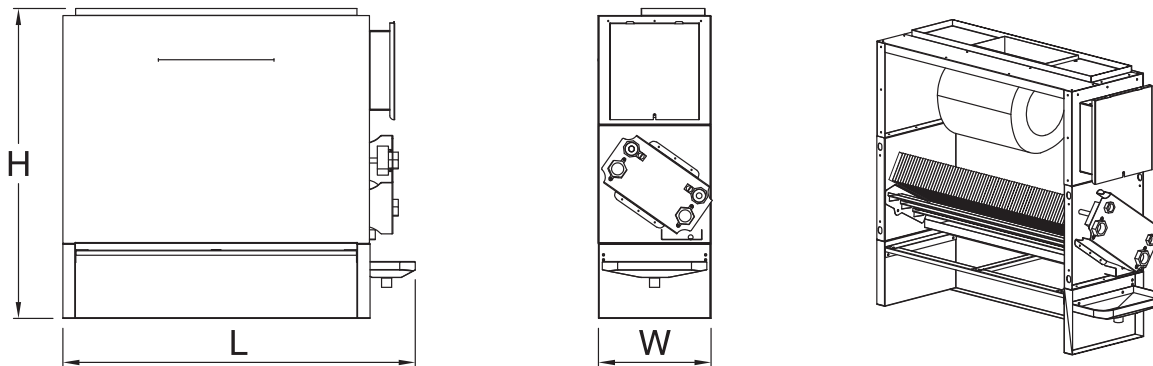
► Features, Dimensions, and Heating Capacities of AP-FC-GDT-(2)-(3) Three-Row Two-Pipe Hidden Floor Type Fan Coil Units



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 20 °C, and 13,8 °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. External Static Pressure 0 Pa.

MODEL			AP-FC-GDT-(2)-(3)-(CODE)-(L,R)					
<b>CODE</b>	<b>SPEED</b>	<b>UNIT</b>	41	50	81	100	143	172
<b>NUMBER OF FANS</b>			1	1	2	2	3	3
<b>FLOWRATE</b>	LOW	m <sup>3</sup> /h	250	350	505	705	1020	1275
	MEDIUM		340	425	675	850	1220	1490
	HIGH		405	500	810	1000	1430	1715
<b>Noise Level Lw</b>	LOW	dB(A)	46	46	49	49	52	54
	MEDIUM		47	50	50	53	55	56
	HIGH		50	51	53	54	57	58
<b>Total Cooling Capacity</b>	LOW	kW	1,7	2,5	3,6	4,9	6,4	8,2
	MEDIUM		2,1	2,8	4,5	5,7	7,3	9,2
	HIGH		2,4	3,2	5,1	6,4	8,1	10,2
<b>Sensible Heat Cooling Capacity</b>	LOW	kW	1,2	1,7	2,5	3,4	4,6	5,8
	MEDIUM		1,5	2	3,1	4	5,3	6,6
	HIGH		1,8	2,3	3,6	4,5	6	7,3
<b>Heating Capacity</b>	LOW	kW	4,1	5,8	8,4	11,6	15,9	19,9
	MEDIUM		5,3	6,8	10,7	13,5	18,3	22,5
	HIGH		6,1	7,7	12,3	15,4	20,6	25
<b>Pressure Loss of Fluid Side in Cooling</b>	LOW	kPa	6	14	12	12	8	15
	MEDIUM		9	18	18	16	10	18
	HIGH		11	22	23	20	12	21
<b>Device Current Rating</b>	LOW	A	0,20	0,23	0,40	0,45	0,66	0,76
	MEDIUM		0,22	0,26	0,44	0,51	0,74	0,82
	HIGH		0,25	0,28	0,50	0,55	0,81	0,96
<b>Device Power Rating</b>	LOW	W	42,0	49,4	84,0	98,8	145,5	167,1
	MEDIUM		48,5	55,7	97,0	111,4	164,2	184,8
	HIGH		54,8	61,8	109,6	123,6	183,0	219,9
<b>Water Input-Output Pipe Dia</b>		mm	3/4"					
<b>DIMENSIONS / WEIGHT</b>								
<b>Width x Height (WxH)</b>		mm	226 x 634	226 x 634	226 x 634	226 x 634	226 x 634	226 x 634
<b>Length (L / L1)</b>			605	730	1030	1300	1490	1765
<b>Weight</b>		kg	28	32	37	43	49	54

## ► Features, Dimensions, and Heating Capacities of AP-FC-GDT-(4) Four-Pipe Hidden Floor 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 20 °C, and 13,8 °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. External Static Pressure 0 Pa.

MODEL			AP-FC-GDT-(4)-(4)-(CODE)-(L,R)					
<b>CODE</b>	<b>SPEED</b>	<b>UNIT</b>	41	50	81	100	143	172
<b>NUMBER OF FANS</b>			1	1	2	2	3	3
<b>FLOWRATE</b>	LOW	m <sup>3</sup> /h	245	345	495	690	1005	1240
	MEDIUM		330	415	665	830	1180	1440
	HIGH		400	490	800	975	1370	1625
<b>Noise Level Lw</b>	LOW	dB(A)	46	47	49	50	53	55
	MEDIUM		48	50	51	53	55	56
	HIGH		51	52	54	55	57	59
<b>Total Cooling Capacity</b>	LOW	kW	1,7	2,4	3,5	4,8	6,3	8,1
	MEDIUM		2,1	2,8	4,4	5,6	7,1	9
	HIGH		2,4	3,2	5,1	6,3	7,9	9,8
<b>Sensible Heat Cooling Capacity</b>	LOW	kW	1,2	1,7	2,4	3,4	4,5	5,7
	MEDIUM		1,5	2	3,1	3,9	5,2	6,4
	HIGH		1,8	2,2	3,6	4,4	5,8	7,1
<b>Heating Capacity</b>	LOW	kW	2	2,8	4,2	5,9	7,5	9,3
	MEDIUM		2,4	3,1	5,1	6,5	8,3	10,2
	HIGH		2,7	3,4	5,6	7,2	9	10,9
<b>Pressure Loss of Fluid Side in Cooling</b>	LOW	kPa	6	13	12	12	8	14
	MEDIUM		9	17	18	15	10	17
	HIGH		11	22	23	19	12	20
<b>Device Current Rating</b>	LOW	A	0,20	0,22	0,40	0,44	0,66	0,75
	MEDIUM		0,22	0,25	0,44	0,50	0,74	0,82
	HIGH		0,25	0,28	0,49	0,55	0,80	0,95
<b>Device Power Rating</b>	LOW	W	42,0	48,5	84,0	97,0	144,0	166,0
	MEDIUM		47,6	55,3	95,2	110,6	163,5	183,5
	HIGH		54,5	61,3	109,0	122,6	180,0	218,2
<b>Water Input-Output Pipe Dia</b>		mm	3/4"					
<b>Heater Water Input-Output Pipe Dia</b>			1/2"					
<b>DIMENSIONS / WEIGHT</b>								
<b>Width x Height (WxH)</b>		mm	226 x 634	226 x 634	226 x 634	226 x 634	226 x 634	226 x 634
<b>Length (L / L1)</b>			605	730	1030	1300	1490	1765
<b>Weight</b>		kg	30	34	39	44	50	55

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