

Precision Air Conditioning

INNOV@

6 to 240 kW

DX: 6 to 128 kW · CW: 8 to 240 kW

CLOSE CONTROL UNITS



The INNOV@ series is the perfect response to air conditioning needs in technological areas (computer rooms, data centres, control rooms, electronic data processing rooms, the textile industry, meteorological rooms, etc.). Guaranteeing and complying with all environmental protection parameters.

The exclusive design with rounded edges and the excellent response of the Innov@™ series have become the new standard of high quality in the close control air conditioning sector. Range with R-410A refrigerant.

MODELS

- Centrifugal fan
- EC Plug Fan

OPERATING MODE

- Air cooled units with remote condenser
- Water cooled units
- Units with chilled water coil
- Dual fluid units: air cooled with remote condenser and chilled water coil or water cooled with remote dry cooler and chilled water coil. They enable a backup operation with cold water from a chiller unit in normal mode or jump to another mode in the event of incidents or maintenance of the main mode. They can also reach larger capacity ranges in extreme conditions.

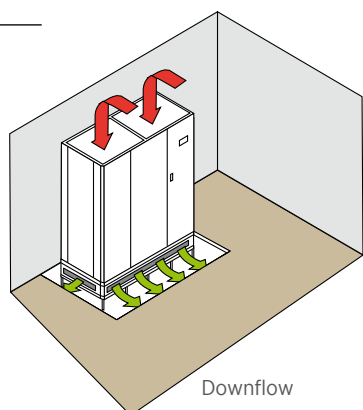
The highest energy efficiency, smallest dimensions and lowest noise levels: units designed to run 24 hours a day, 365 days a year. The energy savings compared to traditional technologies reach up to 45%.

The main components are accessible from the front of the unit with the aim of reducing installation and maintenance costs: switchboard, compressor, fans, humidifiers, electrical resistors, expansion valve and liquid filter. This guarantees quick, safe servicing.

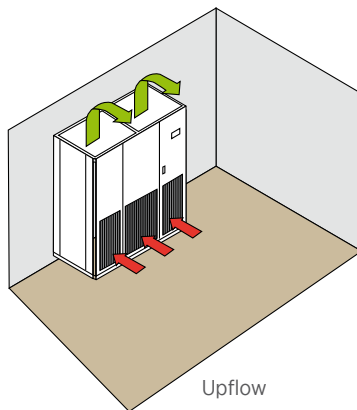
The quality of the latest-technology components makes the Innov@ series an example of maximum efficiency and reliability. Technical specifications, such as electronic expansion valves, radial fans with inverted blades and electronically commutated (EC) DC motors offer energy saving opportunities.

- Water cooled units with remote dry cooler and indirect free-cooling. Indirect free-cooling is the only air-conditioning solution when the rooms have to be isolated from the outside environment or if a very high level of filtration is required. In this case, the outside air is used to cool water through a dry cooler and sent to the interior unit to refrigerate. A modulating three-way valve manages the cold water through the chilled water coil.

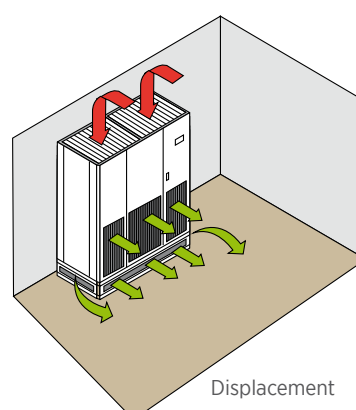
AVAILABLE CONFIGURATIONS



Downflow



Upflow



Displacement



MAIN APPLICATIONS

- Computer rooms
- Data processing centres

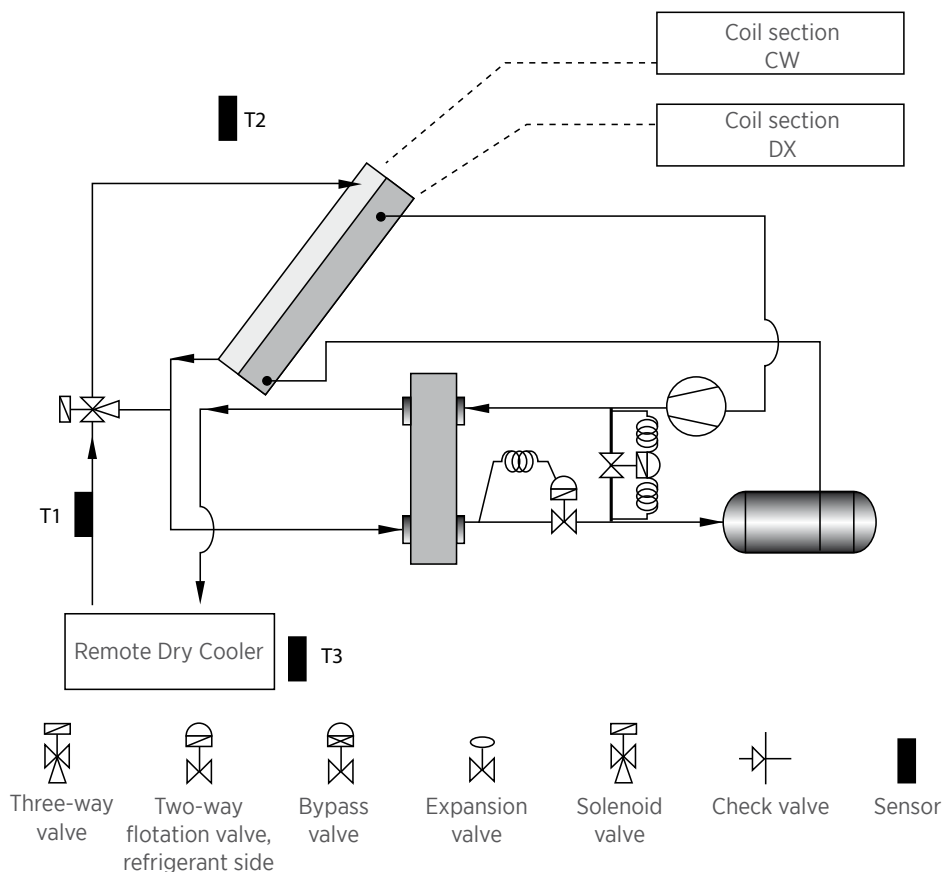
CONTROL

The microprocessor control, available in the basic or advanced graphic version, manages all of the functions of the Innov@ series. This control provides the opportunity to connect up to 8 units together to create a local network (LAN) that, amongst other things, helps to balance run times automatically using a rotation function.

The microprocessor controls are shown on an LCD (basic version) or graphic (advanced version) screen and are compatible with a wide range of protocols.

OPTIONS

- Humidification and dehumidification
- Heat input by resistors, water coil or hot gas coil
- Different filtration levels
- Condensation control
- Different communication protocols
- Direct free-cooling
- Low noise level in internal and external unit



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CLOSE CONTROL UNITS



DM / INNOV@ DX Air-condensed and water-condensed (direct expansion - Radial fan)

INNOV@ - R410A		DX	0060	0080	0100	0110	0130	0160	0190	0205	0212
Air flow		m ³ /h	1785	2150	3530	3530	3700	5100	5100	5100	5100
Maximum static pressure available		Pa	776	725	624	624	574	292	292	292	292
Number of radial EC fans			1								
Total cooling capacity	Air-condensed unit ⁽¹⁾	kW	6,6	8	10,4	11,7	13,8	17	19,7	22	22,3
	Water-condensed unit ⁽²⁾	kW	6,7	8,1	10,5	11,6	13,9	16,6	19,5	21,5	22,7
Sensible heat ratio	Air-condensed unit		0,98	0,98	1	0,98	0,9	0,99	0,95	0,9	0,89
	Water-condensed unit		0,97	0,97	1	0,98	0,9	0,99	0,96	0,91	0,88
Number of scroll compressors/Number of circuits			1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	2 / 2
Height		mm	1875								
Width		mm	600	600	900	900	900	900	900	900	900
Depth		mm	600								
Weight	Air-condensed unit	kg	150	157	195	210	230	245	255	260	264
	Water-condensed unit	kg	165	172	214	231	253	269	280	286	291
Sound pressure level ⁽³⁾		dB(A)	47	49	52	52	53	55	56	56	56

This efficiency assumes that the units are installed with the remote condenser suggested and an outside air temperature of 35°C

(1) Indoor conditions 24°C/50%.

(2) Indoor conditions 24°C/50% / Water temperature = 7/12°C

(3) 1.5 metres above and 2 from the unit in free field - downflow units (30 Pa AESP), nominal air flow, compressor speed 50 Hz

DM-R / Chilled Water INNOV@ (Radial fan)

INNOV@		CW	0150	0170	0210	0250	0270	0320
Air flow		m ³ /h	4130	4130	4130	6130	6060	5930
Total cooling capacity ⁽¹⁾		kW	14,6	17	21,2	24,8	27,2	31,7
Sensitive heat ratio		kW	0,90	0,88	0,90	0,84	0,86	0,80
Height		mm	1998					
Width		mm	600	600	600	900	900	900
Depth		mm	600					
Weight		kg	139	143	150	173	180	195
Sound pressure level ⁽²⁾		dB(A)	59	60	61	62	62	62

(1) Indoor conditions 24°C/50%. Water temperature 7/12°C

(2) 1.5 metres above and 2 from the unit in free field - downflow units (30 Pa AESP), nominal air flow, compressor speed 50 Hz

DM-C / Cold Water INNOV@ (Centrifugal fan)

INNOV@		CW	0080	0110	0140	0160	0200	0230
Air flow		m ³ /h	1785	2150	3530	3470	5115	4990
Total cooling capacity ⁽¹⁾		kW	6,9	10	12,8	14,5	18	20,8
Sensitive heat ratio		kW	0,87	0,85	0,88	0,87	0,87	0,85
Height		mm	1875					
Width		mm	600	600	900	900	1200	1200
Depth		mm	449					
Weight		kg	125	135	150	160	170	175
Sound pressure level ⁽²⁾		dB(A)	48	50	51	51	52	52

(1) Indoor conditions 24°C/50%. Water temperature 7/12°C

(2) 1.5 metres above and 2 from the unit in free field - downflow units (30 Pa AESP), nominal air flow, compressor speed 50 Hz

DH / INNOV@ DX Air-condensed and water-condensed (direct expansion - Radial fan)

INNOV@ - R410A		DX	0201	0251	0272	0281	0302	0311	0362	0401	0422
Air flow		m ³ /h	6800	6800	12950	7280	12950	7280	12950	12950	12950
Maximum static pressure available		Pa	650	650	686	549	686	549	686	686	686
Number of radial EC fans			1	1	2	1	2	1	2	2	2
Total cooling capacity	Air-condensed unit ⁽¹⁾	kW	22,9	25,4	27,3	30,2	35,3	34,0	38,9	40,9	43,2
	Water-condensed unit ⁽²⁾	kW	23,4	25,5	28,3	29,9	34,3	32,4	39,7	43,9	44,0
Sensitive heat ratio	Air-condensed unit		0,99	0,97	1,00	0,92	1,00	0,86	0,99	0,98	0,96
	Water-condensed unit		0,97	0,95	1,00	0,92	1,00	0,88	0,99	0,96	0,94
Number of scroll compressors/Number of circuits			1/1	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2
Height		mm	1998								
Width		mm	1010	1010	1760	1280	1760	1280	1760	1760	1760
Depth		mm	805	805	805	805	805	805	805	805	805
Weight	Air-condensed unit	kg	375	385	565	394	580	401	590	552	605
	Water-condensed unit	kg	412	723	621	433	638	442	649	611	665
Sound pressure level ⁽³⁾		dB(A)	55	56	59	58	61	58	62	63	65

INNOV@ - R410A		DX	0452	0532	0592	0602	0692	0762	0852	1002	1204
Air flow		m ³ /h	12950	14150	14150	19415	19415	19415	21500	21500	24000
Maximum static pressure available		Pa	686	539	539	667	667	667	245	245	492
Number of radial EC fans			2	2	2	3	3	3	2	2	3
Total cooling capacity	Air-condensed unit ⁽¹⁾	kW	49,4	58,1	63,9	65,3	75,4	84,6	88,1	99,9	126,9
	Water-condensed unit ⁽²⁾	kW	48,4	56,0	61,5	65,7	73,4	80,3	85,7	97,7	130,7
Sensitive heat ratio	Air-condensed unit		0,91	0,90	0,85	0,89	0,89	0,85	0,93	0,86	0,81
	Water-condensed unit		0,90	0,88	0,85	0,88	0,86	0,84	0,93	0,86	0,80
Number of scroll compressors/Number of circuits			2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	4/2
Height		mm	1998								
Width		mm	1760	2030	2030	2510	2510	2510	2510	2510	3160
Depth		mm	805	805	805	805	805	805	950	950	950
Weight	Air-condensed unit	kg	615	740	905	940	958	979	1001	1013	1390
	Water-condensed unit	kg	676	985	995	1034	1053	1076	1099	1114	1529
Sound pressure level ⁽³⁾		dB(A)	65	67	67	68	68	68	76	76	79

This efficiency assumes that the units are installed with the remote condenser suggested and an outside air temperature of 35°C

(1) Indoor conditions 24°C/50%.

(2) Indoor conditions 24°C/50%. Water temperature 7/12°C

(3) 1.5 metres above and 2 from the unit in free field - downflow units (30 Pa AESP), nominal air flow, compressor speed 50 Hz

DH / Cold Water INNOV@ (Radial fan)

INNOV@		CW	040	060	070	080	090	100	110	130	150	170	180	210	240
VERSION A - CHILLED WATER 10/15 °C - AIR INLET CONDITION 30 °C - 35% R.H.															
Cooling capacity	kW	43,3	59,6	67,9	80,8	89,9	104,1	112,3	133,7	148,4	172,7	185,2	219,7	236,3	
SHR		1,00	0,99	1,00	0,99	1,00	0,97	1,00	0,99	1,00	0,99	1,00	0,98	0,94	
EER		35,2	41,1	35,0	37,4	36,9	39,9	36,7	39,5	33,2	35,1	35,8	38,3	32,0	
VERSION B - CHILLED WATER 10/18 °C - AIR INLET CONDITION 30 °C - 35% R.H.															
Cooling capacity	kW	38,8	55,2	63,3	74,8	82,4	98,4	104,8	126,3	135,3	163,1	169,0	203,6	229,5	
SHR		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	0,96	
EER		31,6	38,0	32,6	34,6	33,8	37,7	34,2	37,2	30,3	33,1	32,7	35,5	31,1	
VERSION C - CHILLED WATER 10/22 °C - AIR INLET CONDITION 30 °C - 35% R.H.															
Cooling capacity	kW	33,4	49,8	54,4	67,5	73,3	87,6	90,1	111,8	116,3	144,4	145,2	180,3	210,2	
SHR		1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	1,00	
EER		27,1	34,4	28,1	31,3	30,0	33,6	29,4	33,0	26,0	29,3	28,1	31,4	28,5	
INNOV@		CW	040	060	070	080	090	100	110	130	150	170	180	210	240
Air flow	m ³ /h	10700	10700	14500	14500	18000	18000	24000	24000	31000	31000	38700	38700	39000	
Power absorbed by fans	kW	1,2	1,5	1,9	2,2	2,4	2,6	3,1	3,4	4,5	4,9	5,2	5,7	7,4	
Current absorbed by fans	A	2,0	2,3	3,1	3,5	3,9	4,2	4,9	5,4	7,2	7,9	8,3	9,2	11,8	
Downflow dimensions (WxHxD)	mm	1010x2000x890	1270x2000x890	1760x2000x890	1760x2000x890	2020x2000x890	2020x2000x890	2510x2000x890	2510x2000x890	3160x2000x890	3160x2000x890	3160x2000x890	3160x2000x890	3160x2000x960	
Upflow dimensions (WxHxD)	mm	1010x2000x890	1270x2000x890	1760x2000x890	1760x2000x890	2020x2000x890	2020x2000x890	2510x2000x890	2510x2000x890	3160x2000x890	3160x2000x890	3160x2000x890	-	-	
Displacement dimensions (WxHxD)	mm	1010x2250x890	1270x2250x890	1760x2250x890	1760x2250x890	2020x2250x890	2020x2250x890	2510x2250x890	2510x2250x890	3160x2250x890	3160x2250x890	3160x2250x890	-	-	