

HYBRID TERMINAL



36XB

Cooling capacity 0.27-2 kW
Heating capacity 0.25-8 kW

The 36XB Hybrid Terminal combines the advantages of both chilled beams and fan coils: energy efficiency, high levels of comfort, extremely low noise and high indoor air quality.

The low height profile (<200mm) of the unit facilitates installation in low height ceilings and allows increased room heights for refurbishment projects.

Unit aesthetics can be tailored to suit site specific ceiling layouts, colour schemes and return air grill design.

Unlike conventional chilled beams, the Carrier 36XB Hybrid terminal is fitted with a coil condensate drain pan as standard. Even if the cooling coil is supplied with chilled water at 6°C, there is no danger of condensate falling into the occupied space.

PHYSICAL DATA

Cooling capacities

Room Temperature: Dry bulb = 27°C and humidity = 47% - Fresh air temperature 14°C

Air flow m ³ /h	LEC Fan speed V	Chilled water temperature 7-12°C				Chilled water temperature 14-17°C				Fan consumption W	Air pressure drop Pa	Noise Pressure level dB(A)*	Noise level NR*
		Total cooling capacity W	Sensible cooling capacity W	Coil Water flow l/h	Water pressure drop KPa	Total cooling capacity W	Sensible cooling capacity W	Coil Water flow l/h	Water pressure drop KPa				
30	0	269	249	43	1	256	252	36	1	0	9	< 20	< 20
	2	537	416	68	2	330	325	58	1	3.7	10	< 20	< 20
	5	891	672	130	4	508	503	108	3	5.7	11	32	27
	8	1297	977	202	10	719	714	169	7	10.6	14	44	39
60	0	753	609	83	2	504	499	68	1	0	28	< 20	< 20
	2	830	664	97	2	542	537	79	2	3.7	29	< 20	< 20
	5	1145	895	151	6	703	697	126	4	5.7	30	32	27
	8	1465	1136	205	10	870	865	173	7	10.6	32	44	39
90	0	1107	902	122	4	748	743	101	2	0	57	< 20	< 20
	3	1128	917	126	4	759	754	104	3	3.7	57	< 20	< 20
	5	1414	1129	173	7	906	901	144	5	5.7	59	32	27
	8	1698	1346	223	12	1055	1051	187	9	10.6	61	44	39
120	0	1443	1184	158	6	985	989	130	4	0	98	35	30
	2	1508	1233	169	7	1018	1013	140	5	3.7	98	35	30
	5	1730	1401	205	10	1135	1130	173	7	5.7	99	35	30
	8	1987	1600	252	15	1271	1268	212	11	10.6	100	45	40
150	0	1767	1460	191	9	1217	1212	158	6	0	149	41	36
	2	1797	1484	194	9	1233	1228	162	7	3.7	149	41	36
	5	1980	1624	227	12	1329	1325	191	9	5.7	150	42	37
	8	2194	1791	263	17	1444	1441	223	12	10.6	151	46	41

Preliminary Data :

* Sound Level guidance with acoustic attenuation -9 dB(A)

Heating capacities

Room Temperature: 20°C - Fresh air temperature 20°C

Air flow m ³ /h	LEC Fan speed V	Hot water temperature 70-50°C			Hot water temperature 45-40°C			Fan consumption W	Air pressure drop Pa	Noise Pressure level dB(A)*	Noise level NR*
		Total heating capacity W	Coil Water flow l/h	Water pressure drop KPa	Total heating capacity W	Coil Water flow l/h	Water pressure drop KPa				
30	0	444	18	1	241	43	1	0	9	< 20	< 20
	2	718	32	1	390	68	1	3.7	10	< 20	< 20
	5	1365	61	1	749	130	4	5.7	11	32	27
	8	2127	94	2	1179	205	9	10.6	14	44	39
60	0	873	40	1	475	83	2	0	28	< 20	< 20
	2	1009	43	1	551	97	1	3.7	29	< 20	< 20
	5	1593	68	1	877	151	5	5.7	30	32	27
	8	2195	97	2	1219	212	9	10.6	32	44	39
90	0	1275	58	1	699	122	3	0	57	< 20	< 20
	3	1316	61	1	722	126	4	3.7	57	< 20	< 20
	5	1849	83	2	1021	176	7	5.7	59	32	27
	8	2383	104	2	1327	230	11	10.6	61	44	39
120	0	1654	72	1	912	158	6	0	98	35	30
	2	1777	79	1	981	169	6	3.7	98	35	30
	5	2195	97	2	1219	212	9	5.7	99	35	30
	8	2684	119	3	1500	259	13	10.6	100	45	40
150	0	2013	90	2	1115	194	8	0	149	41	36
	2	2070	94	2	1148	198	8	3.7	149	41	36
	5	2416	104	3	1346	234	11	5.7	150	42	37
	8	2829	126	3	1583	274	15	10.6	151	46	41

Preliminary Data :

* Sound Level guidance with acoustic attenuation -9 dB(A)

OPTIONS

Communicating controller

- BMS compatible controller
- For 2 pipe, 2 pipe + electric heater and 4 pipe applications
- Aquasmart Evolution System compatible
- Variable fan speed control, demand based ventilation (CO2 monitoring) and coil condensation control.
- Integrated window blind and lighting control.
- Motorised blinds & lighting control

Aquasmart System Manager



FEATURES AND ADVANTAGES

Features

- The 36XB Hybrid Terminal combines the advantages of both chilled beams and fan coils: energy efficiency, high levels of comfort, extremely low noise and high indoor air quality.
- The low height profile (<200mm) of the unit facilitates installation in low height ceilings and allows increased room heights for refurbishment projects.
- Unit aesthetics can be tailored to suit site specific ceiling layouts, colour schemes and return air grill design.
- Unlike conventional chilled beams, the Carrier 36XB Hybrid terminal is fitted with a coil condensate drain pan as standard. Even if the cooling coil is supplied with chilled water at 6°C, there is no danger of condensate falling into the occupied space.
- A unit mounted changeover valve allows the coil to be connected to a 4 pipe water system so providing either cooling or heating, as required.
- If required, the Carrier 36XB Hybrid Terminal can be fitted with a room air return filter G3 to F5. This filter is accessible for cleaning / replacement without disturbing the unit / ceiling.

Principals of Operation

- Primary ventilation air is supplied to each unit inducing secondary (room) air flow over the cooling / heating coil without the need to run the unit fan.
- During periods of peak demand, the unit fan may be energised to increase secondary air flow hence and boosting the unit cooling / heating output.
- Unique Carrier supply air diffuser design ensures excellent air distribution, no 'dumping' and minimal room temperature gradients in both cooling and heating.
- The primary ventilation air volume can be controlled based on room CO2 levels to maximise comfort and minimise system energy consumption
- The CO2 sensor (optional) mounted in the secondary (room) air flow can modulate the supply of primary ventilation air to the unit from 2.8 to 33 l/s, depending on room occupancy.
- Using the unit fan only when there is a peak demand in the occupied space offers energy savings for up to 80% of the annual building occupancy.
- Based on a typical office profile & loads this economy can result in an average annual unit specific fan power (A-SFP) <0.05 W/l/s
- Assured air quality; in addition to varying the quantity of hygienic air, the hybrid terminal 36XB may receive a filter on the return air available from the grid.
- Energy efficiency, easy installation, comfort, low noise and high indoor air quality.

DIMENSIONS/CLEARANCES

