UniTrane™ Ductable Units D-line and B-Line

Discover the new UniTrane™ Ductable Units

The ideal air-conditioning solutions for your building

Air-conditioning plays an important role in the comfort level in all work environments. The UniTrane ductable D-line and B-line units provide a low cost solution to cooling and/or heating buildings. These compact, low profile air solutions can fit in tight ceiling spaces and, with minimum effort, can be relocated within the building as needs change.

Several available configuration options, including simple or sophisticated controls, coil options and piping packages, make this a flexible system solution for a variety of applications.

UniTrane D-line and B-line units are ideal for applications such as:


Office buildings


Healthcare

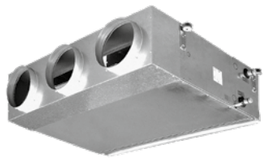

Schools


Retail


Restaurants


Lodging

All units are compliant with ERP 2015 Regulation (EU) No. 327/2011.



The UniTrane **D-Line and B-Line** ranges of fan coils are designed to meet today's demanding air-conditioning requirements of performance, size, acoustics, low energy consumption, ease of installation and maintenance. Both ranges are suited to ducted and concealed installations.

The models **DFS/DFE** can provide available pressure up to 80 Pa. The **BFS** fan coils range has been developed to deliver even higher available static air pressure, up to 425 Pa.

Both **D-Line and B-line** are complemented with a full range of site-installed accessories including various types of adjustment valves, additional electric heater, auxiliary condensate pump, air inlet/outlet diffusers for fitted installations, and more.

UniTrane™ D-line

Model DFS with AC fan motor and DFE with EC fan motor

DFS main features

- 4 sizes, 2-pipe or 4-pipe systems
- Airflow range from 375- 2200 m^3/h
- 3 or 4 row coil with possibility to add 1 or 2 row coil for 4-pipe systems
- Centrifugal fans and electric five-speed motors for reduced electrical consumption

DFE main features

- 3 sizes, 2-pipe or 4-pipe systems
- Airflow range from 350-1450 m^3/h
- 3 or 4 row coil with possibility to add 1 or 2 row coil for 4-pipe systems
- Three phase permanent magnet brushless electronic motor

Product data

Operating Limits

	DFS/DFE	BFS
Maximum water inlet temperature	85°C	80°C
Minimum water inlet temperature	5°C	5°C
Maximum operating pressure	1000 kPa (10 bars)	1000 kPa (10 bars)

DFS

Model		DFS-2P-14					DFS-2P-24				
Speed		1	2	3	4	5	1	2	3	4	5
			low	med	high			low	med	high	
Air Flow	m³/h	375	410	470	540	595	580	665	765	870	1040
Total cooling capacity	kW	2.50	2.68	2.96	3.27	3.50	3.85	4.27	4.72	5.16	5.83
Sensible cooling capacity	kW	1.82	1.96	2.19	2.46	2.66	2.77	3.10	3.47	3.84	4.43
Heating capacity	kW	3.98	4.31	4.86	5.48	5.95	6.06	6.83	7.71	8.59	9.97
DP Cooling	kPa	10.40	11.70	14.10	16.80	19.00	24.30	29.20	35.00	41.20	51.20
DP Heating	kPa	5.4	6.2	7.7	9.5	11.1	12.3	15.2	19.0	23.0	30.1
Fan consumption	W	41	46	54	65	76	88	95	107	120	140
Sound Power level	dB(A)	47	50	53	56	59	45	47	51	54	59
Sound Pressure level	dB(A)	38	41	44	47	50	36	38	42	45	50

Model		DFS-2P-34					DFS-2P-44				
Speed		1	2	3	4	5	1	2	3	4	5
			low	med	high			low	med	high	
Air Flow	m³/h	745	950	1150	1320	1415	1000	1360	1705	1980	2220
Total cooling capacity	kW	4.73	5.64	6.44	7.06	7.4	6.81	8.56	10.07	11.16	12.05
Sensible cooling capacity	kW	3.47	4.22	4.91	5.47	5.78	4.91	6.34	7.63	8.59	9.41
Heating capacity	kW	7.64	9.43	11.08	12.41	13.13	10.4	13.57	16.43	18.61	20.4
DP Cooling	kPa	9.5	13	16.5	19.5	21.2	12.9	19.4	26	31.2	35.9
DP Heating	kPa	5.0	7.3	9.8	12.0	13.3	7.0	11.4	16.1	20.1	23.7
Fan consumption	W	97	121	143	164	174	163	191	218	237	256
Sound Power level	dB(A)	49	54	59	63	64	49	55	60	64	66
Sound Pressure level	dB(A)	40	45	50	54	55	40	46	51	55	57

DFE

Model		DFE-2P-14					DFE-2P-24					DFE-2P-34				
Inverter signal	V	1	3	5	7,5	10	1	3	5	7,5	10	1	3	5	7,5	10
Speed		low		med		high	low		med		high	low		med		high
Air Flow	m³/h	350	425	515	625	730	610	760	920	1120	1250	770	985	1180	1425	1450
Total cooling capacity	kW	2.33	2.74	3.19	3.7	4.14	3.97	4.73	5.47	6.32	6.84	4.74	5.74	6.58	7.54	7.63
Sensible cooling capacity	kW	1.75	2.08	2.45	2.88	3.28	2.98	3.6	4.22	4.96	5.41	3.62	4.46	5.17	6.02	6.1
Heating capacity	kW	2.88	3.41	4.03	4.75	5.39	4.88	5.89	6.9	8.1	8.84	6.06	7.42	8.63	10.04	10.18
Dp Cooling	kPa	9.5	12.5	16.4	21.3	26	26.1	35.4	45.9	59.1	67.8	10	13.9	17.7	22.5	23
Dp Heating	kPa	7.7	10.1	13.6	17.5	21.5	21.7	29.4	37.8	48.7	56.1	8.2	11.4	14.7	18.6	19
Fan consumption	W	18	25.5	37	56	83	24	37	59	100	132	32	49	76	122	136
Sound Power level	dB(A)	47	53	57	62	66	47	53	58	63	66	52	57	61	65	66
Sound Pressure level	dB(A)	38	44	48	53	57	38	44	49	54	57	43	48	52	56	57

For more accurate data, please refer to Trane Selection Tool.

UniTrane™ B-line

Model BFS with AC fan motor

BFS – Sizes 1 to 5

- Airflow range from 1000 m³/h up to 4400 m³/h
- Airflow with static pressure up to 160 Pa
- 3 or 4 row heating coils and 2 or 4 pipe systems with additional heating coil
- Quiet centrifugal fans with two impellers and a directly driven single phase, five-speed motor

BFS – Sizes 6 and 7

- Airflow range from 2200 m³/h up to 7500 m³/h
- Airflow with static pressure up to 425 Pa
- 4 or 6 row heating coils and 2 or 4 pipe systems with 2 row additional heating coil
- Quiet centrifugal fans with two impellers and a directly driven single phase, three speed motor, 230V, 50Hz, with external rotor, capacitor, insulation class B

Unit description

- Casing made with galvanized steel insulated with polyolefin (PO) foam (class M1)
- Coil manufactured from drawn copper tube
- Filter made of polypropylene cellular fabric, frame of galvanized steel
- Condensate collection tray made from galvanized steel insulated polyolefin (PO) foam (class M1)

Product data

BFS Sizes 1 to 5

Model		BFS-2P-14					BFS-2P-24				
Speed		1	2	3	4	5	1	2	3	4	5
Air flow	m^3/h	940	1115	1315	1575	1835	855	1160	1535	2005	2360
Total cooling capacity	kW	4.8	5.33	5.88	6.53	7.07	5.22	6.4	7.63	8.92	9.77
Sensible cooling capacity	kW	3.85	4.38	4.96	5.67	6.33	3.88	4.92	6.08	7.4	8.33
Heating capacity	kW	8.76	9.95	11.22	12.77	14.2	8.77	11.13	13.76	16.69	18.71
Dp Cooling	kPa	6	7.3	8.8	10.6	12.4	6.7	9.8	13.5	18.1	21.4
Dp Heating	kPa	3.9	4.9	6.1	7.8	9.5	3.7	5.8	8.6	12.3	15.2
Fan consumption	W	130	151	173	204	232	180	222	268	322	380
Sound power level	dB(A)	49	52	56	60	63	47	53	59	64	68
Sound pressure level	dB(A)	40	43	47	51	54	38	44	50	55	59

Model		BFS-2P-34					BFS-2P-44				
Speed		1	2	3	4	5	1	2	3	4	5
Air flow	m^3/h	205	270	375	250	365	480	280	375	545	440
Total cooling capacity	kW	1.24	1.5	1.87	1.43	1.84	2.18	1.89	2.32	3.03	2.62
Sensible cooling capacity	kW	0.92	1.14	1.46	1.07	1.43	1.75	1.35	1.69	2.27	1.93
Heating capacity	kW	1.6	2	2.58	1.88	2.39	3.09	2.26	2.84	3.86	3.26
Dp Cooling	kPa	12	14	18	12	18	24	16	29	29	23
Dp Heating	kPa	35	32	39	30	38	44	26	39	39	34
Fan consumption	W	35	32	39	30	38	44	26	39	39	34
Sound power level	dB(A)	35	32	39	30	38	44	26	39	39	34
Sound pressure level	dB(A)	35	32	39	30	38	44	26	39	39	34

Model		BFS-2P-54				
Speed		1	2	3	4	5
Air flow	m^3/h	2885	3240	3505	3920	4330
Total cooling capacity	kW	15.53	16.68	17.49	18.71	19.80
Sensible cooling capacity	kW	12.17	13.29	14.10	15.34	16.50
Heating capacity	kW	27.08	29.56	31.31	33.96	36.49
Dp Cooling	kPa	13.5	15.4	16.8	19.0	21.2
Dp Heating	kPa	8.0	9.5	10.6	12.3	14.0
Fan consumption	W	536	612	689	766	868
Sound power level	dB(A)	66	69	71	73	75
Sound pressure level	dB(A)	57	60	62	64	66

BFS sizes 6 to 7

MODEL		BFS-2P-64			BFS-2P-66			BFS-2P-74			BFS-2P-76		
Speed		1	2	3	1	2	3	1	2	3	1	2	3
Air flow	m^3/h	2200	3580	5200	2190	3570	5170	3960	5210	7480	3960	5210	7435
Total cooling capacity	kW	14.55	20.22	25.38	16.99	24.4	31.3	23.17	27.52	34.04	27.81	33.59	42.28
Sensible cooling capacity	kW	10.71	15.58	20.42	11.96	17.83	23.73	17.76	21.63	27.96	20.16	24.99	32.7
Heating capacity	kW	9.0	16.4	24.6	11.6	22.2	34.8	14.6	19.8	29.1	18.6	26.1	39.5
Dp Cooling	kPa	23.77	35.01	46.21	26.09	39.57	53.27	39.61	48.83	63.38	44.57	55.84	73.68
Dp Heating	kPa	4.9	9.9	16.3	5.7	12.1	20.6	8.6	12.5	20	9.9	14.8	24.4
Fan consumption	W	718	943	1437	715	933	1407	1717	1970	2817	1717	1970	2764
Sound power level	dB(A)	61	69	76	61	69	76	68	74	81	68	74	81
Sound pressure level	dB(A)	52	60	67	52	60	67	59	65	72	59	65	72

For more accurate data, please refer to Trane Selection Tool.

Accessories

Accessory	Description	D-Line	B-Line
Air inlet and outlet grid	Suited to under-ceiling mounting applications	x	x
Air inlet plenum and spigot diffuser	All the plenums are supplied with spigots for the connection of flexible ducts	x	
Inlet and outlet flange	Straight or 90°, Can be used together with GRAP air inlet grid	x	
Auxiliary condensate tray	Collection tray to cover valve assembly	x	x
KAF Frontal air intake	Bottom closing panel and filter sliding guides	x	
Intake/supply spigot plenum	Intake/supply spigot plenum with 3 spigots (Sizes 1-2-3) or 4 spigots (Sizes 4-5-6-7)		x
Anti-vibration connection	Made of two galvanized frames and a PVC flexible connection		x
3 way valve – control valve kit, main or additional coil	ON-OFF, with electric motor and mounting kit with micrometric lock shield valve	x	x
3 way valve with simplified connections kit	ON-OFF, with electric motor and mounting kit. Flat connection without micrometric lock shield valve	x	
2 way valves with connections kit – main or additional coil	ON-OFF, with electric motor and mounting kit	x	
3 way double valve kit for 4 pipe installation and single coil	Special 3 way valve to allow the transformation of the fan coil equipped with one single coil, into a 4 pipe installation	x	
Oventrop PICV valve kit	Delivers constant flow rate set even with partial loads	x	
24 V main or auxiliary coil kit valve	Kit to be used only with QCV-MB control board		x
230 V main or auxiliary coil kit valve	Kit to be used with ON/OFF 230V controls		x
Fitted condensate pump	Available for horizontal and vertical units	x	
Electric heater	Electric coils with security thermostat	x	x

Controls

Controls			D-Line	B-Line
M-3V*		• Manual 3 speed switch • Without thermostatic control • Cannot control the valve	x	x
T-TMO		• ON-OFF switch • Manual 3 speed switch and Summer/Winter switch • Electronic room thermostat for fan and valve control (ON-OFF) • Controls the low temperature cut-out thermostat (TMM) and the chilled water valve (ON-OFF) and the electric heater (BEL)	x	x
T-REM		• ON-OFF switch • Manual 3 speed switch • Manual, automatic or centralized Summer/Winter switch • Electric heater activation button • Electronic room thermostat for fan and valve control (ON-OFF) • Simultaneous thermostatic control of the valves and fan • Controls the low temperature cut-out thermostat (NTC), the water valves (ON-OFF) and the electric heater	x	x
T-AUTO		• ON-OFF push button • Manual, automatic or centralized Summer/Winter switch • Manual or automatic 3 speed progressive push button • Summer/Winter/Fan/Auto mode push button • Electric heater activation button • Electronic room thermostat for fan and valve control (ON-OFF).Simultaneous thermostatic control of the valves and fan • Controls the low temperature cut-out thermostat (NTC), the water valves (ON-OFF) and the electric heater • Energy saving button	x	
IR-MB*		• Manages one or more units in Master/Slave mode • Internal sensor to detect the room temperature • ON/OFF switch and temperature set • Manual, centralized or automatic Summer/Winter switch • Set the fan speed and the operation mode • Controls the water valves (ON-OFF) and the electric heater • Time setting and weekly ON/OFF program **BFS: included in QCV-MB control board**	x	x
T-ECM		• ON-OFF switch • Manual 3 speed switch or automatic continuous speed control • Manual Summer/Winter switch • Summer/Winter/Fan/Auto mode push button • Electronic room thermostat for fan and valve control (ON-OFF) • Simultaneous thermostatic control of the valves and fan • Controls the low temperature cut-out thermostat (NTC) **Only for DFE units**	x	
T-POWER-A		• Controls the fan and the valves • Connected to the electric supply • Receives the information required from the control ***the power unit is required with T-AUTO and IR-MB on DFS/DFE units** ****** **T-POWER-M is the factory-mounted version of T-POWER-A.**	x	

For more accurate data, please refer to Trane Selection Tool.

Controls

Controls		D-Line	B-Line
M-2T		x	
COM			x
QVC-MB Control board			x
TODS		x	x

- ON-OFF switch
- 3 speed switch
- Manual Summer/Winter switch
- Thermostatic control on the fan
- Thermostatic control on the valve and continuous fan operation
- Simultaneous thermostatic control of the valve and fan

DFS 2 pipe only

- Remote manual speed control
- Commutator with 4 positions

- 2/4 pipe system
- Fan ON/OFF thermostatic control
- Valve thermostatic control and continuous ventilation
- Fan operation control depending on the coil temperature
- Automatic switch of the operating mode
- Seasonal switch by means of remote contact
- ON/OFF of the fan coil by means of the remote contact
- Electric heater control
- Includes the IR-MB

- Manages up to 60 units
- Display current operating mode, fan speed, set point
- Display room temperature measured on the individual unit
- Change operating mode and set point
- Modify the values and operation parameters of the fan speed
- Each function can then be sent to all the units connected, or alternatively to each individual unit

For more accurate data, please refer to Trane Selection Tool.

Single Source Solution

From chillers to compressors, the complete line of variable speed Trane HVAC solutions are designed to work together to deliver exceptional performance and value. These high efficiency systems with flexible configurations can be the perfect fit for your building.

In addition to ductable units, Trane offers high wall units, one-way and 4-way cassettes and cabinet fan coils. Call your local Trane sales office for more information today.

Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit *trane.eu* or *tranetechnologies.com.*

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