

# SLIMtherm

The SLIMtherm™ range of Fan Coil Units combines the benefits of a quality double skin casing construction and an extra low profile design to make it well suited for applications where ceiling space is limited. In addition, the compact, slimline design makes the unit easier to retrofit into existing ceiling cavities that have only narrow space available.

## Lismore Base Hospital

Works at Lismore Base Hospital have bolstered its ability to meet the medical needs of the region for many years to come. Construction of a 12-storey South Tower at the front of the site and refurbishment of existing areas provides larger Emergency and Renal Departments, a new ambulance drop-off, a hospital mortuary and spacious front entrance. The flexible design expands the current capacity of the hospital with access to a wider range of services, but also provides space for future growth.

Inside, a combination of Air Design SLIMtherm, MODUtherm, MINItherm and loose coils deliver conditioned air to maximise the comfort of patients and visitors. The \$80.25 million project will be complemented by a four-storey North Tower to begin construction in mid-2018.

*Location: Lismore, NSW*  
*Consultant: Wood & Grieve*  
*Mechanical contractor: Climatech*



## Darwin International Airport

A multi-million dollar upgrade of Darwin International Airport has doubled the terminal capacity and ensured it has the ability to attract air services to support the territory's tourism, business and industry. The eastern and western ends of the 1991-built terminal were extended to double its capacity and meet the growing number of visitors. Customer service was also improved with better baggage systems and security screening areas, new airline lounges and retail upgrades. The Air Design extra low profile SLIMtherm Fan Coil Unit helps maintain comfortable conditioned spaces, and was easily retrofitted into the existing ceiling cavities.

Improvements to the outside include a 15,000 square metre extension to the airport apron, airside lighting upgrade, six new boarding gates and three new aircraft parking bays. The upgrades will enable the airport to handle the growing number of passengers and air services required.

*Location: Darwin, Northern Territory*  
*Consultant: Cardno*  
*Mechanical Contractor: FRM Refrigeration*

Projects



LISMORE  
BASE  
HOSPITAL

Lismore Base Hospital

Darwin International Airport

# SLIMtherm

Extra Low Profile Fan Coil Units with EC fan motors.  
Up to 1,600 Litres/Sec.



The SLIMtherm™ range of Fan Coil Units combines the benefits of a quality double skin casing construction and an extra low profile design. Units are available in both horizontal and vertical configurations.

SLIMtherm units with a horizontal configuration are designed to be hung within a ceiling void. The extra low profile design makes the horizontally configured SLIMtherm units an ideal solution for low ceiling height applications.

SLIMtherm units in a vertical configuration are designed to minimize the plant room space needed for installation. The compact dimensions of the vertically configured SLIMtherm units makes them ideal for projects where plant room space is restricted.

The units are constructed with 25mm thick insulated panels that are fitted with the revolutionary FCU CLIP 'n' LOCK fastening system. This airtight system includes a synthetic cord and aluminium capping that gives the unit a strong, rigid structure and allows the panels to be removed easily for maintenance and cleaning. The high quality modular casing construction achieves the highest degree of air tightness, rating "L1", as defined in BS EN 1886:2007.

SLIMtherm units include high efficiency EC plug fans that can be controlled by MODBUS or 0-10V signal and run independently or integrated into most building management systems. The EC fans can be easily accessed for maintenance or replacement by removing an FCU CLIP 'n' LOCK side panel.

## Features

- Extra low profile height from 410 to 540mm allows SLIMtherm to fit into limited ceiling spaces
- High quality double skin Colorbond 25mm polyurethane FCU CLIP 'n' LOCK panels
- Panels have zero ozone depleting potential (0% ODP)
- High efficiency single phase EC plug fans with integrated speed control, current overload and motor phase protection, reverse polarity, locked rotor protection and soft starting
- EC plug fan motors rated IP54
- To minimise on-site installation time fan motors are pre-wired to a junction box
- Chilled water cooling coils available with up to 6 rows
- Hot water heating coils available with 1 or 2 rows
- Combined maximum of 6 cooling and heating coil rows per unit
- Drain tray manufactured from quality 304 grade stainless steel. Also available in 316 grade stainless steel
- G4 filters provided as standard
- Optional F8 filters with filter frames

## Construction

Units incorporate the unique FCU CLIP 'n' LOCK system where the removable casing panels clip into a continuous aluminium locking strip with an EPDM closed cell foam underseal. The locking strip is secured into position with a continuous synthetic cord, forming an airtight seal. Casing includes double skin, 25mm thick, polyurethane-filled removable panels. The unit case has a Class L1 leakage rating.

Each unit is pre-fitted with G4-rated, 25mm flat panel filters mounted on an external slide rail. The condensate tray is of a non-ponding design manufactured from grade 304 stainless steel. Units incorporate multiple, high efficiency single phase EC plug fans. The number of fans varies depending on the model.

## Fans

- EC motors are single phase 240V 50-60Hz
- Bearings are sealed for life ball type
- Integrated EC controller provides infinite speed control
- IP54 rated

## Thermal Protection

Integral thermal overload protection is supplied as standard. Protection will not prevent fans from functioning in fire mode as required by AS/NZS1668.1:2015.

## Suggested Specification

The Fan Coil Units shall be of the SLIMtherm series as designed by Fantech and be of the model numbers shown on the schedule drawing.

Units shall incorporate a modular, aluminium frame construction with double skin, 25mm thick, polyurethane filled panels that achieve the highest degree of air tightness rating "L1", as defined in BS EN 1886:2007. Panels shall have zero ozone depleting potential (0% ODP).

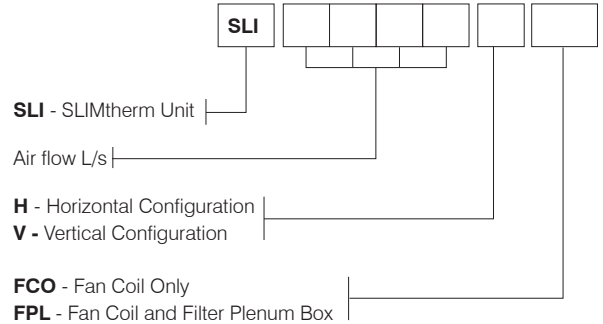
Unit casings shall incorporate AHU CLIP 'n' LOCK removable panels that are sealed air tight by the use of a continuous clip in aluminium locking strip with a continuous EPDM closed cell foam underseal. The panels are locked into the strip with a continuous synthetic cord. The panels shall be removable without the need to remove screws or fasteners. Cooling and heating capacities and external static pressures shall be as shown on the schedule.

Units shall be complete with filter plenums with filter frames fitted. Filter plenums shall have the same construction as the Fan Coil Unit.


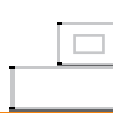
Fans shall be backward-curved, centrifugal type, driven by EC motors with an IP54 rating. Fan motors shall be pre-wired to an external terminal box.

Units shall use G4 or 50mm filters.

## How to order



Select unit based on air flow.  
Fantech to complete selection with customer based on the required cooling coil and heating coil data.

 <p><b>SLIMtherm Horizontal</b></p> <p>Features a low height of only 410mm making it ideal for mounting in ceiling spaces.</p>	 <p><b>SLIMtherm Vertical</b></p> <p>Features a vertical configuration and discharge. Suited to floor mounting in a plant room where minimum footprint is required.</p>
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# SLIMtherm

## Technical Data Low Profile Horizontal Series



Model Number	Air Flow	External Static Pressure	Total Cooling Capacity	Sensible Cooling Capacity	Heating Capacity	No. of Fans	Absorbed Power	Fan Speed	Motor Power	Motor Full Load Current
	L/s	Pa	kW	kW	kW		kW	rps	kW	Amps
SLI0300H	299	250	7.3	5.1	5.9	1	0.2	39	0.5	2.4
SLI0490H	493	250	11.7	8.2	10.6	1	0.4	47	0.5	2.4
SLI0680H	686	250	17.2	11.8	15.1	2	0.3 x 2	41	0.5 x 2	2.37 x 2
SLI0880H	880	250	21.6	14.9	19.7	2	0.3 x 2	45	0.5 x 2	2.37 x 2
SLI1070H	1074	250	27.0	18.5	24.4	2	0.5 x 2	50	0.5 x 2	2.37 x 2
SLI1300H	1320	250	31.5	22.0	29.6	3	0.3 x 3	45	0.5 x 3	2.37 x 3
SLI1600H	1610	250	39.5	27.3	36.6	3	0.5 x 3	50	0.5 x 3	2.37 x 3

Air flow and coil performance are at 2.5m/s coil face velocity.  
Cooling Capacities are based on 6 row 472fin/m coils with entering air conditions of 26/19°C and water temperatures of 6/12°C.  
Heating Capacities are based on 1 row 394fin/m coils with entering air at 12°C and water temperatures of 80/65°C.  
Absorbed power, motor power and current (per fan x no of fans).

## Acoustic Data Low Profile Horizontal Series



Model Number	Air Flow	External Static Pressure	Sound Power Spectrum dB*								
				63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
SLI0300H	299	250	In Duct	71	66	69	67	67	66	60	55
			Breakout	60	51	52	46	44	38	28	22
SLI0490H	493	250	In Duct	69	72	72	73	73	73	68	63
			Breakout	58	58	55	52	51	44	35	31
SLI0680H	686	250	In Duct	73	71	72	71	71	71	65	59
			Breakout	63	57	55	51	48	42	32	26
SLI0880H	880	250	In Duct	74	74	74	74	74	74	69	64
			Breakout	64	61	57	55	51	45	36	31
SLI1070H	1074	250	In Duct	69	76	76	77	78	78	73	68
			Breakout	60	63	61	58	55	48	40	35
SLI1300H	1320	250	In Duct	76	76	75	75	76	76	71	65
			Breakout	65	63	59	56	52	46	37	32
SLI1600H	1610	250	In Duct	71	78	78	79	80	80	75	70
			Breakout	61	64	62	60	56	49	41	36

\* Sound power includes multiple fans where applicable.



## Performance Data Cooling Coil Low Profile Horizontal Series

Model Number	Air Flow	Cooling Coil	Air On DB / WB	Air Off DB / WB	Total Capacity	Sensible Capacity	Water Flow	Entering / Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s		Rows / (Fins/m)	°C				°C		
SLI0300H	299	5 / 472	23 / 17	11.53 / 11.25	5.6	4.2	0.2	6 / 12	21	159
			26 / 19	12.12 / 11.81	7.3	5.1	0.2	6 / 12	33	159
			35 / 24	15.13 / 14.65	11.1	7.3	0.4	6 / 12	11	159
SLI0490H	493	5 / 472	23 / 17	11.79 / 11.51	8.8	6.8	0.4	6 / 12	10	159
			26 / 19	12.38 / 12.07	11.7	8.2	0.4	6 / 12	16	159
			35 / 24	13.91 / 13.46	20.3	12.7	0.8	6 / 12	42	159
SLI0680H	686	5 / 472	23 / 17	11.44 / 11.16	13.0	9.7	0.5	6 / 12	25	158
			26 / 19	11.91 / 11.60	17.2	11.8	0.5	6 / 12	40	158
			35 / 24	14.06 / 13.61	27.9	17.6	1.1	6 / 12	34	158
SLI880H	880	5 / 472	23 / 17	11.53 / 11.25	16.4	12.3	0.7	6 / 12	16	158
			26 / 19	12.12 / 11.81	21.6	14.9	0.7	6 / 12	26	158
			35 / 24	14.67 / 14.21	34.0	21.9	1.4	6 / 12	16	158
SLI1070H	1074	5 / 472	23 / 17	11.44 / 11.16	20.3	15.2	0.8	6 / 12	27	159
			26 / 19	11.91 / 11.6	27.0	18.5	0.8	6 / 12	45	159
			35 / 24	14.22 / 13.76	43.1	27.3	1.7	6 / 12	27	159
SLI1300H	1320	5 / 472	23 / 17	11.73 / 11.44	23.9	18.2	1.0	6 / 12	12	158
			26 / 19	12.34 / 12.02	31.5	22.0	1.0	6 / 12	19	158
			35 / 24	14.67 / 14.21	51.1	32.8	2.0	6 / 12	21	158
SLI1600H	1610	5 / 472	23 / 17	11.44 / 11.16	30.4	22.7	1.2	6 / 12	21	158
			26 / 19	12.12 / 11.81	39.5	27.3	1.2	6 / 12	33	158
			35 / 24	14.22 / 13.76	64.6	40.9	2.6	6 / 12	35	158

Air flow and coil performance are at 2.5m/s coil face velocity.

## Performance Data Heating Coil Low Profile Horizontal Series

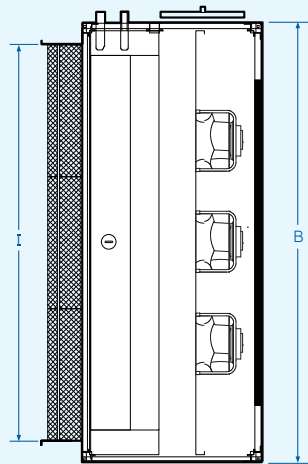


Model Number	Air Flow	Heating Coil	Air On DB	Air Off DB	Total Capacity	Water Flow	Entering / Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s		Rows / (Fins/m)	°C			°C		
SLI0300H	299	1 / 394	12	28.2	5.9	0.1	80 / 65	1	18
SLI0490H	493	1 / 394	12	29.5	10.6	0.17	80 / 65	4	18
SLI0680H	686	1 / 394	12	30.1	15.1	0.25	80 / 65	8	18
SLI0880H	880	1 / 394	12	30.3	19.7	0.32	80 / 65	15	18
SLI1070H	1074	1 / 394	12	30.6	24.4	0.4	80 / 65	26	18
SLI1300H	1320	1 / 394	12	30.3	29.6	0.48	80 / 65	13	18
SLI1600H	1610	1 / 394	12	30.6	36.6	0.6	80 / 65	22	18

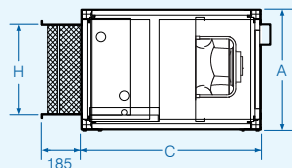
Air flow and coil performance are at 2.5m/s coil face velocity.

# SLIMtherm

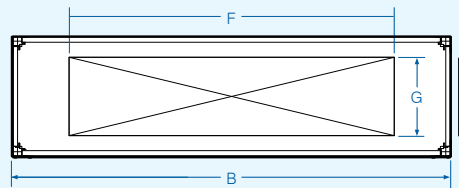
## Dimensional Data Fan Coil Unit Only (FCO) Low Profile Horizontal Series



Top View



Side View



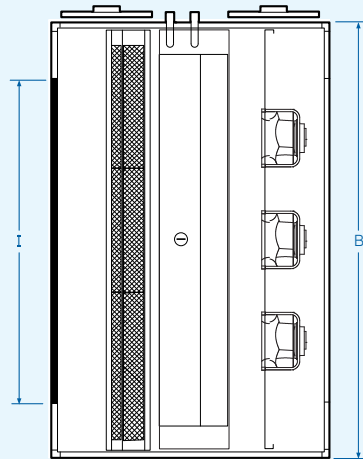
Front View

Model Number	Height	Width	Length	S/A Opening*		R/A Opening*		Weight kg
	A	B	C	F	G	H	I	
SLI0300H-FCO	410	760	808	250	220	297	595	85
SLI0490H-FCO	410	1065	808	555	220	297	887	95
SLI0650H-FCO	410	1370	808	867	220	297	1190	110
SLI0850H-FCO	410	1675	808	1165	220	297	1482	135
SLI1050H-FCO	410	1980	808	1470	220	297	1785	150
SLI1300H-FCO	540	1675	808	1165	350	399	1482	155
SLI1600H-FCO	540	1980	808	1470	350	399	1785	175

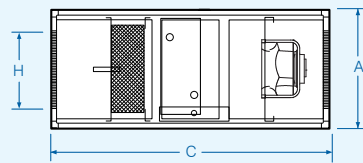
All dimensions in mm.  
\* S/A Opening = Outlet # R/A Opening = Inlet.

## Dimensional Data

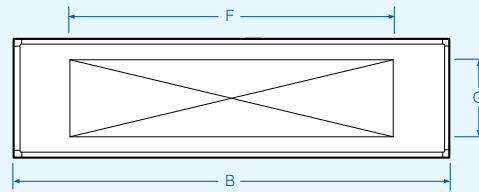
Fan Coil Unit and Filter Plenum Box (FPL)  
Low Profile Horizontal Series



Top View



Side View



Front View

Model Number	Height	Width	Length	S/A Opening*		R/A Opening*		Weight kg
	A	B	C	F	G	H	I	
SLI0300H-FPL	410	760	1265	250	220	220	250	88
SLI0490H-FPL	410	1065	1265	555	220	220	555	106
SLI0650H-FPL	410	1370	1265	867	220	220	867	154
SLI0850H-FPL	410	1675	1265	1165	220	220	1165	179
SLI1050H-FPL	410	1980	1265	1470	220	220	1470	201
SLI1300H-FPL	540	1675	1265	1165	350	350	1165	212
SLI1600H-FPL	540	1980	1265	1470	350	350	1470	239

All dimensions in mm.  
\* S/A Opening = Outlet \* R/A Opening = Inlet.



# SLIMtherm

## Technical Data Vertical Series



Model Number	Air Flow	External Static Pressure	Total Cooling Capacity	Sensible Cooling Capacity	Heating Capacity	No. of Fans	Absorbed Power	Fan Speed	Motor Power	Motor Full Load Current
	L/s	Pa	kW	kW	kW		kW	rps	kW	Amps
SLI0400V	448	250	11.0	7.6	8.9	1	0.4	46	0.5	2.4
SLI0700V	739	250	17.5	12.3	15.8	2	0.3 x 2	43	0.5 x 2	2.37 x 2
SLI1000V	1029	250	25.9	17.7	22.7	2	0.5 x 2	49	0.5 x 2	2.37 x 2
SLI1300V	1320	250	31.5	22.0	29.6	3	0.3 x 3	45	0.5 x 3	2.37 x 3
SLI1600V	1610	250	39.5	27.3	36.6	3	0.5 x 3	50	0.5 x 3	2.37 x 3

Air flow and coil performance are at 2.5m/s coil face velocity.  
 Cooling Capacities are based on 6 row 472fin/m coils with entering air conditions of 26/19°C and water temperatures of 6/12°C.  
 Heating Capacities are based on 1 row 394fin/m coils with entering air at 12°C and water temperatures of 80/65°C.  
 Absorbed power, motor power and current (per fan x no of fans).

## Acoustic Data Vertical Series



Model Number	Air Flow	External Static Pressure	Sound Power Spectrum dB*								
				63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
SLI0400V	448	250	In Duct	73	72	71	72	72	72	66	61
			Breakout	61	57	53	51	48	42	32	27
SLI0700V	739	250	In Duct	71	73	73	72	73	72	66	61
			Breakout	59	58	55	51	48	41	31	26
SLI1000V	1029	250	In Duct	67	76	76	77	78	77	72	68
			Breakout	55	61	58	56	52	45	37	33
SLI1300V	1320	250	In Duct	76	76	75	75	76	76	71	65
			Breakout	65	63	59	56	52	46	37	32
SLI1600V	1610	250	In Duct	71	78	78	79	80	80	75	70
			Breakout	61	64	62	60	56	49	41	36

\* Sound power includes multiple fans where applicable.



## Performance Data Cooling Coil Vertical Series

Model Number	Air Flow	Cooling Coil	Air On DB / WB	Air Off DB / WB	Total Capacity	Sensible Capacity	Water Flow	Entering / Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	kW	L/s	°C	kPa	Pa
SLI0400V	448	5 / 472	23.00 / 17.00	11.53 / 11.25	8.4	6.3	0.3	6 / 12	21	159
			26.00 / 19.00	12.12 / 11.81	11.0	7.6	0.4	6 / 12	33	159
			35.00 / 24.00	15.13 / 14.65	16.7	10.9	0.7	6 / 12	11	159
SLI0700V	739	5 / 472	23.00 / 17.00	11.79 / 11.51	13.2	10.1	0.5	6 / 12	10	159
			26.00 / 19.00	12.39 / 12.07	17.5	12.3	0.7	6 / 12	17	159
			35.00 / 24.00	13.91 / 13.46	30.4	19.0	1.2	6 / 12	43	159
SLI1000V	1029	5 / 472	23.00 / 17.00	11.44 / 11.16	19.4	14.5	0.8	6 / 12	25	158
			26.00 / 19.00	11.91 / 11.60	25.9	17.7	1.0	6 / 12	41	158
			35.00 / 24.00	14.37 / 13.91	40.8	25.9	1.6	6 / 12	26	158
SLI1300V	1320	5 / 472	23.00 / 17.00	11.73 / 11.44	23.9	18.2	1.0	6 / 12	12	158
			26.00 / 19.00	12.34 / 12.02	31.5	22.0	1.0	6 / 12	19	158
			35.00 / 24.00	14.67 / 14.21	51.1	32.8	2.0	6 / 12	21	158
SLI1600V	1610	5 / 472	23.00 / 17.00	11.44 / 11.16	30.4	22.7	1.2	6 / 12	21	158
			26.00 / 19.00	12.12 / 11.81	39.5	27.3	1.2	6 / 12	33	158
			35.00 / 24.00	14.22 / 13.76	64.6	40.9	2.6	6 / 12	35	158

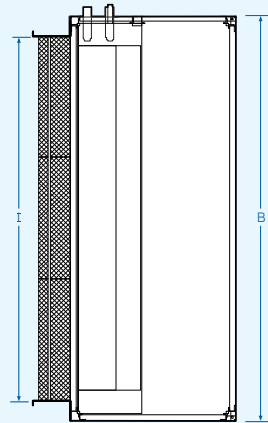
## Performance Data Heating Coil Vertical Series

Model Number	Air Flow	Heating Coil	Air On DB	Air Off DB	Total Capacity	Water Flow	Entering / Leaving water temp	Water Pressure Drop	Air Pressure Drop
	L/s	Rows / (Fins/m)	°C	°C	kW	L/s	°C	kPa	Pa
SLI0400V	448	1 / 394	12	28.2	8.9	0.2	80 / 65	1	18
SLI0700V	739	1 / 394	12	29.5	15.8	0.3	80 / 65	3	18
SLI1000V	1029	1 / 394	12	30.1	22.7	0.4	80 / 65	7	18
SLI1300V	1320	1 / 394	12	30.3	29.6	0.48	80 / 65	13	18
SLI1600V	1610	1 / 394	12	30.6	36.6	0.6	80 / 65	22	18

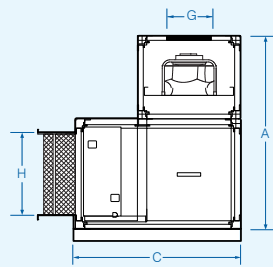
Air flow and coil performance are at 2.5m/s coil face velocity.

# SLIMtherm

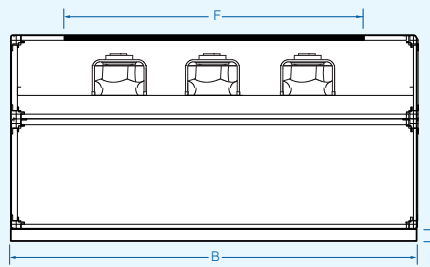
## Dimensional Data Fan Coil Only (FCO) Vertical Series



Top View



Side View



Front View

Model Number	Height	Width	Length	Base Height	S/A Opening*		R/A Opening*		Weight
	A	B	C	D	F	G	H	I	kg
SLI0300V-FCO	950	760	808	80	250	220	297	595	85
SLI0700V-FCO	950	1370	808	80	555	220	297	887	146
SLI1000V-FCO	950	1980	808	80	860	220	297	1190	171
SLI1300V-FCO	950	1675	808	80	1165	220	297	1482	211
SLI1600V-FCO	950	1980	808	80	1470	220	297	1785	237

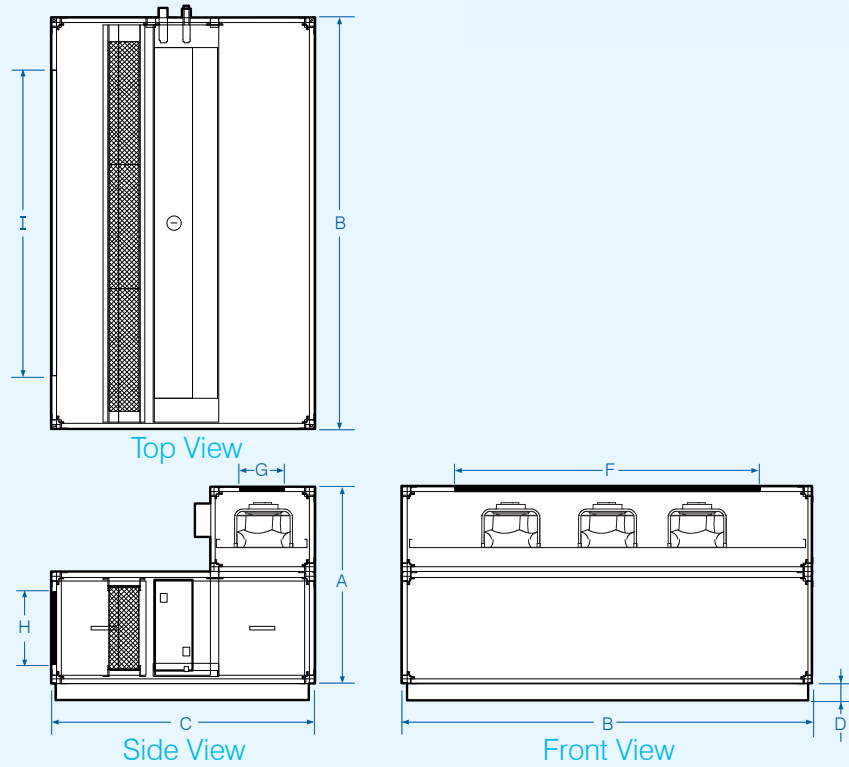
All dimensions in mm.  
\* S/A Opening = Outlet.  
# R/A Opening = Inlet.



## Dimensional Data

### Fan Coil & Filter Plenum Box (FPL)

#### Vertical Series



Model Number	Height	Width	Length	Base Height	S/A Opening*		R/A Opening*		Weight
	A	B	C	D	F	G	H	I	kg
SLI0300V-FPL	950	760	1265	80	250	220	220	250	121
SLI0700V-FPL	950	1370	1265	80	555	220	220	555	162
SLI1000V-FPL	950	1980	1265	80	860	220	220	860	191
SLI1300V-FPL	950	1675	1265	80	1165	220	220	1165	234
SLI1600V-FPL	950	1980	1265	80	1470	220	220	1470	264

All dimensions in mm.  
 \* S/A Opening = Outlet.  
 # R/A Opening = Inlet.