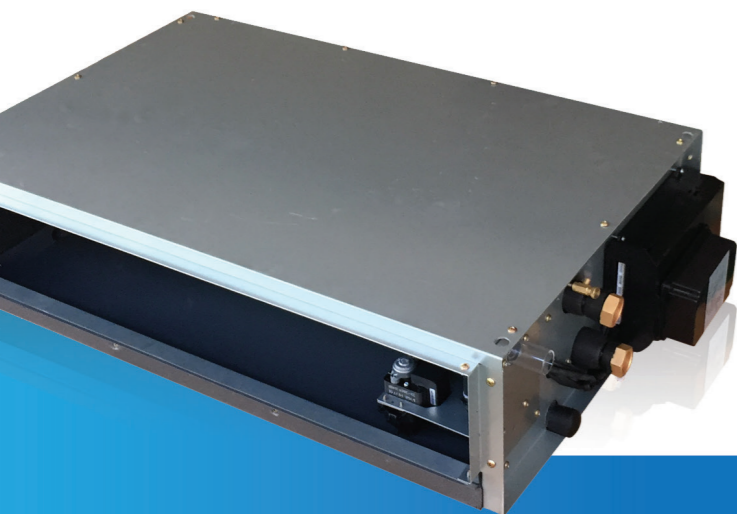
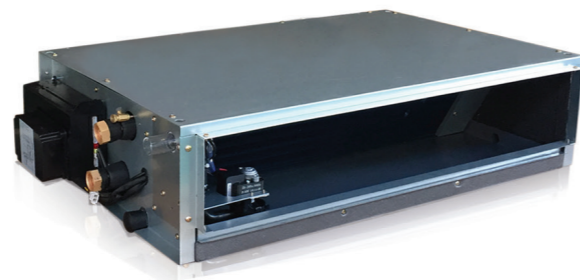


**ECO L-STAT  
SLIMLINE SERIES  
DUCTED EC  
MOTOR FAN COILS**

PDWSL Y-AECM  
PDWSL X-AECM



**ECO L-STAT SLIMLINE  
SERIES  
DUCTED EC  
MOTOR FAN COILS**

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**Product Presentation**

In line with space saving trends and modern industrial design, Sonkor Global HVAC has developed the ECO L-STAT Slimline Series Ducted Fan Coils Series to meet the specific demands of performance, size, acoustics, low energy usage, ease of installation and maintenance for low height concealed ducted fan coils. These products achieve very high energy saving levels as they can be combined with low temperature heat generators such as air or water to water heat pumps and condensing boilers.

With its sophisticated temperature regulator, this product range guarantees thermal comfort in every season. It heats and cools extremely quickly, and once the desired temperature is reached it maintains it accurately and silently.

**Product Range**

The L-STAT Slimline Series Ducted Fan Coils offer a range of 115V/60Hz and 220V/60Hz, with the following capacities:

- **3 sizes of 2 pipe models from 13400 BTU/H to 28900 BTU/H (3.93kW to 8.46kW) cooling capacity and from 20850 BTU/H to 44900 BTU/H (6.11kW to 13.15 kW) heating capacity.**
- **3 sizes of 4 pipe models from 13400 BTU/H to 28900 BTU/H (3.93kW to 8.46kW) cooling capacity and from 11500 BTU/H to 24800 BTU/H (3.46kW to 7.42kW) heating capacity also available.**



**Product Features**

• **Energy Efficiency.** The ECO L/M-STAT Slimline Series Low Static Ducted Fan Coils incorporate a DC motor with step-less speed modulation using an integrated EC motor driver.

Energy saving or unit power input at set H/M/L speeds is reduced by 30 - 50% when compared to traditional on/off AC motors. Moreover, in Energy Saving Auto - Mode (ESM), as airflow is continuously varied (step-less progression) between 15% and 100% of the maximum high speed airflow, energy saving will be 50 - 70% while precisely meeting the required cooling and heating loads of the space.

This innovation eliminates the need for the motor to turn off and on periodically to maintain the desired temperature of the environment, leading to total energy savings of up to 50% on an installation/project basis. Modulation of airflow to meet heating and cooling requirements of the space will also result in

reducing temperature fluctuations within the space, as well as reducing fan noise.

The motor is driven by a 0-5 VDC or 0-10 VDC signal originating from an inverter board integrated into the unit onboard controller, which utilizes PID logic in order to modulate motor RPMs in Energy Saving Auto - Mode (ESM).

• **Casing Design.** The 7 7/8 inches (200mm) special height is meant for reduced space installations in hotels, apartments, offices, etc. This fan coil series is perfect for low height ceiling concealed installations.

• **Performance.** The ECO L/M-STAT AMV Series Low Static Ducted Fan Coils are built with optimized forward curved metal centrifugal fans to achieve minimum noise levels as well as an integral quiet condensate pump and with a maximum head of 27 9/16 inches (700 mm).

**Standard Configuration**

The ECO L/M-STAT Slimline Series Low Static Ducted Fan Coils offer as standard are supplied with return plenum and air filter and statically and dynamically balanced centrifugal fans.

**Control Options**

Two control configuration options are offered for the ECO L-STAT Slimline Series.

- **Total Control Board (S type)** - Field Programmable using easy to set dipperswitches and controlled via Infra-red handset and/or wired wall pad. It includes a 24V signal for modulating valve controls and It offers the following control options: continuous with modulation or On/Off fan, 2 or 4 Pipe configuration, with or without valves, with or without electrical heater, preheat configuration, complete diagnostics. Our S Type controller also allows control of up to 32 Secondary units via a single Main Unit with IR Handset or Wall Pad controller, and up to 2048 units via BMS (Building Management System) with Modbus platform.
- **Flexi Control Board (W type)** - 24VAC controller compatible with external wired wall mounted thermostat for 3 speeds fan control or 0-10Vdc modulating fan control by external input signal. Control of integral condensate pump (pump is optional), zone valves (24V or modulating), and limited LED diagnostics is included.

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**Technical Specifications (AHRI Standards)**

PDWSL-(Y/X)-AECM-V

Hydronic Ductable Unit 3 row coil, 2 pipe with EC Motor.



UNIT CONFIGURATION		PDWSL-[Size]-Y/X-AECM-V		01	02	03	
		Configuration		2-pipe			
		Number of Fan Blowers		2	3	4	
		Power Supply		[V/Ph/Hz] 115 / 1 / 60 or 220 / 1 / 60			
		Operation Control		S Type: Total control version. W Type: Flexible control version.			
PERFORMANCE DATA	Air	Air Flow	H 3	500	800	1041	
			M 2	382	559	782	
			L 1	147	235	335	
		External Static Pressure	H 3	0.05			
			M 2	0.05			
			L 1	0.05			
	Cooling	Cooling Capacity	H 3	13400	22540	28862	
			M 2	10982	17152	23411	
			L 1	5151	8665	12009	
		Sensible Cooling Capacity	H 3	9359	15528	20006	
			M 2	7548	11608	15965	
			L 1	3522	5844	8090	
	Heating	Heating Capacity	H 3	20832	35040	44867	
			M 2	17072	26664	36394	
			L 1	8008	13470	18669	
		Max. Elec. Heater Capacity @ 115V / 220V	kW		0.5 / 1	1 / 2	1.5 / 3
	Sound	Sound Pressure Level ( Outlet )		46/37/19	49/40/25	50/41/26	
		Sound Pressure Level ( Inlet + Radiated )		49/40/25	52/43/28	53/44/29	
		Sound Power Level ( Outlet )		55/46/31	58/49/34	59/50/35	
		Sound Power Level ( Inlet + Radiated )		58/49/34	61/52/37	62/53/38	
Electrical	Fan Motor Power	H	50	82	100		
		M	23	40	43		
		L	11	15	17		
	Fan Motor Running Current @ 115V / 220V	A		0.86 / 0.43	1.42 / 0.71	1.74 / 0.87	
Hydronic	Cooling Water Flow Rate	3	2.65	4.45	5.7		
		2	2.17	3.39	4.62		
		1	1.02	1.71	2.37		
		3	0.39	0.63	0.4		
		2	0.28	0.4	0.28		
		1	0.08	0.12	0.09		
	Heating Water Flow Rate	3	2.65	4.45	5.7		
		2	2.17	3.39	4.62		
		1	1.02	1.71	2.37		
		3	0.35	0.57	0.36		
		2	0.25	0.36	0.25		
		1	0.07	0.11	0.08		
Water Content		gal		0.21	0.35	0.48	
CONSTRUCTION AND PACKING DATA		Water Connections		Socket (Threaded Female)			
		Type		in			
		In		3/4			
		Out		1			
		Condensate Drainage Connection		1			
Dimensions*		L		31-1/2	48-5/8	61-13/16	
		W		19-7/8			
		H		7-7/8			
		Net Weight		lbs		44	62

**Cooling mode (2 pipe):**

Return air temperature: 80F DB/ 67F WB.  
Inlet/outlet water temperature: 45F / 55F.

\* Product dimensions are within ± 1/16 inches.

**Heating mode (2 pipe):**

Return air temperature: 70F.  
Inlet water temperature: 140F.



**Technical Specifications (AHRI Standards)**

PDWSL-(Y/X)-AECM-P

Hydronic Ductable Unit 3 row coil, 4 pipe with EC Motor.



UNIT CONFIGURATION		PDWSL-[Size]-Y/X-AECM-P		01	02	03	
		Configuration		4-pipe			
		Number of Fan Blowers		2	3	4	
		Power Supply		[V/Ph/Hz] 115 / 1 / 60 or 220 / 1 / 60			
		Operation Control		S Type: Total control version. W Type: Flexible control version.			
PERFORMANCE DATA	Air	Air Flow	H 3	500	800	1041	
			M 2	382	559	782	
			L 1	147	235	335	
		External Static Pressure	H 3	0.05			
			M 2	0.05			
			L 1	0.05			
	Cooling	Cooling Capacity	H 3	13400	22540	28862	
			M 2	10982	17152	23411	
			L 1	5151	8665	12009	
		Sensible Cooling Capacity	H 3	9359	15528	20006	
			M 2	7548	11608	15965	
			L 1	3522	5844	8090	
	Heating	Heating Capacity	H 3	11533	18600	24733	
			M 2	9500	14367	20133	
			L 1	4733	7633	10833	
		Max. Elec. Heater Capacity @ 115V / 220V		kW		0.5 / 1	1 / 2
	Sound	Sound Pressure Level ( Outlet )		46/37/19	49/40/25	50/41/26	
		Sound Pressure Level ( Inlet + Radiated )		49/40/25	52/43/28	53/44/29	
		Sound Power Level ( Outlet )		55/46/31	58/49/34	59/50/35	
		Sound Power Level ( Inlet + Radiated )		58/49/34	61/52/37	62/53/38	
Electrical	Fan Motor Power	H	50	82	100		
		M	23	40	43		
		L	11	15	17		
	Fan Motor Running Current @ 115V / 220V	A		0.86 / 0.43	1.42 / 0.71	1.74 / 0.87	
Hydronic	Cooling Water Flow Rate	3	2.65	4.45	5.7		
		2	2.17	3.39	4.62		
		1	1.02	1.71	2.37		
		3	0.39	0.63	0.4		
		2	0.28	0.4	0.28		
		1	0.08	0.12	0.09		
	Heating Water Flow Rate	3	2.65	4.45	5.7		
		2	2.17	3.39	4.62		
		1	1.02	1.71	2.37		
		3	0.35	0.57	0.36		
		2	0.25	0.36	0.25		
		1	0.07	0.11	0.08		
Water Content		gal		0.21	0.35	0.48	
CONSTRUCTION AND PACKING DATA		Water Connections		Socket Threaded Female			
		Type		in			
		In		3/4			
		Out		1/2			
		Condensate Drainage Connection		1			
Dimensions*		L		31-1/2	48-5/8	61-13/16	
		W		19-7/8			
		H		7-7/8			
		Net Weight		lbs		44	62

**Cooling mode (4 pipe):**

Return air temperature: 80F DB/ 67F WB.  
Inlet/outlet water temperature: 45F / 55F.

\* Product dimensions are within ± 1/16 inches.

**Heating mode (4 pipe):**

Return air temperature: 70F.  
Inlet/outlet water temperature: 180F/140F.

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**Product Accessories**

CONTROL ACCESSORIES



**INFRA-RED HANDSET CONTROLLER + WALL HOLDER**

(AVAILABLE ONLY FOR TOTAL CONTROL BOARD)

With Global Control functionality for Main and Secondary Unit groups.



**ABS EXTERNAL LED RECEIVER**

IR receiver in ABS housing with up to 180 cm (70in) length prewiring, which can be connected with S Type controls only. LED lights show working mode or error code.



**UNLIMITED WIRED WALL PAD CONTROLLER**

(AVAILABLE ONLY FOR TOTAL CONTROL BOARD)

Features: 7 day ON/OFF timer program. Addressable Main and Secondary units allowing control of up to 32 Secondary units via a single Main Unit with set or check of each unit parameters individually. Error display with addressable error diagnostic (Main unit Wall Pad displays Secondary unit address and error type). One Touch Global Control (Global Control Main Unit Wall Pad controls all units in the group). Onboard Room Air Temperature Sensor.



**DIP SWITCH CONFIGURATION SERVICE**

Preset Dip switch configuration for addressing Main Unit to Secondary Units. Dip Switch configuration labelled with carton tag.

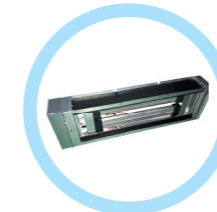


**UNIVERSAL EC THERMOSTAT**

(FOR FLEXI CONTROL BOARD)

Main functions: 2-pipe, 4-pipe, 2-pipe +floor heating mode, floor heating, cooling. AC/EC motor 3-speed control. Motorized valve control. 0~10 VDC Modulating valve. EC motor RPM control. Low temperature protection. Remote ON/OFF function. Cooling and heating contac. Modbus protocol. Power supply: 24 Vac or VDC. Working environment: 0~50°C, 5~95%RH (no condensate). Self-power consumption: <2W. Protection class: IP30.

MORE ACCESSORIES



**ELECTRICAL HEATERS**

The electric heater module is supplied for winter heating as an alternative to the auxiliary hot water coil. We offer a complete range of electric heaters kits, easy to connect to control box, with mounting fixture. The electric heater configuration is selectable by DIP switch on the internal control board.



**VALVES + VALVE KITS**

2-way or 3-way valve with 24V motorized on/off or modulating actuator integrated with stainless steel hose and cooper piping connection kits.

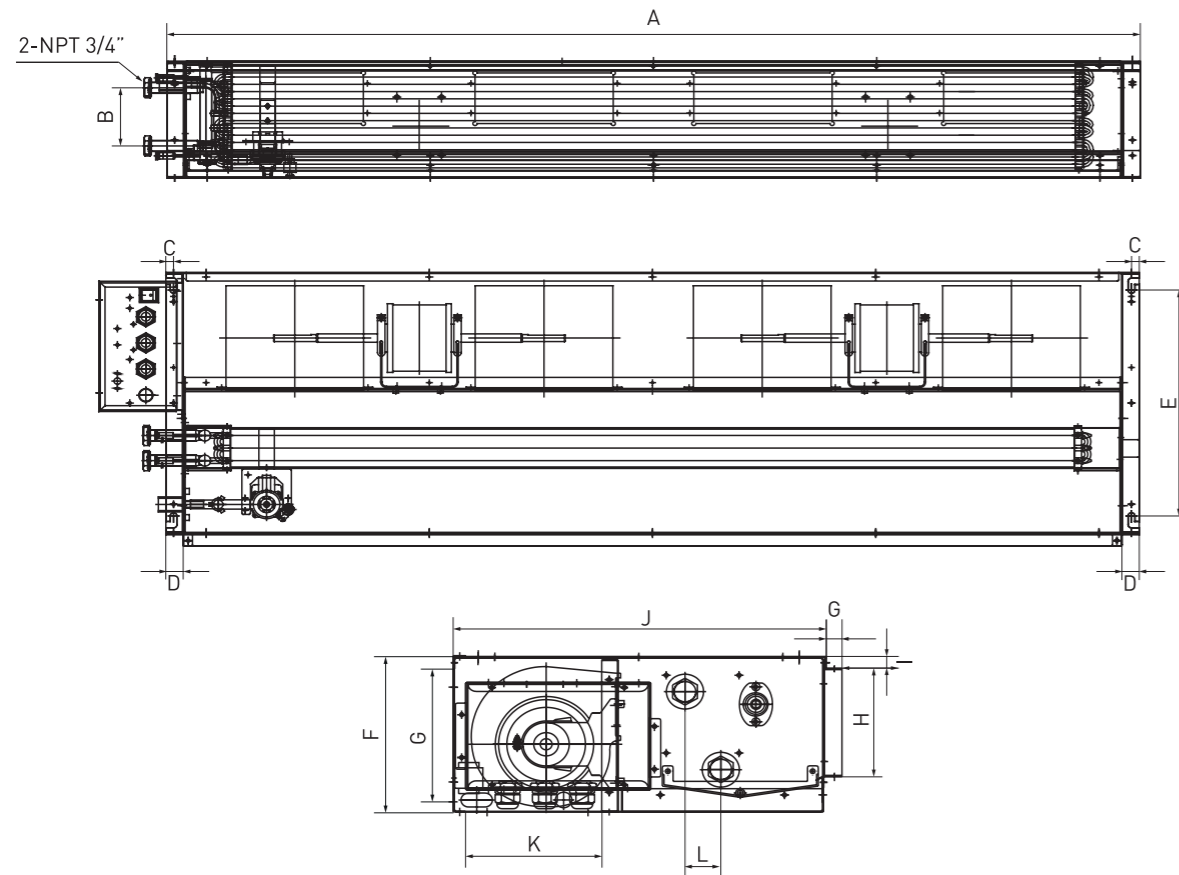
Contact your sales representative for further information.

**ECO L-STAT**  
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 DUCTED EC  
 MOTOR FAN COILS

PDWSL Y-AECM  
 PDWSL X-AECM



**Dimensional Drawings PDWSL-(Y/X)-AECM, 2 and 4 Pipe Models**



**Dimensional Data PDWSL-(Y/X)-AECM, 2 and 4 Pipe Models**

Model	Unit Dimensions (inches)						
	A	B	C	D	E	F	G
PDWSL-01	31-1/2	4	1/2	1-1/8	15-1/4	7-7/8	6-11/16
PDWSL-02	45-5/8	4	1/2	1-1/8	15-1/4	7-7/8	6-11/16
PDWSL-03	61-13/16	4	1/2	1-1/8	15-1/4	7-7/8	6-11/16

Model	Unit Dimensions (inches)				
	H	I	J	K	L
PDWSL-01	5-1/2	5/8	18-1/8	6-1/2	1-11/16
PDWSL-02	5-1/2	5/8	18-1/8	6-1/2	1-11/16
PDWSL-03	5-1/2	5/8	18-1/8	6-1/2	1-11/16

\* Product dimensions are within ± 1/16 inches.