

SLIM-B

CENTRAL HEAT PUMP SYSTEM

SAHB, SACB, SDB SERIES



R-454B



MAXIMIZE EFFICIENCY, ELEVATE COMFORT

The Slim-B heat pump seamlessly integrates discreet ducts into a space, providing uniform heat and cooling throughout a home's interior and unparalleled comfort. Its installation is simple, making it ideal for all types of homes and large spaces. It also reduces energy costs, optimizes efficiency with a A+++ rating, operates quietly, and requires minimal maintenance.

- **NEW R-454B HIGH-PERFORMANCE GAS**
- **GREATER RELIABILITY THANKS TO NEW GAS LEAK SENSOR**
- **OPTIMIZED INDOOR TEMPERATURE THROUGH THE DYNAMIC SPEED MODULATION OF THE AIR HANDLER FAN**
- **WALL-MOUNTED CONTROLLER DISPLAYS DIAGNOSTIC CODES FOR EASY PROBLEM SOLVING**
- **48K BTU CONDENSER WITH A SINGLE FAN**

NOMINAL CAPACITY

- 24,000, 30,000, 36,000, 48,000, 60,000 BTU/hr

VOLTAGE

- 230/208V, 60 Hz, 1-phase

MANUFACTURING

Indoor unit/Air handler

- Multi-speed ECM blower motor
- All-aluminum tubes & fins
- Common factory-sealed cabinet certified to achieve 2% or less leakage rate at 1.0 inch water column
- Horizontal and vertical condensate drain pans standard
- Blower and coil easy slide out for ease of maintenance
- Field Installed heater kits are optional: 5/10/15/20kW
- AHRI and ETI certified

Outdoor unit

- Variable speed rotary compressor (INVERTER), with PCB control protection
- Electronic expansion valve for precise control of refrigerant flow
- Condenser fins covered with a hydrophilic coating for improved corrosion resistance
- Quiet axial-flow fan
- Multi-hole pan with smart heater to prevent ice formation
- Compressor blanket and preheating technology

Connection piping

- Minimum piping length of 10 ft (3 m)
- Flared connections

INSTALLATION

Indoor unit/Air handler

- Multi-position installation

Outdoor unit

- Installation on aluminum wall bracket or ground stand (optional)

CONTROL

- Wireless remote included with wall bracket.
- Set temperature: 6°C to 32°C (61°F to 90°F)
- Temperature display format: °C or °F

WARRANTY

- 10-year basic warranty on parts and 10-year basic warranty on the compressor (labour not included).
- Labour warranty (sold separately) from the first to the tenth year on parts and labour, with condenser replacement if the compressor fails

GRANTS

- Qualifies for rebate programs*

	COOLING	18.3 SEER2	-30°C / -22°F
	HEATING	10.2 HSPF2	-30°C / -22°F

IDEAL FOR:

Dining room-kitchen, living room, family room, commercial building, office building, condo, restaurant.

*Please refer to www.stelpro.com for more details about provincial and federal rebate programs

FEATURES AND FUNCTIONS



Smart Pan Heater

Prevents ice formation in the base pan of the outdoor unit.



Compressor Blanket and Preheating Technology

Keeps the oil inside the compressor warm and prevents it from mixing with the refrigerant.



Anti-Corrosion Fin Coating

Condenser and evaporator fins are covered with a hydrophilic coating for greater corrosion resistance – a clear advantage for people living in coastal regions.



Refrigerant Leakage Detection

The indoor unit will display "EC" when the outdoor unit detects refrigerant leakage.



A2L Safety Sensor

Increased reliability thanks to our new A2L gas-leak sensor.



Smart Defrosting

Provides greater comfort and energy savings by eliminating unnecessary defrost cycles.



Smart Preheating

The system delays turning on the fan in heating mode to avoid blowing cold air out at startup.



Auto-Restart

In case of power failure, user selection and system parameters are stored in non-volatile memory. The system will automatically return to the last operating mode when power resumes.



Freeze Protection

For extended absences, the temperature setpoint can be lowered to 8°C (46°F) in heating mode to prevent freezing.



Auto-Clean

Keeps the indoor unit dry to prevent mold growth.



Turbo Mode

The unit operates at super high speed to achieve quick cooling or heating.



Timer

Allows you to program the time you want the unit to start and stop over a 24-hour period.



Sleep Mode

This function can be used to gradually increase or decrease room temperature, so you can save energy without affecting your sleep.



Silence Function

The unit will operate at low frequency and the fan at the lowest speed to reduce noise level.



Follow Me

With this function, the room temperature is read from the remote control, not from the indoor unit. This guarantees optimal comfort because the remote control is usually closer to you.

TECHNICAL SPECIFICATIONS

PERFORMANCE

INDOOR UNIT ¹		SAHB1-H24A-I	SAHB1-H30A-I	SAHB1-H36A-I	SAHB1-H48A-I	SAHB1-H60A-I	
OUTDOOR UNIT ¹		SDB1-H24A-O	SDB1-H30A-O	SDB1-H36A-O	SDB1-H48A-O	SDB1-H60A-O	
Voltage		V	230/208	230/208	230/208	230/208	
Cooling capacity	Nominal	W (BTU/hr)	6740 (23000)	8792 (30000)	10 550 (36000)	14067 (48000)	15825 (54000)
	Min. - Max.	W (BTU/hr)	2100 - 7900 (7200 - 27000)	3740 - 11400 (12800 - 39000)	2840 - 12300 (9700 - 42000)	4570 - 14900 (15600 - 51000)	3340 - 16500 (11400 - 56300)
Heating capacity	Nominal	W (BTU/hr)	6740 (24000)	9950 (34000)	10850 (37000)	14650 (50000)	16400 (56000)
	Min. - Max.	W (BTU/hr)	2080 - 8800 (7100 - 30000)	3020 - 11300 (10300 - 38500)	3220 - 14000 (11000 - 48000)	4540 - 16750 (15500 - 57300)	2370 - 18900 (8100 - 64500)
Used cooling power input	Nominal	W	1965	2567	3076	4690	5400
	Min. - Max.	W	530 - 2870	850 - 3620	820 - 4440	1345 - 5180	1540 - 6430
Used heating power input	Nominal	W	2112	2790	3012	4750	5300
	Min. - Max.	W	440 - 2730	655 - 3020	665 - 4370	1045 - 5200	725 - 5970
Cooling rated current		A	9	11.4	13.4	20	23.3
Heating rated current		A	9.5	12.4	13.1	20.5	23.1
MCA		A	19	29.5	29	38	40
Max. over-current protection (MOCP)		A	20	30	30	40	40
SEER2		-	18.3	16.8	17.4	16.5	16
HSPF2 IV		-	10	10	10.2	9.5	9
EER2		BTU/W	11.7	11.7	11.7	10.5	10
COP		W/W	1.87	1.96	1.9	1.9	1.8
AHR1 number			216082172	216082174	216082175	216082177	216082179
ENERGY STAR			✓	✓	✓	✓	✓

¹ Indoor unit and 1 outdoor unit. Note that each unit is individually packaged.

INDOOR UNIT - AIR HANDLER

		SAHB1-H24A-I	SAHB1-H30A-I	SAHB1-H36A-I	SAHB1-H48A-I	SAHB1-H60A-I		
Dehumidification		pt/hr (l/hr)	4.33 (2.05)	5.85 (2.77)	7.19 (3.4)	8.14 (3.85)	12.41 (5.87)	
Air flow volume	UH / H / M / L	cfm	824 / 759 / 695 / 630	989 / 895 / 806 / 712	1189 / 1083 / 971 / 865	1601 / 1472 / 1283 / 1095	1807 / 1583 / 1360 / 1136	
Sound level		UH / H / M / L / S ²	dB (A)	-- / 44 / 42 / 28	47 / 46 / 43 / 28	49 / 48 / 46 / 26	-- / 52 / 50 / 34	55 / 52 / 50 / 35
Fan motor power output		W	250	375	375	750	750	
Fan motor RLA		A	3	4.5	4.5	7.8	8.3	
Net weight		lb (kg)	105.6 (47.9)	128.97 (57.8)	129.41 (58.7)	162.92 (73.90)	162.92 (73.9)	

²Cross-Flow Fan Speeds: (UH) Ultra High (100%) / (H) High (80%) / (M) Medium (60%) / (L) Low (40%).

OUTDOOR UNIT - CONDENSER

		SDB1-H24A-O	SDB1-H30A-O	SDB1-H36A-O	SDB1-H48A-O	SDB1-H60A-O	
Air flow volume		ECM	1765.7	3001.8	3001.8	3037.1	2648.6
Sound level		dB(A)	60	60.5	62.5	65	65
Compressor power input		W	805	3200	3265	4900	3665
Compressor RLA		A	14	22.4	20.5	28	31
Fan motor power output		W	80	120	250	250	85
Fan motor RLA		A	1	1.5	2.4	2	1.2
Refrigerant volume (R454B)		oz (g)	74.08 (2100)	105.82 (3000)	126.99 (3600)	134.04 (3805)	183.42 (5200)
Net weight		lb (kg)	102.3 (46.4)	164.02 (74.4)	204.15 (92.6)	201.06 (91.2)	242.95 (110.2)
Operating ambient temperature	Cooling	°C (°F)	-30 to 50 (-22 to 122)				
	Heating	°C (°F)	-30 to 24 (-22 to 75)				

CONNECTION PIPING/REFRIGERANT

Pre-charge length		ft (m)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)
Additional refrigerant charge		oz/ft (g/m)	0.7 (65)	0.7 (65)	0.7 (65)	0.7 (65)	0.7 (65)
Liquid pipe outer diameter		in.	3/8	3/8	3/8	3/8	3/8
Gas pipe outer diameter		in.	3/4	3/4	3/4	3/4	3/4
Maximum height difference		ft (m)	82 (25)	82 (25)	98.4 (30)	98.4 (30)	98.4 (30)
Maximum total length		ft (m)	164 (50)	164 (50)	245 (75)	245 (75)	245 (75)

Stelpro reserves the right to modify at any time the description, manufacturing, or price of its products. Additionally, Stelpro may apply restocking fees or refuse a refund based on one or more of the following criteria: optional colour, custom product, assembly with low-demand options. For the latest product information and prices regarding the products, please visit the website www.stelpro.com.

INDOOR UNIT - CASED COIL

INDOOR UNIT		SACB1-H24A1418-I	SACB1-H24A1718-I	SACB1-H36A1424-I	SACB1-H36A1724-I	SACB1-H36A2124-I	SACB1-H60A2428-I	SMCB1-H60A2128-I
OUTDOOR UNIT		SDB1-H24A-O	SDB1-H24A-O	SDB1-H30A-O	SDB1-H36A-O	SDB1-H36A-O	SDB1-H60A-O	SDB1-H60A-O
Power supply	V / Ph / Hz	208/230 / 1 / 60	208/230 / 1 / 60	208/230 / 1 / 60	208/230 / 1 / 60	208/230 / 1 / 60	208/230 / 1 / 60	208/230 / 1 / 60
Cooling capacity	(BTU/hr)	24000	24000	34000	36000	36000	50000	51000
Heating capacity	(BTU/hr)	25000	25000	36000	36000	36000	48000	49000
AHRI number	-	216760301	216760302	216760303	TBC	TBC	TBC	TBC
Heating at -15°C (5°F)	TRÉ2 (SEER2)	16	16	14.3	14.8	14.8	14.3	14.5
	TRÉ2 (EER2) BTU/W	10	10	9	10.2	10.2	8.1	8.5
	CPSC2 (HSPF2)	9.5	9.5	8.5	8.7	8.7	7.3	8
	Maximum BTU/hr	21000	21000	27200	29000	29000	42000	41000
	COP W/W	1.8	1.8	1.83	1.9	1.9	1.75	1.75
Refrigerant pipe	Liquid – Gas	in.	3/8 - 3/4	3/8 - 3/4	3/8 - 3/4	3/8 - 3/4	3/8 - 3/4	3/8 - 3/4
Net weight	lb (kg)	42 (19)	42 (19)	57 (25.8)	59.5 (27)	64 (29.2)	81 (36.8)	97 (44)

COMPATIBILITY TABLE FOR HEATING ELECTRICAL COMPONENTS

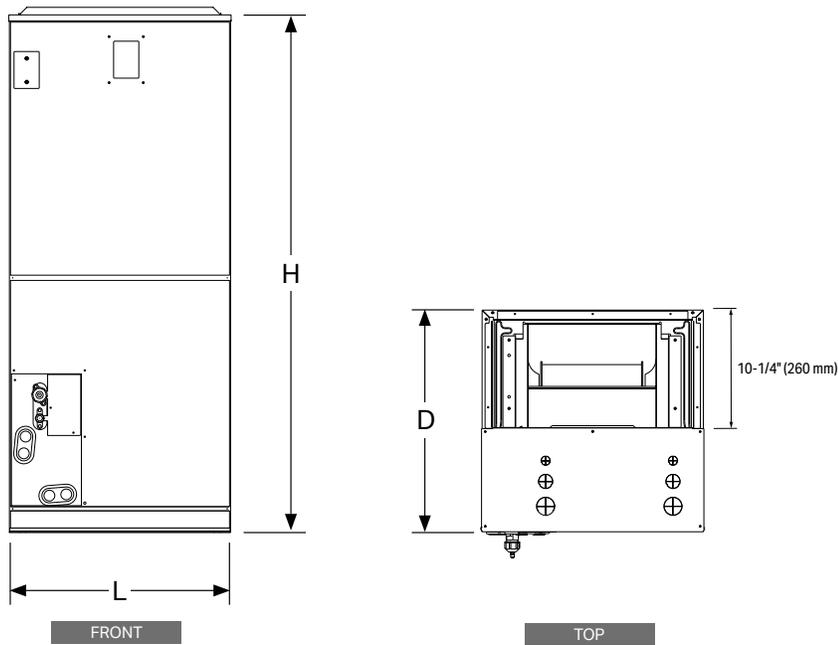
POWER OF THE ELEMENT	24K BTU	36K BTU	48K BTU	60K BTU
5kW	✓	✓	-	-
10kW	✓	✓	✓	✓
15kW	✓	✓	✓	✓
20kW	-	✓	✓	✓

ACCESSORIES

PRODUCT	DESCRIPTION
EAH-05E(UL)	5kW electric auxiliary heating module (for fan coil unit only)
EAH-10E(UL)	10kW electric auxiliary heating module (for fan coil unit only)
EAH-15E(UL)	15kW electric auxiliary heating module (for fan coil unit only)
EAH-20E(UL)	20kW electric auxiliary heating module (for fan coil unit only)
QOU14100JBAF	Assembled 4-pole jumper bar (for fan coil unit only)

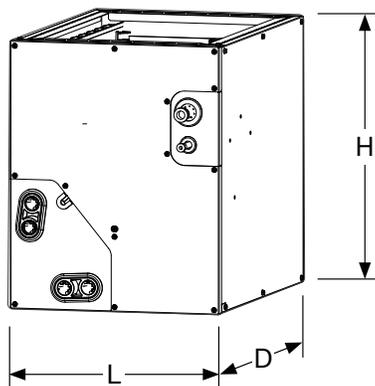
TECHNICAL DRAWINGS

INDOOR UNIT - AIR HANDLER



MODEL CODE	L		H		D	
	MM	IN.	MM	IN.	MM	IN.
SAHB1-H24A-I	534	21	1143	45	445	17 1/2
SAHB1-H30A-I	534	21	1245	49	534	21
SAHB1-H36A-I	534	21	1245	49	534	21
SAHB1-H48A-I	534	21	1346	53	622	24 1/2
SAHB1-H60A-I	534	21	1346	53	622	24 1/2

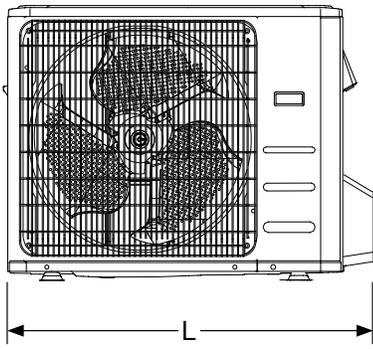
INDOOR UNIT - CASED COIL



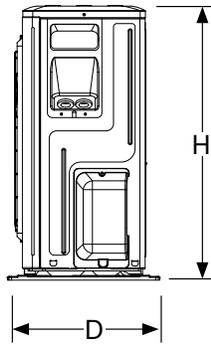
MODEL CODE	L		D		H	
	MM	IN.	MM	IN.	MM	IN.
CACB1-H24A1418-I	368	14 1/2	533	21	457	18
CACB1-H24A1718-I	445	17 1/2	533	21	457	18
CACB1-H36A1424-I	368	14 1/2	533	21	592	23 5/16
CACB1-H36A1724-I	445	17 1/2	533	21	597	23 1/2
CACB1-H36A2124-I	533	21	533	21	610	24
CMCB1-H60A2128-I	622	24 1/2	533	21	711	28
CACB1-H60A2428-I	549	21 5/8	546	21 1/2	705	27 3/4

OUTSIDE UNIT

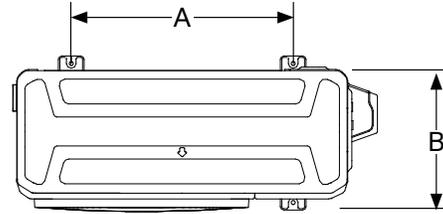
24,000 - 30,000 BTU



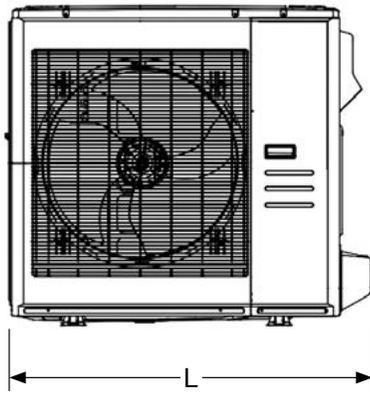
FRONT



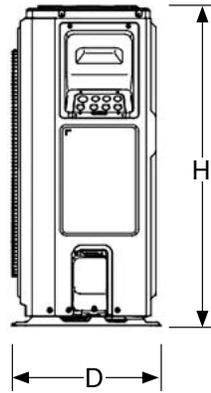
SIDE



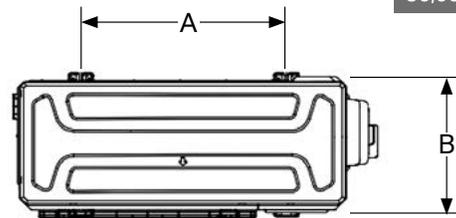
TOP



FRONT

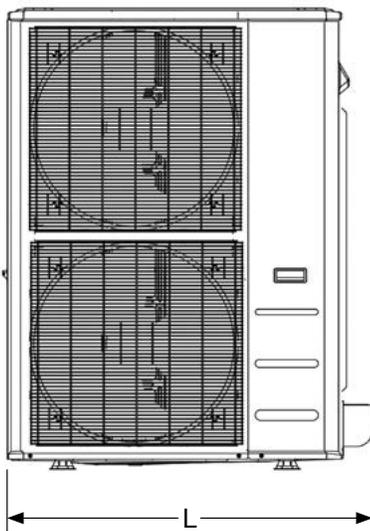


SIDE

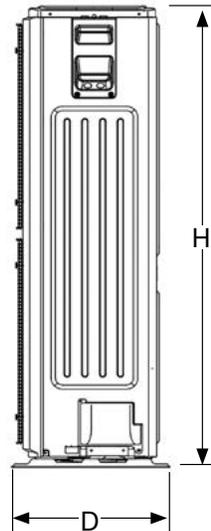


TOP

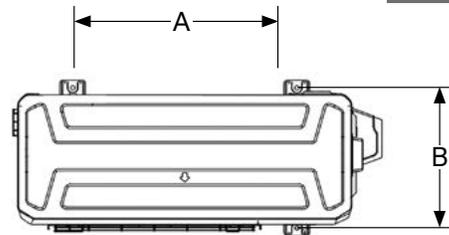
36,000 - 48,000 BTU



FRONT



SIDE



TOP

60,000 BTU

MODEL CODE	L		H		D		A		B	
	MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM	IN.
SDB1-H24A-O	955	37 5/8	673	26 1/2	380	15	663	26 1/8	325	12 3/4
SDB1-H30A-O	946	37 1/4	810	31 7/8	455	17 7/8	673	26 1/2	386	15 1/4
SDB1-H36A-O	997	39 1/4	977	38 1/2	440	17 3/8	616	24 1/4	391	15 3/8
SDB1-H48A-O	997	39 1/4	977	38 1/2	440	17 3/8	616	24 1/4	391	15 3/8
SDB1-H60A-O	952	37 1/2	1333	52 1/2	457	18	634	25	10 1/4	15 7/8