

L-APEX R454B Inverter Series

Product features:

- Full DC Inverter System – Delivers high efficiency, reduced energy consumption, and consistent comfort.
- Fast Cooling & Heating – Rapid temperature control for immediate comfort.
- Low Noise Operation – Engineered for quieter performance.
- Intelligent Auto-Defrost – Ensures reliable operation in low ambient temperatures.
- Low Temperature Cooling & Heating – Designed for extreme climates.
- Refrigerant Leakage Detector – Activates air circulation in case of leaks for enhanced safety.
- Independent Dehumidification – Automatically maintains optimal humidity levels.
- Wired Controller with Weekly & 24h Timer – Customizable scheduling and automation.
- Fire & Humidity-Proof Electrical Box (IDU) – Enhanced safety protection.
- Self-Troubleshooting Function – Diagnostics for easier maintenance.
- Flexible Installation – Multi-position design (vertical/horizontal) for UP, DOWN & HZ installation.
- 24V & RS485 Communication – Compatible with third-party 24V thermostats.

Benefits

- High Efficiency & Cost Savings – Inverter technology minimizes power consumption while maximizing performance.
- All-Weather Reliability – Strong heating and cooling performance in both hot and cold environments.
- Safer Operations – Refrigerant leak detection, fireproof box, and intelligent defrost add layers of protection.
- Easy Integration – Compatible with different thermostats and building automation systems.
- Flexible Installations – Ideal for both new construction and retrofit projects.
- Low Maintenance – Self-diagnostics and reminders reduce downtime and service costs.

Applications

- Residential homes with ducted systems
- Commercial offices and retail spaces
- Hospitality projects (hotels, resorts, guest rooms)
- Educational institutions
- Healthcare and wellness facilities
- Projects in extreme climates requiring stable performance



Technical Specifications (Key Models)

Model	Capacity	Type	Communication	Control	Installation	Notes
LHPHR454-24BT/18SR	24,000 Btu	Heat Pump	24V & RS485	Wired	Multi-position (V/H)	ECM Air Handler
LHPHR454-36BT/18SR	36,000 Btu	Heat Pump	24V & RS485	Wired	Multi-position (V/H)	ECM Air Handler
LHPHR454-48BT/18SR	48,000 Btu	Heat Pump	24V & RS485	Wired	Multi-position (V/H)	ECM Air Handler
LHPHR454-60BT/18SR	60,000 Btu	Heat Pump	24V & RS485	Wired	Multi-position (V/H)	ECM Air Handler

Also available as Cooling-Only Versions (LHPCR454 Series) in the same capacities.



L-APEX R454B Inverter Series

Model			24K	36K	48K	60K
			LHPHR454-24BT/18SR	LHPHR454-36BT/18SR	LHPHR454-48BT/18SR	LHPHR454-60BT/18SR
Cooling	Capacity	Btu/h	24000	34000	48000	54000
Heating	Capacity	Btu/h	24000	34000	48000	54000
Electrical Data	Voltage-Phase-Hz		208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
	Minimum Circuit Ampacity	A	3.5	3.5	3.5	3.5
	Max.Over Current Protection	A	15	15	18.5	18.5
	Min/Max Volts	V	187/253	187/253	187/253	187/253
Fan motor	Model		22001-000656	22001-000656	22001-000657	22001-000657
	Brand		Broad-Ocean	Broad-Ocean	Broad-Ocean	Broad-Ocean
	Power		1/2HP	1/2HP	3/4HP	3/4HP
	FLA	A	2.5	2.5	2.5	2.5
Blower	Diameter	inch	12-1/4'	12-1/4'	12-1/4'	12-1/4'
	Width	inch	13'	13'	13'	13'
Indoor coil	Number of rows		4*2	4*2	5*2	5*2
	Number of U tube		40*2	40*2	75*2	75*2
	Tube pitch(a) x row pitch(b)	mm	21/12.7	21/12.7	21/12.7	21/12.7
	Fin spacing /thickness/type	mm	1.5/0.095/ hydrophilic aluminium Louvered	1.5/0.095/ hydrophilic aluminium Louvered	1.5/0.095/hydrophilic aluminium Louvered	1.5/0.095/hydrophilic aluminium Louvered
	Tube outside dia.and type	mm	inner grooved aluminium tube/7mm	inner grooved aluminium tube/7mm	inner grooved aluminium tube/7mm	inner grooved aluminium tube/7mm
	Coil length x height x width	mm	/	/	/	/
	Number of circuits		4*2	4*2	6*2	6*2
Sound Pressure rating		dB(A)	57 (TBD)	57 (TBD)	62 (TBD)	62 (TBD)
Indoor fan Air flow		CFM	850	1175	2052	2052
		m³/h	1450	2000	3500	3500
Static Pressure		in.WC	up to 0.8	up to 0.8	up to 0.8	up to 0.8
		Pa	up to 200	up to 200	up to 200	up to 200
Throttle type	Throttle type		TXV	TXV	TXV	TXV
	Model		3TR	3TR	5TR	5TR
Refrigerant Line Size	Liquid side	inch	3/8'	3/8'	3/8'	3/8'
	Suction side	inch	3/4'	3/4'	7/8'	7/8'
Refrigerant Connection Size	Liquid side	inch	3/8'	3/8'	3/8'	3/8'
	Suction side	inch	3/4'	3/4'	7/8'	7/8'
Indoor unit	Dimension (W*H*D)	inch	21'x46-1/2'x21'	21'x46-1/2'x21'	21'x56'x24-1/2'	21'x56'x24-1/2'
	Packing (W*H*D)	inch	23'x52'x24-1/2'	23'x52'x24-1/2'	24-1/2'x62'x28'	24-1/2'x62'x28'
Equipment Weight		kg	56	56	80	80
		lbs	123	123	176	176
Ship Weight(Pallet)		kg	TBD	TBD	TBD	TBD
Shipping per STD40HQ			152	152	57	57



Model			24K	36K	48K	60K
			LHPCR454-24BT/18SR	LHPCR454-36BT/18SR	LHPCR454-48BT/18SR	LHPCR454-60BT/18SR
*Rated Cooling (95F/35°C) *	Capacity	Btu/h	24000	34600	46000	52000
	EER2	Btu/h.W	10.5	10.0	10.0	8.0
	SEER2	Btu/h.W	18.0	18.0	18.0	16.5
*Rated Heating (47F/8.3°C) *	Capacity	Btu/h	25000	36000	47000	53000
	HSPF2-4	Btu/h.W	8.5	8.0	8.0	7.6
*Cold Climate Heating (5F/-15°C) *	Capacity	Btu/h	17800	26800	36000	38000
	COP	W/W	1.8	1.8	1.8	1.8
	5F/47F		74%	77%	78%	73%
Electrical Data	Voltage-Phase-Hz		208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
	Minimum Circuit Ampacity	A	TBD	TBD	TBD	TBD
	*Max.Overcurrent protection (MAX FUSE OR HACR BREAKER) *	A	TBD	TBD	TBD	TBD
	min/max Volts	V	187/253	187/253	187/253	187/253
Fan motor	Brand		Broad-Ocean	Broad-Ocean	Broad-Ocean	Broad-Ocean
	Type		DC	DC	DC	DC
	Input	W	200	200	200	200
Blower	Diameter	inch	23-1/2'	23-1/2'	20-7/8'	20-7/8'
	Width	inch	4-1/2'	4-1/2'	6-3/4'	6-3/4'
Outdoor coil	Number of rows		1	2	2	2
	Number of U tube		14	28	38	38
	Tube pitch(a)x row pitch(b)	mm	12.7/21	12.7/21	12.7/21	12.7/21
	Fin spacing /thickness/type	mm	1.2/0.095/ hydrophilic aluminium Louvered	1.4/0.095/ hydrophilic aluminium Louvered	1.5/0.095/ hydrophilic aluminium Louvered	1.5/0.095/ hydrophilic aluminium Louvered
	Tube outside dia.and type	mm	inner grooved aluminum tube/7mm	inner grooved aluminum tube/7mm	inner grooved aluminum tube/7mm	inner grooved aluminum tube/7mm
	Coil length x height x width	mm	/	/	/	/
	Number of circuits		4	8	/	/
Sound Pressure rating		dB	68	68	70	70
Outdoor fan Air flow	CFM		/	/	/	/
	m3/h		/	/	/	/
Throttle type			EEV	EEV	EEV	EEV
Pre-Charged refrigerant type	Type		R454B	R454B	R454B	R454B
	oz.		75.8	99.8	165	165
	g		2150g	2830g	4680g	4680g
Refrigerant Line Size	Liquid side	inch	3/8'	3/8'	3/8'	3/8'
	Suction side	inch	3/4'	3/4'	7/8'	7/8'
Refrigerant Connection Size	Liquid side (welding type)	inch	3/8'	3/8'	3/8'	3/8'
	Suction side (welding type)	inch	3/4'	3/4'	7/8'	7/8'
Pre-Charged Standard line length		m	7.5	7.5	7.5	7.5
		feet	25Feet	25Feet	25Feet	25Feet
Maximum line length		m	30	30	30	30
		feet	100Feet	100Feet	100Feet	100Feet
Maximum elevation difference		m	15	15	15	15
		feet	50Feet	50Feet	50Feet	50Feet
Operating temperatures	Cooling	°C	-15--54°C	-15--54°C	-15--54°C	-15--54°C
		°F	5--130 °F	5--130 °F	5--130 °F	5--130 °F
	Heating	°C	-20--30°C	-20--30°C	-20--30°C	-20--30°C
		°F	-5--122 °F	-5--122 °F	-5--122 °F	-5--122 °F
Outdoor unit	Dimension (W x H x D)	inch	29-1/8 x 24-15/16 x 29-1/8	29-1/8 x 24-15/16 x 29-1/8	29-1/8 x 33-3/16 x 29-1/8	29-1/8 x 33-3/16 x 29-1/8
	Packing (W x H x D)	inch	30-1/5 x 31-1/4 x 30-1/5	30-1/5 x 31-1/4 x 30-1/5	30-1/5 x 39-1/2 x 30-1/5	30-1/5 x 39-1/2 x 30-1/5
Equipment Weight		kg	TBD	TBD	TBD	TBD
Ship Weight(Pallet)		kg	TBD	TBD	TBD	TBD
Shipping per STD40HQ			135PCS	155PCS	90PCS	90PCS