



# COMMERCIAL AIR CONDITIONERS

PRODUCT CATALOGUE

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## *ROOFTOP PACKAGED UNIT*



## ROOFTOP PACKAGED UNIT

FR-ST1H030 - 850

Cooling capacity 10.55kW - 298kW



### FEATURES

- **Wide cooling capacity range**

There is a large production line of packaged units, with capacities ranging from 3Ton to 85Ton at nominal conditions.

It is suitable for installation in rooftop and ground.

- **Economy**

Some models feature the flexibility and economy of 2~4 stages operation. Compressors are progressively switched on only as they are needed. This has the added advantage of lowering start-up current.

- **Outstanding reliability**

**Durable construction**

Our packaged systems are built tough to withstand all weathers. Their durable construction ensures a long life and excellent return on your investment. The outdoor air coils' aluminum fins are epoxy coated for extra protection in corrosive environments. Cabinets are constructed from high grade steel - polyester powder coated for all weather protection. External fasteners are stainless steel or galvanized

type. Corrosion resistant drain trays are also included.

All units are tested at the factory to make sure no leakage for coil and provide reliable start up.

Coils are manufactured from seamless copper tubes mechanically expanded into aluminum fins. All coils are tested at 30kg/cm<sup>2</sup> (450 Psi) air pressure, under water to avoid leakage. They also undergo dry chemical cleaning after manufacturing for optimum system cleanness.

**Reliable scroll compressor**

High efficiency scroll compressor for the whole range, with built-in thermal overload cut-out and crankcase heater, mounted on rubber vibration dampers.

**Multi-protection design**

Electric panel consists of breakers and contactors for compressors and fan motors, phase sequence relay and other necessary protection devices for the main components.

#### • Quieter operation

The packaged Rooftop series are basic constructed and engineered with noise reduction as a first consideration, low noise mounted fans are used, 15mm wave type acoustic Insulation for compressor section and compressors are mounted on vibration isolators. Ripple type acoustic insulation for compressor section, and thermal insulation for coil and fan section, reduce condensation and low noise.

#### • Easy to installation and maintenance

Units are factory assembled and pre-charged, with a single point electrical connection. On arrival to the job site they are ready to be lifted to their operating position through the lifting supports available on the units.

Convenient for wires connection, Only connect the wires of power supply, and no need to connect any signal wires.

Quick release fasteners are provided on electrical and compressor panel.

Removable the access doors on the filter, fan motor, and electric box sections, provide convenient access to system components for maintenance and service.

#### OPTIONAL

- Economizer with fresh, return air dampers with cowl
- Free cooling function for low ambient temperature.
- Optional water heating coil
- Optional electric heater
- Optional supply / return air configurations
- Tropical climate T3 condition
- 100% heat recovery
- 100% fresh air
- G4 filter and bag filter
- CO<sub>2</sub> and smoke detector
- BMS devices
- SIEMENS PLC control

## SPECIFICATIONS

Model			FR-ST1H030A1	FR-ST1H040A1	FR-ST1H050A1
Type			Side-discharge	Side-discharge	Side-discharge
Cooling	Capacity	Btu/h	36,000	48,000	58,000
		kW	10.55	14.07	17.29
	Input	kW	3.05	4.79	5.64
	EER	Btu/h.W	11.8	10.0	10.3
Heating	Capacity	Btu/h	37,500	51,500	62,500
		kW	10.99	15.09	18.32
	Input	kW	3.00	4.56	5.21
	COP	Btu/h.W	12.5	11.3	12.0
Air flow	Indoor side	CFM	1,500	1,858	2,045
External static pressure		Pa	50	50	50
Max.power input		kW	4.25	6.05	7.05
Max.current		A	6.4	8.8	10.9
Compressor	Type / Quantity		Scroll / 1	Scroll / 1	Scroll / 1
	Brand		Copeland	Copeland	Copeland
Indoor fan	Type / Drive type		Centrifugal / Direct	Centrifugal / Direct	Centrifugal / Direct
Outdoor fan	Type / Drive type		Axial / Direct	Axial / Direct	Axial / Direct
Sound pressure level		dB(A)	64.9	67.7	68.8
Dimension	Net(W×H×D)	mm	1,116×830×744	1,116×830×774	1,116×830×744
Weight	Net	kg	139	146	159



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<b>Model</b>			<b>FR-ST1H062A1</b>	<b>FR-ST1H075A1</b>	<b>FR-ST1H085A1</b>	<b>FR-ST1H100A1</b>	<b>FR-ST1H125A1</b>
<b>Cooling</b>	Capacity	Btu/h	75,000	89,000	103,000	120,000	150,000
		kW	22.0	26.0	30.0	35.0	44.0
	Input	kW	6.6	7.9	9.3	10.7	13.3
	EER	Btu/h.W	11.4	11.3	11.1	11.2	11.3
<b>Heating</b>	Capacity	Btu/h	89,000	103,000	120,000	137,000	154,000
		kW	26.0	30.0	35.0	40.0	45.0
	Input	kW	7.5	8.9	10.6	11.9	13.2
	COP	Btu/h.W	11.9	11.6	11.3	11.5	11.7
<b>Air flow</b>	Indoor side	CFM	2,800	2,830	3,500	4,100	5,500
<b>External static pressure</b>		Pa	Default:80;0~250	Default:80;0~250	Default:80;0~200	Default:90;0~250	Default:110;0~275
<b>Max.power input</b>		kW	8,600	12,000	13,600	16,000	19,700
<b>Max.current</b>		A	18.3	24.8	26.5	28.8	38.2
<b>Compressor</b>	Type / Quantity		Scroll/1	Scroll/1	Scroll/2	Scroll/2	Scroll/2
	Brand		Copeland	Danfoss	Hitachi	Hitachi	Copeland
<b>Indoor fan</b>	Type / Drive type		Centrifugal/Direct	Centrifugal/Direct	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt
<b>Outdoor fan</b>	Type / Drive type		Axial/Direct	Axial/Direct	Axial/Direct	Axial/Direct	Axial/Direct
<b>Sound pressure level</b>		dB(A)	71.0	72.0	71.5	71.5	71.8
<b>Dimension</b>	Net(W×H×D)	mm	1,475×840×1,130	1,475×840×1,130	1,483×1,138×1,231	1,483×1,138×1,231	1,965×1,230×1,130
	Packing(W×H×D)	mm	1,495×870×1,150	1,495×870×1,150	1,500×1,255×1,155	1,500×1,255×1,155	1,995×1,255×1,160
<b>Weight</b>	Net / Gross	kg	229/234	325/335	340/350	343/354	451/471

<b>Model</b>			<b>FR-ST1H150A1</b>	<b>FR-ST1H175A1</b>	<b>FR-ST1H200A1</b>	<b>FR-ST1H250A1</b>	<b>FR-ST1H300A1</b>
<b>Cooling</b>	Capacity	Btu/h	180,000	208,000	240,000	300,000	345,000
		kW	53.0	61.0	70.0	88.0	101.0
	Input	kW	16.7	19.1	22.6	28.9	32.8
	EER	Btu/h.W	10.8	10.9	10.6	10.4	10.5
<b>Heating</b>	Capacity	Btu/h	191,000	218,000	260,000	330,000	380,000
		kW	56.0	64.0	75.0	97.0	111.5
	Input	kW	17.2	19.5	23.6	30.3	36.5
	COP	Btu/h.W	11.1	11.2	11.0	10.9	10.4
<b>Air flow</b>	Indoor side	CFM	7,000	7,600	8,800	10,000	11,200
<b>External static pressure</b>		Pa	Default:110;0~325	Default:110;0~250	Default:120;0~375	Default:130;0~350	Default:270;25~400
<b>Max.power input</b>		kW	25.0	27.0	32.5	38.5	49.5
<b>Max.current</b>		A	46.1	55.4	63.2	74.3	81.7
<b>Compressor</b>	Type / Quantity		Scroll/2	Scroll/2	Scroll/2	Scroll/2	Scroll/2
	Brand		Copeland	Copeland	Copeland	Danfoss	Danfoss
<b>Indoor fan</b>	Type / Drive type		Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt
<b>Outdoor fan</b>	Type / Drive type		Axial/Direct	Axial/Direct	Axial/Direct	Axial/Direct	Axial/Direct
<b>Sound pressure level</b>		dB(A)	76.9	76.0	75.3	76.8	77.9
<b>Dimension</b>	Net(W×H×D)	mm	1,965×1,230×1,130	1,670×1,247×2,192	1,670×1,247×2,192	2,320×1,245×2,220	2,320×1,245×2,220
	Packing(W×H×D)	mm	1,995×1,255×1,160	1,695×1,284×2,212	1,695×1,284×2,212	2,330×1,275×2,230	2,330×1,275×2,230
<b>Weight</b>	Net / Gross	kg	492/512	615/645	690/720	940/970	955/985

<b>Model</b>			<b>FR-C T1H350A1</b>	<b>FR-C T1H400A1</b>	<b>FR-C T1H450A1</b>	<b>FR-C T1H500A1</b>	<b>FR-C T1H600A1</b>	<b>FR-C T1H850A1</b>
<b>Cooling</b>	Capacity	Btu/h	410000	480000	510000	610000	720000	1020000
		kW	120	140	149	180	210	298
	Input	kW	45.1	55.7	55.1	69.9	83	106.7
	EER	Btu/h.W	9.1	8.6	9.3	8.7	8.7	9.6
<b>Heating</b>	Capacity	Btu/h	440000	510000	540000	660000	770000	110000
		kW	128.3	150	159.2	192.5	226	318
	Input	kW	41.7	51.8	51.5	64.8	77	100
	COP	Btu/h.W	10.6	9.8	10.5	10.2	10	11
<b>Air flow</b>	Indoor side	CFM	12353	14706	15294	18824	22353	31765
<b>External static pressure</b>		Pa	400	400	400	500	500	500
<b>Cooling running current</b>		A	82.4	101.4	100.2	130.9	151	192.3
<b>Heating running current</b>		A	77.4	101.4	95.1	130.9	142.3	184.3
<b>Compressor</b>	Type / Quantity		Scroll/4	Scroll/4	Scroll/4	Scroll/6	Scroll/6	Scroll/4
	Brand		Copeland	Copeland	Copeland	Copeland	Copeland	Copeland
<b>Indoor fan</b>	Type / Drive type		Centrifugal / Belt					
<b>Outdoor fan</b>	Type / Drive type		Axial / Direct					
<b>Sound pressure level</b>		dB(A)	75	79	79	80	80	82
<b>Dimension</b>	Net(W×H×D)	mm	3626x2047x2200			4690x2055x2330	4690x2427x2330	5660x2055x2330
<b>Weight</b>	Net	kg	1710	1820	1850	2180	2430	2860

**Notes:**

- Cooling capacity test condition (1): Outdoor ambient temperature: 35°C, indoor temperature 26.7°C DB / 19.4°C WB;  
Heating capacity test condition (2): Outdoor ambient temperature: 7°C DB / 6°C WB, indoor temperature 26.7°C DB / 19.4°C WB;
- Units are suitable for operation to ±20% of nominal CFM;
- Sound values are measured in a semi-anechoic room, at a position 1 meter in front of the unit and (1 meter+Height of unit)/2 above the floor.

Due to FUJIAIR's ongoing commitment to quality, the specifications and dimensions are subject to change without notice and without incurring liability.



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