

CASSETTE

DUCT TYPE

FLOOR CEILING



CATALOG
LIGHT COMMERCIAL
18K BTU - 48K BTU

1-to-1 COMMERCIAL SERIES

About our products

The Willis 1-to-1 commercial series of Air Conditioners was designed for applications where the requirements are greater and/or more complex than the typical residence. They offer great flexibility as you can mix and match from a variety of indoor unit types (floor-ceiling, cassette, or duct type) to best suit the architectural design.

Installation is easier and less costly than conventional HVAC systems as no brazing is required.

The 1-to-1 Commercial Series is available in sizes ranging from 18k to 48k BTUs (1.5 to 4 tons) which are ideal for cooling, and heating light commercial spaces.

What can I find in this catalog ?

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Information about our indoor unit products

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Data / Specs

Want to know more about us and our products ?
Visit our website willishvac.com



1-to-1 COMMERCIAL INVERTER SERIES

Remote & Wired Controller

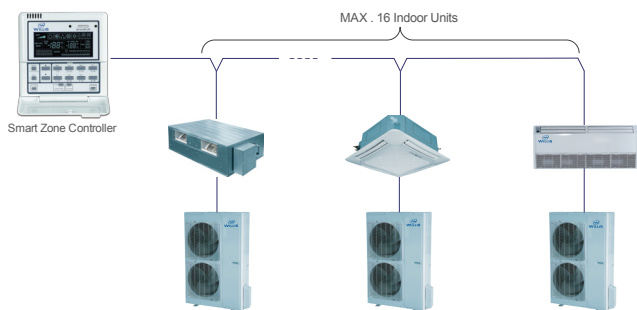


Non-polar Communication Wire

For the communication between the indoor unit and outdoor unit, and the communication between wired controller and indoor mainboard, you can use non-polar communication wire. General 2-core power cord or telephone wire can be used as the communication wire, instead of the shielded twisted pair wire.

Centralized Control Function

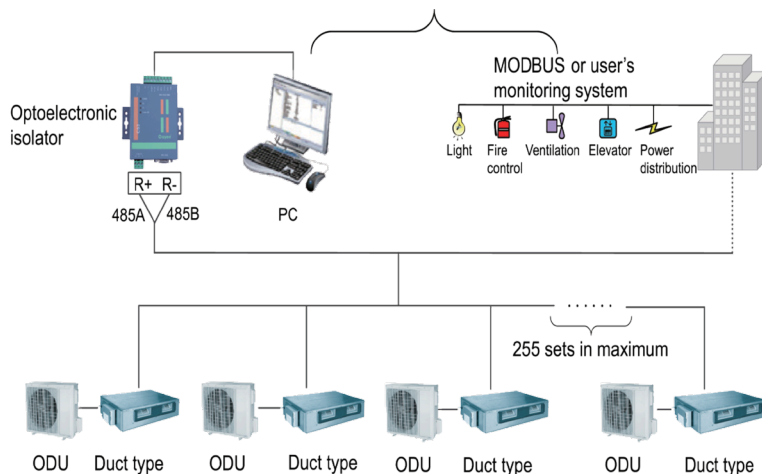
The indoor unit is equipped with an interface that can be managed by the smart zone controller. This wireless device can control a maximum of 16 indoor units and can manage the power on/off, mode, fan speed, temperature setting and timer of one single unit, or a whole group of units.



MORE INTELLIGENT CONTROL

Interface (MODBUS Protocol) and Long-distance Monitoring

The system comes with a built in MODBUS interface. (If the unit is to be connected with a building management system, please consult your dealer for the development of MODBUS protocol). When activated, the system operation information will be sent to the building management system in order to control and monitor the units.



INDOOR UNIT FEATURES

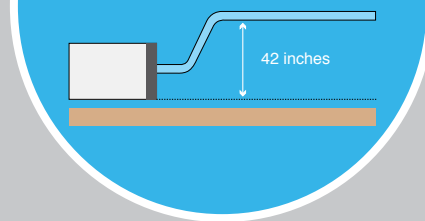
- **Duct Type**
- **Cassette Type**
- **Floor or Ceiling Type**

Outdoor Unit

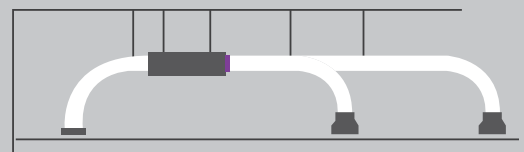


Duct Type

**Powerful
Drain Pump Lift**



The static pressure can be adjusted within a range of 0 to 0.62 Inwg depending on various installation requirements.

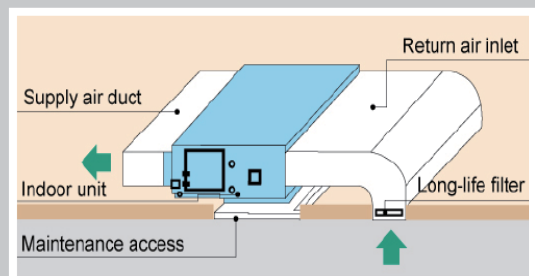


Adjustable Fan Speed

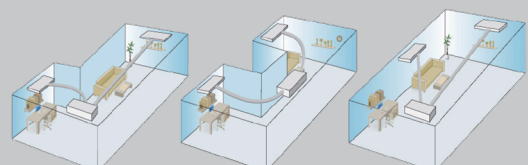
There are three fan speeds available (high, medium and low) on the indoor units to meet different requirements.

Highly Flexible Installation

Highly flexible installation is possible to satisfy various needs.

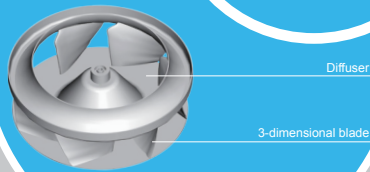


Flexible and easy to install in L shape, U shape and large rooms.



Cassette

**3-dimensional
Blade for quiet
operation**

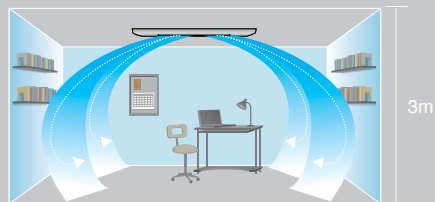


High Ceiling Applications

The 24K to 48K units are applicable for ceiling heights of up to 15 feet

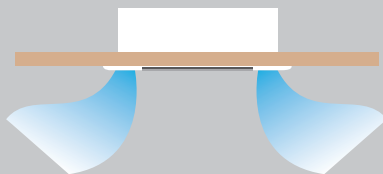


Units below 24K are applicable for ceiling heights below 10 feet.



Comfortable Airflow

Air can be blown in different directions with 30 to 60 degrees of swing angle for even temperature distribution.



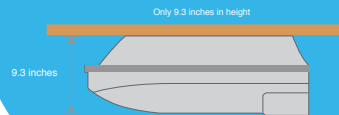
Water Drainage Pump

The standard drain pump has an increased lift of 42 inches.



Floor or Ceiling

**Compact
Design**



Wide Discharge Range

The air supply range is wider due to the cross directional sweep motion.



Easy Maintenance

Convenient disassembly and maintenance are possible thanks to the unique design.

Microcomputer Control

All of the control functions are controlled by a microcomputer which not only shows all running modes and temperatures but also has a malfunction diagnosis and data search function.

Flexible Installation

These indoor units can be installed on either the ceiling or the wall.





PRODUCT LINEUP

- Duct Type
- Cassette Type
- Floor or Ceiling Type



WRXK60



WRYB1FAF



WRYB1FAF

DUCT

MODEL			Ductable unit LCD-KCH16S with outdoor unit LCO-KCH16S					
			18	24	30	36	42	48
Capacity	Cooling	BTU/h	17,100 (5,400-19,800)	23,800 (7,400-29,000)	28,200 (8,200-29,600)	34,000 (10,800-39,000)	39,500 (12,000-42,500)	48,000 (20,400-49,500)
	Heating	BTU/h	18,800 (4,700-23,200)	27,200 (8,200-32,400)	31,200 (8,200-33,600)	41,000 (9,800-49,500)	44,000 (13,000-52,500)	54,500 (17,500-58,000)
SEER/HSPF			16.00/9.50	16.00/9.00	16.00/9.00	16.00/9.00	16.00/9.00	16.00/9.00
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
Rated current input	Cooling	A	12.79	19.44	19.95	23.79	24.55	34.27
	Heating	A	12.28	20.46	20.97	24.30	24.81	34.27
Refrigerant charge		Oz	49.4	77.6	84.7	123.5	130.5	141.1
COP		W/W	3.33	3.39	2.97	3.20	3.33	3.11
Dehumidification		Pint/h	1.4	1.9	2.2	2.7	3.0	3.8
Indoor Unit	Airflow	CFM	585	820	820	1,175	1,175	1,470
	ESP	inWg	0.12	0.3	0.3	0.4	0.4	0.5
	Sound pressure level (L/H)	dB(a)	28/40	40/47	40/47	44/53	44/53	45/55
	dimensions (WxHxD)	Outline	inch	40.8x10.5x28.4	50.4x10.6x22.0	50.4x10.6x22.0	48.3x11.4x30.5	48.3x11.4x30.5
	Weight	Net/gross	Lbs	72.8/83.8	75.0/86.0	77.2/86.0	101.4/116.9	101.4/116.9
Outdoor unit	Sound Pressure level	dB(a)	56	57	58	63	61	59
	Dimensions (WxHxD)	Outline	inch	37.6x27.6x15.6	38.6x31.1x16.8	38.6x31.1x16.8	43.6x43.3x17.3	37.7x53.1x16.2
	Weight	Net/Gross	Lbs	105.8/114.7	152.1/163.2	158.8/168.8	205.1/222.7	209.5/231.5
Connection pipe diameter		Liquid	inch	1/4	3/8	3/8	3/8	3/8
		Gas	inch	1/2	5/8	5/8	5/8	5/8
Maximum pipe length		ft	65.6	98.4	98.4	98.4	164	164
Maximum elevation		ft	49.2	49.2	49.2	49.2	98.4	98.4
MOCP		A	25	40	40	45	50	70

CASSETTE

MODEL			Cassette LCC--KCH16Swith outdoor unit LCO--KCH16S						
			18	24	30	36	42	48	
Capacity	Cooling	BTU/h	17,100 (5,400-18,700)	23,800 (8,200-29,000)	28,200 (8,800-31,400)	34,000 (10,800-39,000)	39,500 (11,000-41,000)	48,000 (20,400-50,500)	
	Heating	BTU/h	18,400 (4,700-22,200)	27,200 (8,200-32,400)	31,200 (8,200-33,600)	41,000 (9,800-49,500)	44,000 (12,000-51,000)	54,500 (17,500-61,500)	
SEER/HSPF			16.00/9.50	16.00/9.00	17.00/9.00	16.00/9.00	16.00/9.00	16.00/9.00	
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	
Rated Current Input	Cooling	A	12.79	19.44	19.95	23.79	24.30	34.27	
	Heating	A	12.28	20.46	20.97	24.30	25.06	33.25	
Refrigerant Charge		Oz	43.5	77.6	84.7	123.5	130.5	141.1	
COP		W/W	3.00	3.39	3.68	3.20	2.92	3.3	
Dehumidification		Pint/h	1.8	2.4	3.0	3.4	3.7	4.5	
Indoor Unit	Airflow		CFM	445	765	880	1,095	1,095	1,350
	Sound pressure level (L/H)		dB(a)	37/47	38/47	40/49	43/51	43/51	41/53
	Body dimensions (WxHxD)	Outline	inch	26.2×9.4x23.5	36.1×9.4x33.1	36.1×12.6x33.1	36.1×12.6x33.1	36.1×12.6x33.1	35.8×11.4x35.8
	Body Weight	Net/gross	Lbs	44.1/49	59.5/63	70.6/74	70.6/74	70.6/74	94.8/97
	Panel dimensions (WxHxD)	Outline	Inch	26.4×2.0x26.4	37.5×2.4x37.5	37.5×2.4x37.5	37.5×2.4x37.5	37.5×2.4x37.5	40.9×2.6x40.9
	Panel Weight	Net/gross	Lbs	7.7/11.0	15.4/24.3	15.4/24.3	15.4/24.3	15.4/24.3	17.6/26.5
Outdoor unit	Sound Pressure level		dB(a)	56	57	58	63	61	59
	Dimensions (WxHxD)	Outline	inch	37.6×27.6x15.6	38.6×31.1x16.8	38.6×31.1x16.8	43.6×43.3x17.3	37.7×53.1x16.2	37.7×53.1x16.2
	Weight	Net/Gross	Lbs	105.8/114.7	152.1/163.2	158.8/168.8	205.1/222.7	209.5/231.5	231.5/253.6
Connection pipe diameter		Liquid	inch	1/4	3/8	3/8	3/8	3/8	3/8
		Gas	inch	1/2	5/8	5/8	5/8	5/8	5/8
Maximum pipe length		ft	65.6	98.4	98.4	98.4	164	164	
Maximum elevation		ft	49.2	49.2	49.2	49.2	98.4	98.4	
MOCP		A	25	40	40	45	50	70	

FLOOR CEILING

MODEL			Floor/Ceiling unit LCF--KCH16S with outdoor unit LCO--KCH16S						
			18	24	30	36	42	48	
Capacity	Cooling	BTU/h	17,100 (5,400-19,800)	23,800 (8,200-27,800)	28,200 (8,800-31,400)	34,000 (10,800-39,000)	39,500 (12,000-42,500)	48,000 (20,400-50,500)	
	Heating	BTU/h	19,100 (4,700-23,200)	27,200 (8,200-30,600)	31,200 (8,200-33,600)	41,000 (9,800-49,500)	44,000 (13,000-52,500)	54,500 (17,500-61,500)	
SEER/HSPF			17.00/9.50	16.00/9.00	17.00/9.00	16.00/9.00	16.00/9.00	16.00/9.00	
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	
Rated Current Input	Cooling	A	12.79	19.44	19.95	23.79	24.55	34.27	
	Heating	A	12.28	20.46	20.97	24.30	24.81	34.27	
Refrigerant charge		Oz	49.4	77.6	84.7	123.4	130.5	141.1	
COP		W/W	3.61	3.39	3.54	3.20	3.21	3.48	
Dehumidification		Pint/h	1.6	2.1	2.6	3.2	3.4	4.2	
Indoor Unit	Airflow		CFM	585	705	880	1,115	1,115	1,350
	Sound pressure level (L/H)		dB(a)	32/44	40/49	38/49	46/54	47/55	46/56
	Dimensions (WxHxD)	Outline	inch	48.0x27.6x8.9	48.0x27.6x8.9	55.9x27.6x9.6	55.9x27.6x9.6	55.9x27.6x9.6	66.9x27.6x9.6
	Weight	Net/gross	Lbs	86.0/105.8	88.2/110.3	105.8/123.5	105.8/123.5	110.3/127.9	130.1/149.9
Outdoor unit	Sound Pressure level		dB(a)	56	57	58	63	61	59
	Dimensions (WxHxD)	Outline	inch	37.6x27.6x15.6	38.6x31.1x16.8	38.6x31.1x16.8	43.6x43.3x17.3	37.7x53.1x16.2	37.7x53.1x16.2
	Weight	Net/Gross	Lbs	105.8/114.7	152.1/163.2	158.8/168.8	205.1/222.7	209.5/231.5	231.5/253.6
Connection pipe diameter		Liquid	inch	1/4	3/8	3/8	3/8	3/8	3/8
		Gas	inch	1/2	5/8	5/8	5/8	5/8	5/8
Maximum pipe length			ft	65.6	98.4	98.4	98.4	164	164
Maximum elevation			ft	49.2	49.2	49.2	49.2	98.4	98.4
MOCP			A	25	40	40	45	50	70



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