

TCL LIGHT COMMERCIAL

2024
CATALOG



Certificates



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018



TECHNICAL SUPPORT, GLOBAL SALES COMPANY:
GD TCL INTELLIGENT HEATING & VENTILATING EQUIPMENT CO.,LTD.
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- On/off R410A 50hz cooling & heating low ambient model
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- 10/20HP High Static Pressure Duct Type
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37 TCL SOLUTIONS

- Space Solution
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- WiFi Operation Solution
- Optional Solution

Company Profile

The Creative Life

TCL is the initials of The Creative Life, which means that creativity touches Life.



Introduction Of TCL

TCL Corporation LTD, founded in 1981, is one of the largest consumer electronics conglomerates and operates on a global scale in China. At present, TCL has formed four industrial groups including multimedia, communication, China Star Optoelectronics Technology and TCL Home Appliances, and six business segments including System Science and Technology Business Headquarters, Tikeli Group, emerging Business Group, Investment Business Group, Hanlinhui Company and real estate. Its revenue exceeded 100 billion yuan for 5 consecutive years. The group's main industries establish R&D headquarters and 26 R & D institutions where in China, the United States, France, Singapore and other countries. It has nearly 22 manufacturing and processing bases in China, Poland, Mexico, Thailand, Vietnam and other countries.

TCL Corporation is committed to becoming a high-tech industrial group. In January 2004, TCL was listed in Shenzhen Stock Exchange (SZ000100). On April 16, 2019, the restructuring was officially completed. After the restructuring, TCL owns two listed companies: Hua Xian Optoelectronics (00334.HK) and Hanlinhui (835281). TCL Owns two listed companies: TCL Electronics (01070.HK) and Tonly Electronics Holdings Limited (01249.HK).

After nearly 40 years of development, TCL has become a leader in the internationalization process of Chinese enterprises by virtue of China's reform and opening-up and adhering to the enterprise spirit of dedication and innovation.

When COVID-19 broke out In January 2020, TCL immediately rushed to Hubei, donating cash, materials and Internet services that accumulative worth over 20 million yuan, and went to Leishenshan and other designated hospitals to install electrical equipment. In July, TCL Technology announced that it would become the final transferee of 100% equity of Tianjin Zhonghuan Group. TCL also carried out strategic layout in the three industrial sectors of semiconductor display, intelligent terminal, semiconductor and new energy. In August, TCL Technology announced the acquisition of 60 percent of Suzhou Samsung LCD Technology Co., LTD and 100 percent of Suzhou Samsung Display Co., LTD.

In 2021, TCL Corporation annual revenue was exceed 39.4 billion dollar, significant increase in net profit. In the same year TCL start up 'Xuri Plan' which invest more than 3.15 billion dollar to promote ecological leadership and help industrial upgrading.

In the future, TCL will establish a perfect insight system that is close to consumers and run through the overall process of corporate activities, forming the driving force of TCL brand with product force, marketing force and experience force as the core, improving the overall brand image to the direction of "young, fashionable and international", and further strengthening innovation and consumption experience.

Introduction Of TCL CAC

GD TCL Intelligent Heating&Ventilating Equipment CO.,LTD. is a developmental company integrating R & D, manufacturing, sales and service of HVAC equipment. It has achieved the full coverage of unit type light commercial, small multi connected household central air conditioning, multi connected central air conditioning, air-cooled modular machine series, household dual supply series, air source heat pump hot air machine series, ultra-low temperature modular machine series, household air energy water heater series, commercial air energy hot water series and other products. It has 4 R & D departments and 20 laboratory groups. This year, TCL-HVAC's new base will be put into use. By then, the new and old bases will have 27 world-class production lines with an annual capacity of more than 2 million sets.

The test center of TCL-HVAC has been recognized by China National Accreditation Service for Conformity Assessment (CNAS), which lays a solid foundation for the improvement of independent R & D ability and laboratory management ability, as well as the establishment of a customer-centered, quality-oriented, product performance and product innovation improvement system.

With professional technology and service ability, and nearly 20 years of historical precipitation and market accumulation, TCL-HVAC has been fully verified in the market and gained a good reputation in the market.

TCL intelligent HVAC's future can be expected!



**30 million sets/year
at 10 global production sites**

**Smart manufacturing
and global supply chain layout**



Zhongshan factory 1



Zhongshan factory 2



TCL DeLonghi



SKD factory



2022 Indonesia factory



2022 CAC



2021 Electrical factory



Wuhan factory



Jiujiang factory



Compressor factory



Electrical factory



2022 Brazil factory



2022 Wuhan factory



01



02



03



04



05



06



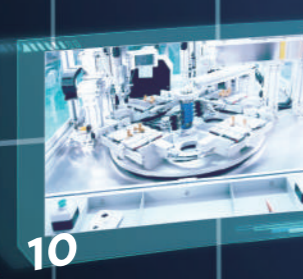
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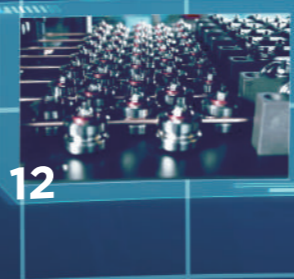
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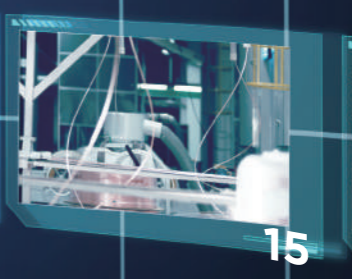
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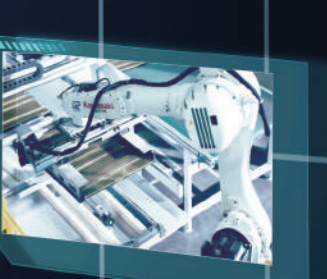
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16

New Showroom

400m² Immersive Smart Experience

- 01 Brand Display Area
- 02 Smart Experience Area
- 03 Product Showcase
- 04 Core Technology Area

Industry-leading laboratories

- 05 Enthalpy Difference Chamber
- 06 Comfort Testing Laboratory
- 07 TMV6 Commodity Inspection Room
- 08 Noise Testing Laboratory

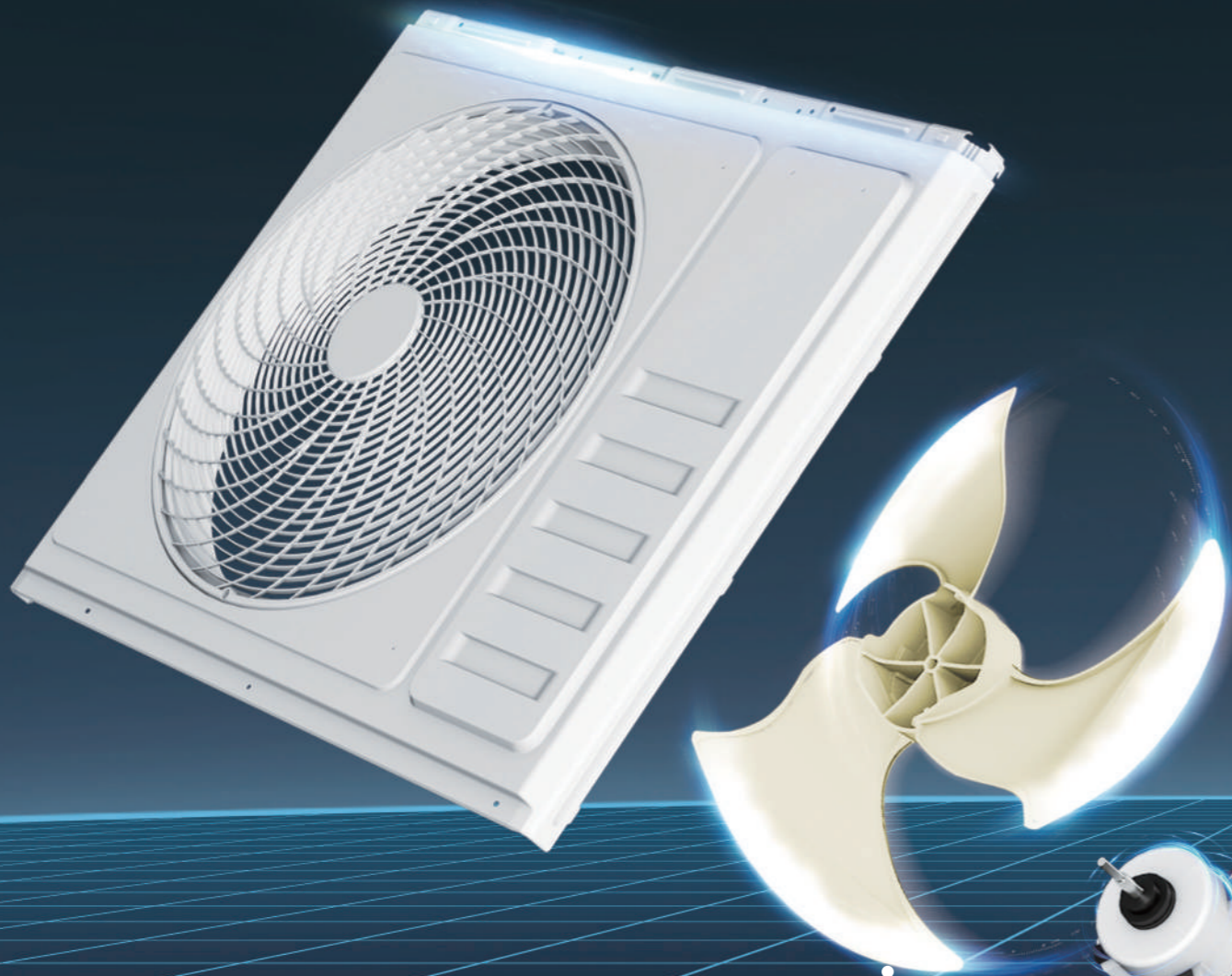
Digitalized Factory

Pursue efficient and high-quality development of manufacturing with automatic and digital technologies.

- 09 Logistic Layout
- 10 Upgraded Automation
- 11 MES System (2020Y)
- 12 Automatic Bearing Installation
- 13 Automatic Valve Assembly
- 14 Automatic Evaporator Tube Installing
- 15 Automatic Cutting & Bending
- 16 Automatic Turning Over

Inverter Technology

- 1、 30% improvement in unit energy efficiency
- 2、 Full load output within 90s, fast cooling and heating
- 3、 Precise temperature control, $\pm 1^{\circ}\text{C}$ comfortable temperature difference



Bionic fan
Advanced 3D propeller can enlarge the air volume and reduce the noise level.

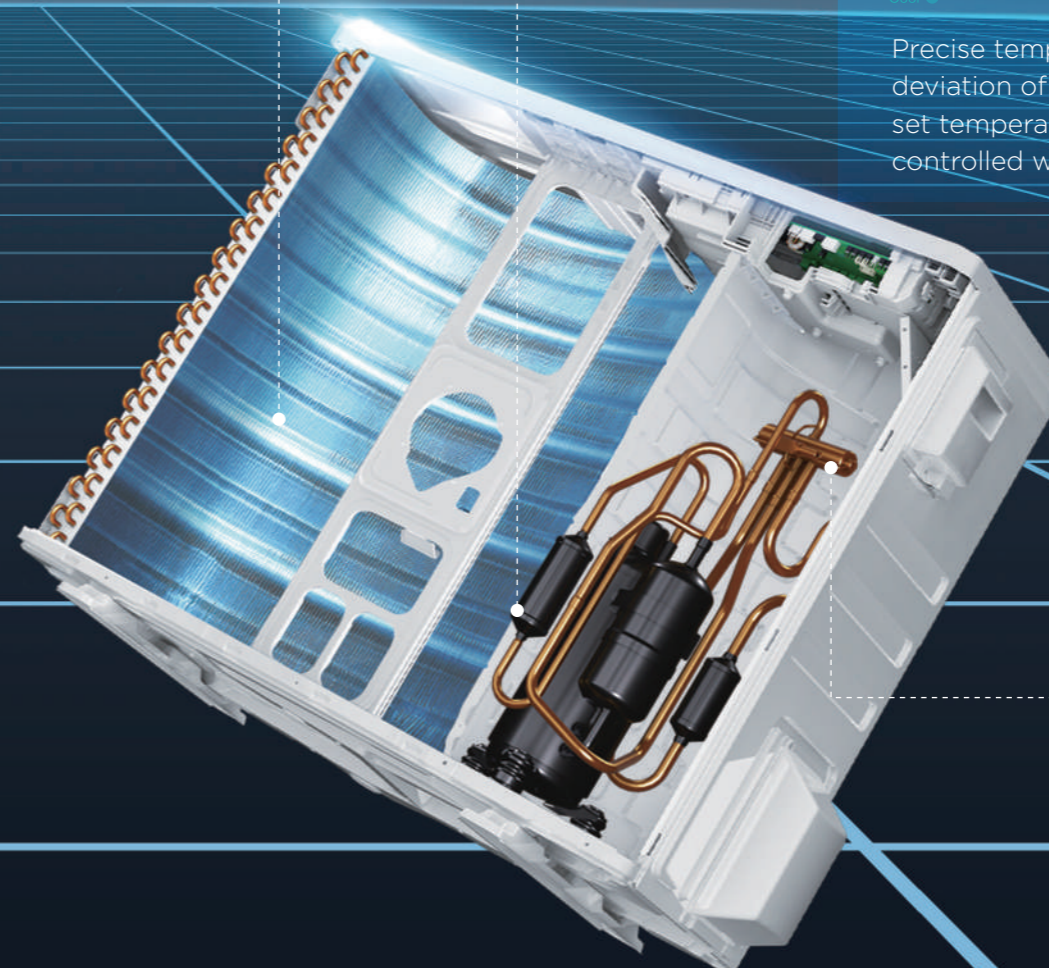
DC motor

High Efficiency

Thanks for the full DC inverter technology and large heat exchange area, TCL air conditioner can achieve EERs 3.46 in cooling operation and COPs 3.63 in heating operation

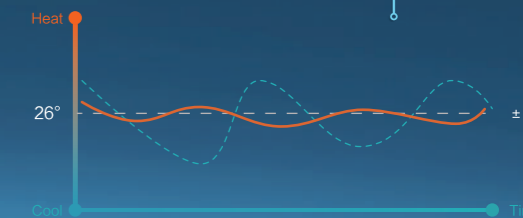
Inner groove tube
Copper tube with internal threads to increase heat transfer area and improve heat transfer efficiency

DC inverter compressor



Famous 4-way valve brand

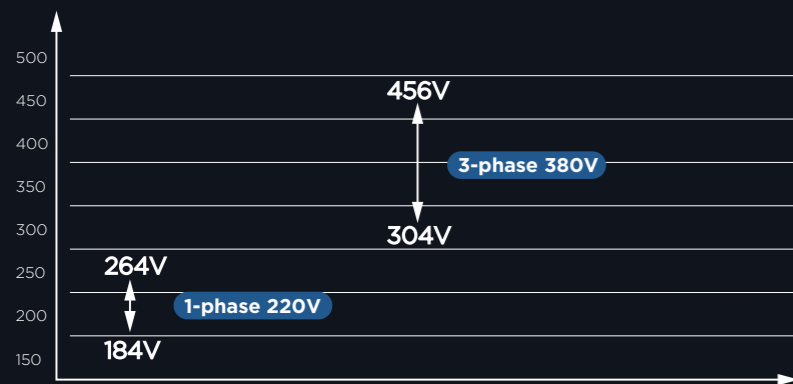
full DC inverter intelligent control



Precise temperature control, the deviation of indoor temperature and set temperature can be accurately controlled within 1°C

High Reliability

1. Compressor, motor, electric control components can withstand wider voltage operation
2. The unit has the function of frequency reduction protect to avoid overheating and overcurrent



High Reliability

TCL air conditioners use energy-efficient compressor, pressure switch and other components, which to have a more stable system and reducing maintenance rates



Voltage Protection

When the voltage of the unit is over the rated maximum voltage or below a certain value, the voltage is automatically shut off to protect the unit and the power supply.



Temperature Protection

When the outdoor temperature sensor checks that the temperature is over the normal operating temperature, the unit will stop running to avoid burning of the electric control IPM due to high temperature.



Overcurrent Protection

When the current is over the adjustment value, the protection device will be activated and the fuse will fuse to cut off the circuit in time, so that the equipment can avoid damage caused by over-current.



Lack-phase Protection

When a phase in the three-phase power supply of the unit is broken, the unit will be powered off and alarmed in an emergency, avoiding the original three-phase unit running under two-phase power supply and causing burnout.



Overheating Protection

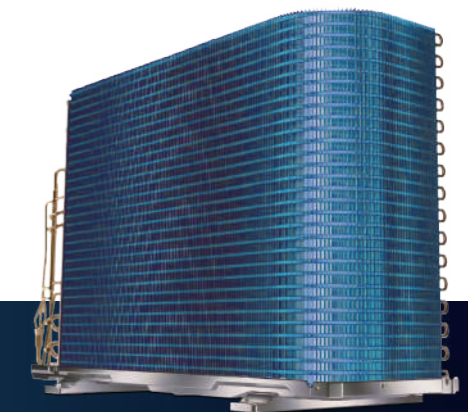
When the current is over the adjustment value, the motor temperature rises, and the motor is cut off during over-current operation to avoid burning of the motor due to overload.



DC Inverter Compressor



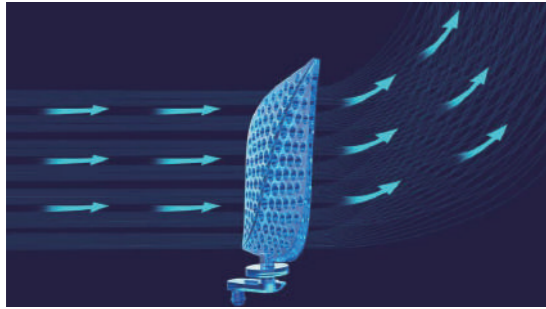
High/Low Pressure Switch



Hydrophilic Aluminum Fin

The TCL products use blue hydrophilic aluminum fin. Compared to traditional non-hydrophilic heat exchanger, hydrophilic can be increased by 68% and corrosion resistance by 3 times. The hydrophilic coating improves heat transfer efficiency while protecting the unit from unnecessary wear and corrosion

Better Comfort



Soft wind panel (optional)

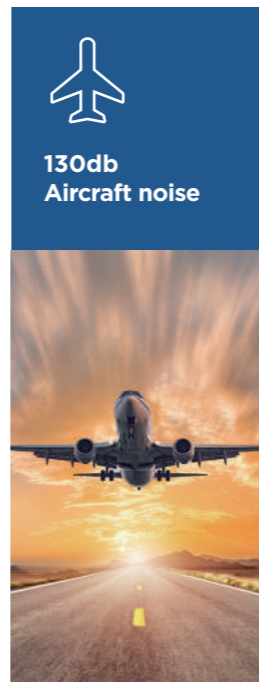
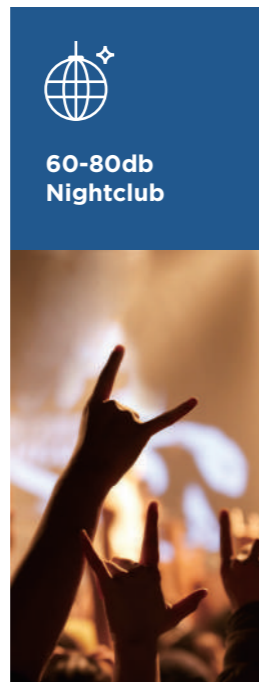
360° of outlet wind, 2565 micro-hole soft wind blades to break up the airflow, making the wind soft and comfortable to the body



Low noise design

TCL products through the reasonable air circuit design and 3D fan blade selection, increase the unit airflow and reduce operating noise, which can be as low as 30dB

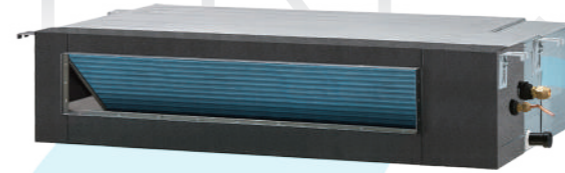
30dB



Health

Cassette / Duct reserves fresh air interface

FRESH AIR



Take in outdoor fresh air, ensure that the indoor air is fresh and circulated



Round Flow Cassette Type

Large range of airflow, low noise operation, WIFI operation, giving you a comfortable environment



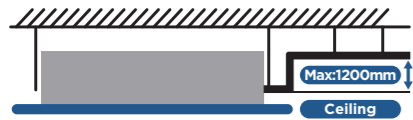
Super Slim Duct Type

Multiple air return methods, optional pumps, WIFI operation, making the project more flexible installation



Built-in drain pump

Cassette with built-in drain pump ,can lift water up to 1200mm which is convenient for installation and improve the drainage efficiency



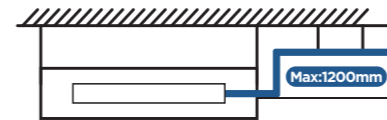
LED digital display

Real-time operating temperature and operation faults are clearly displayed



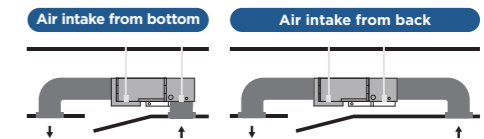
Optional water pump

Optional built-in drain pump, can lift water up to 1000mm which is convenient to installation and improving drainage efficiency.



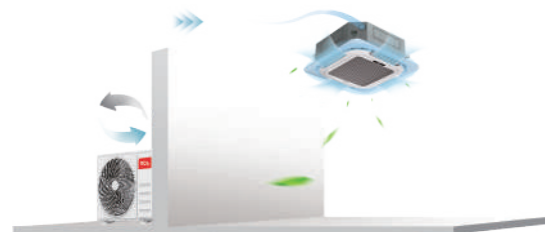
Flexible air intake

Standard built air return box, easy to adjust the back air return or down air return based installation requirement



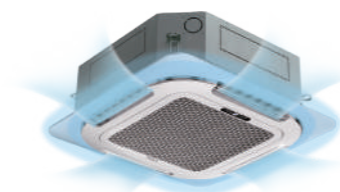
Reserved fresh air interface

Maximum intake of 15% of fresh air volume, make indoor air healthier and more comfortable



360°surround air outlet

Annular air outlet supply without dead angle, keeps the room comfortable



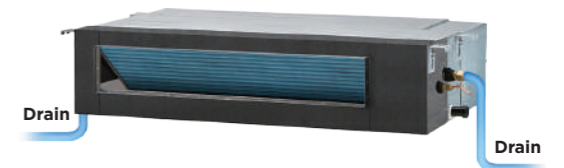
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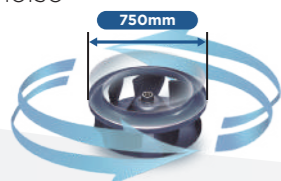
Dual drainage

It is more convenient and flexible in construction and installation



Ultra-low noise design

Adapting 750mm fan blade and 3D air outlet design, decrease the air supply resistance, achieve ultra low noise



WiFi operation

Connect the device with one click to turn on



Ultra-thin design

structure is compact, and the thickness of 3HP duct unit can be as low as 210mm



WiFi operation

Connect the device with one click to turn on



Ceiling Suspended Unit

Two types of installation, customized display panel position, double-sided drainage, can meet the needs of a variety of use situations



Unique Universal ODU

Universal matching, high energy efficiency and high reliability design, can greatly increase the service life and reduce the maintenance cost of after-sale



104° wide range of air flow

With unique swing design, the wind direction can be adjusted at will, to achieve 3D air supply, which make the room temperature distribution more uniform



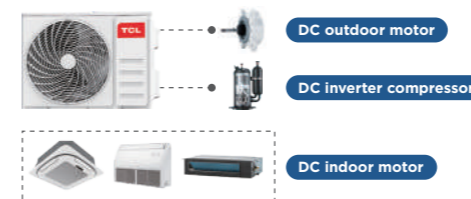
Flexible installation

Flexible installation method, ceiling or landing, maximum for you to save space.



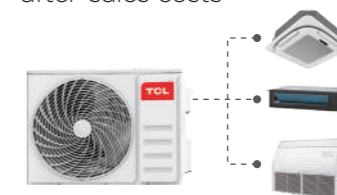
Full DC inverter (applicable models)

It can achieve precise control and high comfort, which also save energy, cool or heat faster



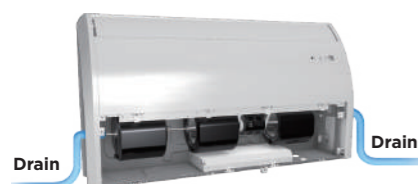
Universal design

The same ODU can match Cassette, C/F, Duct with same capacity. Reducing stock and after-sales costs



Dual drainage

Condensing water can be drained either from left or from right.



Ultra-thin design

Compact design which fits for various room styles.



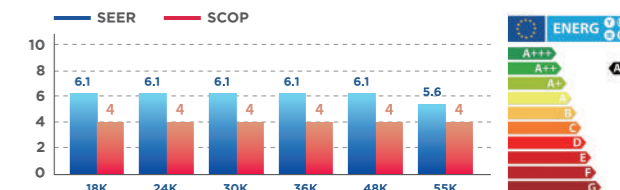
Single blade design (applicable to 36K-60K models)

The outdoor unit adopts a compact design with a single fan, which greatly improves the loading capacity and makes it easy to install.



High efficiency

Use high energy compressor, the product meets ERP standard. SEER of the unit can reach A++ efficient level, and SCOP can reach A+ efficient level



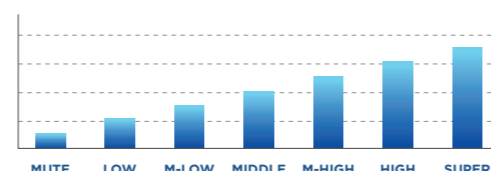
LED display

Two way display panel position option, meet differentiated appearance requirements



Seven gear wind speed (Applicable models of DC motor)

Seven gear wind speed (Applicable models of DC motor)



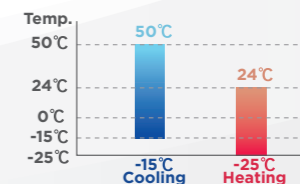
Long pipe length design

The pipe length of inverter unit can reach 60m, and the pipe length of on/off unit can reach 50m, reducing the limitation on installing location.



Wide-temperature operation

The outdoor unit use the chassis heating belt, so that it can still cool and heat normally at -15/-25°C, and the application scope of air conditioning system is wider

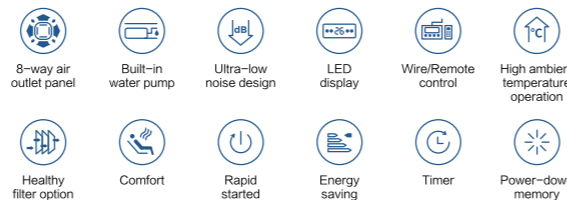


ON/OFF R410A 50HZ T3 COOLING ONLY(HIGH EFFICIENCY)

CASSETTE TYPE INDOOR UNIT

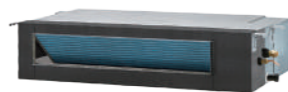


CB | RoHS | REACH | IESMAPAI

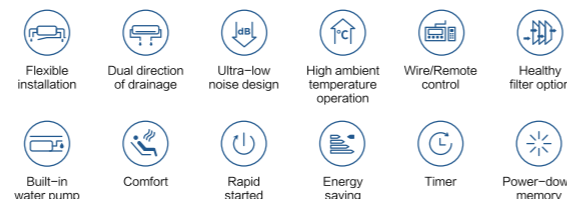


Model name	Cassette Indoor	TCC-18CCRA/UT1-(C4)	TCC-24CCRA/UT1-(C4)	TCC-30CCRA/UT1-(C4)	TCC-36CCRA/UT1-(01)(C4)	TCC-48CCRA/U3TI-(C4)	
Power supply		V/Ph/Hz		220-240V/1Ph/50Hz			
Cooling	Capacity	Btu/h	18000	23600	28500	32900	42200
	Capacity	W	5272	6915	8350	9640	12364
	Input	W	1520	1940	2370	2750	3645
	Rated current	A	6.7	8.5	10.4	11.9	6.7
	EER	(Btu/h)/W	11.842	12.165	12.025	11.964	11.578
Cooling(T3)	EER	W/W	3.470	3.564	3.523	3.505	3.392
	Capacity	Btu/h	15600	20300	24600	27700	36700
	Capacity	W	4570	5945	7210	8120	10753
	Input	W	1820	2330	2840	3180	4390
	Rated current	A	8.0	10.7	13.1	13.9	7.8
Cooling(T3)	EER	(Btu/h)/W	8.571	8.712	8.662	8.711	8.360
	EER	W/W	2.511	2.553	2.538	2.553	2.449
	Indoor air flow (Hi/Me/Lo)	m3/h	1050/950/880	1550/1200/950	1800/1600/1300	1950/1750/1570	2050/1850/1650
Indoor external static pressure (Hi)	Pa	/	/	/	/	/	
Indoor noise level (Hi/Me/Lo)	dB(A)	41/38/36	48/46/44	48/46/44	50/48/45	55/51/48	
Indoor dimension	Unit (WxDxH)	mm	830 × 830 × 230	830 × 830 × 230	830 × 830 × 290	830 × 830 × 290	830 × 830 × 290
	Packing (WxDxH)	mm	925 × 925 × 285	925 × 925 × 285	925 × 925 × 355	925 × 925 × 355	925 × 925 × 355
Indoor weight	Net	kg	24	24	29.5	29.5	31
	Gross	kg	27	27	34	34	35
	Unit (WxHxD)	mm	950 × 45 × 950	950 × 45 × 950	950 × 45 × 950	950 × 45 × 950	950 × 45 × 950
Panel	Packing (WxHxD)	mm	1035 × 90 × 1035	1035 × 90 × 1035	1035 × 90 × 1035	1035 × 90 × 1035	1035 × 90 × 1035
	Net/Gross	kg	6/9	6/9	6/9	6/9	6/9
Refrigerant	Type		R410A				
Refrigerant pipe	Liquid side	mm	φ6.35	φ9.52	φ9.52	φ9.52	φ9.52
	Gas side	mm	φ12.7	φ15.88	φ15.88	φ19.05	φ19.05
Drainage water pipe diameter	mm	/	/	/	/	/	
Operation temperature range	°C	16~55					

DUCT TYPE INDOOR UNIT



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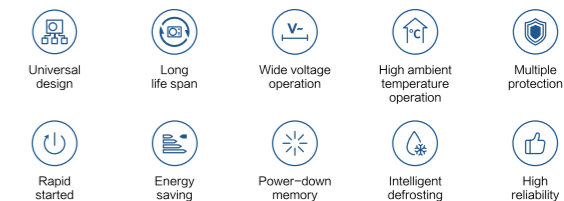
Model name	MESP Duct Indoor	TCA-18D2CWA/UT1-(C4)	TCA-24D2CWA/UT1-(C4)	TCA-30D2CWA/UT1-(C4)	TCA-36D2CWA/UT1-(01)(C4)	TCA-48D2CWA/U3TI-(C4)	TCA-55D1CWA/U3TI-(C4)
Power supply		V/Ph/Hz		220-240V/1Ph/50Hz			
Cooling(T1)	Capacity	Btu/h	18000	22500	28700	33500	44800
	Capacity	W	5275	6595	8410	9820	13125
	Input	W	1533	1916	2400	2850	3860
	Rated current	A	6.7	8.2	10.5	12.4	7.1
	EER	(Btu/h)/W	11.742	11.743	11.958	11.754	11.606
Cooling(T3)	EER	W/W	3.440	3.441	3.504	3.446	3.401
	Capacity	Btu/h	15700	19400	24800	29100	40000
	Capacity	W	4460	5685	7270	8530	11720
	Input	W	1850	2290	2910	3400	4650
	Rated current	A	8.1	9.9	12.5	14.8	7.9
Cooling(T3)	EER	(Btu/h)/W	8.486	8.472	8.522	8.559	8.602
	EER	W/W	2.487	2.482	2.497	2.509	2.520
	Indoor air flow (Hi/Me/Lo)	m3/h	1050/850/730	1400/1200/990	1900/1600/1350	2300/2100/1850	2550/2410/2150
Indoor external static pressure (Hi)	Pa	70	70	80	80	100	200
Indoor noise level (Hi/Me/Lo)	dB(A)	43/40/38	47/43/41	47/43/41	50/47/45	51/49/47	56/53/51
Indoor dimension	Unit (WxDxH)	mm	920 × 610 × 270	920 × 610 × 270	1200 × 840 × 300	1200 × 840 × 300	1200 × 840 × 300
	Packing (WxDxH)	mm	1120 × 690 × 340	1120 × 690 × 340	1400 × 920 × 371	1400 × 920 × 371	1400 × 920 × 371
Indoor weight	Net	kg	26	26	46	45	46
	Gross	kg	31	31	51	50	51
Refrigerant	Type		R410A				
Refrigerant pipe	Liquid side	mm	φ6.35	φ9.52	φ9.52	φ9.52	φ9.52
	Gas side	mm	φ12.7	φ15.88	φ15.88	φ19.05	φ19.05
Drainage water pipe diameter	mm	OD25					
Operation temperature range	°C	16~55					

1. Nominal cooling capacities are based on the following conditions: Indoor temp: 27° CDB, 19° CWB; Outdoor temp: 35° CDB; Equivalent ref. piping: 7.5m (horizontal)
 2. Nominal heating capacities are based on the following conditions: Indoor temp: 20° CDB; Outdoor temp: 7° CDB, 6° CWB; Equivalent ref. piping: 7.5m (horizontal)
 3. T3 cooling capacities are based on the following conditions: Indoor temp: xx° CDB, xx° CWB; Outdoor temp: xx° CDB; Equivalent ref. piping: 7.5m (horizontal)
 4. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.
 The above design and specifications will be updated without prior notice according to the upgrade and optimization of the product.

UNIVERSAL OUTDOOR UNIT



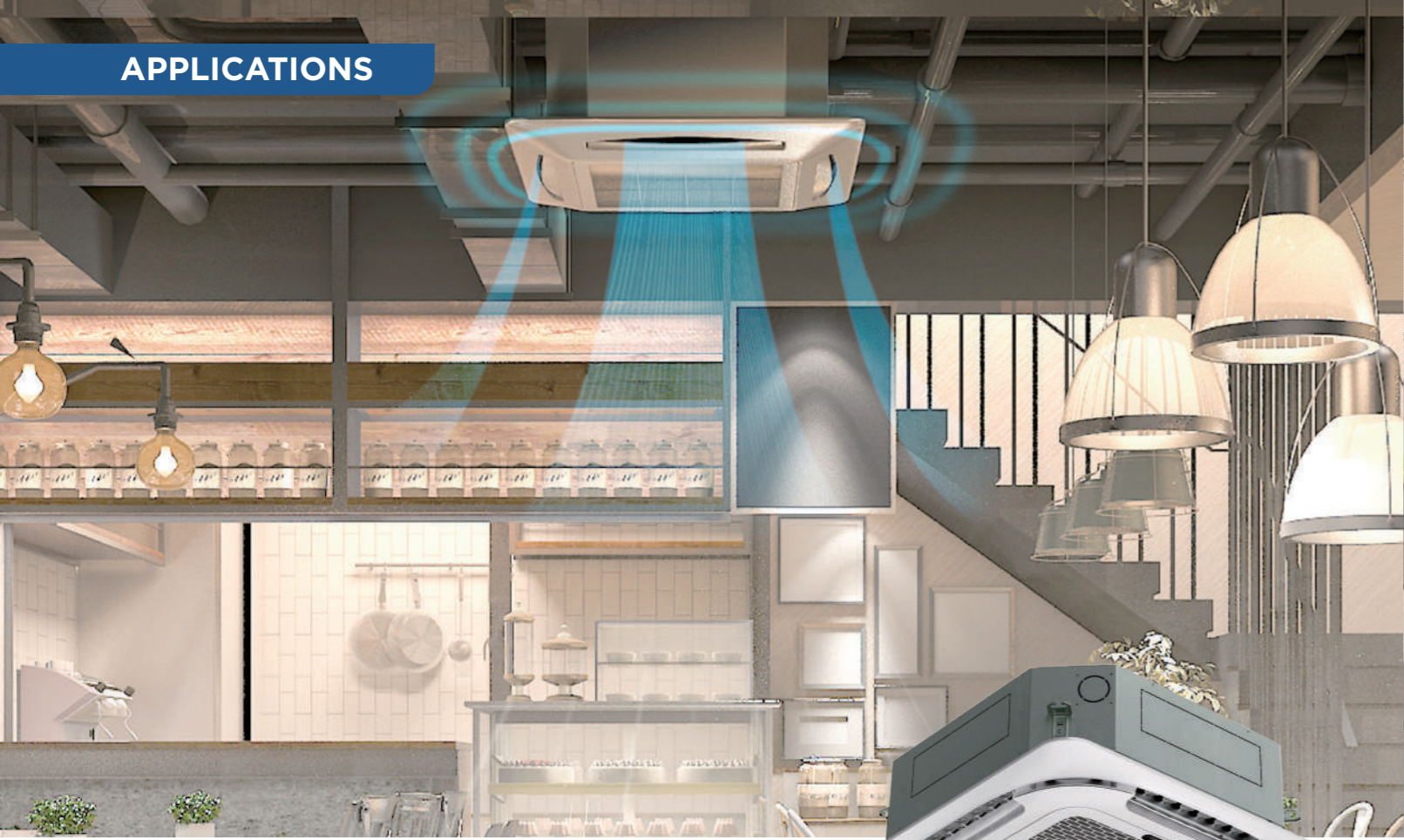
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Model name	Universal Outdoor Unit	TCA-18CA/UTO-(C4)	TCA-24CA/UTO-(C4)	TCA-30CA/UTO-(C4)	TCA-36CA/UTO-(01)(C4)	TCA-48CA/U3TO-(C4)	TCA-55CA/U3TO-(C4)
Power supply		V/Ph/Hz		220-240V/1Ph/50Hz			380-415V/3Ph/50Hz
Max. input consumption		W	2260	2726	3360	3940	5350
Max. current		A	11.1	13.5	16.5	19.5	9.8
Starting current		A	42	55	55	71	72
Max Operating Pressure(MPa)	Discharge	MPa	4.5	4.5	4.5	4.5	4.5
	Suction	MPa	1.9	1.9	1.9	1.9	1.9
Outdoor air flow		m3/h	2500	4000	4000	4000	6500
Outdoor noise level		dB(A)	54	57	57	60	59
Outdoor dimension	Unit (WxHxD)	mm	900 × 650 × 315	900 × 805 × 360	900 × 805 × 360	940 × 910 × 340	940 × 1250 × 340
	Packing (WxHxD)	mm	1015 × 720 × 425	1020 × 860 × 475	1020 × 860 × 475	1040 × 1040 × 430	1060 × 1380 × 430
Outdoor weight	Net	kg	46	55	61	72	97.5
	Gross	kg	50	59	65	79	107
Refrigerant	Type	R410A					
Refrigerant pipe	Liquid side	mm	φ6.35	φ9.52	φ9.52	φ9.52	φ9.52
	Gas side	mm	φ12.7	φ15.88	φ15.88	φ19.05	φ19.05
Max. refrigerant pipe length		m	25	25	30	30	50
	Max. difference in level	m	15	15	20	20	30
Ambient temperature range	Cooling	°C	16~55				
	Heating	°C	/				

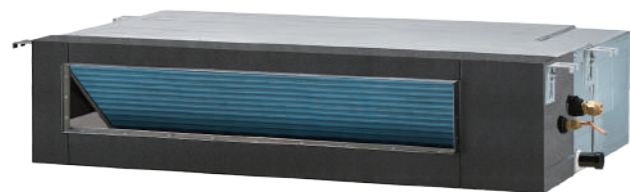
1. Nominal cooling capacities are based on the following conditions: Indoor temp: 27° CDB, 19° CWB; Outdoor temp: 35° CDB; Equivalent ref. piping: 7.5m (horizontal)
 2. Nominal heating capacities are based on the following conditions: Indoor temp: 20° CDB; Outdoor temp: 7° CDB, 6° CWB; Equivalent ref. piping: 7.5m (horizontal)
 3. T3 cooling capacities are based on the following conditions: Indoor temp: xx° CDB, xx° CWB; Outdoor temp: xx° CDB; Equivalent ref. piping: 7.5m (horizontal)
 4. Actual noise level may differ, depending on the room structure, etc, since these noise values are from an anechoic room.
 The above design and specifications will be updated without prior notice according to the upgrade and optimization of the product.

APPLICATIONS



SHOPPING MALL / SCHOOL

Duct type and cassette type systems provides appropriate air conditioning for large space with high ceiling and glass-sided without overwhelming the design aesthetic of the interior.



OFFICE / STUDIO

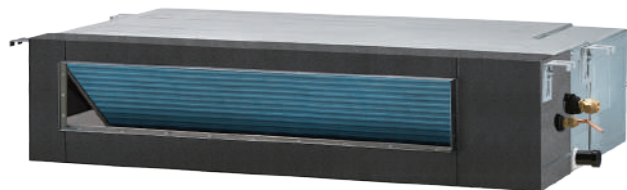
The Cassette and ceiling&floor type brings a whole new level of control and comfort. The large outlet angle can be adjusted to breezeless, wind-avoid, wind-direct mode, catering to different needs in the office.





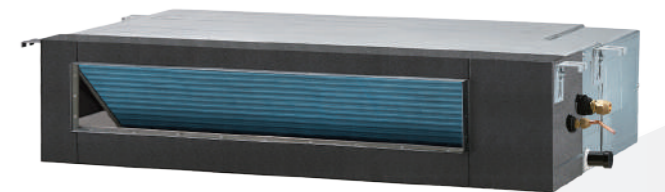
HOTEL / GUESTHOUSE

For public place: Middle ESP duct and cassette type single split system are suitable for large spaces with high ceiling like the reception and lobby. For guest room: Low ESP duct performs excellent comfort, energy saving, low noise and easy installation.



VILLA / RESIDENTIAL

The duct type can match the space capacity and noise requirement, from living room where the whole family relax to small room such as bedroom and children's room



Intelligent Operation Solution

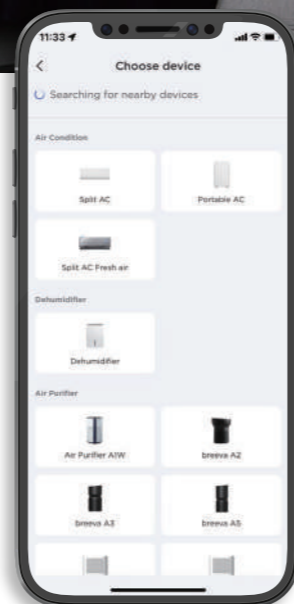
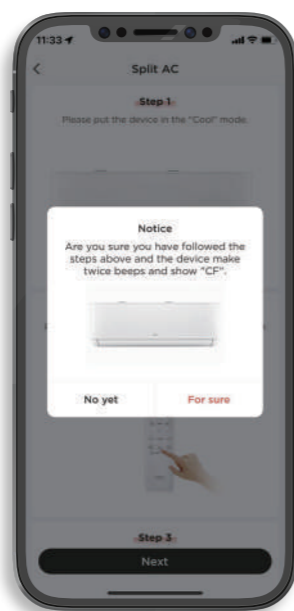
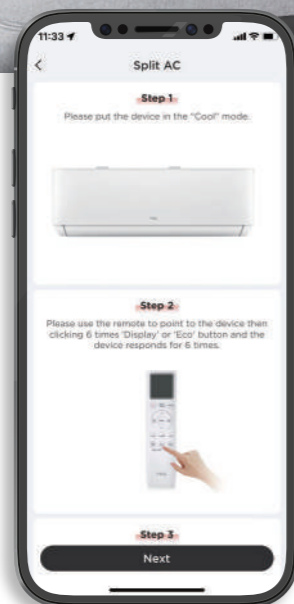
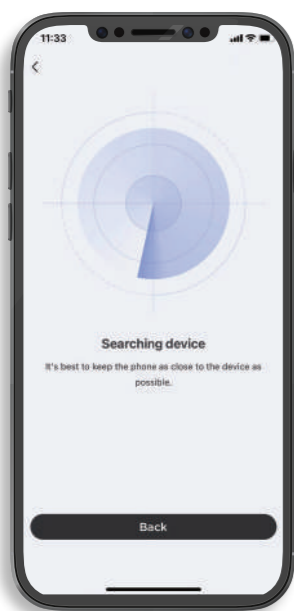


Centralized control Applicable models

7 inches and colorful screen display, beautiful appearance, touch screen and easy operation. A variety of combinations, single or multiple machines can be operated simultaneously, has the schedule setting and historical fault query function.



APP control Applicable models



Card control

For places in the hotel where an access control system is needed, this function provides an interface, which can cooperate with the hotel room card to operate the air-conditioning system to power on or off with the plugging state of the room card.

When insert the key card, air conditioner will start automatically





Optional Solutions

WiFi Operation Solution

WiFi control: No matter when and where, you can control and monitor the running status of the air conditioner after we connect the WiFi by our mobile phone



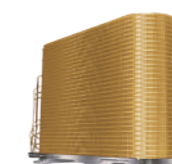
Remote controller (standard)



360° new panel (optional)



wired controller (optional)



Golden fin (optional)



Centralized controller (optional)



Healthy filter for cassette & duct unit (optional)