

TCL

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 TCL CAC  TCL CAC  TCL CAC  HVAC-TCL  TCL- CAC

V24.10.14.1

TCL

Tropical R32 All DC Inverter Air Conditioner

D1 Series Duct / Cassette Light Commercial AC (Saudi Arabia / UAE)



- | | | | |
|---|--|--|--|
|  High ESP up to 200Pa |  High temperature cooling |  WiFi App/OTA |  Dust removal |
|  Long piping up to 80m |  Constant air volume |  Multi-split |  Fresh air |

Catalogue



02-03

Introduction Of
TCL CAC



04-05

New R32 Air
Conditioner Features



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D1 series High Static
Pressure Duct Units



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360° Air
Outlet Cassette



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Intelligent
Control



16-17

Product
Parameters



The Creative Life

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



30 million sets/year at 11 global production sites

11
Manufacturing
Centers

30M
2023 Annual
Production Capacity

Brazil factory

Jiujiang Jiangxi

Huizhou
Guangdong

Wuhan
factory

TCL

Zhongshan
factory 1/2

Zhongshan
SKD factory

Zhongshan
electrical factory

Zhongshan
DeLonghi

**The greater bay
area hinterland**



Indonesia
factory

Introduction Of TCL CAC

TCL Industry is a smart terminal business group that focus on building a full-scenario smart AI x IoT strategy, creating all smart product categories such as TV & air conditioners, platform support and eco-system service businesses.

TCL Air-conditioner is belong to TCL Industry, which is one of the core industries of TCL Groups.

TCL CAC 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. 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 serviceability, 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.

Smart Production Technology



Facility Size
50 acres



Annual Output Value:
¥5.8 billion



Digital Production
Lines: **9**



Capacity
3,000,000 Sets per year

Strong R&D Capabilities



R&D Personnel:
300+



Proprietary Intellectual
Property: **233 patents**



Advanced
Labs: **16**



Annual R&D Investment:
Over 300 million yuan for 3 years

NEW R32 AIR CONDITIONER FEATURES



Full DC inverter

Adopt DC inverter compressor and motor to ensure better energy saving and reliability of air conditioning system.



High efficiency

All DC inverter compressor and fan motor, together with R32 refrigerant application realize high efficiency performance under T1/T3/T4 working conditions.



High temperature cooling

Stable operation at 60°C ambient temperature. Enhanced stability of system. Fearless of various adverse weather.



Generator mode (Low current mode)

During short of public power grid or when the unit is powered by generator, this mode will limit the unit current to keep low power consumption.



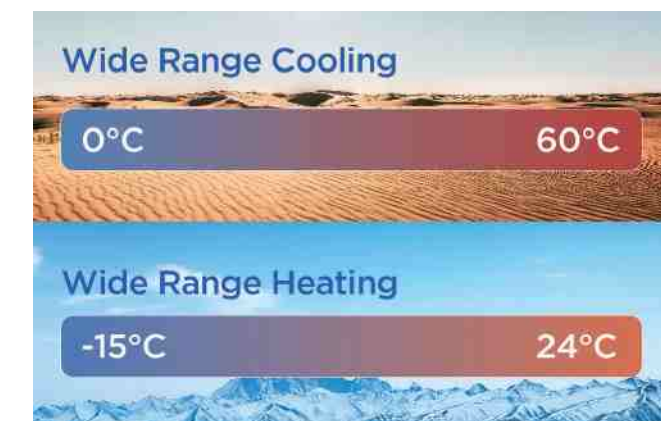
AI energy saving

AI algorithms learn users habits to operate appropriate logic.



Ambient temperature range

Cooling and heating steadily from 0 to 60°C . Meet various of working conditions and scenarios.



Auto dust-removal

Outdoor unit fan will blow in opposite to avoid dust accumulated on fins.

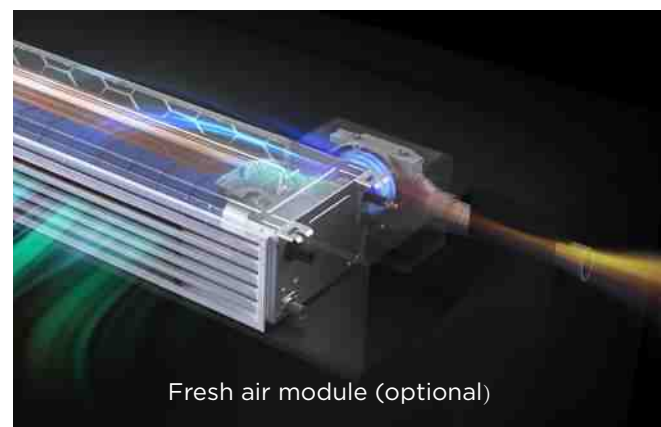


D1 series High Static Pressure Duct Units

Health

Fresh air

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



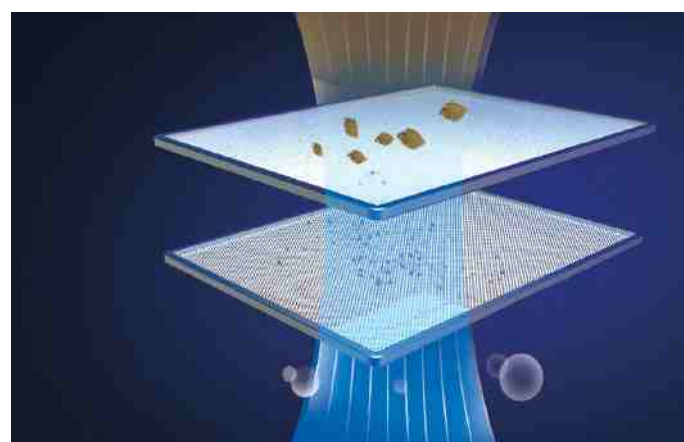
Evaporator self-cleaning

This function removes dust without noise or dust up, ensuring clean air supply.



Health Filter(Optional)

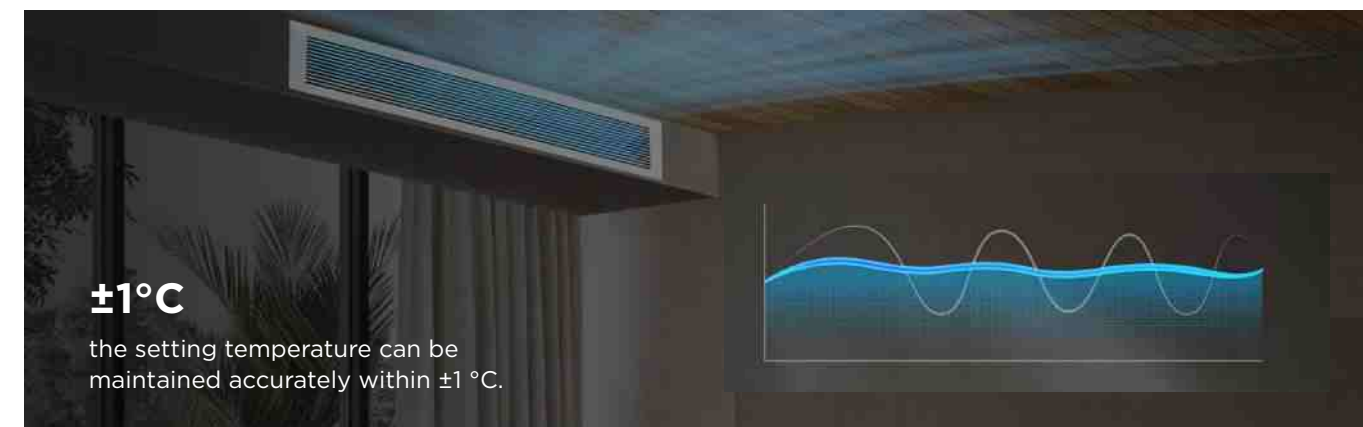
The filter panel full of silver ions and activated carbon will help you filter out most harmful bacteria and ensure the health of indoor air.



Comfortable

Precise temperature control

Due to the full DC inverter design and high-precision electronic expansion valve.



7 Fan speed adjustable

Delicate fan speed adjustment. To satisfy wind-sensitive users' requirement, more comfortable.



Low noise

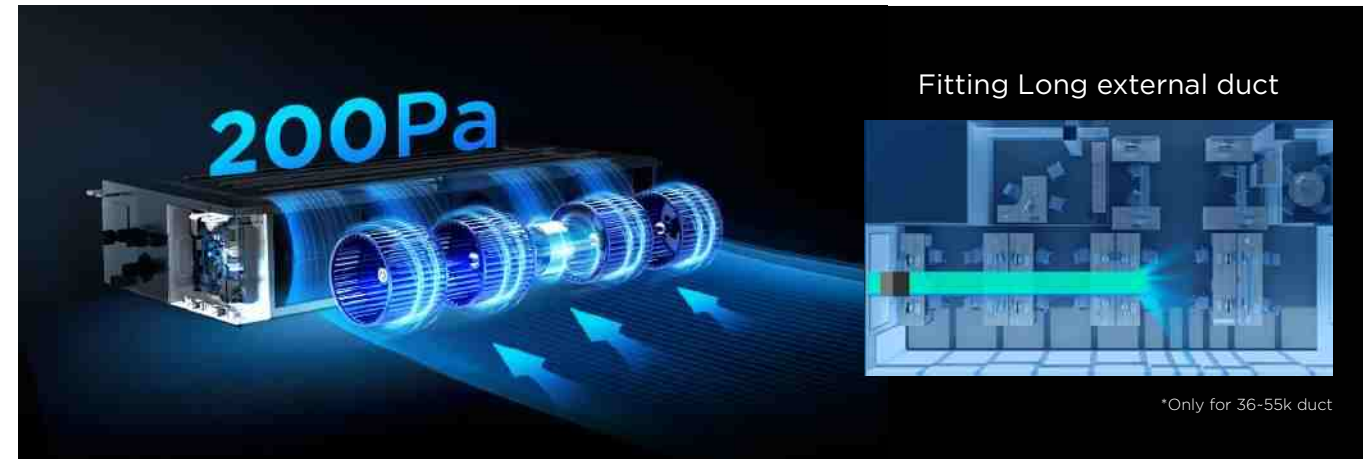
High efficiency DC fan motor and optimized air duct design realizes quiet operation, mute mode 18k operating noise 34dB*.



Flexible Installation

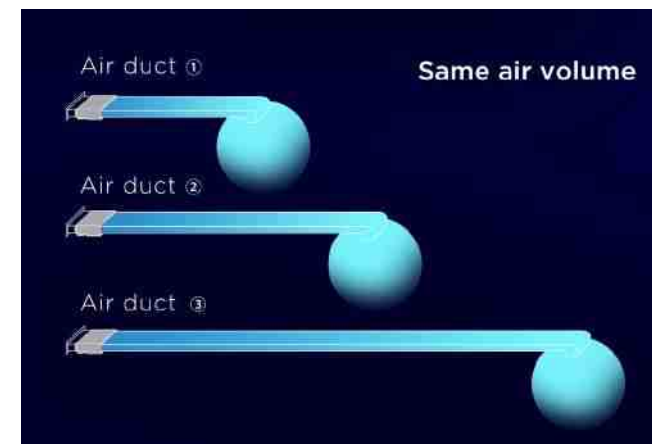
High ESP

ESP up to 200Pa* supports longer air duct and fits with more installation scenario.



Constant air volume

Fan motor automatically adjusts speed according to wind resistance. To provide stable air volume to rooms.



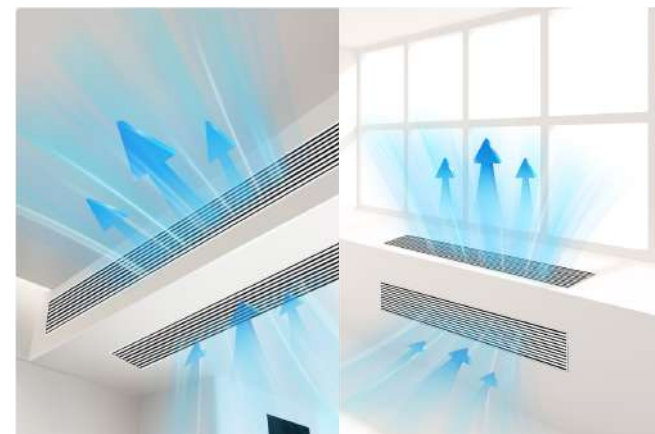
Slim body 245mm

Duct are new designed body of 245mm* thickness which is convenient for concealed installation.



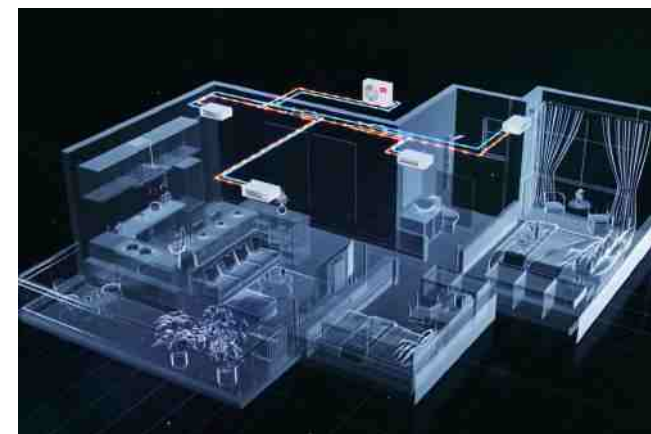
Ceiling & floor installation

Support both ceiling concealed and floor concealed installation.



Multi-split

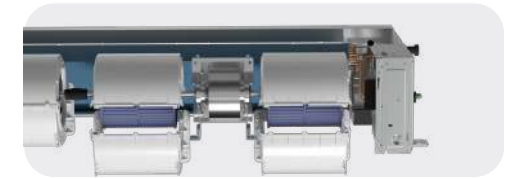
Connect 2-4 IDU, all indoor units ON/OFF at the same time.



Easy Maintenance

Disassemble motor easily

Integrated motor assemble design allows operators to maintain the motor from the bottom more easily where is big space.



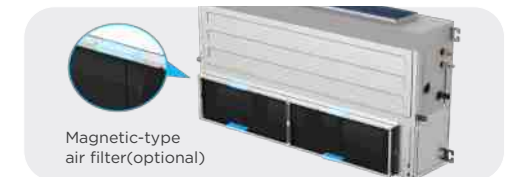
Fire-prove control box

The control board panel is easy to disassemble with only 2 screws. The electric control box could be take out entirely for inspection.



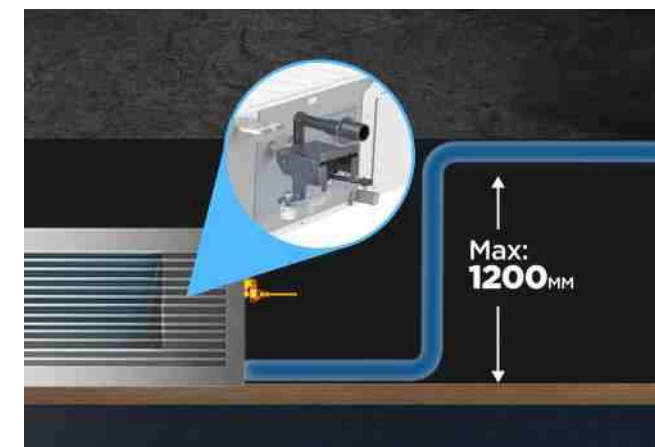
Replace filter easily

Filter is pulled out from side, magnetic filter is optional which is easy for replacing and cleaning.



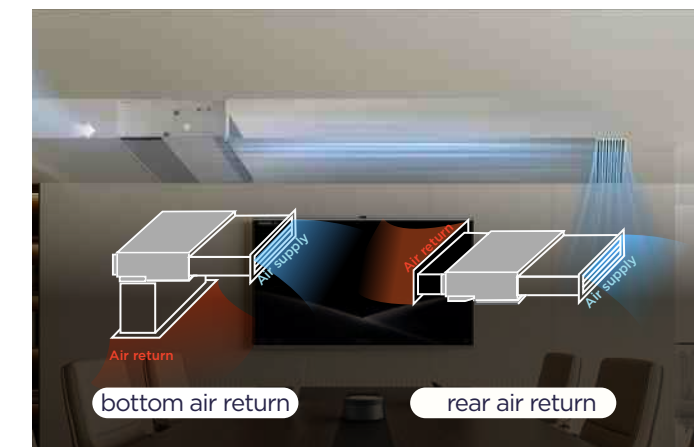
High efficiency water pump (optional)

The integral water pump is in one pieces and easy for maintenance, with 1200mm high lift.



2 Air return for option

There are two air return modes to be chosen for engineering installation: bottom air return and rear air return.



Long piping length

Pipe length is up to **80m** from ODU to IDU. Height difference is up to **40m**.



Refrigerant recovery

When piping leaks or system in malfunction, refrigerant could be recovered and stored in ODU condenser.



360° Air Outlet Cassette



Comfortable

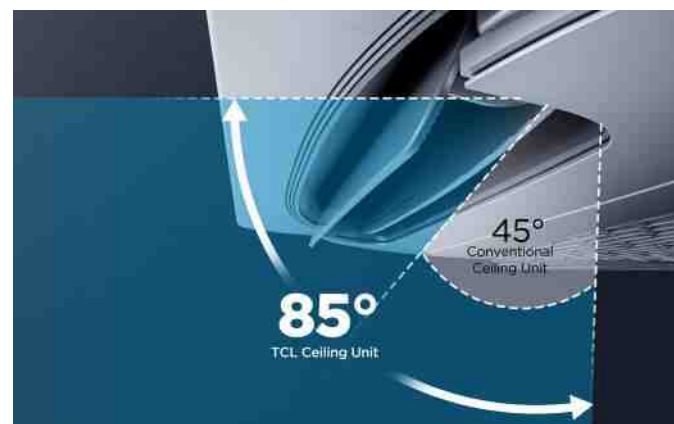
Soft wind panel (optional)



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



Wide range of swing angle



Arc louver swing angle, range from 0-85°, send soft air to any corner of the room easily.



When cooling, let cool air drop from the sky.

Comfortable

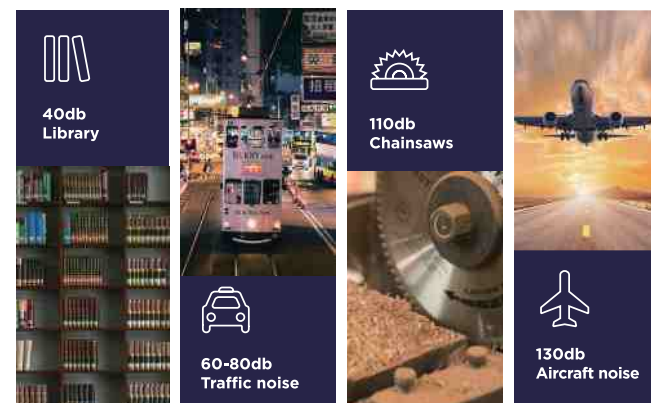
Low noise design

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 36dB(A)*.



3D fan blade design

*For 18k cassette



Fresh air

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



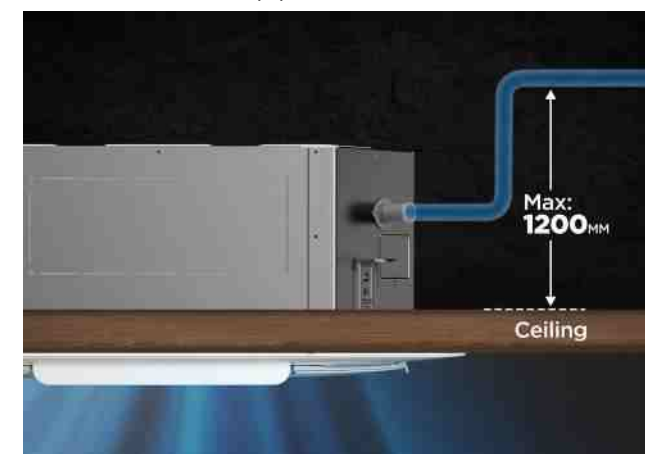
Easy to clean filter

The filter is very easy to disassemble and clean, keeping the air healthy all the time.



1200mm water pump lift

The Cassette has a built-in water pump, the maximum lift can reach 1200mm, which is conducive to the installation of drain pipes.



Water-full protection

If too much condensate water accumulates in the indoor unit, or water pump fails it will alert, to prevent water overflow.



Intelligent Control

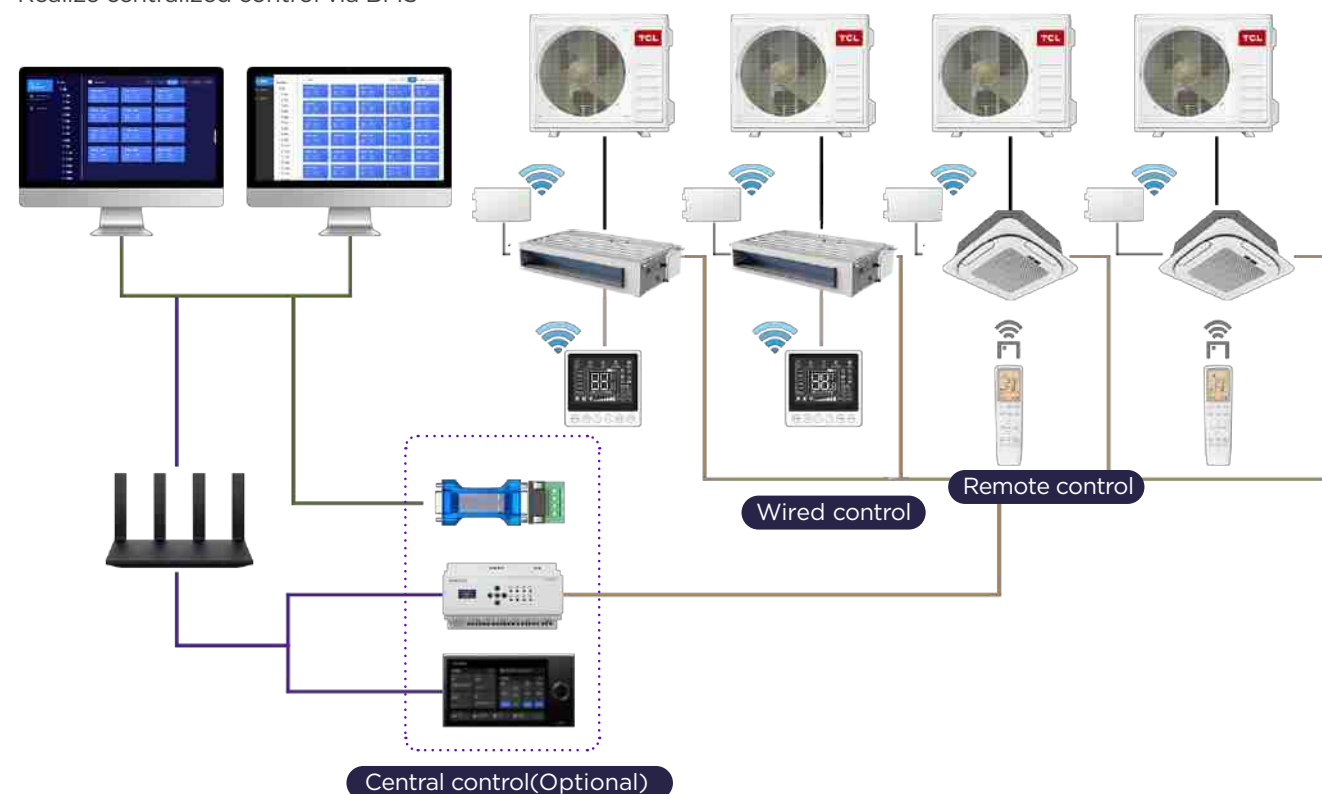


Multiple control solutions

Various of controllers meets different users' demand. Including Wired controller, Wireless controller, central control and BMS control.

BMS control

It is easy to connect from PCB to 3rd party Building Management System. Realize centralized control via BMS



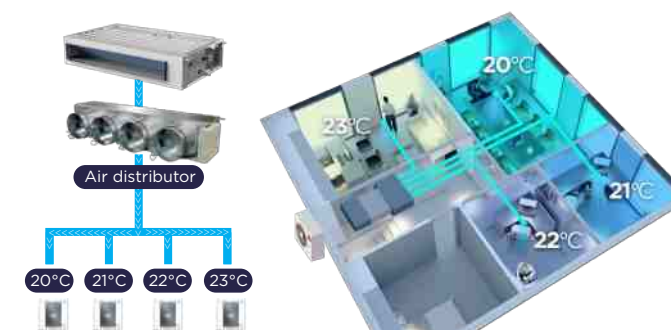
WiFi control & OTA

- Remotely turn on/off and set schedule or timer.
- Monitor running datas and operation history.
- The air-conditioner upgrades on the air via WiFi and APP.



Air-zone solutions

Compatible with the 3rd party zoning controller, realize independently adjustment for each room.



Double wired controller

The same air conditioner can be controlled by two wire controllers by setting the primary and secondary wire controllers, you can adjust the most comfortable temperature for your child without going to the child's room.



ESP adjust on wired controller

ESP can be set on wired controllers instead of setting on PCB, which is convenient for installation.



Dry contact

Reserved port on board to wiring with room card/Fire alarm/ window signal.



Optional Accessories

Wired Controller



Remote Controller



WiFi Control (Optional)



Panels

(Cassette optional)



Condenser



Blue Fin



Golden Fin(optional)

Water Pump

(Duct optional)



Features List

		Duct	Cassette
Flexible installation	High ESP up to 200 Pa	√	Not involved
	Long piping design	√	√
	2 direction drainage	√	Not involved
	Ceiling & Floor installation	√	Not involved
	Multi-split	√	√
	Integrated water pump module	Optional	√
Intelligent control	AI Energy saving	√	√
	Constant air volume	√	Not involved
	Dry contact	√	√
	ESP Adjustment from Wire Controller	√	Not involved
	Auto dust-removing	√	√
	Power-down memory	√	√
	Wired controller	standard	Optional
	Remote controller	Optional	standard
	WiFi APP controller	Optional	Optional
Comfortable	OTA	Optional	Optional
	Fresh air	Optional	Optional
	Evaporator Self-cleaning	√	√
	60°C high temperature cooling	√	√
	Health filter	Optional	Optional

Product Parameters (GCC)

D1 series High Static Pressure Duct Units



High ESP up to 200 Pa



Constant air volume



Flexible installation



Ultra-thin design



WiFi control



model			TCC-18D1HWH/ DVT-(C5)	TCC-24D1HWH/ DVT-(C5)	TCC-30D1HWH/ DVT-(C5)	TCC-36D1HWH/ DVT-(C5)	TCC-48D1HWH/ DV7T-(C5)	TCC-55D1HWH/ DV7T-(C5)
Cooling(T1)	Capacity	Btu/h	18900	24800	30000	34600	47400	55000
	Input	W	1537	2033	2459	2824	3869	4508
	Current	A	6.68	8.84	10.69	12.28	9.71	11.32
	EER	Btu/h/W	12.30	12.20	12.20	12.25	12.25	12.20
		W/W	3.60	3.58	3.58	3.59	3.59	3.58
Cooling(T3)	Capacity	Btu/h	17200	22500	27500	32000	43200	49500
	Input	W	1955	2542	3125	3636	4881	5593
	Current	A	8.50	11.05	13.59	15.81	12.25	14.04
	EER	Btu/h/W	8.80	8.85	8.80	8.80	8.85	8.85
		W/W	2.58	2.59	2.58	2.58	2.59	2.59
Cooling(T4)	Capacity	Btu/h	14600	19000	23800	27000	37500	47200
	Input	W	1688	2184	2751	3140	4310	5457
	Current	A	7.34	9.50	11.96	13.65	10.82	13.70
	EER	Btu/h/W	8.65	8.70	8.65	8.60	8.70	8.65
Heating	Capacity	W	1.39	1.38	1.39	1.40	1.38	1.39
	Input	W	5800	8100	9250	10550	15500	17900
	Current	A	1487	2132	2434	2776	3780	4711
	COP	Btu/h/W	6.47	9.27	10.58	12.07	9.49	11.82
		W/W	3.90	3.80	3.80	3.80	4.10	3.80
CSPF		Btu/h/W	4.15	4.10	4.00	4.05	4.05	4.00
Indoor sound pressure (S/H/M/L/Mute)		dB(A)	43/41/39/37/34	45/43/41/39/36	49/47/45/43/41	49/47/45/43/41	47/45/43/41/39	49/47/45/43/40
Outdoor sound pressure		dB(A)	52	54	57	59	57	60
Power supply		/	Indoor: 220-240V~/50/60Hz/1P		Outdoor: 220-240V~/50/60Hz/1P		Indoor: 220-240V~/50/60Hz/1P Outdoor: 380-415V~/50/60Hz/1P	
Max.current		A	13	15	19	20	13	15
Indoor air circulation		m3/h	1100	1500	2200	2200	2800	3300
Compressor		Type	Rotary	Rotary	Rotary	Rotary	Rotary	Rotary
External Static Pressure(Rated)		Pa	25	25	37	37	50	50
External Static Pressure(Range)		Pa	0-160	0-160	0-160	0-200	0-200	0-200
Connecting Wiring		Core x Size	outdoor:3*2.5mm ² outdoor to indoor:5*1.5mm ²		outdoor:3*2.5mm ² ; outdoor to indoor:3*1.5mm ² +3*0.75		outdoor:3*4.0mm ² ; outdoor to indoor:3*1.5mm ² +3*0.75	
Connecting Pipe	Gas	Inches	1/2"	5/8"	5/8"	5/8"	3/4"	3/4"
	Liquid	Inches	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"
Max. refrigerant pipe length		m	40	40	50	50	80	80
Max. difference in level		m	25	25	30	30	40	40
Ambient temperature range		Outdoor	°C	Cooling:0-60 / Heating:-15-24				
Net dimensions (W x H x D)	Indoor	mm	920×700×245	920×700×245	1200x700x245	1200x700x245	1400x800x380	1400x800x380
	Outdoor	mm	845×700×342	910×804×378	910×804×378	910×804×378	950×340×1330	940×390×1365
Net weight	Indoor	kg	27.5	28.5	36	36	60	60
	Outdoor	kg	40	55	52	55	92	98
Packing dimensions (W x H x D)	Indoor	mm	1100x830x310	1100x830x310	1380x830x310	1380x830x310	/	/
	Outdoor	mm	960×430×755	1022x860x480	1022x860x480	1022x860x480	1080×430×1465	1080×470×1540
Gross weight	Indoor	kg	32.5	33.5	42	42	66	66
	Outdoor	kg	44	60	57	60	102	108

Product Parameters (GCC)

360° Air Outlet Cassette



360° Round Air Outlet



Wide range of swing angle



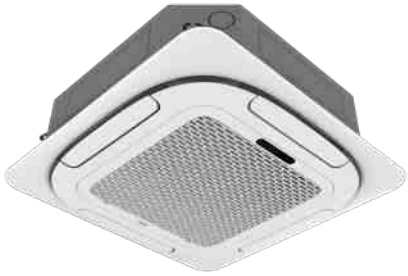
Built-in water pump



WiFi control



Inverter technology



model			TCC-18CHRH/DVT-(C5)	TCC-24CHRH/DVT-(C5)	TCC-30CHRH/DVT-(C5)	TCC-36CHRH/DVT-(C5)	TCC-48CHRH/DV7T-(C5)
Cooling(T1)	Capacity	Btu/h	19100	25100	30200	34000	44300
	Input	W	1559	2049	2486	2764	3631
	Current	A	6.78	8.91	10.81	12.02	9.12
	EER	Btu/h/W	12.25	12.25	12.15	12.30	12.20
		W/W	3.59	3.59	3.56	3.60	3.58
Cooling(T3)	Capacity	Btu/h	17300	22800	28000	31600	39200
	Input	W	1955	2576	3164	3571	4455
	Current	A	8.50	11.20	13.76	15.52	11.18
	EER	Btu/h/W	8.85	8.85	8.85	8.85	8.80
		W/W	2.59	2.59	2.59	2.59	2.58
Cooling(T4)	Capacity	Btu/h	14800	19200	24300	26700	33500
	Input	W	1701	2207	2793	3087	3895
	Current	A	7.40	9.60	12.14	13.42	9.78
	EER	Btu/h/W	8.70	8.70	8.70	8.65	8.60
Heating	Capacity	W	1.38	1.38	1.38	1.39	1.40
	Input	W	5850	8150	9400	10500	15100
	Current	A	1481	2117	2507	2838	3775
	COP	Btu/h/W	6.44	9.20	10.90	12.34	9.48
		W/W	3.95	3.85	3.75	3.70	4.00
CSPF		Btu/h/W	4.15	4.15	4.00	4.05	4.00
Indoor sound pressure (S/H/M/L/Mute)		dB(A)	47/43/41/39/36	49/45/43/41/38	52/49/48/46/43	54/52/50/48/46	55/53/51/49/47
Outdoor sound pressure		dB(A)	52	54	57	59	57
Power supply		/	Indoor: 220-240V~/50/60Hz/1P Outdoor: 220-240V~/50/60Hz/1P				Indoor: 220-240V~/50/60Hz/1P Outdoor: 380-415V~/50/60Hz/1P
Max.current		A	13	15	19	20	13
Indoor air circulation		m3/h	1100	1500	1900	2100	2200
Compressor		Type	Rotary	Rotary	Rotary	Rotary	Rotary
Connecting Wiring		Core x Size	outdoor:3*2.5mm² outdoor to indoor:5*1.5mm²		outdoor:3*2.5mm²; outdoor to indoor:3*1.5mm²+3*0.75		outdoor:3*4.0mm²; outdoor to indoor:3*1.5mm²+3*0.75
Connecting Pipe	Gas	Inches	1/2"	5/8"	5/8"	5/8"	3/4"
	Liquid	Inches	1/4"	3/8"	3/8"	3/8"	3/8"
Max. refrigerant pipe length		m	40	40	50	50	80
Max. difference in level		m	25	25	30	30	40
Ambient temperature range	Outdoor	°C	Cooling:0-60 / Heating:-15-24				
Net dimensions (W x H x D)	Indoor	mm	840×840×245	840×840×245	840x840x290	840x840x290	840×840×290
	Outdoor	mm	845×700×342	910×804×378	910×804×378	910×804×378	950×340×1330
	Panel	mm	950×950×45	950×950×45	950×950×45	950×950×45	950×950×45
Net weight	Indoor	kg	24	24	26	28	29
	Outdoor	kg	40	55	52	55	92
	Panel	kg	6	6	6	6	6
Packing dimensions (W x H x D)	Indoor	mm	935×935×305	935×935×305	935x935x350	935x935x350	935x935x350
	Outdoor	mm	960×430×755	1022×860×480	1022x860x480	1022x860x480	1080×430×1465
	Panel	mm	1055x1055x90	1055x1055x90	1055x1055x90	1055x1055x90	1055x1055x90
Gross weight	Indoor	kg	28	28	32	33	34
	Outdoor	kg	44	60	57	60	102
	Panel	kg	9	9	9	9	9