



FULL DC INVERTER SYSTEMS

INDIVIDUAL AND MODULAR CONSTRUCTION
FLEXIBLE COMBINATIONS

COMMERCIAL AIR CONDITIONERS SDV4 2014



WELCOME TO THE WORLD OF SINCLAIR AIR CONDITIONERS

Company operation and procedures comply with ISO 9001. Sinclair products comply with European standards, which guarantee safe operation. Sinclair represents high standard of quality and great performance with modern designs.

Sinclair SDV4 commercial systems provide solutions for air conditioning entire buildings. A wide range of capacities and range of indoor units enables countless combinations which will meet any of your needs.

The SDV4 model line use only environmentally friendly, CFC free refrigerant R410A which does not cause ozone depletion. This refrigerant is also energy efficient.







SDV4 UNITS LINE UP

	INDOOR UNITS							
Model (kW)	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0
Four-way cassette (compact) units	•	•	•	•				
Four-way cassette units					•	•	•	•
Concealed duct units	•	•	•	•	•	•	•	•
High static pressure duct units								
Fresh air processing duct units								
Floor / ceiling units			•	•	•	•	•	•
Wall mounted units	•	•	•	•	•			

	OUTDOOR UNITS							
Model (kW)	10.5	14.0	16.0	18.0	20.0	22.4	26.0	25.2
Small outdoor units	•	•	•	•	•	•	•	
Combinable outdoor units								•



10.0	11.2	12.5	14.0	16.0	20.0	25.0	28.0	40.0	45.0	56.0	model
											SDV4-xxCA
•	•		•								SDV4-xxC4A
	•		•								SDV4-xxDA
					•	•	•	•	•	•	SDV4-xxxDHA
		•	•		•	•	•				SDV4-xxxDFA
	•		•	•							SDV4-xxFA
											SDV4-xxHA-B

28.0	33.5	40.0	45.0	50.0	model
					SDV4-xxxEA
•	•	•	•	•	SDV4-xxxEAK



Introduction

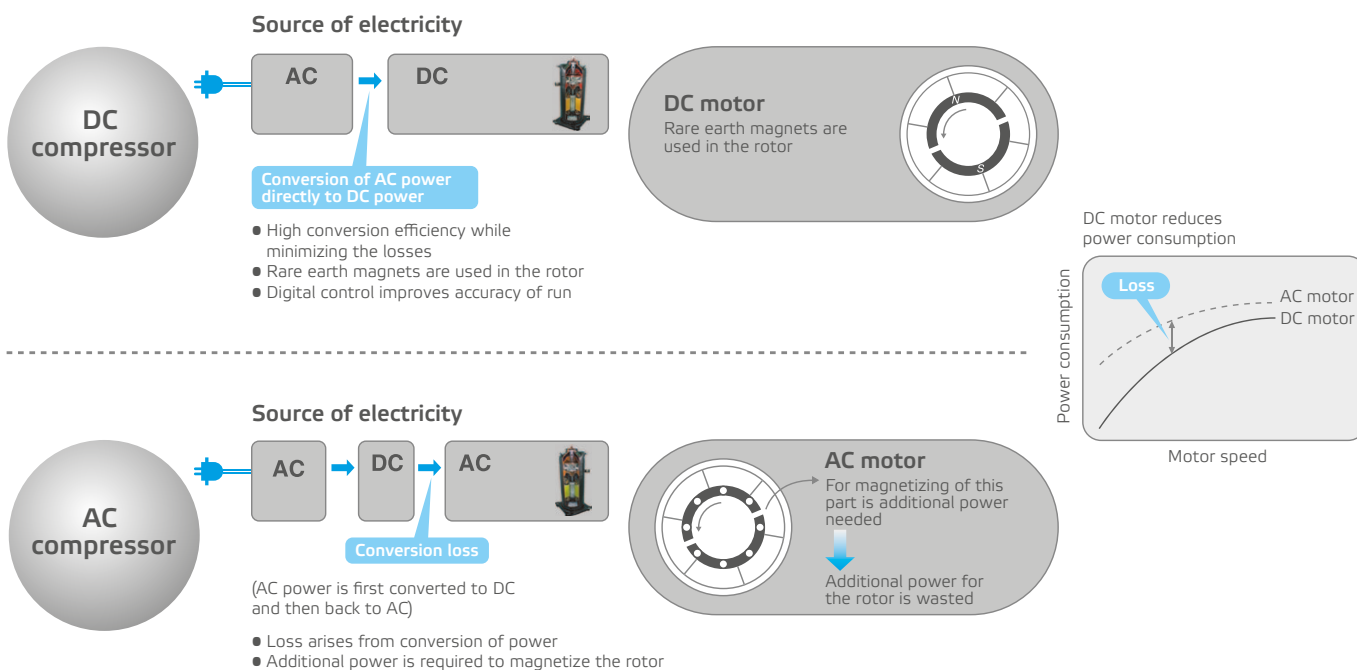
Features

- Wide product range, including DC inverter smart series (small) and DC inverter smart series (modular).
- Wide adjustment range, high level and modern nature design. Sinclair DC inverter A/C can create perfect living conditions.
- Adopts DC inverter technology.
- Saves energy

DC compressor

DC COMPRESSOR FOR IMPROVED EFFICIENCY

(less energy consumption saves your electricity charges)

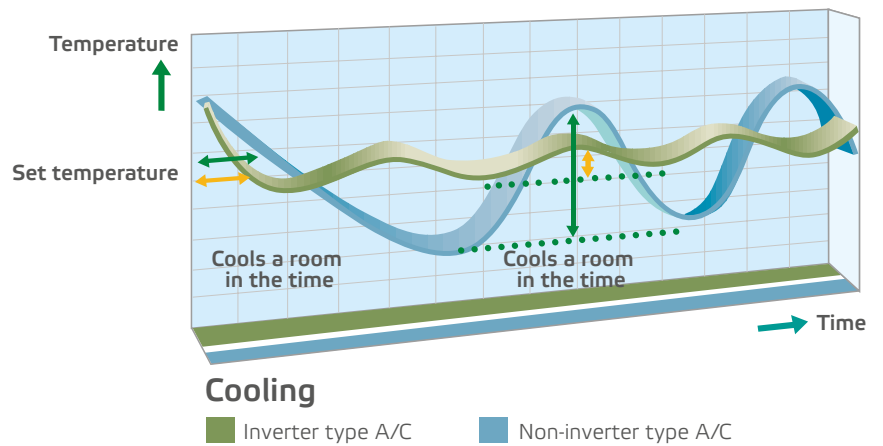




Low noise and comfort

Full power is used on start up to quickly achieve the correct room temperature. Then the capacity is adjusted according to subtle changes in demand giving fine control of the room temperature.

Non inverter types switching on and off can cause large fluctuations in the room temperature.



Select the best indoor and universal controller

Select the best indoor unit to match room requirement and design needs. We have 7 types of indoor units to choose from, including 4-way cassette, floor/ceiling, wall-mounted, duct and so on.

Various remote and universal controllers for DC inverter air conditioners, including wireless remote controller, wired controller, weekly timer, central controller and network controller.



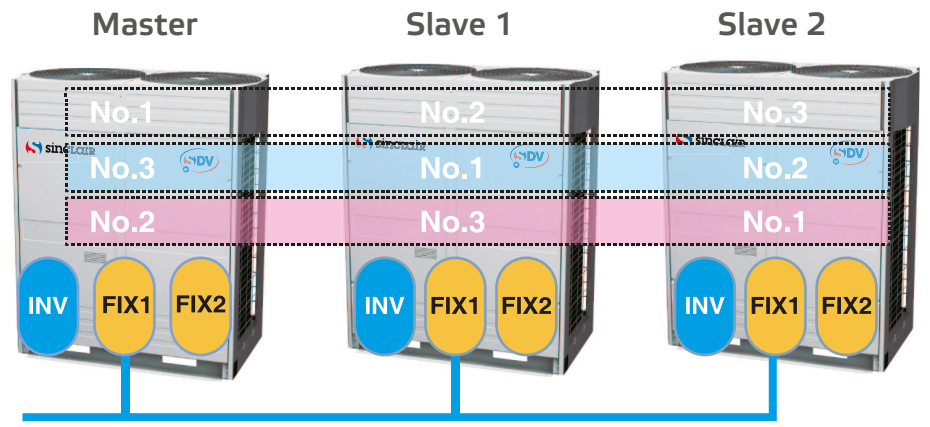


New SDV4k system

Intelligent management

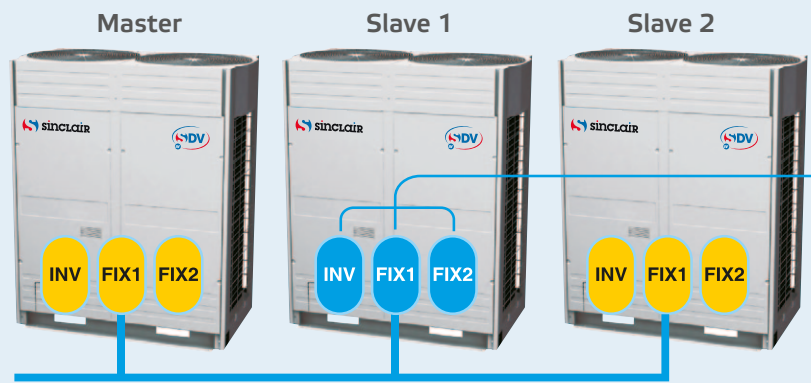
CYCLIC OPERATION OF OUTDOOR UNITS

After each restart, defrost and oil return, the running order of the outdoor units is changed.



Where multiple outdoor units are installed each of the units can perform as a main or slave unit equalizing the annual running hours.

OUTDOOR MODULE BACKUP OPERATION

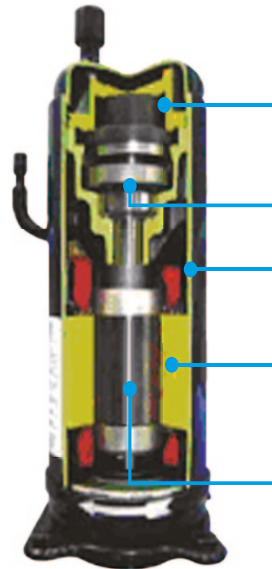


If an error occurs on unit one, it will go into standby and the rest of the units operate normally.

High efficiency

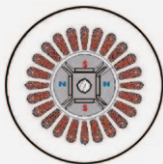
HIGH EFFICIENCY DC INVERTER COMPRESSOR GIVES 25% POWER SAVING

DC adjustable speed gives 25% energy saving compared to AC adjustable speed compressors

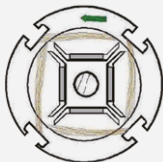


- New structure, enhanced mid frequency performance
- R410A special new scroll tooth-like form
- Compact design gives 50% weight reduction
- Elaborate design compressor magnet arrangement, more centralized magnet flux
- Advanced technology DC inverter motor using thulium-neodym uses less current

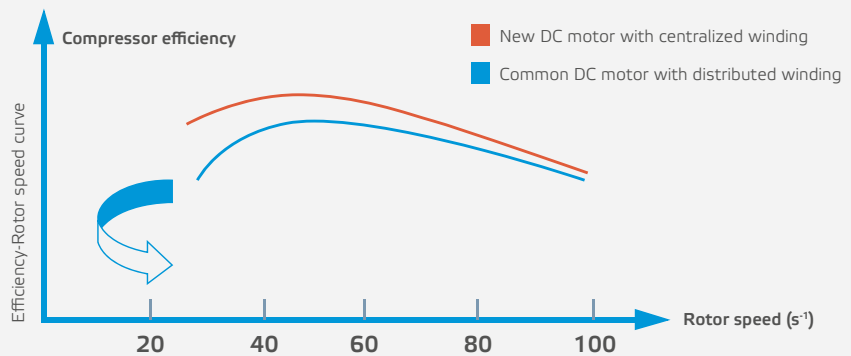
As the typical load ratio of a building is between 30% and 70% the system mainly operates in the mid load condition. The new DC motor with centralized winding reduces the running costs all year long.



Centralized winding

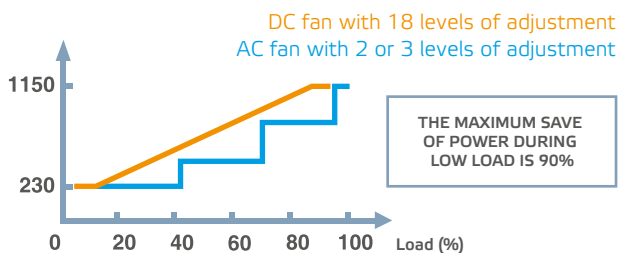


Distributed winding



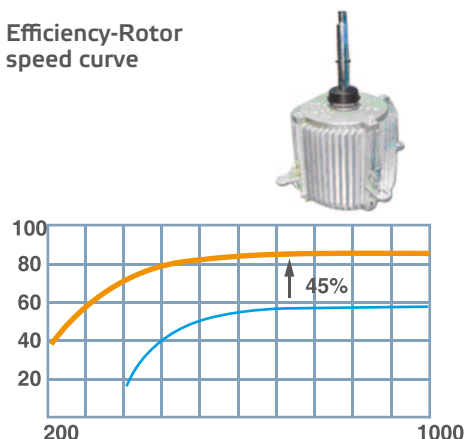
HIGH EFFICIENCY DC INVERTER MOTOR, SAVES 50% OF POWER

Load-Rev curve



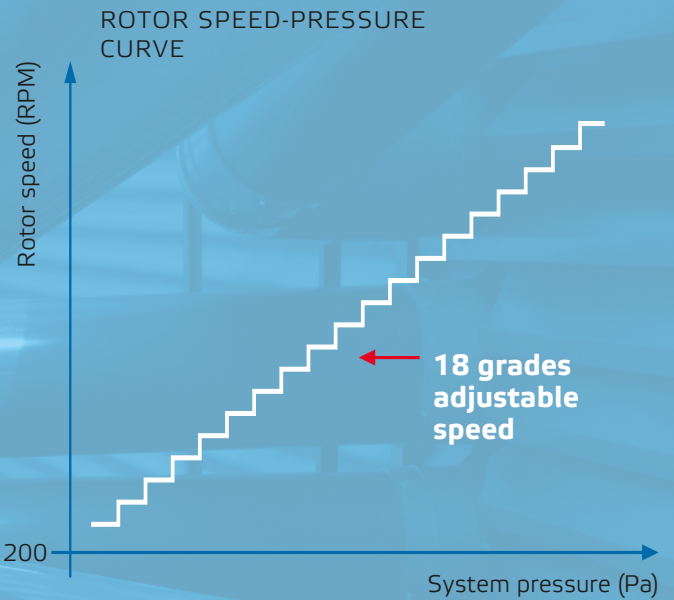
Some conventional VRF units use low cost motors which are low in efficiency. Sinclair use DC motors which can result in energy savings of up to 60%.

Efficiency-Rotor speed curve



New SDV4k system

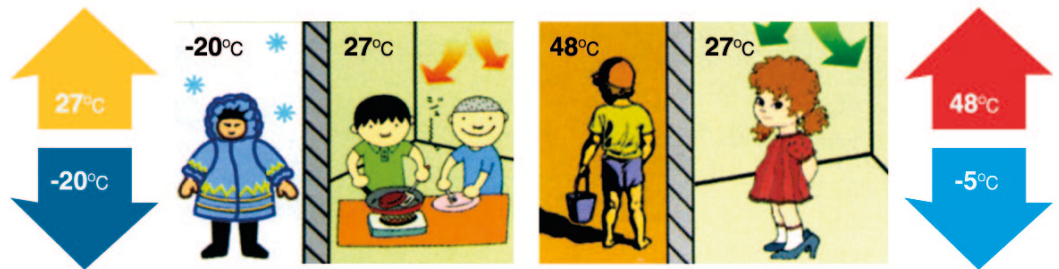
Motor rotor speed waves among ± 5 RPM and can rapidly match DC inverter compressor to output and enhance efficiency in part load.



Enhanced rated heat capacity

WIDE OPERATION RANGE

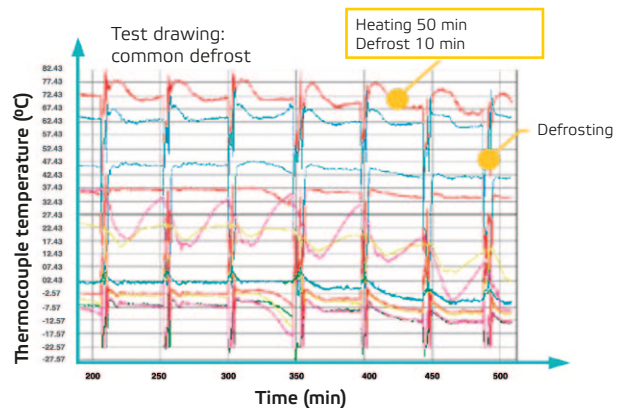
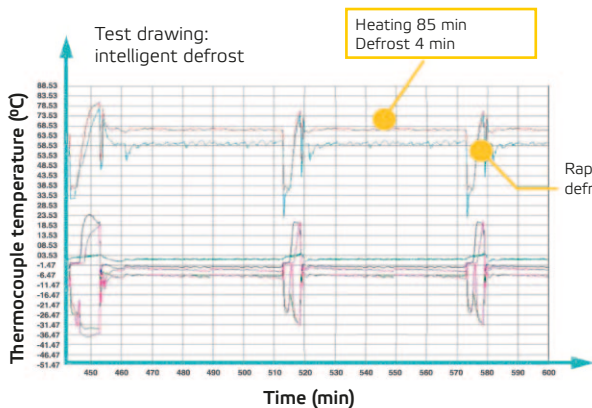
No matter if is 48°C in the summer or -20°C in the winter, SDV4 assures the correct running conditions for year round comfort.



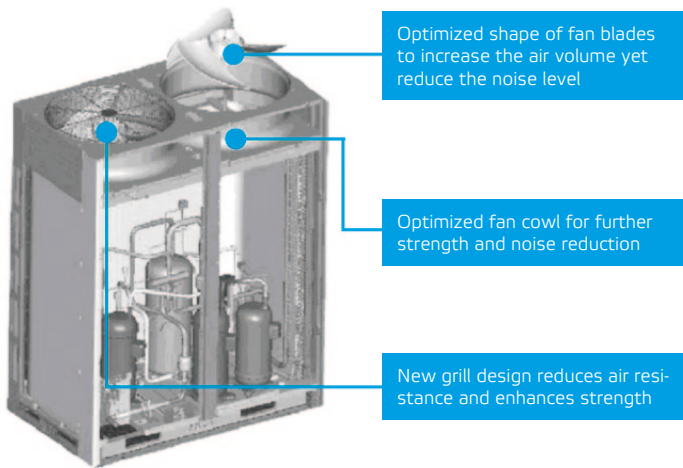
Intelligent defrost

The system will automatically adjust the defrost timing according to the operating conditions, load and any icing of the outdoor coil.

SDV4 INDIVIDUAL INTELLIGENT DEFROST IMPROVES THE HEAT CAPACITY



TAKE 45KW (16HP) UNIT FOR EXAMPLE

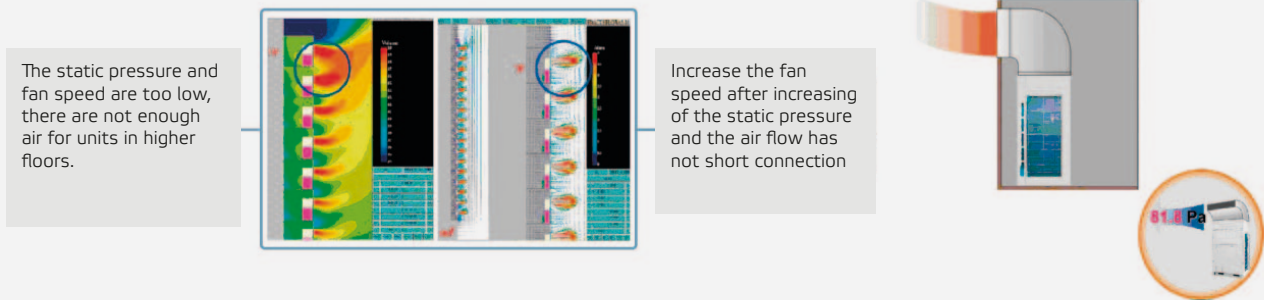


Silent operation

IMPROVED AIR VOLUME

- Increase the static pressure and decrease the loss of pressure
- Decrease the input and decrease the noise level.

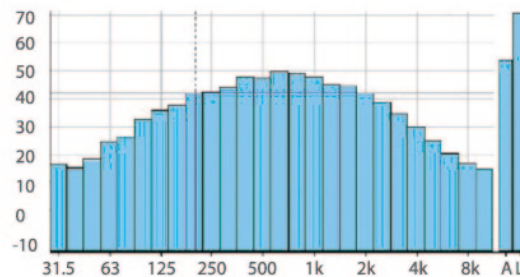
STATIC PRESSURE OF OUTDOOR UNIT UP TO 80 PA, WHILST SOUND PRESSURE IS KEPT LOW



NOISE REDUCTION OF THE UNITS

Environment friendly technology

[dB(A)/20U Pa]



Cursor values
X:200.00 Hz
Y:41.666 dB(A)/20U
Total: 57.026 db(A)

28kW SDV4
noise testing
data

SOUND LEVEL [DB(A)]

unit	25,2kW	28kW	33,5kW	40kW	45kW
SDVIII	60	60	62	62	62
SDV4	57	57	58	60	60
Decrease	3	3	4	2	2



New SDV4 system - compressors

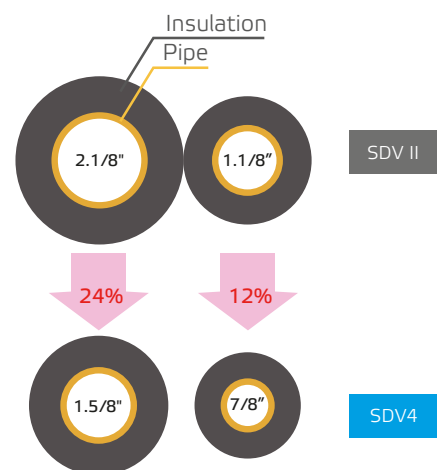
Compressor configurations

25.2 and 28kw units use just one DC inverter compressor giving a high efficiency and energy saving solution.

33.5 to 50kw outdoor units adopt a high capacity DC inverter compressor and fixed compressor combination.



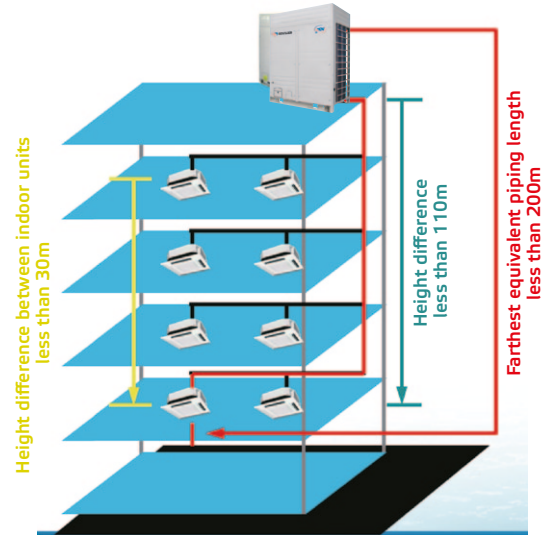
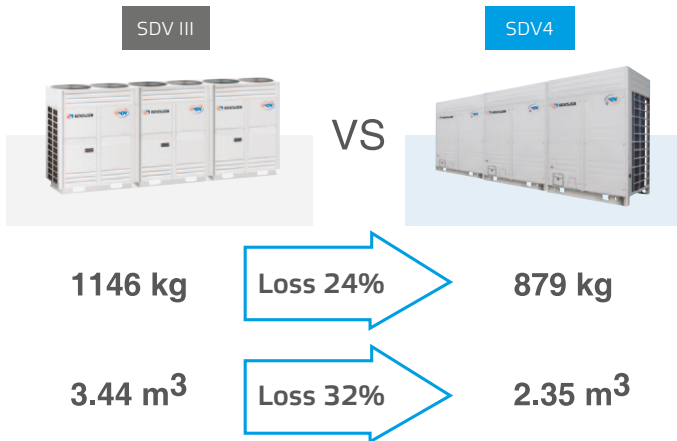
Reduce the main pipe (36HP)



Easier installation

- SDV4 is designed by special software combining CFD to simulate heat exchange
- Smaller footprint, reduced weight and easier to maintain
- Longer pipe runs, greater height difference, flexibility for a variety of buildings

TAKE 101KW (36HP) FOR EXAMPLE



More combinations



Flexible combinations of outdoor units

Model	Number of outdoor units	Recommended combination						Combination of outdoor units	Maximum number of indoor units
		25.2 kW	28 kW	33.5 kW	40 kW	45 kW	50 kW		
		8 HP	10 HP	12 HP	14 HP	16 HP	18 HP		
SDV4-252Eak	1	•						SDV4-252Eak	13
SDV4-280Eak	1		•					SDV4-280Eak	16
SDV4-335Eak	1			•				SDV4-335Eak	20
SDV4-400Eak	1				•			SDV4-400Eak	23
SDV4-450Eak	1					•		SDV4-450Eak	26
SDV4-500Eak	1						•	SDV4-500Eak	29
SDV4-560Eak	2		••					SDV4-280Eak + SDV4-280Eak	33
SDV4-645Eak	2		•	•				SDV4-280Eak + SDV4-335Eak	36
SDV4-680Eak	2		•		•			SDV4-280Eak + SDV4-400Eak	39
SDV4-730Eak	2		•			•		SDV4-280Eak + SDV4-450Eak	43
SDV4-780Eak	2		•				•	SDV4-280Eak + SDV4-500Eak	46
SDV4-850Eak	2				•	•		SDV4-400Eak + SDV4-450Eak	50
SDV4-900Eak	2				•		•	SDV4-400Eak + SDV4-500Eak	53
SDV4-950Eak	2					•	•	SDV4-450Eak + SDV4-500Eak	56
SDV4-1000Eak	2						••	SDV4-500Eak + SDV4-500Eak	59
SDV4-1060Eak	3		••				•	SDV4-280Eak + SDV4-280Eak + SDV4-500Eak	63
SDV4-1130Eak	3		•		•	•		SDV4-280Eak + SDV4-400Eak + SDV4-450Eak	64
SDV4-1200Eak	3				•••			SDV4-400Eak + SDV4-400Eak + SDV4-400Eak	64
SDV4-1230Eak	3		•			•	•	SDV4-280Eak + SDV4-450Eak + SDV4-500Eak	64
SDV4-1280Eak	3		•				••	SDV4-280Eak + SDV4-500Eak + SDV4-500Eak	64
SDV4-1350Eak	3				•	•	•	SDV4-400Eak + SDV4-450Eak + SDV4-500Eak	64
SDV4-1400Eak	3				•		••	SDV4-400Eak + SDV4-500Eak + SDV4-500Eak	64
SDV4-1450Eak	3					•	••	SDV4-450Eak + SDV4-500Eak + SDV4-500Eak	64
SDV4-1500Eak	3						•••	SDV4-500Eak + SDV4-500Eak + SDV4-500Eak	64
SDV4-1560Eak	4		••				••	SDV4-280Eak + SDV4-280Eak + SDV4-500Eak + SDV4-500Eak	64
SDV4-1630Eak	4		•		•	•	•	SDV4-280Eak + SDV4-400Eak + SDV4-450Eak + SDV4-500Eak	64
SDV4-1680Eak	4		•		•		••	SDV4-280Eak + SDV4-400Eak + SDV4-500Eak + SDV4-500Eak	64
SDV4-1730Eak	4		•			•	••	SDV4-280Eak + SDV4-450Eak + SDV4-500Eak + SDV4-500Eak	64
SDV4-1780Eak	4		•				•••	SDV4-280Eak + SDV4-500Eak + SDV4-500Eak + SDV4-500Eak	64
SDV4-1850Eak	4				•	•	••	SDV4-400Eak + SDV4-450Eak + SDV4-500Eak + SDV4-500Eak	64
SDV4-1900Eak	4				•		•••	SDV4-400Eak + SDV4-500Eak + SDV4-500Eak + SDV4-500Eak	64
SDV4-1950Eak	4					•	•••	SDV4-450Eak + SDV4-500Eak + SDV4-500Eak + SDV4-500Eak	64
SDV4-2000Eak	4						••••	SDV4-500Eak + SDV4-500Eak + SDV4-500Eak + SDV4-500Eak	64

More modes of operation

- High static pressure mode
- Zero static pressure mode (default)
- Silent mode in night mode
- Heating priority mode (default)
- Cooling priority mode.
- First on indoor unit priority mode
- Heating only mode
- Cooling only mode



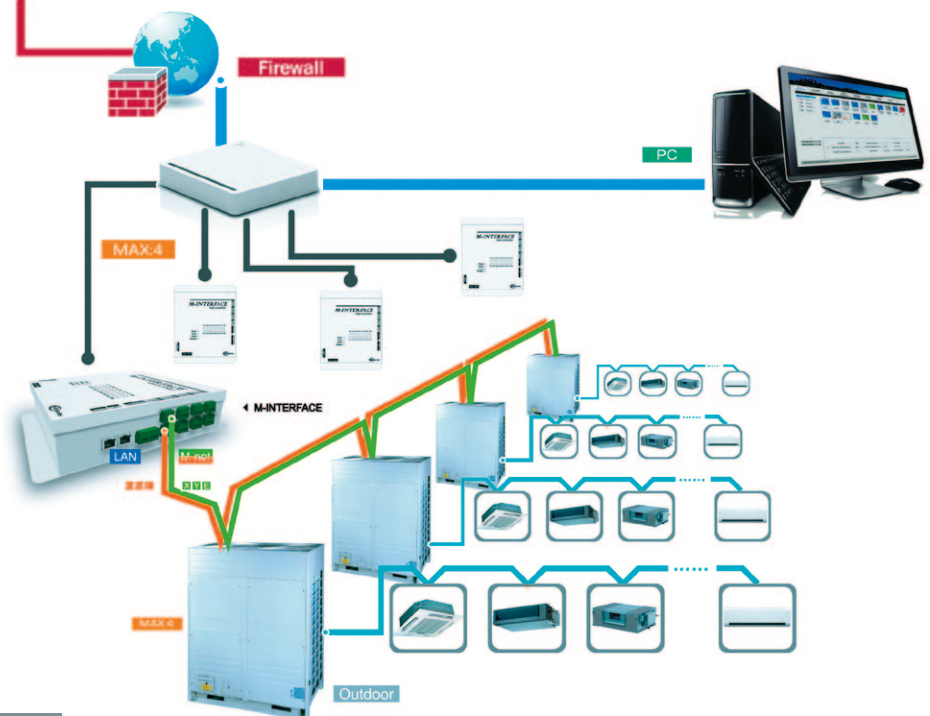
IMM and M-Interface 4th generation of monitoring system



NETWORK CONTROL APPLICATION

FUNCTIONS

IMM is designed specifically to control SDV systems. It is based on a centralized format and dedicated to the complete control and monitoring of all the system's functions. IMM can be used as a flexible multi-purpose system and applied to a variety of needs, according to the scale, purpose and control method of each building.



BENEFITS

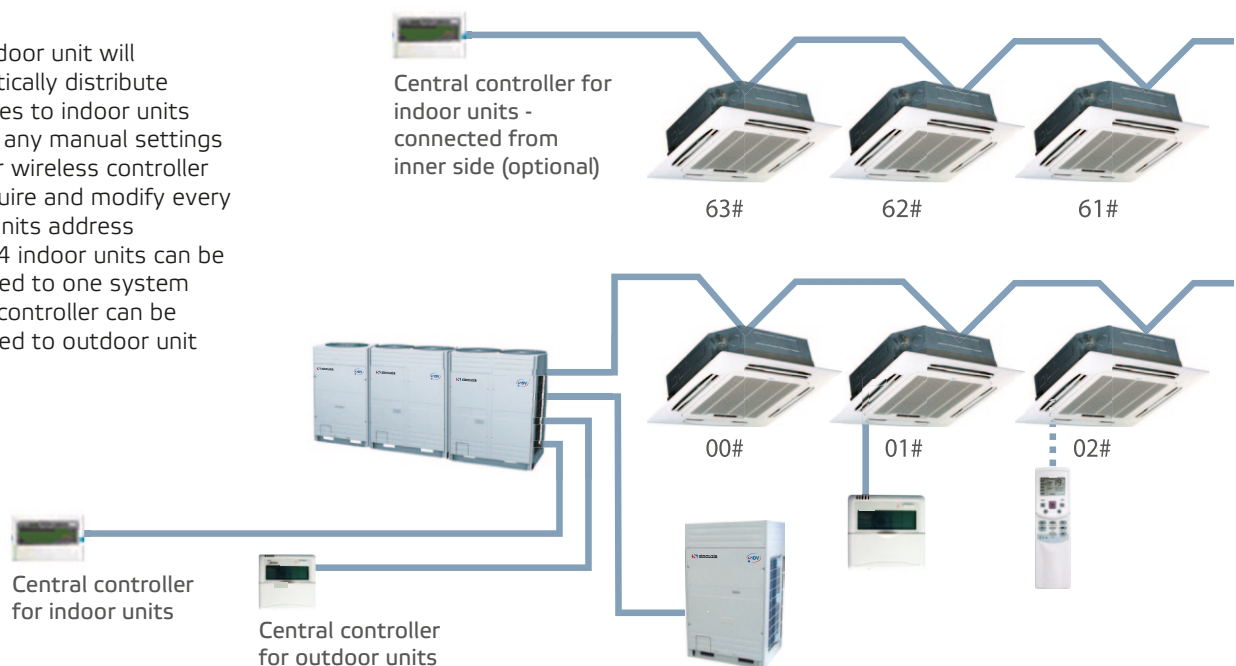
- Web access control
- User friendly operations
- Central building monitoring and control
- Lock control (individual controllers)
- Set temperature limit
- Proportional power distribution
- Indication of low-load operation
- Generate operational history reports (daily, weekly, monthly)
- Fault display & Warning message
- Filter replacement reminder
- Emergency stop
- Alarm signal output



Intelligent control technology

AUTOMATIC DISTRIBUTION OF NETWORK ADDRESSES

- The outdoor unit will automatically distribute addresses to indoor units without any manual settings
- Wired or wireless controller can enquire and modify every indoor units address
- Up to 64 indoor units can be connected to one system
- Central controller can be connected to outdoor unit directly



Specifications

SMALL



10,5 - 26,0 kW

COMBINABLE



25,2 / 28 kW



33,5 - 50,0 kW



SMALL OUTDOOR UNITS

Model		SDV4-105EA	SDV4-140EA	SDV4-160EA	SDV4-180EA	SDV4-200EA	SDV4-224EA	SDV4-260EA
Cooling capacity	kW	10.5	14.0	16.0	17.5	20.0	22.4	26.0
Cooling input power	kW	3.26	4.08	4.60	5.30	6.10	6.80	7.60
Heating capacity	kW	12.2	15.5	17.1	19.0	22.0	24.5	28.5
Heating input power	kW	3.38	4.12	4.83	5.00	6.10	5.90	6.80
Operating range-cooling	°C	-15°C~43°C	-15°C~43°C	-15°C~43°C	-15°C~48°C	-15°C~48°C	-15°C~48°C	-15°C~48°C
Operating range-heating	°C	-15°C~21°C	-15°C~21°C	-15°C~21°C	-15°C~27°C	-15°C~27°C	-15°C~27°C	-15°C~27°C
Power	V-Ph-Hz	220-240~1Ph,50Hz	380-415~3Ph,50Hz	380-415~3Ph,50Hz	380-415~3Ph,50Hz	380-415~3Ph,50Hz	380-415~3Ph,50Hz	380-415~3Ph,50Hz
Sound pressure level	dB (A)	57/54	57/54	57/54	59	59	59	60
Airflow	m³/h	5100	6000	6000	6100	6100	6200	6300
Vertical pipe length	m	Outdoor unit on top: max.30m; Outdoor unit below: max.20m						
Actual pipe length	m	45	45	45	60	60	60	60
Equivalent pipe length	m	50	50	50	70	70	70	70
Total pipe length	m	100	100	100	100	120	120	120
Net weight	kg	108	115	115	107	137	146.5	147
Gross weight	kg	116	121	121	118	153	162.5	163
Net dimensions (WxHxD)	mm	940x1245x360	940x1245x360	940x1245x360	900x1327x320	1120x1558x400	1120x1558x400	1120x1558x400
Packing dimensions (WxHxD)	mm	1058x1380x438	1058x1380x438	1058x1380x438	1030x1456x435	1270x1720x565	1270x1720x565	1270x1720x565

Combinable outdoor units

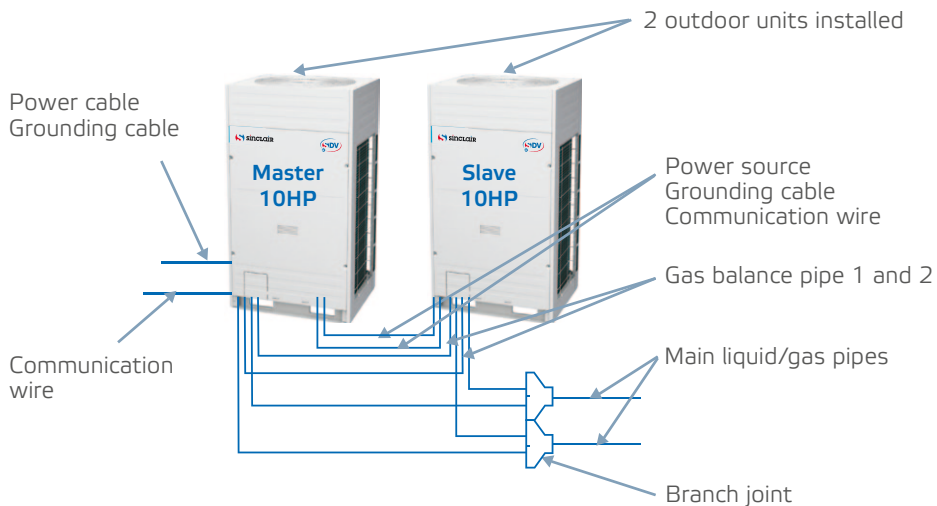


Features

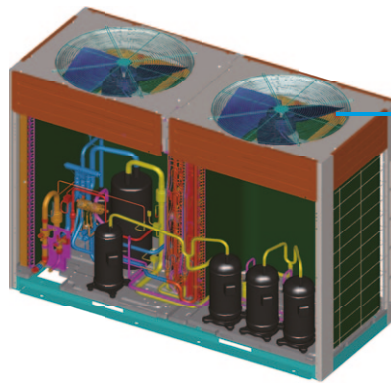
- Uses DC scroll compressor
- Custom SDV4 enhanced technology
- Simple installation and space saving
- Longer pipelines, greater height differences
- Integrated design



ALL UNITS ARE ASSEMBLED AND TESTED TO REDUCE THE NUMBER OF INSTALLATION PROBLEMS



New design of axial flow fan and grill



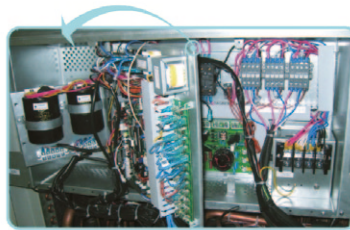
Newly designed grill reduces the air resistance and increases the flow volume

New design of fan blade decreases the noise

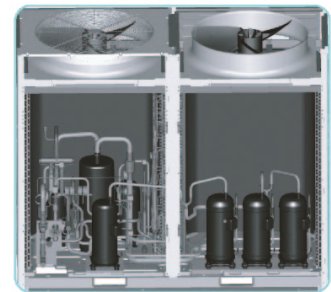
The new design allows more convenient maintenance.
Design of electrical control box simplifies installation and removal.



The installer only need to remove two bolts



Electric control box can be turned



The compressors are mounted conveniently for ease of maintenance

COMBINABLE OUTDOOR UNITS

Model		SDV4-252Eak	SDV4-280Eak	SDV4-335Eak	SDV4-400Eak	SDV4-450Eak	SDV4-500Eak
Cooling capacity	kW	25.2	28	33.5	40.0	45.0	50.0
Cooling input power	kW	5.88	7.20	9.05	12.30	14.00	15.20
Heating capacity	kW	27.0	31.5	37.5	45.0	50.0	56.0
Heating input power	kW	6.15	7.60	9.00	11.20	12.80	14.25
Operating range-cooling	°C	-5°C~48°C	-5°C~48°C	-5°C~48°C	-5°C~48°C	-5°C~48°C	-5°C~48°C
Operating range-heating	°C	-20°C~21°C	-20°C~21°C	-20°C~21°C	-20°C~21°C	-20°C~21°C	-20°C~21°C
Power	V-Ph-Hz	380-415~3Ph,50Hz	380-415~3Ph,50Hz	380-415~3Ph,50Hz	380-415~3Ph,50Hz	380-415~3Ph,50Hz	380-415~3Ph,50Hz
Sound pressure level	dB (A)	57	57	59	60	60	61
Airflow	m³/h	11500	11500	15100	15600	15600	15600
Vertical pipe length	m	Outdoor unit on top: max.70m; Outdoor unit below: max. 110m					
Actual pipe length	m	175	175	175	175	175	175
Equivalent pipe length	m	200	200	200	200	200	200
Total pipe length	m	500	500	500	500	500	500
Net weight	kg	198	198	268	280	280	300
Gross weight	kg	213	213	288	300	300	320
Net dimensions (WxHxD)	mm	960x1615x765	960x1615x765	1250x1615x765	1250x1615x765	1250x1615x765	1250x1615x765
Packing dimensions (WxHxD)	mm	1025x1790x830	1025x1790x830	1310x1790x825	1310x1790x825	1310x1790x825	1305x1790x820

INDOOR UNIT SPECIFICATIONS



SUMMARY

INDOOR UNITS

Model (kW)	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	10.0	11.2	12.5	14.0	16.0	20.0	25.0	28.0	40.0	45.0	56.0	
Four-way cassette (compact) units 	•	•	•	•																
Four-way cassette units 					•	•	•	•	•	•		•								
Duct units 	•	•	•	•	•	•	•	•		•		•								
High static-pressure duct units 														•	•	•				
Fresh air processing duct units 											•	•		•	•	•	•	•	•	•
Floor / ceiling units 			•	•	•	•	•	•		•		•	•							
Wall mounted units 	•	•	•	•	•															



FOUR WAY COMPACT CASSETTE TYPE INDOOR UNITS

Model			SDV4-22CA	SDV4-28CA	SDV4-36CA	SDV4-45CA
Capacity	Cooling	kW	2.2	2.8	3.6	4.5
	Heating	kW	2.4	3.2	4.0	5.0
Power supply		V-Ph-Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz
Rated power		W	48	48	56	56
Performance	Air flow volume	m ³ /h	414/313/238	414/313/238	521/409/314	521/409/314
	Noise level	dB (A)	38.1/33.4/23.4	38.1/33.4/23.4	41.5/35.6/28.8	41.5/35.6/28.8
Refrigerant		type	R410A	R410A	R410A	R410A
Net dimensions	Body (WxHxD)	mm	630x265x570	630x265x570	630x265x570	630x265x570
	Panel (WxHxD)	mm	647x50x647	647x50x647	647x50x647	647x50x647
Packing dimensions	Body (WxHxD)	mm	675x285x675	675x285x675	675x285x675	675x285x675
	Panel (WxHxD)	mm	705x113x705	705x113x705	705x113x705	705x113x705
Net weight	Body	kg	17.5	17.5	19.0	19.0
	Panel	kg	3.0	3.0	3.0	3.0
Gross weight	Body	kg	22.0	22.0	23.5	23.5
	Panel	kg	5.0	5.0	5.0	5.0
Pipe diameter	Liquid side	mm	φ6.4	φ6.4	φ6.4	φ6.4
	Gas side	mm	φ12.7	φ12.7	φ12.7	φ12.7
	Drainage pipe	mm	φ25.0	φ25.0	φ25.0	φ25.0



FOUR WAY CASSETTE TYPE INDOOR UNITS

Model			SDV4-56C4A	SDV4-71C4A	SDV4-80C4A	SDV4-90C4A	SDV4-100C4A	SDV4-112C4A	SDV4-140C4A
Capacity	Cooling	kW	5.6	7.1	8.0	9.0	10.0	11.2	14.0
	Heating	kW	6.3	8.0	9.0	10.0	11.0	12.5	15.0
Power supply		V-Ph-Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz
Rated power		W	90	115	115	160	160	160	180
Performance	Air flow volume	m ³ /h	950/800/650	1120/1010/820	1220/1010/820	1540/1300/1120	1540/1300/1120	1540/1300/1120	1800/1500/1280
	Noise level	dB (A)	42/38/35	45/42/39	45/42/39	48/45/43	48/45/43	48/45/43	50/47/44
Refrigerant		type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Net dimensions	Body (WxHxD)	mm	840x230x840	840x230x840	840x230x840	840x300x840	840x300x840	840x300x840	840x300x840
	Panel (WxHxD)	mm	950x46x950	950x46x950	950x46x950	950x46x950	950x46x950	950x46x950	950x46x950
Packing dimensions	Body (WxHxD)	mm	955x247x955	955x247x955	955x247x955	955x317x955	955x317x955	955x317x955	955x317x955
	Panel (WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035
Net weight	Body	kg	26	26	26	32	32	32	33
	Panel	kg	6	6	6	6	6	6	6
Gross weight	Body	kg	32	32	32	39	39	39	40
	Panel	kg	9	9	9	9	9	9	9
Pipe diameter	Liquid side	mm	φ9.5	φ9.5	φ9.5	φ9.5	φ9.5	φ9.5	φ9.5
	Gas side	mm	φ15.9	φ15.9	φ15.9	φ15.9	φ15.9	φ15.9	φ15.9
	Drainage pipe	mm	φ32.0	φ32.0	φ32.0	φ32.0	φ32.0	φ32.0	φ32.0



DUCT TYPE INDOOR UNITS

Model			SDV4-22DA	SDV4-28DA	SDV4-36DA	SDV4-45DA	SDV4-56DA
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6
	Heating	kW	2.6	3.2	4.0	5.0	6.3
Power supply		V-Ph-Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz
Rated power		W	62	62	67	115	115
Performance	Air flow volume	m ³ /h	570/530/410/320	570/530/410/320	570/530/410/320	958/850/667/583	958/850/667/583
	Static pressure	Pa	10~30 (40 site setting)	10~30 (40 site setting)	10~30 (40 site setting)	10~30 (40 site setting)	10~30 (40 site setting)
	Noise level	dB (A)	38/35/32	38/35/32	40/38/36	41/40/36	41/40/36
Refrigerant		type	R410A	R410A	R410A	R410A	R410A
Net dimensions	(WxHxD)	mm	700x210x635	700x210x635	700x210x635	920x210x635	920x210x635
Packing dimensions	(WxHxD)	mm	915x290x655	915x290x655	915x290x655	1135x290x655	1135x290x655
Net weight		kg	21.5	21.5	22.0	27.0	27.0
Gross weight		kg	26.0	26.0	26.5	32.0	32.0
Pipe diameter	Liquid side	mm	φ6.4	φ6.4	φ6.4	φ6.4	φ9.5
	Gas side	mm	φ12.7	φ12.7	φ12.7	φ12.7	φ15.9
	Drainage pipe	mm	φ32.0	φ32.0	φ32.0	φ32.0	φ32.0

Model			SDV4-71DA	SDV4-80DA	SDV4-90DA	SDV4-112DA	SDV4-140DA
Capacity	Cooling	kW	7.1	8.0	9.0	11.2	14
	Heating	kW	8.0	9.0	10.0	12.5	15.5
Power supply		V-Ph-Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz
Rated power		W	163	231	231	327	357
Performance	Air flow volume	m ³ /h	1207/1050/905/821	(1558)/1350/1167/1033	(1558)/1350/1167/1033	2036	2138
	Static pressure	Pa	10~30 (40 site setting)	10~50 (60 site setting)	10~50 (60 site setting)	10~80 (100 site setting)	10~100 (120 site setting)
	Noise level	dB (A)	43/40/36	45/40/37	45/40/37	48/42/38	48/43/39
Refrigerant		type	R410A	R410A	R410A	R410A	R410A
Net dimensions	(WxHxD)	mm	920x210x635	1140x270x775	1140x270x775	1140x270x775	1200x300x865
Packing dimensions	(WxHxD)	mm	1135x350x655	1355x350x795	1355x350x795	1355x350x795	1385x375x920
Net weight		kg	31.0	40.0	42.0	42.0	50.0
Gross weight		kg	36.0	48.5	50.0	50.0	59.5
Pipe diameter	Liquid side	mm	φ9.5	φ9.5	φ9.5	φ9.5	φ9.5
	Gas side	mm	φ15.9	φ15.9	φ15.9	φ15.9	φ15.9
	Drainage pipe	mm	φ32.0	φ32.0	φ32.0	φ32.0	φ32.0





HIGH STATIC-PRESSURE DUCT TYPE INDOOR UNITS

Model			SDV4-200DHA	SDV4-250DHA	SDV4-280DHA	SDV4-400DHA	SDV4-450DHA	SDV4-560DHA
Capacity	Cooling	kW	20.0	25.0	28.0	40.0	45.0	56.0
	Heating	kW	22.5	26.0	31.5	45.0	50.0	63.0
Power supply		V-Ph-Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz
Rated power		W	1516	1516	1516	2700	2700	3400
Performance	Air flow volume	m ³ /h	4180/3820/3200	4180/3820/3200	4400/3940/3300	7490/6120/5050	7490/6120/5050	9625/8050/6630
	Static pressure	Pa	50~250	50~250	50~250	50~250	50~250	50~250
	Noise level	dB (A)	59/55/52	59/55/52	59/55/52	61/59/56	61/59/56	63/60/57
Refrigerant		type	R410A	R410A	R410A	R410A	R410A	R410A
Net dimensions		(WxHxD)	mm	1443x470x810	1443x470x810	1443x470x810	1443x470x810	1443x470x810
Packing dimensions		(WxHxD)	mm	1509x570x964	1509x570x964	1509x570x964	1509x570x964	1509x570x964
Net weight		kg	115	115	115	115	115	115
Gross weight		kg	129	129	129	129	129	129
Pipe diameter	Liquid side	mm	φ9.5 (double)	φ9.5 (double)	φ9.5 (double)	φ9.5 (double)	φ9.5 (double)	φ9.5 (double)
	Gas side	mm	φ15.9 (double)	φ15.9 (double)	φ15.9 (double)	φ15.9 (double)	φ15.9 (double)	φ15.9 (double)
	Drainage pipe	mm	φ32	φ32	φ32	φ32	φ32	φ32



FRESH AIR PROCESSING DUCT TYPE INDOOR UNITS

Model			SDV4-125DFA	SDV4-140DFA	SDV4-200DFA	SDV4-250DFA	SDV4-280DFA
Capacity	Cooling	kW	12.5	14.0	20.0	25.0	28.0
	Heating	kW	10.5	12.0	18.0	20.0	22.0
Power supply		V-Ph-Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz
Performance	Air flow volume	m ³ /h	1700/1350/1050	1700/1350/1050	3150/2650/2300	3300/2850/2500	3300/2850/2500
	Static pressure	Pa	30~220	30~220	50~260	50~260	50~260
	Noise level	dB (A)	54/52/50	54/52/50	54/53/51	55/54/52	55/54/52
Refrigerant		type	R410A	R410A	R410A	R410A	R410A
Net dimensions		(WxHxD)	mm	1368x420x691	1368x420x691	1443x470x810	1443x470x810
Packing dimensions		(WxHxD)	mm	1436x440x768	1436x440x768	1509x522x964	1509x522x964
Net weight		kg	69.5	69.5	115.0	115.0	115.0
Gross weight		kg	76.0	76.0	125.0	125.0	125.0
Pipe diameter	Liquid side	mm	φ9.5	φ9.5	φ9.5	φ9.5	φ9.5
	Gas side	mm	φ15.9	φ15.9	φ15.9	φ15.9	φ15.9
	Drainage pipe	mm	φ25.0	φ25.0	φ32	φ32	φ32





FLOOR / CEILING TYPE INDOOR UNITS

Model			SDV4-36FA	SDV4-45FA	SDV4-56FA	SDV4-71FA	SDV4-80FA
Capacity	Cooling	kW	3.6	4.5	5.6	7.1	8.0
	Heating	kW	4.0	5.0	6.3	8.0	9.0
Power supply		V-Ph-Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz
Rated power		W	120	120	122	125	130
Performance	Air flow volume	m ³ /h	650/570/500	800/600/500	800/600/500	800/600/500	1200/900/700
	Noise level	dB (A)	40/38/36	43/41/38	43/41/38	43/41/38	45/43/40
Refrigerant		type	R410A	R410A	R410A	R410A	R410A
Net dimensions	(WxHxD)	mm	990x660x206	990x660x206	990x660x206	990x660x206	1280x660x206
Packing dimensions	(WxHxD)	mm	1089x744x296	1089x744x296	1089x744x296	1089x744x296	1379x744x296
Net weight		kg	26.0	29.0	29.0	29.0	37.0
Gross weight		kg	31.8	35.0	35.0	35.0	42.0
Pipe diameter	Liquid side	mm	φ6.4	φ6.4	φ9.5	φ9.5	φ9.5
	Gas side	mm	φ12.7	φ12.7	φ15.9	φ15.9	φ15.9
	Drainage pipe	mm	φ16.0	φ16.0	φ16.0	φ16.0	φ16.0

Model			SDV4-90FA	SDV4-112FA	SDV4-140FA	SDV4-160FA
Capacity	Cooling	kW	9.0	11.2	14.0	16.0
	Heating	kW	10.0	12.5	15.5	18.0
Power supply		V-Ph-Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz
Rated power		W	130	182	182	300
Performance	Air flow volume	m ³ /h	1200/900/700	1980/1860/1730	1980/1860/1730	1980/1860/1730
	Noise level	dB (A)	45/43/40	47/45/42	47/45/42	47/45/42
Refrigerant		type	R410A	R410A	R410A	R410A
Net dimensions	(WxHxD)	mm	1280x660x206	1670x680x244	1670x680x244	1670x680x285
Packing dimensions	(WxHxD)	mm	1379x744x296	1764x760x329	1764x760x329	1670x680x285
Net weight		kg	37.0	54.0	54.0	57.5
Gross weight		kg	42.0	61.0	61.0	63.5
Pipe diameter	Liquid side	mm	φ9.5	φ9.5	φ9.5	φ9.5
	Gas side	mm	φ15.9	φ15.9	φ15.9	φ15.9
	Drainage pipe	mm	φ16.0	φ16.0	φ16.0	φ16.0



WALL MOUNTED INDOOR UNITS

Model			SDV4-22HA-B	SDV4-28HA-B	SDV4-36HA-B	SDV4-45HA-B	SDV4-56HA-B
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6
	Heating	kW	2.4	3.2	4.0	5.0	6.3
Power supply		V-Ph-Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz	220-240~1Ph,50Hz
Rated power		W	30	30	30	45	45
Performance	Air flow volume	m ³ /h	580/500/420	580/500/420	580/500/420	900/760/950	900/760/950
	Noise level	dB (A)	35/32/29	35/32/29	35/32/29	40/38/34	40/38/34
Refrigerant		type	R410A	R410A	R410A	R410A	R410A
Net dimensions	(WxHxD)	mm	915x290x230	915x290x230	915x290x230	1072x315x230	1072x315x230
Packing dimensions	(WxHxD)	mm	1020x390x315	1020x390x315	1020x390x315	1180x415x315	1180x415x315
Net weight		kg	13	13	13	15.1	15.1
Gross weight		kg	16.5	16.5	16.5	18.8	18.8
Pipe diameter	Liquid side	mm	φ6.4	φ6.4	φ6.4	φ6.4	φ9.5
	Gas side	mm	φ12.7	φ12.7	φ12.7	φ12.7	φ15.9
	Drainage pipe	mm	φ16.0	φ16.0	φ16.0	φ16.0	φ16.0

Accessories

ALL INDOOR UNITS ARE EQUIPPED WITH REMOTE CONTROLLERS AS STANDARD.

Cassette, wall mounted and floor / ceiling air conditioners are equipped with a wireless remote. Duct units are equipped with a wired remote controller. All units can be controlled by central controller with the function of setting the on/off time and with the function of the superior control system. In combination with the electrometer, M-interface and IMM software can easily control and measure the power consumption of whole system or individual groups.



IMM monitoring and controlling software

CONTROLLERS



RM05

Infrared controller for all indoor units except cassette units.



KJR-10B

Wall mounted wired controller.



KJR-12B

Wall mounted wired controller with additional function of temperature reading in place of the controller.



CCM02

Information panel about the operation of the outdoor units.



CCM04

Weekly timer with the possibility of setting four on/off time periods.



CCM09

Central wired controller with weekly timer



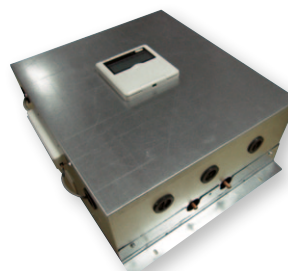
CCM10

Central wired controller with the possibility of setting priority of cooling or heating.



DTS-634

Digital electrical meter for monitoring energy consumption



AHU kit

Sinclair AHU kit is the indoor unit that connects the evaporator of indoor units of other manufacturers with outdoor units of SDV system.





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The pictures of units and accessories are illustrative only. Technical specifications of the products are subject of change based on further development of the units by the producer and may be changed without prior notice.

