

ROOFTOP

AIR CONDITIONER UNIT

Universal Compact Series

 **TRACE COOL**



ON-OFF

380-415V, 3Ph, 50Hz
Cooling Capacity: 22-156 kw
Heating Capacity: 26-162 kw



Rooftop Package Unit




6.2~45 RT

Features

General Description

The ZPRC Series with new features is suitable for hotel, office, hospital, school, factory and supermarket applications. The low noise and compact series are completely leak tested, evacuated, dehydrated and charged with refrigerant prior to shipment. The units are rated in accordance with AHRI standards 340/360.

Products Line-Up

Nominal Ton	6.2	7.5	8.5	10	12.5	15	17.5	20	25	30	35	45
	•	•	•	•	•	•	•	•	•	•	•	•

1. * Nominal ton only for reference;
2. Cooling or heating capacity as per specifications.

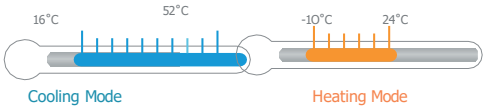
Wide Capacity Range

Wide cooling capacity range from 6.5 to 45 tons. Heat pump and cooling only products are available.



Wide Operation Range

ZPRC series HP operate from 16° C to 52° C in cooling mode and from -10° C to 24° C in heating mode.



Standard Cooling only model operate from 16° C to 52° C, low ambient kit can be added to make the unit operate from -15° C to 52° C.



Hermetic Scroll Compressor(s)

Reliability

No contact scroll design that minimizes friction, increases volumetric efficiency and reduces vibration, thus longer service life. Compact, light-weight, and fewer moving parts design.

Multiple Compressor (ZPRC Series 8.5ton and above)

By cycling off compressor operation to match building load, no energy is being wasted when room load requires lesser cooling capacity. No total shut down when servicing or repairing a faulty compressor.



Environmentally Friendly Refrigerant

ZPRC Series uses the environmentally friendly refrigerant, R410A in each system. Zero ozone depletion potential.



Casing

Constructed from heavy gauge galvanized steel. Panels are painted with epoxy powder paint for excellent finish, weatherability and corrosion resistance. Evaporator section is insulated with closed cell Polyethylene (PE) foam.

Safety Control

High-low pressure cutout to protect compressor from high discharge pressure and system leakage.

Automatic Adjustment of Throttling

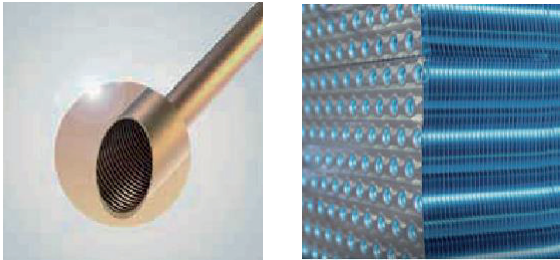
Electronic expansion valve adjusts the opening degree automatically .It makes sure

that the system parameters are within a reasonable range when the unit operates under all working conditions , to improve the operation reliability and service life of the unit.



High Efficient Condenser Coil

Staggered row of inner groove tubes with 25 to 30% more surface area guarantee better heat transfer. Mechanically expanded into die-formed corrugated aluminum louver fins with increase the heat exchange surface which is high heat exchange efficiency. Leak and pressure tested to 650 psig.



Fully Leak Tested Refrigerant Circuit

Compressors, condenser coil, filter drier, thermo-expansion valve, distributor and evaporator coil is brazed in complete sealed loop. Leak and pressure tested at 650 psig. Pressure ports are provided on the discharge and suction line. Evacuated, dehydrated and charge with refrigerant gas prior

to shipment.

Drive Package And Blowers

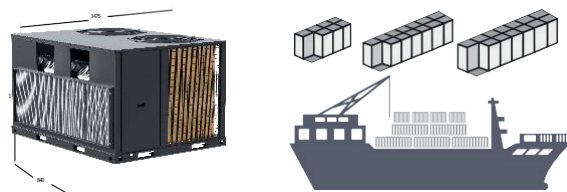
Belt driven drive package offers flexibility on various air flow rate and various static pressure applications (ZPRC Series 8.5Ton and above).

Single large diameter double inlet double width blowers (AMCA certified) reduce the noise level and eliminates the need for common transition and eliminates air unbalance.

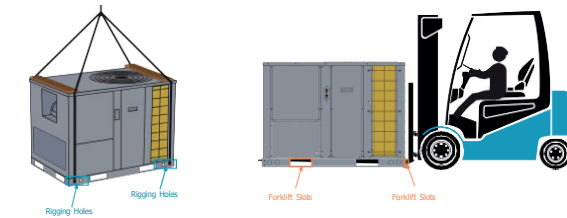


Compact Structure & Easy Transitting

Unit with compact structure design for better loading



The base frame of the unit is designed with forklift slots and rigging holes for easier transportation and installation.



Easy installation

Convenient For Wires Connection

Removable access door on the electric box. It is easy to move the cover of the electric box. Only connect the wires of power supply, and no need to connect any signal wires.



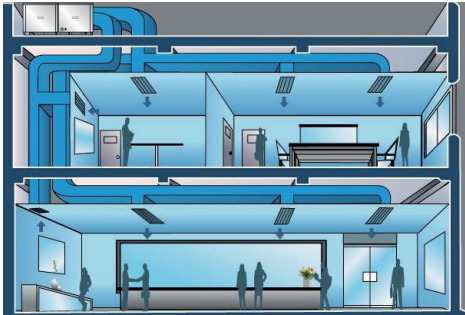
Easily Connect The Drainage Pipe

Reserved external drainage port, quickly and accurately connect the rubber drainage pipe.



High ESP Design

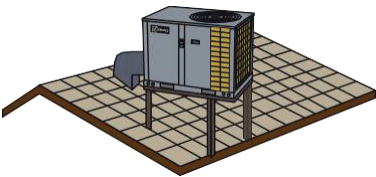
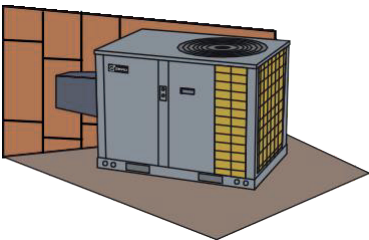
The external static pressure (ESP) range is from 80Pa~430Pa, which ensures the longer delivery distance for the air and provide the powerful cooling.



Design flexibility

Vertical side-discharge structure design.

Flanges of air flow inlet and outlet as standard. It is suitable for installation on rooftop and ground.



Easy Maintenance

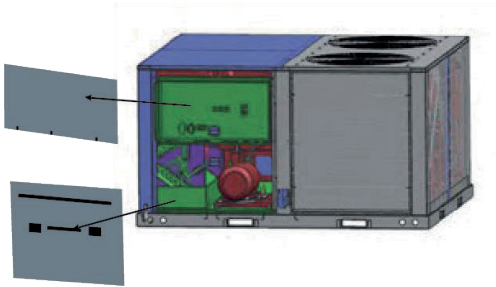
The unit provides external pressure gauge ports for convenient and fast checking system pressure without removing the panel. (Only for 7.5Ton-15Ton)



Easy Access Doors Design

Removable the access doors on the filter, fan motor, and electricbox sections. Provide convenient access to system components for mainenance and service.

Access panel for electric box



Controllers

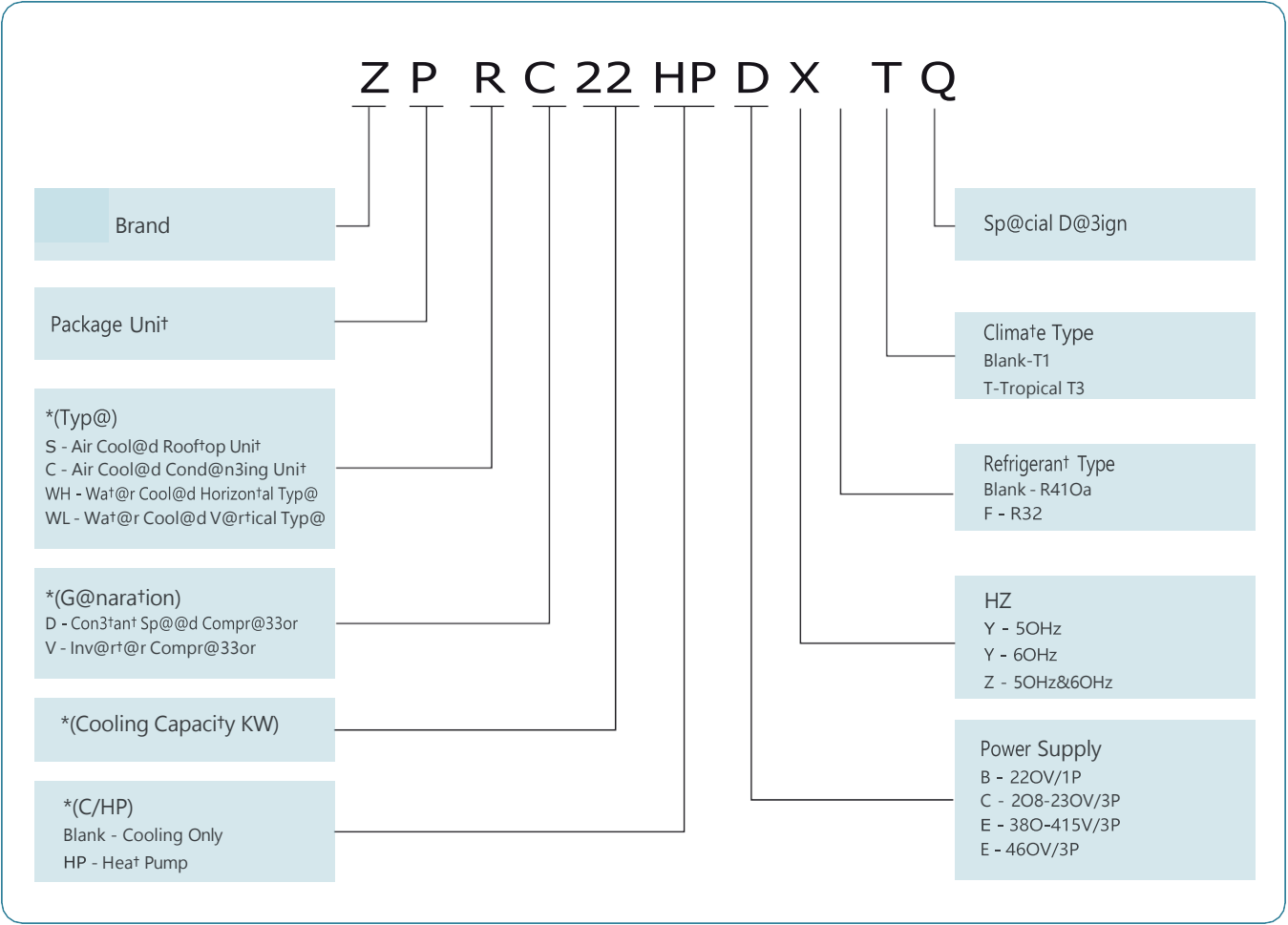
Factory mounted thermostat as standard, can be unit mounted or remoted controlled(within 30M as standard , consult TRACECOOL Eng. Team if longer distance is required. Other brand thermostat can be matched as optional solution. Centralized control function can be achieved through the centralized controller as optional.



Optional Accessories With Varoius Customized Design

- Evaporator & Condenser Coil Corrosion Protection
 - Stainless Steel Drain Pan
 - Stainless Steel Fasteners
 - Hot Water Heating Coil (MODEL 17.5Ton & Above)
 - Pressure Gauges (MODEL 17.5Ton & Above)
 - Replaceable Core Filter Drier
 - Liquid Line Solenoid Valve (LLSV)
 - Dirty Filter Relay & Indicating Light
 - Closed Cell Elastomer Insulation (Model 17.5Ton & Above)
 - Double Skin Panel For Evaporator (Model 17.5Ton & Above)
 - C-Channel Structural Steel Base
 - Comperssor Soft Starter
 - Star-Delta Starter for Evaporator Fan Motor
 - VFD for Evaporator Fan Motor
 - Main Incoming Isolator with Door Interlock
 - Main Power Supply Monitoring Module (Safety)
 - Voltmeter and Ammeter with Phase Selector Switch
 - Indicating Lights
- Lock Out Stop
 - 24VAC Fire Interlock Relay with Transformer (Detector)
 - Service Valve
 - Hot Gas Bypass
 - 24Vac Control Transformer (Step Down)
 - Start/Stop Button for Evaporator Blower Fan
 - Electric Heater and Starter
 - Low Ambient Kit
 - Crankcase Heater
 - Economizer
 - 10% or 30% Fresh Air Intake
 - EC Evaporator Blower
 - EC Condenser Axial Fan
 - BMS Communication
 - VFD for Condenser Fan
 - CO₂ Sensor
 - PLC Controller
 - Touch Screen controller

Nomenclature



SPECIFICATION

380~415V,3PH,50Hz ON-OFF COOLING ONLY

Nominal ton		(Ton)	6.2	7.5	8.5	10	12.5	15
TRACECOOL MODEL			ZPRC22DXT	ZPRC26DXT	ZPRC30DXT	ZPRC35DXT	ZPRC43DXT	ZPRC53DXT
Cooling 1	Cooling Capacity	Btu/h	75000	89000	103000	120000	150000	180000
		kW	22	26	30	35	43	53
	Power Input	kW	6.6	7.9	9.3	10.7	13.3	16.7
	EER 1	Btu/h.W	11.4	11.3	11.1	11.2	11.3	10.8
Cooling 2	Cooling Capacity	Btu/h	61500	72980	85000	98400	123000	155000
		kW	18	21	25	29	36	45
	Power Input	kW	7.6	9.1	10.8	12.3	15.4	19.5
	EER 2	Btu/h.W	8.1	8	7.9	8	8	7.9
Max. input consumption		kW	8.6	12	13.6	15	19.7	25
Max. current		A	18.3	24.8	26.5	28.8	38.2	46.1
Indoor fan air flow		CFM	2800	2800	3500	3500	5500	5500
ESP		Pa	80	80	110	110	130	130
Indoor fan	Type/Drive Type		Centrifugal/Direct	Centrifugal/Direct	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt
Compressor	Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Quantity		1	1	1	1	2	2
Outdoor Fan	Type/Drive Type		Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant volume	kg	4.3	4.8	5.0	5.2	3.6+3.6	4.5+4.5
	Refrigerant Control		EEV	EEV	EEV	EEV	EEV	EEV
Sound pressure level		dB(A)	71.5	71.5	71.2	71.5	71.8	76.9
Ambient temperature			16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C
Net Weight		kg	224	239	332	335	441	482
Gross Weight		kg	229	244	342	346	461	502
Net Dimension	WxHxD	mm	1475x840x1130	1475x840x1130	1475x1260x1130	1475x1260x1130	1965x1260x1130	1965x1260x1130
Packing	WxHxD	mm	1495x850x1150	1495x850x1150	1495x1270x1150	1495x1270x1150	1985x1270x1150	1985x1270x1150
Shipping	Qty'Per 20'/40'/40'HQ		12/24/48	12/24/48	7/16/32	7/16/32	6/12/24	6/12/24

Nominal ton		(Ton)	17.5	20	25	30	35	45
TRACECOOL MODEL			ZPRC61DXT	ZPRC70DXT	ZPRC87DXT	ZPRC105DXT	ZPRC122DXT	ZPRC156DXT
Cooling 1	Cooling Capacity	Btu/h	208000	240000	300000	360000	416000	532000
		kW	61	70	87	105	122	156
	Power Input	kW	19.1	22.6	28.85	35.29	40.2	52.7
		EER 1	Btu/h.W	10.9	10.6	10.4	10.2	10.3
Cooling 2	Cooling Capacity	Btu/h	175000	200000	252000	315000	359000	475000
		kW	51	59	74	92	105	139
	Power Input	kW	22.1	25.2	32	39	44.3	58.5
		EER 2	Btu/h.W	7.9	7.9	7.9	8.1	8.1
Max. input consumption		kW	27	32.5	38.5	42.7	55.1	73.8
Max. current		A	55.4	63.2	74.3	81.7	107.5	142.6
Indoor fan air flow		CFM	7600	7600	11200	11200	13000	15900
ESP		Pa	200	200	320	320	370	430
Indoor fan	Type/Drive Type		Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt
Compressor	Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Quantity		2	2	2	2	2	2
Outdoor Fan	Type/Drive Type		Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant volume	kg	5.5+5.5	6.7+6.7	7.6+7.6	8.6+8.6	10.6+10.6	12.5+12.5
	Refrigerant Control		EEV	EEV	EEV	EEV	EEV	EEV
Sound pressure level		dB(A)	76	75.3	76.8	77.9	79.6	81.2
Ambient temperature			16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C
Net Weight		kg	603	678	920	935	1265	1335
Gross Weight		kg	633	708	950	965	1295	1365
Net Dimension	WxHxD	mm	2200x1260x1670	2200x1260x1670	2200x1260x2320	2200x1260x2320	2200x1260x3890	2200x1260x3890
Packing	WxHxD	mm	2220x1270x1690	2220x1270x1690	2220x1270x2340	2220x1270x2340	2220x1280x3910	2220x1280x3910
Shipping	Qty'Per 20'/40'/40'HQ		3/7/14	3/7/14	2/5/10	2/5/10	1/3/6	1/3/6

- Notes:
- Cooling capacity test condition (1): Outdoor ambient temperature: 35° C, indoor temperature 26.7° CDB/19.4° C WB;
Cooling capacity test condition (2): Outdoor ambient temperature: 46° C, indoor temperature: 26.7° CDB, 19.4° CWB;
 - Heating capacity test condition : Outdoor ambient temperature: 7 ° CDB/6° C WB, indoor temperature 20° C DB/ 15° C WB;
 - Units are suitable for operation to ± 20% of nominal CFM;
 - Sound values are measured in a semi-anechoic room, at a positon 1 meter in front ofthe unit and (1 meter+Height of unit)/2 above the floor.
 - Specifications are subject to change without prior notice for product improvement.
 - * Nominal ton only for reference.
 - Cooling or heating capacity as per specifications.

380~415V,3PH,50Hz ON-OFF HEAT PUMP

Nominal Ton		(Ton)	6.2	7.5	8.5	10	12.5	15
TRACECOOL Model			ZPRC22HPDXT	ZPRC26HPDXT	ZPRC30HPDXT	ZPRC35HPDXT	ZPRC43HPDXT	ZPRC53HPDXT
Cooling 1	Cooling Capacity	Btu/h	75000	89000	103000	120000	150000	180000
		kW	22	26	30	35	43	53
	Power Input	kW	6.6	7.9	9.3	10.7	13.3	16.7
		EER 1	Btu/h.W	11.4	11.3	11.1	11.2	11.3
Cooling 2	Cooling Capacity	Btu/h	61500	72980	85000	98400	123000	155000
		kW	18	21	25	29	36	45
	Power Input	kW	7.6	9.1	10.8	12.3	15.4	19.5
		EER 2	Btu/h.W	8.1	8	7.9	8	8
Heating	Heating Capacity	Btu/h	89000	103000	120000	137000	154000	191000
		kW	26	30	35	40	45	56
	Power Input	kW	7.5	8.9	10.6	11.9	13.2	17.2
		COP	Btu/h.W	11.8	11.6	11.3	11.5	11.7
Max. input consumption		kW	8.6	12	13.6	15	19.7	25
Max. current		A	18.3	24.8	26.5	28.8	38.2	46.1
Indoor fan air flow		CFM	2800	2800	3500	3500	5500	5500
ESP		Pa	80	80	110	110	130	130
Indoor fan	Type/Drive Type		Centrifugal/Direct	Centrifugal/Direct	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt
Compressor	Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Quantity		1	1	1	1	2	2
Outdoor Fan	Type/Drive Type		Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant volume	kg	4.3	4.8	5.0	5.2	3.6+3.6	4.5+4.5
	Refrigerant Control		EEV	EEV	EEV	EEV	EEV	EEV
Sound pressure level		dB(A)	71.5	71.5	71.2	71.5	71.8	76.9
Ambient temperature	Cooling		16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C
	Heating		-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C
Net Weight		kg	229	244	340	343	451	492
Gross Weight		kg	234	249	350	354	471	512
Net Dimension	WxHxD	mm	1475x840x1130	1475x840x1130	1475x1260x1130	1475x1260x1130	1965x1260x1130	1965x1260x1130
Packing	WxHxD	mm	1495x850x1150	1495x850x1150	1495x1270x1150	1495x1270x1150	1985x1270x1150	1985x1270x1150
Shipping	Qty/Per 20'/40'/40'HQ		12/24/48	12/24/48	7/16/32	7/16/32	6/12/24	6/12/24

Nominal Ton		(Ton)	17.5	20	25	30	35	45
TRACECOOL Model			ZPRC61HPDXT	ZPRC70HPDXT	ZPRC87HPDXT	ZPRC105HPDXT	ZPRC122HPDXT	ZPRC156HPDXT
Cooling 1	Cooling Capacity	Btu/h	208000	240000	300000	360000	416000	532000
		kW	61	70	87	105	122	156
	Power Input	kW	19.1	22.6	28.85	35.29	40.2	52.7
		EER 1	Btu/h.W	10.9	10.6	10.4	10.2	10.3
Cooling 2	Cooling Capacity	Btu/h	175000	200000	252000	315000	359000	475000
		kW	51	59	74	92	105	139
	Power Input	kW	22.1	25.2	32	39	44.3	58.5
		EER 2	Btu/h.W	7.9	7.9	7.9	8.1	8.1
Heating	Heating Capacity	Btu/h	218000	260000	330000	380000	430000	553000
		kW	64	75	97	111.5	126	162
	Power Input	kW	19.5	23.6	30.28	35.19	37.7	52
		COP	Btu/h.W	11.2	11	10.9	10.8	11.4
Max. input consumption		kW	27	32.5	38.5	42.7	55.1	73.8
Max. current		A	55.4	63.2	74.3	81.7	107.5	142.6
Indoor fan air flow		CFM	7600	7600	11200	11200	13000	16600
ESP		Pa	200	200	320	320	370	430
Indoor fan	Type/Drive Type		Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt	Centrifugal/Belt
Compressor	Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Quantity		2	2	2	2	2	2
Outdoor Fan	Type/Drive Type		Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct	Propeller/Direct
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant volume	kg	5.5+5.5	6.7+6.7	7.6+7.6	8.6+8.6	10.6+10.6	12.5+12.5
	Refrigerant Control		EEV	EEV	EEV	EEV	EEV	EEV
Sound pressure level		dB(A)	76	75.3	76.8	77.9	79.6	81.2
Ambient temperature	Cooling		16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C	16° C-52° C
	Heating		-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C	-10° C-24° C
Net Weight		kg	615	690	940	955	1290	1360
Gross Weight		kg	645	720	970	985	1320	1390
Net Dimension	WxHxD	mm	2200x1260x1670	2200x1260x1670	2200x1260x2320	2200x1260x2320	2200x1260x3890	2200x1260x3890
Packing	WxHxD	mm	2220x1270x1690	2220x1270x1690	2220x1270x2340	2220x1270x2340	2220x1280x3910	2220x1280x3910
Shipping	Qty/Per 20'/40'/40'HQ		3/7/14	3/7/14	2/5/10	2/5/10	1/3/6	1/3/6

- Notes:
- Cooling capacity test condition (1): Outdoor ambient temperature: 35° C, indoor temperature 26.7° CDB/19.4° C WB;
Cooling capacity test condition (2): Outdoor ambient temperature: 46° C, indoor temperature: 26.7° CDB, 19.4° CWB;
 - Heating capacity test condition : Outdoor ambient temperature: 7 ° CDB/6° C WB, indoor temperature 20° C DB/ 15° C WB;
 - Units are suitable for operation to ± 20% of nominal CFM;
 - Sound values are measured in a semi-anechoic room, at a positon 1 meter in front ofthe unit and (1 meter+Height of unit)/2 above the floor.
 - Specifications are subject to change without prior notice for product improvement.
 - * Nominal ton only for reference.
 - Cooling or heating capacity as per specifications.



TRACE COOL

LEBANON

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