



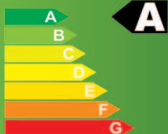
TOYO-AC Co. Ltd

Rooftop package unit



TOYO-AC
Air Condition Co. LTD

jis
Japanese
Industrial Standard



FEEL FRESH

 **TOYO AIR CONDITION**

Rooftop Packaged

Rooftop package unit



TOYO-AC

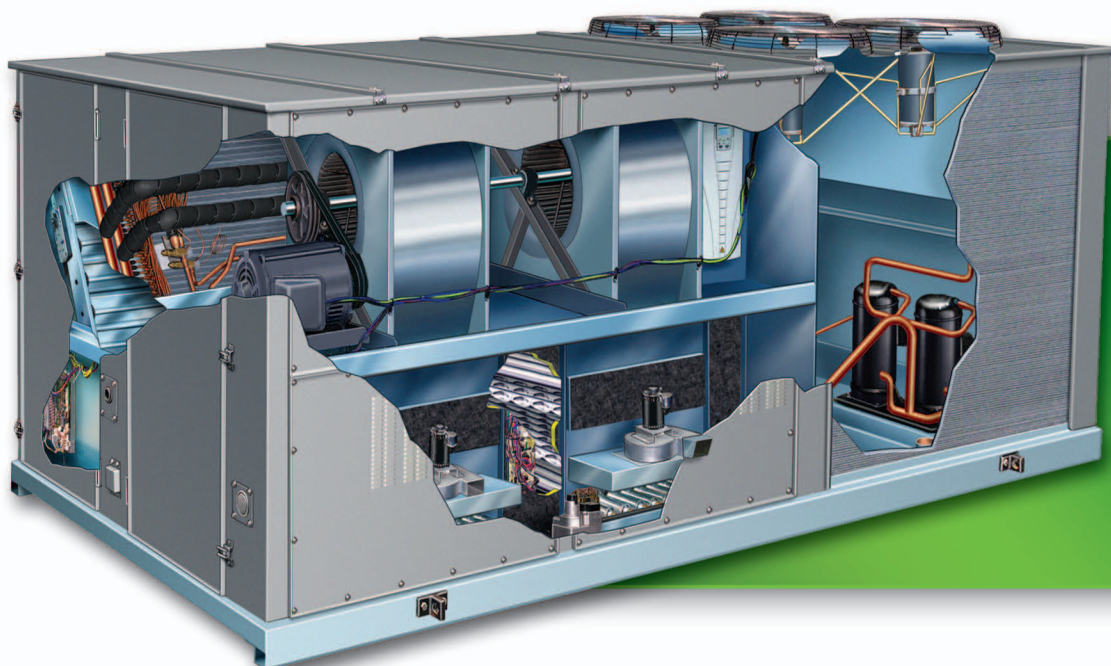
Air Condition Co. LTD

FEEL FRESH

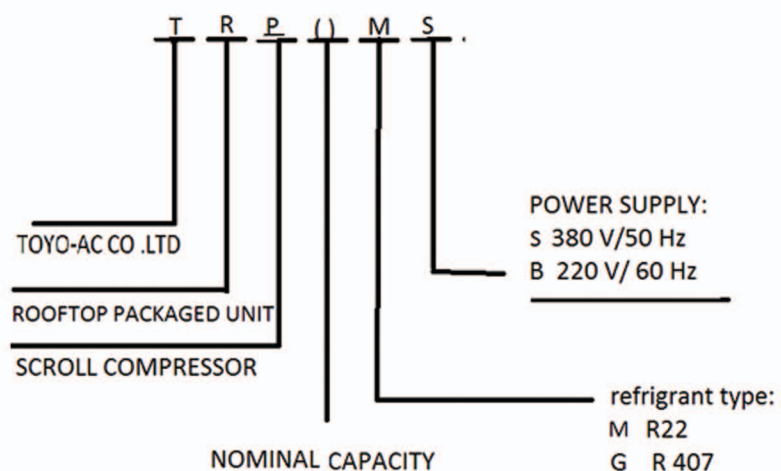
Application



how to read ?



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Features

TOYO-AC Rooftop Units Applications

Rooftop packaged systems are unobtrusive, quiet, and designed to provide year round comfort – warming in winter and cooling in summer. TOYO-AC's wide product range offers a unit of performance capacity to suit small to large packaged air conditioner applications, e.g. offices, shops, motels, fast food outlets, restaurants, petrol stations, open plan office and work spaces, supermarkets, shopping malls and auditoriums.

Units are suited to high static pressure applications where large volume spaces are to be air conditioned. Long pipe and duct runs are possible enabling greater installation flexibility.

This range of units has been developed to meet the needs of typical applications. Should you have special requirements, such as higher air flows or greater sensible duty units contact your nearest TOYO-AC representative.

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Components or Assembly Descriptions Quiet operation

The packaged Rooftop series are basic constructed and engineered with noise reduction as a first consideration, low noise mounted fans are used, 15mm wave type acoustic Insulation for compressor section and compressors are mounted on vibration isolators.

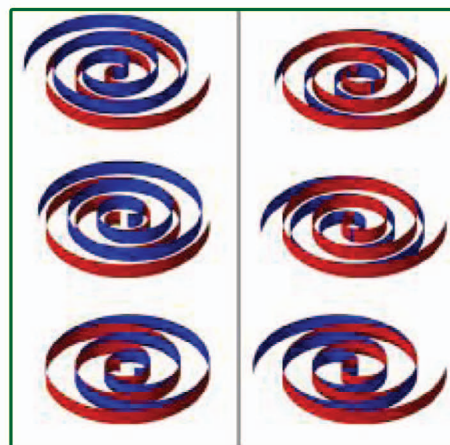
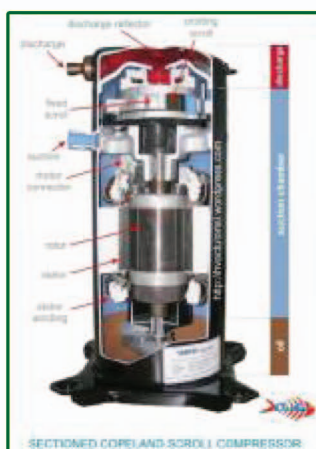


Low Cost Installation

Units are factory assembled and pre-charged, with a single point electrical connection. On arrival to the job site they are outdoor installation with 10mm insulation for evaporator section only. All units are provided with an 8mm thickness aluminum frame filter that slides out or easy cleaning or replacement.

Compressor

The compressor used is hermetic refrigerant gas cooled, with internal thermal protection in each phase, scroll type. The terminal boxes are rain tight, starting is direct-on-line. With high efficiency, low sound, so as to match all other TOYO-AC products' reliability and efficiency.



HIGH EFFICIENCY, LOW VIBRATION

Scroll compressors have become renowned for their high levels of efficiency, low noise and low vibration.

This, combined with scroll compressor expertise in precision manufacturing, creates a compressor design with fewer moving parts, superior efficiencies, lower noise and minimal vibration.



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Evaporator and Condenser Coils

The evaporator and condenser coils are designed to deliver their respective duties at optimum performance at all design conditions. Coils are manufactured from seamless copper tubes mechanically expanded into aluminum fins. All coils are tested at 30kg/cm (450 Psi) air pressure, under water to avoid leakage. They also undergo dry chemical cleaning after manufacturing for optimum system cleanness.



Condenser Fan Motor

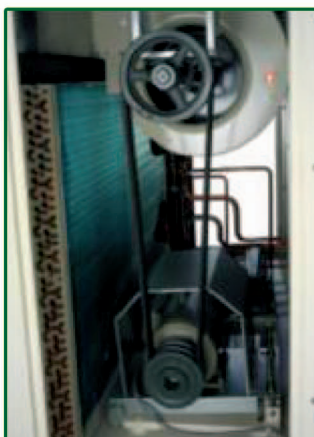
All fans motors are of totally enclosed air-cooled, internal thermal current overload protected, with class “IP56” electrical insulation.



Evaporator Fan Motors

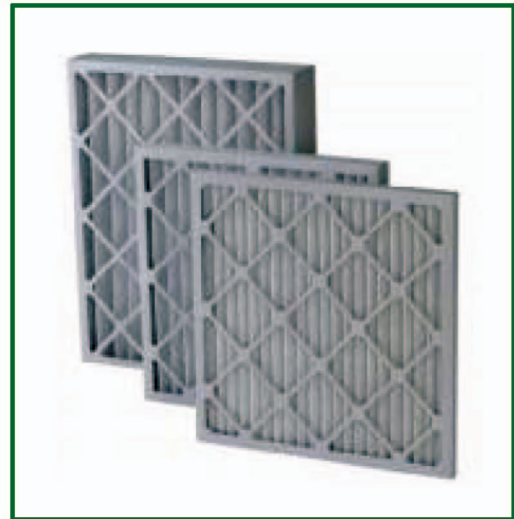
Motors are of the totally enclosed induction type, with fan motor assembly placed on a floating base with a flexible connection at the fan/casing interface.

All fan motors of direct-driven are of the 3-speed type, highly efficient induction type motors, totally enclosed air-cooled, squirrel-cage type, internal thermal current protected and with class “B” insulation. Fan motors with V-belt-driven type are of 1 speed type.



Filters

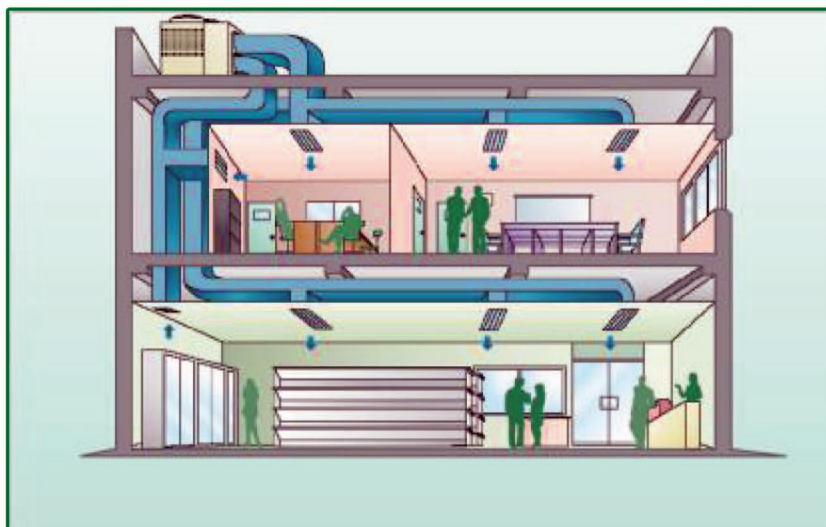
All Models are provided with “8mm” thickness aluminum frame filter (as standard features). Other filters are available upon request



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Easy Installation

The package rooftop has a compact design. It is supplied as a complete package ready for operation, with no extra controls or other items to be installed. The units have a single power point entry with simple connections. All units are designed to ensure maximum compliance with international standards.



Models

Model	TRP(MS)	5	7	10	12	14	17	21	25
Cooling capacity	Kcal/hr Btu/hr	9000 36000	15000 60000	21000 84000	24000 96000	30000 120000	36000 144000	42000 168000	54000 216000
Capacity control	%	100 , 0	100 , 0	100 , 50 , 0	100 , 50 , 0	100 , 50 , 0	100 , 50 , 0	100 , 50 , 0	100 , 50 , 0
Power input	kw	4	6.3	8.1	11	12	13.8	18.2	22.2
Power supply	380V/3N/ 50Hz								
Compressor type	Hermetically sealed scroll compressor								
Number of circuits	Nr.	1	1	2	2	2	2	2	2
Evaporator	Multi-Pass Cross Finned Tube								
Fan type	Centrifugal fans								
Drive type		direct	Direct	Direct	direct	direct	direct	direct	direct
Air flow	M3/hr	2100	3400	4200	5200	6000	7500	8000	10500
quantity	Nr.	1	1	1	1	1	1	1	1
External static pressures	pa	50	50	150	150	250	250	250	250
Condenser	Multi-Pass Cross Finned Tube								
Fan type	Axial fan								
Air flow	M3/hr	3800	7000	8400	9800	15000	17500	22000	25000
quantity	Nr.	1	1	1	1	2	2	2	2
Sound level	dB(A)	57	58	63	63	65	65	68	68
Shipping weight	kg	170	180	280	380	495	550	610	750
Dimension	Wide	mm	1150	1150	1685	1685	2010	2010	2845
	Depth		735	735	1110	1110	1165	1165	2115
	Height		850	850	1045	1045	1155	1155	1195

Indoor Air Inlet Temperature; 27°C DB (80°F DB) 19.0°C WB (66.2°F WB). Outdoor Air Inlet Temperature; 35°C DB (95°F DB).
 Heating Operation Conditions: Indoor Air Inlet Temperature; 20°C DB (68°F DB). Outdoor Air Inlet Temperature; 7°C DB (45°F DB) 6°C WB (43°F WB).

The sound pressure level is based on following conditions. 1.5 Meters beneath the unit. RPI series: 1.5

Models

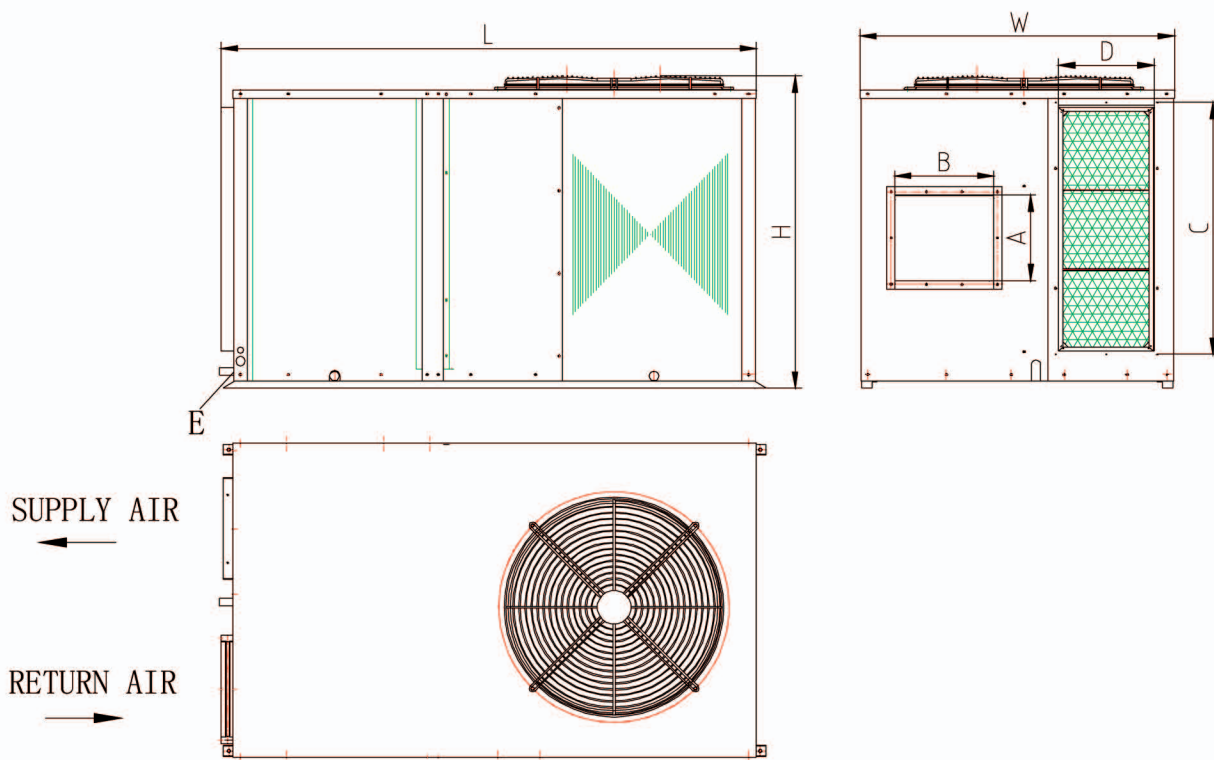
Model	TRP()MS	30	35	40	50	60	70
Cooling capacity	Kcal/hr Btu/hr	60000 240000	75000 300000	90000 360000	102000 408000	132000 528000	150000 600000
Capacity control	%	100 , 50 , 0	100 , 50 , 0	100 , 50 , 0	25-50-75-100	25-50-75-100	25-50-75-100
Power input	kw	28	33	39	45.5	55.2	64.9
Power supply	380V/3N/ 50Hz						
Compressor type	Hermetically sealed scroll compressor						
Number of circuits	Nr.	2	2	2	4	4	4
Evaporator	Multi-Pass Cross Finned Tube						
Fan type	Centrifugal fans						
Drive type		direct	direct	Belt	Belt	Belt	Belt
Air flow	M3/hr	12500	17000	21800	22000	29000	33000
quantity	Nr.	1	1	1	1	1	1
External static pressures	pa	250	250	250	300	450	455
Condenser	Multi-Pass Cross Finned Tube						
Fan type	Axial fan						
Air flow	M3/hr	30000	35000	40000	49000	65000	810000
quantity	Nr.	2	2	2	4	4	4
Sound level	dB(A)	75	75	75	80	80	81
Shipping weight	kg	1000	1400	1480	2000	2300	2500
Dimension	Wide	mm	2845	3445	3445	4700	5500
	Depth		2115	2115	2115	2000	2000
	Height		1195	1195	1195	1615	1810

Indoor Air Inlet Temperature; 27°C DB (80°F DB) 19.0°C WB (66.2°F WB). Outdoor Air Inlet Temperature; 35°C DB (95°F DB).

Heating Operation Conditions: Indoor Air Inlet Temperature; 20°C DB (68°F DB). Outdoor Air Inlet Temperature; 7°C DB (45°F DB) 6°C WB (43°F WB).

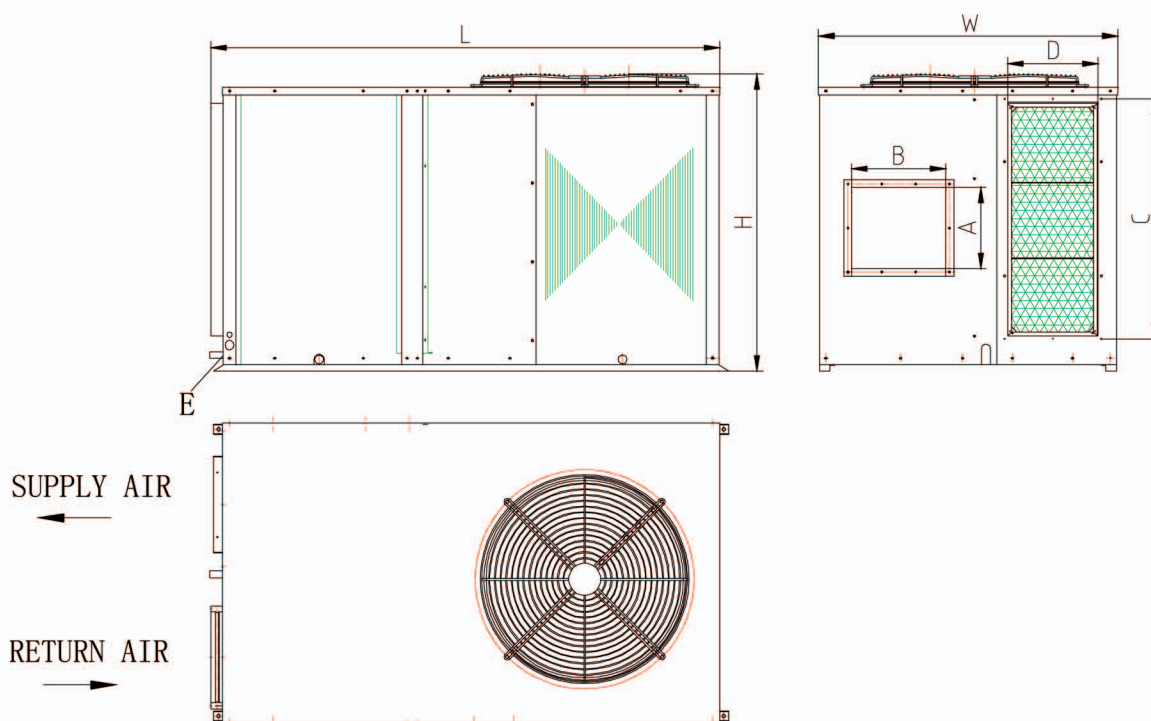
The sound pressure level is based on following conditions. 1.5 Meters beneath the unit. RPI series: 1.5

Unit dimension TRP(5,7)MS



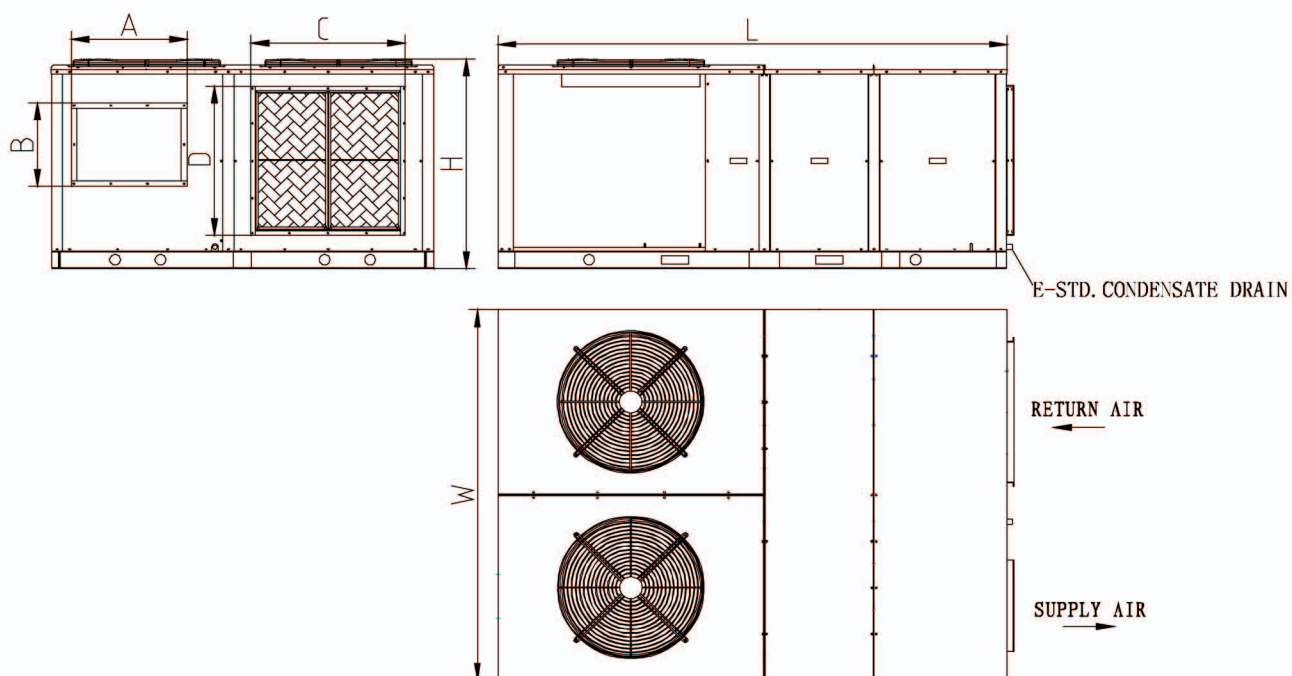
unit	Dimension(mm)							
	L	W	H	A	B	C	D	E
TRP(5)MS	1150	735	850	292	267	662	260	DN15
TRP(7)MS	1150	735	850	292	334	662	260	DN15

TRP(10,12,14,17,21)MS



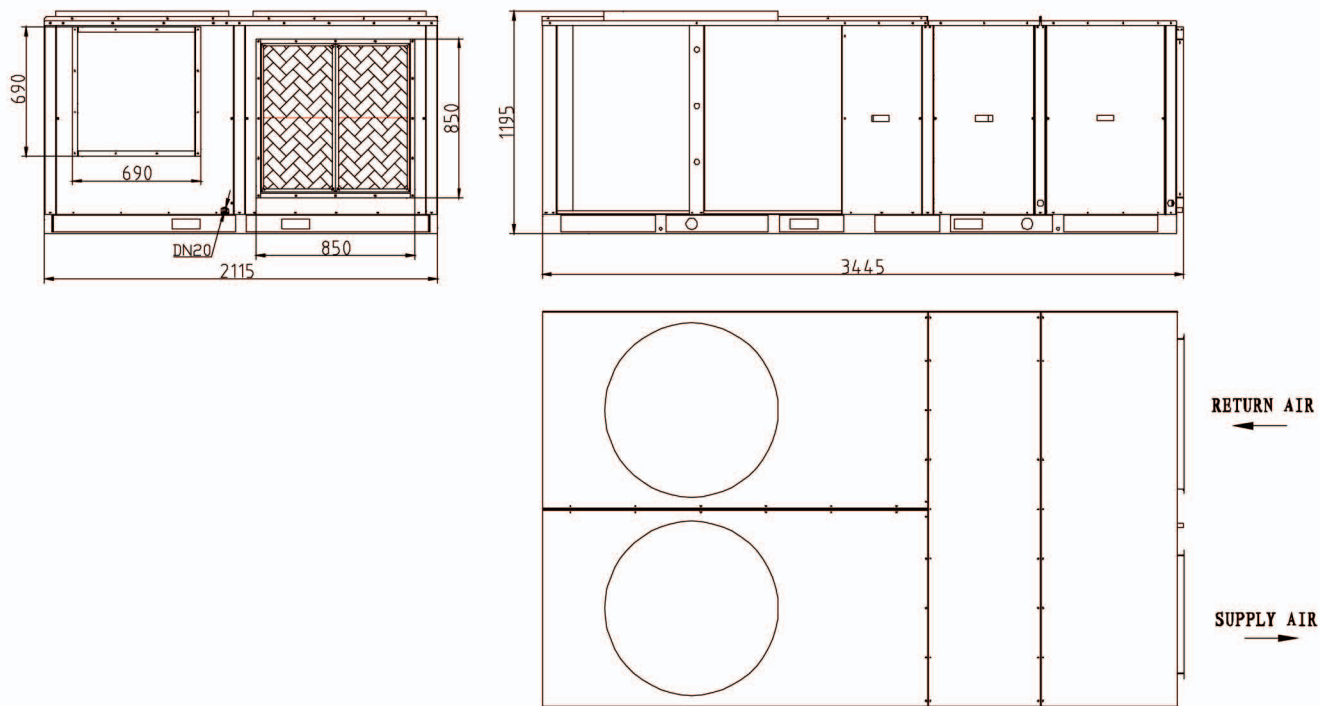
UNIT	DIMENSIONS (mm)							
	L	W	H	A	B	C	D	E
TRP(10)MS	1682	1106	1042	204	336	850	400	DN15
TRP(12)MS	1682	1106	1042	204	336	850	400	DN15
TRP(14)MS	2010	1160	1150	314	364	953	400	DN15
TRP(21)MS	2010	1160	1150	314	364	953	400	DN15

TRP(25,30)MS



UNIT	L	W	H	A	B	C	D	E
TRP(25)MS	2843	2111	1192	637	476	850	850	DN20
TRP(30)MS	2843	2111	1192	637	476	850	850	DN20

TRP(35,40)MS



UNIT	L	W	H	A	B	C	D	E
TRP(35)MS	3445	2115	1195	690	690	850	850	DN20
TRP(40)MS	3445	2115	1195	690	690	850	850	DN20

TOYO-AC Co. Ltd

Rooftop package unit

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