



SUBMITTAL DATA

Mini TVR Smart – Outdoor Unit - Heat Pump
5HP – 220~240V/1Ph/50-60Hz DC Motor
Model: 4TVHS048RF000AA

TRANE
TECHNOLOGIES™

Job Name: _____

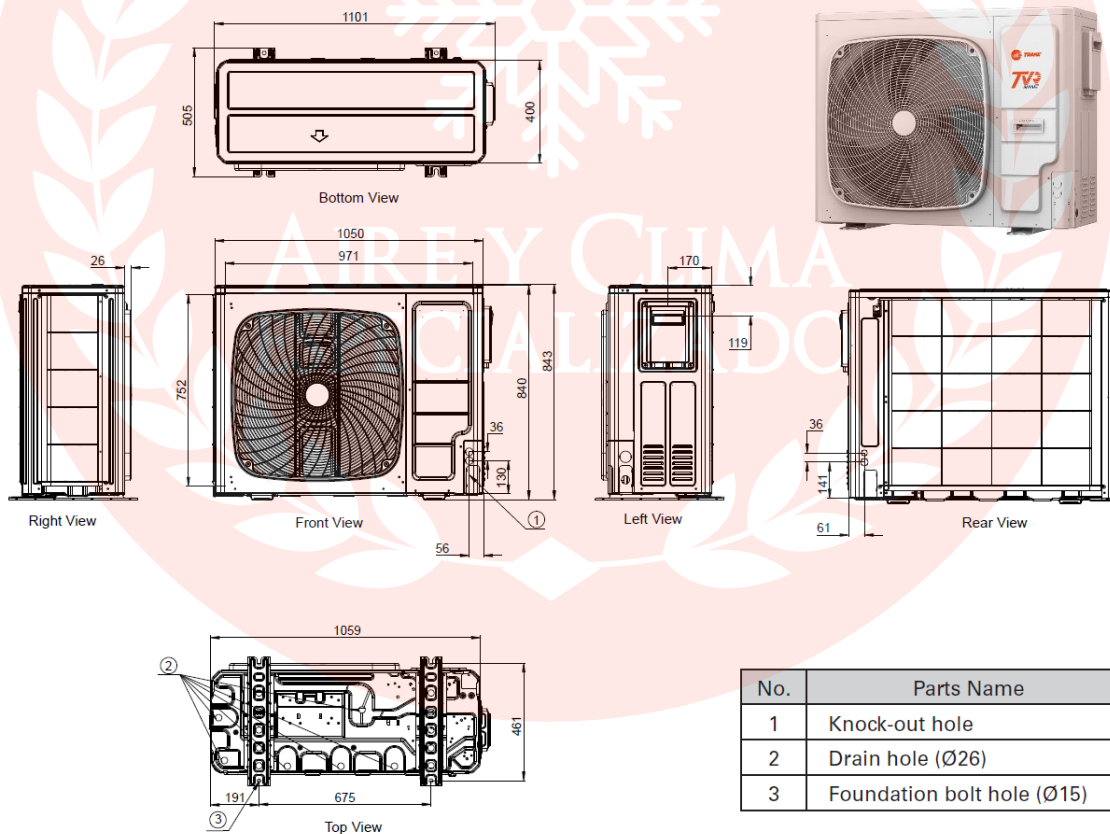
Date: _____

Reference: _____

Location: _____

Commercial Air Conditioner > Mini TVR Smart > Outdoor Unit

- Overall Dimensions





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• Installation Space Requirements

Single Unit Installation

Obstacles at rear only	Obstacles at front only	Obstacles at rear and sides
Obstacles at rear and above	Obstacles at front and rear	Obstacles at front and above

unit: mm

Multiple Units Installation

Obstacles at rear and sides
Obstacles at front and rear

unit: mm



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- Specifications

Model	Unit	4TVHS048RF000AA
Capacity	HP	5
Connectable Indoor Units Ratio ※1	%	50s≤130
Max. Number of Connectable Indoor Units	Piece	8
Rated Cooling ※2	Capacity	kW
		kBtu/h
	Power Input	kW
	Current	A
Rated Heating ※2	EER	-
	Capacity	kW
		kBtu/h
	Power Input	kW
Max. Power Input	Current	A
	COP	-
	Cooling	kW
	Heating	kW
Electrical Characteristics	Power Supply	Ph/V/Hz
	Communication Cable ※3	mm ²
	Power Cable	mm ²
	Earth Wire	mm ²
	Min. Circuit Amps (MCA)	A
	Max. Fuse Amps (MFA)	A
Casing	Color	-
	Material	-
Heat exchanger	Number of Rows	-
	Tube Pitch	mm
	Row Pitch	mm
	Fin Spacing	mm
	Fin Material	-
	Fin Coating Type	Optional
	Salt Spray Test Duration	hour
	Tube OD. Diameter	mm
	Tube Type	-
	Dimension (W*D*H)	mm
	Number of Circuits(In/Out)	-
Compressor	Brand	-
	Model	-
	Type	-
	Quantity	-
	Power Input	W
	Rated Load Amps. (RLA)	A
	Crankcase Heater Quantity	-
	Crankcase Heater Power	W
	Compressor Oil Brand	-
	Compressor Oil Model	-
	Compressor Oil Charge	ml
Fan	Starting Method	-
	Brand	-
	Material	-
	Type	-
	Quantity	-
	Diameter	mm
	Height	mm



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Model		Unit	4TVHS048RF000AA
Fan Motor	Brand	-	BROAD-OCEAN
	Model	-	ZW512D200001
	Type	-	DC
	Quantity	-	1
	Voltage	V	310
	Rated Current	A	1.91
	Full Load Amps(FLA)	A	1.74
	Power Input	W	415
	Power Output	W	300
	IP Class	-	IP44
	Insulation Class	-	B
	Safe Class	-	I
Max. Fan Speed		rpm	850
Max. Airflow Rate		m³/h	5500
		CFM	3235
Max. External Static Pressure		Pa	35
Max. Sound Power Level		dB	74
Max. Sound Pressure Level ※4		dB(A)	56
Cabinet Coating	Coating Type	-	Powder Coating
	Salt Spray Test Duration	hour	72
	Sheet Metal Material	-	Galvanized steel plate
	Sheet Metal Thickness	mm	1
Four Way Valve	Brand	-	SANHUA/DUNAN
	Model	-	SHF-20D-46G30/DSF(S)-20-2230C
	Quantity	-	1
Electronic Expansion Valve (LEVA1)	Brand	-	SANHUA
	Diameter	mm	φ3.0
	Model	-	DPF(TS1)3.0C-56
Electronic Expansion Valve (LEVB)	Brand	-	FUJIKOKI
	Diameter	mm	φ1.5
	Model	-	D15FKS-2R
Dimension	Net Dimensions (W*D*H)	mm	1050*400*840
	Package Dimensions (W*D*H)	mm	1160*520*1015
Weight	Net Weight	kg	87
	Gross Weight	kg	101
Defrost Method		-	Reverse defrosting
Refrigerant	Type	-	R410A
	Default Refrigerant Charge	kg	3.10
	Refrigerant Control	-	Electric expansion valve
Refrigerant Pipe	Liquid Pipe OD. Diameter (Connection Method)	mm	Ø9.52 (Flared)
	Gas Pipe OD. Diameter (Connection Method)	mm	Ø19.05 (Flared)
	Total Single Way Pipe Length	m	300
	Max. Single Way Pipe Length (Actual)	m	100
	Max. Height Difference between Indoor and Outdoor Units	m	30(Outdoor higher than indoor) 20(Indoor higher than outdoor)
	Max. Height Difference between Indoor Units	m	15
	Max. Communication Cable Length between Indoor and Outdoor Unit	m	300
Electrical Control Box IP Class		Standard	IPX4
Design Pressure		MPa	4.15
Safety Devices		-	High pressure switch, Fan driver PCB overload protection, Overcurrent fuse, Inverter PCB overload protection
Standard Accessories		-	1.Drainage elbow, 2EA
Working Temperature	Cooling(Min.~Max.)	°C DB	-10~55
	Heating(Min.~Max.)	°C DB	-25~27



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Notes:

※1 When the system combination ratio exceeds 100%, it is advisable to operate only a portion of the indoor units simultaneously to keep the ratio within 100%. Alternatively, you can run the indoor units that exceed the 100% capacity at a low fan speed to minimize the impact on system performance.

※2 Rated Condition:

Indoor temperature (cooling): 27°C DB/19°C WB, indoor temperature (heating): 20°CDB/14.5°CWB.

Outdoor temperature(cooling): 35°CDB/24°CWB, outdoor temperature(heating): 7°CDB/6°CWB

The data is measured with 7.5m equivalent pipe and 0 m height difference.

※3 When applying the "Power off PMV control" function: Use a 2-core x 1.5mm² shielded wire. The communication cable resistance should be < 1.33Ω/100m. When not applying the "Power off PMV control" function: Use a ≥2-core x 0.75mm² shielded wire.

For the "Power off PMV control" function, one refrigerant system can control up to 10 indoor units, with a maximum communication line length of 200 meters. For longer distances, repeaters are needed. Each repeater can extend the connection by 200 meters or add 10 indoor units. One refrigerant system can accommodate up to 2 repeaters, supporting a maximum communication line length of 600 meters or communication with 30 indoor units.

※4 The noise level will be measured in the third-octave band limited values in the semi-anechoic chamber, using a Real-Time Analyser calibrated sound intensity meter. It is a sound pressure noise level.



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