575V DC INVERTER ROOFTOP HEAT PUMP

120,000 BTU / ROOFTOP HEAT PUMP SYSTEM

SUBMITTAL DATA: TK-H10TC(9)NhA-W(U)

Job Name	Location		Date	
Purchaser	Engineer			
Submitted To	For	□ Reference	□ Approval	□ Construction
Unit Designation	Schedule No.			

Operating Range	
Cooling	50 ~ 126°F 10 ~ 52°C
Heating	-22 ~ 75°F -30 ~ 24°C



(Standard)



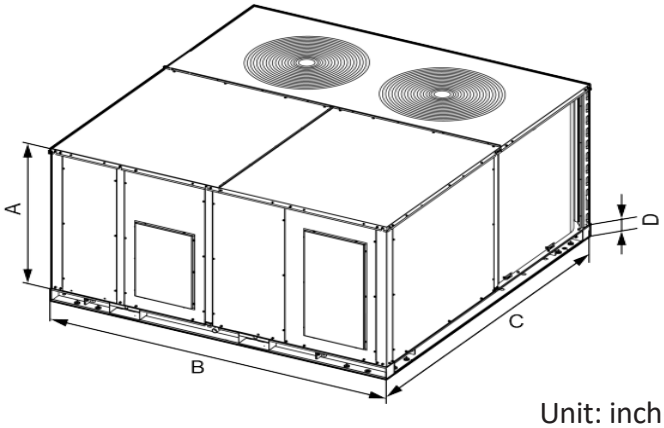
SYSTEM FEATURES	
Economizer	YES
EEV Control	YES
Compressor e-Heater	YES
Base Pan e-Heater	YES
Intelligent Preheating	YES
Communication Protocol	RS485, 24Vac

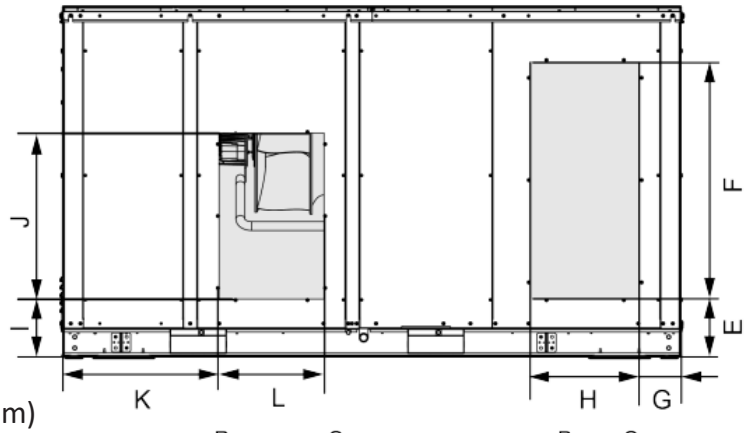
Performance			
Cooling Capacity	Rated	BTU/hr	116,000
	Rated	Ton	10
Heating Capacity	Rated	BTU/hr	116,000
	Rated	Ton	10
EER2 / IEER		-	11.6 / 20.6
COP@47°F / COP@17°F		-	3.76 / 2.60
Sound Pressure Level		dB(A)	69
Electrical			
Power Supply		V/Ph/Hz	575 / 3 / 60
Circuit Breaker		A	30.0
Maximum Overcurrent Protection (MOP)		A	30.0
Minimum Circuit Ampacity (MCA)		A	27.0
RS485 Standard Thermostat Wire			AWG 18 / 2
Indoor			
Fan Type x Quantity		-	Centrifugal x 1
Fan Motor Output Power		HP	4.0
Air Flow Volume (High) at STD ESP		CFM	3,884
Mini Circulation Air Flow		CFM	670
External Static Pressure Range (STD/MAX)		inWG	0.3 / 1.9
Motor Full Load Amp(FLA)		A	4.3
Optional Electric Heater		kW	15, 30, 45
Air Filter	Dimension	inch	41-3/4 x 24-3/4 x 9/16H
	Material	/	Aluminium
Outdoor			
Fan Type x Quantity		-	Axial x 2
Fan Motor Output Power		HP	1.0
Motor Full Load Amp(FLA)		A	1.87 x 2
Compressor Oil (Type / Volume)		/	FW68H / 1.9L
Compressor Power Input		W	8,130
Compressor Rated Load Amp		A	15.1
Refrigerant System			
Refrigerant	Type	-	R32
	Pre-charged	/	25lbs 9.2oz
Dimension/Weight			
Unit Dimensions (W x D x H)		inch	92-1/2 x 88-3/16 x 49-3/16H
Weight (Net / Gross)		lbs	730 / 742
Other			
Metering Device		-	Electronic expansion valve
Drainage Pipe		inch	3/4 (NPT)

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Unit Dimensions



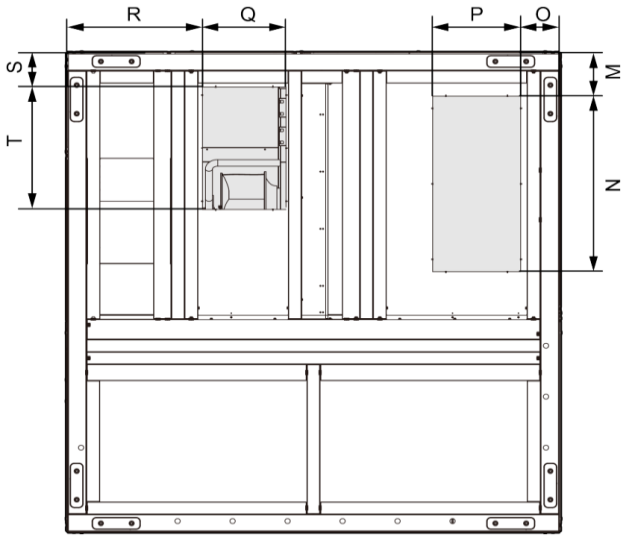


Unit: inch(mm)

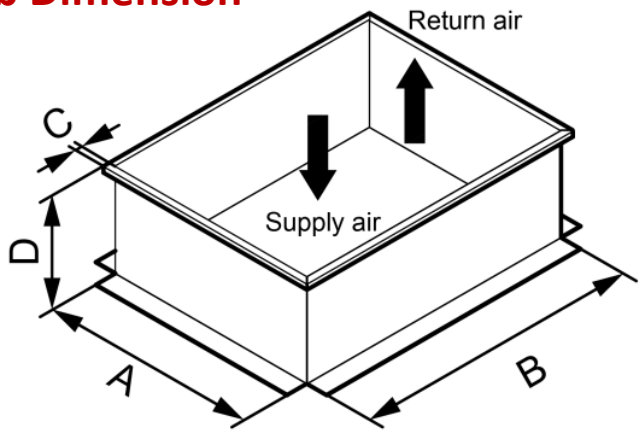
A	B	C	D
49-1/4 (1250)	88 (2240)	92-1/2 (2350)	4 (100)

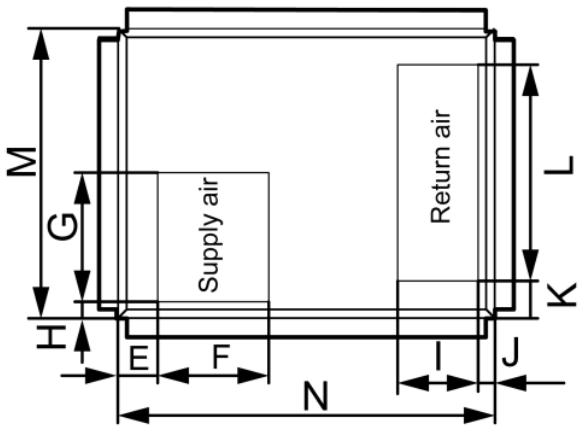
E	Size of air return		G	I	Size of air supply		K
	F	H			J	L	
8-1/4 (210)	33-11/16 (855)	15-9/16 (395)	5-13/16 (148)	8-1/8 (207)	23-5/8 (600)	15 (380)	22-1/4 (565)

M	Size of air return		O	R	Size of air supply		S
	N	P			Q	T	
8-1/4 (210)	33-11/16 (855)	15-9/16 (395)	6-7/8 (175)	24 (612)	15 (380)	23-5/8 (600)	6-1/2 (165)



Curb Dimension





Unit: inch(mm)

A	B	C	D	E	F	G	H	I	J	K	L	M	N
37-5/8 (956)	38-7/16 (976)	1 (25)	14 (356)	22-1/4 (565)	15 (380)	23-5/8 (600)	8-1/8 (207)	15-9/16 (395)	5-13/16 (148)	8-1/4 (210)	33-11/16 (855)	49-1/4 (1250)	88 (2240)

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Fan Performance Data

External Static pressure: in. W.C.											
Node	**0**	**0.1**	**0.3**	**0.5**	**0.7**	**0.9**	**1.1**	**1.3**	**1.5**	**1.7**	**1.9**
Speed 1	3146	/	/	/	/	/	/	/	/	/	/
Speed 2	3436	/	/	/	/	/	/	/	/	/	/
Speed 3	3609	/	/	/	/	/	/	/	/	/	/
Speed 4	3888	3747	/	/	/	/	/	/	/	/	/
Speed 5	4067	3911	3630	/	/	/	/	/	/	/	/
Speed 6	4351	4234	3915	3613	/	/	/	/	/	/	/
Speed 7	4592	4469	4175	3919	3569	/	/	/	/	/	/
Speed 8	—	4773	4480	4215	3887	3466	/	/	/	/	/
Speed 9	—	—	4786	4553	4282	3902	3489	/	/	/	/
Speed 10	—	—	—	4852	4600	4283	3902	3497	/	/	/
Speed 11	—	—	—	—	4912	4615	4370	3938	3592	/	/
Speed 12	—	—	—	—	—	—	4990	4687	4323	3955	3634
Speed 13	—	—	—	—	—	—	—	—	6021	5765	5493

1. "/" denotes that the static pressure is out of range, air volume drop may affect the performance and reliability. Prohibition of use
2. "—" denotes that the air volume is out of range, may lead to over-load and unstable operation of the fan motor. Prohibition of use

Fan Speed Setting

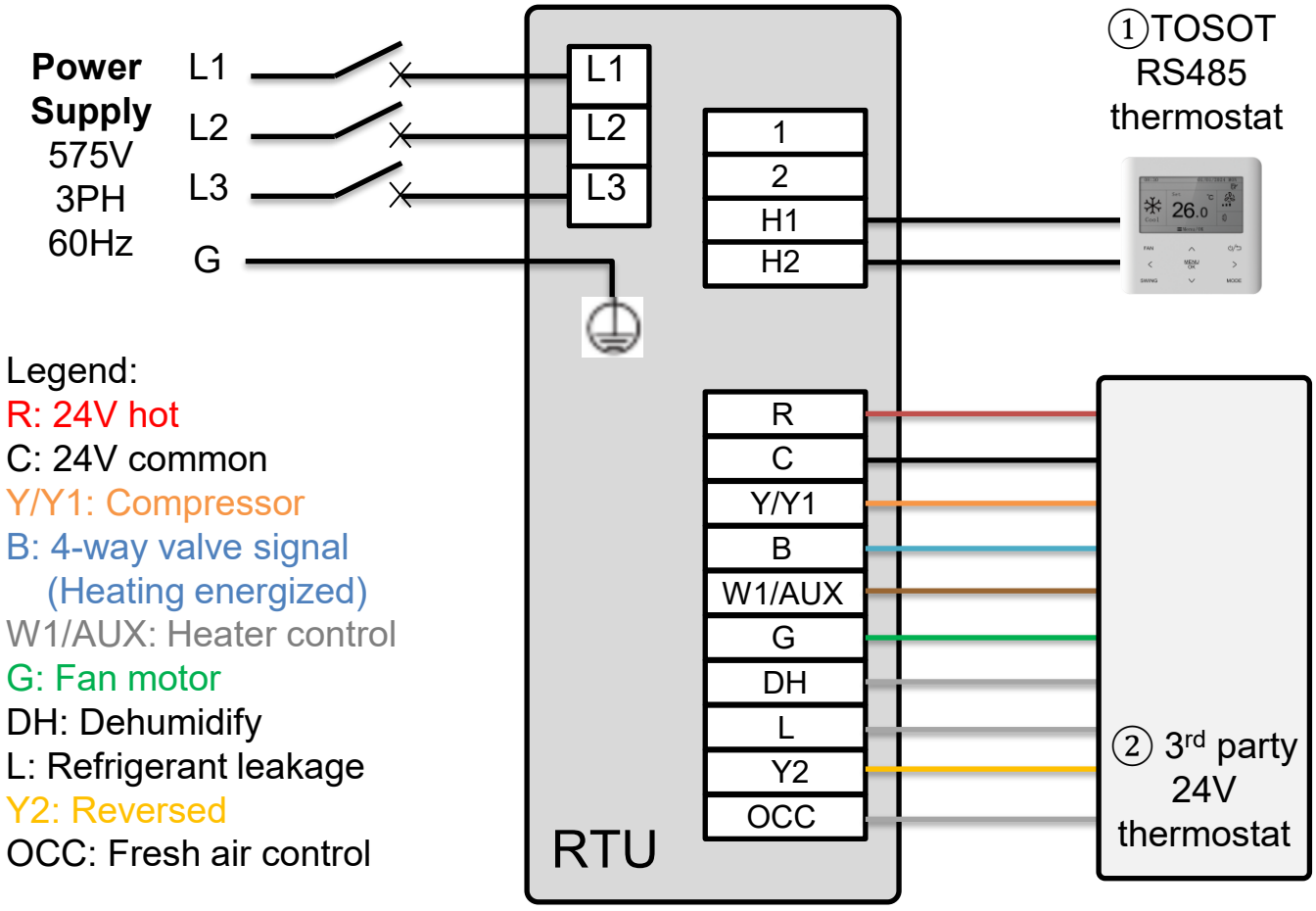
ESP Level	1	2	3	4	5	6	7	8	9
Super	Speed 5	Speed 6	Speed 7	Speed 8	Speed 9	Speed 10	Speed 11	Speed 12	Speed 13
High	Speed 3	Speed 4	Speed 5	Speed 6	Speed 7	Speed 8	Speed 9	Speed 10	Speed 11
Middle	Speed 2	Speed 3	Speed 4	Speed 5	Speed 6	Speed 7	Speed 8	Speed 9	Speed 10
Low	Speed 1	Speed 2	Speed 3	Speed 4	Speed 5	Speed 6	Speed 7	Speed 8	Speed 9

Adjust the ESP level via the dip switch on the PCB

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Wiring Diagram



Legend:
R: 24V hot
C: 24V common
Y/Y1: Compressor
B: 4-way valve signal
(Heating energized)
W1/AUX: Heater control
G: Fan motor
DH: Dehumidify
L: Refrigerant leakage
Y2: Reversed
OCC: Fresh air control

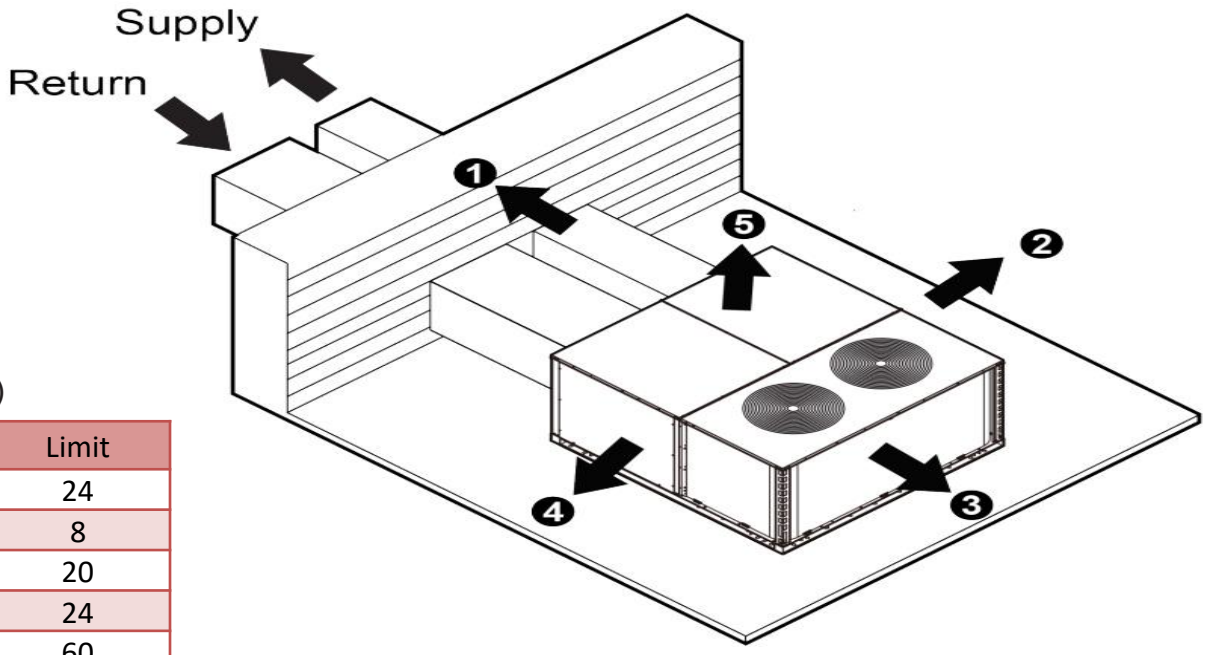
Note: Choose either ① or ② to control the system

Optional Electric Heater Specification

No.	Heater-kit model	Code	Description	Heating Capacity (kBTU/h)	Voltage	Rated Current (A)	MCA (A)	MOP (A)
1	21-4519-00	320004060277	45kW heat strip	153.5	575	41.5	52.0	60.0
2	21-4519-01	320004060276	30kW heat strip	102.4	575	27.7	34.8	40.0
3	21-4519-02	320004060275	15kW heat strip	51.2	575	13.9	17.5	20.0

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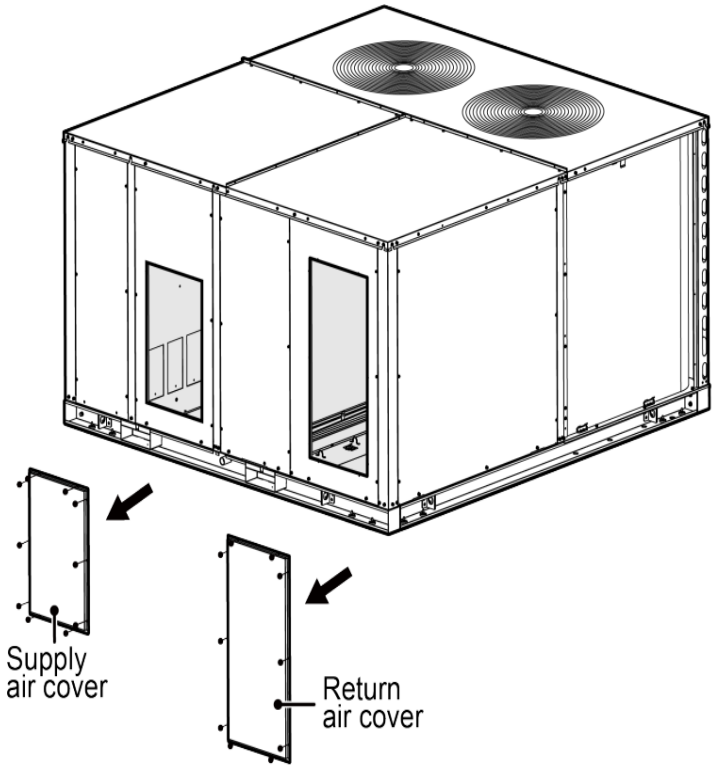
Installation Clearance



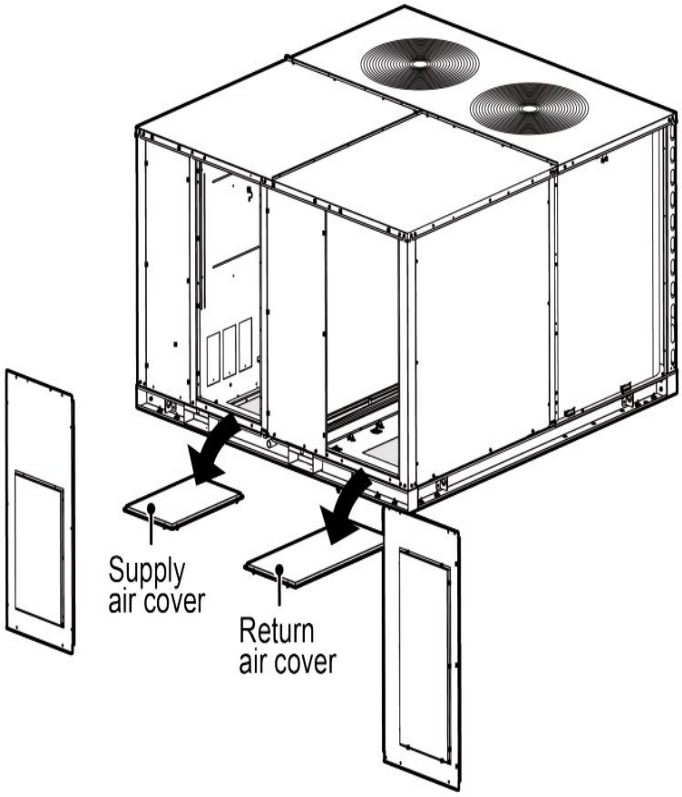
Unit: inch(mm)

Clearance	Limit
①	24
②	8
③	20
④	24
⑤	60

Vertical Ductwork Installation



Horizontal Ductwork Installation



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