

## **Submittal**

Solar HVAC | Model "M" 3 Ton Multi-Split Residential Heat Pump

#### **Part Number**

## **SHMUPM-360-0**

Configuration

MU - Multi-Split

Type
P - Heat Pump

Brand
M - Midea

BTU's 36 - 36,000 BTUs

CU/AHU 0 - Condenser Only

Options

0 - No Options

### **Description**

A Solar HVAC multi-split is more than twice as efficient as a standard multi-split.

A solar box equipped with chambers lined with specialty reflective film is mounted to the top of the condensing unit. Through a patented process, ambient light is converted to thermal energy which reduces the energy demand on the compressor.

Units come with a 1-year parts warranty.



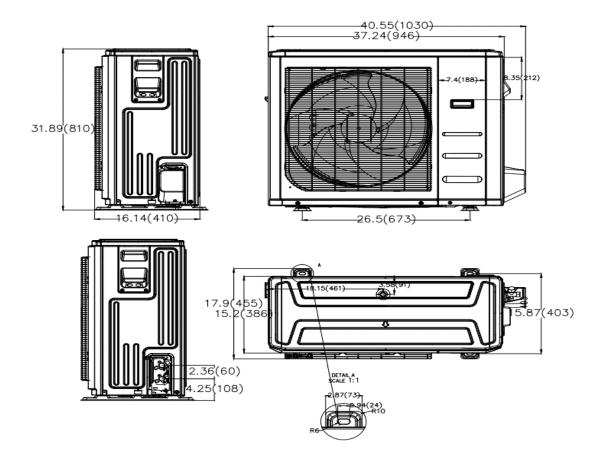






### SHMUPM-360 | Solar HVAC Multi-Split Dimensions

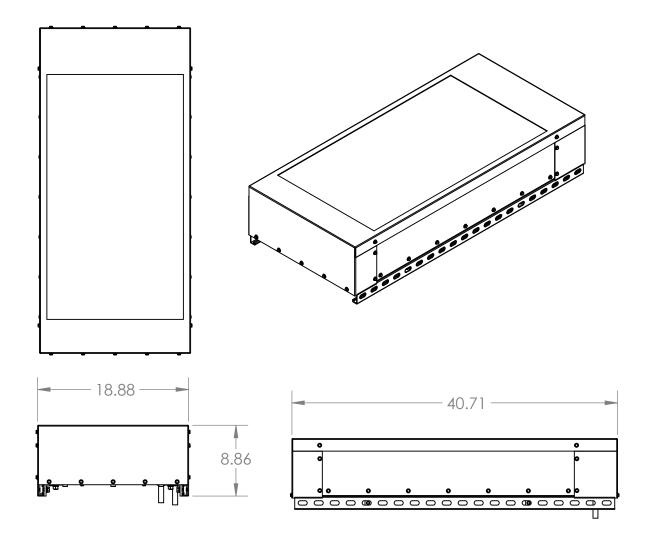
#### **Outdoor Unit:**





## **Solar Box Dimensions**

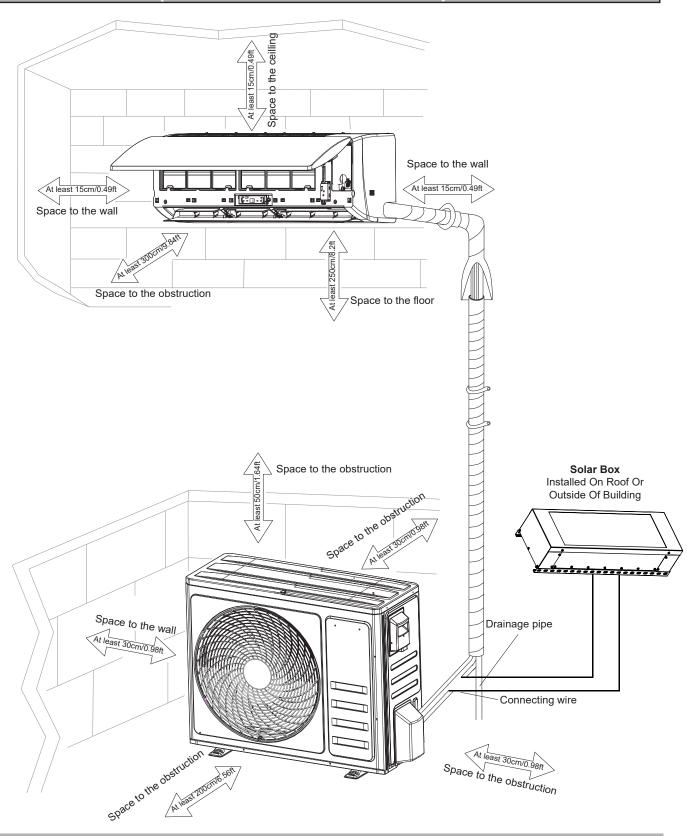
Solar Box Weight: 50 lbs.





## Clearances

#### SHMUxM-xx | Solar HVAC Model "M" Multi-Split Clearances





# **Specifications**

## SHMUPM-360 | Solar HVAC Model "M" Multi-Split Specifications

SYSTEM PERFORMANCE DAT	Α	
Power supply		
Normal Operational Voltage	(V, Ph, Hz)	208/230V,1Ph, 60Hz
Voltage Range	(V)	187-253
Electrical		
Minimum circuit ampacity	(A)	25.0
Max.fuse	(A)	40.0
Connection wiring		14AWG*4 Stranded, unshielded
Cooling		
Capacity	(Btu/h)	36000(8209~40555)
Powrer Input	(W)	3077(270~4017)
Current	(A)	13.6(2.44~17.97)
SEER2	(Btu/W)	23.9
		23.9
EER2	(Btu/W)	11.7
Heating		
Capacity	(Btu/h)	37000(8008~44632)
Powrer Input	(W)	3098(439~4263)
Current	(A)	13.0(3.23~18.73)
HSPF2-4	(Btu/W)	9.3
HSPF2-5	(Btu/W)	7.1
COP	W/W	3.50
Heat at 17F(H32)	(Btu/h)	26800
` '	(Btu/h)	25200
Heat at 5F(H42) COP at 5F(H42)	(Btu/h) W/W	25200 1.80
Heat at 5F(H42)	, ,	
Heat at 5F(H42) COP at 5F(H42)	`w/w <sup>′</sup>	
Heat at 5F(H42) COP at 5F(H42)  REFRIGERANT PIPE DATA	, ,	1.80
Heat at 5F(H42) COP at 5F(H42)  REFRIGERANT PIPE DATA Design pressure	`w/w <sup>′</sup>	1.80
Heat at 5F(H42) COP at 5F(H42)  REFRIGERANT PIPE DATA Design pressure Refrigerant Type	(PSIG)	1.80 550/340 R410A
Heat at 5F(H42) COP at 5F(H42)  REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant charge	(PSIG)  oz (ft)	550/340 R410A 134.0
REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant type Refrigerant precharge Additional charge for each ft (Φ6.35	(PSIG)  oz (ft) (oz/ft)	550/340 R410A 134.0 25x4 0.16
REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant charge Refrigerant charge Additional charge for each ft (Ф6.35 (1/4") liquid pipe)	(PSIG)  oz (ft) (oz/ft) (g/ft)	550/340 R410A 134.0 25x4
REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant charge Refrigerant precharge Refrigerant precharge Additional charge for each ft (Φ6.35 (1/4") liquid pipe) Additional charge for each ft (Φ9.52	(PSIG)  oz (ft) (oz/ft) (g/ft) (oz/ft)	550/340 R410A 134.0 25x4 0.16 15.0
REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant tharge Refrigerant charge Additional charge for each ft (Ф6.35 (1/4") liquid pipe) Additional charge for each ft (Ф9.52 (3/8") liquid pipe)	(PSIG)  oz (ft) (oz/ft) (g/ft) (oz/ft) (g/ft)	550/340 R410A 134.0 25x4 0.16 15.0 0.32 30.0
REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant charge Refrigerant precharge Refrigerant precharge Additional charge for each ft (Φ6.35 (1/4") liquid pipe) Additional charge for each ft (Φ9.52	(PSIG)  oz (ft) (oz/ft) (oz/ft) (oz/ft) (inch)	550/340 R410A 134.0 25x4 0.16 15.0 0.32 30.0 4x1/4"
REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant tharge Refrigerant precharge Additional charge for each ft (Φ6.35 (1/4") liquid pipe) Additional charge for each ft (Φ9.52 (3/8") liquid pipe)	(PSIG)  oz (ft) (oz/ft) (oz/ft) (offt) (inch) (mm)	550/340 R410A 134.0 25x4 0.16 15.0 0.32 30.0 4x1/4" 4x6.35
REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant tharge Refrigerant charge Additional charge for each ft (Ф6.35 (1/4") liquid pipe) Additional charge for each ft (Ф9.52 (3/8") liquid pipe)	(PSIG)  oz (ft) (oz/ft) (g/ft) (oz/ft) (g/ft) (inch) (mm) (inch)	550/340 R410A 134.0 25x4 0.16 15.0 0.32 30.0 4x1/4" 4x6.35 3x3/8"+1x1/2"
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REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant tharge Refrigerant precharge Additional charge for each ft (Φ6.35 (1/4") liquid pipe) Additional charge for each ft (Φ9.52 (3/8") liquid pipe)	(PSIG)  oz (ft) (oz/ft) (oz/ft) (g/ft) (inch) (mm) (inch) (mm) (ft)	550/340 R410A 134.0 25x4 0.16 15.0 0.32 30.0 4x1/4" 4x6.35 3x3/8"+1x1/2" 3x9.52+1x1/2.7 262.5
REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant tharge Refrigerant precharge Additional charge for each ft (Φ6.35 (1/4") liquid pipe) Additional charge for each ft (Φ9.52 (3/8") liquid pipe) Liquid side  Gas side  Max. length for all rooms	(PSIG)  oz (ft) (oz/ft) (g/ft) (jft) (inch) (mm) (inch) (mm) (ft) (m)	550/340 R410A 134.0 25x4 0.16 15.0 0.32 30.0 4x1/4" 4x6.35 3x3/8"+1x1/2" 3x9.52+1x12.7 262.5 80.0
Heat at 5F(H42)  COP at 5F(H42)  REFRIGERANT PIPE DATA  Design pressure Refrigerant Type Refrigerant there Refrigerant precharge Additional charge for each ft (Φ6.35 (1/4") liquid pipe)  Additional charge for each ft (Φ9.52 (3/8") liquid pipe)  Liquid side  Gas side	(PSIG)  OZ  (ft)  (oz/ft)  (g/ft)  (oz/ft)  (g/ft)  (inch)  (mm)  (inch)  (mm)  (ft)  (m)	550/340 R410A 134.0 25x4 0.16 15.0 0.32 30.0 4x1/4" 4x6.35 3x3/8"+1x1/2" 3x9.52+1x12.7 262.5 80.0 114.8
Heat at 5F(H42)  COP at 5F(H42)  REFRIGERANT PIPE DATA  Design pressure Refrigerant Type Refrigerant charge Refrigerant precharge Additional charge for each ft (Φ6.35 (1/4") liquid pipe) Additional charge for each ft (Φ9.52 (3/8") liquid pipe) Liquid side  Gas side  Max. length for all rooms  Max. length for one indoor unit	(PSIG)  oz (ft) (oz/ft) (g/ft) (oz/ft) (gft) (inch) (mm) (inch) (mm) (ft) (m) (ft) (m)	550/340 R410A 134.0 25x4 0.16 15.0 0.32 30.0 4x1/4" 4x6.35 3x3/8"+1x1/2" 3x9.52+1x12.7 262.5 80.0 114.8
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REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant tharge Refrigerant charge Refrigerant precharge Additional charge for each ft (Φ6.35 (1/4") liquid pipe) Additional charge for each ft (Φ9.52 (3/8") liquid pipe) Liquid side  Gas side  Max. length for all rooms  Max. length for one indoor unit  Max. height difference between indoor and outdoor unit	(PSIG)  oz (ft) (oz/ft) (g/ft) (oz/ft) (g/ft) (inch) (mm) (inch) (mm) (ft) (m) (ft) (m) (ft) (m)	1.80  550/340  R410A  134.0  25x4  0.16  15.0  0.32  30.0  4x1/4"  4x6.35  3x3/8"+1x1/2"  3x9.52+1x12.7  262.5  80.0  114.8  35.0  49.2
REFRIGERANT PIPE DATA Design pressure Refrigerant Type Refrigerant type Refrigerant charge Refrigerant precharge Additional charge for each ft (Φ6.35 (1/4") liquid pipe) Additional charge for each ft (Φ9.52 (3/8") liquid pipe) Liquid side  Gas side  Max. length for all rooms  Max. length for one indoor unit  Max. height difference between	(PSIG)  oz (ft) (oz/ft) (g/ft) (oz/ft) (inch) (mm) (inch) (mm) (ft) (m) (ft) (m) (ft)	550/340 R410A 134.0 25x4 0.16 15.0 0.32 30.0 4x1/4" 4x6.35 3x9.52+1x12.7 262.5 80.0 114.8 35.0 49.2

Outdoor(cooling)	(Deg. °F)	5~122
outdoor(occimig)	(Deg. °C)	-15 <b>~</b> 50
Outdoor(heating)	(Deg. °F)	-13 <b>~</b> 75
outaoo (nouting)	(Deg. °C)	-25~24
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OUTDOOR UNIT DATA		
Compressor		
Туре		ROTARY
Model		KTF310D43UMT
Brand		GMCC
Capacity	(Btu/h)	34154
Input	(W)	2765
Rated current (RLA)	(A)	18
Refrigerant oil/oil charge	(ml)	VG74/1000
rteringerant on/on charge	(1111)	VG/4/1000
Outdoor fan motor		
Model		ZKFN-120-8-2
Qty		1
Input	(W)	150.00
Output	(W)	120.00
RLA	(A)	1.00
Speed	(r/min)	1000/900/750
Air flow & Noise level		
Outdoor air flow (Max.)	(CFM)	2147.06
Outdoor noise level	[dB(A)]	63.00
Outdoor unit		
Dimension (W×D×H)	(inch)	37.24x16.14x31.89
	(mm)	946x410x810
Packing (W×D×H)	(inch)	42.91x19.69x34.84
	(mm)	1090x500x885
Net/ Gross weight	(lbs.)	169.09/181.44
	(kg)	76.7/82.3