



# Toshiba MMD-AP 1HF2UL Series Manual

Outside air unit type



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18

19  
20  
21  
22  
23  
24  
25  
26  
27  
28

• PAGE

OF 28 GO

•

•

## Bookmarks

## Quick Links

[1 Specifications](#)

[Download this manual](#)





E15-3S2

# Outside Air Unit Type

MMD-AP0481HF2UL

MMD-AP0721HF2UL

MMD-AP0961HF2UL

## Contents

1.

## [System summary](#)

2.

## [Specifications](#)

3.

## [Dimensions](#)

4.

## [Center of gravity](#)

5.

## [Piping diagram](#)

6.

## [System combination](#)

7.

## [Wiring diagram](#)

8.

## [Electrical characteristics](#)

9.

## [Fan characteristics](#)

## [10. Sound data](#)

1

MMD-AP\_\_1HF2UL



[Next Page](#)

1  
2  
3  
4  
5

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[Air Conditioner Toshiba MMD-AP0481HF2UL Service Manual](#)

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[Air Conditioner Toshiba MML-AP0124H2UL Service Manual](#)

Carrier (97 pages)

[Air Conditioner Toshiba MMD-AP0481HF2UL Installation Manual](#)

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[Fan Toshiba MMD-AP0304H2UL Wiring Diagram](#)

High static ducted type (16 pages)

## Summary of Contents for Toshiba MMD-AP 1HF2UL Series

### [Page 1: Table Of Contents](#)

E15-3S2 MMD-AP\_\_1HF2UL Outside Air Unit Type MMD-AP0481HF2UL MMD-AP0721HF2UL MMD-AP0961HF2UL Contents System summary Specifications Dimensions Center of gravity Piping diagram System combination Wiring diagram Electrical characteristics Fan characteristics 10. Sound data...

### [Page 2: System Summary](#)

E15-3S2 MMD-AP\_\_1HF2UL 1. System summary Outside Air Unit Type • Connectable outdoor unit Outdoor unit of SMMS-e series. • Corresponding system Corresponds to a system in which there are the outside air units and the indoor air conditioners. • Definition The outside air unit

means an air controller for taken-in outside air.

### [Page 3: Specifications](#)

E15-3S2 MMD-AP\_\_1HF2UL 2. Specifications Model name MMD- AP0481HF2UL AP0721HF2UL AP0961HF2UL Cooling capacity (Note1) kBtu/h 48.0 72.0 96.0 Heating capacity (Note1) kBtu/h 30.0 47.0 59.0 Power supply 230 V (208/230 V) 1phase Running current 1.58/1.56 3.00/2.88 3.32/3.17 Electrical characteristics Power consumption 0.31/0.34 0.56/0.58 0.64/0.66...

### [Page 4: Dimensions](#)

E15-3S2 MMD-AP\_\_1HF2UL 3. Dimensions MMD-AP0481HF2UL...

### [Page 5](#) E15-3S2 MMD-AP\_\_1HF2UL...

### [Page 6: Center Of Gravity](#)

E15-3S2 MMD-AP\_\_1HF2UL 4. Center of gravity Model name MMD- X (In) Y (In) Z (In) Weight (lb) AP0481HF2UL 26.4 18.9 AP0721HF2UL 26.4 30.3 AP0961HF2UL Electrical box...

### [Page 7: Piping Diagram](#)

E15-3S2 MMD-AP\_\_1HF2UL 5. Piping diagram Liquid side Gas side Sensor (TF) Strainer Capillary tube Air heat exchanger at indoor side Pulse Motor Valve (PMV) Strainer Sensor (TCJ) Sensor (TC2) Sensor (TC1) Sensor Fan motor (TA) Functional part name Functional outline Pulse Motor Valve (Connector CN082 (6P): Blue) 1) Controls super heat in cooling operation...

### [Page 8: System Combination](#)

E15-3S2 MMD-AP\_\_1HF2UL 6. System combination 6-1. Case of MMY model The Outside Air Unit is connectable to SMMS (Super Modular Multi system). However this is not connectable to SHRM (Super Heat Recovery Multi system). Keep the height difference between the Outside Air Units to 1.97" (0.5 m) or less. Case of Outside Air connection with other indoor units Connection which stretches over two floors is unavailable units Correct...

[Page 9](#) E15-3S2 MMD-AP\_\_1HF2UL Allowable length/height difference of refrigerant piping  
□&DVH RI \$OO 2XWVLGH \$LU CAUTION □ Length and height of refrigerant piping keep the limitation blow. If installed in out of the limitation, there is a possibility that heat-exchanger in Outdoor unit will burst and leak a refrigerant gas, for freezing heat-exchanger by shortage of defrosting capacity.

[Page 10](#) E15-3S2 MMD-AP\_\_1HF2UL 6-2. Case of MCY model Case of All Outside Air connection to Side Blow SMMS-e The combination which can connect Outside Air Unit is only the 1:1 combination of MCY-MAP0487HS-UL and MMD-AP0481HF2UL. Other combination is not permitted. Correct Incorrect Allowable length/height difference of refrigerant piping (Case of All Outside Air) CAUTION...

[Page 11](#) E15-3S2 MMD-AP\_\_1HF2UL 6-3. Installation □ Connecting flange Refer to size in the figure attached to the main unit. <MMD-AP048 type> <MMD-AP072 type, AP096 type> <Air supply port connecting flange> <Air supply port connecting flange> 1.8" 1.8" (45) 25.6" (650) (2.6" × 10 (65 × 16)) (45) 40.9"...

[Page 12](#) E15-3S2 MMD-AP\_\_1HF2UL <Example of construction> High-efficiency filter \*1 Long life prefilter \*1 Air supply duct \*1 Air supply flange Air intake flange Heat insulator \*1 Air intake duct Descending inclination Filter Box \*1 Hood Flexible duct \*1 Heat insulator \*1 Flexible duct \*1 Product main unit (with wire netting)

[Page 13](#) E15-3S2 MMD-AP\_\_1HF2UL Selection of installation place Avoid installing in the following places. Select a location for the indoor unit where the cool or warm air will circulate evenly. Avoid installation in the following kinds of locations. □ Locations where inside the ceiling is used as route for outside air. □...

[Page 14](#) E15-3S2 MMD-AP\_\_1HF2UL □ Installation space Keep the space necessary for installation and service. REQUIREMENT The Access Area should be □□□□ î □□□□ LQ (600 × 600 mm). Unit: in (mm) 7.9" (200) or more 2.0" (50) or more 3.9" (100) or more 7.9"...

[Page 15](#) E15-3S2 MMD-AP\_\_1HF2UL 6-4. Basic operation Use conditions □ In "COOL" mode, if

temperature of the outside air is under the setup temp. +5.4°F, FAN status is automatically made. When temperature of the outside air is under 66°F, FAN status is also made regardless of the setup temperature. □...

[Page 16](#) E15-3S2 MMD-AP\_\_1HF2UL Applicable controls (Case of All Outside Air with SMMS-e “MMY-MAP\_\_HT\_P-UL”) Each time button is pushed, Indoor unit numbers in the REQUIREMENT control group change cyclically. Select the Indoor unit to change settings for. When the air conditioner is used for the first time, it will take some moments after The fan of the selected unit runs and the louvers start swinging.

[Page 17](#) E15-3S2 MMD-AP\_\_1HF2UL Case of RBC-AMT54E-UL Push the [ MENU] button to Field setting menu display the menu screen. 1.Test mode Push and hold the [ MENU] 2.Register service info. v button and the [ ] button at 3.Alarm history the same time to display the “Field Room A 12:00 4.Monitor function...

[Page 18](#) E15-3S2 MMD-AP\_\_1HF2UL Applicable controls (Case of All Outside Air with Side blow SMMS-e “MCY-MAP\_\_MHT\_7HS-UL”) REQUIREMENT Each time button is pushed, Indoor unit numbers in the control group change cyclically. Select the Indoor unit to When the air conditioner is used for the first time, it will take some moments after change settings for.

[Page 19](#) E15-3S2 MMD-AP\_\_1HF2UL Case of RBC-AMT54E-UL Push the [ MENU] button to Field setting menu display the menu screen. 1.Test mode Push and hold the [ MENU] 2.Register service info. v button and the [ ] button at 3.Alarm history the same time to display the “Field Room A 12:00 4.Monitor function...

## [Page 20: Wiring Diagram](#)

E15-3S2 MMD-AP\_\_1HF2UL 7. Wiring diagram MMD-AP0481HF2UL...

[Page 21](#) E15-3S2 MMD-AP\_\_1HF2UL MMD-AP0721HF2UL, MMD-AP0961HF2UL...

## [Page 22: Electrical Characteristics](#)

E15-3S2 MMD-AP\_\_1HF2UL 8. Electrical characteristics Power Voltage Range(V) MOCP consumption Nominal Voltage Model name (V-Ph-Hz) Min. Max. 0.16 1.84 2.30 MMD-AP0481HF2UL 0.16 x 2 3.43 4.29 MMD-AP0721HF2UL 208/230-1-60 MMD-AP0961HF2UL 0.16 x 2 3.80 4.76 : Minimum Circuit Amps FLA : Full load Amps MOCP : Maximum Overcurrent Protection(Amps) kW : Fan Motor Rated Output (kW)

## [Page 23: Fan Characteristics](#)

E15-3S2 MMD-AP\_\_1HF2UL 9. Fan characteristics MMD-AP0481HF2UL 230V cfm - A 208V cfm - A Standard Standard 636(cfm) 636(cfm) 700(cfm) 445(cfm) 700(cfm) 445(cfm) Highstatic pressure tap Highstatic pressure tap Mid static pressure tap Mid static pressure tap Low static pressure tap Low static pressure tap Air flow rate (cfm) Air flow rate (cfm)

[Page 24](#) E15-3S2 MMD-AP\_\_1HF2UL MMD-AP0721HF2UL 230V cfm - A 208V cfm - A Standard Standard 989(cfm) 989(cfm) 693(cfm) 1088(cfm) 693(cfm) 1088(cfm) Highstatic pressure tap Highstatic pressure tap Mid static pressure tap Mid static pressure tap Low static pressure tap Low static pressure tap 1200 1200 Air flow rate (cfm)

[Page 25](#) E15-3S2 MMD-AP\_\_1HF2UL MMD-AP0961HF2UL 230V cfm - A 208V cfm - A Standard Standard 866(cfm) 1237(cfm) 1360(cfm) 866(cfm) 1237(cfm) 1360(cfm) Highstatic pressure tap Highstatic pressure tap Low static pressure tap Low static pressure tap 1100 1400 1100 1400 Air flow rate (cfm) Air flow rate (cfm) 230V Fan characteristics 208V Fan characteristics...

## [Page 26: Sound Data](#)

E15-3S2 MMD-AP\_\_1HF2UL 10. Sound data 3.28 ft 6.56 ft (1 m) (2 m) Air discharge Air intake Duct Duct 4.92 ft (1.5 m) Microphone MMD-AP0481HF2UL (230 V) MMD-AP0481HF2UL (208 V) Fan tap Fan tap External static pressure 1.06 (in WG) 0.86 (in WG) 0.50 (in WG) External static pressure 0.75 (in WG) 0.55 (in WG) 0.16 (in WG) Sound pressure...

[Page 27](#) E15-3S2 MMD-AP\_\_1HF2UL MMD-AP0721HF2UL (230 V) MMD-AP0721HF2UL (208 V) Fan tap Fan tap External static pressure 1.08 (in WG) 1.00 (in WG) 0.65 (in WG) External static pressure 0.84 (in WG) 0.74 (in WG) 0.24 (in WG) Sound pressure Sound pressure level (dB(A))

level (dB(A)) 0.84 (external static pressure (in WG))

[Page 28](#) Outside Air Unit Type Engineering Data Book Model name: MMD-AP\_\_1HF2UL May, 2017 Third Edition...

This manual is also suitable for:

[Mmd-ap0481hf2ul](#)[Mmd-ap0721hf2ul](#)[Mmd-ap0961hf2ul](#)