

# Minimum Room Area Quick Reference Worksheet PUZ / SUZ / MXZ-D / SM + PVA / SVZ / PAA



## IMPORTANT

This quick reference worksheet must be used in conjunction with Installation manual instructions regarding minimum room area calculation. All safety precautions and instructions must be followed as stated in the Installation manual.

1. What is the factory refrigerant pre-charge of the outdoor unit (ODU)?



## TIP

The factory refrigerant pre-charge of the ODU can be found on it's nameplate.

- **Factory pre-charge** = \_\_\_\_\_ **lb or kg** (circle one)
2. Will there be an additional refrigerant line set beyond the limit of the factory refrigerant pre-charge?
    - **Additional charge** = \_\_\_\_\_ **lb or kg** (circle one)
  3. Take the values from **Step. 1** and **Step. 2** and use the following equation to find the Total planned system charge.
    - **Total planned system charge ( $m_c$ )** = **Factory (Step. 1) + Additional (Step. 2)** = \_\_\_\_\_ **lb or kg** (circle one)
  4. Is the installation space a conditioned space as defined in the installation manual? **YES** or **NO** (circle one)
    - If **Yes** – **Use Case D**. This is the easiest and least restrictive case.
    - Then, **Skip to step 6**. In this case only:  $TA_{min} = A_{min}$
    - If **No** – Continue to the next step.
  5. What is the planned installation height of the indoor unit (IDU), measure from floor to lowest downward facing surface of the IDU?
    - **Installation height ( $h_0$ )** = \_\_\_\_\_ **ft or m** (circle one)

$h_0$ - (ft, in.)	$h_0$ - (m)	Use Case:	Mark correct Case with an 'X'
Lower than 3 ft. 3 3/8 in.	Lower than 1 m	C	
3 ft. 3 3/8 in. to 7 ft 2 5/8 in.	1 m to 2.2 m	B	
Higher than 7ft. 2 5/8 in.	Higher than 2.2 m	A	

6. Use the **Minimum area requirement table**, on the following pages, to determine the correct values for  $A_{min}$  and  $TA_{min}$ .
  - a. In the left most column, find the correct or nearest value for  $m_c$  (calculated Step. 2), mark this row with an \*.
  - b. In the top row, find the column that describes the correct Case (chosen in Step. 4) and the ODU installed, mark this column with an \*.
  - c. Find the intersection of the marked row and column. Circle the correct values for  $A_{min}$  and  $TA_{min}$ .
  - d. Write the required minimum room area below:
    - Minimum room area for installation room  
 $A_{min} =$  \_\_\_\_\_ **ft<sup>2</sup> or m<sup>2</sup>** (circle one)
    - Minimum conditioned space area

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$TA_{min} = \underline{\hspace{2cm}}$   $ft^2$  or  $m^2$  (circle one)

7. Now, find the total areas of each Zone (as defined in the installation manual) and add the room areas together to find the total  $TA_{min}$  for each zone.

Zone 1		Zone 2		Zone 3		Zone 4	
Room	Area	Room	Area	Room	Area	Room	Area
Zone 1 $TA_{min}$ total		Zone 2 $TA_{min}$ total		Zone 3 $TA_{min}$ total		Zone 4 $TA_{min}$ total	

8. Answer questions **a. - d.** below to verify that room requirements are met.
- Does the combined area of each Zone meet or exceed  $TA_{min}$  as defined in Step. 6d?
    - **Yes** or **No** (circle one)
  - Does the combined area of the installation room and adjacent connected rooms meet or exceed  $A_{min}$ ?
    - **Yes** or **No** (circle one)
  - If **A and B** are **YES**, then proceed with installation.
  - If **A and/or B** are **NO**, then additional area, ventilation, or installation height required.

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**Table 1. Minimum room area requirement**

Total planned system charge	Case A				Case B			
	Outdoor unit (ODU)				Outdoor unit (ODU)			
	SUZ/PUZ/MXZ-D		MXZ-SM		SUZ/PUZ/MXZ-D		MXZ-SM	
$m_c$ kg (lbs)	Amin m <sup>2</sup> [ft <sup>2</sup> ]	TAmin m <sup>2</sup> [ft <sup>2</sup> ]	Amin m <sup>2</sup> [ft <sup>2</sup> ]	TAmin m <sup>2</sup> [ft <sup>2</sup> ]	Amin m <sup>2</sup> [ft <sup>2</sup> ]	TAmin m <sup>2</sup> [ft <sup>2</sup> ]	Amin m <sup>2</sup> [ft <sup>2</sup> ]	TAmin m <sup>2</sup> [ft <sup>2</sup> ]
0.9 [1.9]	2.8 [30.2]	9 [96.9]	x	x	6.1 [65.7]	9 [96.9]	x	x
1 [2.2]	3.1 [33.4]	9 [96.9]	x	x	6.8 [73.2]	9 [96.9]	x	x
1.5 [3.3]	4.7 [50.6]	9 [96.9]	x	x	10.2 [109.8]	9 [96.9]	x	x
2 [4.4]	6.2 [66.8]	9 [96.9]	x	x	13.6 [146.4]	9 [96.9]	x	x
2.5 [5.5]	7.7 [82.9]	9 [96.9]	x	x	16.9 [182]	9 [96.9]	x	x
3 [6.6]	9.3 [100.2]	9.3 [100.2]	x	x	20.3 [218.6]	9.3 [100.2]	x	x
3.5 [7.7]	10.8 [116.3]	10.8 [116.3]	x	x	23.7 [255.2]	10.8 [116.3]	x	x
4 [8.8]	12.3 [132.4]	12.3 [132.4]	4.2 [45.3]	9 [96.9]	27.1 [291.8]	12.3 [132.4]	9.2 [99.1]	9 [96.9]
4.5 [9.9]	13.9 [149.7]	13.9 [149.7]	4.5 [48.5]	9 [96.9]	30.5 [328.3]	13.9 [149.7]	9.9 [106.6]	9 [96.9]
5 [11]	15.4 [165.8]	15.4 [165.8]	4.9 [52.8]	9 [96.9]	33.8 [363.9]	15.4 [165.8]	10.6 [114.1]	9 [96.9]
5.5 [12.1]	16.9 [182]	16.9 [182]	5.2 [56]	9 [96.9]	37.2 [400.5]	16.9 [182]	11.3 [121.7]	9 [96.9]
6 [13.4]	18.5 [199.2]	18.5 [199.2]	5.5 [59.3]	9 [96.9]	40.6 [437.1]	18.5 [199.2]	12 [129.2]	9 [96.9]
6.5 [14.5]	20 [215.3]	20 [215.3]	5.8 [62.5]	9 [96.9]	44 [473.7]	20 [215.3]	12.7 [136.8]	9 [96.9]
7 [15.6]	21.5 [231.5]	21.5 [231.5]	6.1 [65.7]	9 [96.9]	47.3 [509.2]	21.5 [231.5]	13.4 [144.3]	9 [96.9]
7.5 [16.7]	23.1 [248.7]	23.1 [248.7]	6.4 [68.9]	9 [96.9]	50.7 [545.8]	23.1 [248.7]	14 [150.7]	9 [96.9]
8 [17.8]	24.6 [264.8]	24.6 [264.8]	6.7 [72.2]	9 [96.9]	54.1 [582.4]	24.6 [264.8]	14.7 [158.3]	9 [96.9]
8.5 [18.9]	26.2 [282.1]	26.2 [282.1]	7 [75.4]	9 [96.9]	57.5 [619]	26.2 [282.1]	15.4 [165.8]	9 [96.9]
9 [20]	27.7 [298.2]	27.7 [298.2]	7.3 [78.6]	9 [96.9]	60.9 [655.6]	27.7 [298.2]	16.1 [173.3]	9 [96.9]
9.5 [21.1]	29.2 [314.4]	29.2 [314.4]	7.7 [82.9]	9 [96.9]	64.2 [691.1]	29.2 [314.4]	16.8 [180.9]	9 [96.9]
10 [22.1]	30.8 [331.6]	30.8 [331.6]	8 [86.2]	9 [96.9]	67.6 [727.7]	30.8 [331.6]	17.5 [188.4]	9 [96.9]
10.5 [23.1]	32.3 [347.7]	32.3 [347.7]	8.3 [89.4]	9 [96.9]	71 [764.3]	32.3 [347.7]	18.2 [196]	9 [96.9]
11 [24.2]	33.8 [363.9]	33.8 [363.9]	8.6 [92.6]	9 [96.9]	74.4 [800.9]	33.8 [363.9]	18.8 [202.4]	9 [96.9]
11.5 [25.3]	35.4 [381.1]	35.4 [381.1]	8.9 [95.8]	9 [96.9]	77.8 [837.5]	35.4 [381.1]	19.5 [209.9]	9 [96.9]
12 [26.4]	36.9 [397.2]	36.9 [397.2]	9.2 [99.1]	9.2 [99.1]	81.1 [873]	36.9 [397.2]	20.2 [217.5]	9.2 [99.1]
12.5 [27.5]	38.4 [413.4]	38.4 [413.4]	9.5 [102.3]	9.5 [102.3]	84.5 [909.6]	38.4 [413.4]	20.9 [225]	9.5 [102.3]
13 [28.6]	40 [430.6]	40 [430.6]	9.8 [105.5]	9.8 [105.5]	87.9 [946.2]	40 [430.6]	21.6 [232.6]	9.8 [105.5]
13.5 [29.7]	41.5 [446.8]	41.5 [446.8]	10.1 [108.8]	10.1 [108.8]	91.3 [982.8]	41.5 [446.8]	22.3 [240.1]	10.1 [108.8]
14 [30.8]	43 [462.9]	43 [462.9]	10.5 [113.1]	10.5 [113.1]	94.6 [1018.3]	43 [462.9]	22.9 [246.5]	10.5 [113.1]
14.4 [31.7]	44.3 [476.9]	44.3 [476.9]	10.7 [115.2]	10.7 [115.2]	97.3 [1047.4]	44.3 [476.9]	23.5 [253]	10.7 [115.2]

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Total planned system charge	Case C				Case D			
	Outdoor unit (ODU)				Outdoor unit (ODU)			
	SUZ/PUZ/MXZ-D		MXZ-SM		SUZ/PUZ/MXZ-D		MXZ-SM	
<b>m<sub>c</sub></b> kg (lbs)	Amin m2 [ft2]	TAmin m2 [ft2]	Amin m2 [ft2]	TAmin m2 [ft2]	Amin m2 [ft2]	TAmin m2 [ft2]	Amin m2 [ft2]	TAmin m2 [ft2]
0.9 [1.9]	10.2 [109.8]	9 [96.9]	x	x	9 [96.9]	9 [96.9]	x	x
1 [2.2]	11.3 [121.7]	9 [96.9]	x	x	9 [96.9]	9 [96.9]	x	x
1.5 [3.3]	16.9 [182]	9 [96.9]	x	x	9 [96.9]	9 [96.9]	x	x
2 [4.4]	22.6 [243.3]	9 [96.9]	x	x	9 [96.9]	9 [96.9]	x	x
2.5 [5.5]	28.2 [303.6]	9 [96.9]	x	x	9 [96.9]	9 [96.9]	x	x
3 [6.6]	33.8 [363.9]	9.3 [100.2]	x	x	9.3 [100.2]	9.3 [100.2]	x	x
3.5 [7.7]	39.5 [425.2]	10.8 [116.3]	x	x	10.8 [116.3]	10.8 [116.3]	x	x
4 [8.8]	45.1 [485.5]	12.3 [132.4]	15.4 [165.8]	9 [96.9]	12.3 [132.4]	12.3 [132.4]	9 [96.9]	9 [96.9]
4.5 [9.9]	50.7 [545.8]	13.9 [149.7]	16.5 [177.7]	9 [96.9]	13.9 [149.7]	13.9 [149.7]	9 [96.9]	9 [96.9]
5 [11]	56.4 [607.1]	15.4 [165.8]	17.7 [190.6]	9 [96.9]	15.4 [165.8]	15.4 [165.8]	9 [96.9]	9 [96.9]
5.5 [12.1]	62 [667.4]	16.9 [182]	18.8 [202.4]	9 [96.9]	16.9 [182]	16.9 [182]	9 [96.9]	9 [96.9]
6 [13.4]	67.6 [727.7]	18.5 [199.2]	19.9 [214.3]	9 [96.9]	18.5 [199.2]	18.5 [199.2]	9 [96.9]	9 [96.9]
6.5 [14.5]	73.2 [788]	20 [215.3]	21.1 [227.2]	9 [96.9]	20 [215.3]	20 [215.3]	9 [96.9]	9 [96.9]
7 [15.6]	78.9 [849.3]	21.5 [231.5]	22.2 [239]	9 [96.9]	21.5 [231.5]	21.5 [231.5]	9 [96.9]	9 [96.9]
7.5 [16.7]	84.5 [909.6]	23.1 [248.7]	23.4 [251.9]	9 [96.9]	23.1 [248.7]	23.1 [248.7]	9 [96.9]	9 [96.9]
8 [17.8]	90.1 [969.9]	24.6 [264.8]	24.5 [263.8]	9 [96.9]	24.6 [264.8]	24.6 [264.8]	9 [96.9]	9 [96.9]
8.5 [18.9]	95.8 [1031.2]	26.2 [282.1]	25.7 [276.7]	9 [96.9]	26.2 [282.1]	26.2 [282.1]	9 [96.9]	9 [96.9]
9 [20]	101.4 [1091.5]	27.7 [298.2]	26.8 [288.5]	9 [96.9]	27.7 [298.2]	27.7 [298.2]	9 [96.9]	9 [96.9]
9.5 [21.1]	107 [1151.8]	29.2 [314.4]	27.9 [300.4]	9 [96.9]	29.2 [314.4]	29.2 [314.4]	9 [96.9]	9 [96.9]
10 [22.1]	112.7 [1213.1]	30.8 [331.6]	29.1 [313.3]	9 [96.9]	30.8 [331.6]	30.8 [331.6]	9 [96.9]	9 [96.9]
10.5 [23.1]	118.3 [1273.4]	32.3 [347.7]	30.2 [325.1]	9 [96.9]	32.3 [347.7]	32.3 [347.7]	9 [96.9]	9 [96.9]
11 [24.2]	123.9 [1333.7]	33.8 [363.9]	31.4 [338]	9 [96.9]	33.8 [363.9]	33.8 [363.9]	9 [96.9]	9 [96.9]
11.5 [25.3]	129.6 [1395.1]	35.4 [381.1]	32.5 [349.9]	9 [96.9]	35.4 [381.1]	35.4 [381.1]	9 [96.9]	9 [96.9]
12 [26.4]	135.2 [1455.3]	36.9 [397.2]	33.6 [361.7]	9.2 [99.1]	36.9 [397.2]	36.9 [397.2]	9.2 [99.1]	9.2 [99.1]
12.5 [27.5]	140.8 [1515.6]	38.4 [413.4]	34.8 [374.6]	9.5 [102.3]	38.4 [413.4]	38.4 [413.4]	9.5 [102.3]	9.5 [102.3]
13 [28.6]	146.4 [1575.9]	40 [430.6]	35.9 [386.5]	9.8 [105.5]	40 [430.6]	40 [430.6]	9.8 [105.5]	9.8 [105.5]
13.5 [29.7]	152.1 [1637.2]	41.5 [446.8]	37.1 [399.4]	10.1 [108.8]	41.5 [446.8]	41.5 [446.8]	10.1 [108.8]	10.1 [108.8]
14 [30.8]	157.7 [1697.5]	43 [462.9]	38.2 [411.2]	10.5 [113.1]	43 [462.9]	43 [462.9]	10.5 [113.1]	10.5 [113.1]
14.4 [31.7]	162.2 [1746]	44.3 [476.9]	39.1 [420.9]	10.7 [115.2]	44.3 [476.9]	44.3 [476.9]	10.7 [115.2]	10.7 [115.2]