

**Submittal Data Sheet**  
**24K Energy Star**



|                    |                   |
|--------------------|-------------------|
| Code               |                   |
| Indoor unit code   | 22022511000481    |
| Outdoor unit code  | 22022016005121    |
| Model              |                   |
| Indoor unit model  | MCDU-24HRFN1-M(C) |
| Outdoor unit model | MOD31-24HFN1-MT0W |

**PERFORMANCE DATA**

|              |         |                   |
|--------------|---------|-------------------|
| Power supply | Ph-V-Hz | 208/230V,1Ph,60Hz |
|--------------|---------|-------------------|

**Cooling**

|               |       |       |
|---------------|-------|-------|
| Capacity      | Btu/h | 24000 |
| Input         | W     | 1920  |
| Rated current | A     | 8.79  |
| EER           | Btu/w | 12.5  |
| SEER          | Btu/w | 20    |

**Heating at 47**

|               |       |       |
|---------------|-------|-------|
| Capacity      | Btu/h | 24400 |
| Input         | W     | 2218  |
| Rated current | A     | 10.18 |
| COP           | W/W   | 3.22  |
| HSPF4         |       | 10.5  |
| HSPF5         |       | 8.4   |

**Electrical**

|                          |   |          |
|--------------------------|---|----------|
| MINIMUM CIRCUIT AMPACITY | A | 18       |
| MAX. FUSE                | A | 25       |
| Connection wiring        |   | 16*4 AWG |

**Compressor**

|                            |       |               |
|----------------------------|-------|---------------|
| Model                      |       | ATF235D22UMT  |
| Type                       |       | ROTARY        |
| Brand                      |       | GMCC          |
| Capacity                   | Btu/h | 24345         |
| Input                      | W     | 1970          |
| Rated current(RLA)         | A     | 12            |
| Locked rotor Amp(LRA)      | A     | ---           |
| Thermal protector          |       | ---           |
| Thermal protector position |       | ---           |
| Refrigerant oil/oil charge | ml    | POE(VG74)/670 |

**SYSTEM DATA**

|                              |        |                        |
|------------------------------|--------|------------------------|
| Design pressure              | PSIG   | 550/340 PSIG           |
| Refrigerant type             | oz     | R410A/82.9             |
| Refrigerant precharge        | ft     | 25                     |
| Additional charge per ft.    | oz     | 0.32                   |
| Liquid side/ Gas side        | mm(in) | Φ9.52/Φ15.9(3/8"/5/8") |
| Max. refrigerant pipe length | ft     | 164                    |
| Max. difference in level     | ft.    | 82                     |

**INDOOR UNIT DATA**

**Indoor fan motor**

|                    |       |             |
|--------------------|-------|-------------|
| Model              |       | ZKFP-42-8-1 |
| Type               |       | DC          |
| Input              |       | 58          |
| RLA                | A     | 2           |
| LRA                | A     | ---         |
| Winding Resistance | Ω     | ---         |
| Capacitor          | uF    | ---         |
| Speed(Hi/Mi/Lo)    | r/min | 600/520/450 |

**Air flow & Noise level**

|                            |       |             |
|----------------------------|-------|-------------|
| Indoor air flow (Hi/Lo)    | CFM   | 878/761/625 |
| Indoor noise level (Hi/Lo) | dB(A) | 51/47/43    |

**Indoor unit**

|                  |      |                  |
|------------------|------|------------------|
| Dimension(W*D*H) | inch | 33.07x33.07x8.07 |
| Packing (W*D*H)  | inch | 35.43x35.43x8.54 |
| Net/Gross weight | lbs. | 46.3/54.23       |

**OUTDOOR UNIT DATA**

**Outdoor fan motor**

|                    |       |              |
|--------------------|-------|--------------|
| Model              |       | ZKFN-120-8-2 |
| Type               |       | DC           |
| Input              |       | 150          |
| RLA                | A     | 0.6          |
| LRA                | A     | ---          |
| Winding Resistance | Ω     | ---          |
| Capacitor          | uF    | ---          |
| Speed              | r/min | 810          |

**Air flow & Noise level**

|                     |       |      |
|---------------------|-------|------|
| Outdoor air flow    | CFM   | 2237 |
| Outdoor noise level | dB(A) | 61   |

**Outdoor unit**

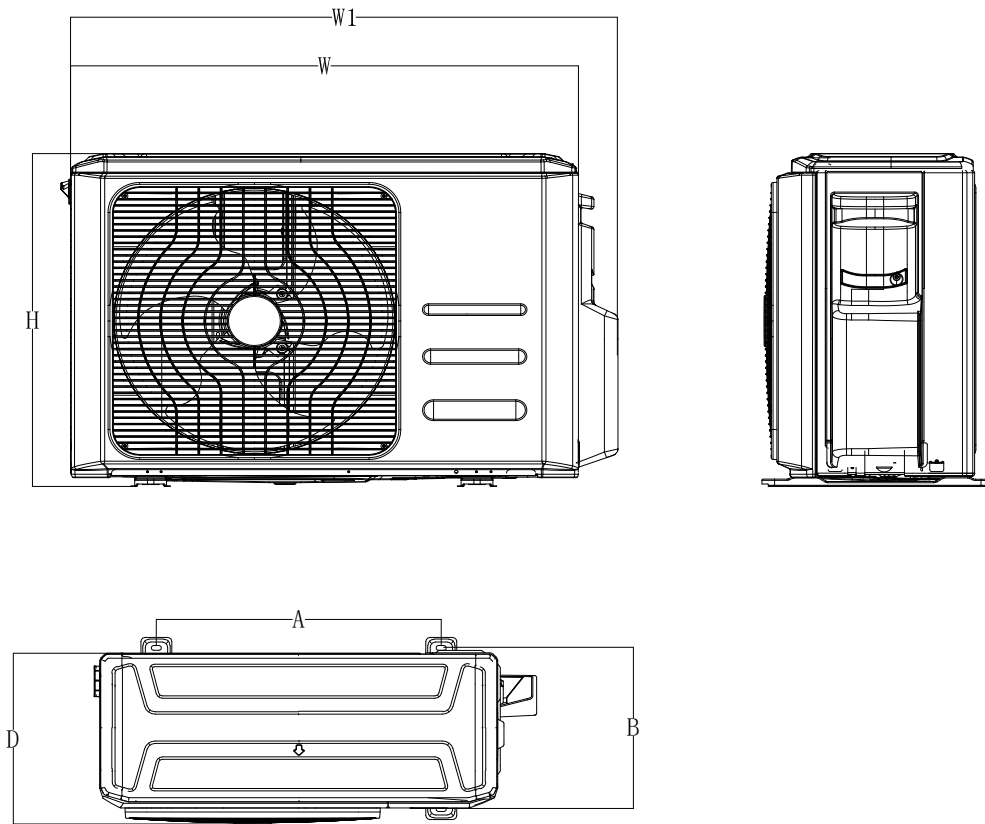
|                  |      |                   |
|------------------|------|-------------------|
| Dimension(W*D*H) | inch | 37.24x16.14x31.89 |
| Packing (W*D*H)  | inch | 42.91x19.69x34.45 |
| Net/Gross weight | lbs. | 136.69/148.59     |

**Operation temperature**

|                          |        |                 |
|--------------------------|--------|-----------------|
| Indoor(cooling/ heating) | Deg. F | 62~90/32~86     |
| Outdoor(cooling/heating) | Deg. F | -13~122/ -13~86 |
| Application area         | sq.ft  | 344-505         |



**OUTDOOR UNIT**



| Model             | W (inch) | D (inch) | H (inch) | W1 (inch) | A (inch) | B (inch) |
|-------------------|----------|----------|----------|-----------|----------|----------|
| MOD31-24HFN1-MTOW | 37.2     | 16.1     | 31.9     | 40.6      | 26.5     | 15.9     |