

Quick Reference Guide

Voyager™ 12½-25 Ton Packaged Rooftop Units Cooling & Gas/Electric



Table 1. Model number description

| | |
|-----|---|
| TCD | Cooling Only (Electric Heat Optional), Downflow |
| TCH | Cooling Only (Electric Heat Optional), Horizontal |
| YCD | Gas Heat Unit, Downflow |
| YCH | Gas Heat Unit, Horizontal |

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Table 2. List of factory installed options (FIOPs)^(a)

| | |
|--|--|
| 2" MERV 7 or MERV 13 Pleated Filters | Modulating Gas Heat Furnace with a 5:1 Turndown Ratio ^(b) |
| BACnet™ Communication Interface (BCI) | Motor Shaft Grounding Ring ^(c) |
| Barometric Relief ^(d) (e) | NOVAR Return Air Sensor |
| Clogged Filter/Fan Failure Switch ^(b) | NOVAR Unit Controls (3051 and 2024) |
| Complete Coat™ Microchannel Condenser Coil | Oversized Motors |
| Dehumidification | Powered/Unpowered Convenience Outlet ^(f) |
| Discharge Air Sensing Kit ^(b) | Stainless Steel Heat Exchanger |
| Economizer - Downflow - Comparative Enthalpy ^{(d)(e)} | Supply & Return Air Smoke Detectors ^(b) |
| Economizer - Downflow - Dry Bulb ^(e) | Thermal Expansion Valve |
| Economizer - Downflow - Reference Enthalpy ^{(d)(e)} | Through the Base Electrical with Circuit Breaker |
| Electric Heaters | Through the Base Electrical with Disconnect Switch |
| Frostat™ ^(b) | Through the Base Gas Provision |
| High Efficiency Motors | Tool-less Hail Guard |
| Hinged Access Panels | Trane® Communication Interface (TCI) ^(g) |
| Horizontal Side Access with Circuit Breaker | Two Speed Fan Provision |
| Horizontal Side Access with Disconnect Switch | Variable Speed Fan Provision for Single Zone VAV |
| LonTalk® Communication Interface (LCI) | |

- (a) Most Factory Installed Options are available for downflow air discharge units only. Verify with ordering system for availability.
- (b) Requires ReliaTel Options Module.
- (c) Available with Two Speed Fan or Variable Speed Fan.
- (d) Requires an Economizer.
- (e) Some field set up required.
- (f) Must be ordered with Through the Base Electrical option or Horizontal Side Access, and either Unit Mounted Disconnect switch or Circuit Breaker.
- (g) TCI is for use with non-VariTrac™ systems and VariTrac systems.

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Table 3. 12½-25 ton packaged rooftop performance data (gas or electric heat)

| Nominal Size (Ton) | Standard Efficiency | | | | | High Efficiency | | | | | |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----|
| | 12.5 | 15 | 17.5 | 20 | 25 | 12.5 | 15 | 17.5 | 20 | 25 | |
| Cooling Performance | | | | | | | | | | | |
| Nominal Airflow CFM / ARI Rated CFM | 5,000/4,400 | 6,000/5,300 | 7,000/6,125 | 8,000/7,000 | 10,000/8,000 | 5,000/4,000 | 6,000/5,300 | 7,000/5,600 | 8,000/7,000 | 10,000/8,000 | |
| Tot / Sens Cap (MBh) ^(a) (b) | 150.1/116.0 | 186.1/139.1 | 210.3/165.0 | 258.9/197.3 | 296.4/228.4 | 149.6/113.4 | 181.5/138.0 | 212.7/165.5 | 259.0/192.5 | 295.3/234.2 | |
| EER ^(c) | 11 | 11 | 11 | 10.0 | 10.0 | 12.0 | 12.0 | 12.0 | 11.0 | 10.6 | |
| IEER (One Speed Fan / Multi or Variable Speed Fan) ^(d) | 12.2/13.5 | 12.2/13.2 | 11.8/12.9 | 11.5/12.3 | 10.4/12.0 | 12.6/14.2 | 13.6/14.2 | 12.5/13.6 | 11.7/13.1 | 11.5/13.0 | |
| Gas Heating Performance^(e) | | | | | | | | | | | |
| Low Heat (Input/output) - (MBh) | 150.0/122.0 | 250.0/203.0 | 250.0/203.0 | 250.0/203.0 | 250.0/203.0 | 150.0/122.0 | 250.0/203.0 | 250.0/203.0 | 250.0/203.0 | 250.0/203.0 | |
| Medium Heat (Input/output) - (MBh) | 350.0/283.5 | 350.0/283.5 | 350.0/283.5 | 350.0/283.5 | 350.0/283.5 | 350.0/283.5 | 350.0/283.5 | 350.0/283.5 | 350.0/283.5 | 350.0/283.5 | |
| High Heat (Input/output) - (MBh) | 250.0/203.0 | 350.0/284.0 | 350.0/284.0 | 400.0/324.0 | 400.0/324.0 | 250.0/203.0 | 350.0/284.0 | 350.0/284.0 | 400.0/324.0 | 400.0/324.0 | |
| Other Information | | | | | | | | | | | |
| Net Weight (Lbs) - Gas Heat | 1508 | 1925 | 2007 | 2069 | 2054 | 2126 | 2129 | 2201 | 2203 | 2207 | |
| Net Weight (Lbs) - Electric Heat | 1413 | 1822 | 1863 | 1925 | 1878 | 1981 | 1984 | 2051 | 2053 | 2027 | |
| Roofcurb | BAYCURB026B | | | | | BAYCURB027B | | | | | |
| Unit Cabinet Size | B | | | | | C | | | | | C+ |
| Filters ^(f) - Type Furnished | Throwaway | Throwaway | Throwaway | Throwaway | Throwaway | Throwaway | Throwaway | Throwaway | Throwaway | Throwaway | |
| Number Size Recommended | | | | | | | | | | | |
| Downflow | (2) 20x20x2 (4) 20x25x2 | (4) 20x20x2 (4) 20x25x2 | (4) 20x20x2 (4) 20x25x2 | (4) 20x20x2 (4) 20x25x2 | (4) 20x20x2 (4) 20x25x2 | (4) 20x20x2 (4) 20x25x2 | (8) 20x20x2 (4) 20x16x2 | (8) 20x20x2 (4) 20x16x2 | (8) 20x20x2 (4) 20x16x2 | (8) 20x20x2 (4) 20x16x2 | |
| Horizontal | (2) 20x20x2 (4) 20x25x2 | (8) 20x25x2 | (8) 20x25x2 | (8) 20x25x2 | (8) 20x25x2 | (8) 20x25x2 | (12) 20x20x2 | (12) 20x20x2 | (12) 20x20x2 | (12) 20x20x2 | |

- (a) Cooling performance is rated at 80/67/95 & 400 cfm/ton.
- (b) Short orifice metering device.
- (c) EER is rated at ARI conditions and in accordance with ARI standard 210/240 or 360.
- (d) Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI standard 210/240 or 360.
- (e) Verify option availability in product data catalog.
- (f) Optional 2" MERV 7 and MERV 13 filters also available.

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Table 4. Unit MCA & MOP electrical data (standard indoor fan motor)

| T/YC* | Volts | MCA | MOP | T/YC* | Volts | MCA | MOP |
|-------|-----------|-----|-------|-------|-----------|-----|-----|
| 150 | 208-230/3 | 64 | 80 | 151 | 208-230/3 | 65 | 80 |
| | 460/3 | 31 | 40 | | 460/3 | 32 | 40 |
| | 575/3 | 23 | 30 | | 575/3 | 25 | 30 |
| | 380/3 | 40 | 50 | 181 | 208-230/3 | 72 | 90 |
| 180 | 208-230/3 | 75 | 100 | | 460/3 | 36 | 45 |
| | 460/3 | 38 | 50 | | 575/3 | 29 | 40 |
| | 575/3 | 31 | 40 | 211 | 208-230/3 | 88 | 110 |
| 380/3 | 49 | 60 | 460/3 | | 42 | 50 | |
| 210 | 208-230/3 | 93 | 125 | | 575/3 | 36 | 45 |
| | 460/3 | 44 | 60 | 241 | 208-230/3 | 104 | 125 |
| | 575/3 | 35 | 50 | | 460/3 | 50 | 60 |
| 380/3 | 59 | 80 | 575/3 | | 42 | 50 | |
| 240 | 208-230/3 | 108 | 125 | 301 | 208-230/3 | 116 | 150 |
| | 460/3 | 52 | 70 | | 460/3 | 56 | 70 |
| | 575/3 | 44 | 60 | | 575/3 | 47 | 60 |
| | 380/3 | 67 | 90 | 300 | 208-230/3 | 124 | 150 |
| 300 | 460/3 | 59 | 70 | | 460/3 | 59 | 70 |
| | 575/3 | 48 | 60 | | 575/3 | 48 | 60 |
| | 380/3 | 71 | 90 | | 380/3 | 71 | 90 |

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Table 5. Unit indoor fan data

| T/YC* | Volts | Standard HP - RPM | Oversize HP - RPM | T/YC* | Volts | Standard HP - RPM | Oversize HP - RPM |
|-------|-----------|-------------------|-------------------|-----------|------------|-------------------|-------------------|
| 150 | 208-230/3 | 3 - 1740 | 5 - 3450 | 151 | 208-230/3 | 3 - 1740 | 5 - 3450 |
| | 460/3 | | 5 - 3450 | | 460/3 | | 5 - 3450 |
| | 575/3 | | 5 - 3450 | | 575/3 | | N/A |
| | 380/3 | N/A | 180 | 208-230/3 | 5 - 3450 | 3 - 1740 | 5 - 3450 |
| 180 | 460/3 | 5 - 3450 | | 460/3 | 5 - 3450 | | |
| | 575/3 | 5 - 3450 | | 575/3 | N/A | | |
| | 380/3 | N/A | 210 | 208-230/3 | 7.5 - 3470 | 5 - 3450 | 7.5 - 3470 |
| 210 | 460/3 | 7.5 - 3470 | | 460/3 | 7.5 - 3470 | | |
| | 575/3 | 7.5 - 3470 | | 575/3 | 7.5 - 3470 | | |
| | 380/3 | N/A | 240 | 208-230/3 | 7.5 - 3470 | 5 - 3450 | 7.5 - 3470 |
| 240 | 460/3 | 7.5 - 3470 | | 460/3 | 7.5 - 3470 | | |
| | 575/3 | 7.5 - 3470 | | 575/3 | 7.5 - 3470 | | |
| | 380/3 | N/A | 300 | 208-230/3 | 7.5 - 3470 | 7.5 - 3470 | N/A |
| 300 | 460/3 | N/A | | 460/3 | N/A | | |
| | 575/3 | N/A | | 575/3 | N/A | | |
| | 380/3 | N/A | | 380/3 | N/A | | |

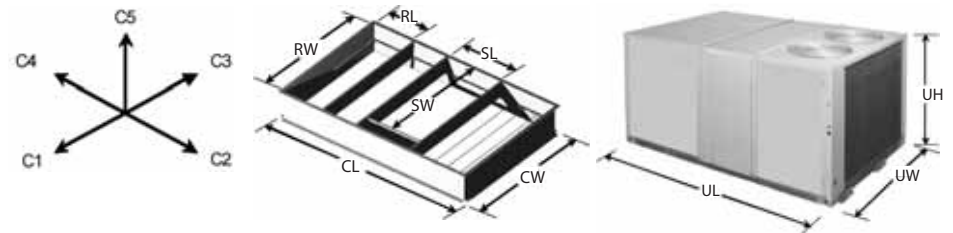
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Table 6. Unit dimensional data

| | B | C | C+ |
|---------------------------------|-----------|----------|----------|
| Unit Length UL | 106 11/16 | 122 5/16 | 122 5/16 |
| Unit Width UW | 70 13/16 | 84 3/16 | 84 3/16 |
| Unit Height UH | 50 1/8 | 54 | 64 1/8 |
| Clearance C1 | 60 | 60 | 60 |
| Clearance C2 | 48 | 48 | 48 |
| Clearance C3 | 36 1/8 | 36 1/8 | 36 1/8 |
| Clearance C4 | 38 | 38 | 38 |
| Clearance C5 | 72 | 72 | 72 |
| Curb Length CL | 102 1/2 | 116 7/8 | 116 7/8 |
| Curb Width CW | 67 | 81 | 81 |
| Supply Length SL ^(a) | 28 1/2 | 28 9/16 | 28 9/16 |
| Supply Width SW ^(a) | 55 1/2 | 69 1/2 | 69 1/2 |
| Return Length RL ^(a) | 20 7/8 | 22 1/4 | 22 1/4 |
| Return Width RW ^(a) | 63 | 77 | 77 |

(a) Dimensions are for curb openings and not duct inserts.
Reference the product catalog for duct insert dimensions.

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