

MODEL UACU

**AIR-COOLED
CONDENSING UNITS
FOR COMMERCIAL AND
INDUSTRIAL AIR CONDITIONING
CAPACITY FROM 80,000 TO
400,000 BTUH
VERTICAL DISCHARGE**

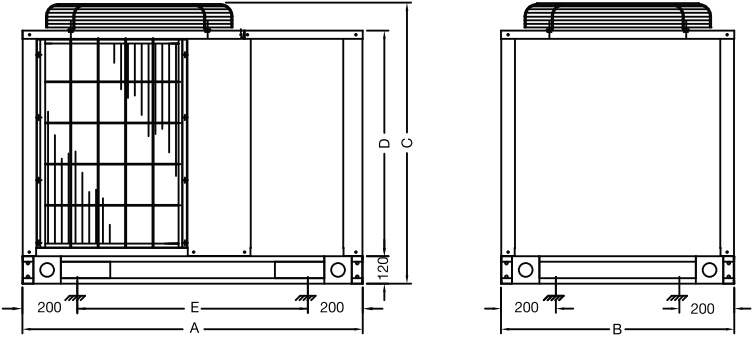


UNI-Aire®

Air Conditioning Experts

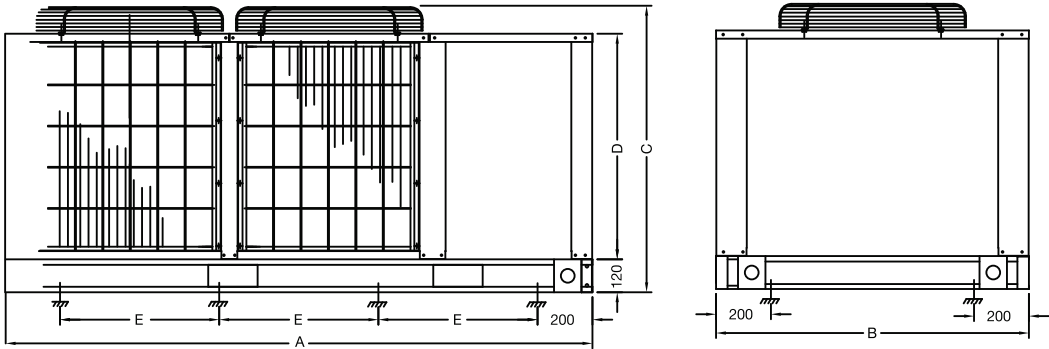
DIMENSIONAL DATA

MODEL UACU 007-012



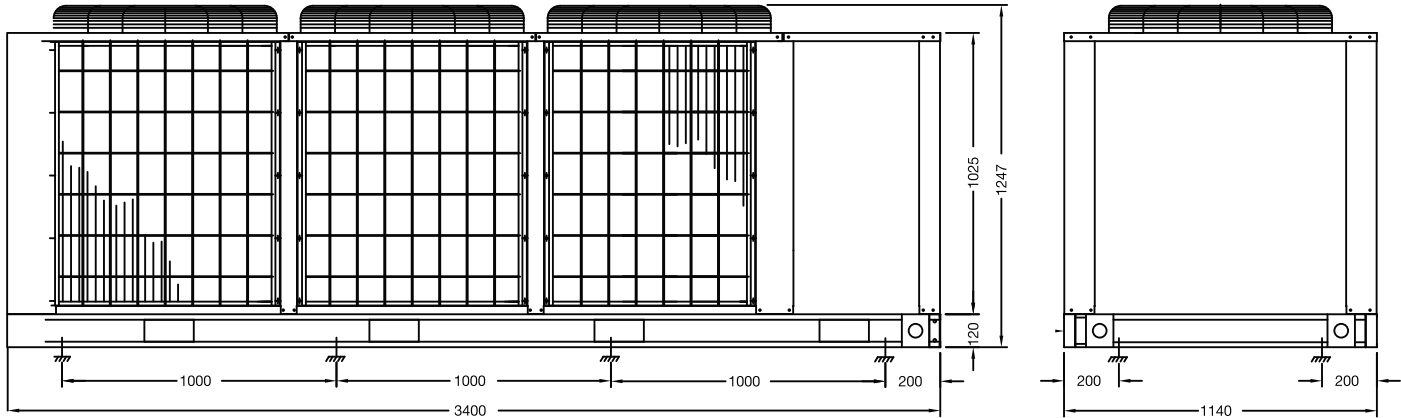
| MODEL | A | B | C | D | E |
|----------|------|------|------|-----|------|
| UACU 007 | 1240 | 850 | 1044 | 822 | 840 |
| UACU 009 | 1240 | 850 | 1044 | 822 | 840 |
| UACU 010 | 1600 | 1140 | 1044 | 822 | 1200 |
| UACU 012 | 1600 | 1140 | 1044 | 822 | 1200 |

MODEL UACU 015-030



| MODEL | A | B | C | D | E |
|----------|------|------|------|------|-----|
| UACU 015 | 2140 | 1140 | 1044 | 822 | 580 |
| UACU 020 | 2140 | 1140 | 1247 | 1025 | 580 |
| UACU 025 | 2500 | 1140 | 1247 | 1025 | 700 |
| UACU 030 | 2500 | 1140 | 1247 | 1025 | 700 |

MODEL UACU 040



PHYSICAL DATA

| MODEL | UACU | 007 (H) | 009 (H) | 010 (H) | 012 (H) | 015 (H) | 020 (H) | 025 (2H) | 030 (2H) | 040 (2H) |
|----------------------------------|------------------------|--|---------|---------|---------|---------|---------|----------|----------|----------|
| NOMINAL CAPACITY ** | MBH. | 80 | 90 | 100 | 120 | 150 | 200 | 250 | 300 | 400 |
| Power Supply | Volt / Phase / Hz | 380 / 3 / 50 | | | | | | | | |
| Power Consumption | Kw | 7.39 | 8.67 | 10.19 | 12.03 | 15.32 | 19.90 | 24.06 | 29.71 | 40.09 |
| COMPRESSOR | Type | Hermetic (Scroll) | | | | | | | | |
| Circuits | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| CONDENSER COIL | Type | Aluminium Louver Fin With Inner Groove Copper Tube | | | | | | | | |
| Face Area | | 14.22 | 14.22 | 24.00 | 24.00 | 32.00 | 41.67 | 47.78 | 47.78 | 67.22 |
| Rows..FPI | | 2..16 | 2..16 | 2..16 | 2..16 | 2..16 | 2..16 | 2..16 | 3..14 | 3..10 |
| Tube Size | (Inch.) | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 |
| CONDENSER FAN & MOTOR | | Propeller Fan : Vertical Discharge : Direct Drive | | | | | | | | |
| Number | | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 |
| Each Motor | (HP.) | 3/4 | 3/4 | 1 | 1 | 3/4 | 3/4 | 1 | 1 | 1 |
| Rpm. | | 900 | | | | | | | | |
| Air Quantity | (cfm) | 7,000 | 8,000 | 10,000 | 10,000 | 14,000 | 14,000 | 20,000 | 20,000 | 30,000 |
| REFRIGERANT | Type | R-22 | | | | | | | | |
| Charge | | Holding Charge | | | | | | | | |
| CONNECTIONS | | | | | | | | | | |
| Suction | (Inch.) | 1-1/8 | 1-1/8 | 1-3/8 | 1-3/8 | 1-5/8 | 1-5/8 | 1-3/8 | 1-5/8 | 1-5/8 |
| Liquid | (Inch.) | 5/8 | 5/8 | 5/8 | 5/8 | 5/8 | 7/8 | 5/8 | 5/8 | 7/8 |
| DIMENSIONAL | | | | | | | | | | |
| Length | (mm.) | 1240 | 1240 | 1600 | 1600 | 2140 | 2140 | 2500 | 2500 | 3405 |
| Width | (mm.) | 850 | 850 | 1140 | 1140 | 1140 | 1140 | 1140 | 1140 | 1140 |
| Hieght | (mm.) | 1044 | 1044 | 1044 | 1044 | 1044 | 1247 | 1247 | 1247 | 1247 |
| WEIGHT | Operation (kgs) | 198 | 215 | 284 | 317 | 405 | 443 | 474 | 528 | 686 |

** Nominal capacity based on 45 ° F suction temp. and 95 ° F Ambient Temp (1 MBH. = 1,000 BTUH.)

Actual capacity is performance within +/- 5% variation form Nominal cooling capacity.

ELECTRICAL DATA

| MODEL | UACU | 007 (H) | 009 (H) | 010 (H) | 012 (H) | 015 (H) | 020 (H) | 025 (2H) | 030 (2H) | 040 (2H) |
|----------------------|--------------------|--------------|---------|---------|---------|---------|---------|----------|----------|----------|
| COMPRESSOR (Each) | Q'ty | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| | V / PH / Hz | 380 / 3 / 50 | | | | | | | | |
| | Power Input (Watt) | 6,542 | 7,821 | 8,957 | 10,800 | 13,622 | 18,200 | 10,800 | 13,622 | 18200 |
| | FLA. (Amp.) | 12.1 | 14.3 | 20.7 | 22.9 | 24.2 | 35.7 | 22.9 | 24.2 | 35.7 |
| | LRA. (Amp.) | 98.0 | 130 | 130 | 145 | 175 | 215 | 145 | 175 | 215 |
| FAN MOTOR (Each) | Q'ty | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 |
| | Power Input (Watt) | 850 | 850 | 1233 | 1233 | 850 | 850 | 1233 | 1233 | 1233 |
| | V / PH / Hz | 380 / 3 / 50 | | | | | | | | |
| | FLA. (Amp.) | 1.2 | 1.2 | 2.3 | 2.3 | 1.2 | 1.2 | 2.3 | 2.3 | 2.3 |

Note:

FLA = Full load Amp.

LRA = Locked Rotor Amp.

Specifications are subjected to change without notice for future improvement.

PHYSICAL DATA

| UNIT AIR COOLED | | TEMP. AIR ENTERING CONDENSER (°F) | | | | | | | | | | | | | | |
|-----------------|---------------|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| MODEL UACU | SST (°F) | 85 | | | 90 | | | 95 | | | 100 | | | 105 | | |
| | | Cap. | SCT | KW | Cap. | SCT | KW | Cap. | SCT | KW | Cap. | SCT | KW | Cap. | SCT | KW |
| 007 | 30 | 63.1 | 109.9 | 5.49 | 61.2 | 114.8 | 5.79 | 59.4 | 119.9 | 6.13 | 57.5 | 124.9 | 6.45 | 47.6 | 132.5 | 7.66 |
| | 35 | 69.7 | 111.8 | 5.61 | 67.9 | 116.8 | 5.93 | 66.0 | 121.8 | 6.25 | 63.8 | 126.7 | 6.60 | 53.0 | 134.0 | 7.80 |
| | 40 | 76.7 | 113.6 | 5.73 | 74.9 | 118.7 | 6.06 | 72.7 | 123.4 | 6.37 | 70.4 | 128.4 | 6.76 | 58.0 | 143.1 | 7.95 |
| | 45 | 84.5 | 115.7 | 5.86 | 82.3 | 120.8 | 6.18 | 80.0 | 125.5 | 6.49 | 77.5 | 130.4 | 6.89 | 64.5 | 145.1 | 8.09 |
| | 50 | 92.9 | 117.7 | 5.95 | 90.4 | 122.9 | 6.26 | 87.8 | 127.7 | 6.62 | 85.2 | 132.5 | 6.99 | 71.0 | 146.8 | 8.17 |
| 009 | 30 | 74.9 | 118.1 | 6.71 | 69.0 | 117.1 | 6.77 | 69.9 | 122.1 | 7.16 | 59.6 | 127.2 | 7.60 | 58.5 | 142.0 | 8.99 |
| | 35 | 83.0 | 120.6 | 6.90 | 76.7 | 119.5 | 6.93 | 74.2 | 124.1 | 7.29 | 66.1 | 129.3 | 7.75 | 64.8 | 144.0 | 9.14 |
| | 40 | 91.1 | 122.7 | 7.03 | 84.4 | 121.3 | 7.03 | 81.9 | 126.1 | 7.40 | 72.9 | 131.1 | 7.87 | 71.4 | 145.9 | 9.26 |
| | 45 | 100.3 | 125.1 | 7.17 | 92.8 | 123.7 | 7.16 | 90.0 | 128.3 | 7.55 | 80.3 | 133.3 | 8.02 | 78.8 | 147.7 | 9.40 |
| | 50 | 109.9 | 127.4 | 7.33 | 101.5 | 125.8 | 7.32 | 98.4 | 130.6 | 7.76 | 88.0 | 135.5 | 8.24 | 86.5 | 149.6 | 9.56 |
| 010 | 30 | 88.2 | 111.6 | 7.08 | 76.8 | 105.0 | 6.77 | 74.5 | 109.9 | 7.18 | 71.2 | 114.6 | 7.61 | 65.6 | 128.7 | 9.12 |
| | 35 | 97.4 | 113.2 | 7.20 | 84.8 | 106.6 | 6.89 | 82.8 | 111.3 | 7.31 | 80.5 | 116.0 | 7.74 | 72.5 | 130.0 | 9.24 |
| | 40 | 107.0 | 115.0 | 7.35 | 94.0 | 108.0 | 7.02 | 91.1 | 112.7 | 7.44 | 88.4 | 117.4 | 7.86 | 80.2 | 131.4 | 9.34 |
| | 45 | 117.3 | 116.5 | 7.50 | 104.3 | 109.2 | 7.14 | 100.0 | 114.2 | 7.57 | 97.4 | 118.9 | 7.99 | 88.4 | 132.6 | 9.44 |
| | 50 | 128.4 | 118.3 | 7.62 | 114.3 | 111.1 | 7.27 | 109.6 | 115.8 | 7.66 | 106.7 | 120.4 | 8.11 | 97.1 | 134.2 | 9.59 |
| 012 | 30 | 105.0 | 116.3 | 8.94 | 93.6 | 111.1 | 8.67 | 90.9 | 116.0 | 9.18 | 88.2 | 121.0 | 9.69 | 69.8 | 133.0 | 10.27 |
| | 35 | 115.9 | 118.3 | 9.17 | 103.1 | 112.9 | 8.88 | 100.4 | 117.8 | 9.37 | 97.7 | 122.8 | 9.94 | 90.5 | 135.2 | 11.52 |
| | 40 | 127.4 | 120.2 | 9.39 | 113.3 | 114.7 | 9.09 | 110.3 | 119.4 | 9.55 | 107.6 | 124.4 | 10.24 | 100.4 | 137.8 | 12.30 |
| | 45 | 139.7 | 122.2 | 9.62 | 124.2 | 116.7 | 9.29 | 120.9 | 121.3 | 9.78 | 117.1 | 126.0 | 10.33 | 104.8 | 139.2 | 12.87 |
| | 50 | 152.7 | 124.1 | 9.85 | 136.2 | 118.7 | 9.52 | 132.4 | 123.3 | 9.98 | 127.7 | 127.8 | 10.39 | 120.8 | 141.3 | 13.17 |
| 015 | 30 | 120.7 | 112.6 | 11.10 | 117.6 | 117.6 | 11.73 | 114.4 | 122.5 | 12.35 | 109.9 | 127.3 | 12.78 | 93.8 | 140.6 | 13.65 |
| | 35 | 132.6 | 114.6 | 11.38 | 129.1 | 129.1 | 12.00 | 125.2 | 124.4 | 12.63 | 122.8 | 129.7 | 13.70 | 115.5 | 145.7 | 16.02 |
| | 40 | 144.4 | 116.6 | 11.68 | 139.5 | 139.0 | 12.29 | 137.1 | 126.4 | 12.99 | 133.6 | 131.4 | 13.58 | 122.8 | 146.5 | 16.53 |
| | 45 | 159.1 | 118.5 | 11.96 | 154.2 | 154.2 | 12.60 | 150.0 | 128.4 | 13.12 | 144.4 | 132.8 | 13.85 | 127.4 | 147.6 | 17.22 |
| | 50 | 176.9 | 121.2 | 12.34 | 173.0 | 173.0 | 13.00 | 173.0 | 130.8 | 13.70 | 161.2 | 135.4 | 14.42 | 143.2 | 149.1 | 17.49 |
| 020 | 30 | 167.8 | 112.8 | 17.24 | 162.9 | 117.3 | 18.01 | 155.4 | 121.3 | 18.39 | 148.3 | 16.3 | 18.77 | 144.9 | 137.3 | 19.92 |
| | 35 | 183.5 | 115.0 | 17.82 | 179.5 | 119.9 | 19.34 | 176.0 | 124.9 | 19.58 | 172.7 | 17.9 | 20.61 | 161.9 | 144.3 | 21.11 |
| | 40 | 200.5 | 117.0 | 18.31 | 195.2 | 121.6 | 19.47 | 190.0 | 126.3 | 20.01 | 184.3 | 18.4 | 21.12 | 168.6 | 146.4 | 23.08 |
| | 45 | 217.0 | 119.3 | 18.82 | 209.5 | 123.5 | 19.41 | 200.9 | 128.5 | 20.64 | 194.4 | 19.3 | 22.13 | 171.9 | 147.6 | 23.92 |
| | 50 | 235.7 | 122.3 | 19.84 | 229.4 | 126.6 | 20.83 | 222.6 | 131.1 | 21.71 | 215.8 | 19.8 | 22.79 | 195.9 | 149.1 | 24.79 |
| 025 | 30 | 186.3 | 114.2 | 16.25 | 180.3 | 119.2 | 17.14 | 173.9 | 124.5 | 18.18 | 166.8 | 129.4 | 19.32 | 141.7 | 156.9 | 21.96 |
| | 35 | 212.9 | 117.3 | 16.47 | 206.5 | 122.3 | 17.37 | 200.1 | 127.1 | 18.44 | 194.1 | 132.3 | 19.56 | 175.8 | 180.6 | 22.55 |
| | 40 | 239.1 | 120.0 | 16.70 | 232.0 | 124.8 | 17.60 | 224.9 | 130.0 | 18.69 | 217.4 | 134.8 | 19.80 | 195.3 | 203 | 23.30 |
| | 45 | 267.2 | 122.8 | 16.97 | 259.7 | 127.5 | 17.90 | 250.0 | 132.0 | 18.99 | 240.2 | 136.7 | 20.09 | 211.0 | 225.6 | 24.24 |
| | 50 | 297.6 | 126.0 | 17.20 | 287.8 | 130.5 | 18.19 | 277.7 | 135.0 | 19.29 | 267.2 | 139.4 | 20.39 | 236.1 | 250.6 | 25.22 |
| 030 | 30 | 333.4 | 113.0 | 22.37 | 334.0 | 117.8 | 23.55 | 327.8 | 113.8 | 24.27 | 311.9 | 144.1 | 25.33 | 164.8 | 138.5 | 26.73 |
| | 35 | 264.9 | 115.2 | 22.98 | 257.7 | 121.1 | 24.24 | 250.8 | 125.0 | 24.84 | 245.0 | 161.5 | 26.36 | 226.4 | 145.4 | 27.55 |
| | 40 | 290.0 | 117.4 | 23.63 | 282.1 | 122.5 | 24.88 | 275.9 | 127.4 | 25.68 | 269.7 | 174.6 | 27.04 | 251.5 | 147.4 | 29.19 |
| | 45 | 320.0 | 119.8 | 24.90 | 310.7 | 124.8 | 25.53 | 300.0 | 129.0 | 26.54 | 289.0 | 184.7 | 27.65 | 256.7 | 146.8 | 29.49 |
| | 50 | 356.8 | 123.0 | 25.17 | 343.0 | 127.4 | 26.17 | 329.3 | 131.9 | 27.40 | 316.2 | 199.1 | 28.49 | 275.9 | 148.6 | 30.85 |
| 040 | 30 | 326.2 | 115.1 | 30.37 | 317.2 | 125.8 | 31.79 | 304.1 | 124.4 | 33.08 | 282.4 | 128.4 | 33.69 | 275.9 | 143.3 | 35.47 |
| | 35 | 360.0 | 117.6 | 31.37 | 350.0 | 128.5 | 32.92 | 341.4 | 127.4 | 35.13 | 333.1 | 132.6 | 35.57 | 308.0 | 154.7 | 37.73 |
| | 40 | 394.7 | 119.7 | 32.32 | 384.4 | 130.7 | 34.15 | 375.8 | 129.5 | 36.63 | 367.1 | 134.8 | 37.44 | 341.4 | 148.1 | 39.79 |
| | 45 | 432.6 | 122.4 | 33.46 | 418.5 | 133.0 | 34.87 | 400.9 | 131.3 | 37.52 | 389.6 | 135.7 | 39.21 | 346.5 | 149.0 | 41.60 |
| | 50 | 471.6 | 124.2 | 34.58 | 455.3 | 135.5 | 35.80 | 438.9 | 134.2 | 38.61 | 423.9 | 130.1 | 39.66 | 375.8 | 151.3 | 44.81 |

SST = Saturated suction Temp.
 Cap = Capacity MBH. (1 MBH = 1,000 Btu/h)
 SCT = Saturated Condensing Temp.
 KW = Compressor Motor Power Input at Rated Voltage

Notes :

1. Assume 15 °F Subcooling when selecting TXV.
2. Interpolation is permissible. Do not extrapolate.

Specifications are subjected to change without notice for future improvement.

UNI-Aire®
 Air Conditioning Experts



UNIAIRE CORPORATION CO., LTD.

69 Moo 3 Kingkaew Rd., Bangplee, Samutprakarn 10540 THAILAND Tel. +662-312-4500 Fax. +662-312-4277

http://www.uni-aire.com E-mail: export@uni-aire.com, localsale@uni-aire.com