

KWF Series

Low Velocity Unit Cooler

Electric Defrost

Model KWF low air velocity unit coolers are ideally suited for products requiring storage temperatures ranging from +28°F to +34°F. They are particularly suited for meat, ice, fruit and vegetable storage or any other product requiring relatively high humidity conditions.

It has been known that two major factors—temperature and humidity—govern the preservation of food, especially meat. The best storage temperature for fresh meat is 30°F with a high relative humidity. Where a 30°F temperature is maintained and humidity is kept at 85 to 90% an ideal condition exists. The meat itself is just above the freezing point, making it firm for more uniform cuts, better sales appeal and less trim waste. High relative humidity with 30° temperature prevents costly loss through shrinkage.

The positive rapid electric defrost of the KWF maintains a clean coil which results in minimum room temperature fluctuation.

Features:

- There are nine models available, ranging in capacity from 5,000 to 34,000 Btuh @ 10° TD
- Rust free heavy gauge embossed Aluminum housing is standard.
- Seamless enhanced Copper tubes are staggered and mechanically expanded into corrugated aluminum fins assuring maximum heat transfer.
- Optional Copper fins are available.
- Available in 208/230V and 460V single phase.
- Fan motors and blades can be easily accessed by lowering the hinged drain pan.
- Standard motors are permanently lubricated with thermal overload protection.
- High efficiency EC motors are standard, PSC or shaded pole motors are optionally available.
- Electric defrost models are designed for use in room temperatures down to 28°F.



Nomenclature:

| | | | | | | | | | | | | |
|----------|-----------|------------|------------|----------|-----------|------------|-------------|-----------|----------|-----------|------------|-------------|
| K | W | F | 130 | D | E | 3 | B | 1 | 1 | E | 1 | A |
| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII |

- | | |
|---|---|
| <p>I. Brand Name K – Kramer</p> <p>II. Unit type W – Walk In Unit Cooler</p> <p>III. Series F – Low Air Velocity</p> <p>IV. Capacity or Degree of Capacity – 050, 075, 100, 130, 160, 190, 220, 270, 340</p> <p>V. Voltage Code A – 115/1/60 D – 208-230/1/60 F – 460/1/60 L – 100/1/50 M – 200-220/1/50 P – 380/1/50 X – Other</p> <p>VI. Motor/Fan Type E – (EC) Electronically Commutated P – (PSC) Permanent Split Capacitor S – (SP) Shaded Pole X – Other</p> <p>VII. Length in Fans 1, 2, 3, 4, 5, 6</p> <p>VIII. Coil Density B – 6 fpi X – Other</p> | <p>IX. Coil Material and Coating Options 1 – Aluminum fins (Al) 2 – Copper fins (Cu) X – Other NOTE: Coil coatings are not available for electric defrost models</p> <p>X. Housing Material Coatings 1 – Aluminum, Embossed 2 – Galvanized 3 – White Painted 6 – Stainless Steel 304 X – Other</p> <p>XI. Unit Design Configuration A – Air Defrost E – Electric Defrost G – Hot Gas Reverse Cycle Defrost with drain pan loop H – Hot Gas Re-Evaporative Defrost with drain pan loop K – Hot Gas Reverse Cycle Defrost with 115V heater L – Hot Gas Reverse Cycle Defrost with 208/230V heater X – Other</p> <p>XII. Not Currently Used 1 – Standard</p> <p>XIII. Revision Code – Single Alphanumeric Character A – Current Revision</p> |
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KWF Low Velocity Unit Cooler

Performance Data

60 Hz Capacity Data

| Model | Fan Data | | | Capacity | | | | | | | | Charge (Lbs) 404A | Suction Conn. OD (inches) | Unit Weight (lbs.) |
|--------|----------|-------|--------------------|----------|----------|---------|----------|------------------------------|----------|------------------------------------|----------|-------------------|---------------------------|--------------------|
| | No | CFM | m ³ /hr | 10°F TD | 5.6°C TD | 15°F TD | 8.3°C TD | 50-55°F DB 55% RH, 20° TD | | 10.0-12.8°C DB 55% RH, 11.1° TD | | | | |
| | | | | | | | | Total | Sensible | Total | Sensible | | | |
| | | | | Btuh | Watts | Btuh | Watts | Btuh | Btuh | Watts | Watts | | | |
| KWF050 | 1 | 580 | 990 | 5,000 | 1,470 | 7,500 | 2,200 | 10,000 | 9,200 | 2,930 | 2,690 | 1.2 | 1 1/8 | 50 |
| KWF075 | 2 | 850 | 1,440 | 7,500 | 2,200 | 11,250 | 3,300 | 15,000 | 13,800 | 4,390 | 4,040 | 2.3 | 1 1/8 | 75 |
| KWF100 | 2 | 1,110 | 1,890 | 10,000 | 2,930 | 15,000 | 4,390 | 20,000 | 18,400 | 5,860 | 5,390 | 2.5 | 1 1/8 | 75 |
| KWF130 | 3 | 1,750 | 2,970 | 13,000 | 3,810 | 19,500 | 5,710 | 26,000 | 23,920 | 7,610 | 7,000 | 3.4 | 1 1/8 | 100 |
| KWF160 | 3 | 1,720 | 2,922 | 16,000 | 4,690 | 24,000 | 7,030 | 32,000 | 29,440 | 9,370 | 8,620 | 4.6 | 1 1/8 | 110 |
| KWF190 | 4 | 2,330 | 3,960 | 19,000 | 5,560 | 28,500 | 8,350 | 38,000 | 34,960 | 11,130 | 10,240 | 4.6 | 1 1/8 | 120 |
| KWF220 | 4 | 2,290 | 3,890 | 22,000 | 6,440 | 33,000 | 9,660 | 44,000 | 40,480 | 12,880 | 11,850 | 6.1 | 1 1/8 | 130 |
| KWF270 | 5 | 2,840 | 4,830 | 27,000 | 7,910 | 40,500 | 11,860 | 54,000 | 49,680 | 15,810 | 15,810 | 7.0 | 1 1/8 | 150 |
| KWF340 | 6 | 3,430 | 5,830 | 34,000 | 9,960 | 51,000 | 14,930 | 68,000 | 62,560 | 19,910 | 18,320 | 9.0 | 1 1/8 | 180 |

50 Hz Capacity Data*

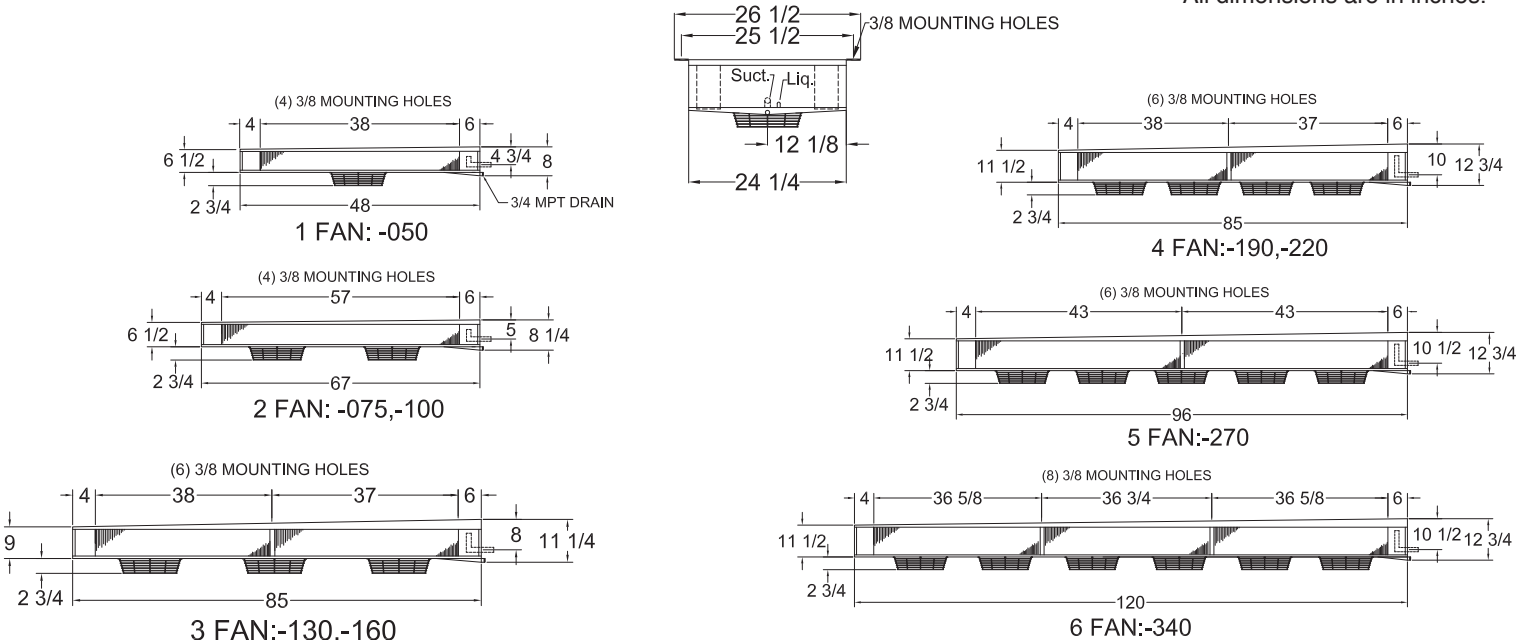
| Model | Fan Data | | | Capacity | | | | | | | | Charge (Lbs) 404A | Suction Conn. OD (inches) | Unit Weight (lbs.) |
|--------|----------|-------|--------------------|----------|----------|---------|----------|------------------------------|----------|------------------------------------|----------|-------------------|---------------------------|--------------------|
| | No | CFM | m ³ /hr | 10°F TD | 5.6°C TD | 15°F TD | 8.3°C TD | 50-55°F DB 55% RH, 20° TD | | 10.0-12.8°C DB 55% RH, 11.1° TD | | | | |
| | | | | | | | | Total | Sensible | Total | Sensible | | | |
| | | | | Btuh | Watts | Btuh | Watts | Btuh | Btuh | Watts | Watts | | | |
| KWF050 | 1 | 480 | 820 | 4,600 | 1,350 | 6,900 | 2,000 | 9,200 | 8,460 | 2,700 | 2,480 | 1.2 | 1 1/8 | 50 |
| KWF075 | 2 | 710 | 1,200 | 6,900 | 2,020 | 10,350 | 3,040 | 13,800 | 12,700 | 4,040 | 3,720 | 2.3 | 1 1/8 | 75 |
| KWF100 | 2 | 920 | 1,570 | 9,200 | 2,700 | 13,800 | 4,040 | 18,400 | 16,930 | 5,390 | 4,960 | 2.5 | 1 1/8 | 75 |
| KWF130 | 3 | 1,460 | 2,470 | 12,000 | 3,510 | 17,900 | 5,250 | 23,900 | 22,010 | 7,000 | 6,440 | 3.4 | 1 1/8 | 100 |
| KWF160 | 3 | 1,430 | 2,430 | 14,700 | 4,320 | 22,100 | 6,470 | 29,400 | 27,090 | 8,620 | 7,930 | 4.6 | 1 1/8 | 110 |
| KWF190 | 4 | 1,930 | 3,290 | 17,000 | 5,120 | 26,200 | 7,680 | 35,000 | 32,160 | 10,240 | 9,420 | 4.6 | 1 1/8 | 120 |
| KWF220 | 4 | 1,900 | 3,230 | 20,000 | 5,930 | 30,400 | 8,890 | 40,500 | 37,240 | 11,850 | 10,900 | 6.1 | 1 1/8 | 130 |
| KWF270 | 5 | 2,360 | 4,010 | 25,000 | 7,280 | 37,300 | 10,910 | 49,700 | 45,710 | 14,550 | 14,550 | 7.0 | 1 1/8 | 150 |
| KWF340 | 6 | 2,850 | 4,840 | 31,000 | 9,160 | 46,900 | 13,740 | 62,600 | 57,560 | 18,320 | 16,850 | 9.0 | 1 1/8 | 180 |

*Use 60 Hz capacity and airflow values for units with EC motors

Dimensional Data

End View

*All dimensions are in inches.



Other Connections

| | | | |
|------------------|-----------------|----------------|------------------------|
| Liquid - 1/2" OD | Hot Gas 1/2" OD | Drain 3/4" MPT | Ext. Equalizer 1/4" OD |
|------------------|-----------------|----------------|------------------------|

Electrical Data

| Models 60HZ | Number of Fans | EC Motors | | PSC Motors | | | | SP Motors | |
|----------------|-------------------|--------------|-------|--------------|-------|----------|-------|--------------|-------|
| | | 208-230/1/60 | | 208-230/1/60 | | 460/1/60 | | 208-230/1/60 | |
| | | Amps | Watts | Amps | Watts | Amps | Watts | Amps | Watts |
| KWF050 | 1 | 0.3 | 35 | 0.3 | 50 | 0.2 | 50 | 0.5 | 75 |
| KWF075 | 2 | 0.6 | 70 | 0.6 | 100 | 0.3 | 100 | 1.0 | 150 |
| KWF100 | 2 | 0.6 | 70 | 0.6 | 100 | 0.3 | 100 | 1.0 | 150 |
| KWF130 | 3 | 0.9 | 105 | 0.9 | 150 | 0.5 | 150 | 1.5 | 225 |
| KWF160 | 3 | 0.9 | 105 | 0.9 | 150 | 0.5 | 150 | 1.5 | 225 |
| KWF190 | 4 | 1.2 | 140 | 1.2 | 200 | 0.6 | 200 | 2.0 | 300 |
| KWF220 | 4 | 1.2 | 140 | 1.2 | 200 | 0.6 | 200 | 2.0 | 300 |
| KWF270 | 5 | 1.5 | 175 | 1.5 | 250 | 0.8 | 250 | 2.5 | 375 |
| KWF340 | 6 | 1.8 | 210 | 1.8 | 300 | 0.9 | 300 | 3.0 | 375 |

| Models 50HZ | Number of Fans | EC Motors | | PSC Motors | | | | SP Motors | |
|----------------|-------------------|--------------|-------|--------------|-------|----------|-------|--------------|-------|
| | | 200-220/1/50 | | 200-220/1/50 | | 380/1/50 | | 200-220/1/50 | |
| | | Amps | Watts | Amps | Watts | Amps | Watts | Amps | Watts |
| KWF050 | 1 | 0.3 | 35 | 0.3 | 45 | 0.2 | 45 | 0.5 | 70 |
| KWF075 | 2 | 0.6 | 70 | 0.5 | 90 | 0.3 | 90 | 0.9 | 135 |
| KWF100 | 2 | 0.6 | 70 | 0.5 | 90 | 0.3 | 90 | 0.9 | 135 |
| KWF130 | 3 | 0.9 | 105 | 0.8 | 135 | 0.5 | 135 | 1.4 | 205 |
| KWF160 | 3 | 0.9 | 105 | 0.8 | 135 | 0.5 | 135 | 1.4 | 205 |
| KWF190 | 4 | 1.2 | 140 | 1.1 | 180 | 0.5 | 180 | 1.8 | 270 |
| KWF220 | 4 | 1.2 | 140 | 1.1 | 180 | 0.5 | 180 | 1.8 | 270 |
| KWF270 | 5 | 1.5 | 175 | 1.4 | 225 | 0.7 | 225 | 2.3 | 340 |
| KWF340 | 6 | 1.8 | 210 | 1.6 | 270 | 0.8 | 270 | 2.7 | 340 |

| Models | Defrost Heaters | | | | | | | |
|--------|-----------------|-------|----------|-------|----------|-------|----------|-------|
| | 230/1/60 | | 460/1/60 | | 220/1/50 | | 380/1/50 | |
| | Amps | Watts | Amps | Watts | Amps | Watts | Amps | Watts |
| KWF050 | 4.3 | 1,000 | 2.2 | 1,000 | 4.2 | 915 | 1.8 | 680 |
| KWF075 | 4.3 | 1,000 | 2.2 | 1,000 | 4.2 | 915 | 1.8 | 680 |
| KWF100 | 4.3 | 1,000 | 2.2 | 1,000 | 4.2 | 915 | 1.8 | 680 |
| KWF130 | 10.4 | 2,400 | 5.2 | 2,400 | 10.0 | 2,200 | 4.3 | 1,640 |
| KWF160 | 10.4 | 2,400 | 5.2 | 2,400 | 10.0 | 2,200 | 4.3 | 1,640 |
| KWF190 | 10.4 | 2,400 | 5.2 | 2,400 | 10.0 | 2,200 | 4.3 | 1,640 |
| KWF220 | 10.4 | 2,400 | 5.2 | 2,400 | 10.0 | 2,200 | 4.3 | 1,640 |
| KWF270 | 17.4 | 4,000 | 8.7 | 4,000 | 16.6 | 3,660 | 6.5 | 2,460 |
| KWF340 | 21.7 | 5,000 | 10.9 | 5,000 | 20.8 | 4,570 | 8.1 | 3,070 |

Due to ongoing product development, specifications are subject to change without notice.