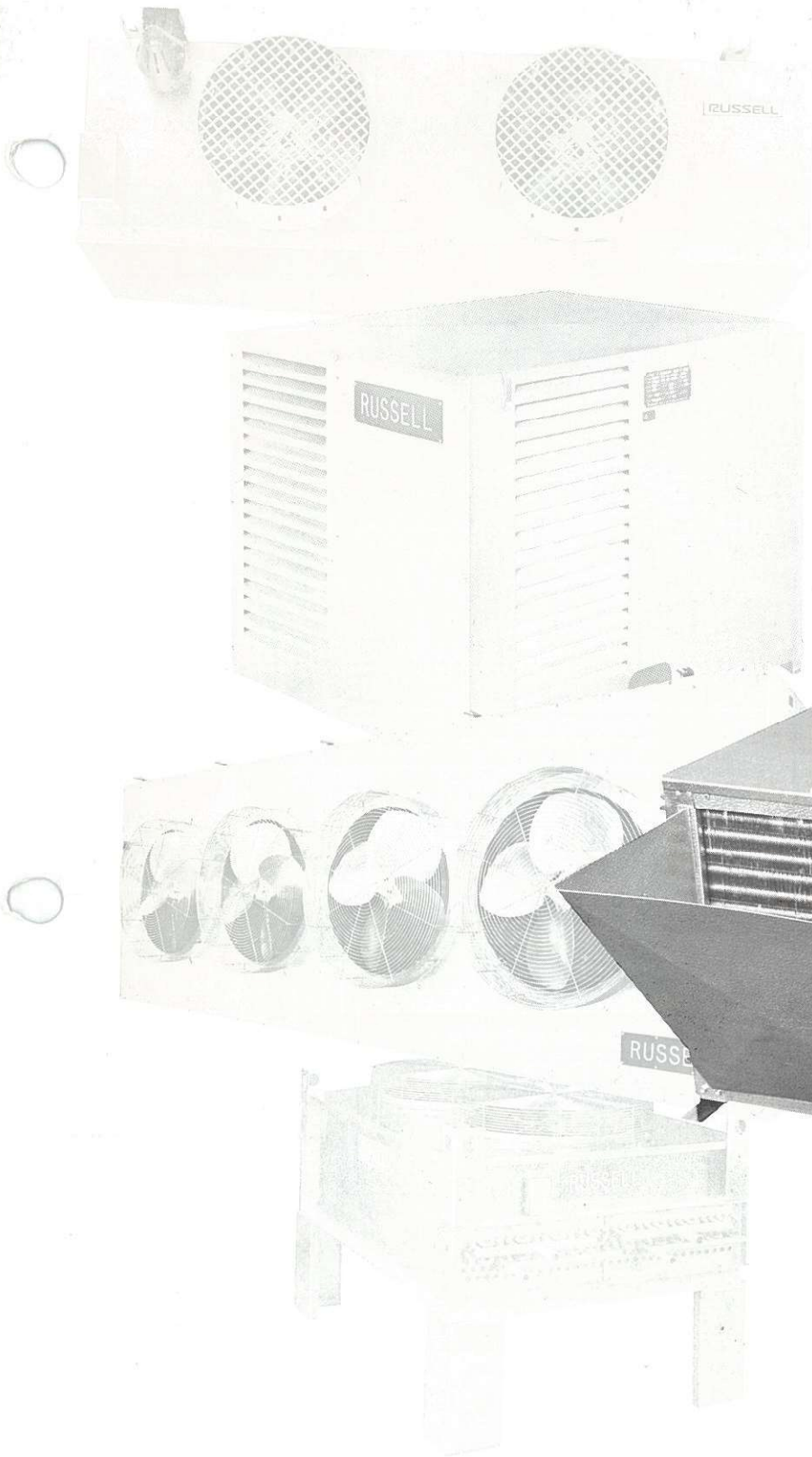


TECHNICAL BULLETIN  
MAY-1984

**RM**

**RussMetic**

**CONDENSING UNITS**



**Russell**  
Russell Coil Company

# RussMetic

## CONDENSING UNITS

# RM



### Russell RussMetic

RussMetic Condensing Units answer applications for full temperature range capabilities in small unit areas. The compact model enables its use with a variety of unit coolers for increased efficiencies. The complete line is designed for safe operation and is listed by Underwriters' Laboratory.

#### RANGE OF CAPACITIES

1 h.p. and 1-1/2 h.p. R-12, 2 h.p. R-502, Low Temp  
1 h.p. and 2 h.p. R-12 Medium Temp  
1 h.p. to 1-1/2 h.p. R-12, High Temp

#### COMPRESSOR

Sealed Hermetic, internal overload, internally isolated for vibration absorption.

#### FAN

Direct drive, low-tip speed for quiet operation.

#### HEAD PRESSURE CONTROL

A standard feature is a pressure-operated fan cycling switch that maintains head pressure when condensing unit is exposed to temperatures as low as -20°F. Includes inlet hood.

#### REFRIGERANT LINES

Included in each unit is a suction filter, liquid-line filter-drier, liquid indicator visible outside casing, solenoid valve, liquid receiver, shut-off valves to isolate the liquid-line drier. Gauge connections are provided with Shrader valves external to unit casing.

#### ELECTRICAL

Either 230 volt, single phase; or 230 volt, three phase, power (except C11) with fused safety switch to disconnect power. High pressure and low pressure cut-out switches are used to protect against unusual high or low pressures. 230 volt, 3 phase standard on all models except C11 (C11 available single phase only). Single phase available on all other models on special order.

#### ALL-WEATHER HOUSING

Light weight, rust-resistant aluminum casing is used to protect against the elements. The casing is readily removable for access to all parts.

#### ACCUMULATOR

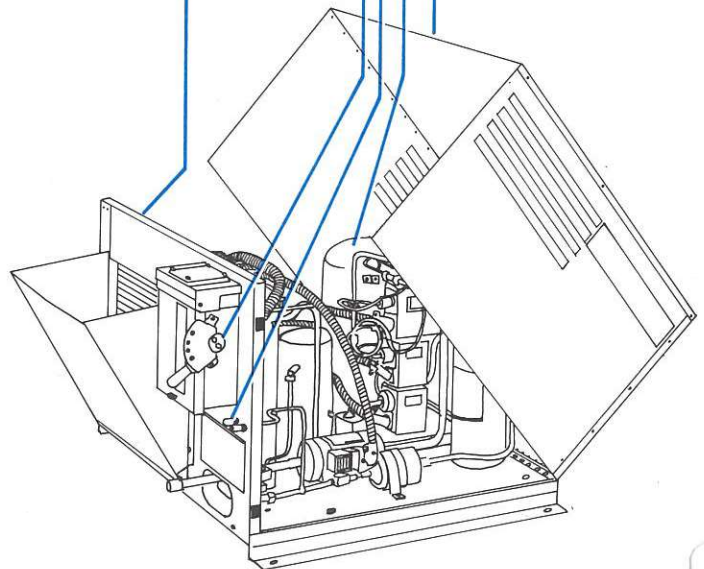
The suction-line accumulator protects the compressor against liquid slugging.

#### TIMER

The timer is standard on low-temp models only and is a Paragon 8145-20 or equal. Clearly marked electrical leads are provided in the fused safety switch for connection to external circuit.

serves as a  
compact condensing unit  
for full temperature  
range applications.

- HINGED COVER PROVIDES EASY ACCESS FOR INSTALLATION AND SERVICING
- HERMETICALLY SEALED COMPRESSOR; ALL PIPING, AND ALL REFRIGERANT LINES
- EXTERNAL CHARGING PORT FITTINGS
- UP-FRONT FUSED DISCONNECT SWITCH FOR SAFETY AND CONVENIENCE
- COMPACT SIZE FITS TIGHT AREAS:  
25 1/2" D X 20" H  
X 28 1/4" W



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# Russell

**SPECIFICATIONS / RussMetic**  
Subject to change without notice.

**MODEL RANGES**

|                    | Compr   | HP  | Refrig. | Rec. Cap. | Weight | Electrical   |      |              |      | CONNECTIONS  |              |
|--------------------|---------|-----|---------|-----------|--------|--------------|------|--------------|------|--------------|--------------|
|                    |         |     |         |           |        | 208/230/1/60 |      | 208/230/3/60 |      | Liquid Flare | Suction O.D. |
|                    |         |     |         |           |        | Amp.         | LRA  | Amp.         | LRA  |              |              |
| <b>HIGH TEMP</b>   |         |     |         |           |        |              |      |              |      |              |              |
| C11                | AJ4512A | 1   | R-12    | 6.0       | 160    | 7.0          | 41.0 | ---          | ---  | 3/8          | 5/8          |
| C1.51              | AH4518A | 1.5 | R-12    | 8.8       | 192    | 10.0         | 45.0 | 6.3          | 34.0 | 3/8          | 7/8          |
| <b>MEDIUM TEMP</b> |         |     |         |           |        |              |      |              |      |              |              |
| B11                | AH7480A | 1   | R-12    | 6.0       | 168    | 6.5          | 41.0 | 5.3          | 34.0 | 3/8          | 5/8          |
| B1.51              | AH7511A | 1.5 | R-12    | 8.8       | 201    | 8.6          | 45.0 | 5.7          | 34.0 | 3/8          | 7/8          |
| B21                | AH7514A | 2   | R-12    | 8.8       | 290    | 10.0         | 60.0 | 7.3          | 49.0 | 3/8          | 7/8          |
| <b>LOW TEMP</b>    |         |     |         |           |        |              |      |              |      |              |              |
| A11                | AH2445A | 1   | R-12    | 6.0       | 203    | 8.2          | 51.0 | 3.8          | 34.0 | 3/8          | 5/8          |
| A1.51              | AH2466A | 1.5 | R-12    | 8.8       | 190    | 9.0          | 71.0 | 5.4          | 47.0 | 3/8          | 7/8          |
| A25                | AH2511K | 2   | R-502   | 7.9       | 191    | 11.4         | 81.0 | 9.7          | 65.0 | 3/8          | 7/8          |

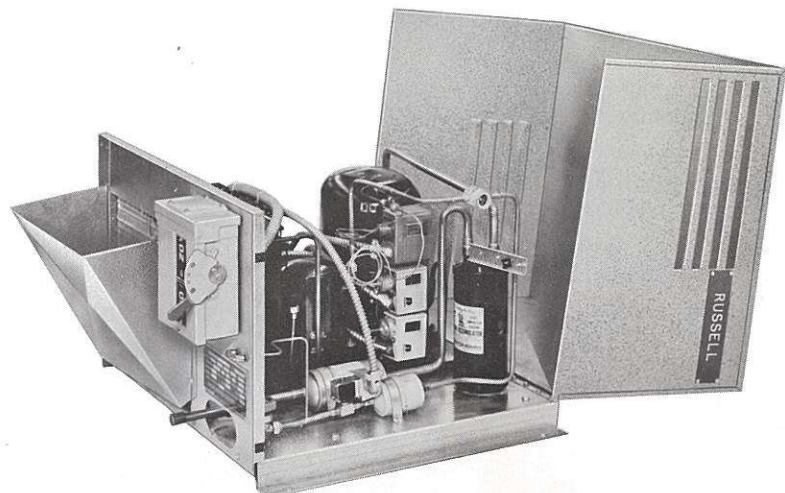
| 90° AMBIENT | Refrig. | Model | Comp. H.P. | Suction Temp |               |               |               |               |
|-------------|---------|-------|------------|--------------|---------------|---------------|---------------|---------------|
|             |         |       |            | 45°          | 30°           | 25°           | 20°           | 0°            |
|             | R-12    | C11   | 1          | 11,700       | 9,000         | 8,200         | 7,400         | ---           |
|             | R-12    | B11   | 1          | ---          | 10,100        | 9,400         | 8,600         | 5,300         |
|             | R-12    | C1.51 | 1-1/2      | 17,400       | 13,600        | 12,250        | 10,900        | ---           |
|             | R-12    | B1.51 | 1-1/2      | ---          | 15,790        | 14,250        | 12,800        | 8,300         |
|             | R-12    | B21   | 2          | ---          | 16,800        | 15,400        | 14,000        | 9,500         |
|             |         |       |            |              |               |               |               |               |
|             | R-12    | A11   | 1          | 6,200        | -10°<br>4,900 | -20°<br>3,750 | -30°<br>2,600 | -40°<br>1,550 |
|             | R-12    | A1.51 | 1-1/2      | 8,800        | 6,900         | 5,200         | 3,600         | 2,200         |
|             | R-502   | A25   | 2          | 13,300       | 10,700        | 8,500         | 6,300         | 4,400         |

| 100° AMBIENT | Refrig. | Model | Comp. H.P. | Suction Temp |               |               |               |               |
|--------------|---------|-------|------------|--------------|---------------|---------------|---------------|---------------|
|              |         |       |            | 45°          | 30°           | 25°           | 20°           | 0°            |
|              | R-12    | C11   | 1          | 11,150       | 8,600         | 7,800         | 7,050         | ---           |
|              | R-12    | B11   | 1          | ---          | 9,550         | 8,850         | 8,100         | 4,800         |
|              | R-12    | C1.51 | 1-1/2      | 16,600       | 13,000        | 11,650        | 10,300        | ---           |
|              | R-12    | B1.51 | 1-1/2      | ---          | 14,600        | 13,100        | 11,750        | 7,300         |
|              | R-12    | B21   | 2          | ---          | 15,600        | 14,200        | 12,800        | 8,400         |
|              |         |       |            |              |               |               |               |               |
|              | R-12    | A11   | 1          | 5,900        | -10°<br>4,650 | -20°<br>3,450 | -30°<br>2,350 | -40°<br>1,300 |
|              | R-12    | A1.51 | 1-1/2      | 8,300        | 6,500         | 4,900         | 3,400         | 2,000         |
|              | R-502   | A25   | 2          | 12,500       | 10,000        | 7,700         | 5,600         | 3,700         |

| 110° AMBIENT | Refrig. | Model | Comp. H.P. | Suction Temp |               |               |               |               |
|--------------|---------|-------|------------|--------------|---------------|---------------|---------------|---------------|
|              |         |       |            | 45°          | 30°           | 25°           | 20°           | 0°            |
|              | R-12    | C11   | 1          | 10,500       | 8,000         | 7,400         | 6,700         | ---           |
|              | R-12    | B11   | 1          | ---          | 9,000         | 8,300         | 7,550         | 4,300         |
|              | R-12    | C1.51 | 1-1/2      | 15,750       | 12,300        | 11,050        | 9,800         | ---           |
|              | R-12    | B1.51 | 1-1/2      | ---          | 13,400        | 11,900        | 10,600        | 6,300         |
|              | R-12    | B21   | 2          | ---          | 14,600        | 13,250        | 11,900        | 7,400         |
|              |         |       |            |              |               |               |               |               |
|              | R-12    | A11   | 1          | 5,600        | -10°<br>4,400 | -20°<br>3,200 | -30°<br>2,100 | -40°<br>1,100 |
|              | R-12    | A1.51 | 1-1/2      | 7,900        | 6,100         | 4,500         | 3,100         | 1,800         |
|              | R-502   | A25   | 2          | 11,600       | 9,100         | 6,900         | 4,800         | 2,900         |

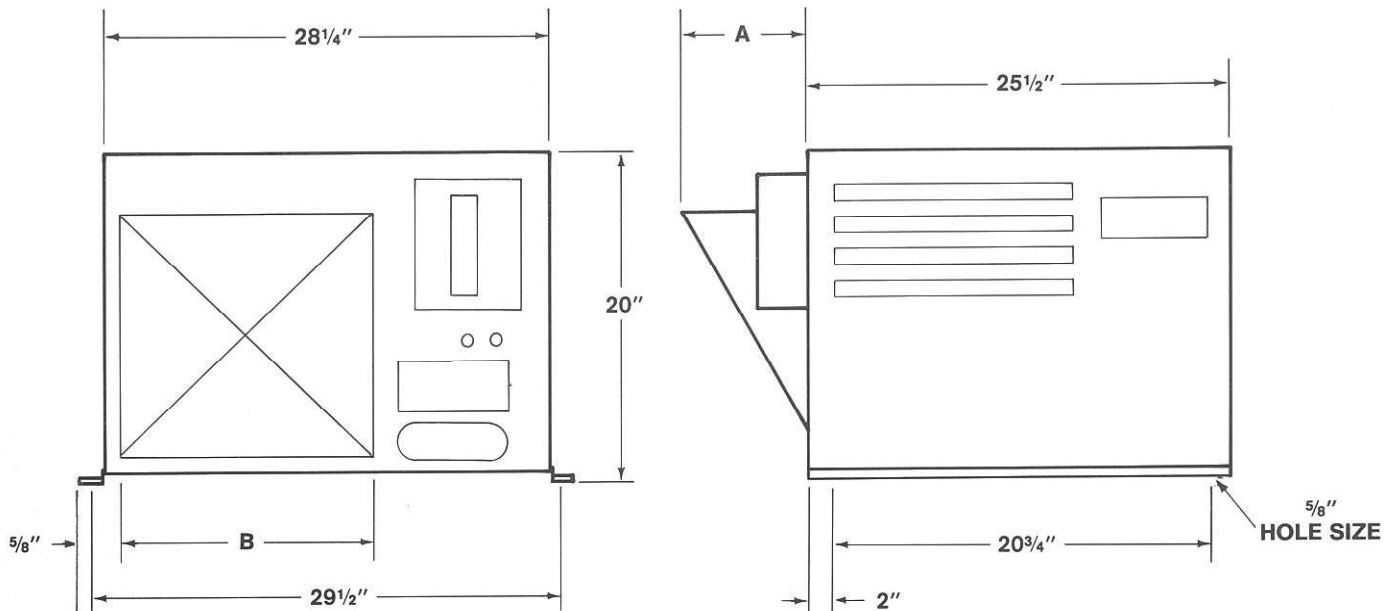
**LINE SIZES**

|       | LIQ.    | SUC.    |
|-------|---------|---------|
| A11   | 3/8" FL | 5/8 ODS |
| A1.51 | 3/8" FL | 7/8 ODS |
| A25   | 3/8" FL | 7/8 ODS |
| B11   | 3/8" FL | 5/8 ODS |
| B1.51 | 3/8" FL | 7/8 ODS |
| B21   | 3/8" FL | 7/8 ODS |
| C11   | 3/8" FL | 5/8 ODS |
| C1.51 | 3/8" FL | 7/8 ODS |



## MECHANICAL SPECIFICATIONS / dimensions shown in inches

| UNIT  | "A"  | "B"  |
|-------|------|------|
|       | SIZE | SIZE |
| A11   | 8"   | 15½" |
| A1.51 | 12"  | 17"  |
| A25   | 12"  | 17"  |
| B11   | 8"   | 15½" |
| B1.51 | 12"  | 17"  |
| B21   | 12"  | 17"  |
| C11   | 8"   | 15½" |
| C1.51 | 12"  | 17"  |



### WARRANTY

Warranty terms are listed under "Terms of Sale." Russell RussMetic Condensing Units are manufactured of the finest materials and under the strictest quality control procedures possible. We believe they are the finest available units of their type. However, installers should provide in their contract price for start-up adjustments and in-warranty service, as we can make no labor or refrigerant allowances for component replacements or repairs.

Compressor replacement, in or out of warranty, shall be handled as follows:

1. Determine that compressor is defective. We will make no allowance for charges on compressors which the compressor manufacturer determines not to be defective.
2. Exchange the defective compressor at an authorized wholesale distributor of the compressor manufacture. This exchange will be handled in accordance with the compressor manufacturer's procedure. We do not make compressor exchanges, however, if an authorized wholesale distributor cannot obtain specified compressor, consult factory.
3. Russell Coil Company warrants to the original Purchaser-User the RussMetic unit to be free from defects in material and workmanship under normal use and service for a period of twelve months from date of shipment.

Additional four year warranty on compressor only can be purchased from the Russell Coil Company. Cost of additional four year warranty varies with size and type of unit. Consult the Russell distributor or factory for price. Specifications subject to change without notice.

# Russell

**Russell Coil Company** a subsidiary of ARDCO, INC.  
 221 South Berry Street / Brea, California 92612  
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