

Hitachi Reciprocating Compressor Catalog



HITACHI
Inspire the Next

Hitachi Compressor (Thailand), Ltd.

General Information

Profile

| | |
|---------------------|--|
| Name | : Hitachi Compressor (Thailand), Ltd. (HCTL) |
| Address | : 1/65 Moo 5, Rojana Industrial Park, Tambol Kanham, Amphur U-Thai, Ayutthaya 13210 Thailand |
| Established | : September 1993, under BOI promotion, with technical license of Hitachi, Ltd. |
| Registered capital | : 440 million Baht |
| Shareholders | : Hitachi Appliances, Inc. 100% |
| Land area | : 36 rai (58,120 m ²) |
| Employee | : 1,100 persons |
| Nature of business | : Production & Sales of Reciprocating type of compressor |
| Production capacity | : 2.5 million pieces per year |
| Certificate | : ISO 9001 certified on 7 August 1998 ISO 14001 certified on 4 November 1999 OHSAS 18001 certified on 27 November 2001 |

Products

Hitachi Hermetic Compressors are products born out of many years of research. All models are acclaimed by customers as not only being highly reliable, but also highly efficient.

For the wide range of applications, there is also a wide range of models including those for low temperature use and high temperature use.

All production processes are under the control of high technology and know-how developed by Hitachi, Ltd. in Tokyo, Japan. All products are CFC-free to help preserve our global environment.

Major Applications

Refrigerator-Freezer, Commercial refrigerator, Showcase, Water cooler, Ice maker.



Environmentally Friendly Products



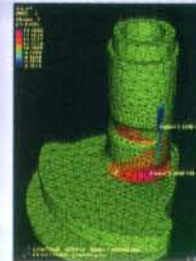
*"To the future in harmony with nature"
Environmental Slogan*

Technology & Innovation

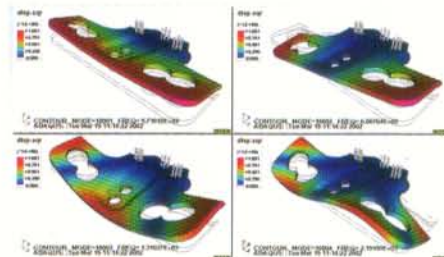
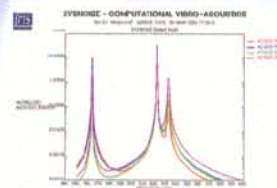
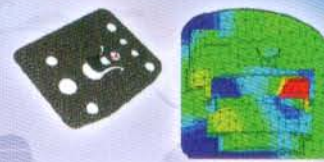
Hitachi Compressor (Thailand), Ltd. (HCTL), a member in Hitachi group, has received kind cooperation from Hitachi Japan. Hitachi Compressor (Thailand), Ltd. (HCTL) is one of the most leading companies manufacturing the Hermetic, non-CFCs compressor.

Our compressors are manufactured using modern technology under the brand name of "HITACHI". As a member of the Hitachi group in Japan, Hitachi Japan is pleased to support research and development and apply its technological base for help design and energy saving products with high efficiency and reliability to the customers satisfaction worldwide.

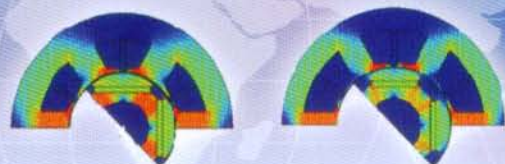
I would like to remind all HCTL staff of "Customer satisfaction" as being the main focus in our business operation and so that we can drive to the status of "Hitachi recognized worldwide" as mentioned in our motif.



Stress Analysis



Noise and Vibration Analysis



Magnetic Field of Motor Analysis



High-Quality Inspection



Quality Product

To be capable of delivering high quality products with optimal service to customers, HCTL strictly follows the guidelines of the ISO 9001 system. In the future, HCTL pledges to cooperate with all staff to maintain ISO 9001 standards of operation. This in turn ensures our capability to manufacture and deliver reliable products for total customer satisfaction.



ISO 9001



ISO 14001



ISO 18001

Product Range

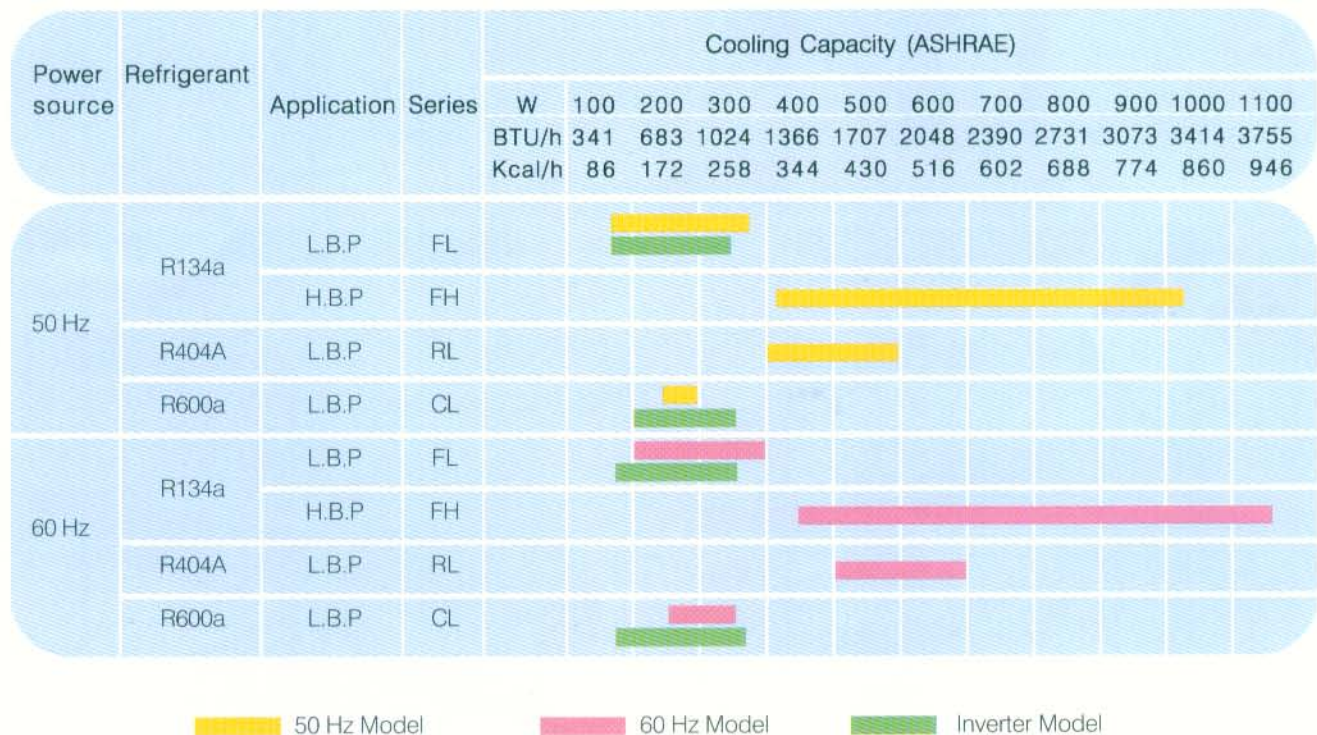
Our Wide Selection Corresponds Fully to Market Needs Series and Cooling Capacity

| Refrigerant | Application | Series | Nominal | Power | Evap. Temp. Range (°C) | Cooling | Capacity (W) |
|-------------|-------------|----------|---------|----------|---------------------------|---------|--------------|
| | | | (W) | (HP) | | 50Hz | 60Hz |
| R134a | L.B.P | F series | 65~200 | 1/12~1/3 | -30~-5 | 78~250 | 90~295 |
| | H.B.P | | 65~250 | 1/12~1/3 | -10~+10 | 320~890 | 360~1000 |
| R404A | L.B.P | R series | 300~450 | 1/2 | -30~-5 | 340~500 | 400~580 |
| R600a | L.B.P | C series | 110~120 | 1/7~1/4 | -30~-5 | 84~280 | |

L.B.P : Low Back Pressure

H.B.P : High Back Pressure

Product Range



Product Using

- Refrigerator/Fridge
- Commercial Refrigerator
- Showcase
- Water Dispenser
- Water Cooler
- Ice Maker
- Ice cream cabinet



Refrigerator



Commercial Refrigerator



Showcase



Water Cooler & Ice Maker



Ice Cream Cabinet

Product Line-up



FL SERIES

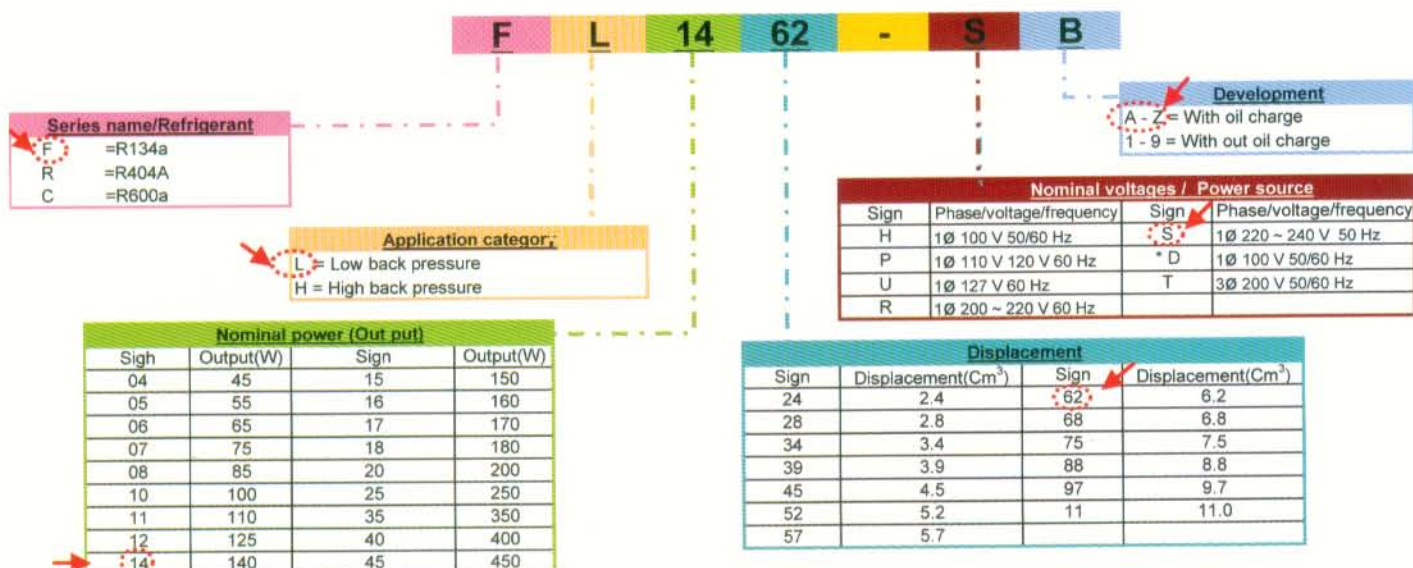


RL SERIES



CL SERIES

Detail of Label



Performance Datasheet

Hitachi Hermetic Compressors

FL Series

STANDARD MODEL

Application & Refrigerant LBP R134a

| Model | Nominal Power | | F | Cooling Capacity | | | D | Cooling | | | O | Wg | Motor Type | Power Source | | | | | Dimension | | | | | | |
|--------|---------------|-----|-----|------------------|-----|--------|------|---------|-----|-----|------|------|----------------------|--------------|-----|-----|----|-----|-----------|-----------|-----------|-----------|---|----------|-----------|
| | HP | W | | Hz | W | Kcal/h | | BTU/h | cm3 | N | | | | Oil | Fan | cm3 | Kg | 1 | | 2 | 3 | 4 | 5 | | |
| | | | | | | | | | | | | | | | | | | H | | P | R | S | T | Type - H | |
| FL0634 | 1/12 | 65 | 50 | 78 | 67 | 266 | 3.42 | • | | | 200 | 6.8 | RSIR RSCR CSIR | • | | | • | | Type1-165 | | | | | | |
| | | | 60 | 90 | 77 | 307 | | | | | | | | • | • | • | | | | | | | | | |
| FL0739 | 1/10 | 75 | 50 | 95 | 82 | 324 | 3.94 | | | | | 270 | | 7.8 | • | | | • | | Type1-179 | | | | | |
| | | | 60 | 108 | 93 | 368 | | | | | | | | | • | • | • | | | | | | | | |
| FL0845 | 1/8 | 85 | 50 | 105 | 90 | 358 | 4.50 | | | | | | | 8.1 | • | | | • | | Type2-180 | | | | | |
| | | | 60 | 118 | 101 | 403 | | | | | | | | | • | • | • | | | | | | | | |
| FL1052 | 1/6 | 100 | 50 | 120 | 103 | 409 | 5.19 | | | | | | | 240 | 8.3 | • | | | • | | Type1-195 | | | | |
| | | | 60 | 140 | 120 | 478 | | | | | | | | | | • | • | • | | | | | | | |
| FL1157 | 110 | 50 | 135 | 116 | 461 | 5.70 | • | | | | | | | | | | | | • | | Type2-200 | | | | |
| | | 60 | 158 | 136 | 539 | | • | | | | | | | | • | • | | | | | | | | | |
| FL1262 | 1/5 | 125 | 50 | 150 | 129 | 512 | 6.23 | | | | | | | | • | | | 320 | 9.5 | • | | | • | | Type3-211 |
| | | | 60 | 170 | 146 | 580 | | | | | | | | | | | | | | • | • | • | | | |
| FL1675 | 160 | 50 | 185 | 159 | 631 | 7.47 | • | • | • | 300 | 10.6 | | • | | | | | | | • | | Type4-216 | | | |
| | | 60 | 210 | 181 | 717 | | • | • | • | | | | | | | | | | | | | | | | |
| FL1888 | 1/4 | 180 | 50 | 215 | 185 | 734 | 8.83 | • | • | • | 300 | 11.1 | • | | | | | | | • | | Type4-216 | | | |
| | | | 60 | 250 | 215 | 853 | | • | • | • | | | | | | | | | | | | | | | |

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| Test Conditions (ASHRAE Condition) | Low back pressure (FL, RL, CL Series) | High back pressure (FH Series) |
|---------------------------------------|--|-----------------------------------|
| Evaporating Temperature | -23.3°C (-10°F) | 7.2°C (45°F) |
| Condensing Temperature | 54.4°C (130°F) | 54.4°C (130°F) |
| Liquid Temperature | 32.2°C (90°F) | 46.1°C (115°F) |
| Return gas Temperature | 32.2°C (90°F) | 35°C (95°F) |
| Ambient Temperature | 32.2°C (90°F) | 35°C (95°F) |
| Power Source | Rated Voltage | |

F= Frequency
D= Displacement
O= Oil Charge
N= Natural
Wg= Weight

1= 1ø100v
2= 1ø100~120v
3= 1ø200~220v
4= 1ø200~240v
5= 3ø200~240v

RSIR = Resistance Start Induction Run
RSCR = Resistance Start Capacitor Run
CSIR = Capacitor Start Induction Run
CSR = Capacitor Start and Run
IR = Induction Run

Hitachi Hermetic Compressors

HIGH EFFICIENCY MODEL

Application & Refrigerant LBP R134a

| Model | Nominal Power | | F | Cooling Capacity | | | D | Cooling | | | O | Wg | Motor Type | Power Source | | | | | Dimension | | | | |
|--------|---------------|-----|-----|------------------|--------|--------|------|---------|------|-----|-----|------|--------------|--------------|------|-----------|-----------|---|-----------|-----------|---|-----------|-----------|
| | HP | W | | Hz | W | Kcal/h | | BTU/h | N | Oil | | | | Fan | 1 | 2 | 3 | 4 | | 5 | | | |
| | HP | W | Hz | W | Kcal/h | BTU/h | cm3 | N | Oil | Fan | cm3 | Kg | | H | P | R | S | T | Type - H | | | | |
| FL1152 | 1/6 | 110 | 50 | 132 | 113 | 450 | 5.19 | • | | | 270 | 8.3 | RSCR RSIR | • | | | • | | Type1-179 | | | | |
| | | | 60 | 155 | 133 | 529 | | | | | • | • | | • | | Type2-180 | | | | | | | |
| 125 | 50 | 150 | 129 | 512 | 5.70 | 240 | 9.5 | | | | • | | | | • | | Type2-180 | | | | | | |
| | 60 | 175 | 151 | 597 | | • | • | | | | • | | | | | | | | | | | | |
| | 140 | 50 | 160 | 138 | | 546 | 6.23 | | | | 320 | 10.5 | | • | | | • | | Type2-188 | | | | |
| | | 60 | 180 | 155 | | 614 | | | | | • | • | | • | | Type2-195 | | | | | | | |
| FL1568 | 1/5 | 150 | 50 | 185 | 159 | 631 | 6.80 | | | | • | • | | 300 | 10.6 | RSIR | • | | | • | | Type2-200 | |
| | | 60 | 210 | 180 | 717 | RSC | | | | | | | | | | • | • | • | | | | | |
| FL1875 | 1/4 | 180 | 50 | 210 | 181 | 717 | 7.47 | | | | | | | 300 | 10.8 | RSIR | • | | | • | | • | Type5-196 |
| | | | 60 | 245 | 211 | 836 | | | | | | | | | | RSCR | • | • | • | | • | Type5-216 | |
| FL2088 | 1/3 | 200 | 50 | 250 | 215 | 853 | 8.83 | 300 | 11.1 | CSR | | | | • | | | • | | • | Type5-216 | | | |
| | | | 60 | 295 | 254 | 1007 | | | | IR | | | | • | • | • | | | | | | | |

FH Series

STANDARD MODEL

Application & Refrigerant HBP R134a

| Model | Nominal Power | | F | Cooling Capacity | | | D | Cooling | | | O | Wg | Motor Type | Power Source | | | | | Dimension | | | | |
|--------|---------------|-----|----|------------------|-----|--------|------|---------|---|-----|-----|-----|------------|--------------|------|------|---------------|---|-----------|---|---|-----------|-----------|
| | HP | W | | Hz | W | Kcal/h | | BTU/h | N | Oil | | | | Fan | 1 | 2 | 3 | 4 | | 5 | | | |
| | | | | | | | | | | | | | | | | | | | Type - H | | | | |
| FH0634 | 1/12 | 65 | 50 | 320 | 275 | 1092 | 3.42 | | | | 200 | 6.8 | RSCR | • | | | • | | Type1-165 | | | | |
| | | | 60 | 360 | 310 | 1228 | | | | | • | • | | • | | | | | | | | | |
| FH0739 | 1/10 | 75 | 50 | 375 | 323 | 1280 | 3.94 | | | | | | | | 7.8 | • | | | | • | | Type1-179 | |
| | | | 60 | 430 | 370 | 1467 | | | | | | | | • | • | • | | | | | | | |
| FH1045 | 1/6 | 100 | 50 | 450 | 387 | 1535 | 4.50 | | | | | | | | 270 | 8.1 | • | | | | • | | |
| | | | 60 | 520 | 447 | 1774 | | | | | | | | | • | • | • | | | | | | |
| FH1552 | 1/5 | 150 | 50 | 520 | 447 | 1774 | 5.19 | | | | | | | | 8.3 | • | | | • | | | | |
| | | | 60 | 600 | 516 | 2047 | | | | | | | | | RSIR | • | • | • | | | | | |
| FH2075 | 1/4 | 200 | 50 | 760 | 654 | 2593 | 7.47 | | | | • | • | | 350 | 11.0 | CSIR | • | | | • | | | Type4-211 |
| | | | 60 | 880 | 757 | 3003 | | | | | | | | | | | | • | • | • | | | |
| FH2588 | 1/3 | 250 | 50 | 890 | 765 | 3037 | 8.83 | | | | | | | | 11.0 | | CSIR CSRIR | • | | | • | • | |
| | | | 60 | 1000 | 860 | 3412 | | | | | | | | | • | • | | • | | | | | |

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| Test Conditions (ASHRAE Condition) | Low back pressure (FL, RL, CL Series) | High back pressure (FH Series) |
|---------------------------------------|--|-----------------------------------|
| Evaporating Temperature | -23.3°C (-10°F) | 7.2°C (45°F) |
| Condensing Temperature | 54.4°C (130°F) | 54.4°C (130°F) |
| Liquid Temperature | 32.2°C (90°F) | 46.1°C (115°F) |
| Return gas Temperature | 32.2°C (90°F) | 35°C (95°F) |
| Ambient Temperature | 32.2°C (90°F) | 35°C (95°F) |
| Power Source | Rated Voltage | |

| | |
|-----------------|---------------|
| F= Frequency | 1= 1ø100v |
| D= Displacement | 2= 1ø100~120v |
| O= Oil Charge | 3= 1ø200~220v |
| N= Natural | 4= 1ø200~240v |
| Wg= Weight | 5= 3ø200~240v |

| |
|---------------------------------------|
| RSIR = Resistance Start Induction Run |
| RSCR = Resistance Start Capacitor Run |
| CSIR = Capacitor Start Induction Run |
| CSR = Capacitor Start and Run |
| IR = Induction Run |

Performance Datasheet

Hitachi Hermetic Compressors

RL Series

STANDARD MODEL

Application & Refrigerant LBP R404A

| Model | Nominal Power | | F | Cooling Capacity | | | D | Cooling | | | O | Wg | Motor Type | Power Source | | | | | Dimension | | | | | | |
|---------------|---------------|-----|----|------------------|-----|--------|------|---------|-----------------|---|-----|------|------------|--------------|-----|-----------------|----|---|-----------|---|---|---|---|----------|--|
| | HP | W | | Hz | W | Kcal/h | | BTU/h | cm ³ | N | | | | Oil | Fan | cm ³ | Kg | 1 | | 2 | 3 | 4 | 5 | Type - H | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>RL3062</u> | 1/2 | 300 | 50 | 340 | 292 | 1160 | 6.23 | | ● | ● | 280 | 11.1 | CSR | ● | | | | ● | Type4-211 | | | | | | |
| | | | 60 | 400 | 343 | 1365 | | | | | | | | ● | ● | ● | | ● | | | | | | | |
| <u>RL3568</u> | | 350 | 50 | 380 | 327 | 1297 | 6.80 | | | | | | | ● | | | | ● | | | | | | | |
| | | | 60 | 450 | 387 | 1535 | | | | | | | | ● | ● | ● | | ● | | | | | | | |
| <u>RL4075</u> | | 400 | 50 | 420 | 361 | 1433 | 7.47 | | | | | | IR | ● | | | | ● | | | | | | | |
| | | | 60 | 480 | 413 | 1638 | | | | | | | | ● | ● | ● | | ● | | | | | | | |
| <u>RL4588</u> | | 450 | 50 | 500 | 430 | 1706 | 8.83 | | | | | | | ● | | | | ● | | | | | | | |
| | | | 60 | 580 | 499 | 1979 | | | | | | | | ● | ● | ● | | ● | | | | | | | |

* These models are for standrad power sources.

We produce models for other power sources upon request.

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| Evaporating Temperature | -23.3°C (-10°F) | 7.2°C (45°F) |
| Condensing Temperature | 54.4°C (130°F) | 54.4°C (130°F) |
| Liquid Temperature | 32.2°C (90°F) | 46.1°C (115°F) |
| Return gas Temperature | 32.2°C (90°F) | 35°C (95°F) |
| Ambient Temperature | 32.2°C (90°F) | 35°C (95°F) |
| Power Source | Rated Voltage | |

| | |
|----------------|---------------|
| F= Frequency | 1= 1ø100v |
| D= Displacment | 2= 1ø100~120v |
| O= Oil Charge | 3= 1ø200~220v |
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| Wg= Weight | 5= 3ø200~240v |

| |
|---------------------------------------|
| RSIR = Resistance Start Induction Run |
| RSCR = Resistance Start Capacitor Run |
| CSIR = Capacitor Start Induction Run |
| CSR = Capacitor Start and Run |
| IR = Induction Run |

CL Series

STANDARD MODEL

Application & Refrigerant LBP R600a

| Model | Nominal Power | | F | Cooling Capacity | | | D | Cooling | | | O | Wg | Motor Type | Power Source | | | | | Dimension | | | |
|--------|---------------|-----|----|------------------|-----|--------|-----|---------|-----|---|-----|-----|------------|--------------|------|------|----|---|-----------|---|---|-----------|
| | HP | W | | Hz | W | Kcal/h | | BTU/h | cm3 | N | | | | Oil | Fan | cm3 | Kg | 1 | | 2 | 3 | 4 |
| | | | | | | | | | | | | | | | | | | H | P | R | S | T |
| CL1188 | 1/7 | 110 | 50 | 147 | 126 | 501 | 8.8 | ● | | | 240 | 9.5 | RSCR | | | | | | Type2-180 | | | |
| | | | 60 | 175 | 151 | 597 | | | | | | | | ● | | | | | | | | |
| CL1297 | 1/6 | 120 | 50 | 137 | 125 | 494 | 9.7 | | | | | | ● | 370 | 11.0 | RSCR | | | | ● | | Type2-188 |
| | | | 60 | 169 | 145 | 576 | | | | | | | | | | CSR | ● | | | | | Type5-216 |

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|---------------------------------------|--|-----------------------------------|
| Evaporating Temperature | -23.3°C (-10°F) | 7.2°C (45°F) |
| Condensing Temperature | 54.4°C (130°F) | 54.4°C (130°F) |
| Liquid Temperature | 32.2°C (90°F) | 46.1°C (115°F) |
| Return gas Temperature | 32.2°C (90°F) | 35°C (95°F) |
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| Power Source | Rated Voltage | |

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Hitachi Hermetic Compressors

FL Series

INVERTOR MODEL

Application & Refrigerant LBP R134a

| Model | Speed range | Capacity range | D | Cooling | | | O | Wg | Motor Type | Dimension |
|--------|-------------|----------------|-----------------|---------|-----|-----|-----------------|-----|------------|-----------|
| | | | | N | Oil | Fan | | | | |
| | rpm | W | cm ³ | | | | cm ³ | Kg | | Type - H |
| FL1557 | 25~80 | 86~225 | 5.7 | | | | 220 | 7.4 | DC | Type2-188 |
| FL1875 | 27~70 | 120~255 | 7.5 | | | • | 220 | 9.0 | | |

<Test condition

| R134a model | H/L=40/-30 deg C | ASHRAE | CECOMAF |
|-------------------------|-------------------|-----------------|-------------------|
| Evaporating temperature | -30.0°C (-22.0°F) | -23.3°C (-10°F) | -25.0°C (-13.0°F) |
| Condensing temperature | 40.0°C (104.0°F) | 54.4°C (130°F) | 55.0°C (131.0°F) |
| Gas superheated to | 32.0°C (89.6°F) | 32.2°C (90°F) | 32.0°C (89.6°F) |
| Liquid sub cooled to | 32.0°C (89.6°F) | 32.2°C (90°F) | 55.0°C (131.0°F) |
| Ambient temperature | 32.0°C (89.6°F) | 32.2°C (90°F) | 32.0°C (89.6°F) |

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D= Displacment O= Oil Charge N= Natural Wg= Weight

CL Series

INVERTOR MODEL

Application & Refrigerant LBP R600a

| Model | Speed range | Capacity range | D | Cooling | | | O | Wg | Motor Type | Dimension |
|--------|-------------|----------------|-----------------|---------|-----|-----|-----------------|-----|------------|-----------|
| | | | | N | Oil | Fan | | | | |
| | rpm | W | cm ³ | | | | cm ³ | Kg | | Type - H |
| CL1597 | 25~71 | 70~195 | 9.7 | | | | 270 | 7.8 | DC | Type3-156 |
| CL1610 | 25~80 | 83~236 | 10.3 | • | | • | | 8.6 | | |

<Test condition

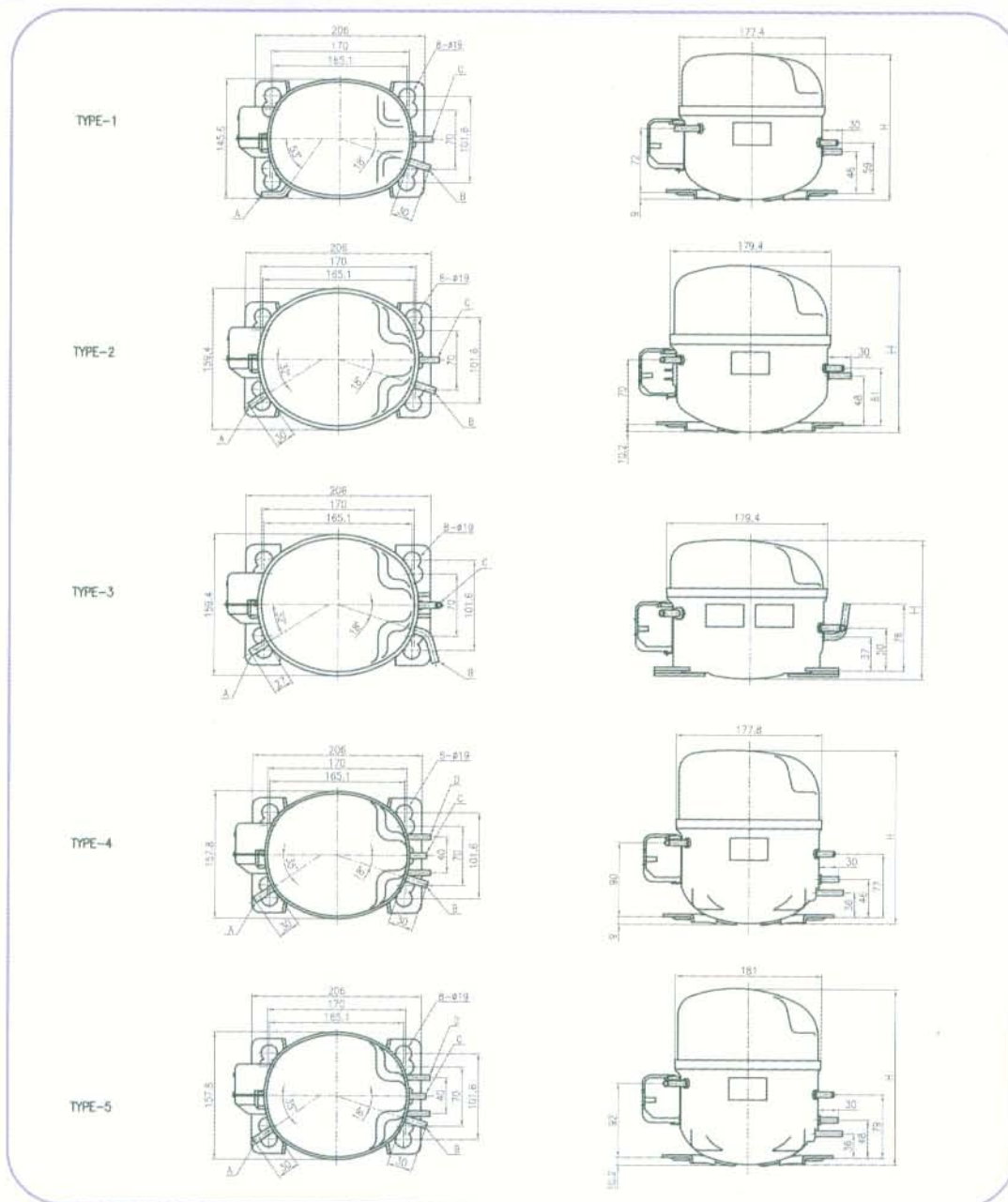
| R134a model | H/L=40/-30 deg C | ASHRAE | CECOMAF |
|-------------------------|-------------------|-----------------|-------------------|
| Evaporating temperature | -30.0°C (-22.0°F) | -23.3°C (-10°F) | -25.0°C (-13.0°F) |
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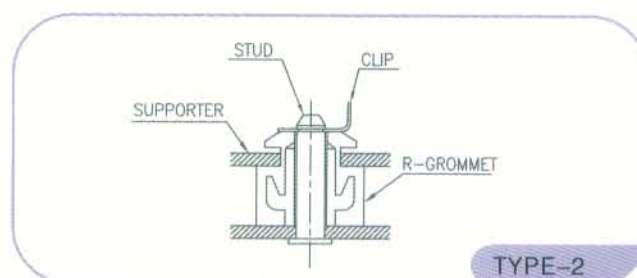
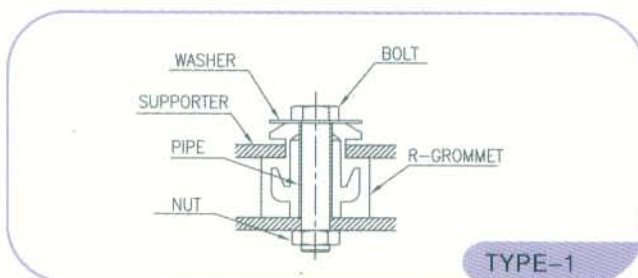
Dimension



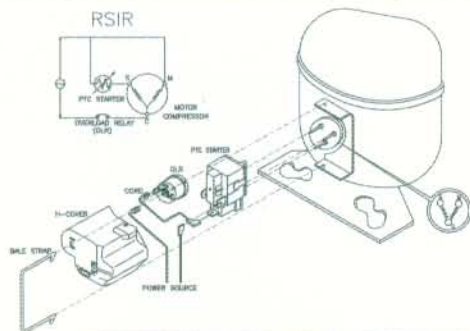
REMARK

| Dim. | A | B | C | D |
|-----------|----------------|----------------|--------------------|--------------------|
| Model | Suction Tube | Process Tube | Discharge Tube | Oil - Cooler Tube |
| All Model | Ø8(OD)X6.5(ID) | Ø8(OD)X6.5(ID) | Ø6.95(OD)X4.95(ID) | Ø6.95(OD)X4.95(ID) |

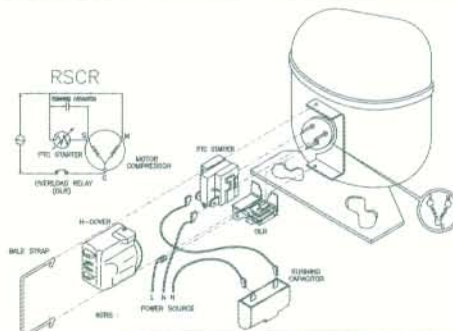
Mounting



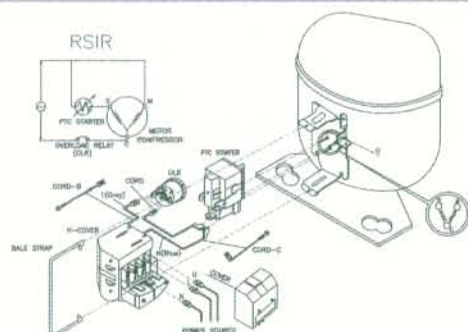
Electrical Equipment



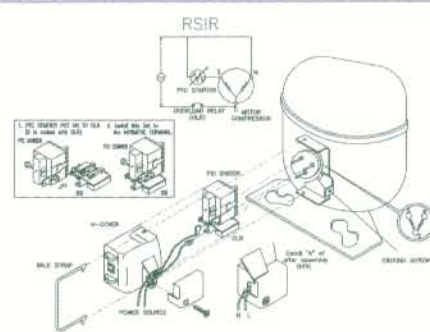
1: Standard cover, Standard OLR



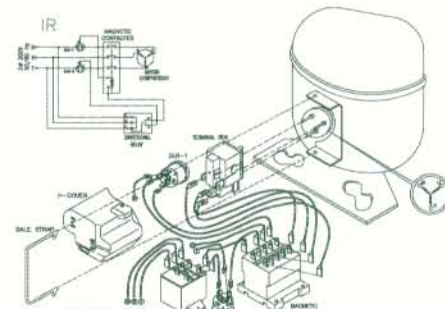
3: Standard cover, Plugin OLR



2: IEC cover, Standard OLR



4: IEC cover, Plugin OLR

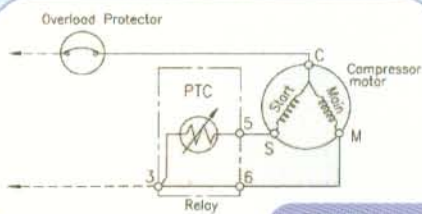


5: Standard cover, Standard OLR 3 phase

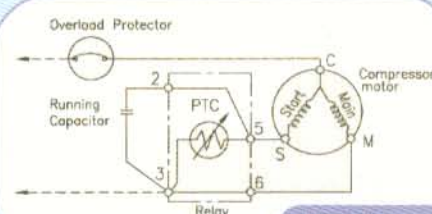
Wiring Diagram

Motor Type

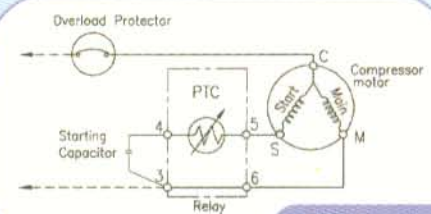
- RSIR Resistance Start Induction Run
- RSCR Resistance Start Capacitor Run
- CSIR Capacitor Start Induction Run
- CSR Capacitor Start and Run
- IR Induction Run



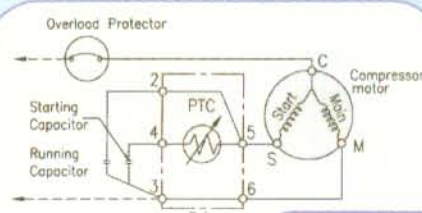
RSIR



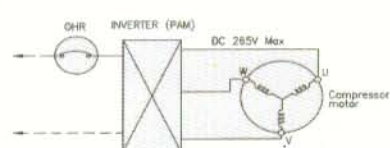
RSCR



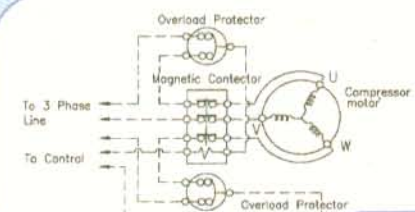
CSIR



CSR



INVERTER



IR

Packing Information

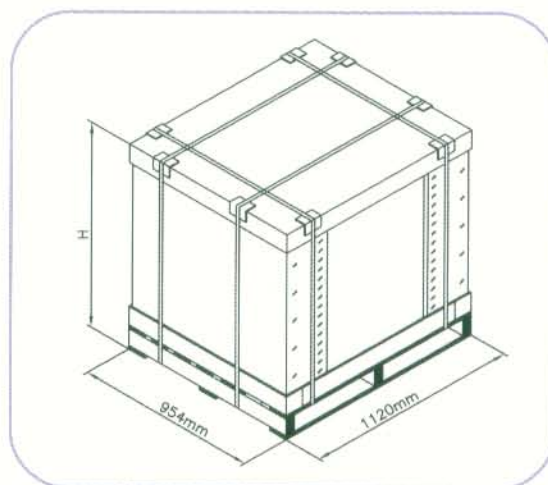
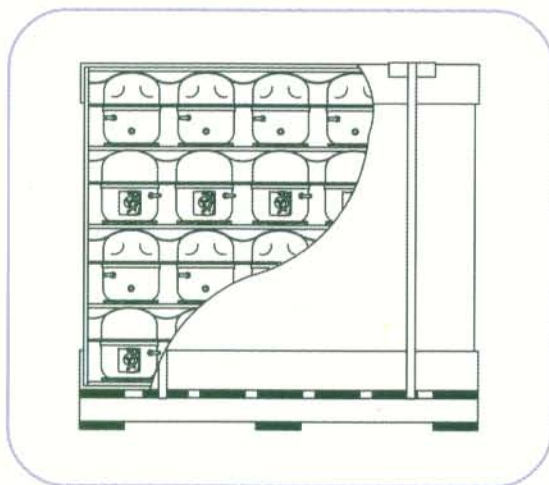
Carton Dimension

IPPC Global Standard for Wood Packaging



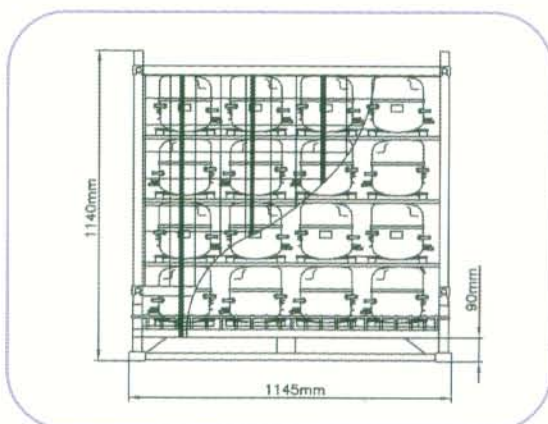
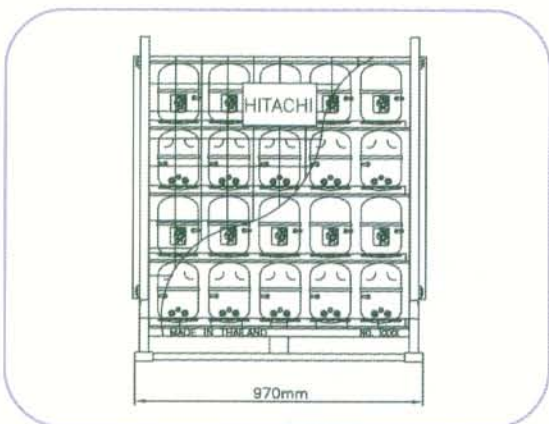
Carton dimension

One way Packing Method



| Comp. Height (mm) | H (mm) | Layer | Quantity (pcs.) |
|-------------------|--------|-------|-----------------|
| 156 ~ 195 | 1025 | 5 | 100 pcs. |
| | 1095 | 5 | 100 pcs. |
| 195 ~ 216 | 977 | 4 | 80 pcs. |
| | 1035 | 4 | 80 pcs. |

Steel Pallet Packing Method



| Comp. Height (mm) | Layer | Quantity (pcs.) |
|-------------------|-------|-----------------|
| 156 ~ 188 | 5 | 100 pcs. |
| 195 ~ 216 | 4 | 80 pcs. |

Warnings

1. Compressors must not be charged with anti-freeze agents, as their use can have adverse effects on the various materials used, jeopardizing the useful life of the compressor (the use of anti-freeze agents renders the compressor warranty null and void).
2. When using our products in equipment that requires a high degree of reliability, regardless of the application, it is recommended that you use protection circuits and redundancy circuits for equipment safety and test for safety.
3. It is recommended that manufacturers of refrigeration systems using flammable refrigerants such as R 600a, develop accurate charging, leak testing and system testing methods to guarantee that all necessary safety procedures have been met.
4. Use flushing agents which are compatible with the refrigerant used to clean systems.
5. The system to which the compressor will be assembled must be developed and adequately prepared for use with R 134a and ester oil, i.e. without anti-freeze agents, greasy residues, mineral oil, impurities in R 134a and without chlorides, alkaline residues and moisture.
6. The compressors must not be tested unless they are connected to the refrigeration system.
7. The compressor must not be subjected to high voltage or starting tests while under vacuum. Hitachi compressors have already been submitted to a 2200-2400 V high voltage test for one second.
8. Gas charging and evacuating equipment must only be used for R 134a in order to avoid chloride residue contamination.
9. For each type of refrigerant fluid there are appropriate dryer filters. (According to Product specification).
10. To prevent excessive moisture from entering the compressor, the connector should be kept sealed at all times. Plugs should only be removed immediately before brazing connectors to system tubes (maximum time allowed is 15 minutes).
11. The products and product specifications described on this catalog are subject to change for improvement without prior notice. Therefore, be sure to request and confirm in advance the most current specifications, which explain the specifications in detail, before the final stage of your design, purchasing or use for any application.
12. The technical information on this catalog provides examples of the products' typical operations and application circuits. It is not intended to guarantee the non-infringement of or grant license for intellectual property rights of this company or any third party.
13. CONVERSION
 1 Watt = 3.41 Btu/h 1 Watt = 0.86 kcal/h
 1 kcal/h = 3.97 Btu/h 1 cu.ft. = 28.32 liters
14. TOLERANCES
 Capacity = $\pm 10\%$
 Power Consumption = $\pm 10\%$
 Current Consumption = $\pm 10\%$



CAUTION: Please install the refrigerant / lubricant oil / electrical component recommended by compressor manufacturer. For proper wiring, please follow manufacturer's instructions exactly for prevent exploding, firing and user being shocked by electric. This caution has to be informed end-user and professional SVC branch systemically.

WARNING



Electrical shock hazard.

- Compressor must be grounded whenever power is applied and compressor is operated.
- Turn off the power in advance of servicing.
- Secure retain terminal cover whenever power is applied to the compressor.



Explosion or Fire.

- Remove refrigerant securely from compressor in case of welding.
- Do not compress air or operate compressor with vacuumed inside.
- Wear safety goggles and gears.



Getting burnt.

- Do not touch the compressor with bare hands during operation or after stoppage instantly.



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