



Catalogue
Reciprocating Compressor



General Information

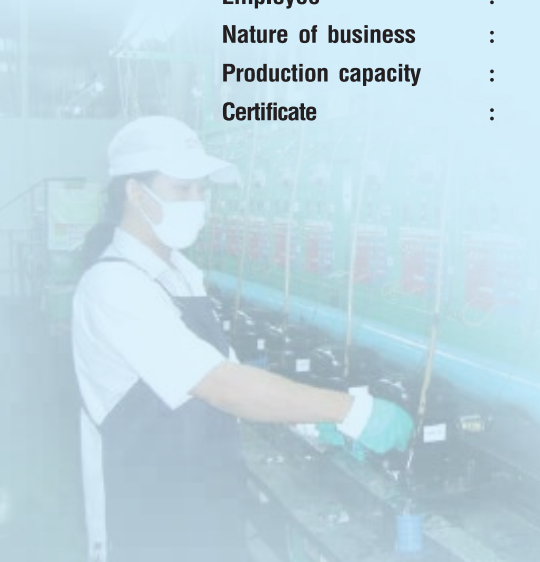


Hitachi Compressor (Thailand),Ltd.

1/65 Moo 5 Rojana Industrial Park, Tambol Kanham,
Amphur U-thai, Ayutthaya 13210, Thailand

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 | : | 1,000 million Baht |
| Shareholders | : | Hitachi Appliances Inc. 100% |
| Land area | : | Fac.1 (36 rai) or (58,120 m ²) + Fac.2 (25 rai)(40,361m ²) = 61 rai |
| Employee | : | 1,700 persons |
| Nature of business | : | Production & Sales of Reciprocating type of compressor |
| Production capacity | : | 5.0 million pieces per year |
| Certificate | : | ISO9001 certified on 7 August 1998 ISO14001 certified on 4 November 1999 OHSAS 18001 certified on 27 November 2001 |



ISO9001



ISO14001



OHSAS 18001

Group of company



Hitachi Appliance Inc.



Hitachi Air Conditioning
Products (MALAYSIA) Sdn. Bhd.



Shanghai Hitachi Electrical Appliances Co., Ltd.



Hitachi Compressor (Thailand), Ltd.

Products

BUSINESS

SPACE HERE

Technology & Innovation

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 process 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.



Environmentally Friendly Products

“To the future in harmony with nature” Environmental Slogan

Product Using

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



Ice Cream Cabinet



Refrigerator



Water Cooler & Ice Maker



Commercial Refrigerator



Showcase

Performance Data sheet

Hitachi Hermetic Compressors

- High-Efficiency
- High-Reliability
- Low-Noise & Vibration



CL High Efficiency Series Application & Refrigerant LBP R600a

| Model | Power source | | Displacement (Cm ³) | Cooling Capacity | | | COP | Circuit | Running Capacitor uF / V | Weight (kg) | Height (mm) |
|-----------|--------------|------|------------------------------------|-------------------------------------|----------|---------|-------|---------|-----------------------------|----------------|----------------|
| | (Volt) | (Hz) | | Evaporating temp = -23.3 C (ASHRAE) | | | | | | | |
| | | | | W | Kcal / h | Btu / h | W / W | | | | |
| CL0768-SC | 220-240 | 50 | 6.8 | 115 | 99 | 393 | 1.60 | RSCR | 4/400 | 6.5 | 178 |
| CL0875-SD | 220-240 | 50 | 7.5 | 125 | 108 | 427 | 1.60 | RSCR | 4/400 | 8.0 | 186 |
| CL0875-SE | 220-240 | 50 | 7.5 | 125 | 108 | 427 | 1.70 | RSCR | 4/400 | 8.5 | 186 |
| CL1188-SE | 220-240 | 50 | 8.8 | 145 | 125 | 495 | 1.60 | RSCR | 4/400 | 9.2 | 196 |
| CL1188-SF | 220-240 | 50 | 8.8 | 145 | 125 | 495 | 1.70 | RSCR | 4/400 | 9.2 | 196 |
| CL1188-SG | 220-240 | 50 | 8.8 | 145 | 125 | 495 | 1.80 | RSCR | 4/400 | 9.2 | 196 |
| CL1188-SH | 220-240 | 50 | 8.8 | 145 | 125 | 495 | 1.90 | RSCR | 4/400 | 10.8 | 211 |
| CL1310-SJ | 220-240 | 50 | 10.3 | 165 | 142 | 563 | 1.60 | RSCR | 4/400 | 9.2 | 196 |
| CL1310-SK | 220-240 | 50 | 10.3 | 165 | 142 | 563 | 1.70 | RSCR | 4/400 | 10.8 | 211 |
| CL1310-SL | 220-240 | 50 | 10.3 | 165 | 142 | 563 | 1.80 | RSCR | 4/400 | 10.8 | 211 |
| CL1310-SM | 220-240 | 50 | 10.3 | 165 | 142 | 563 | 1.90 | RSCR | 4/400 | 11.0 | 216 |
| CL1411-SA | 220-240 | 50 | 10.9 | 180 | 155 | 615 | 1.60 | RSCR | 4/400 | 10.5 | 198 |
| CL1411-SB | 220-240 | 50 | 10.9 | 180 | 155 | 615 | 1.70 | RSCR | 4/400 | 10.8 | 211 |
| CL1411-SC | 220-240 | 50 | 10.9 | 180 | 155 | 615 | 1.80 | RSCR | 4/400 | 11.0 | 216 |
| CL1411-SD | 220-240 | 50 | 10.9 | 180 | 155 | 615 | 1.90 | RSCR | 4/400 | 11.0 | 216 |
| CL1613-SA | 220-240 | 50 | 13.6 | 220 | 189 | 751 | 1.60 | RSCR | 4/400 | 10.8 | 211 |
| CL1613-SB | 220-240 | 50 | 13.6 | 220 | 189 | 751 | 1.70 | RSCR | 4/400 | 11.2 | 216 |
| CL1613-SC | 220-240 | 50 | 13.6 | 220 | 189 | 751 | 1.80 | RSCR | 4/400 | 11.2 | 216 |
| CL1613-SD | 220-240 | 50 | 13.6 | 220 | 189 | 751 | 1.90 | RSCR | 4/400 | 11.2 | 216 |
| CL1714-SA | 220-240 | 50 | 14.3 | 230 | 198 | 785 | 1.60 | RSCR | 4/400 | 11.2 | 216 |
| CL1714-SB | 220-240 | 50 | 14.3 | 230 | 198 | 785 | 1.70 | RSCR | 4/400 | 11.2 | 216 |
| CL1714-SC | 220-240 | 50 | 14.3 | 230 | 198 | 785 | 1.80 | RSCR | 4/400 | 11.2 | 216 |
| CL1714-SD | 220-240 | 50 | 14.3 | 230 | 198 | 785 | 1.90 | RSCR | 4/400 | 11.2 | 216 |

Note: All data covered by this catalog are given as general information only.

Since we are constantly improving our product, the specification and availability are subject to change with out notice.

| Test Conditions (ASHRAE Condition) | Evaporating Temperature | Condensing Temperature | Liquid Temperature | Return gas Temperature | Ambient Temperature |
|---------------------------------------|----------------------------|---------------------------|-----------------------|---------------------------|------------------------|
| Low back pressure (LBP) | -23.3 °C (-10 °F) | 54.4 °C (130 °F) | 32.2 °C (90 °F) | 32.2 °C (90 °F) | 32.2 °C (90 °F) |



FL High Efficiency Series

Application & Refrigerant LBP R134a

| Model | Power source | | Displacement (Cm ³) | Cooling Capacity | | | COP W / W | Circuit | Running Capacitor uF / V | Weight (kg) | Height (mm) |
|------------|--------------|------|------------------------------------|-------------------------------------|---------|-----|--------------|---------|-----------------------------|----------------|----------------|
| | (Volt) | (Hz) | | Evaporating temp = -23.3 C (ASHRAE) | | | | | | | |
| | | | W | Kcal / h | Btu / h | | | | | | |
| FL08S47NAA | 220-240 | 50 | 4.7 | 130 | 112 | 444 | 1.50 | RSCR | 4/400 | 6.9 | 178 |
| FL11S52NAJ | 220-240 | 50 | 5.2 | 143 | 123 | 488 | 1.50 | RSCR | 4/400 | 7.7 | 178 |
| FL12S57NAQ | 220-240 | 50 | 5.7 | 160 | 138 | 546 | 1.50 | RSCR | 4/400 | 8.0 | 186 |
| FL12S57NAP | 220-240 | 50 | 5.7 | 160 | 138 | 546 | 1.60 | RSCR | 4/400 | 9.5 | 196 |
| FL14S62NAE | 220-240 | 50 | 6.2 | 165 | 142 | 563 | 1.50 | RSCR | 4/400 | 10.8 | 211 |
| FL14S62NAF | 220-240 | 50 | 6.2 | 165 | 142 | 563 | 1.60 | RSCR | 4/400 | 11.0 | 211 |
| FL15S68NAQ | 220-240 | 50 | 6.8 | 185 | 159 | 632 | 1.50 | RSCR | 4/400 | 11.0 | 211 |
| FL15S68NAP | 220-240 | 50 | 6.8 | 185 | 159 | 632 | 1.60 | RSCR | 4/400 | 11.0 | 211 |
| FL15S68NAR | 220-240 | 50 | 6.8 | 185 | 159 | 632 | 1.70 | RSCR | 4/400 | 11.0 | 211 |
| FL15S68NAS | 220-240 | 50 | 6.8 | 185 | 159 | 632 | 1.80 | RSCR | 4/400 | 11.2 | 216 |
| FL18S75NAL | 220-240 | 50 | 7.5 | 200 | 172 | 683 | 1.50 | RSCR | 4/400 | 11.0 | 211 |
| FL18S75NAH | 220-240 | 50 | 7.5 | 200 | 172 | 683 | 1.60 | RSCR | 4/400 | 11.0 | 211 |
| FL18S75NAJ | 220-240 | 50 | 7.5 | 200 | 172 | 683 | 1.70 | RSCR | 4/400 | 11.0 | 211 |
| FL18S75NAM | 220-240 | 50 | 7.5 | 200 | 172 | 683 | 1.80 | RSCR | 4/400 | 11.2 | 216 |
| FL20S88NAV | 220-240 | 50 | 8.8 | 260 | 224 | 888 | 1.50 | RSCR | 4/400 | 10.8 | 211 |
| FL20S88NAW | 220-240 | 50 | 8.8 | 260 | 224 | 888 | 1.60 | RSCR | 4/400 | 11.0 | 216 |
| FL20S88NAX | 220-240 | 50 | 8.8 | 260 | 224 | 888 | 1.70 | RSCR | 4/400 | 11.2 | 216 |
| FL20S88NAY | 220-240 | 50 | 8.8 | 260 | 224 | 888 | 1.80 | RSCR | 4/400 | 11.2 | 216 |

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| Test Conditions (ASHRAE Condition) | Evaporating Temperature | Condensing Temperature | Liquid Temperature | Return gas Temperature | Ambient Temperature |
|---------------------------------------|----------------------------|---------------------------|-----------------------|---------------------------|------------------------|
| Low back pressure (LBP) | -23.3 °C (-10 °F) | 54.4 °C (130 °F) | 32.2 °C (90 °F) | 32.2 °C (90 °F) | 32.2 °C (90 °F) |

FH High Efficiency Series

Application & Refrigerant HBP R134a

| Model | Power source | | Displacement (Cm ³) | Cooling Capacity | | | COP W / W | Circuit | Starting Capacitor uF / V | Running Capacitor uF / V | Weight (kg) | Height (mm) |
|-----------|--------------|------|------------------------------------|-----------------------------------|---------|------|--------------|---------|---------------------------------|--------------------------------|----------------|----------------|
| | (Volt) | (Hz) | | Evaporating temp = 7.2 C (ASHRAE) | | | | | | | | |
| | | | W | Kcal / h | Btu / h | | | | | | | |
| FH0634-SC | 220-240 | 50 | 3.4 | 328 | 282 | 1120 | 1.86 | RSIR | - | - | 7.2 | 165 |
| FH0739-SE | 220-240 | 50 | 3.9 | 375 | 323 | 1280 | 1.94 | RSIR | - | - | 7.8 | 179 |
| FH1045-SC | 220-240 | 50 | 4.5 | 440 | 378 | 1502 | 2.10 | RSIR | - | - | 8.3 | 179 |
| FH1247-SA | 220-240 | 50 | 4.7 | 460 | 396 | 1570 | 2.10 | RSIR | - | - | 8.3 | 179 |
| FH1552-SE | 220-240 | 50 | 5.2 | 517 | 445 | 1765 | 2.14 | RSIR | - | - | 8.5 | 179 |
| FH1657-SA | 220-240 | 50 | 5.7 | 570 | 490 | 1946 | 2.15 | RSIR | - | - | 9.0 | 186 |
| FH1762-SA | 220-240 | 50 | 6.2 | 620 | 533 | 2117 | 2.40 | CSR | 60/440 | 10/440 | 10.2 | 198 |
| FH1868-SA | 220-240 | 50 | 6.8 | 685 | 589 | 2339 | 2.40 | CSR | 60/440 | 10/440 | 10.2 | 198 |
| FH2075-SH | 220-240 | 50 | 7.5 | 770 | 662 | 2629 | 2.48 | CSR | 60/440 | 10/440 | 10.8 | 211 |
| FH2588-SM | 220-240 | 50 | 8.8 | 890 | 765 | 3038 | 2.47 | CSR | 60/440 | 10/440 | 10.8 | 211 |
| FH2697-SA | 220-240 | 50 | 9.7 | 980 | 843 | 3346 | 2.45 | CSR | 60/440 | 10/440 | 11.0 | 211 |
| FH2710-SA | 220-240 | 50 | 10.3 | 1040 | 894 | 3551 | 2.45 | CSR | 60/440 | 10/440 | 11.0 | 211 |
| FH2711-SD | 220 | 50 | 10.9 | 1140 | 980 | 3892 | 2.44 | CSR | 60/440 | 20/440 | 10.2 | 198 |
| FH3014-SG | 220-240 | 50 | 14.3 | 1450 | 1247 | 4950 | 2.50 | CSR | 60/370 | 20/370 | 10.8 | 211 |

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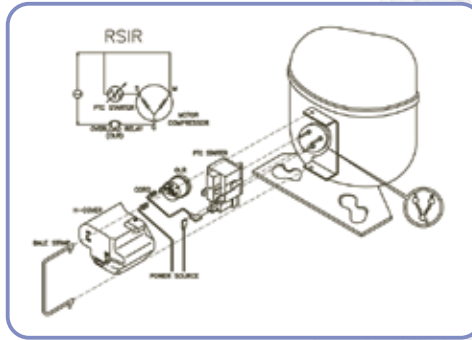
| Test Conditions (ASHRAE Condition) | Evaporating Temperature | Condensing Temperature | Liquid Temperature | Return gas Temperature | Ambient Temperature |
|---------------------------------------|----------------------------|---------------------------|-----------------------|---------------------------|------------------------|
| High back pressure (HBP) | 7.2 °C (45 °F) | 54.4 °C (130 °F) | 46.1 °C (115 °F) | 35 °C (95 °F) | 35 °C (95 °F) |

Electrical Equipment

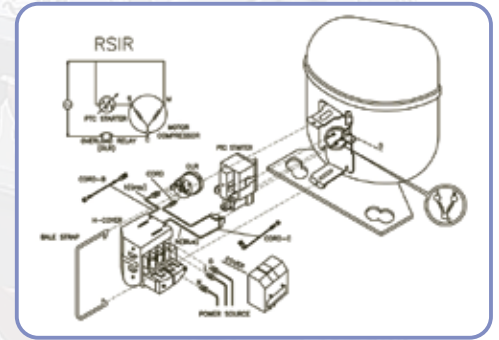
Wiring Diagram

Motor Type

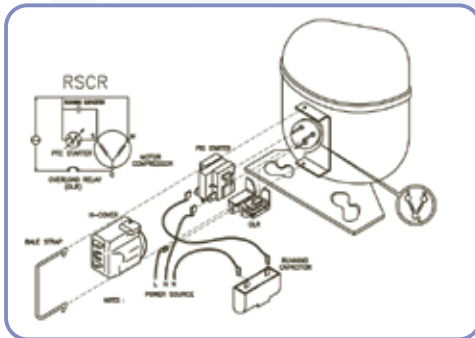
- RSIR** Resistance Start Induction Run
- RSCR** Resistance Start Capacitor Run
- CSIR** Capacitor Start Induction Run
- CSR** Capacitor Start and Run
- IR** Induction Run



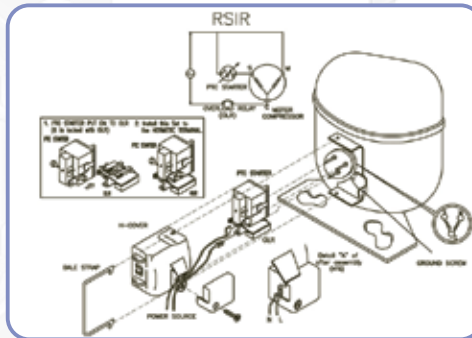
TYPE 1: Standard cover, Standard OLR



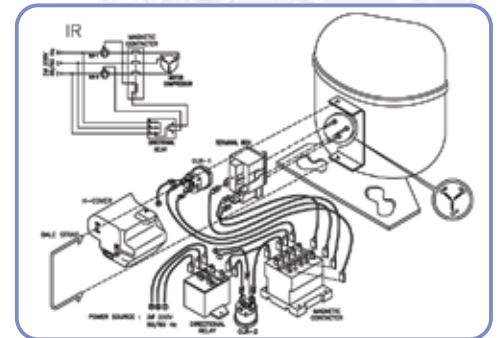
TYPE 2: IEC cover, Standard OLR



TYPE 3: Standard cover, Plugin OLR



TYPE 4: IEC cover, Plugin OLR



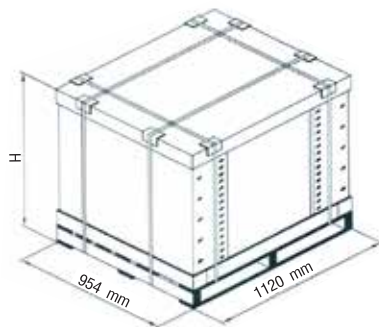
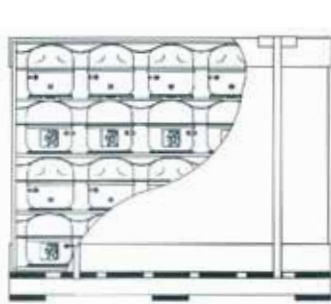
TYPE 5: Standard cover, Standard OLR 3 Phase



Packing Information

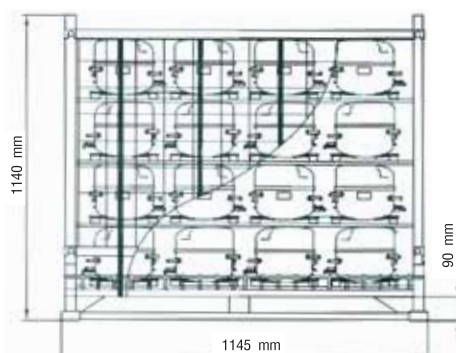
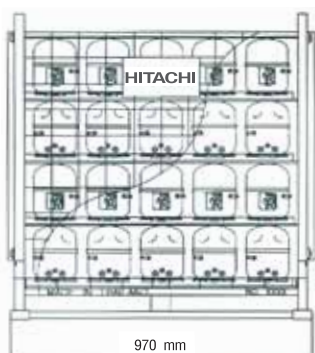
Carton dimension

IPPC Global Standard for Wood Packaging



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. |

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. How to use a compressor follow the product specification and general clause only.
14. 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 |
15. TOLERANCES
- Capacity = ±10%
 - Power Consumption = ±10%
 - Current Consumption = ±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.

HITACHI
Inspire the Next



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