

## Single Pack DLV5.7CN 100-127V 50/60Hz PM

Codice Imballo Singolo: **195B4685**

| Posizione | Titolo              | Codice   | Quantità |
|-----------|---------------------|----------|----------|
| 1         | Compressor DLV5.7CN | 102H4604 | 1        |
| 2         | Motor cable (900mm) | 105B4477 | 1        |
| 3         | Electronic unit DLV | 105N4461 | 1        |
| 4         | Cord relief         | 103N1010 | 1        |
| 5         | Cover               | 103N0492 | 1        |

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## DLV5.7CN Variable Speed Drive Compressor R290, 100-127V 50/60Hz

- with 105N4460 Controller



### General

|   |          |
|---|----------|
| Code number                                 | 102H4604 |
| Electronic unit                             | 105N4460 |
| Approvals: UL 60335-2-34 with Annex AA, CCC |          |
| Compressors on pallet                       | 100      |

### Application

| Application                                    | LBP/MBP |           |           |  |
|--|---------|-----------|-----------|--|
| Frequency                                      | Hz      | 50        | 60        |  |
| Evaporating temperature                        | °F      | -31 to 45 | -31 to 45 |  |
| Voltage range                                  | V       | 90 - 140  | 90 - 140  |  |
| Max. condensing temperature continuous (short) | °F      | 140 (149) | 140 (149) |  |
| Max. winding temperature continuous (short)    | °F      | 257 (275) | 257 (275) |  |

### Cooling requirements

| Frequency   | Hz | 50             |                |     | 60             |                |     |
|-------------|----|----------------|----------------|-----|----------------|----------------|-----|
| Application |    | LBP            | MBP            | HBP | LBP            | MBP            | HBP |
| 32°C        |    | F <sub>2</sub> | F <sub>2</sub> | -   | F <sub>2</sub> | F <sub>2</sub> | -   |
| 38°C        |    | F <sub>2</sub> | F <sub>2</sub> | -   | F <sub>2</sub> | F <sub>2</sub> | -   |
| 43°C        |    | F <sub>2</sub> | F <sub>2</sub> | -   | F <sub>2</sub> | F <sub>2</sub> | -   |

Remarks on application:

### Features

|                                    |     |                             |
|------------------------------------|-----|-----------------------------|
| Speed range                        | rpm | 2000 - 4500                 |
| Speed control                      |     | AEO, frequency, serial com. |
| Thermostat                         |     | integrated, electronic      |
| Protections                        |     | current, speed, temperature |
| Protection class (electronic unit) |     | IP54                        |

### Motor

|                                   |   |                    |
|-----------------------------------|---|--------------------|
| Motor type                        |   | permanent magnet   |
| LRA (rated after 4 sec. UL984)    | A | electronic cut off |
| Maximum current                   | A | 6.5                |
| Resistance, all 3 windings (25°C) | Ω | 1.2                |

### Design

|                                     |        |                   |
|-------------------------------------|--------|-------------------|
| Displacement                        | cu.in  | 0.35              |
| Oil quantity (type)                 | fl.oz. | 7.8 (polyolester) |
| Maximum refrigerant charge          | oz.    | 5.3               |
| Free gas volume in compressor       | fl.oz. | 49.5              |
| Weight - Compressor/Electronic unit | lbs.   | 17.2 / 1.15       |

### Dimensions

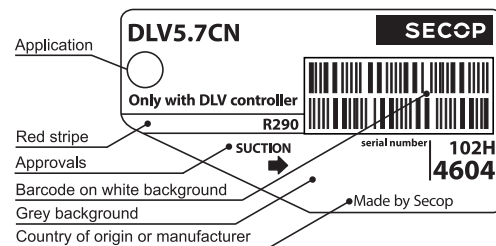
|                     |                          |   |                      |
|---------------------|--------------------------|---|----------------------|
| Height              | inch                     | A | 6.89                 |
|                     |                          | B | 6.65                 |
| Suction connector   | location/I.D. mm   angle | C | 0.320-0.327   18°    |
|                     | material   comment       |   | Copper   Rubber plug |
| Process connector   | location/O.D. mm   angle | D | 0.252-0.259   61°    |
|                     | material   comment       |   | Copper   Rubber plug |
| Discharge connector | location/O.D. mm   angle | E | 0.252-0.259   25°    |
|                     | material   comment       |   | Copper   Rubber plug |

### Accessories

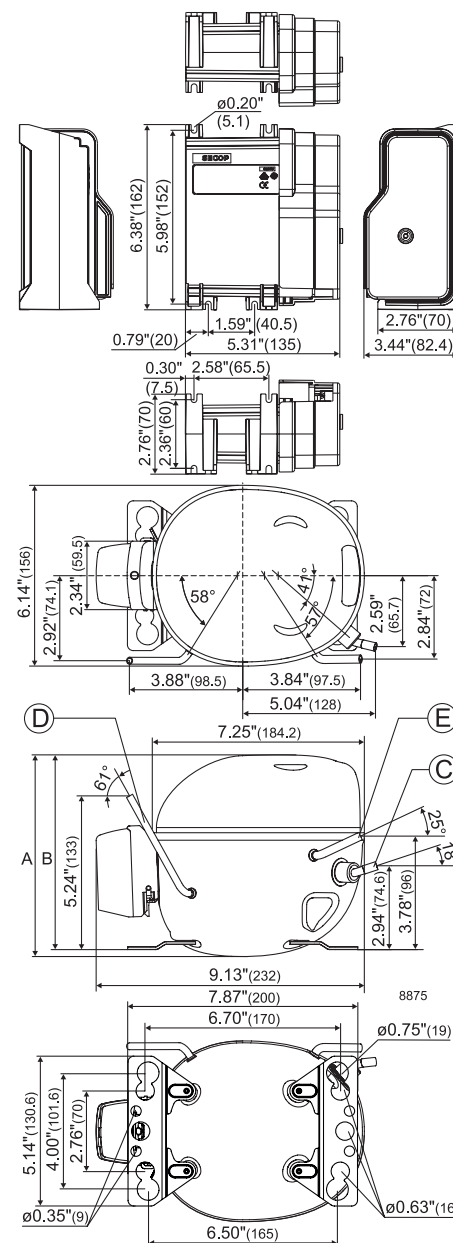
|             |                                   |
|-------------|-----------------------------------|
|             | Code number                       |
| Cover       | 103N0492                          |
| Cord relief | 103N1010                          |
| Motor cable | 35.4 in. cable length<br>105B4477 |

### Mounting accessories

|                               |                       |
|-------------------------------|-----------------------|
|                               | Code number           |
| Bolt joint for one compressor | Ø: 3/4 in.   118-1949 |
| Bolt joint in quantities      | Ø: 5/8 in.   118-1946 |
| Snap-on in quantities         | Ø: 5/8 in.   118-1947 |



- S = Static cooling normally sufficient
- O = Oil cooling
- F<sub>1</sub> = Fan cooling 1.5 m/s (compressor compartment temperature equal to ambient temperature)
- F<sub>2</sub> = Fan cooling 3.0 m/s necessary
- = not applicable in this area



**LBP: ASHRAE** 115V, 50/60Hz, fan cooling F<sub>2</sub>

|                   |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm)       | 2000 | 2250 | 2500 | 2750 | 3000 | 3500 | 4000 | 4500 |
| Capacity [BTU/h]  | 664  | 748  | 833  | 917  | 1002 | 1170 | 1339 | 1523 |
| Power cons. [W]   | 115  | 130  | 144  | 160  | 176  | 207  | 239  | 277  |
| Current cons. [A] | 1.55 | 1.72 | 1.89 | 2.08 | 2.27 | 2.64 | 3.01 | 3.44 |
| EER [BTU/Wh]      | 5.76 | 5.78 | 5.79 | 5.75 | 5.71 | 5.65 | 5.61 | 5.50 |

**Test conditions**

|                        |       |         |
|------------------------|-------|---------|
| Evaporation pressure   | -10°F | -23.3°C |
| Condensing pressure    | 130°F | 54.4°C  |
| Liquid temperature     | 90°F  | 32.2°C  |
| Return gas temperature | 90°F  | 32.2°C  |

**LBP: CECOMAF** 115V, 50/60Hz, fan cooling F<sub>2</sub>

|                   |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm)       | 2000 | 2250 | 2500 | 2750 | 3000 | 3500 | 4000 | 4500 |
| Capacity [BTU/h]  | 497  | 561  | 624  | 687  | 750  | 877  | 1003 | 1141 |
| Power cons. [W]   | 111  | 125  | 139  | 154  | 169  | 200  | 230  | 267  |
| Current cons. [A] | 1.49 | 1.66 | 1.83 | 2.01 | 2.19 | 2.54 | 2.90 | 3.32 |
| EER [BTU/Wh]      | 4.48 | 4.49 | 4.50 | 4.47 | 4.44 | 4.39 | 4.36 | 4.28 |

**Test conditions**

|                        |       |       |
|------------------------|-------|-------|
| Evaporation pressure   | -13°F | -25°C |
| Condensing pressure    | 131°F | 55°C  |
| Liquid temperature     | 131°F | 55°C  |
| Return gas temperature | 90°F  | 32°C  |

**LBP: EN12900** 115V, 50/60Hz, fan cooling F<sub>2</sub>

|                   |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm)       | 2000 | 2250 | 2500 | 2750 | 3000 | 3500 | 4000 | 4500 |
| Capacity [BTU/h]  | 388  | 438  | 487  | 537  | 586  | 685  | 784  | 892  |
| Power cons. [W]   | 85   | 96   | 106  | 118  | 130  | 153  | 176  | 205  |
| Current cons. [A] | 1.12 | 1.24 | 1.37 | 1.50 | 1.64 | 1.91 | 2.18 | 2.49 |
| EER [BTU/Wh]      | 4.57 | 4.58 | 4.59 | 4.55 | 4.52 | 4.48 | 4.45 | 4.36 |

**Test conditions**

|                        |       |       |
|------------------------|-------|-------|
| Evaporation pressure   | -31°F | -35°C |
| Condensing pressure    | 104°F | 40°C  |
| Liquid temperature     | 104°F | 40°C  |
| Return gas temperature | 68°F  | 20°C  |

**MBP: ASHRAE** 115V, 50/60Hz, fan cooling F<sub>2</sub>

|                   |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm)       | 2000 | 2250 | 2500 | 2750 | 3000 | 3500 | 4000 | 4500 |
| Capacity [BTU/h]  | 1176 | 1326 | 1477 | 1626 | 1776 | 2075 | 2375 | 2700 |
| Power cons. [W]   | 157  | 177  | 196  | 218  | 239  | 283  | 326  | 378  |
| Current cons. [A] | 2.11 | 2.35 | 2.58 | 2.84 | 3.04 | 3.60 | 4.11 | 4.70 |
| EER [BTU/Wh]      | 7.49 | 7.51 | 7.52 | 7.47 | 7.42 | 7.34 | 7.29 | 7.15 |

**Test conditions**

|                        |       |        |
|------------------------|-------|--------|
| Evaporation pressure   | 20°F  | -6.7°C |
| Condensing pressure    | 130°F | 54.4°C |
| Liquid temperature     | 115°F | 46.1°C |
| Return gas temperature | 95°F  | 35°C   |

**MBP: CECOMAF** 115V, 50/60Hz, fan cooling F<sub>2</sub>

|                   |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm)       | 2000 | 2250 | 2500 | 2750 | 3000 | 3500 | 4000 | 4500 |
| Capacity [BTU/h]  | 939  | 1059 | 1179 | 1298 | 1418 | 1656 | 1895 | 2155 |
| Power cons. [W]   | 152  | 171  | 190  | 211  | 231  | 273  | 315  | 365  |
| Current cons. [A] | 2.02 | 2.25 | 2.47 | 2.71 | 2.96 | 3.44 | 3.93 | 4.49 |
| EER [BTU/Wh]      | 6.19 | 6.20 | 6.22 | 6.17 | 6.13 | 6.07 | 6.02 | 5.91 |

**Test conditions**

|                        |       |       |
|------------------------|-------|-------|
| Evaporation pressure   | 14°F  | -10°C |
| Condensing pressure    | 131°F | 55°C  |
| Liquid temperature     | 131°F | 55°C  |
| Return gas temperature | 90°F  | 32°C  |

**MBP: EN12900** 115V, 50/60Hz, fan cooling F<sub>2</sub>

|                   |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm)       | 2000 | 2250 | 2500 | 2750 | 3000 | 3500 | 4000 | 4500 |
| Capacity [BTU/h]  | 1060 | 1195 | 1331 | 1466 | 1600 | 1870 | 2140 | 2434 |
| Power cons. [W]   | 143  | 161  | 179  | 199  | 219  | 258  | 297  | 345  |
| Current cons. [A] | 1.84 | 2.05 | 2.25 | 2.47 | 2.69 | 3.14 | 3.58 | 4.09 |
| EER [BTU/Wh]      | 7.39 | 7.41 | 7.43 | 7.37 | 7.32 | 7.25 | 7.20 | 7.06 |

**Test conditions**

|                        |       |       |
|------------------------|-------|-------|
| Evaporation pressure   | 14°F  | -10°C |
| Condensing pressure    | 113°F | 45°C  |
| Liquid temperature     | 113°F | 45°C  |
| Return gas temperature | 68°F  | 20°C  |

**Optimization Point** 115V, 50/60Hz, fan cooling F<sub>2</sub>

|                   |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm)       | 2000 | 2250 | 2500 | 2750 | 3000 | 3500 | 4000 | 4500 |
| Capacity [BTU/h]  | 661  | 745  | 829  | 913  | 997  | 1166 | 1334 | 1517 |
| Power cons. [W]   | 97   | 109  | 121  | 134  | 148  | 174  | 201  | 233  |
| Current cons. [A] | 1.31 | 1.46 | 1.61 | 1.76 | 1.92 | 2.24 | 2.55 | 2.92 |
| EER [BTU/Wh]      | 6.83 | 6.84 | 6.86 | 6.81 | 6.76 | 6.69 | 6.65 | 6.52 |

**Test conditions**

|                        |       |       |
|------------------------|-------|-------|
| Evaporation pressure   | -13°F | -25°C |
| Condensing pressure    | 95°F  | 35°C  |
| Liquid temperature     | 95°F  | 35°C  |
| Return gas temperature | 90°F  | 32°C  |

**Optimization Point** 115V, 50/60Hz, fan cooling F<sub>2</sub>

|                   |      |      |      |      |      |      |      |      |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm)       | 2000 | 2250 | 2500 | 2750 | 3000 | 3500 | 4000 | 4500 |
| Capacity [BTU/h]  | 1083 | 1221 | 1360 | 1497 | 1635 | 1911 | 2187 | 2487 |
| Power cons. [W]   | 137  | 154  | 171  | 189  | 208  | 246  | 283  | 328  |
| Current cons. [A] | 1.84 | 2.05 | 2.25 | 2.47 | 2.69 | 3.14 | 3.58 | 4.09 |
| EER [BTU/Wh]      | 7.93 | 7.96 | 7.97 | 7.91 | 7.86 | 7.78 | 7.72 | 7.57 |

**Test conditions**

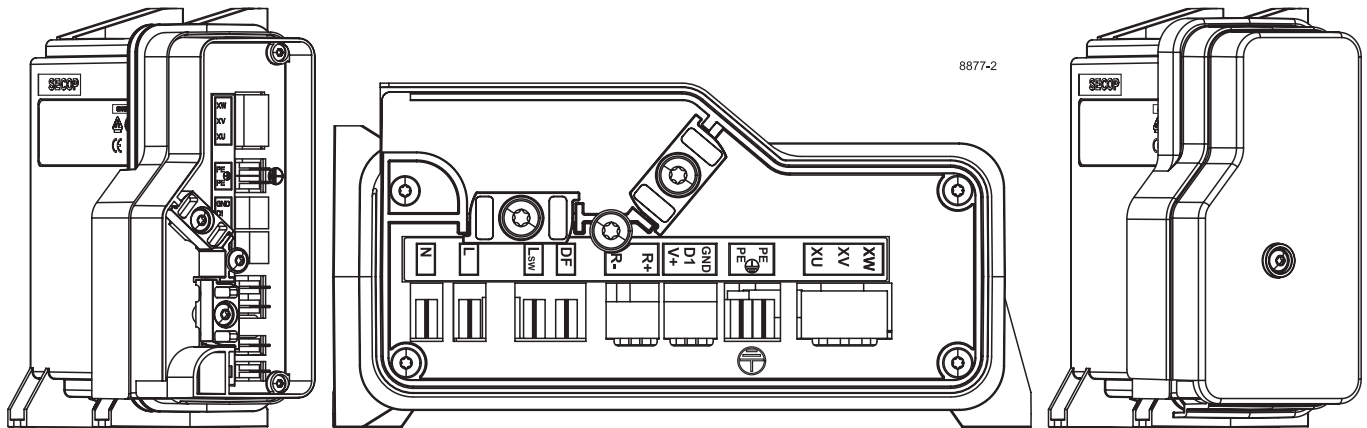
|                        |       |       |
|------------------------|-------|-------|
| Evaporation pressure   | 14°F  | -10°C |
| Condensing pressure    | 113°F | 45°C  |
| Liquid temperature     | 113°F | 45°C  |
| Return gas temperature | 90°F  | 32°C  |

**Optimization Point** 115V, 50/60Hz, fan cooling F<sub>2</sub>

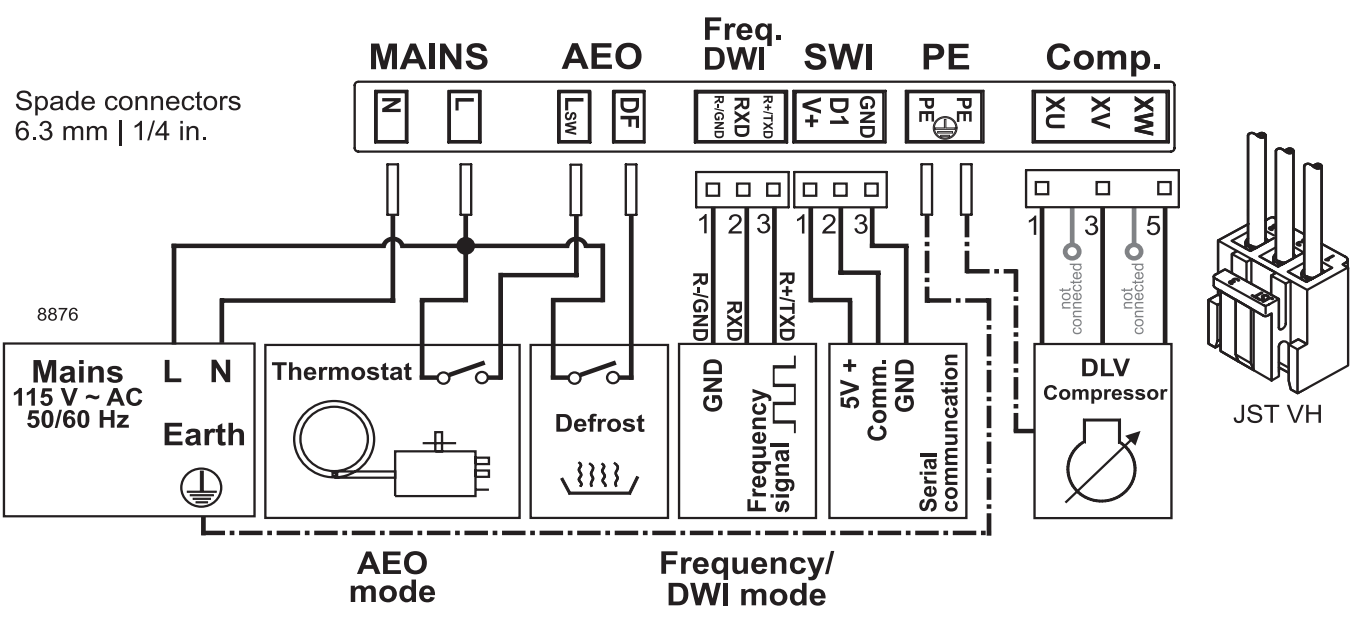
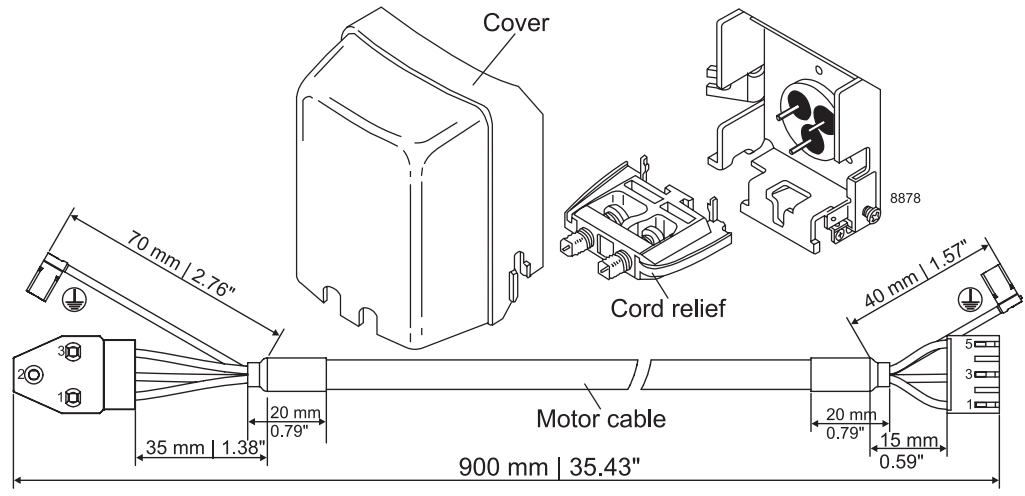
|                   |       |       |       |       |       |       |       |       |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Speed (rpm)       | 2000  | 2250  | 2500  | 2750  | 3000  | 3500  | 4000  | 4500  |
| Capacity [BTU/h]  | 1857  | 2094  | 2331  | 2567  | 2803  | 3275  | 3748  | 4262  |
| Power cons. [W]   | 158   | 177   | 197   | 219   | 240   | 284   | 327   | 379   |
| Current cons. [A] | 3.45  | 3.46  | 3.47  | 3.44  | 3.42  | 3.58  | 3.36  | 3.30  |
| EER [BTU/Wh]      | 11.78 | 11.81 | 11.83 | 11.74 | 11.67 | 11.55 | 11.47 | 11.24 |

**Test conditions**

|                        |       |      |
|------------------------|-------|------|
| Evaporation pressure   | 41°F  | 5°C  |
| Condensing pressure    | 113°F | 45°C |
| Liquid temperature     | 113°F | 45°C |
| Return gas temperature | 90°F  | 32°C |



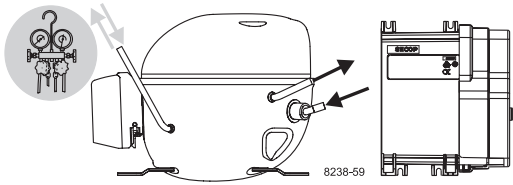
8877-2



Spade connectors  
6.3 mm | 1/4 in.

8876

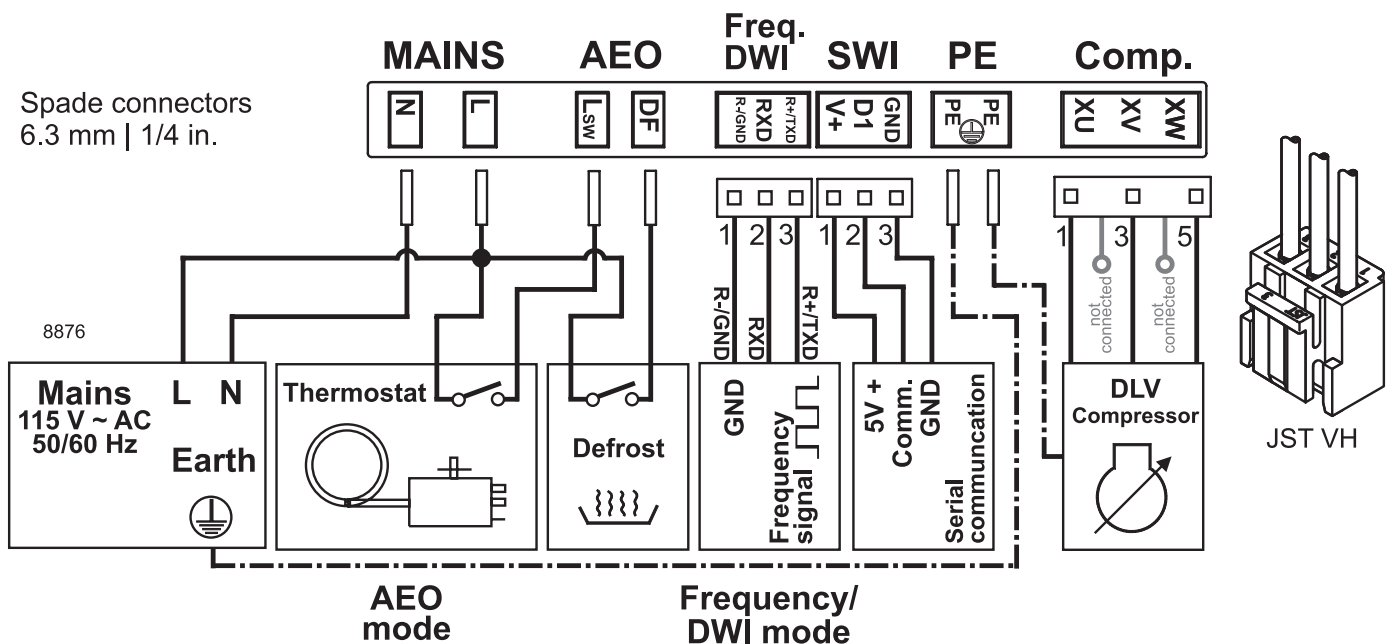
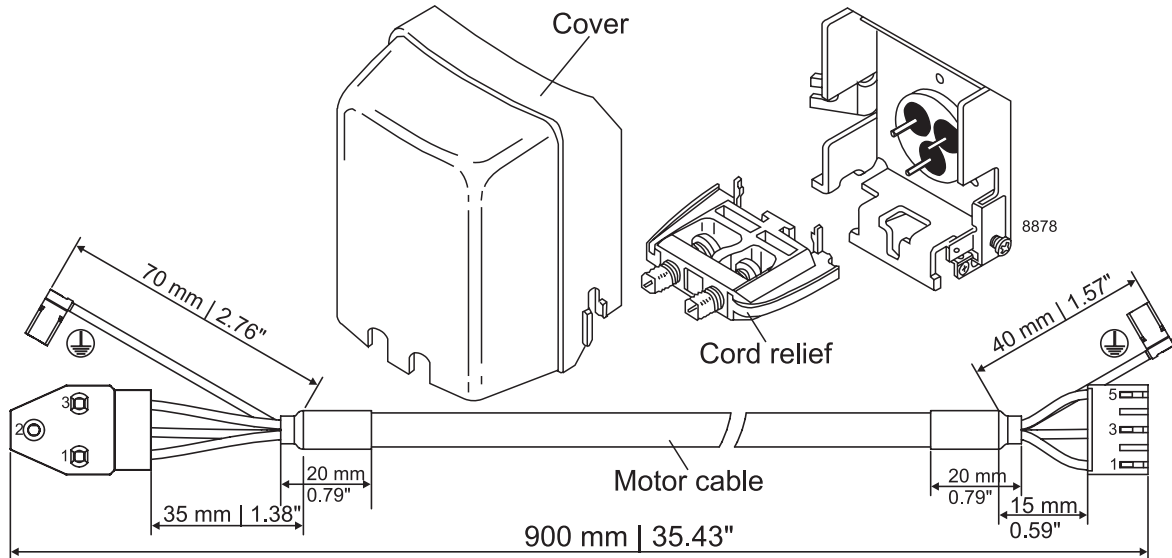
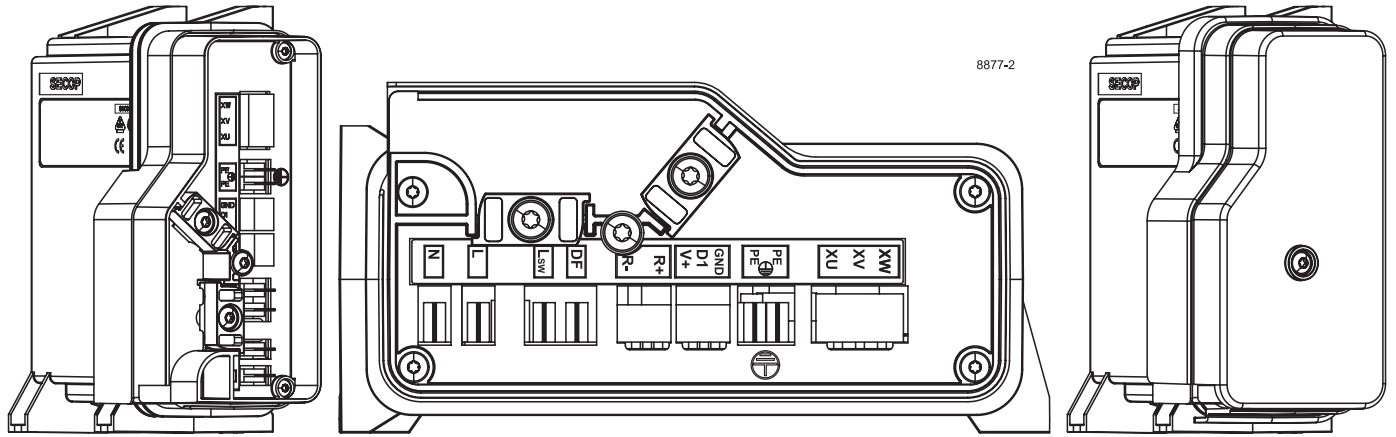
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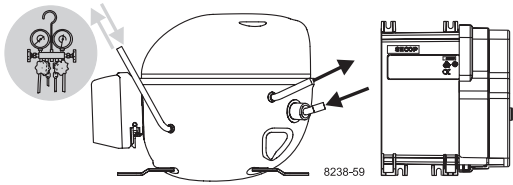


# Instructions

DLV Compressors  
100-127V 50/60Hz  
105N446x  
Series Controllers

**SECCP**





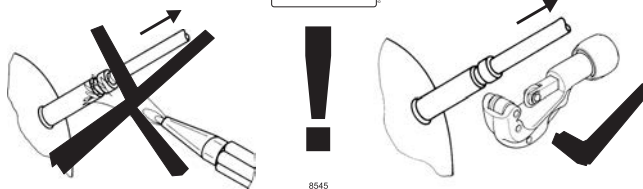
# Instructions

DLV Compressors  
100-127V 50/60Hz  
105N446x  
Series Controllers

# SECCP

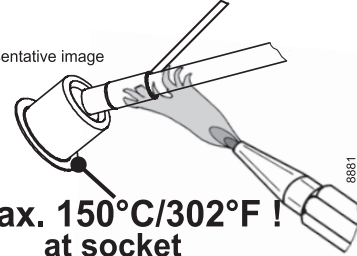


## Service/Repair R290



## Brazing on Suction Connectors (Direct Intake)

representative image

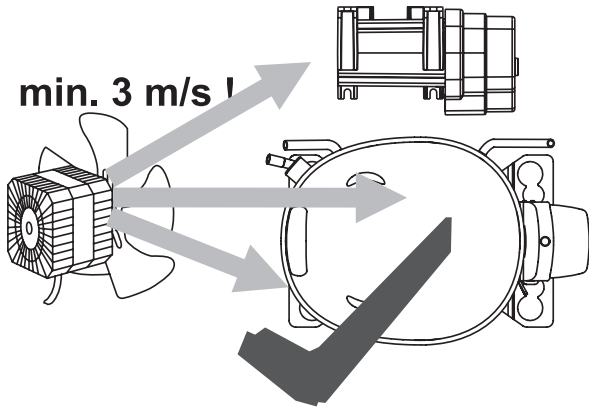


**! max. 150°C/302°F !  
at socket**

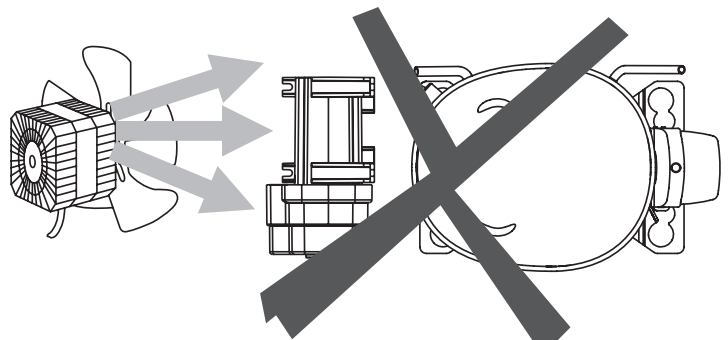
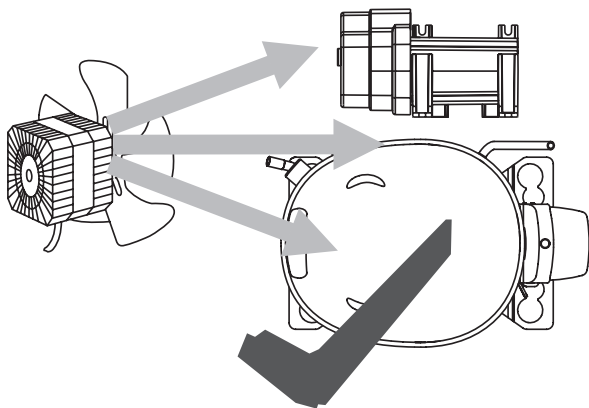
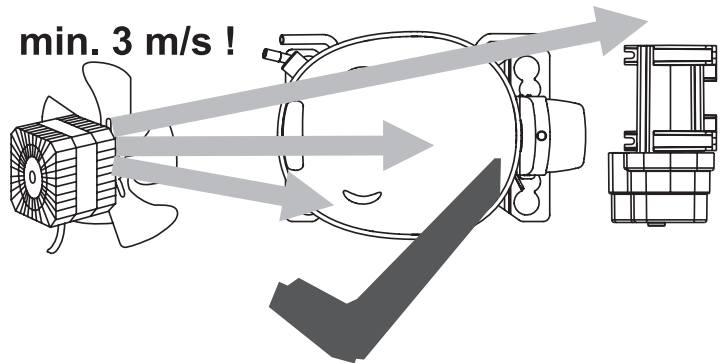
brazing solder: phosphor (LP7) or silver

Refer to Product Bulletin: **Brazing on Suction Connectors  
(Compressors with Direct Suction Intake)**

**min. 3 m/s !**



**min. 3 m/s !**



8879

|                                      |   |
|--------------------------------------|---|
| <b>Airflow</b>                       | 3 m/s   |
| <b>Operating conditions 105N4460</b> | + 5 °C to 43 °C - humidity < 90 % rH non condensing |
| <b>Storage conditions</b>            | -25 °C to 70 °C - humidity < 90 % rH non condensing |
| <b>Supply voltage</b>                | 100-127 V (± 10 %)                                  |
| <b>Frequency</b>                     | 50/60 Hz  |
| <b>Input power rating</b>            | 450 W   |

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