

Single Pack SLVE18CN 220-240V 50Hz / 208-230V 60Hz PM

Codice Imballo Singolo: **195B4413**

| Posizione | Titolo | Codice | Quantità |
|-----------|--|----------|----------|
| 1 | Compressor SLVE18CN | 104H8841 | 1 |
| 2 | Electronic unit | 105N4731 | 1 |
| 3 | Cover | 103N2008 | 1 |
| 4 | Bolt joint for one compressor M6 ø16mm | 118-1917 | 1 |

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SLVE18CN Variable Speed Drive Compressor R290, 208-240V 50/60Hz - with 105N473x Series Controllers



General

| | |
|--|---------------------|
| Code number (without electronic unit) | 104H8841 |
| Electronic unit - Standard, 700±20 mm cable length | 105N4730 (with PFC) |
| Approvals: EN 60335-2-34 with Annex AA, CCC, UL 60335-2-34 with Annex AA | |
| Compressors on pallet | 80 |
| Remarks: PFC = power factor correction according to EN 61000-3-2:2014 | |

Application

| Application | Hz | LBP/MBP | |
|--|------|-----------|-----------|
| | | 50 | 60 |
| Frequency | Hz | 50 | 60 |
| Evaporating temperature | °C | -45 to 10 | -45 to 10 |
| Voltage range / frequency | V/Hz | 180 - 270 | 180 - 270 |
| Max. condensing temperature continuous (short) | °C | 60 (65) | 60 (65) |
| Max. winding temperature continuous (short) | °C | 125 (135) | 125 (135) |

Cooling requirements

| Frequency | Hz | 50 | | | 60 | | |
|-----------|----|----------------|----------------|-----|----------------|----------------|-----|
| | | LBP | MBP | HBP | LBP | MBP | HBP |
| 32°C | | F ₂ | F ₂ | - | F ₂ | F ₂ | - |
| 38°C | | F ₂ | F ₂ | - | F ₂ | F ₂ | - |
| 43°C | | F ₂ | F ₂ | - | F ₂ | F ₂ | - |

Features

| | | |
|------------------------------------|-----|-----------------------------|
| Speed range | rpm | 2200 - 4500 |
| Speed control | | AEO, frequency, serial com. |
| 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 | 7.0 |
| Resistance, all 3 windings (25°C) | Ω | 3.9 |

Design

| | | |
|--|-----------------|-------------------|
| Displacement | cm ³ | 17.70 |
| Oil quantity (type) | cm ³ | 550 (polyolester) |
| Maximum refrigerant charge (tech. limit) | g | 550 |
| Free gas volume in compressor | cm ³ | 1460 |
| Weight - Compressor/Electronic unit | kg | 14.2 / 1.2 |

Dimensions

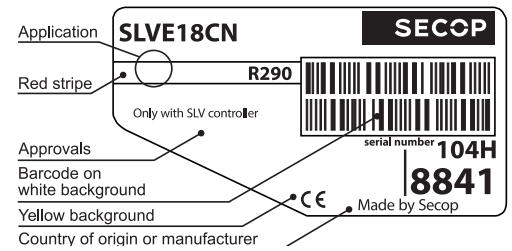
| | | | |
|---------------------|--------------------------|----|----------------------|
| Height | mm | A | 219 |
| | | B | 213 |
| | | B1 | 193 |
| | | B2 | 110 |
| Suction connector | location/I.D. mm angle | C | 10.2 37° |
| | material comment | | Copper Rubber plug |
| Process connector | location/I.D. mm angle | D | 6.2 37° |
| | material comment | | Copper Rubber plug |
| Discharge connector | location/I.D. mm angle | E | 6.2 37° |
| | material comment | | Copper Rubber plug |
| Connector tolerance | I.D. mm | | ±0.09 |

Accessories

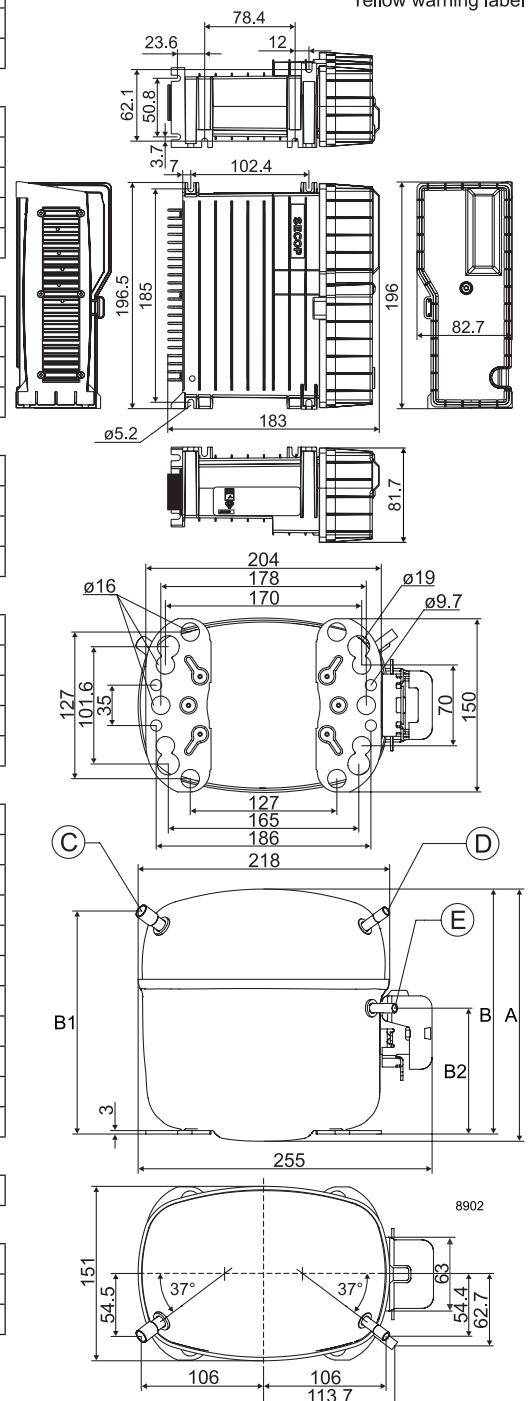
| | | |
|-------|-------------|----------|
| Cover | Code number | 103N2008 |
|-------|-------------|----------|

Mounting accessories

| | | |
|-------------------------------|----------|----------|
| Bolt joint for one compressor | Ø: 16 mm | 118-1958 |
| Bolt joint in quantities | Ø: 16 mm | 118-1961 |
| Snap-on in quantities | Ø: 16 mm | 118-1962 |



- S = Static cooling normally sufficient
- O = Oil cooling
- F₁ = Fan cooling 1.5 m/s (compressor compartment temp. equal to ambient temperature)
- F₂ = Fan cooling 3.0 m/s necessary
- SG = Suction gas cooling normally sufficient
- = not applicable in this area



LBP: ASHRAE 230V, 50/60Hz, fan cooling F₂

| | | | | | | | | |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm) | 2200 | 2400 | 2600 | 2800 | 3000 | 3500 | 4000 | 4500 |
| Capacity [W] | 666 | 721 | 776 | 832 | 887 | 989 | 1091 | 1192 |
| Capacity [BTU/h] | 2275 | 2462 | 2650 | 2840 | 3029 | 3377 | 3725 | 4072 |
| Power cons. [W] | 386 | 416 | 446 | 476 | 505 | 575 | 645 | 714 |
| Current cons. [A] | 1.79 | 1.98 | 2.13 | 2.26 | 2.38 | 2.67 | 2.95 | 3.23 |
| COP [W/W] | 1.73 | 1.73 | 1.74 | 1.75 | 1.76 | 1.72 | 1.69 | 1.67 |
| EER [BTU/Wh] | 5.90 | 5.92 | 5.94 | 5.97 | 6.00 | 5.87 | 5.78 | 5.70 |

Test conditions

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

LBP: CECOMAF 230V, 50/60Hz, fan cooling F₂

| | | | | | | | | |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm) | 2200 | 2400 | 2600 | 2800 | 3000 | 3500 | 4000 | 4500 |
| Capacity [W] | 497 | 537 | 578 | 620 | 661 | 737 | 813 | 889 |
| Capacity [BTU/h] | 1696 | 1835 | 1975 | 2117 | 2258 | 2517 | 2776 | 3035 |
| Power cons. [W] | 371 | 400 | 429 | 458 | 486 | 553 | 620 | 688 |
| Current cons. [A] | 1.73 | 1.91 | 2.06 | 2.18 | 2.31 | 2.58 | 2.84 | 3.11 |
| COP [W/W] | 1.34 | 1.34 | 1.35 | 1.36 | 1.36 | 1.33 | 1.31 | 1.29 |
| EER [BTU/Wh] | 4.57 | 4.59 | 4.6 | 4.63 | 4.64 | 4.55 | 4.48 | 4.42 |

Test conditions

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

LBP: EN12900

| | | | | | | | | |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm) | 2200 | 2400 | 2600 | 2800 | 3000 | 3500 | 4000 | 4500 |
| Capacity [W] | 361 | 391 | 421 | 451 | 481 | 536 | 592 | |
| Capacity [BTU/h] | 1234 | 1336 | 1438 | 1541 | 1643 | 1832 | 2021 | |
| Power cons. [W] | 262 | 283 | 303 | 323 | 343 | 391 | 438 | |
| Current cons. [A] | 1.24 | 1.39 | 1.52 | 1.63 | 1.74 | 1.90 | 2.06 | |
| COP [W/W] | 1.38 | 1.38 | 1.39 | 1.40 | 1.40 | 1.37 | 1.35 | |
| EER [BTU/Wh] | 4.71 | 4.73 | 4.75 | 4.77 | 4.79 | 4.69 | 4.61 | |

Test conditions

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

MBP: ASHRAE 230V, 50/60Hz, fan cooling F₂

| | | | | | | | | |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm) | 2200 | 2400 | 2600 | 2800 | 3000 | 3500 | 4000 | 4500 |
| Capacity [W] | 1199 | 1298 | 1397 | 1497 | 1597 | 1780 | 1963 | 2146 |
| Capacity [BTU/h] | 4095 | 4431 | 4770 | 5111 | 5452 | 6078 | 6704 | 7330 |
| Power cons. [W] | 542 | 584 | 626 | 668 | 710 | 808 | 906 | 1004 |
| Current cons. [A] | 2.49 | 2.72 | 2.91 | 3.06 | 3.20 | 3.64 | 4.07 | 4.50 |
| COP [W/W] | 2.21 | 2.22 | 2.23 | 2.24 | 2.25 | 2.20 | 2.17 | 2.14 |
| EER [BTU/Wh] | 7.56 | 7.59 | 7.62 | 7.65 | 7.68 | 7.53 | 7.40 | 7.30 |

Test conditions

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

MBP: CECOMAF 230V, 50/60Hz, fan cooling F₂

| | | | | | | | | |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm) | 2200 | 2400 | 2600 | 2800 | 3000 | 3500 | 4000 | 4500 |
| Capacity [W] | 954 | 1032 | 1111 | 1191 | 1270 | 1416 | 1562 | 1708 |
| Capacity [BTU/h] | 3258 | 3526 | 3795 | 4067 | 4338 | 4836 | 5334 | 5832 |
| Power cons. [W] | 516 | 557 | 597 | 637 | 676 | 770 | 863 | 956 |
| Current cons. [A] | 2.38 | 2.60 | 2.78 | 2.93 | 3.07 | 3.48 | 3.89 | 4.30 |
| COP [W/W] | 1.85 | 1.86 | 1.86 | 1.87 | 1.88 | 1.84 | 1.81 | 1.79 |
| EER [BTU/Wh] | 6.31 | 6.33 | 6.36 | 6.39 | 6.41 | 6.28 | 6.18 | 6.10 |

Test conditions

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

MBP: EN12900 230V, 50/60Hz, fan cooling F₂

| | | | | | | | | |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm) | 2200 | 2400 | 2600 | 2800 | 3000 | 3500 | 4000 | 4500 |
| Capacity [W] | 1044 | 1130 | 1216 | 1303 | 1390 | 1549 | 1709 | 1868 |
| Capacity [BTU/h] | 3564 | 3857 | 4152 | 4449 | 4746 | 5291 | 5836 | 6381 |
| Power cons. [W] | 463 | 500 | 536 | 572 | 607 | 692 | 775 | 859 |
| Current cons. [A] | 2.14 | 2.35 | 2.52 | 2.66 | 2.79 | 3.15 | 3.51 | 3.87 |
| COP [W/W] | 2.25 | 2.26 | 2.27 | 2.28 | 2.29 | 2.24 | 2.21 | 2.18 |
| EER [BTU/Wh] | 7.69 | 7.72 | 7.75 | 7.78 | 7.82 | 7.66 | 7.53 | 7.43 |

Test conditions

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

Optimization Point 230V, 50/60Hz, fan cooling F₂

| | | | | | | | | |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm) | 2200 | 2400 | 2600 | 2800 | 3000 | 3500 | 4000 | 4500 |
| Capacity [W] | 651 | 705 | 759 | 813 | 867 | 967 | 1066 | 1166 |
| Capacity [BTU/h] | 2224 | 2407 | 2591 | 2777 | 2962 | 3302 | 3642 | 3982 |
| Power cons. [W] | 320 | 345 | 370 | 395 | 419 | 477 | 535 | 593 |
| Current cons. [A] | 1.50 | 1.66 | 1.81 | 1.92 | 2.04 | 2.26 | 2.48 | 2.70 |
| COP [W/W] | 2.04 | 2.04 | 2.05 | 2.06 | 2.07 | 2.03 | 1.99 | 1.97 |
| EER [BTU/Wh] | 6.95 | 6.97 | 7.00 | 7.03 | 7.06 | 6.92 | 6.80 | 6.71 |

Test conditions

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

Optimization Point 230V, 50/60Hz, fan cooling F₂

| | | | | | | | | |
|-------------------|------|------|------|------|------|------|------|------|
| Speed (rpm) | 2200 | 2400 | 2600 | 2800 | 3000 | 3500 | 4000 | 4500 |
| Capacity [W] | 1087 | 1176 | 1266 | 1356 | 1447 | 1613 | 1779 | 1945 |
| Capacity [BTU/h] | 3711 | 4016 | 4323 | 4632 | 4941 | 5508 | 6075 | 6643 |
| Power cons. [W] | 463 | 500 | 536 | 572 | 607 | 691 | 775 | 859 |
| Current cons. [A] | 2.14 | 2.35 | 2.52 | 2.66 | 2.79 | 3.15 | 3.51 | 3.87 |
| COP [W/W] | 2.35 | 2.35 | 2.36 | 2.37 | 2.38 | 2.33 | 2.30 | 2.27 |
| EER [BTU/Wh] | 8.01 | 8.03 | 8.07 | 8.10 | 8.14 | 7.97 | 7.84 | 7.73 |

Test conditions

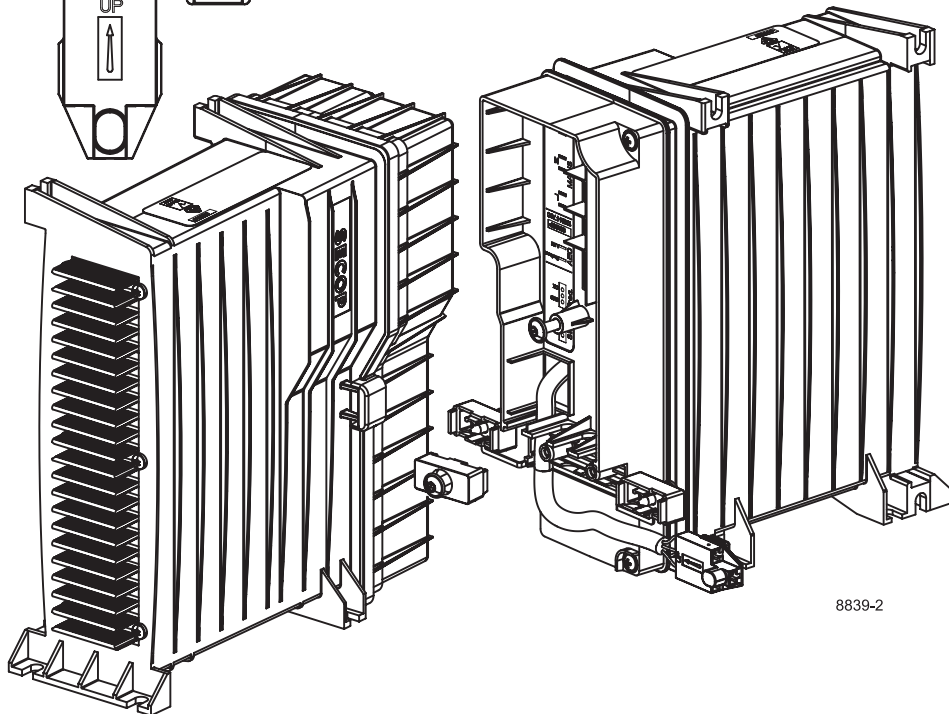
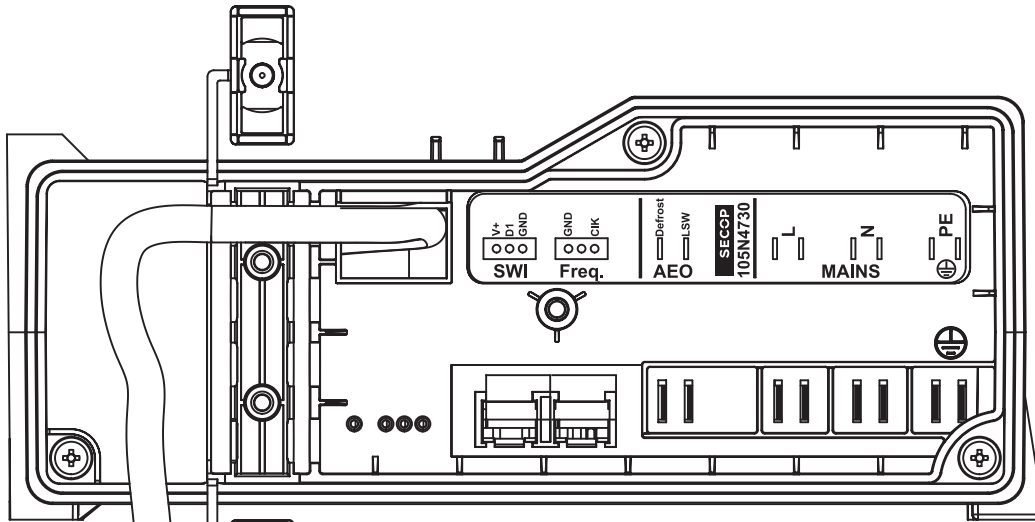
| | | |
|------------------------|-------|-------|
| Evaporation pressure | -10°C | 14°F |
| Condensing pressure | 45°C | 113°F |
| Liquid temperature | 45°C | 113°F |
| Return gas temperature | 32°C | 90°F |

Optimization Point 230V, 50/60Hz, fan cooling F₂

| | | | | | | | | |
|-------------------|------|-------|-------|-------|-------|-------|-------|-------|
| Speed (rpm) | 2200 | 2400 | 2600 | 2800 | 3000 | 3500 | 4000 | 4500 |
| Capacity [W] | | 1992 | 2144 | 2297 | 2451 | 2732 | 3013 | 3295 |
| Capacity [BTU/h] | | 6802 | 7322 | 7846 | 8370 | 9330 | 10291 | 11252 |
| Power cons. [W] | | 570 | 611 | 651 | 692 | 787 | 883 | 979 |
| Current cons. [A] | | 2.66 | 2.84 | 2.99 | 3.13 | 3.55 | 3.97 | 4.39 |
| COP [W/W] | | 3.50 | 3.51 | 3.53 | 3.54 | 3.47 | 3.41 | 3.37 |
| EER [BTU/Wh] | | 11.94 | 11.99 | 12.05 | 12.10 | 11.85 | 11.65 | 11.50 |

Test conditions

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

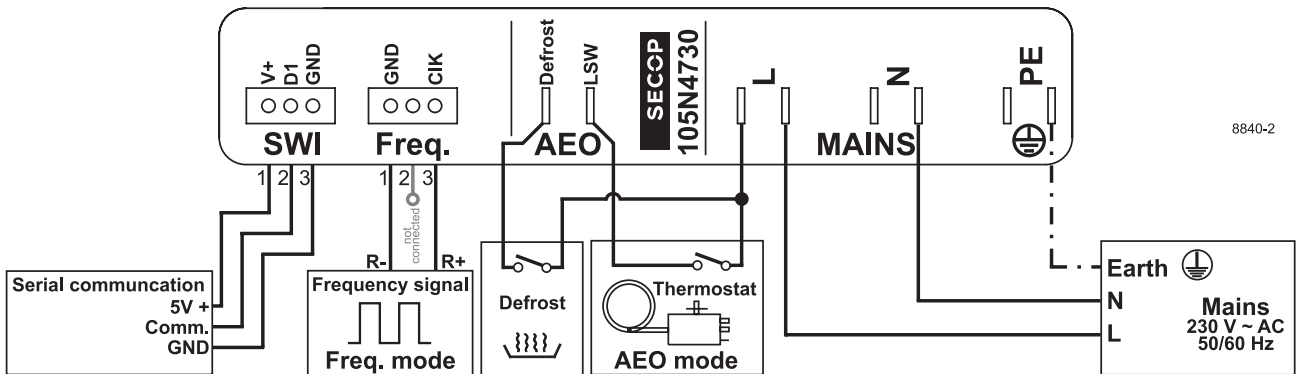


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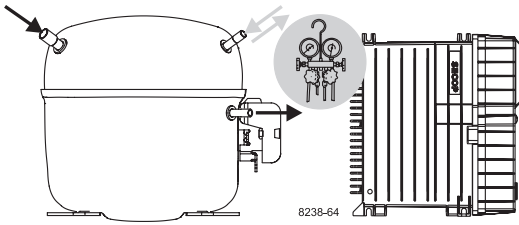
RAST 2.5

Spade connectors 6.3 x 0.8



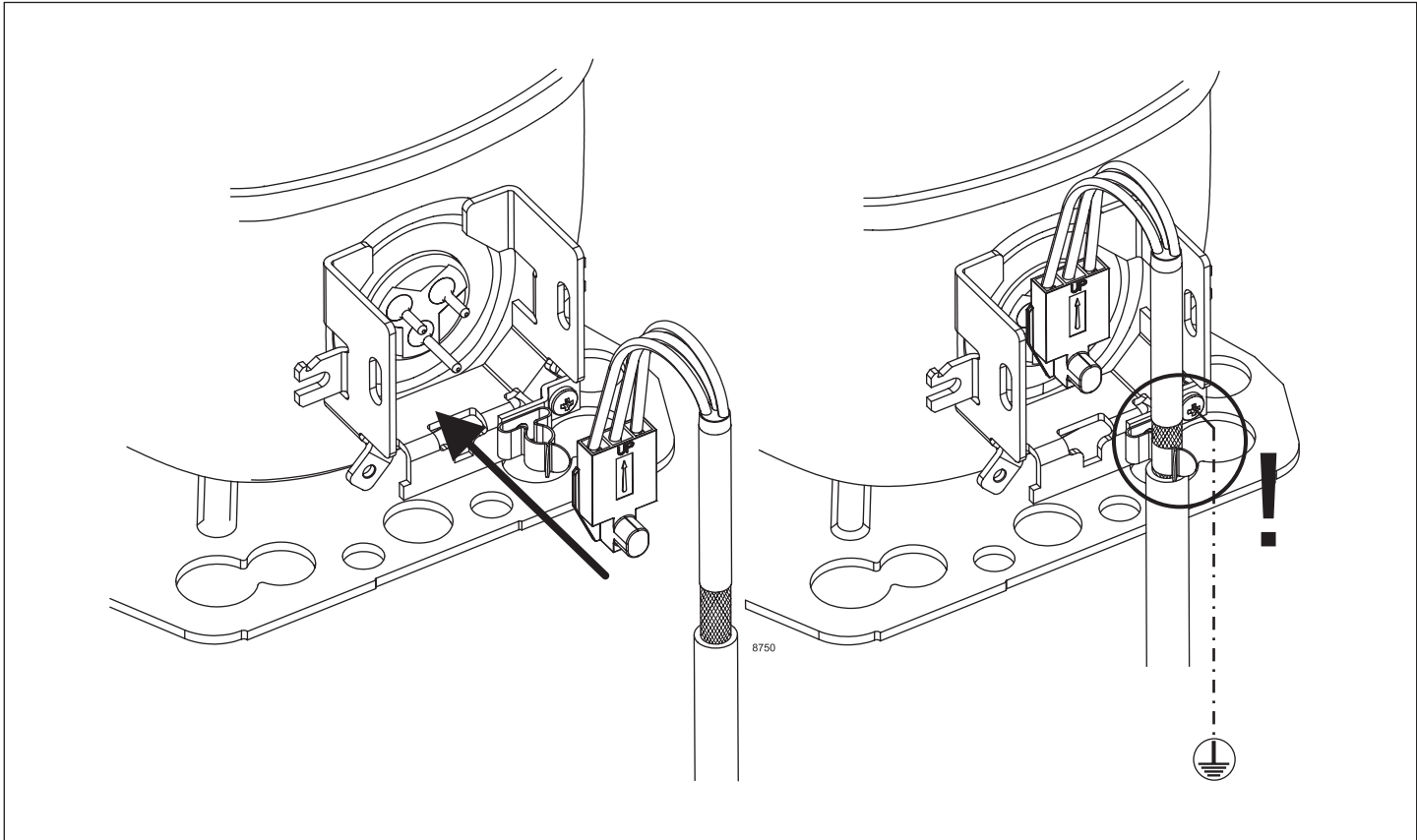
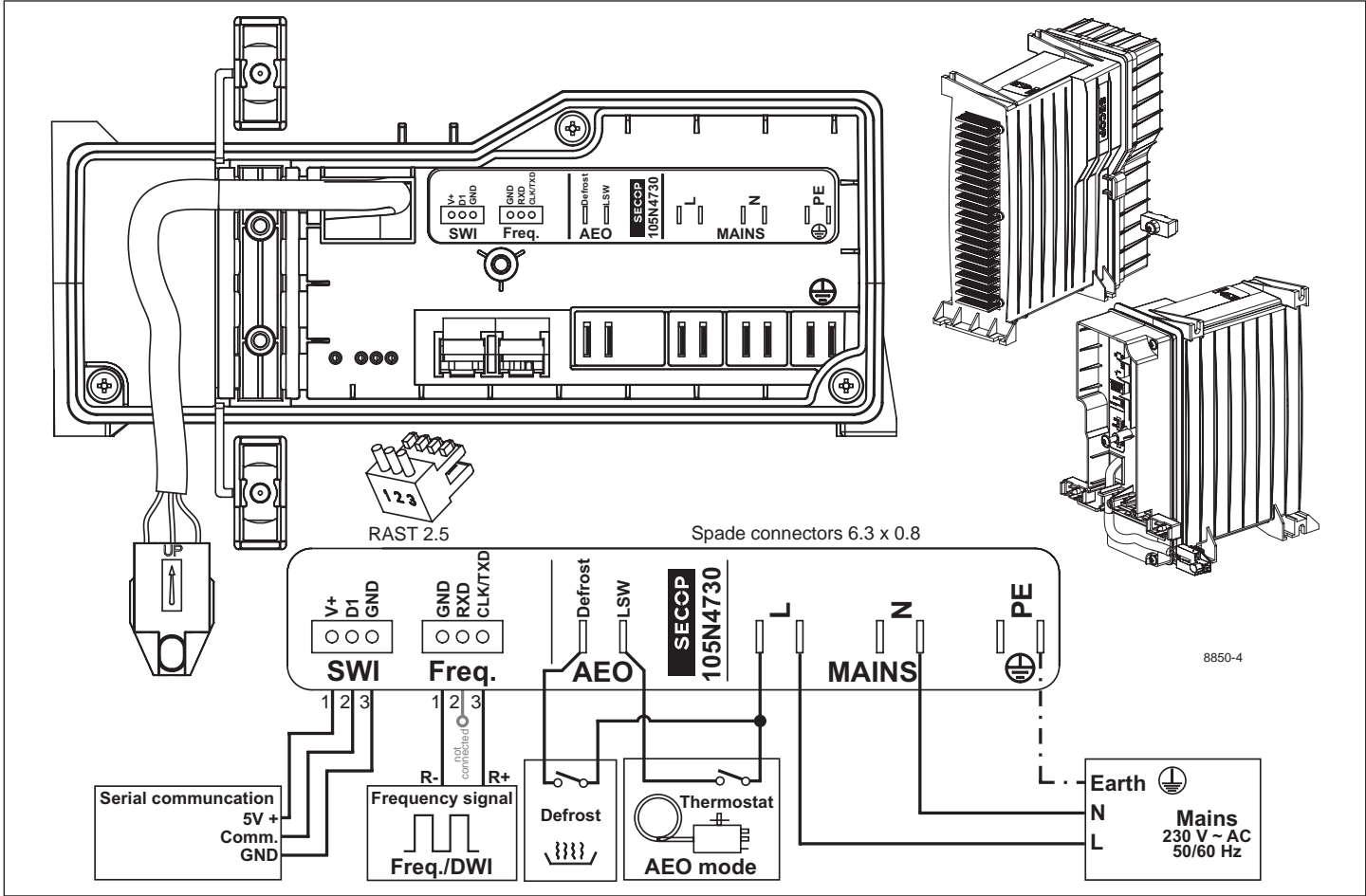
8840-2

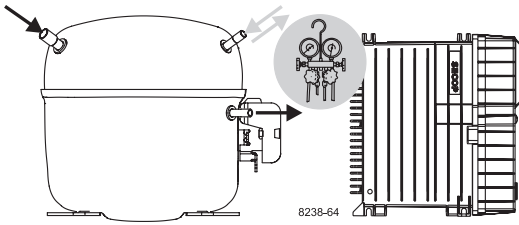
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Instructions

SLVE Compressors
208-240V 50/60Hz
105N473x
Series Controllers





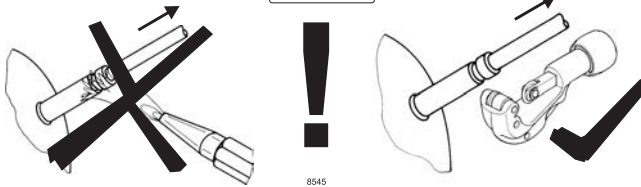
Instructions

SLVE Compressors
208-240V 50/60Hz
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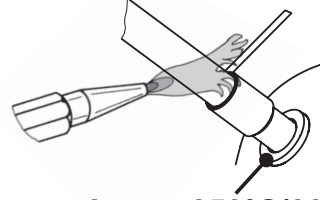
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Service/Repair R290



Brazing on Suction Connectors (Direct Intake)

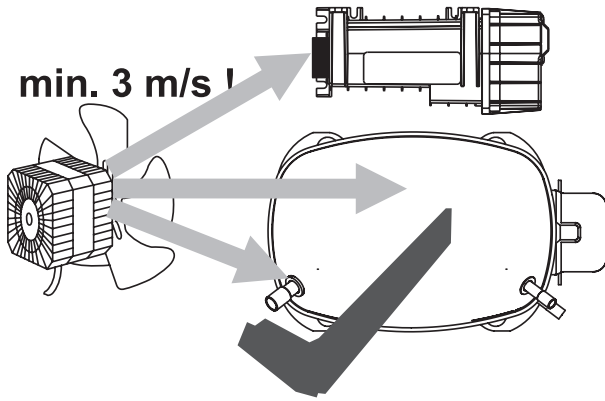


**! max. 350°C/662°F !
at socket**

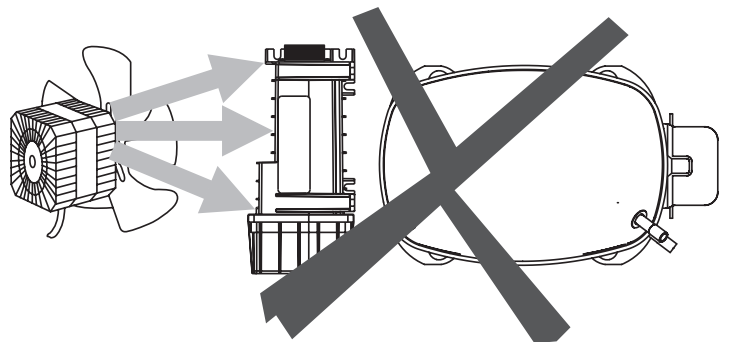
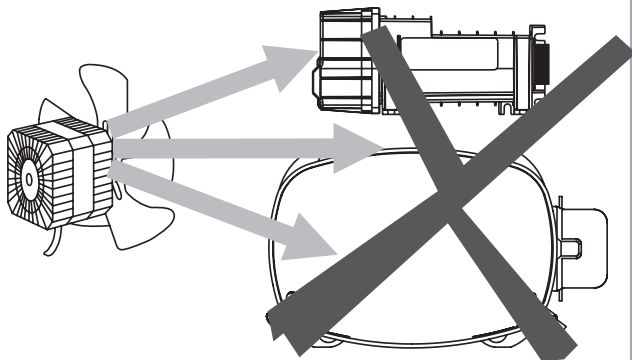
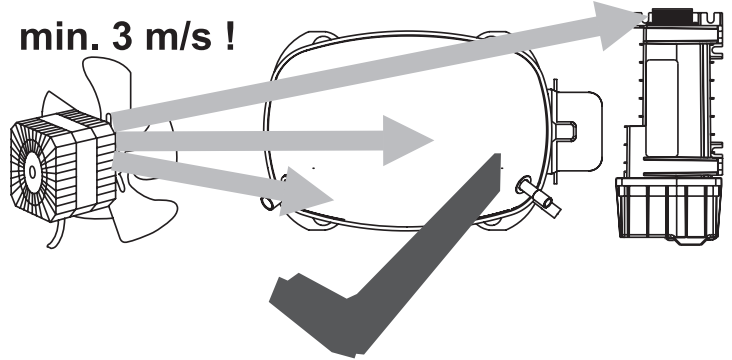
brazing solder: phosphor (LP7) or silver

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

min. 3 m/s !



min. 3 m/s !



8903

| | |
|-----------------------------|---|
| Airflow | 3 m/s |
| Operating conditions | + 5 °C to 43 °C - humidity < 90 % rH non condensing |
| Storage conditions | -25 °C to 70 °C - humidity < 90 % rH non condensing |
| Supply voltage | 208-240 V (±10%) |
| Frequency | 50/60 Hz |
| Input power rating | 1400 W at 230 V (+15 % / - 20 %) |