

SECCP

# Single Pack NLV15CN 100-240V 50/60Hz

19584837

| QTY | DESCRIPTION                                | PART NO. | QTY |
|-----|--------------------------------------------|----------|-----|
| 1   | Compressor NLV15CN                         | 105H7520 | 1   |
| 2   | Electronic unit NLV                        | 105N4965 | 1   |
| 3   | Cover                                      | 103N2008 | 1   |
| 4   | Bolt joint for one compressor   M6   ø16mm | 118-1917 | 1   |

## Model

|             |                |             |                 |
|-------------|----------------|-------------|-----------------|
| Designation | <b>NLV15CN</b> | Sales code: | <b>105H7520</b> |
|-------------|----------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                  |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R290</b>                      |
| Oil viscosity              | 32cSt                           | Displacement          | 14,65cm <sup>3</sup> / 0,89cu.in |
| Oil quantity               | 298cm <sup>3</sup> / 10,1fl.oz  | Compressors on pallet | 80                               |
| Refr. charge - tech. limit | 300g / 10,6oz                   |                       |                                  |
| Free gas volume comp.      | 2360cm <sup>3</sup> / 79,8fl.oz |                       |                                  |
| Weight                     | 10,8kg / 23,8lbs                |                       |                                  |
| Motor protection           | 1# internal                     |                       |                                  |
| Winding resist. ph. to ph. | 5,3Ω (at 25°C)                  |                       |                                  |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                  |
| Max. discharge temp.       | 130°C / 266°F                   |                       |                                  |



## General - Configurations and Applications with NLV15CN and Controller

|                           | <b>Conf. 1</b>   | <b>Conf. 2</b>   |
|---------------------------|------------------|------------------|
| Sales code single pack:   | 105N4964         | 105N4966         |
| Sales code industry pack: | 105N4965         | 105N4967         |
| Power supply (nominal)    | 100-240V,50/60Hz | 100-240V,50/60Hz |
| Approvals                 | UL, VDE          | UL, VDE          |
| Refrigerant               | R290             | R290             |
| Number of phases          | 1~AC             | 1~AC             |
| Application               | L+MBP            | L+MBP            |
| Starting torque           | HST              | HST              |
| Hot gas defrost           | OK               | OK               |
| Long interval pull down   | OK               | OK               |
| System cooling            | Fan cooling 3m/s | Fan cooling 3m/s |
| Note                      | - / -            |                  |

## Controller functions

|                       | <b>Conf. 1</b> | <b>Conf. 2</b>    |
|-----------------------|----------------|-------------------|
| Protection            | Mechanic       | Mechanic          |
| Max output power      | 1000W          | 1000W             |
| No of relays          | 2              | 2                 |
| Hot gas defrost       | yes            | yes               |
| AEO speed setting     | yes            | yes               |
| Serial com, (Modbus)  | SWI            | SWI               |
| DWI / Frequency input | yes            | yes               |
| Note                  |                | Low touch current |

## Model

Designation

NLV15CN

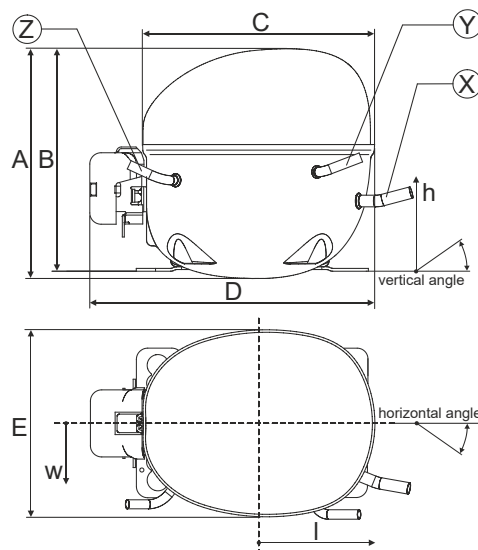
Sales code:

105H7520

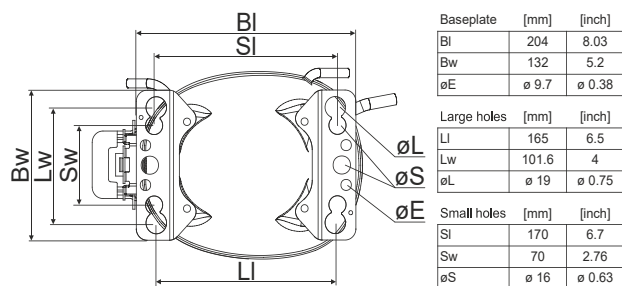
## Compressor dimensions

|         |                   |                |
|---------|-------------------|----------------|
| Housing | A Height          | 203mm / 7,99in |
|         | B Height          | 197mm / 7,76in |
|         | C Length shell    | 205mm / 8,07in |
|         | D Length w. cover | 252mm / 9,92in |
|         | E Width           | 166mm / 6,54in |

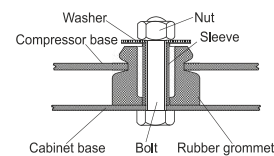
| Connectors                 | Suction<br>X | Discharge<br>Y | Process<br>Z |
|----------------------------|--------------|----------------|--------------|
| Diameter [mm]              | øi 8,11-8,29 | øi 6,11-6,29   | øi 6,11-6,29 |
| (i:inside, o:outside) [in] | øi 0,32-0,33 | øi 0,24-0,25   | øi 0,24-0,25 |
| Material                   | copper       | copper         | copper       |
| Horizontal angle ±2°       | 0°           | 0°             | 0°           |
| Vertical angle ±2°         | 15°          | 21°            | 155°         |
| Position l/h/w [mm]        | 132/69/57    | 94/102/81      | -109/94/72   |
| [in]                       | 5,2/2,7/2,2  | 3,7/4/3,2      | -4,3/3,7/2,8 |
| Straight tube l. [mm]      | 12           | 12             | 12           |
| [in]                       | 0,5          | 0,5            | 0,5          |



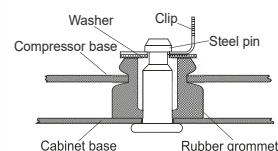
## Compressor fixation



### Bolt joint



### Snap-on



## Mounting accessories

|                            | one comp. | multi pack |
|----------------------------|-----------|------------|
| Bolt joint   M6   ø16mm    | 118-1917  | 118-1918   |
| Bolt joint   ø1/4"   ø16mm | 118-1946  |            |
| Bolt joint   ø1/4"   ø19mm | 118-1949  |            |
| Snap-on   ø7,3   ø16mm     | 118-1947  | 118-1919   |

## Application notes

Provision for PE Grounding is located at the PE Stamp on the compressor

Semi suction intake without telescope

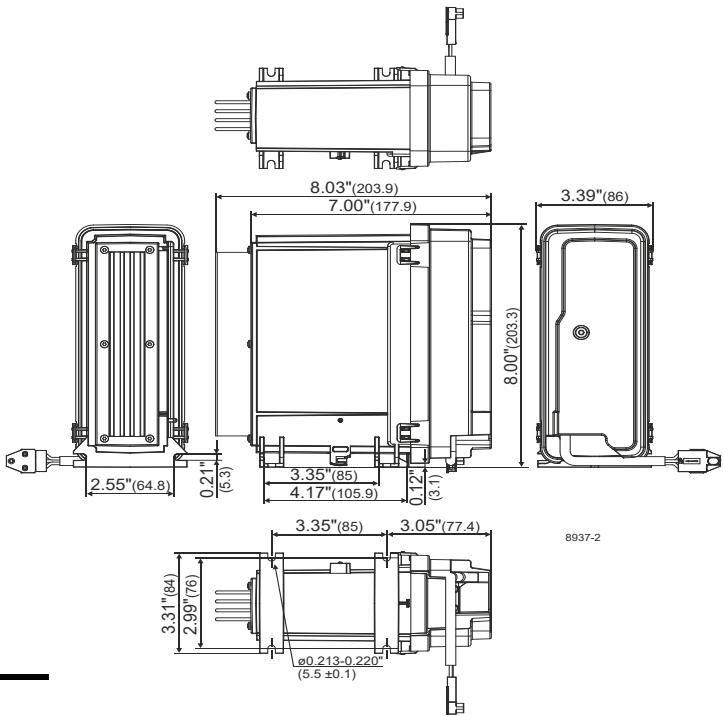
QR Code and Hyperlink leads to the [Operating Instructions.](#)



|             |               |                  |         |                      |
|-------------|---------------|------------------|---------|----------------------|
| Model       |               |                  |         |                      |
| Designation | NLV15CN       | 100-240V,50/60Hz | Conf. 1 | Sales code: 105H7520 |
| Controller  | NLV15CN MP MV |                  |         | 105N4964             |

|                              |                        |
|------------------------------|------------------------|
| Sales code single pack:      | 105N4964 (1 units)     |
| Sales code industry pack:    | 105N4965 (8 units)     |
| Adaption to compressor:      | detached               |
| Protection class:            | IP54                   |
| Weight:                      | 1.4kg/3.08lbs          |
| Voltage nom.:                | 100-240V,50/60Hz       |
| Voltage range:               | 90-150/180-270V        |
| Max, current:                | 4,2 A(230V)/8,4A(115V) |
| LRA (Locked Rotor Amperage): | 3,1A                   |
| Cable length:                | 680mm                  |
| Compressor speed range:      | 2000-5000rpm           |
| Housing plastic:             | UL94-5VA               |

Controller dimensions:



Operation Limits

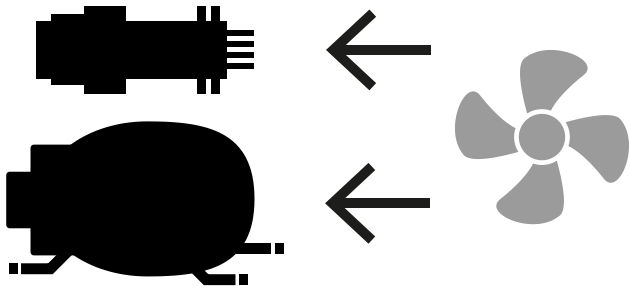
System cooling

Ambient/ machineroom temperatures minimum /maximum

|                                            |                        |
|--------------------------------------------|------------------------|
| Ambient temperature range:                 | 10 - 43°C / 50 - 110°F |
| Machine room temperature range compressor: | 10 - 48°C / 50 - 119°F |
| Machine room temperature range controller: | 10 - 50°C / 50 - 122°F |

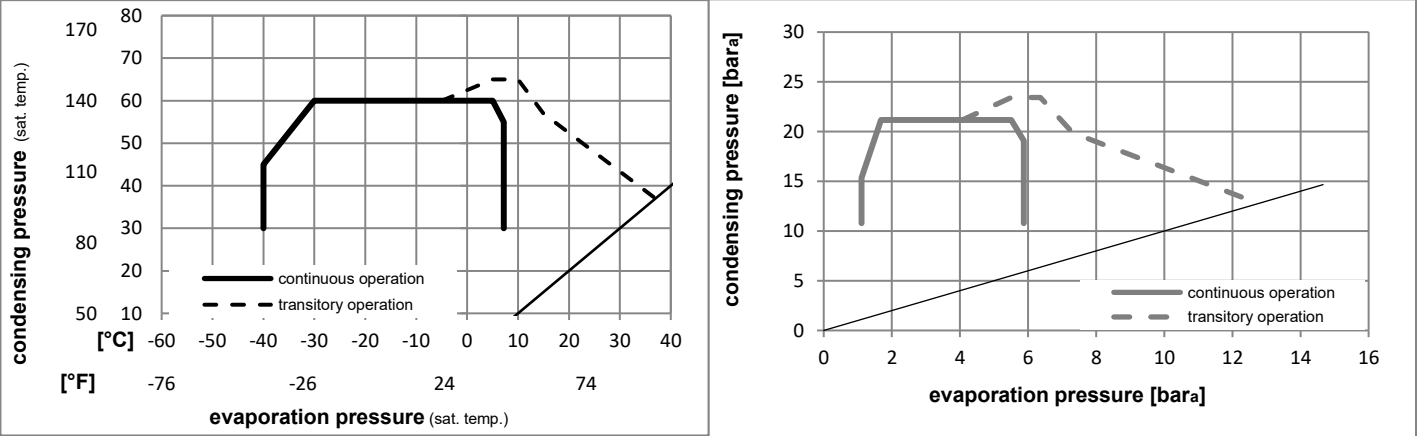
Compressor and Controller Cooling: Fan cooling 3m/s

Ensure proper airflow of 3 m/s at both compressor and electronic units.  
The airflow for the electronics must be directed to the heat sink.

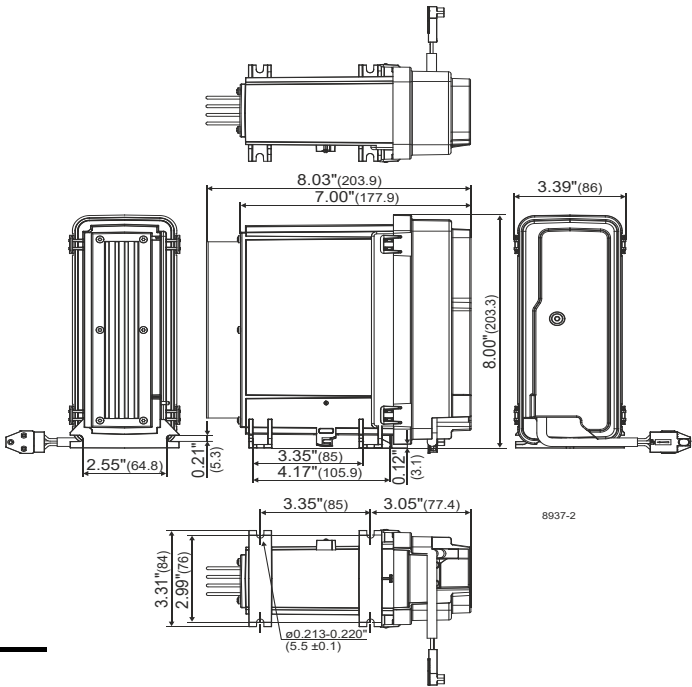


Operation pressure range

R290



|                              |                       |                  |                        |
|------------------------------|-----------------------|------------------|------------------------|
| Model                        |                       |                  |                        |
| Designation                  | NLV15CN               | 100-240V,50/60Hz | Conf. 2                |
|                              |                       |                  | Sales code: 105H7520   |
| Controller                   | NLV15CN MP MV GFCI    |                  | 105N4966               |
| Sales code single pack:      | 105N4966 (1 units)    |                  | Controller dimensions: |
| Sales code industry pack:    | 105N4967 (8 units)    |                  |                        |
| Adaption to compressor:      | detached              |                  |                        |
| Protection class:            | IP54                  |                  |                        |
| Weight:                      | 1.4kg/3.08lbs         |                  |                        |
| Voltage nom.                 | 100-240V,50/60Hz      |                  |                        |
| Voltage range                | 90-150/180-270V       |                  |                        |
| Max, current:                | 4,2A(230V)/8,4A(115V) |                  |                        |
| LRA (Locked Rotor Amperage): | 3,1A                  |                  |                        |
| Cable length:                | 915mm                 |                  |                        |
| Compressor speed range:      | 2000-5000rpm          |                  |                        |
| Housing plastic:             | UL94-5VA              |                  |                        |



Operation Limits

System cooling

Ambient/ machineroom temperatures minimum /maximum

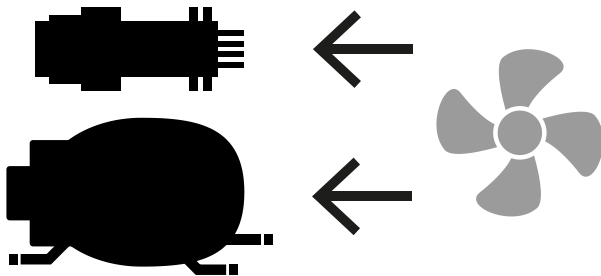
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Compressor and Controller Cooling:

Fan cooling 3m/s

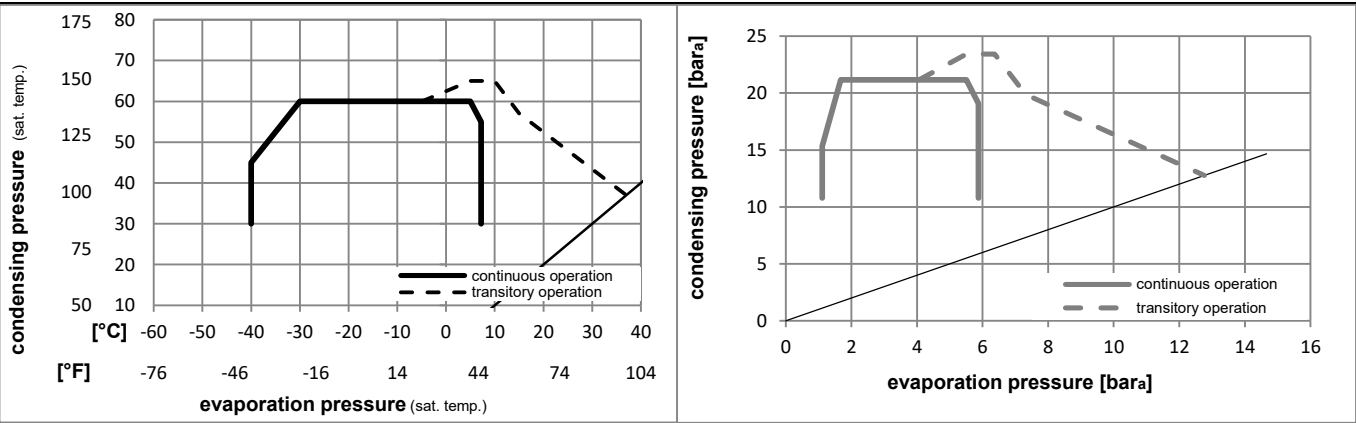
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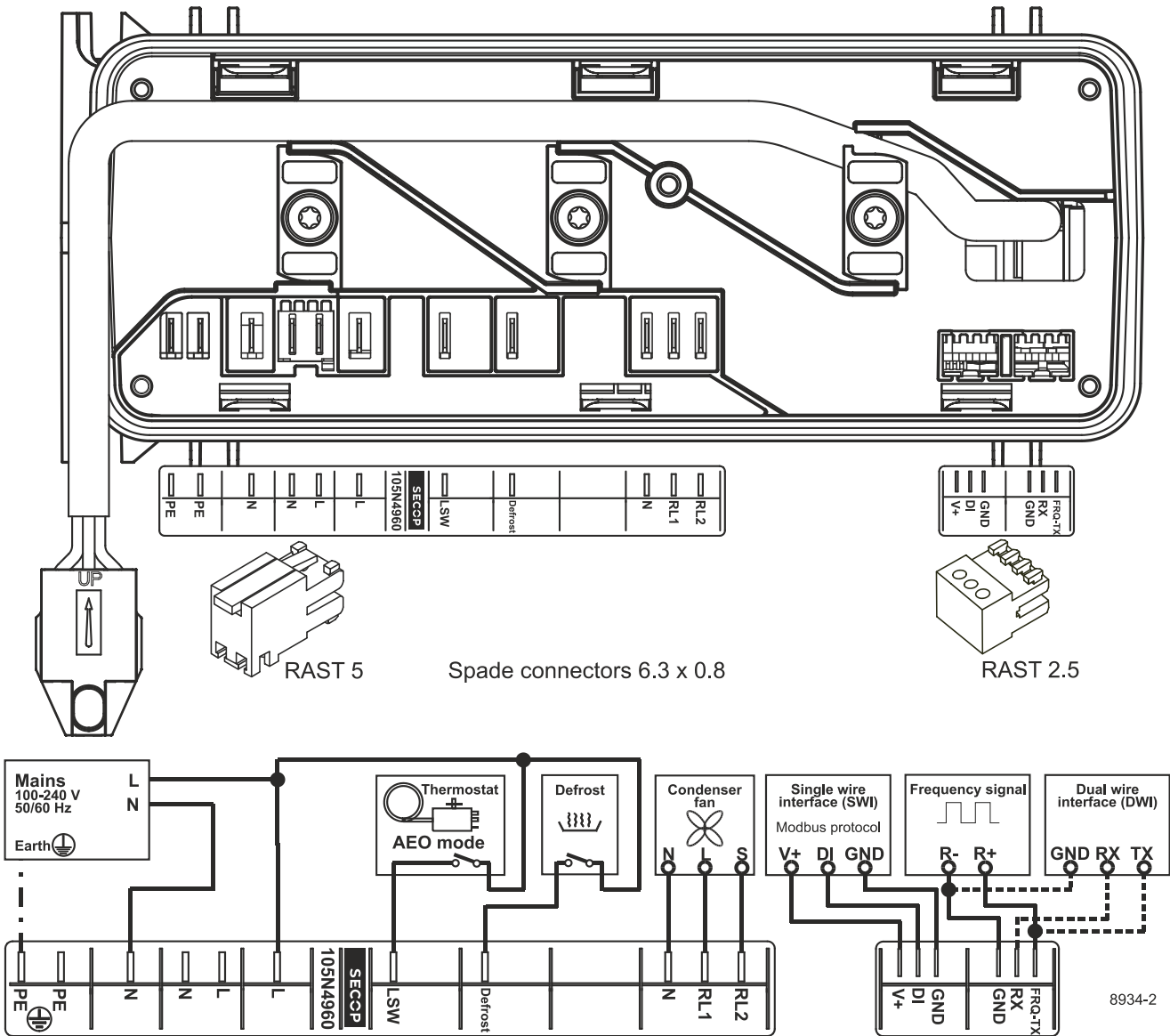


Operation pressure range

R290



|                        |         |                  |           |                      |
|------------------------|---------|------------------|-----------|----------------------|
| Model                  |         |                  |           |                      |
| Designation            | NLV15CN | 100-240V,50/60Hz | Conf. 1,2 | Sales code: 105H7520 |
| Controller             |         |                  |           |                      |
| NLV15CN MP MV          |         |                  |           |                      |
| Controller connections |         |                  |           |                      |



Accessories (Compressor + Controller) - check operation manual for details

|          |               |       |
|----------|---------------|-------|
| 103N2008 | plastic cover | 1 pcs |
|----------|---------------|-------|

## Model

Designation **NLV15CN 100-240V,50/60Hz**

Sales code: **105H7520**

Controller **NLV15CN MP MV**

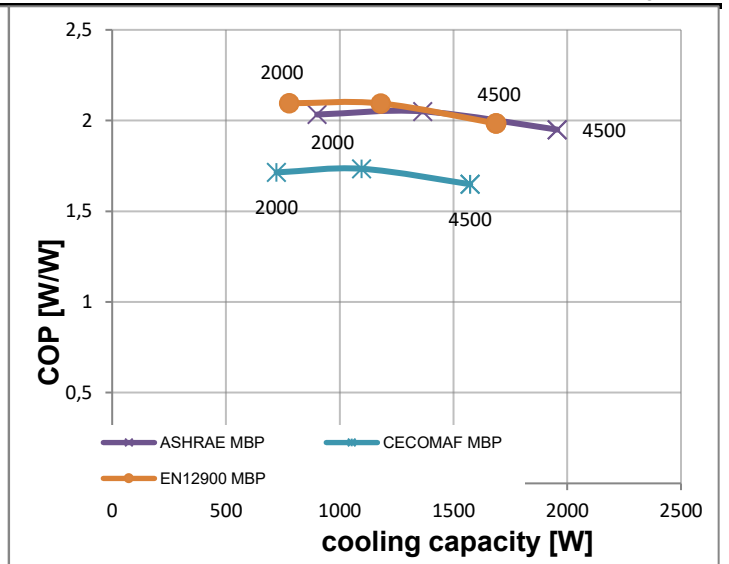
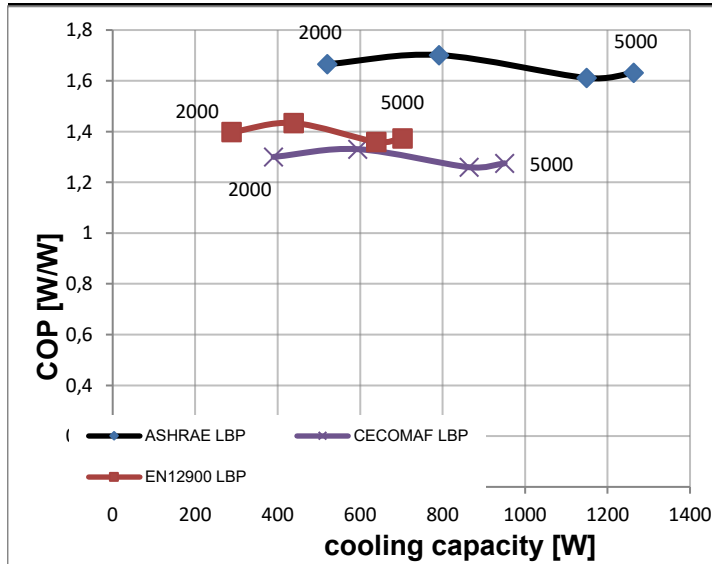
## Optimization + standard conditions

R290, 240V, 50Hz, Rpm\_N 5000, Fan cooling 3m/s

|      | Evaporating pressure (saturation temperature) |     |      |     |                  |          |        |      |      |                     | Power consumption |      |            |             |
|------|-----------------------------------------------|-----|------|-----|------------------|----------|--------|------|------|---------------------|-------------------|------|------------|-------------|
|      | Condensing pressure (saturation temperature)  |     |      |     |                  |          |        |      |      | Current consumption |                   |      | ASHRAE LBP |             |
|      | Return gas temp.                              |     |      |     | Cooling capacity |          |        |      |      | P1                  | Ref. mass flow    |      |            |             |
|      | Liquid temp.                                  |     |      |     |                  |          |        |      |      |                     | I                 | ṁ    |            |             |
|      |                                               |     |      |     |                  |          |        |      |      |                     |                   |      |            |             |
| pe   | pc                                            | RGT | Tliq | [W] | [Btu/h]          | [kcal/h] | COP    | EER  |      |                     |                   |      |            |             |
|      |                                               |     |      |     |                  |          |        |      |      |                     |                   |      |            |             |
| [°C] | -23                                           | 54  | 32   | 32  | 1266             | 4323     | 1087,5 | 1,63 | 5,57 | 1,40                | 774,6             | 3,30 | 12,80      | ASHRAE LBP  |
| [°F] | -10                                           | 130 | 90   | 90  |                  |          |        |      |      |                     |                   |      |            |             |
| [°C] | -25                                           | 55  | 32   | 55  | 950,5            | 3246     | 818,0  | 1,27 | 4,35 | 1,10                | 745,5             | 3,18 | 11,83      | CECOMAF LBP |
| [°F] | -13                                           | 131 | 90   | 131 |                  |          |        |      |      |                     |                   |      |            |             |
| [°C] | -35                                           | 40  | 20   | 40  | 703,0            | 2401     | 605,1  | 1,37 | 4,69 | 1,18                | 512,0             | 2,18 | 8,03       | EN12900 LBP |
| [°F] | -31                                           | 104 | 68   | 104 |                  |          |        |      |      |                     |                   |      |            |             |
| [°C] | -7                                            | 54  | 35   | 46  | 1956,0           | 6680     | 1683,3 | 1,95 | 6,66 | 1,68                | 1003,0            | 4,26 | 22,31      | ASHRAE MBP  |
| [°F] | 20                                            | 130 | 95   | 115 |                  |          |        |      |      |                     |                   |      |            |             |
| [°C] | -10                                           | 55  | 32   | 55  | 1573,7           | 5375     | 1354,4 | 1,65 | 5,63 | 1,42                | 954,4             | 4,05 | 19,91      | CECOMAF MBP |
| [°F] | 14                                            | 131 | 90   | 131 |                  |          |        |      |      |                     |                   |      |            |             |
| [°C] | -10                                           | 45  | 20   | 45  | 1687,0           | 5761     | 1451,8 | 1,98 | 6,78 | 1,71                | 850,2             | 3,62 | 20,71      | EN12900 MBP |
| [°F] | 14                                            | 113 | 68   | 113 |                  |          |        |      |      |                     |                   |      |            |             |

## Standard conditions with different RPM

R290, 240V, 50Hz, Fan cooling 3m/s



Test conditions: pe [°C] pc [°C] Tliq [°C] Tsuc [°C]

ASHRAE LBP -23 54,44 32,22 32,22

CECOMAF LBP -25 55 55 32

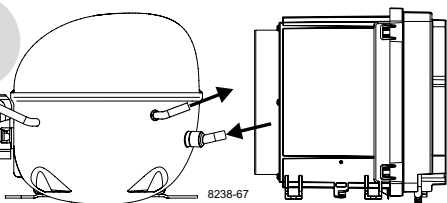
EN12900 LBP -35 40 40 20

pe [°C] pc [°C] Tliq [°C] Tsuc [°C]

ASHRAE MBP -6,66 54,44 46,11 35

CECOMAF MBP -10 55 55 32

EN12900 MBP -10 45 45 20

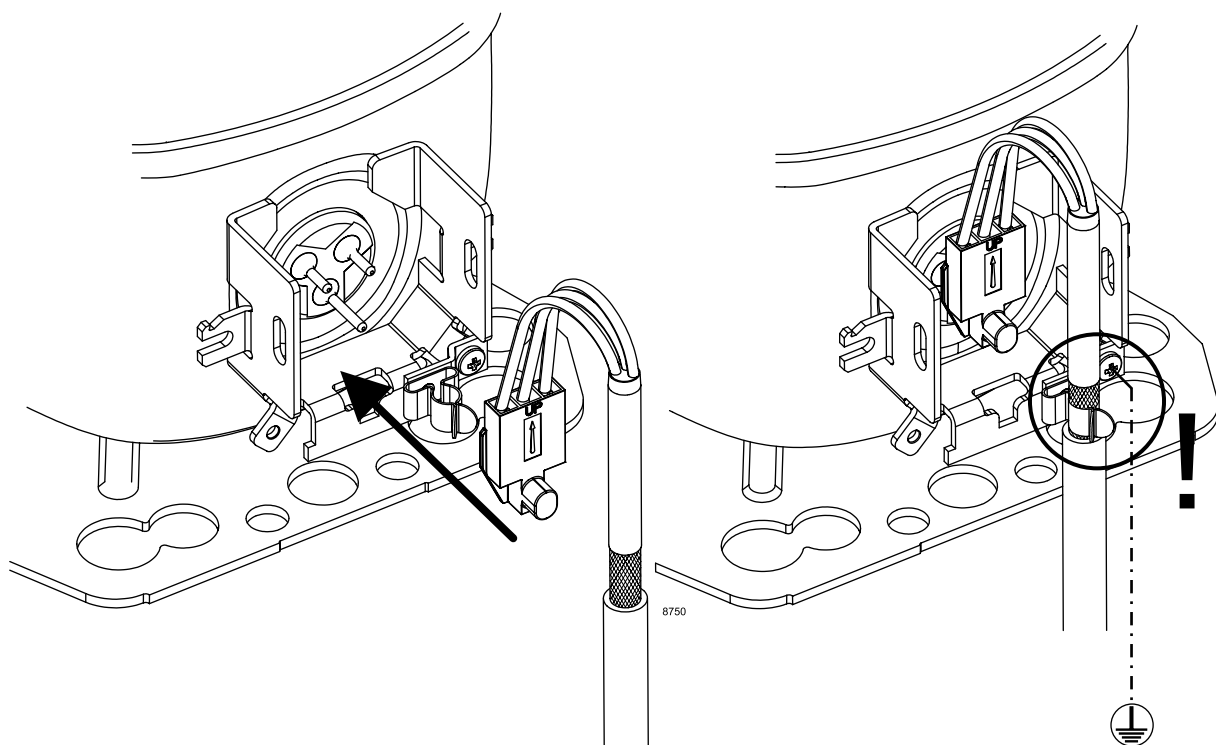
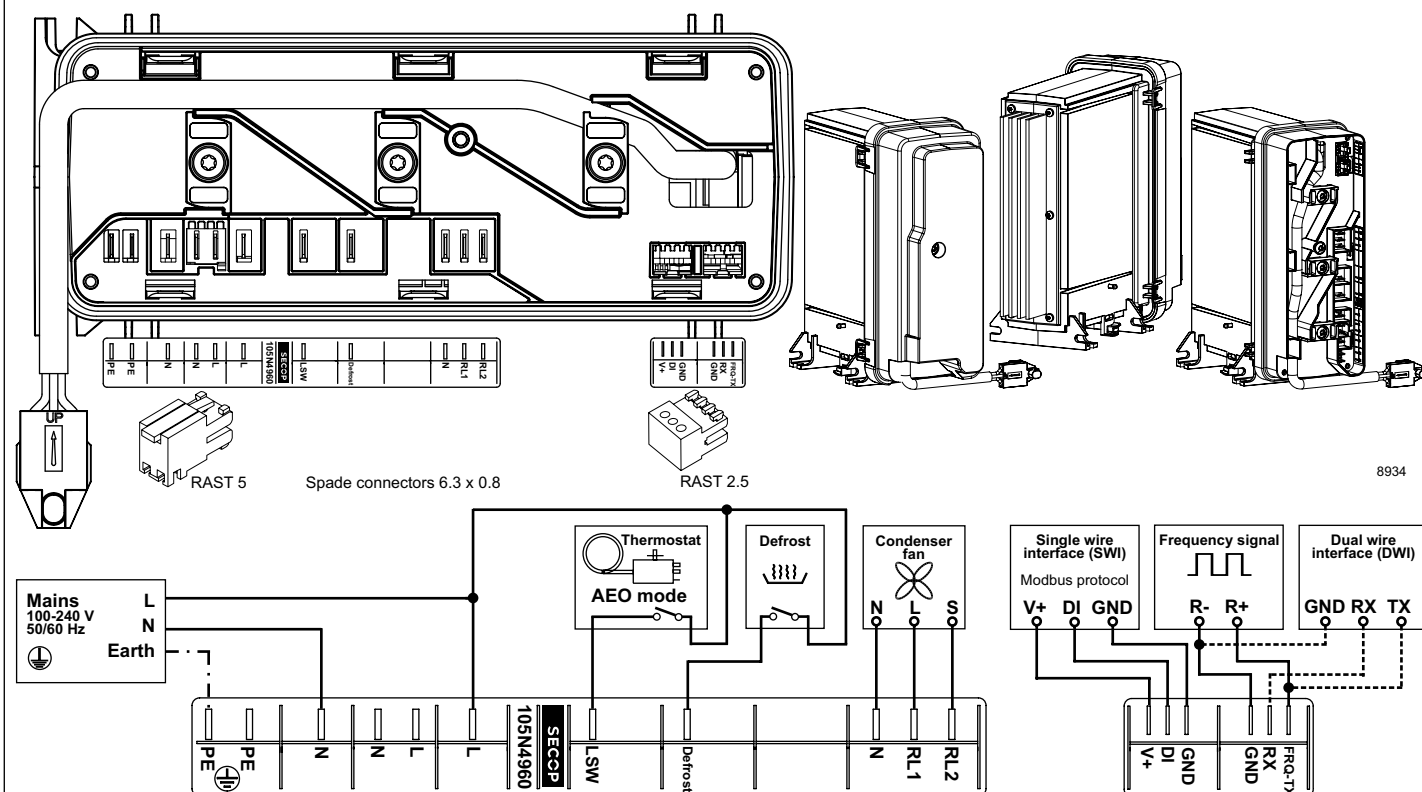


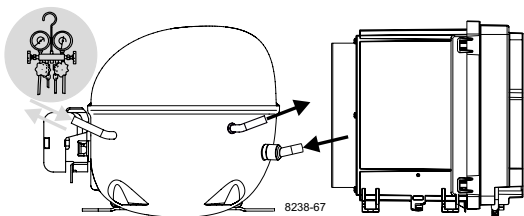
# Instructions

NLV/MN-UV Compressors  
100-240 V, 50/60 Hz  
105N4960/105N4964  
Controllers

## SECOP

Keep electrical equipment  
clear from oil, chemicals,  
and water





# Instructions

NLV/MN-UV Compressors  
100-240 V, 50/60 Hz  
105N4960/105N4964  
Controllers

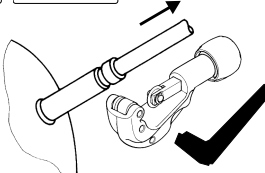
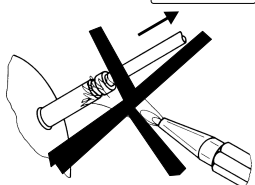
**SECCP**

Keep electrical equipment  
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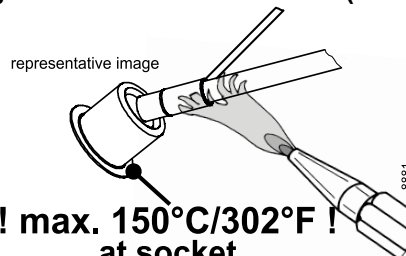


## Service/Repair – R170, R290, R1270

(applies to all flammable refrigerants)



## Brazing on Suction Connectors (Direct Intake)

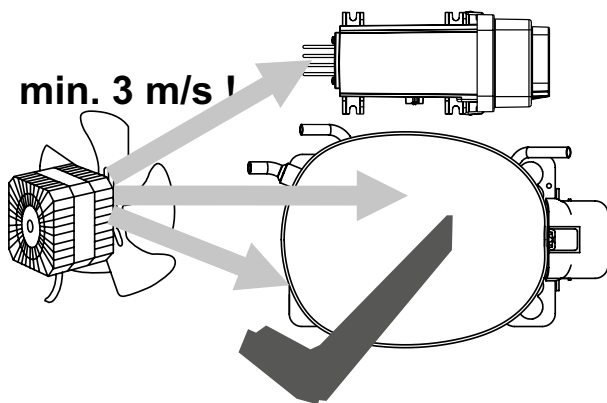


**! max. 150°C/302°F !  
at socket**

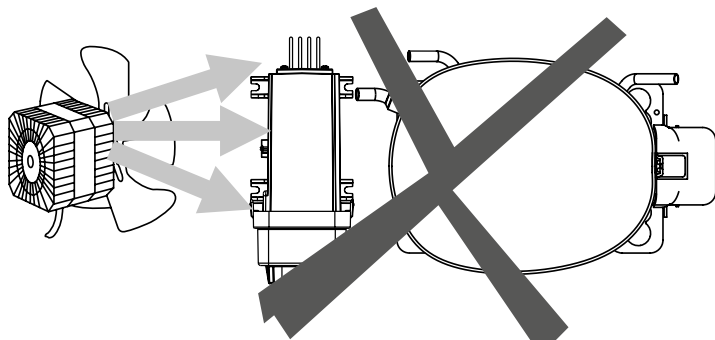
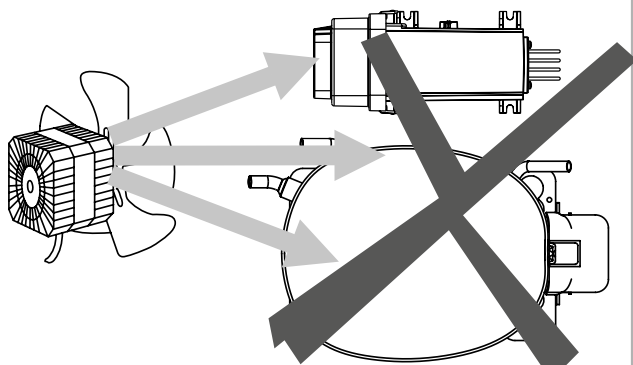
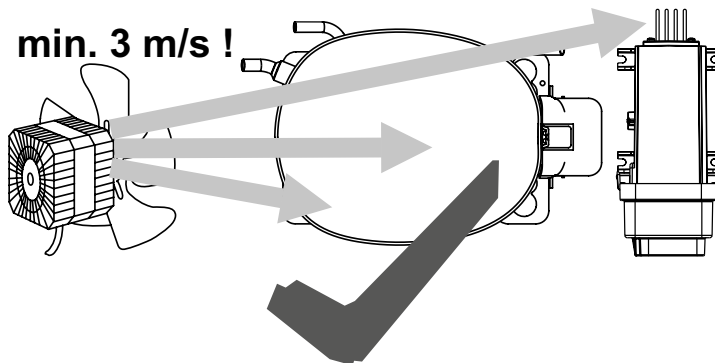
brazing solder: phosphor (LP7) or silver

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

**min. 3 m/s !**



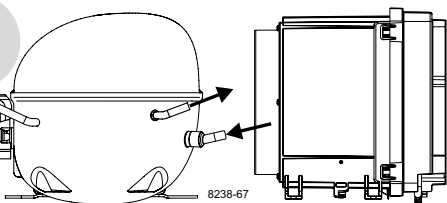
**min. 3 m/s !**



8938

|                             |                                                     |
|-----------------------------|-----------------------------------------------------|
| <b>Airflow</b>              | 3 m/s                                               |
| <b>Operating conditions</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>       | 100-240 V (± 10 %)                                  |
| <b>Frequency</b>            | 50/60 Hz                                            |
| <b>Input power, max.</b>    | 1000 W                                              |

**Dismantling, recycling, disposal:** At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. [www.seccp.com](http://www.seccp.com)**



8238-67

# Instructions

NLV/MN-UV Compressors

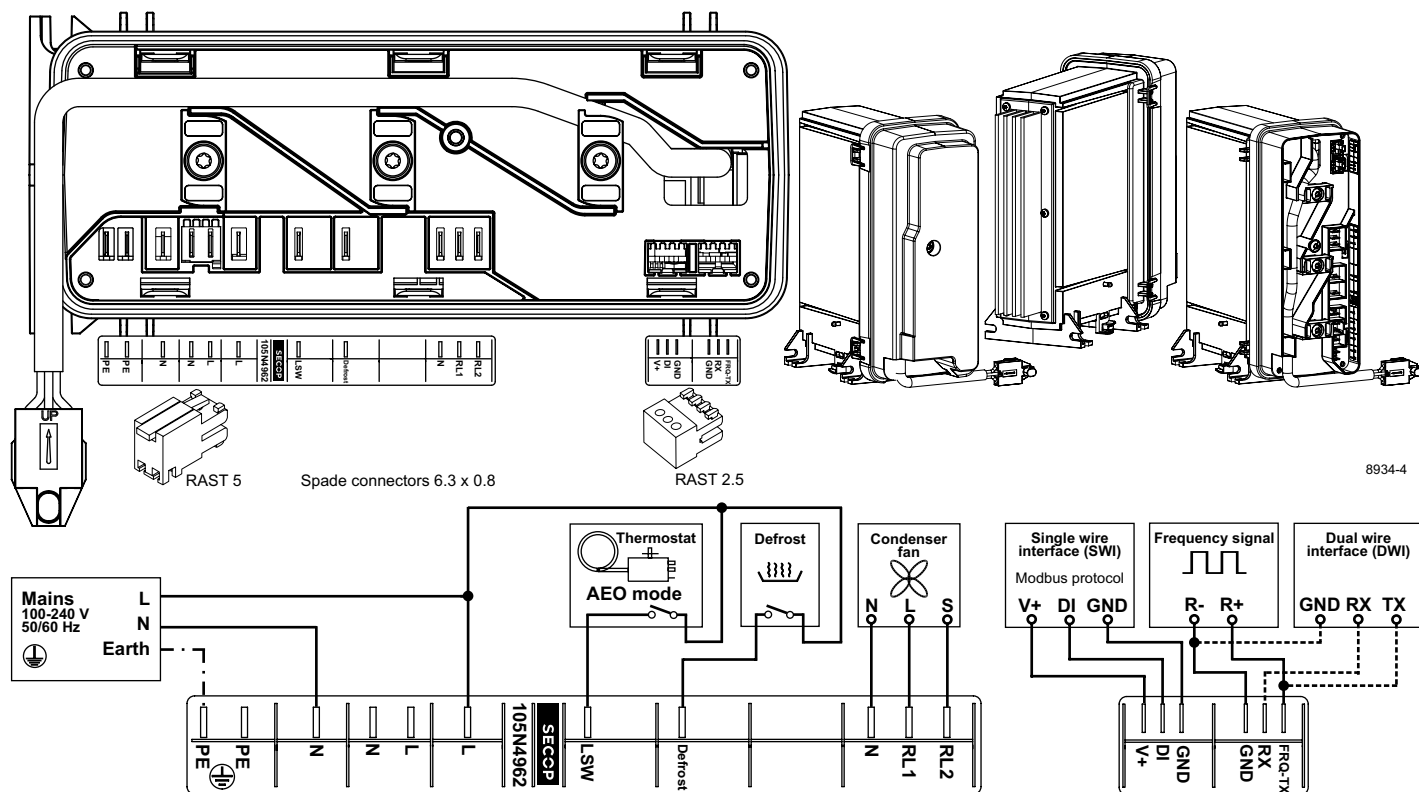
100-240 V, 50/60 Hz

105N4962/105N4966/

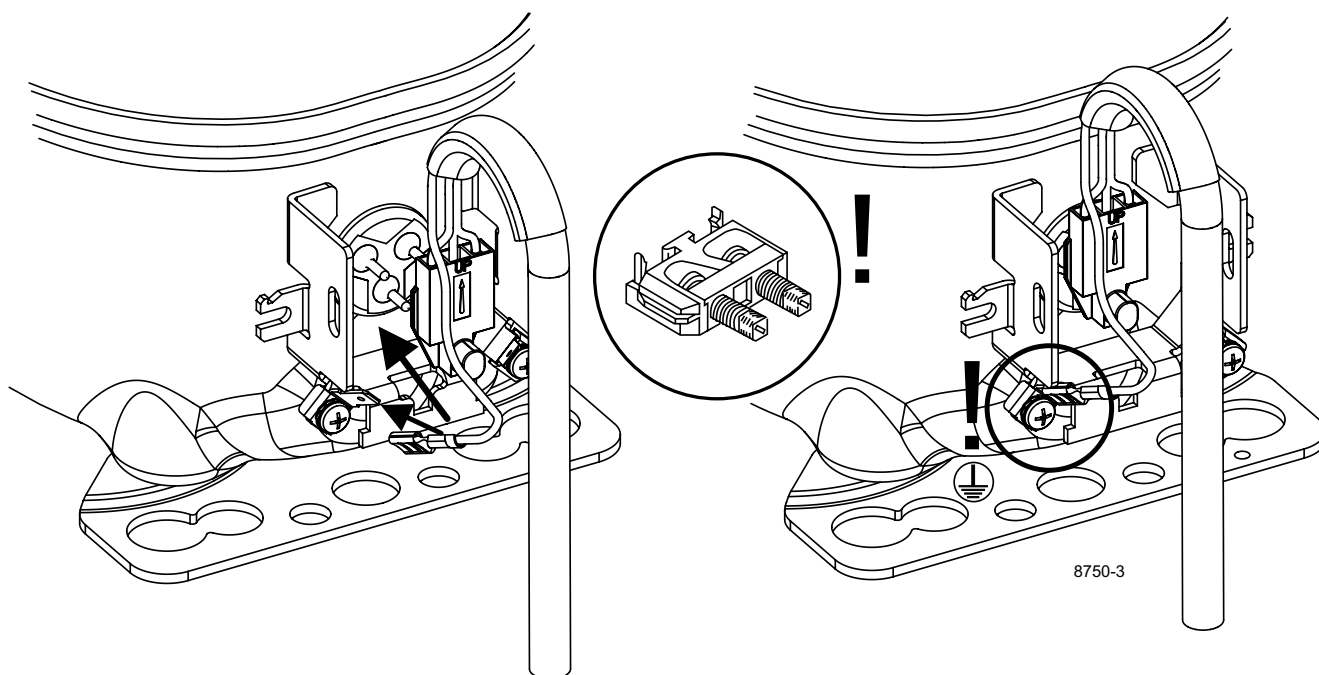
105N4972 Controllers

# SECOP

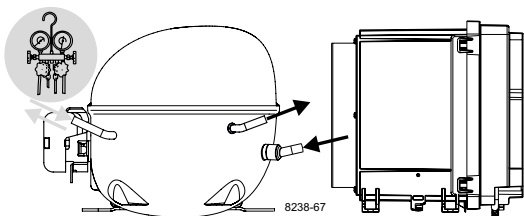
Keep electrical equipment  
clear from oil, chemicals,  
and water



8934-4



8750-3



# Instructions

NLV/MN-UV Compressors  
100-240 V, 50/60 Hz  
105N4962/105N4966/  
105N4972 Controllers

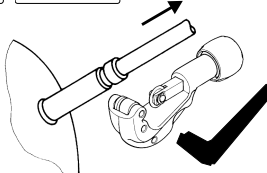
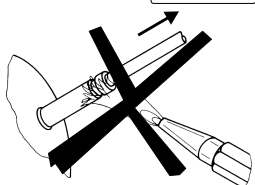
**SECCP**

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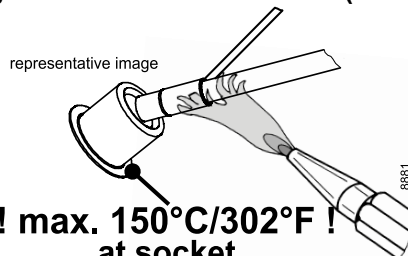


## Service/Repair – R170, R290, R1270

(applies to all flammable refrigerants)



## Brazing on Suction Connectors (Direct Intake)

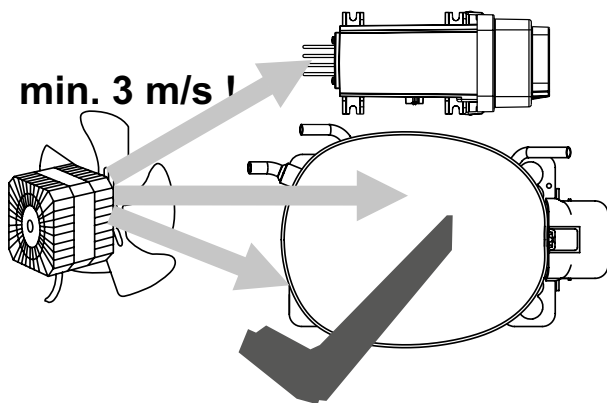


**! max. 150°C/302°F !  
at socket**

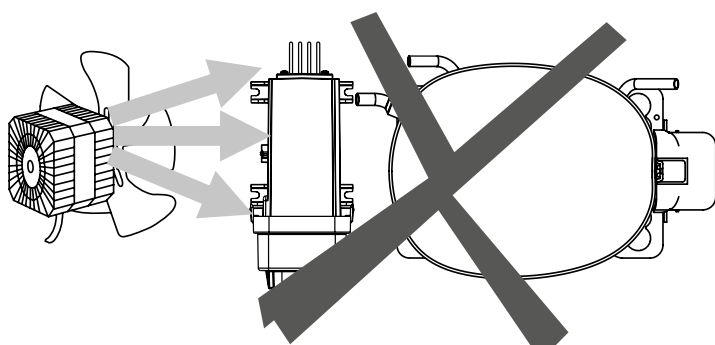
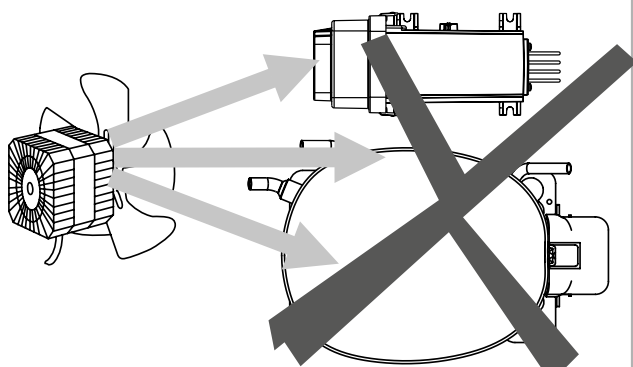
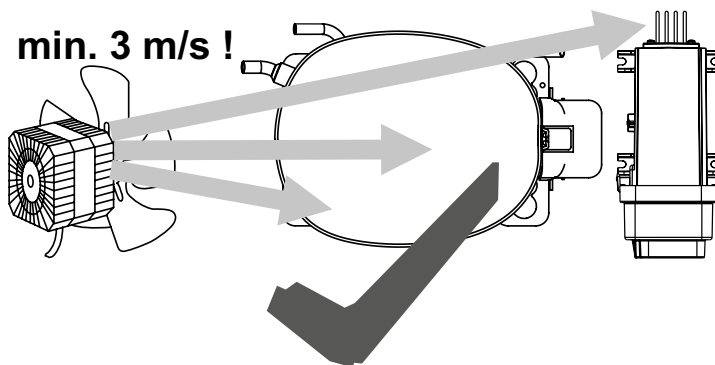
brazing solder: phosphor (LP7) or silver

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

**min. 3 m/s !**



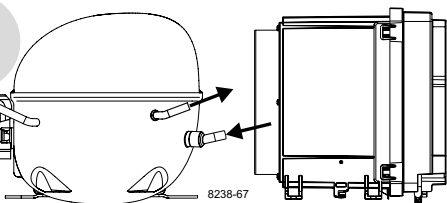
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8938

|                             |                                                     |
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| <b>Supply voltage</b>       | 100-240 V (± 10 %)                                  |
| <b>Frequency</b>            | 50/60 Hz                                            |
| <b>Input power, max.</b>    | 1000 W                                              |

**Dismantling, recycling, disposal:** At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. [www.seccp.com](http://www.seccp.com)**

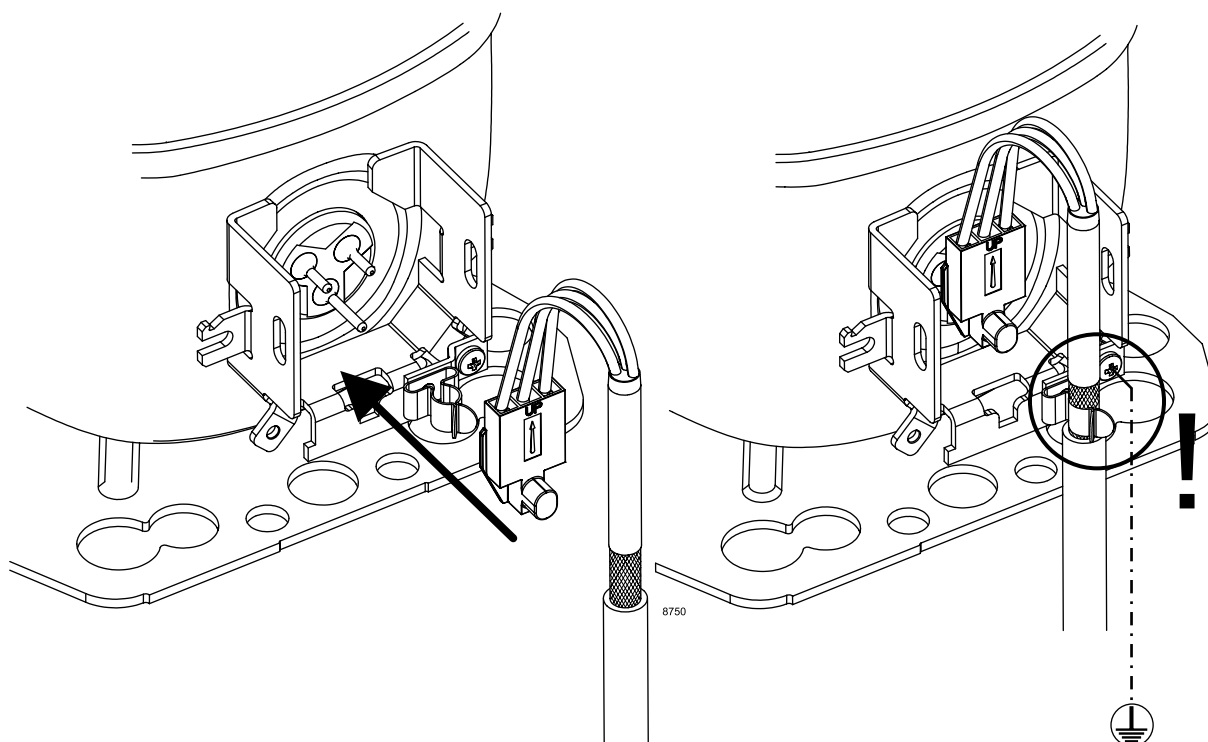
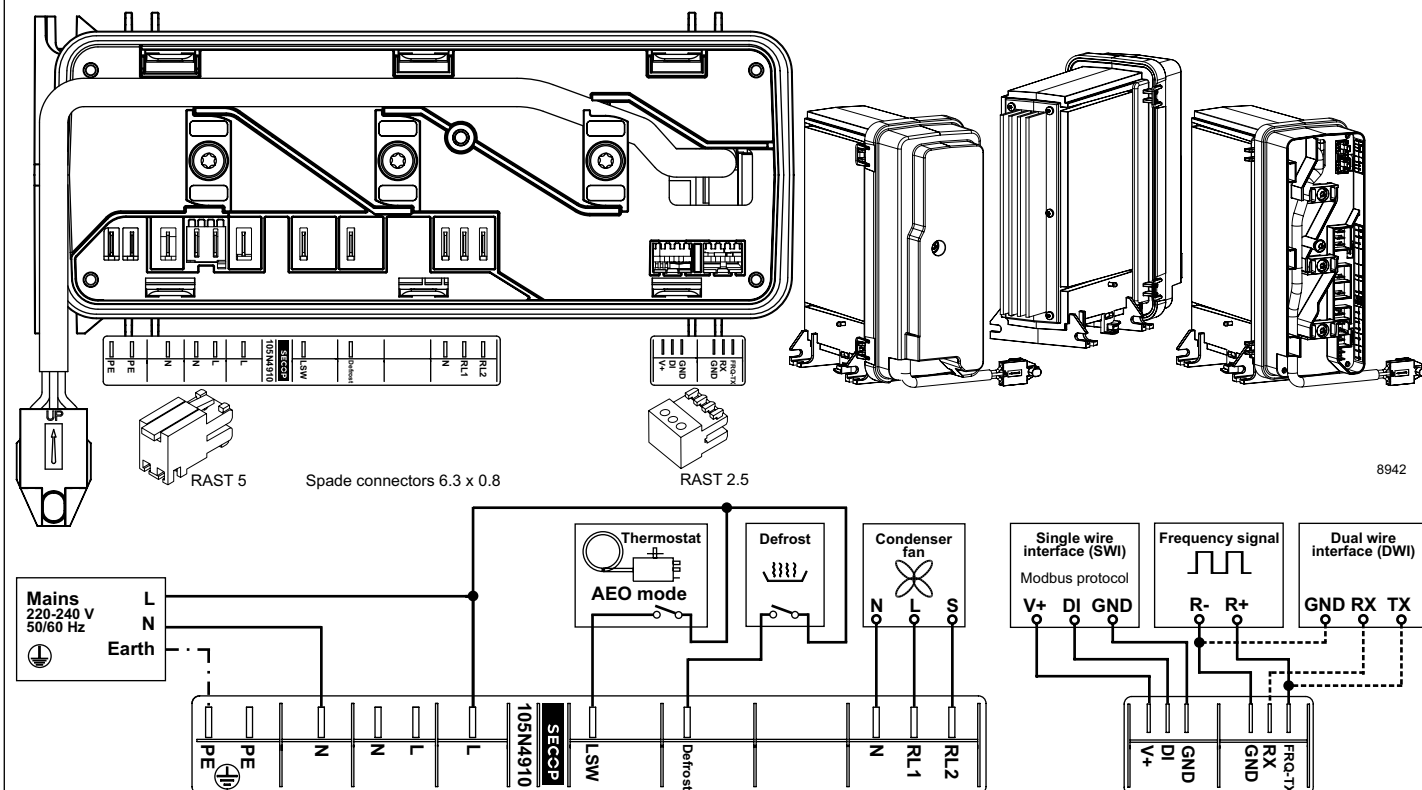


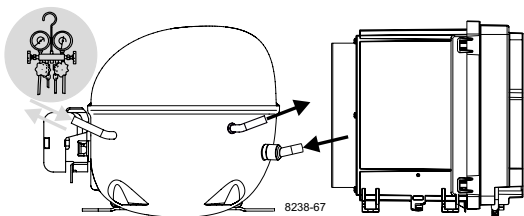
# Instructions

NLV/MN-UV Compressors  
220-240 V, 50/60 Hz  
105N491x Series  
Controllers

## SECOP

Keep electrical equipment  
clear from oil, chemicals,  
and water





# Instructions

NLV/MN-UV Compressors  
220-240 V, 50/60 Hz  
105N491x Series  
Controllers

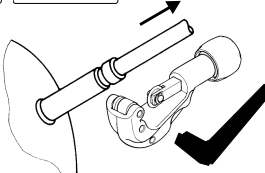
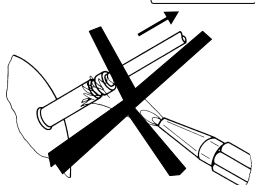
**SECCP**

Keep electrical equipment  
clear from oil, chemicals,  
and water



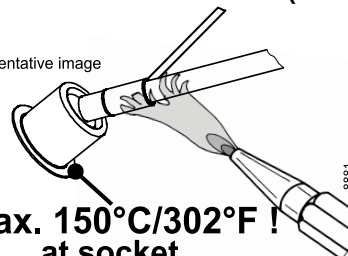
## Service/Repair – R170, R290, R1270

(applies to all flammable refrigerants)



## Brazing on Suction Connectors (Direct Intake)

representative image

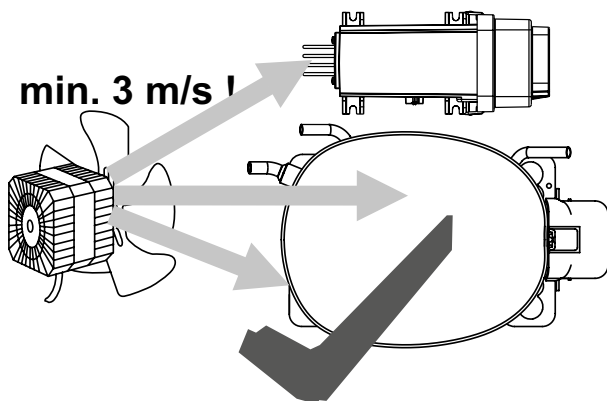


**! max. 150°C/302°F !  
at socket**

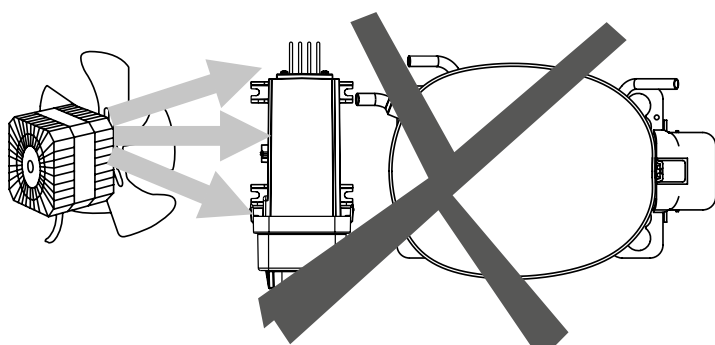
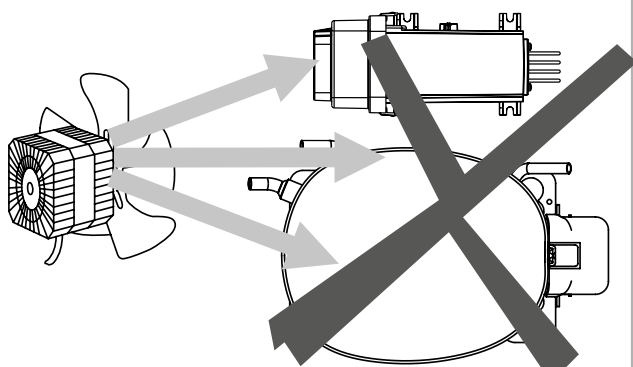
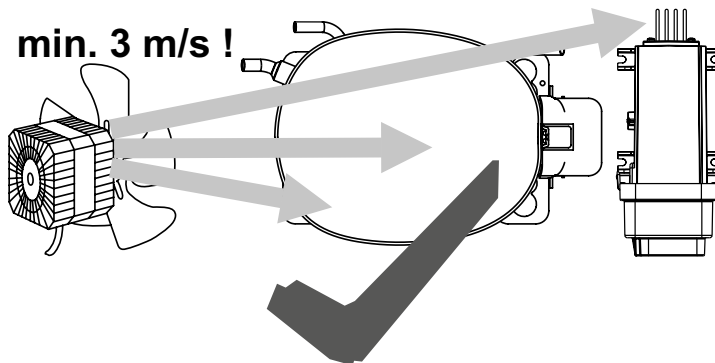
brazing solder: phosphor (LP7) or silver

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

**min. 3 m/s !**



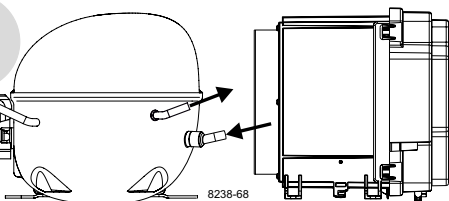
**min. 3 m/s !**



8938

|                             |                                                     |
|-----------------------------|-----------------------------------------------------|
| <b>Airflow</b>              | 3 m/s                                               |
| <b>Operating conditions</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>       | 220-240 V (± 10 %)                                  |
| <b>Frequency</b>            | 50/60 Hz                                            |
| <b>Input power, max.</b>    | 1000 W                                              |

**Dismantling, recycling, disposal:** At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. [www.seccp.com](http://www.seccp.com)**

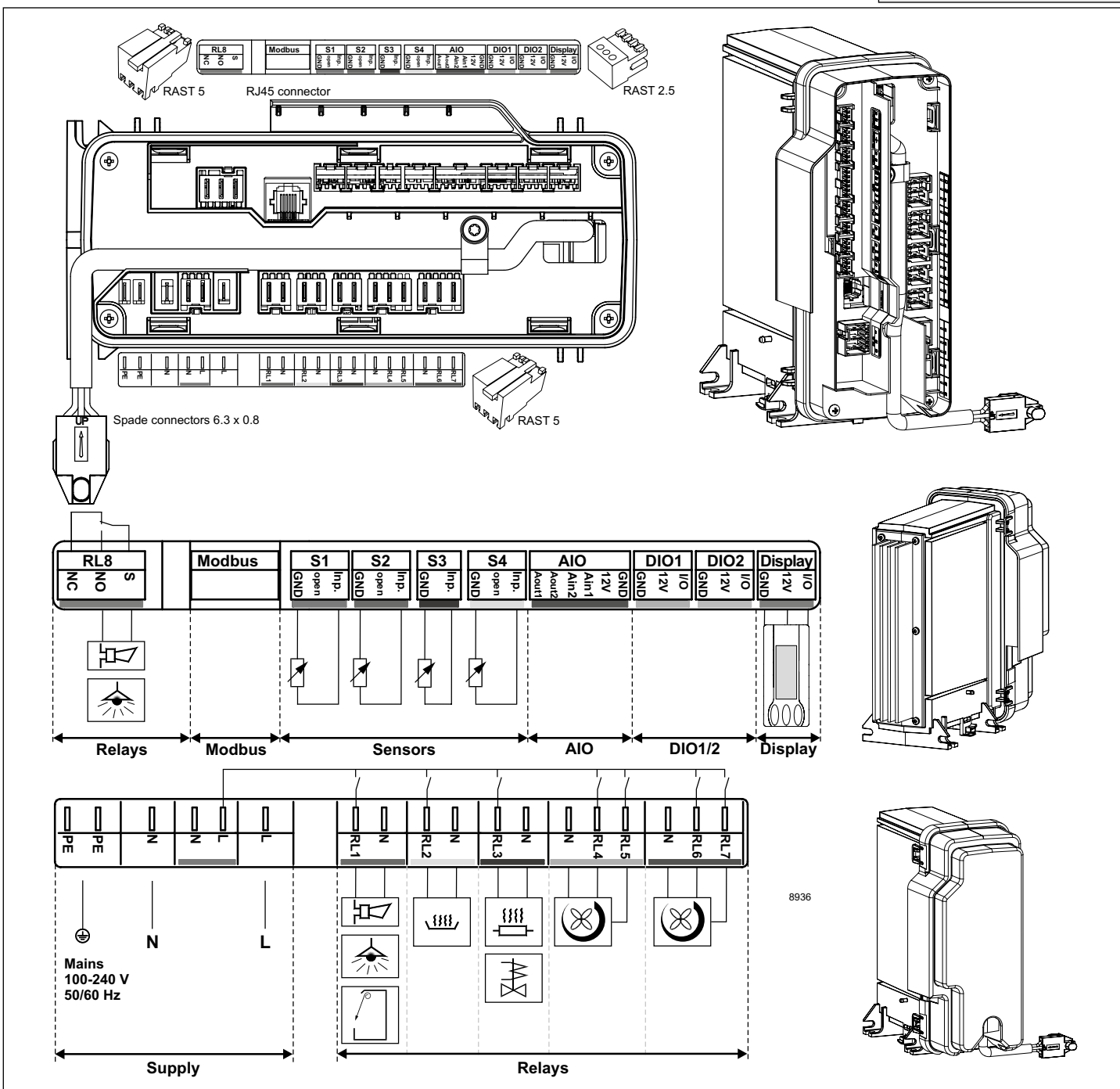


# Instructions

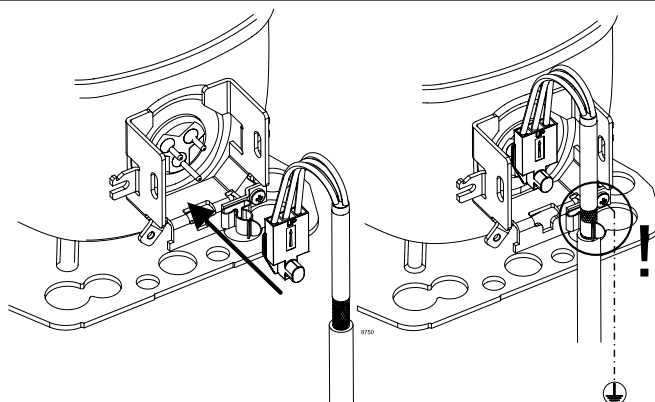
NLV Compressors  
100-240 V, 50/60 Hz  
105N486x Series  
Controllers

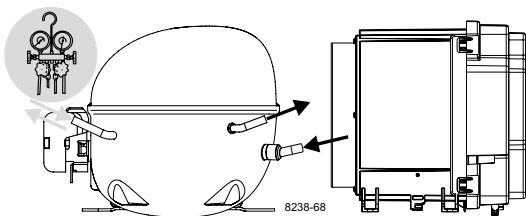
**SECCP**

Keep electrical equipment  
clear from oil, chemicals,  
and water



|                |        |                |        |
|----------------|--------|----------------|--------|
| <b>Mains</b>   | red    | <b>S1</b>      | red    |
| <b>RL 1</b>    | blue   | <b>S2</b>      | blue   |
| <b>RL 2</b>    | yellow | <b>S3</b>      | black  |
| <b>RL 3</b>    | black  | <b>S4</b>      | yellow |
| <b>RL 4, 5</b> | grey   | <b>AIO</b>     | brown  |
| <b>RL 6, 7</b> | brown  | <b>DIO1</b>    | grey   |
| <b>RL 8</b>    | green  | <b>DIO2</b>    | pink   |
|                |        | <b>Display</b> | green  |





# Instructions

NLV Compressors  
100-240 V, 50/60 Hz  
105N486x Series  
Controllers

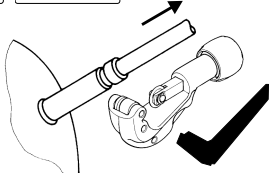
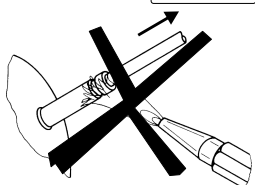
**SECCP**

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## Service/Repair – R170, R290, R1270

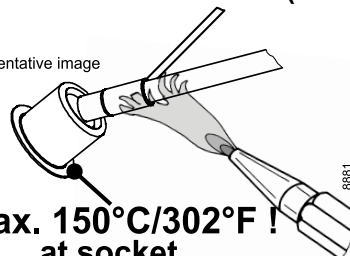
(applies to all flammable refrigerants)



8545

## Brazing on Suction Connectors (Direct Intake)

representative image

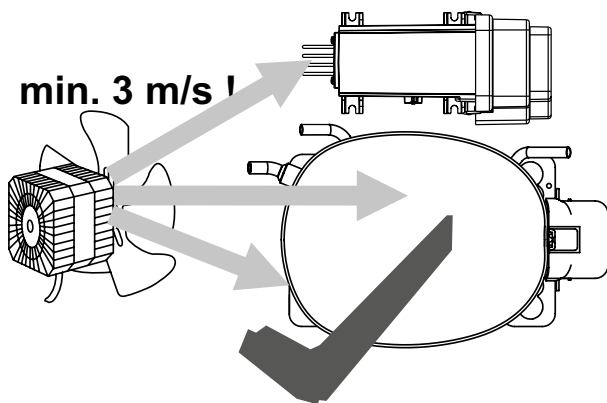


**! max. 150°C/302°F !  
at socket**

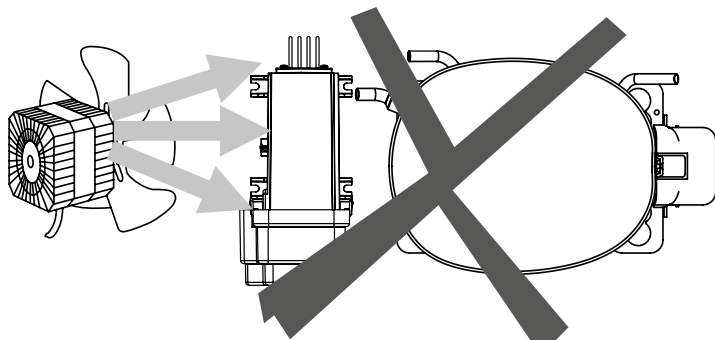
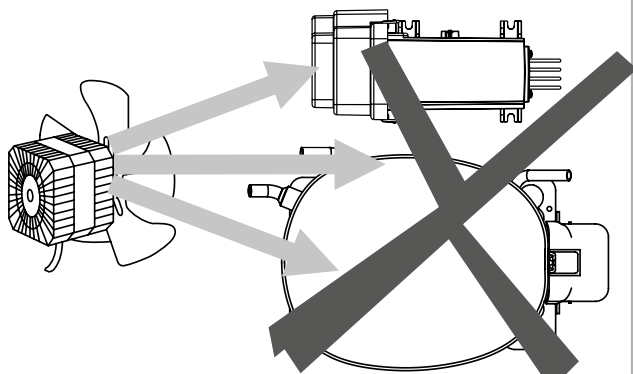
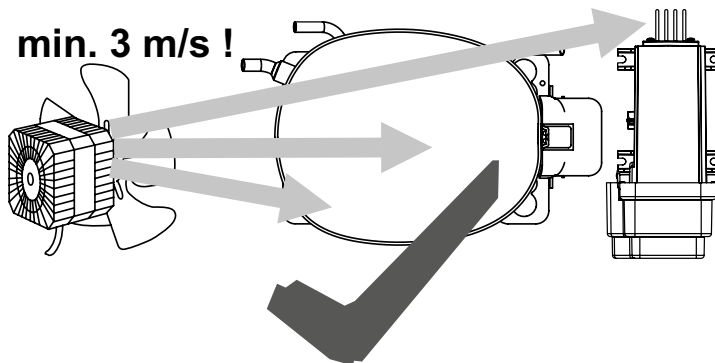
brazing solder: phosphor (LP7) or silver

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

**min. 3 m/s !**



**min. 3 m/s !**



8939

|                             |                                                     |
|-----------------------------|-----------------------------------------------------|
| <b>Airflow</b>              | 3 m/s                                               |
| <b>Operating conditions</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>       | 100-240 V (± 10 %)                                  |
| <b>Frequency</b>            | 50/60 Hz                                            |
| <b>Input power, max.</b>    | 1000 W                                              |

**Dismantling, recycling, disposal:** At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. [www.seccp.com](http://www.seccp.com)**