

Single Pack NLV15CN 100-240V 50/60Hz

Single pack code number: **195B4837**

Position	Title	Code	Amount
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

Secop GmbH • Lise-Meitner-Straße 29 • 24941 Flensburg, Germany • Tel: +49 461 4941 0 • www.secop.com

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved.

Model

Designation	NLV15CN	Sales code:	105H7520
-------------	----------------	-------------	-----------------

Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	32cSt	Displacement	14,65cm ³ / 0,89cu.in
Oil quantity	298cm ³ / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	300g / 10,6oz		
Free gas volume comp.	2360cm ³ / 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

	Conf. 1	Conf. 2
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

	Conf. 1	Conf. 2
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

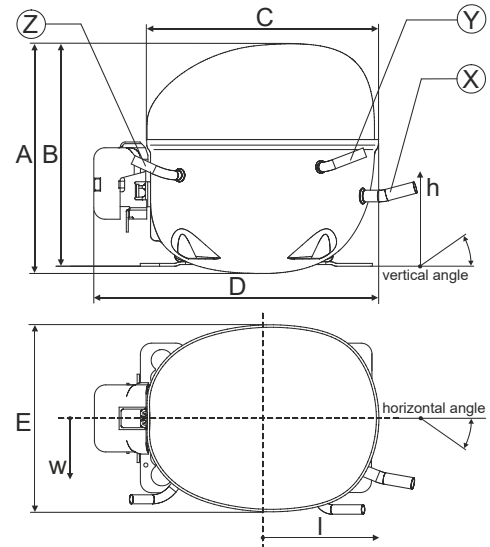
Sales code:

105H7520

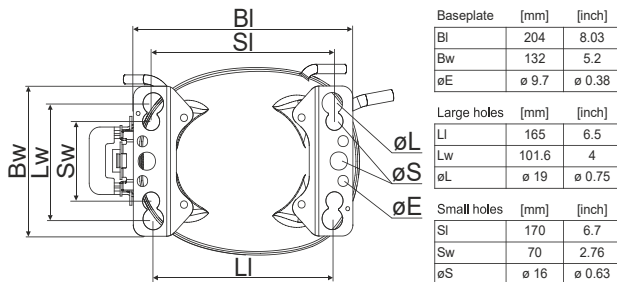
Compressor dimensions

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

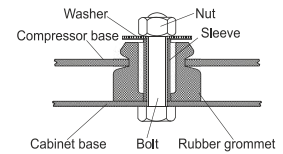
Connectors		Suction X	Discharge Y	Process Z
Diameter [mm]		øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]		øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	15°	21°	155°
Position l/h/w [mm]		132/69/57	94/102/81	-109/94/72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



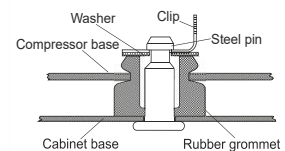
Compressor fixation



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)

Controller dimensions:

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

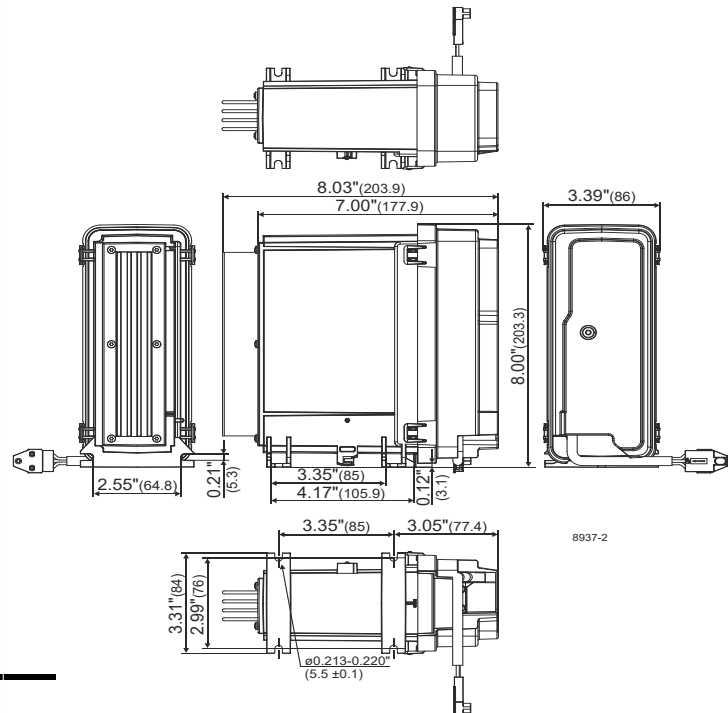
Max, current: 4,2 A(230V)/8,4A(115V)

LRA (Locked Rotor Amperage): 3,1A

Cable length: 680mm

Compressor speed range: 2000-5000rpm

Housing plastic: UL94-5VA



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

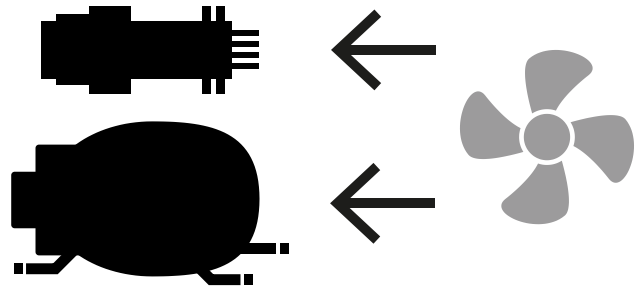
Machine room temperature range controller: 10 - 50°C / 50 - 122°F

Compressor and Controller Cooling:

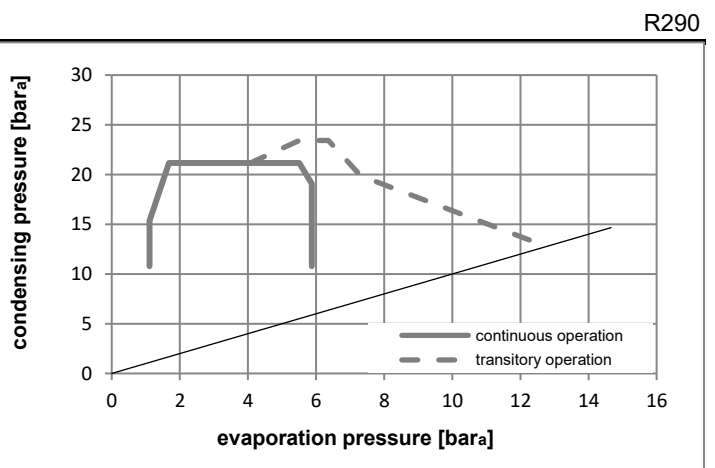
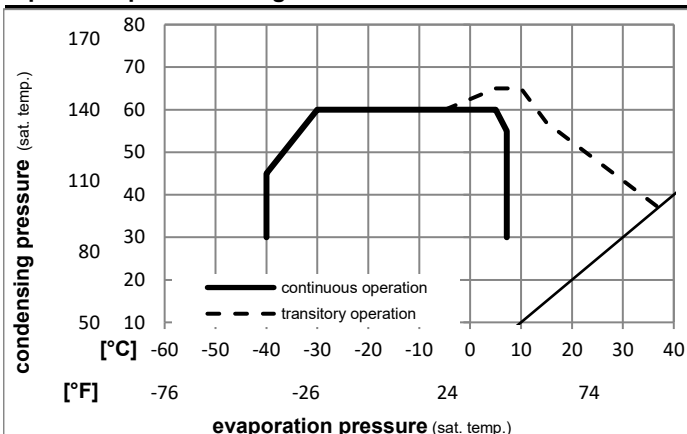
Fan cooling 3m/s

Ensure proper airflow of 3 m/s at both compressor and electronic units.

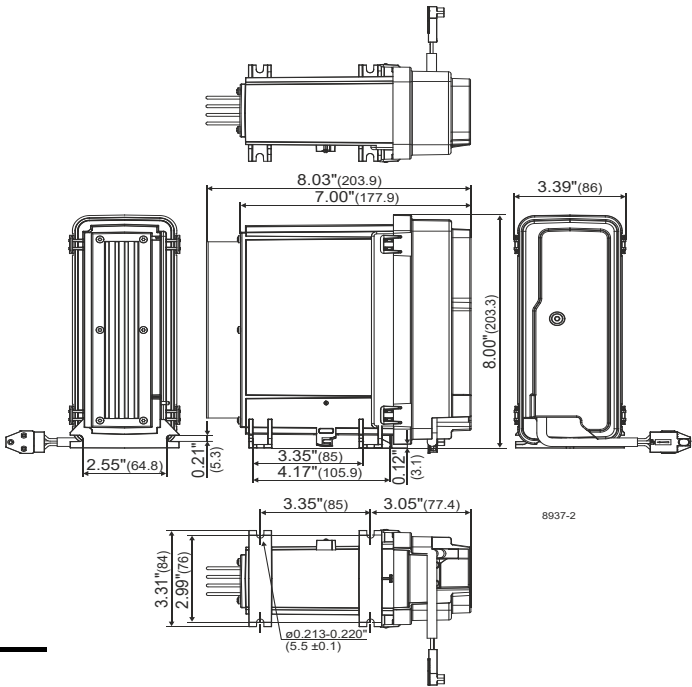
The airflow for the electronics must be directed to the heat sink.



Operation pressure range



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

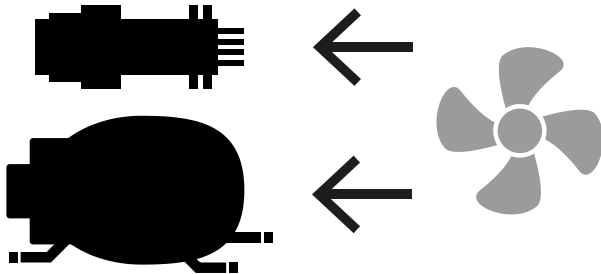
Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range compressor:	10 - 48°C / 50 - 119°F
Machine room temperature range controller:	10 - 50°C / 50 - 122°F

Compressor and Controller Cooling:

Fan cooling 3m/s

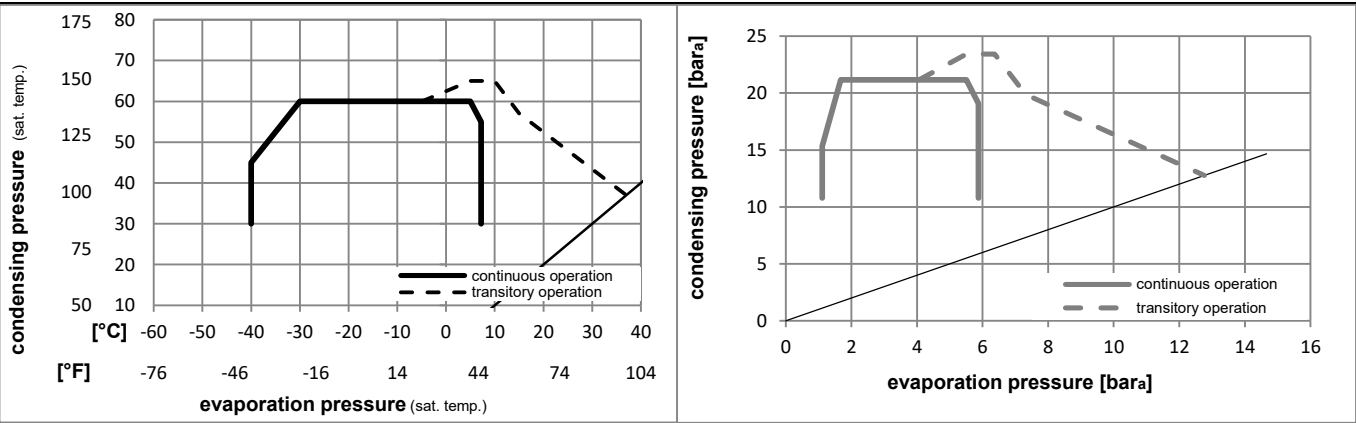
Ensure proper airflow of 3 m/s at both compressor and electronic units.

The airflow for the electronics must be directed to the heat sink.

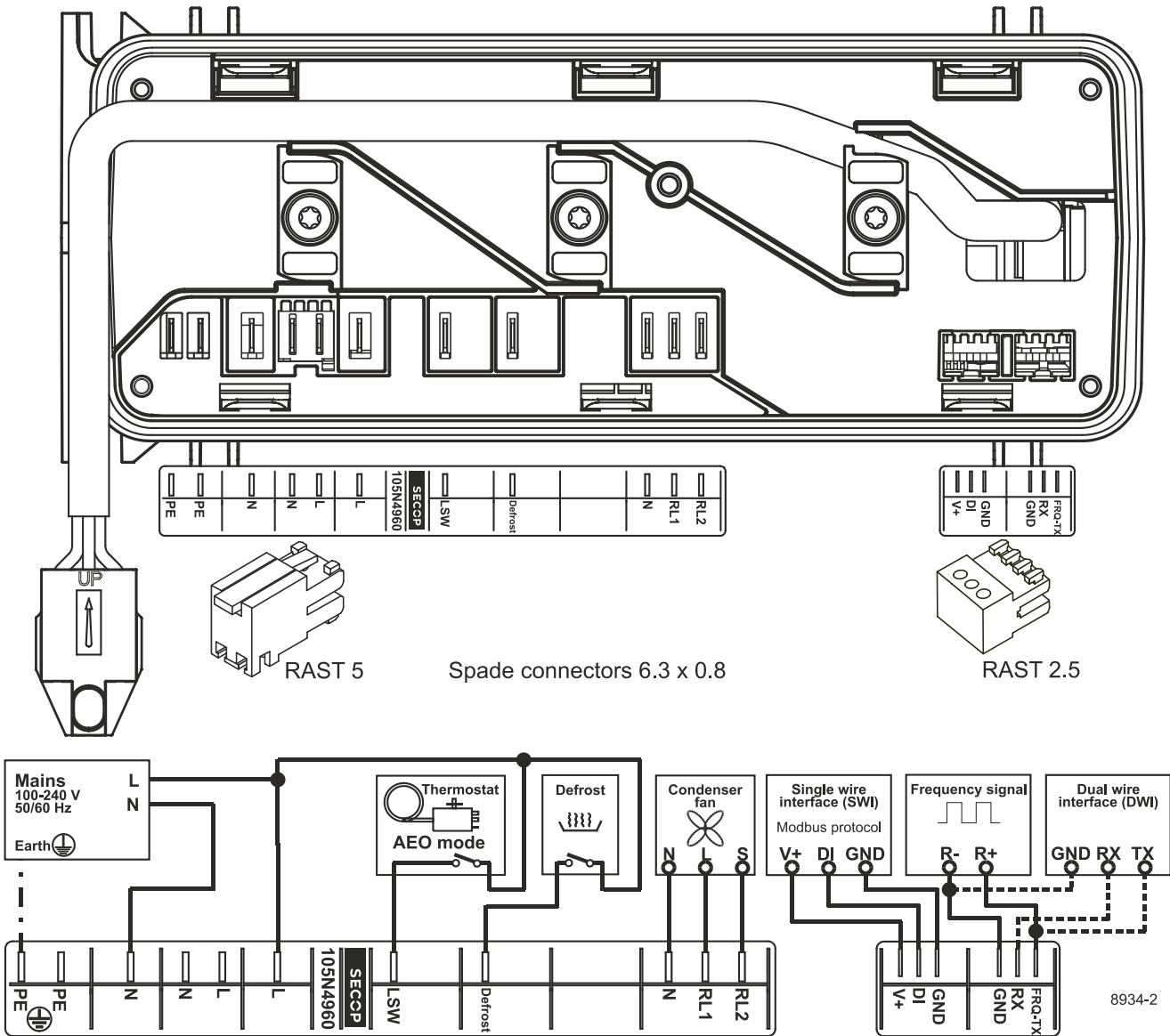


Operation pressure range

R290



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

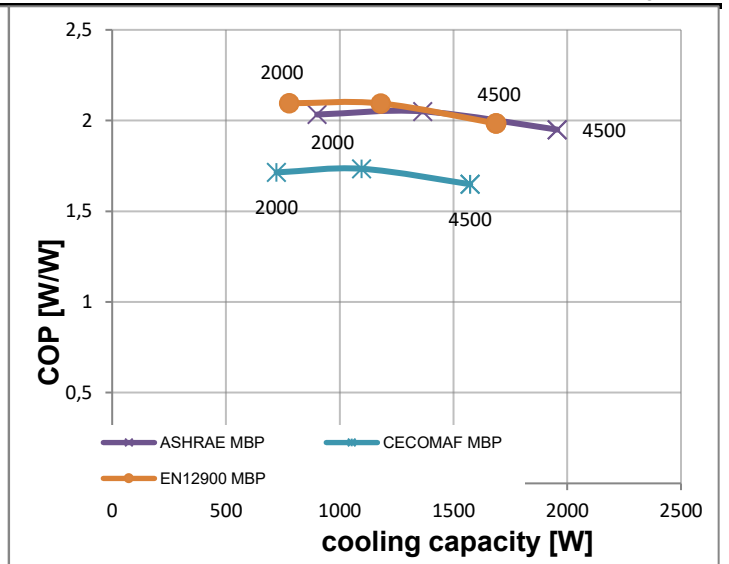
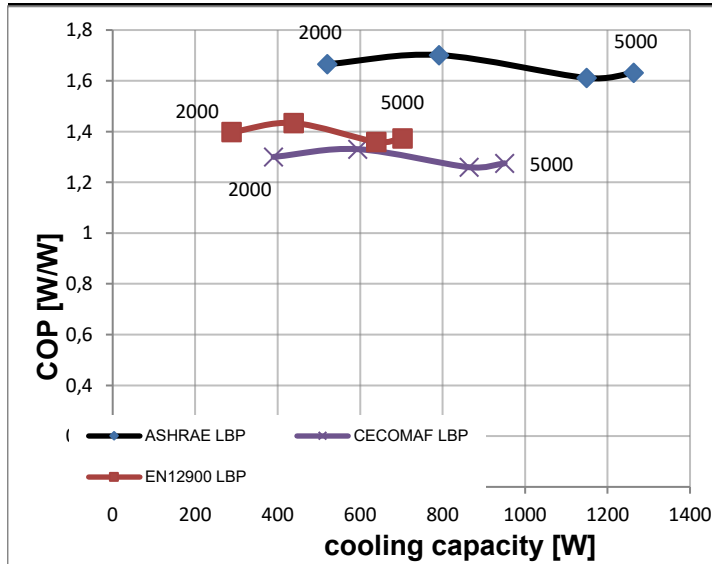
Optimization + standard conditions

R290, 240V, 50Hz, Rpm_N 5000, Fan cooling 3m/s

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

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

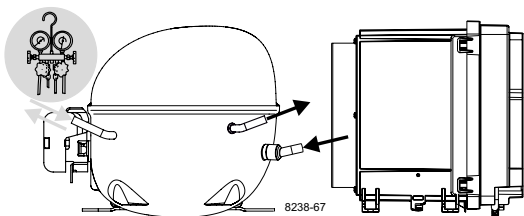
EN12900 LBP -35 40 40 20

pe [°C] pc [°C] Tliq [°C] Tsuc [°C]

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

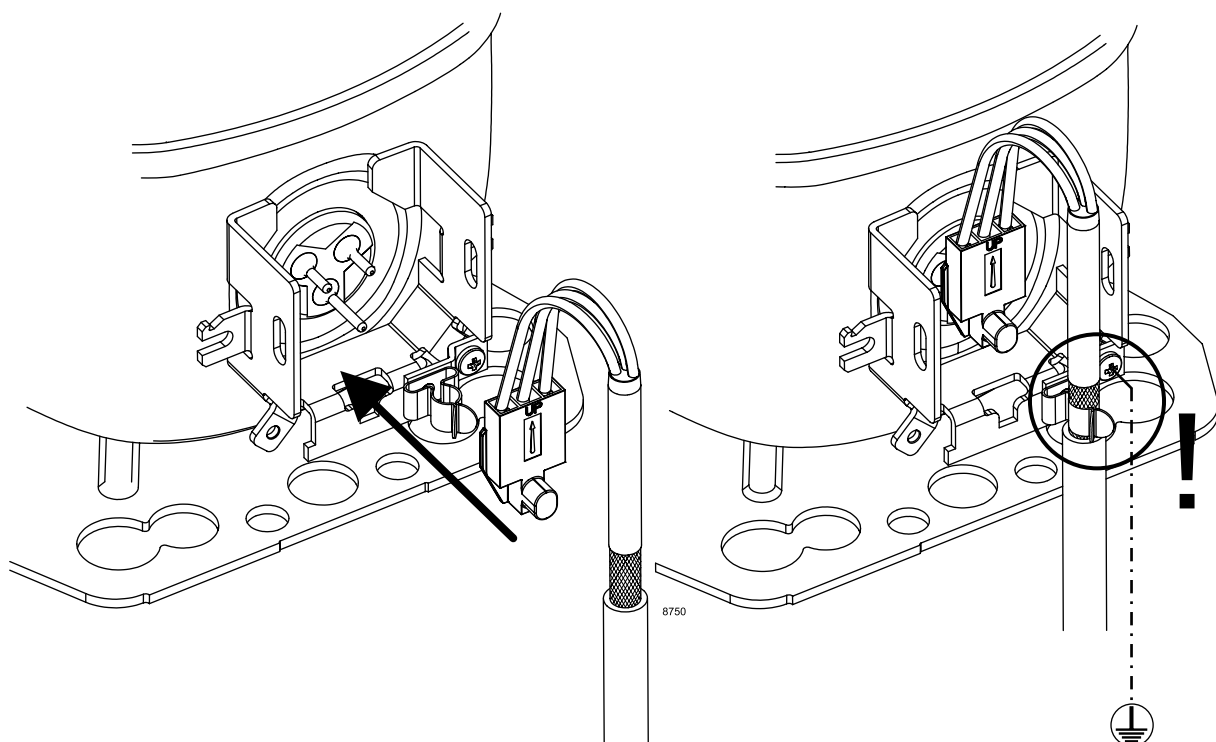
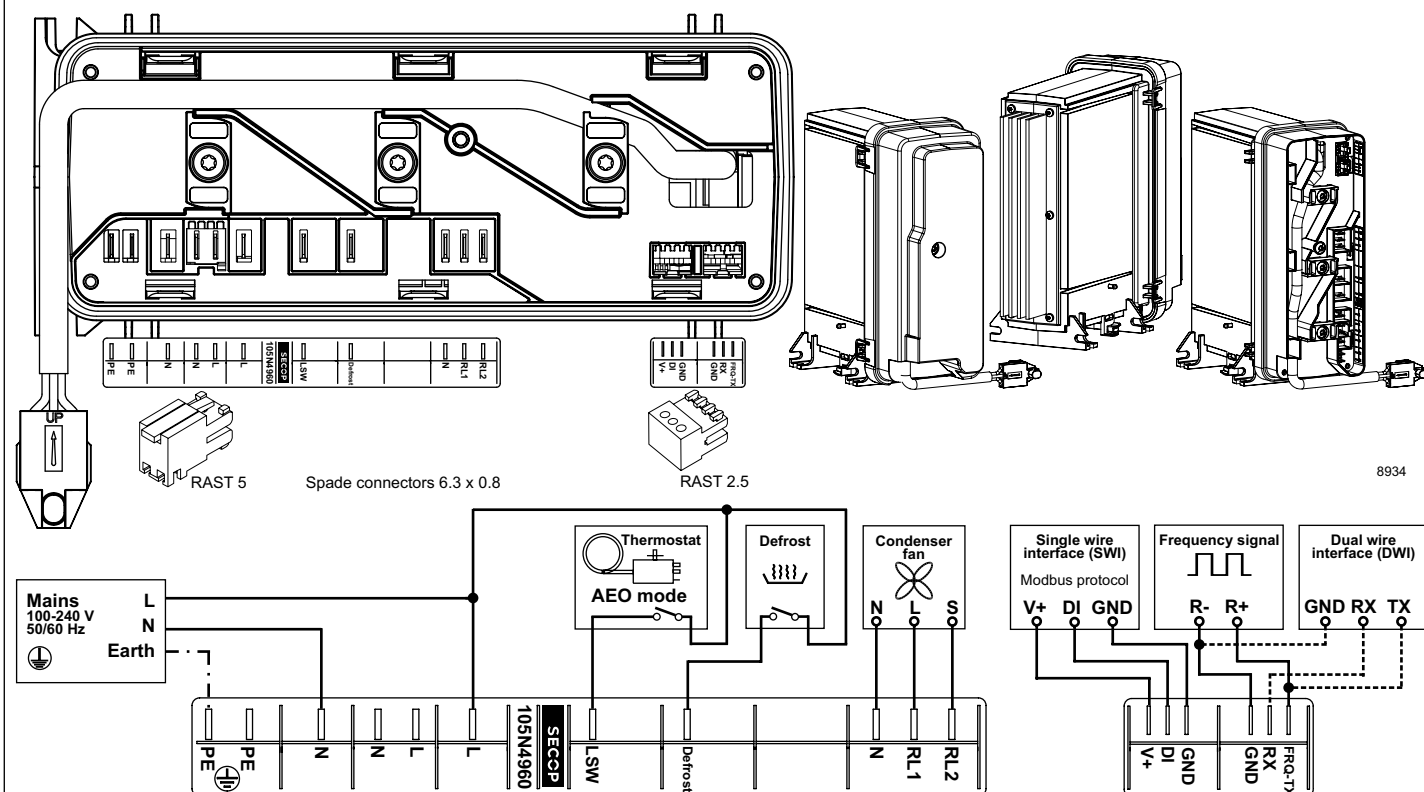
CECOMAF MBP -10 55 55 32

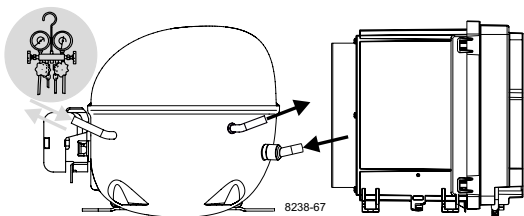
EN12900 MBP -10 45 45 20



Controllers

Keep electrical equipment clear from oil, chemicals, and water





Instructions

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

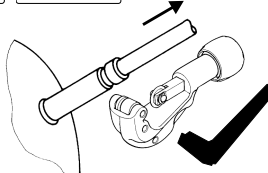
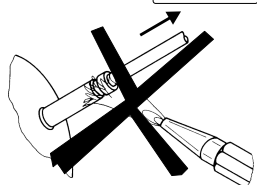
SECCP

Keep electrical equipment
clear from oil, chemicals,
and water



Service/Repair – R170, R290, R1270

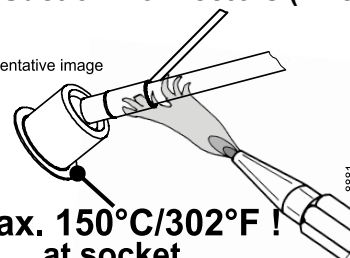
(applies to all flammable refrigerants)



8545

Brazing on Suction Connectors (Direct Intake)

representative image

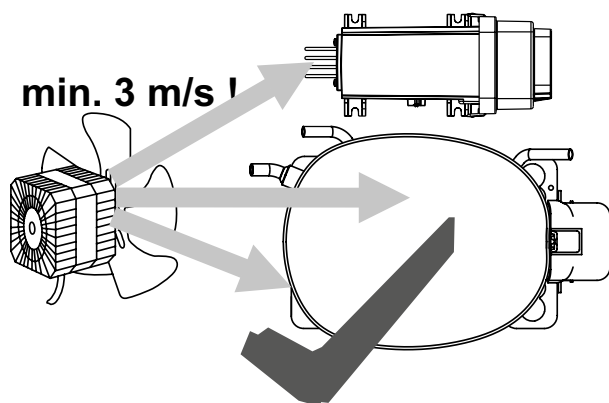


**! max. 150°C/302°F !
at socket**

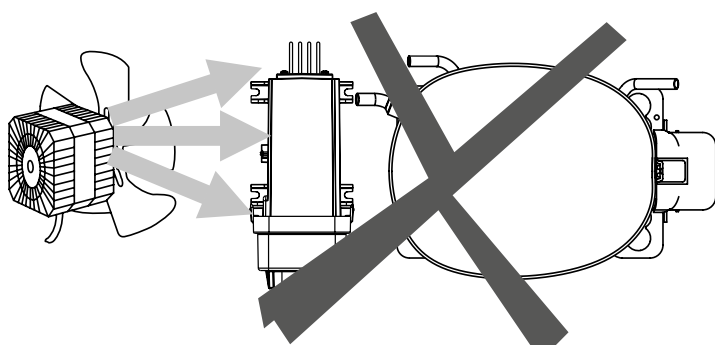
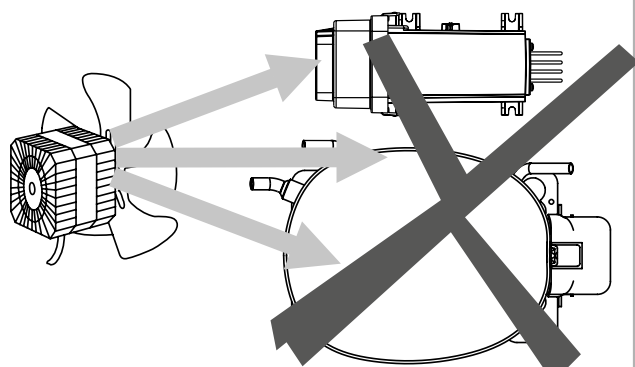
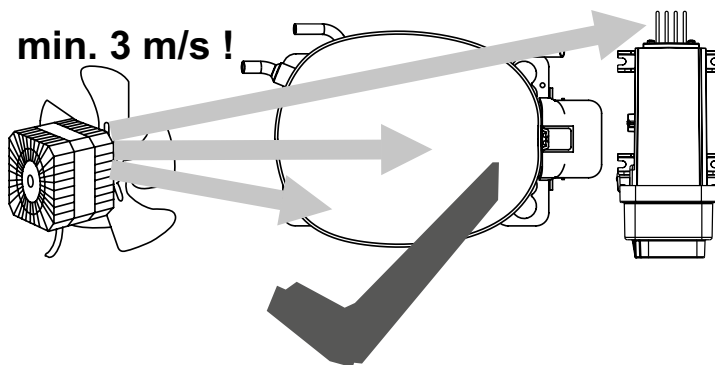
brazing solder: phosphor (LP7) or silver

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

min. 3 m/s !



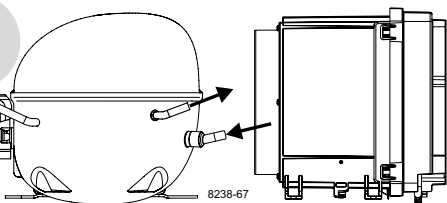
min. 3 m/s !



8938

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	100-240 V (± 10 %)
Frequency	50/60 Hz
Input power, max.	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**

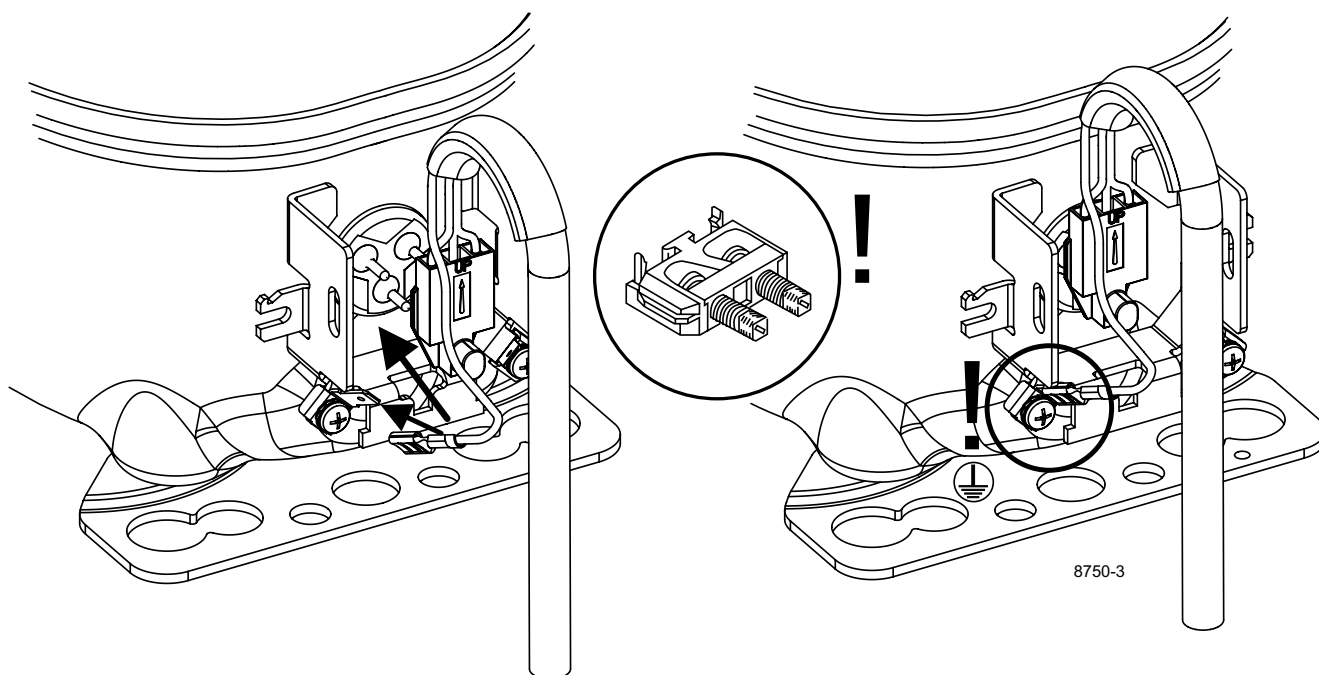
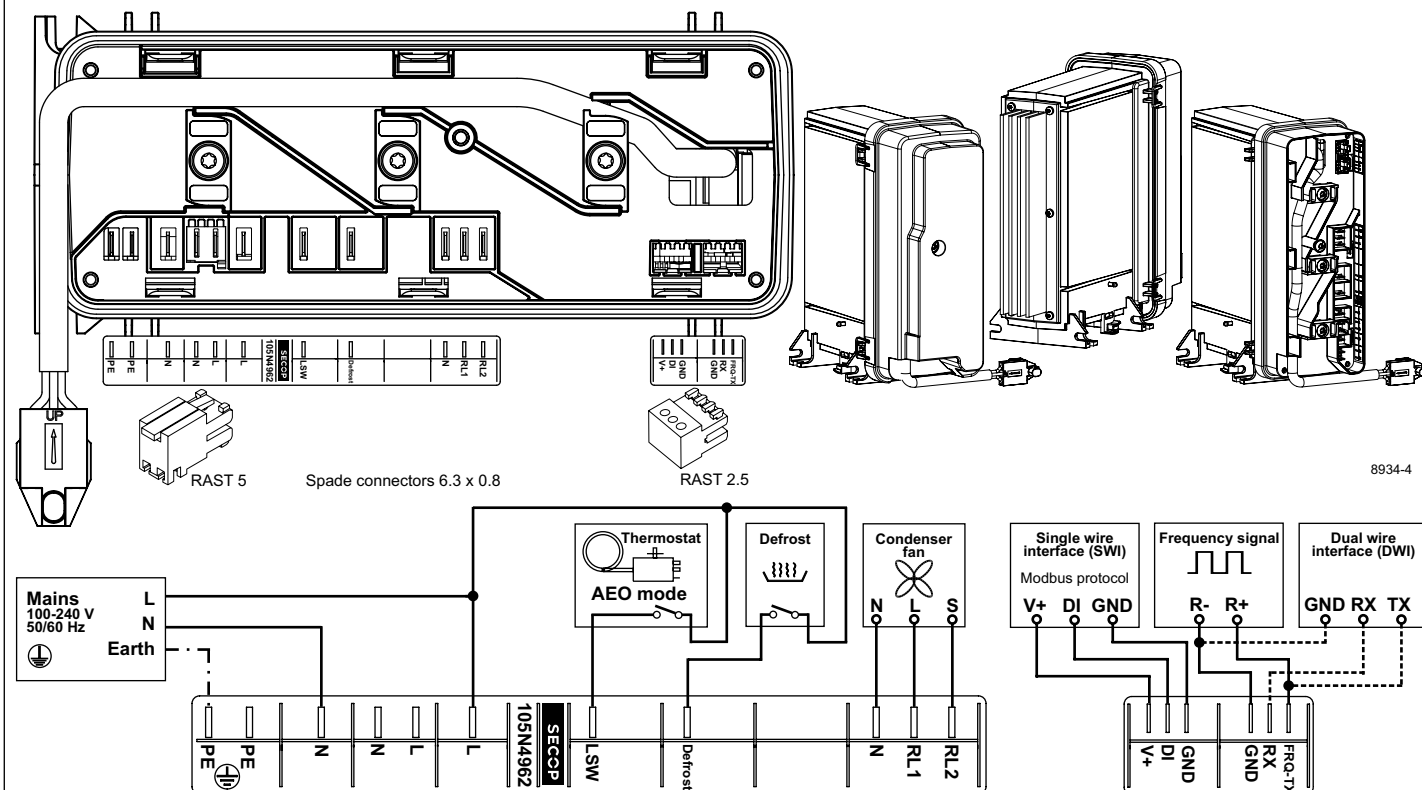


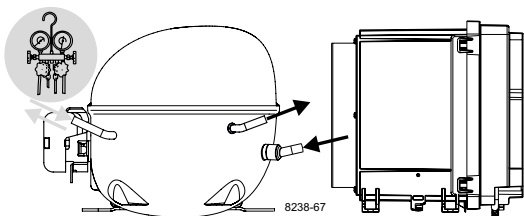
Instructions

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

SECOP

Keep electrical equipment
clear from oil, chemicals,
and water





Instructions

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

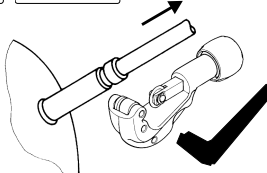
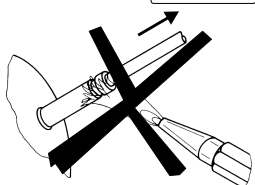
SECCP

Keep electrical equipment
clear from oil, chemicals,
and water

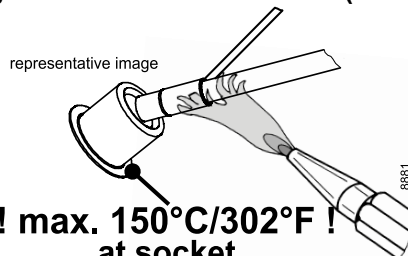


Service/Repair – R170, R290, R1270

(applies to all flammable refrigerants)



Brazing on Suction Connectors (Direct Intake)

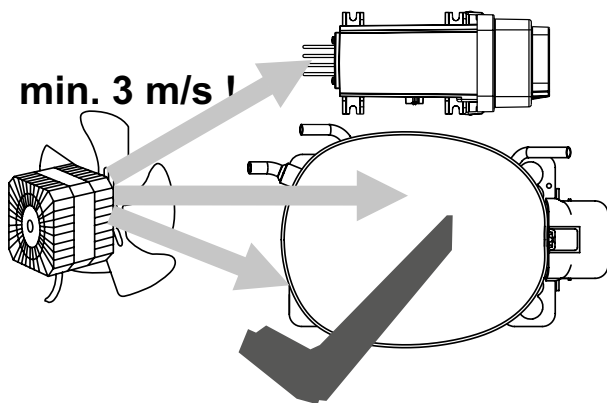


**! max. 150°C/302°F !
at socket**

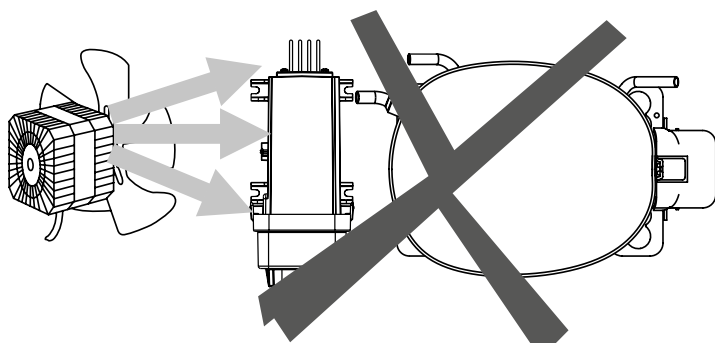
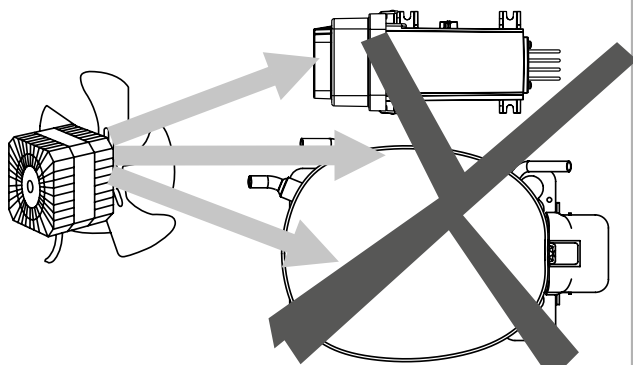
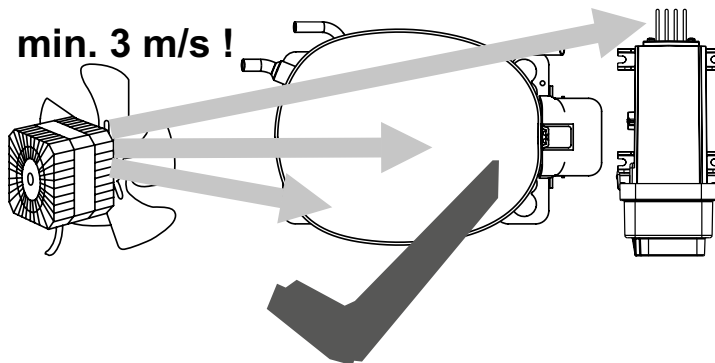
brazing solder: phosphor (LP7) or silver

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

min. 3 m/s !



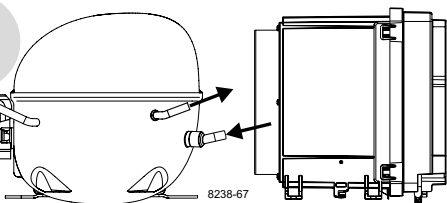
min. 3 m/s !



8938

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	100-240 V (± 10 %)
Frequency	50/60 Hz
Input power, max.	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**

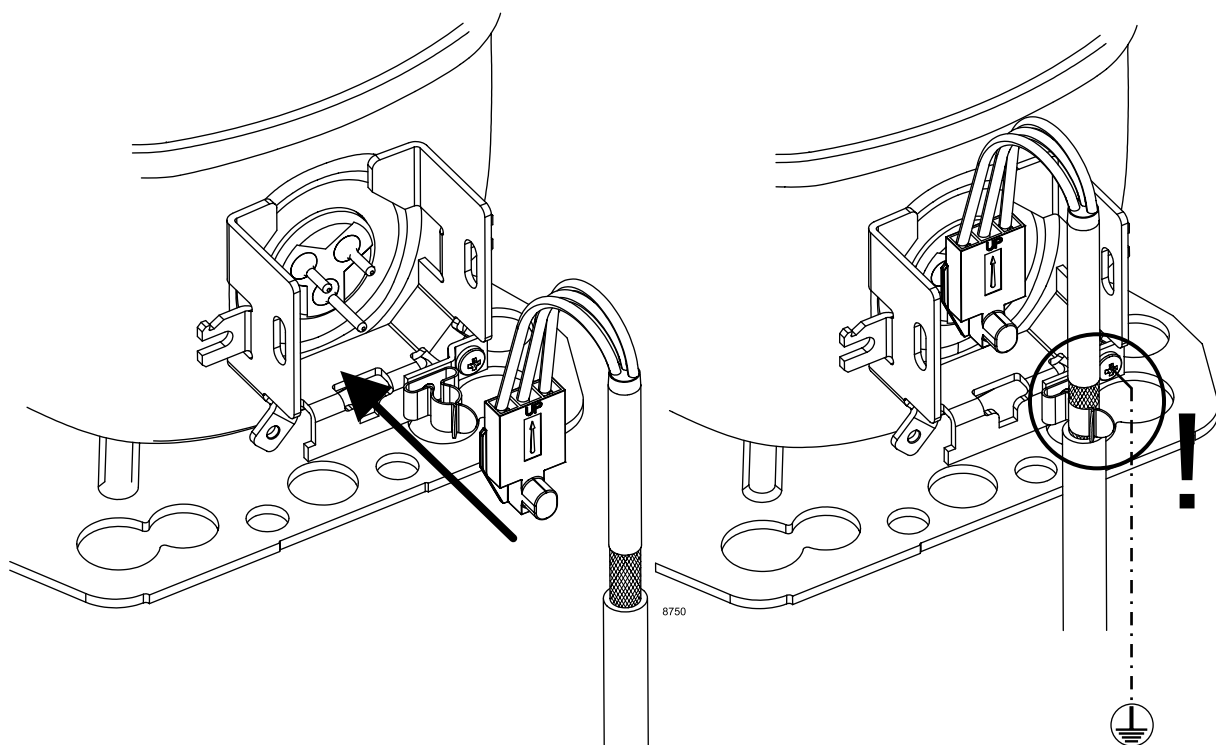
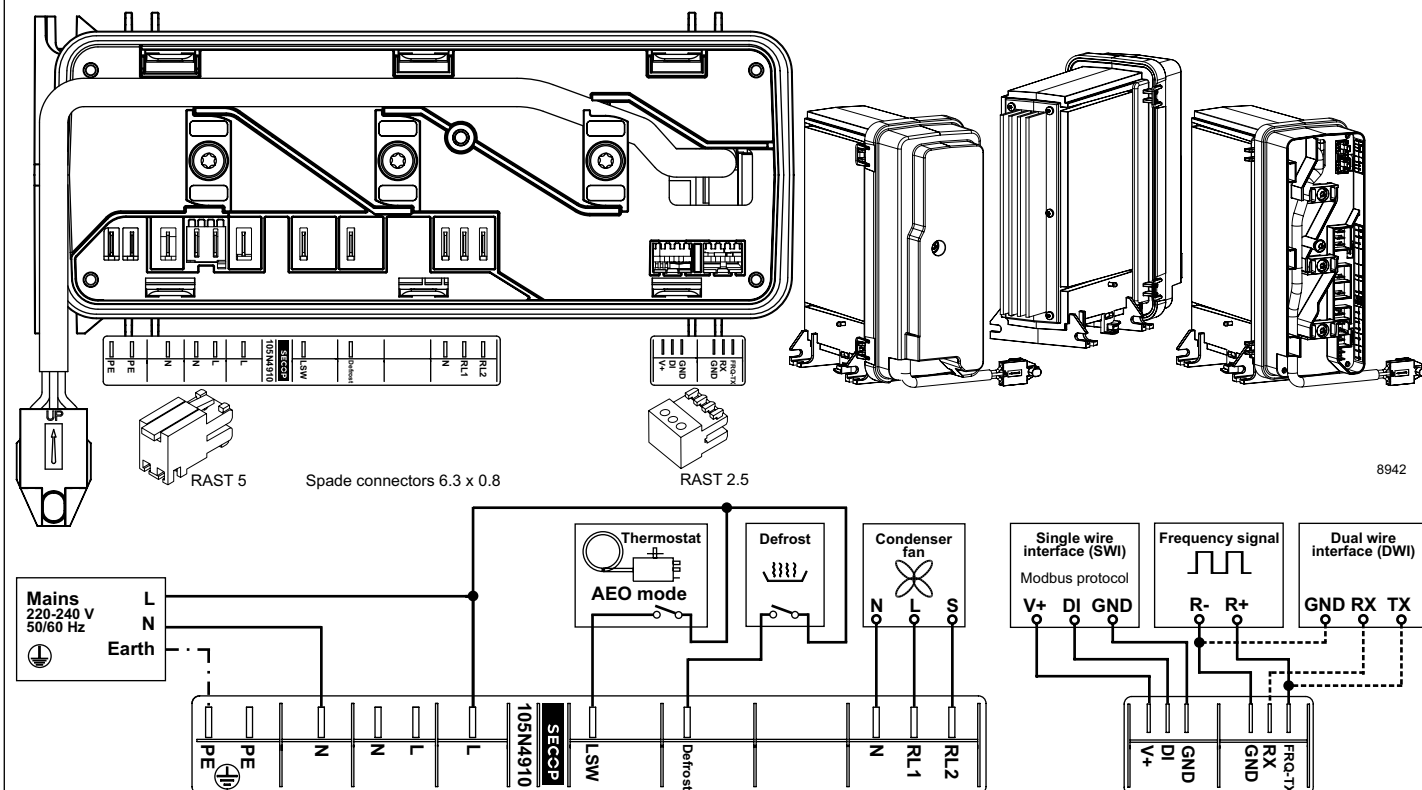


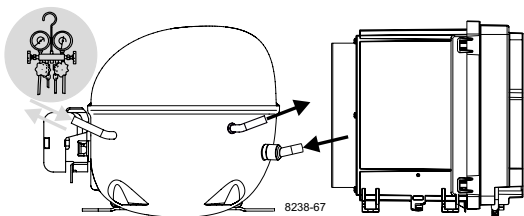
Instructions

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

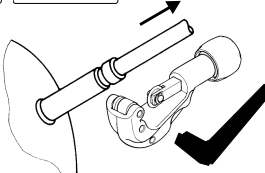
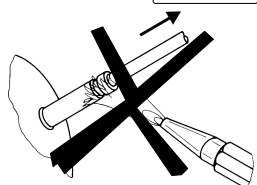
SECCP

Keep electrical equipment
clear from oil, chemicals,
and water

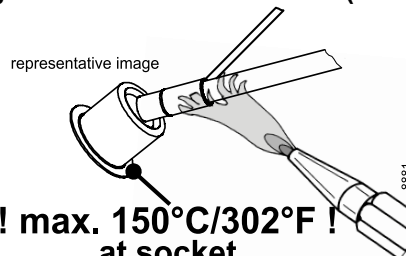


Service/Repair – R170, R290, R1270

(applies to all flammable refrigerants)



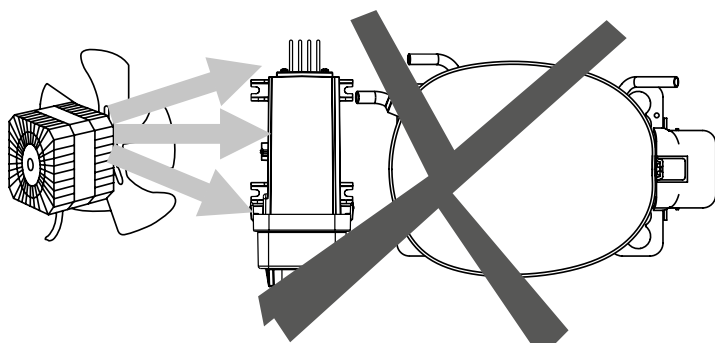
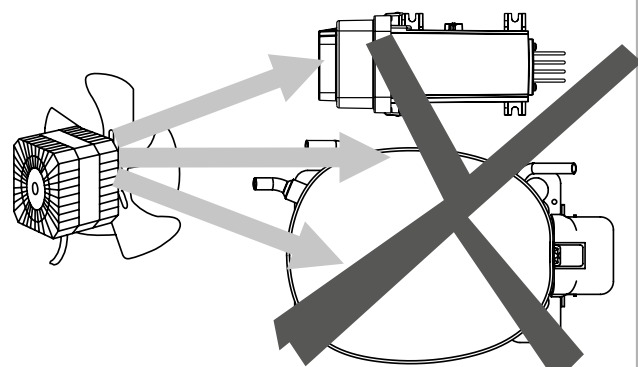
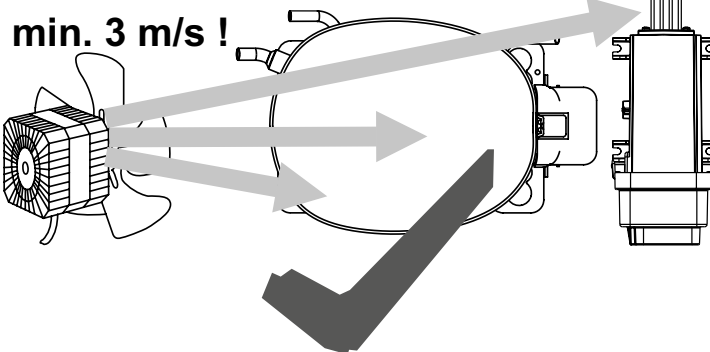
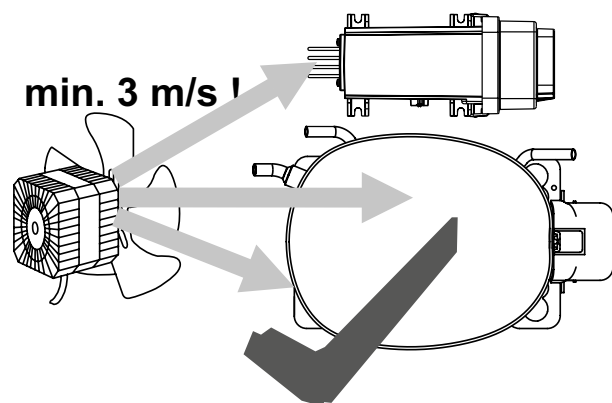
Brazing on Suction Connectors (Direct Intake)



**! max. 150°C/302°F !
at socket**

brazing solder: phosphor (LP7) or silver

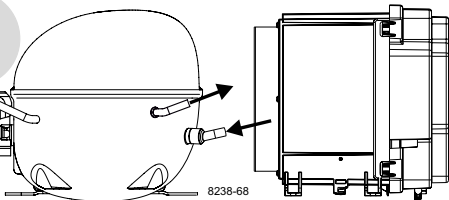
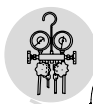
Refer to Product Bulletin: **Brazing on Suction Connectors
(Compressors with Direct Suction Intake)**



8938

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	220-240 V (± 10 %)
Frequency	50/60 Hz
Input power, max.	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**

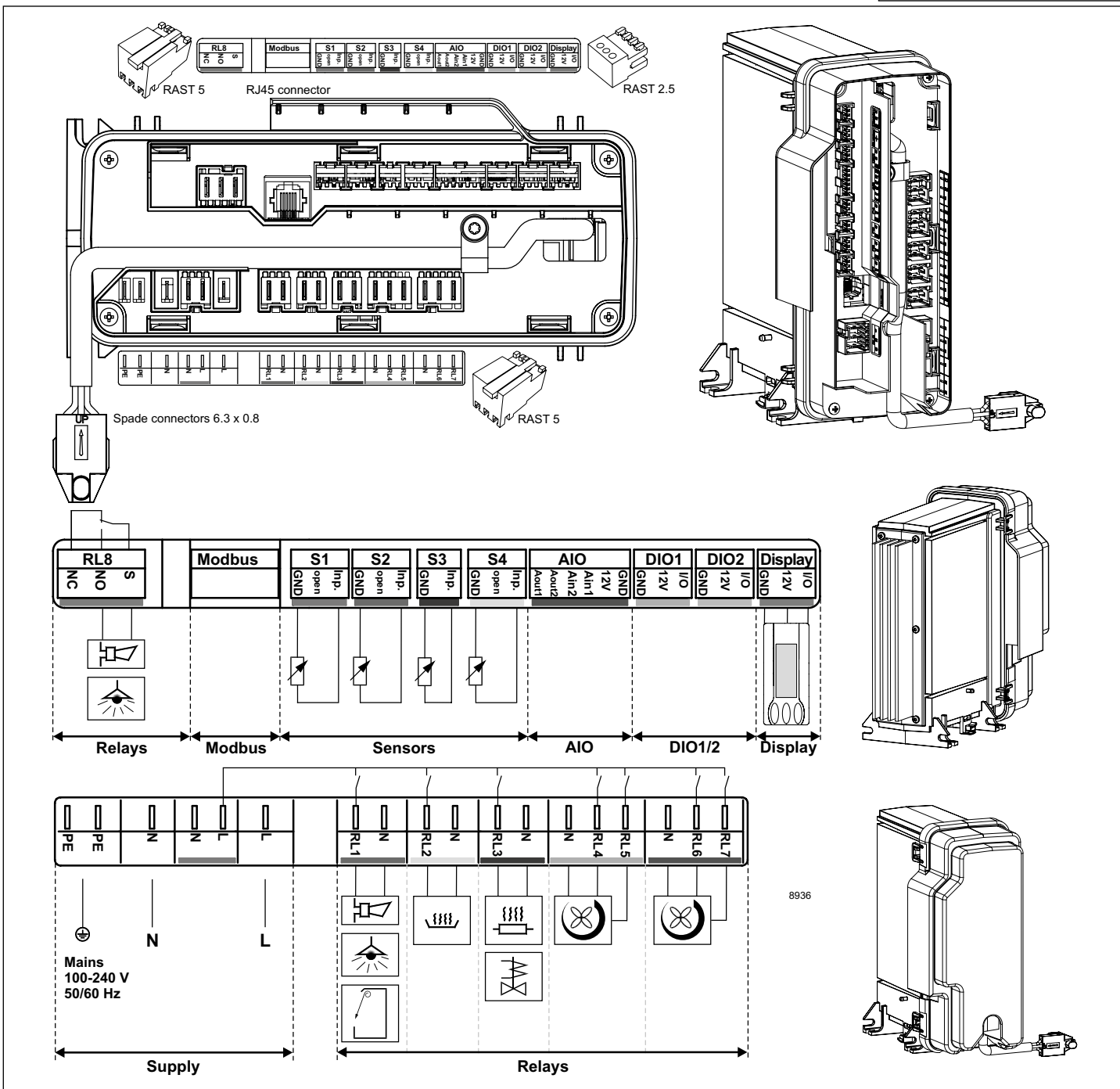


Instructions

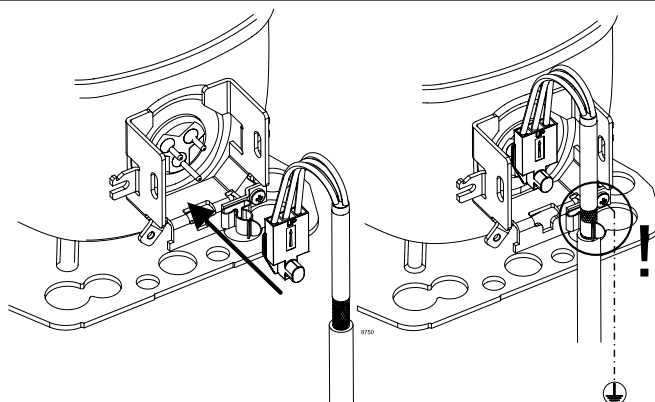
NLV Compressors
100-240 V, 50/60 Hz
105N486x Series
Controllers

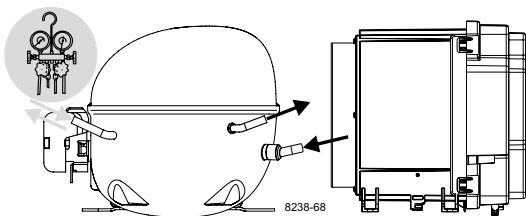
SECCP

Keep electrical equipment
clear from oil, chemicals,
and water



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





Instructions

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

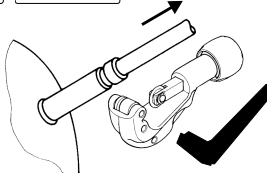
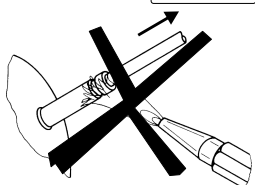
SECCP

Keep electrical equipment
clear from oil, chemicals,
and water



Service/Repair – R170, R290, R1270

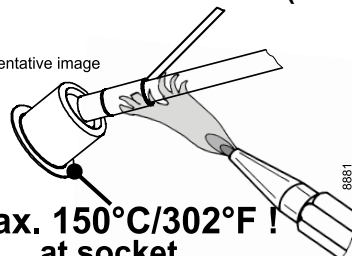
(applies to all flammable refrigerants)



8545

Brazing on Suction Connectors (Direct Intake)

representative image

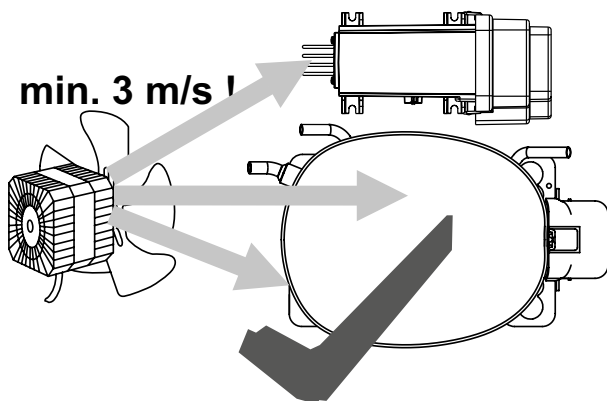


**! max. 150°C/302°F !
at socket**

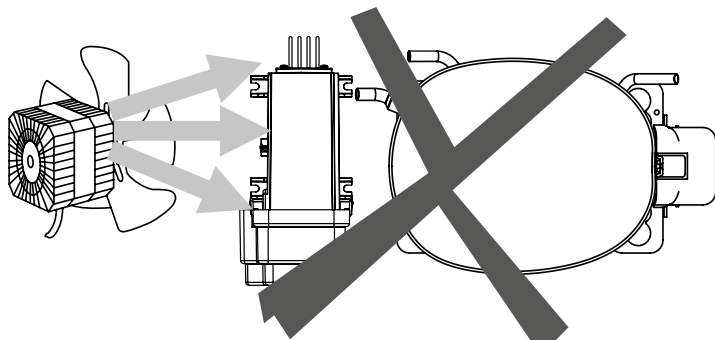
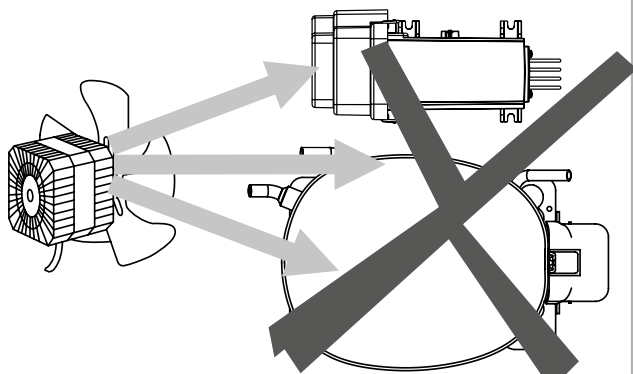
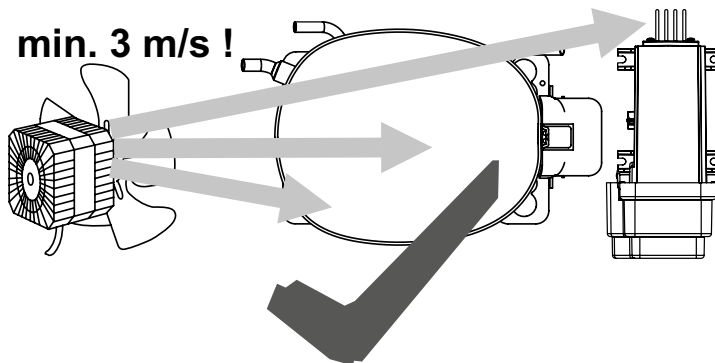
brazing solder: phosphor (LP7) or silver

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

min. 3 m/s !



min. 3 m/s !



8939

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	100-240 V (± 10 %)
Frequency	50/60 Hz
Input power, max.	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**