Single
Packs

Single Pack NLVE13CN 115-127V 50/60Hz

Single pack code number: **195B4831**

Position	Title	Code	Amount
1	Compressor NLVE13CN	105H7374	1
2	Electronic unit NLVE	105N4101	1
3	Cover	103N2008	1
4	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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Technical Data Compressor

SECOP

Model

Designation	**NLVE13CN**	Sales code:	**105H7374**

Compressor design

Oil type	Polyolester	Refrigerant(s)	**R290**
Oil viscosity	32cSt	Displacement	12,55cm³ / 0,77cu.in
Oil quantity	300cm³ / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	300g / 10,6oz		
Free gas volume comp.	2360cm³ / 79,8fl.oz		
Weight	10,8kg / 23,8lbs		
Motor protection	2# internal		
Winding resist. ph. to ph.	3,55Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		

General - Configurations and Applications with NLVE13CN and Controller

	Conf. 1
Sales code single pack:	105N4100
Sales code industry pack:	105N4101
Power supply (nominal)	115–127V,50/60Hz
Approvals	UL
Refrigerant	R290
Number of phases	1~AC
Application	L+MBP
Starting torque	HST
Hot gas defrost	OK
Long interval pull down	OK
System cooling	Fan cooling 3m/s
Note	- / -

Controller functions

	Conf. 1
Protection	Mechanic
Max output power	1000W
No of relays	0
Hot gas defrost	yes
AEO speed setting	yes
Serial com, (Modbus)	-
DWI / Frequency input	yes
Note	

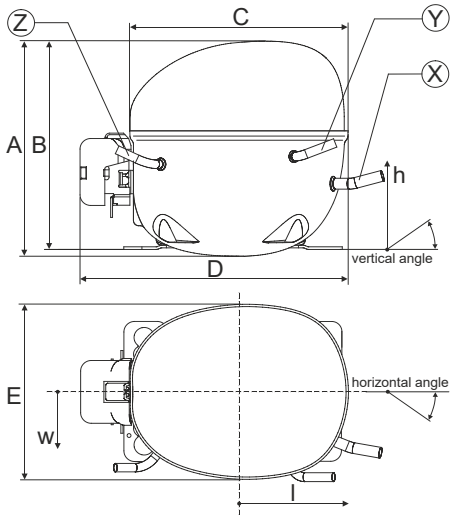
Model

Designation **NLVE13CN** Sales code: **105H7374**

Compressor dimensions

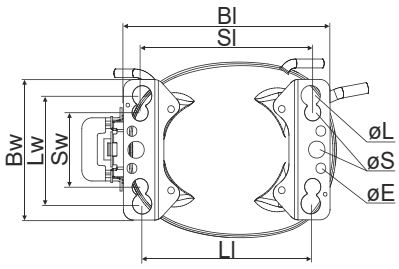
Housing

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 6,41-6,59	øi 6,41-6,59
(i:inside, o:outside)	[in]	øi 0,32-0,33	øi 0,25-0,26	øi 0,25-0,26
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

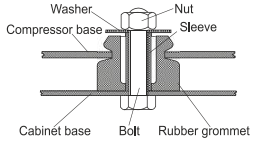


Baseplate	[mm]	[inch]
Bl	204	8.03
Bw	132	5.2
øE	ø 9.7	ø 0.38

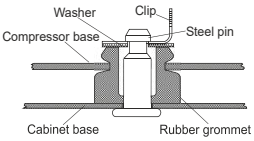
Large holes	[mm]	[inch]
Ll	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75

Small holes	[mm]	[inch]
Sl	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63

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.

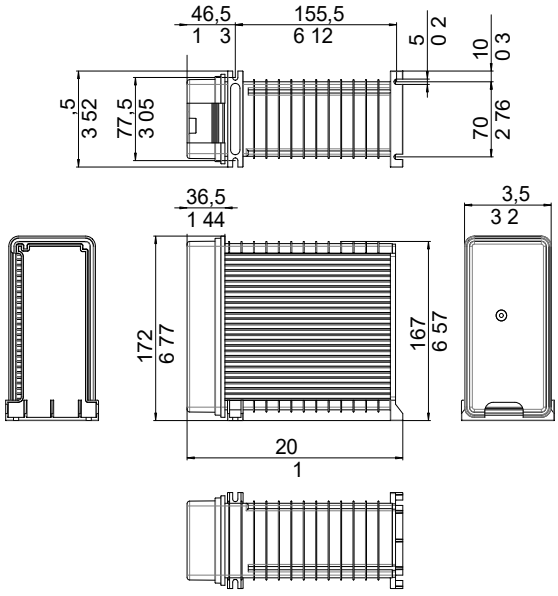
Model

Designation	**NLVE13CN**	**115–127V,50/60Hz**	**Conf. 1**	Sales code:	**105H7374**

Controller	**NLV Core Function 115V**	**105N4100**

Sales code single pack:	105N4100 (1 units)
Sales code industry pack:	105N4101 (8 units)
Adaption to compressor:	detached
Protection class:	IP31
Weight:	1kg/2,2lbs
Voltage nom.:	115–127V,50/60Hz
Voltage range:	100–140V
Max, current:	8 A
LRA (Locked Rotor Amperage)	1,3A
Cable length:	680mm
Compressor speed range:	2000-4500rpm
Housing plastic:	UL94-5VA

Controller dimensions:



Operation Limits

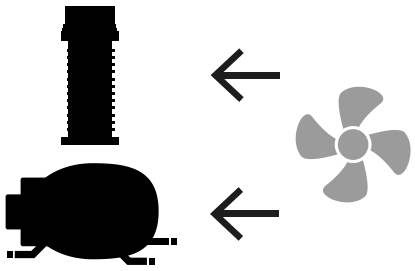
System cooling

Ambient/ machineroom temperatures minimum /maximum

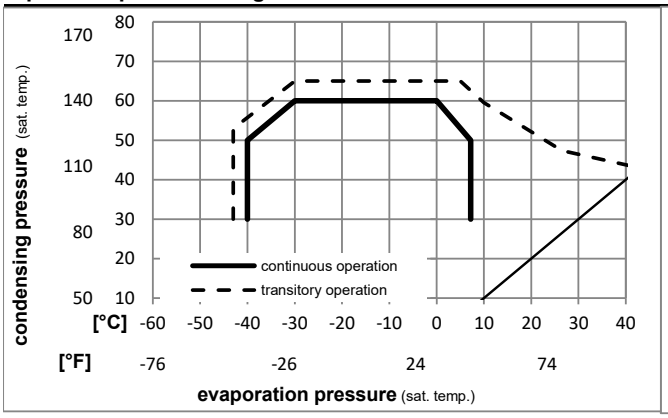
Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range compressor:	10 - 48°C / 50 - 119°F
Machine room temperature range controller:	10 - 50°C / 50 - 122°F
Compressor and Controller Cooling:	Fan cooling 3m/s

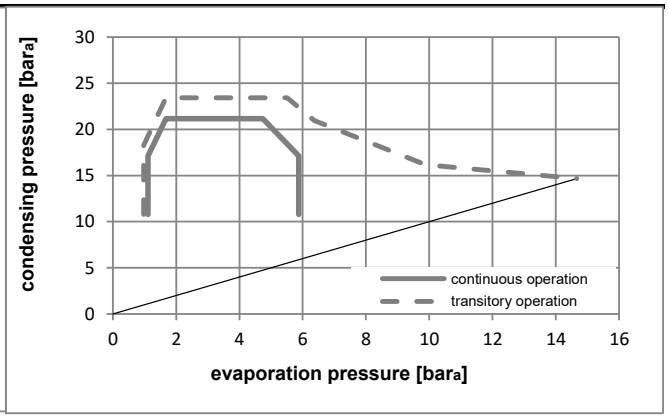
Ensure proper airflow of 3 m/s at both compressor and electronic units.

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



Operation pressure range R290

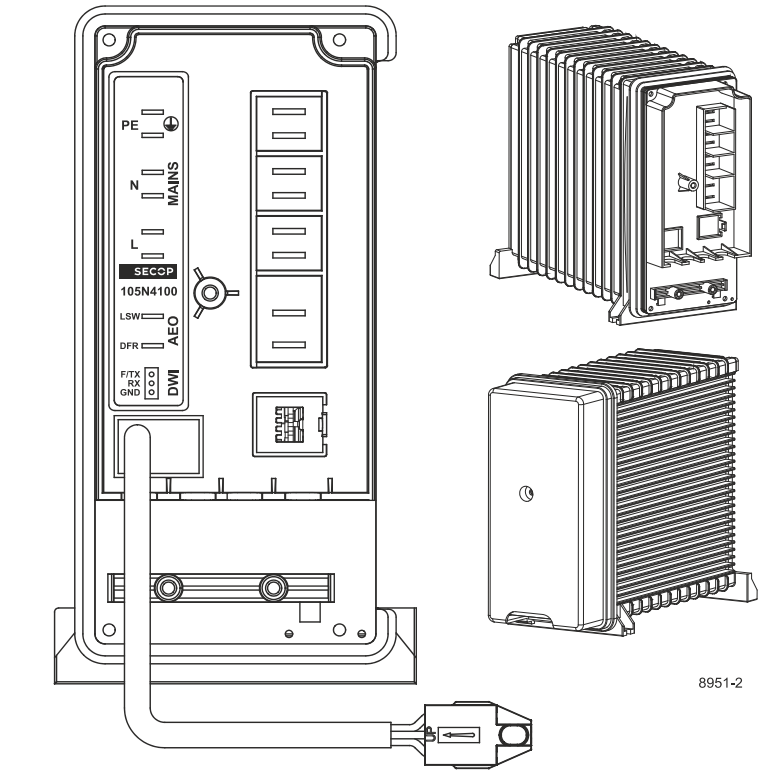


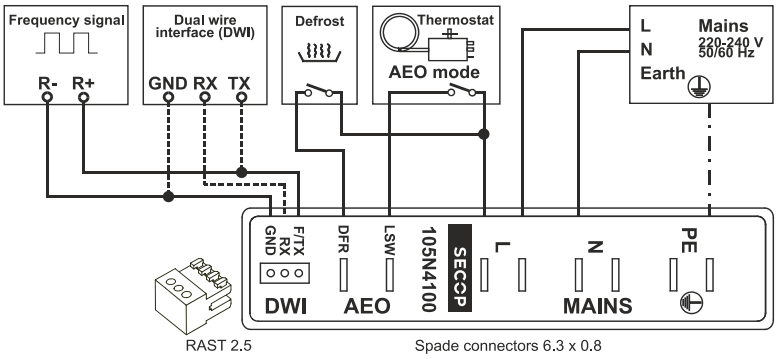


Model

Designation	**NLVE13CN**	**115–127V,50/60Hz**	**Conf. 1**	Sales code:	**105H7374**
Controller	**NLV Core Function 115V**				**105N4100**

Controller connections





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

103N2008	plastic cover	1 pcs

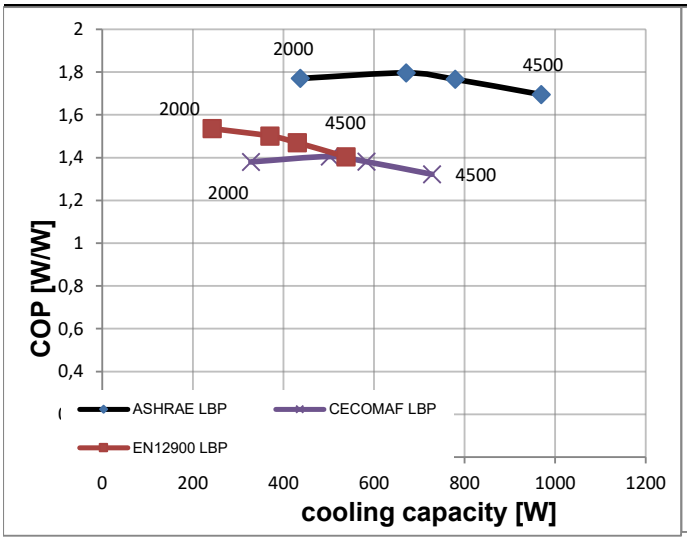
Model

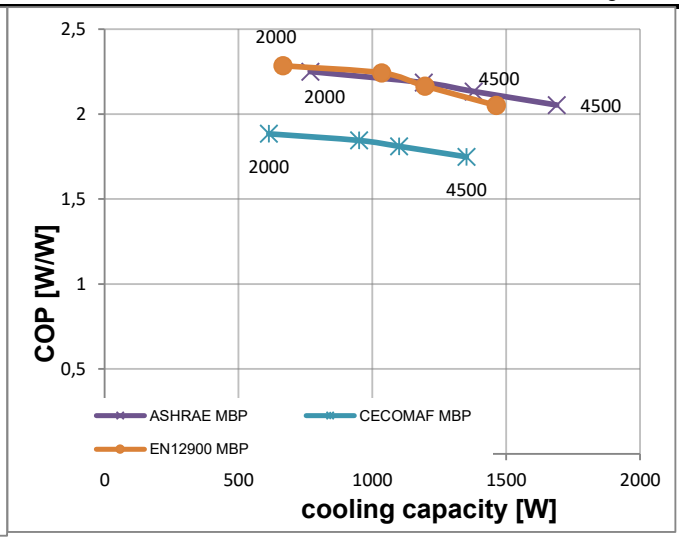
Designation	NLVE13CN	115–127V,50/60Hz	Conf. 1	Sales code:	105H7374
Controller	**NLV Core Function 115V**				**105N4100**

Optimization + standard conditions R290, 115V, 60Hz, Rpm_N 4500, Fan cooling 3m/s

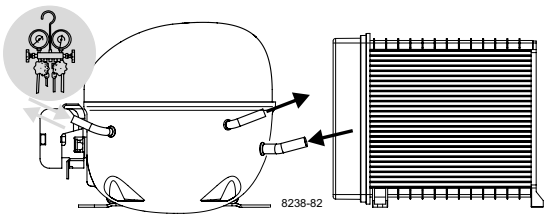
	Evaporating pressure (saturation temperature) pe	Condensing pressure (saturation temperature) pc	Return gas temp. RGT	Liquid temp. Tliq	Cooling capacity [W]	[Btu/h]	[kcal/h]	COP [W/W]	EER [Btu/Wh]	[kcal/Wh]	Power consumption P1 [W]	Current consumption I [A]	Ref. mass flow ṁ [kg/h]	
[°C]	-23	54	32	32	969,5	3311	834,4	1,69	5,79	1,46	572,1	7,86	9,82	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	728,0	2486	626,5	1,32	4,52	1,14	550,6	7,59	9,06	**CECOMAF LBP**
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	538,0	1837	463,0	1,40	4,80	1,21	383,1	5,44	6,15	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	1688,6	5767	1453,2	2,05	7,01	1,77	822,3	11,08	19,26	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	1351,2	4615	1162,9	1,75	5,97	1,50	772,7	10,44	17,09	**CECOMAF MBP**
[°F]	14	131	90	131										
[°C]	-10	45	20	45	1462,3	4994	1258,5	2,05	7,01	1,77	712,9	9,67	17,95	**EN12900 MBP**
[°F]	14	113	68	113										

Standard conditions with different RPM R290, 115V, 60Hz, Fan cooling 3m/s





Test conditions:	pe [°C]	pc [°C]	Tliq [°C]	Tsuc [°C]		pe [°C]	pc [°C]	Tliq [°C]	Tsuc [°C]
ASHRAE LBP	-23	54,44	32,22	32,22	ASHRAE MBP	-6,66	54,44	46,11	35
CECOMAF LBP	-25	55	55	32	CECOMAF MBP	-10	55	55	32
EN12900 LBP	-35	40	40	20	EN12900 MBP	-10	45	45	20

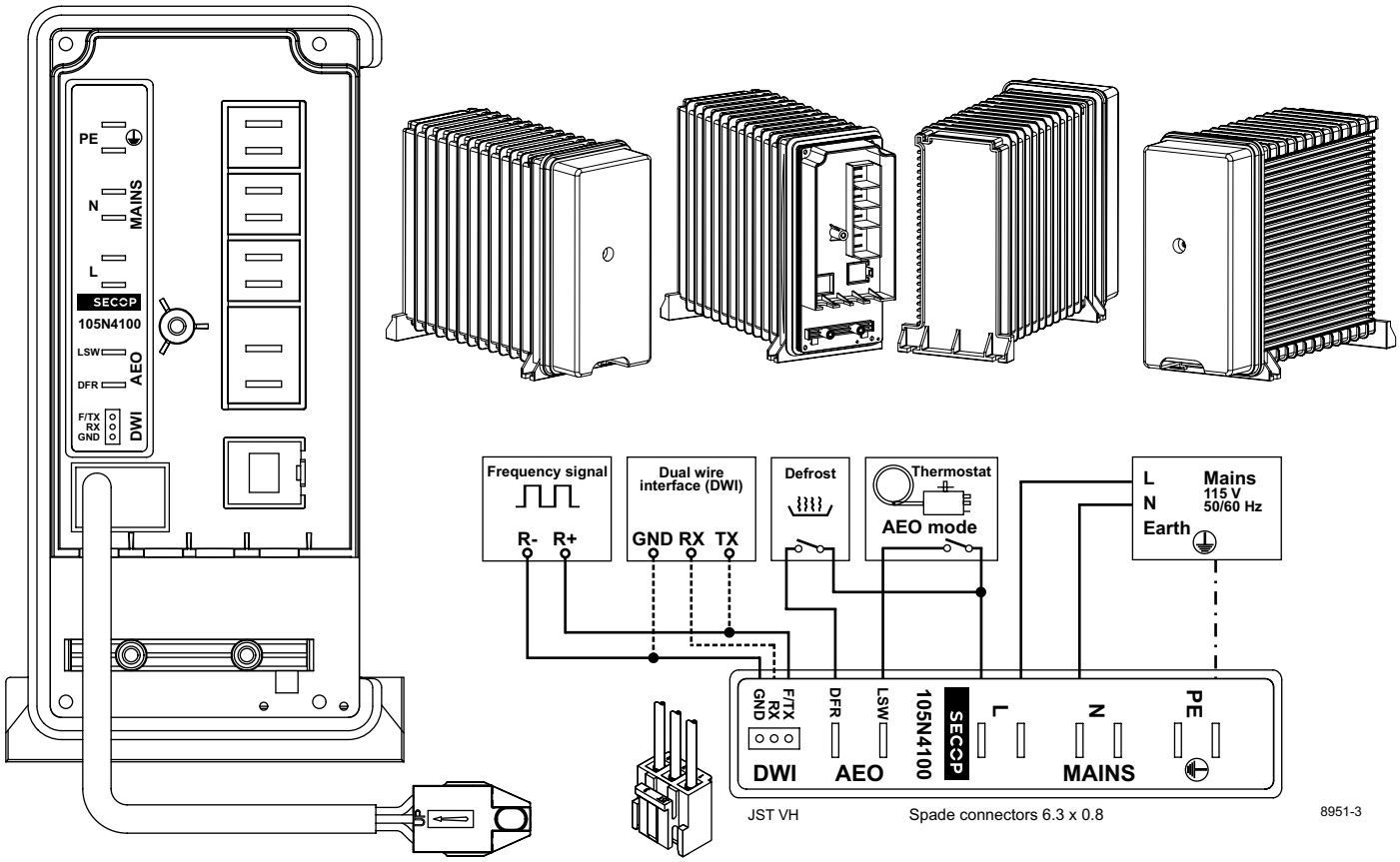


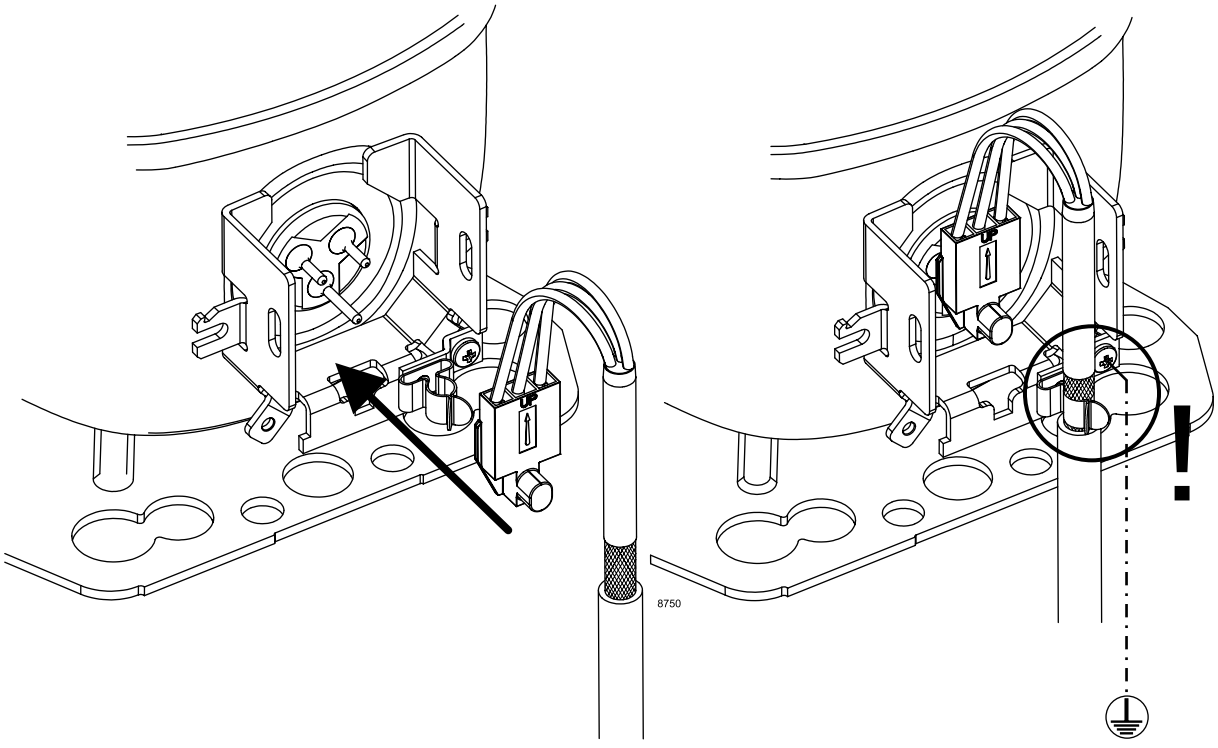
Instructions

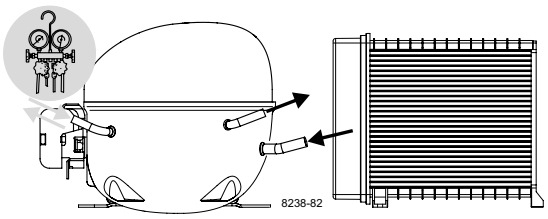
NLVE Compressors
115-127 V, 50/60 Hz
105N4100 Controllers

SECOP

Keep electrical equipment clear from oil, chemicals, and water







Instructions

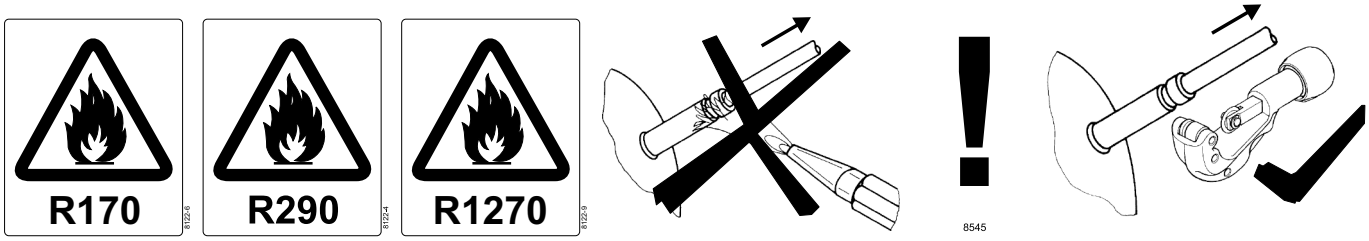
NLVE Compressors
115-127 V, 50/60 Hz
105N4100 Controllers

SECOP

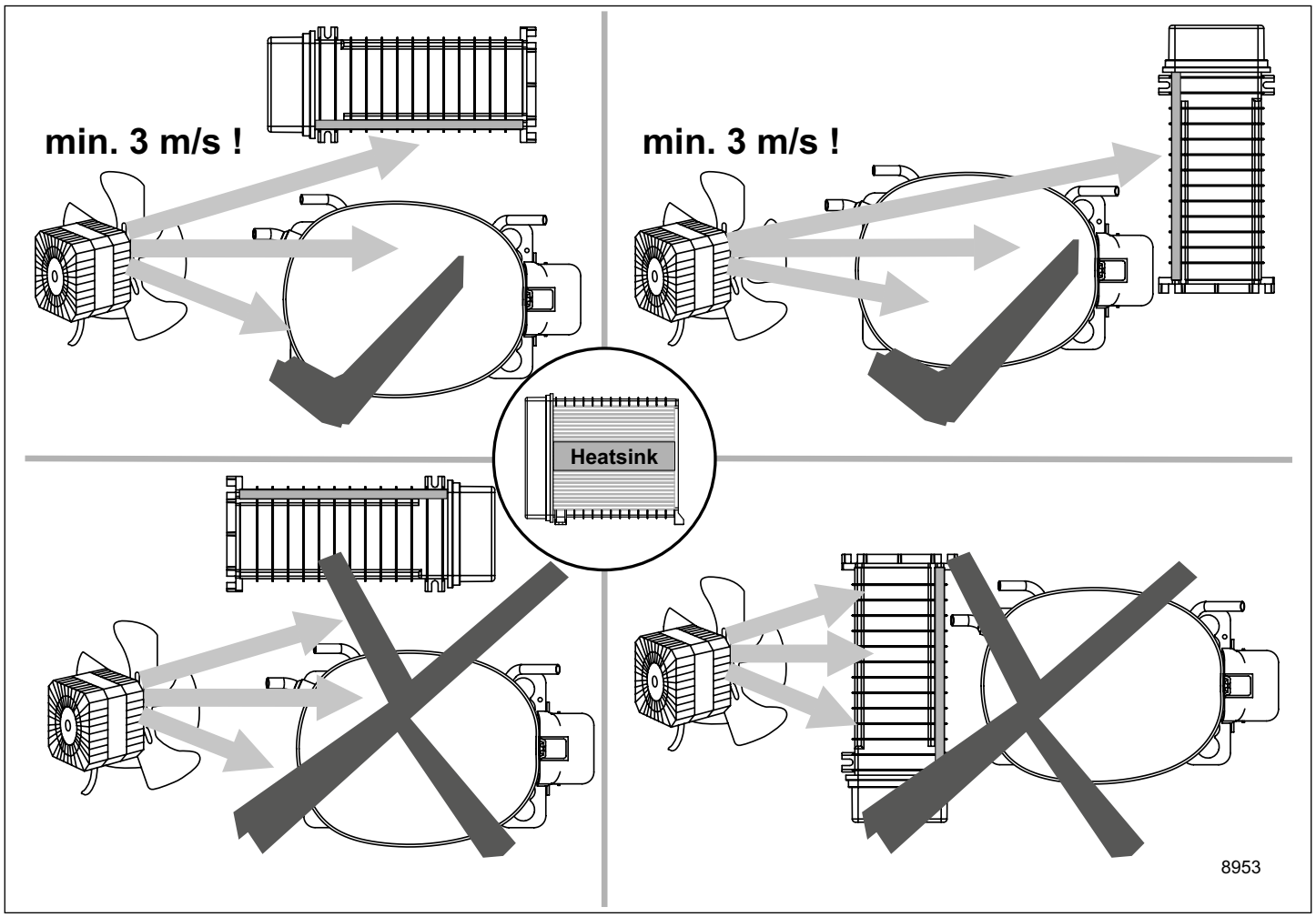
Keep electrical equipment clear from oil, chemicals, and water

Service/Repair – R170, R290, R1270

(applies to all flammable refrigerants)



Ensure Proper Airflow of 3 m/s at Both Compressor and Electronic Unit (Heatsink)



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	115-127 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.secop.com**