Contents [hide]

SECOP

Secop 105N4120 NLV-CN Core Functions Controllers Compressors

Product Usage Instructions

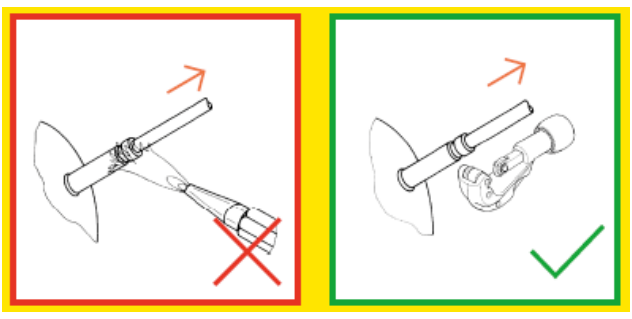
- Ensure a minimum airflow of 3 m/s for both the compressor and electronic units. Direct airflow for electronics to the heat sink.
- Fasten the copper shield of the controller cable properly to the clip at the compressor for optimum EMC performance.
- Connect the compressor and controller to PE (Protective Earth) to avoid electrical hazards.
- Collect all protective earth lines to one star point to prevent loop currents that could cause electronic component issues.
- Installation should only be performed by trained personnel.
- Do not remove the controller cover when the unit is powered on.
- Disconnect from power and wait 30 seconds before accessing terminals.
- Ensure the signal connection cable length does not exceed 3 meters.
- Detailed instructions on thermostatic operation, frequency speed control, DWI serial communication, and defrost control are provided in the manual.
- Refer to the manual for detailed technical data on the controller and compressors.
- Dimensions of the product are outlined in the manual for reference.
- Details on how to order additional units or replacement parts can be found in the manual.

INSTALLATION

WARNING!

- 

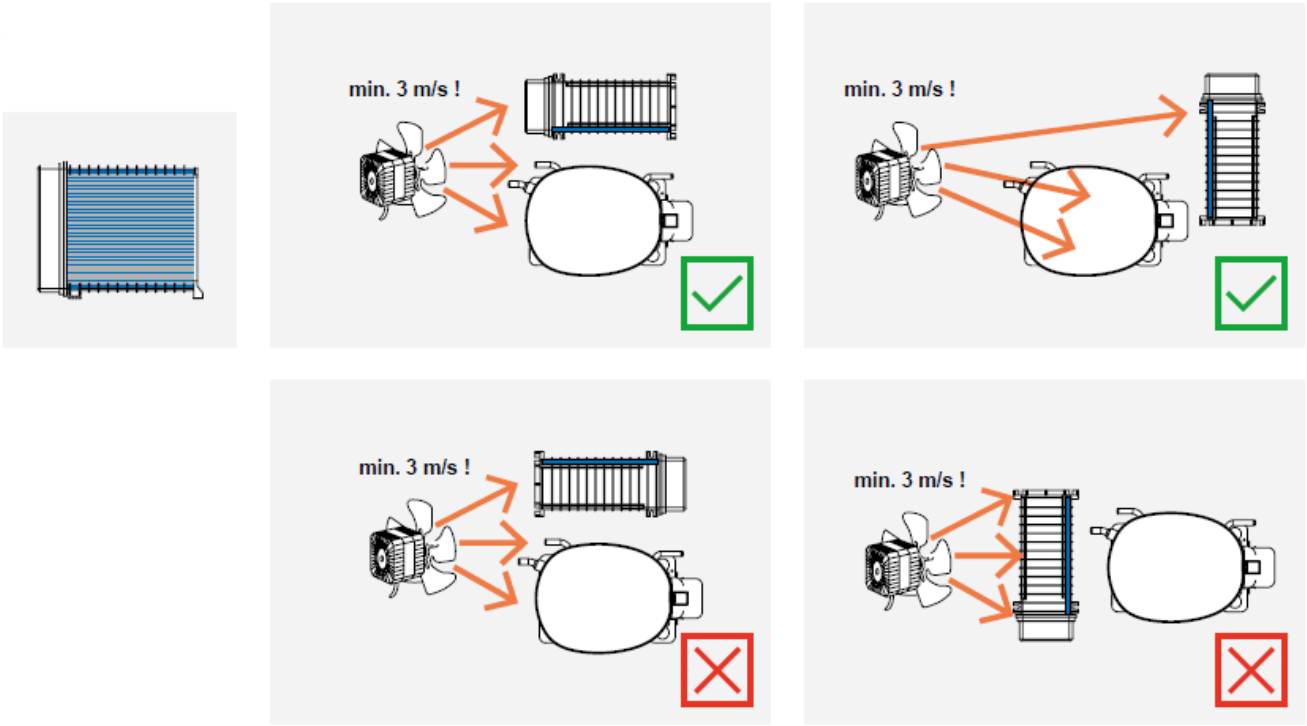
To remove a compressor from a system, the tubes must be cut.
- Never use a torch to remove brazed tubes.



Brazing on Suction Connectors (Direct Intake)

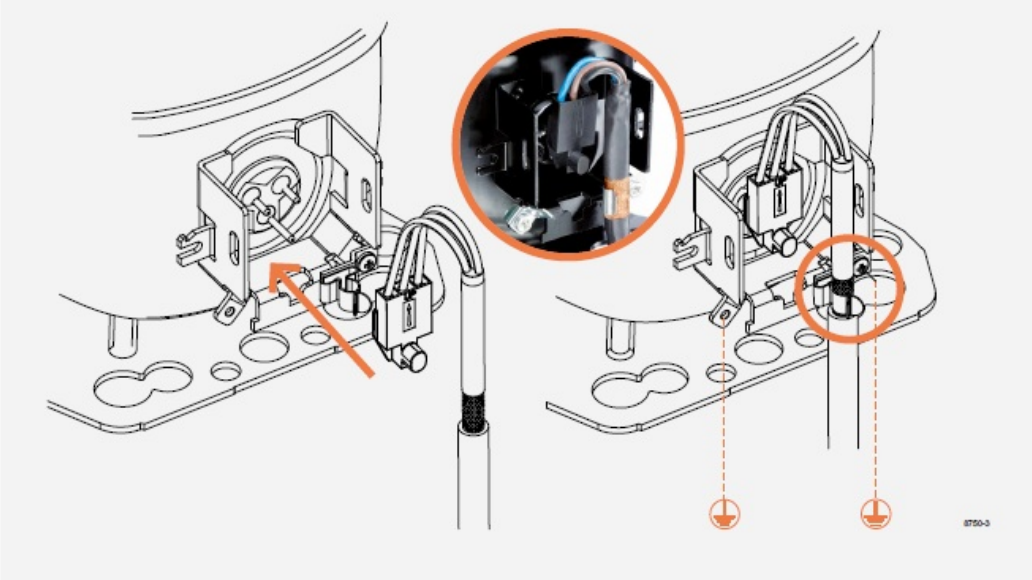
- Refer to Product Bulletin:
- Brazing on Suction Connectors (Compressors with Direct Suction Intake)

Airflow



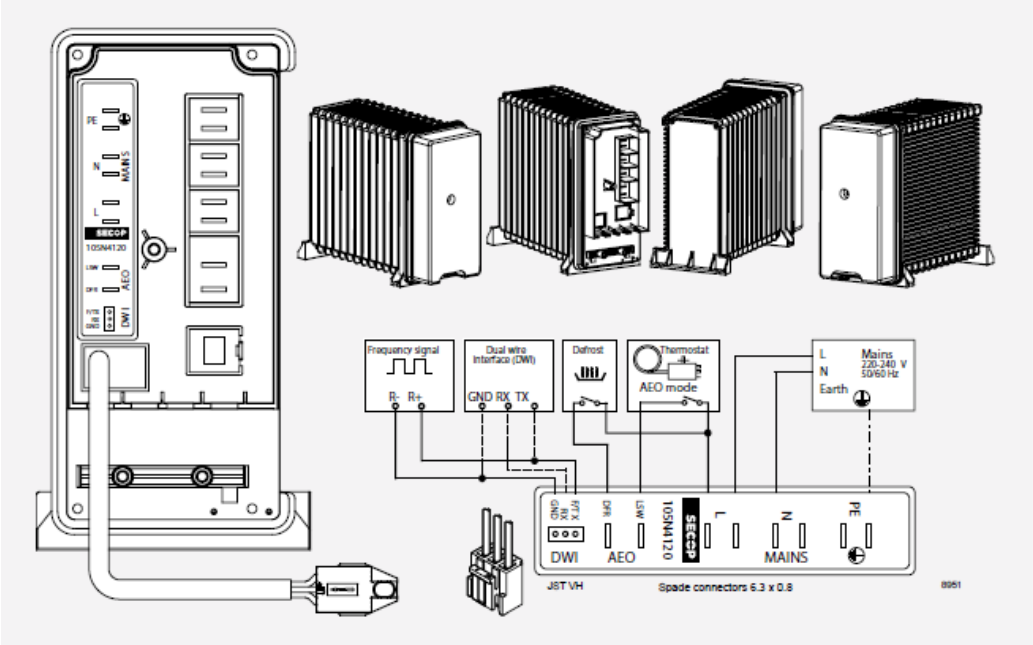
- Ensure proper airflow of 3 m/s at both compressor and electronic units.
- The airflow for the electronics must be directed to the heat sink.

Earthing the Compressor and Controller



- For optimum EMC performance, the copper shield of the controller cable must be fastened properly in the clip at the compressor.
- The compressor and controller must be connected to PE (Protective Earth) to avoid risk of electrical hazard.
- All protective earth lines, PE, in the application must be collected to one star point. This prevents loop currents, which could cause problems concerning the electronic components, communication lines, and sensors. The star-point is normally a screwed terminal on the chassis.

Wiring Diagram



- Installation must only be done by trained personnel.

- Do not remove the cover of the controller when the unit is powered on.
- Disconnect from power and wait 30 seconds before accessing terminals.
- The maximum cable length should not exceed 3 meters for signal connections.
- A cable length of more than 3 m could alter the EMI performance.
- Signal lines must be separated from power lines.

Connections

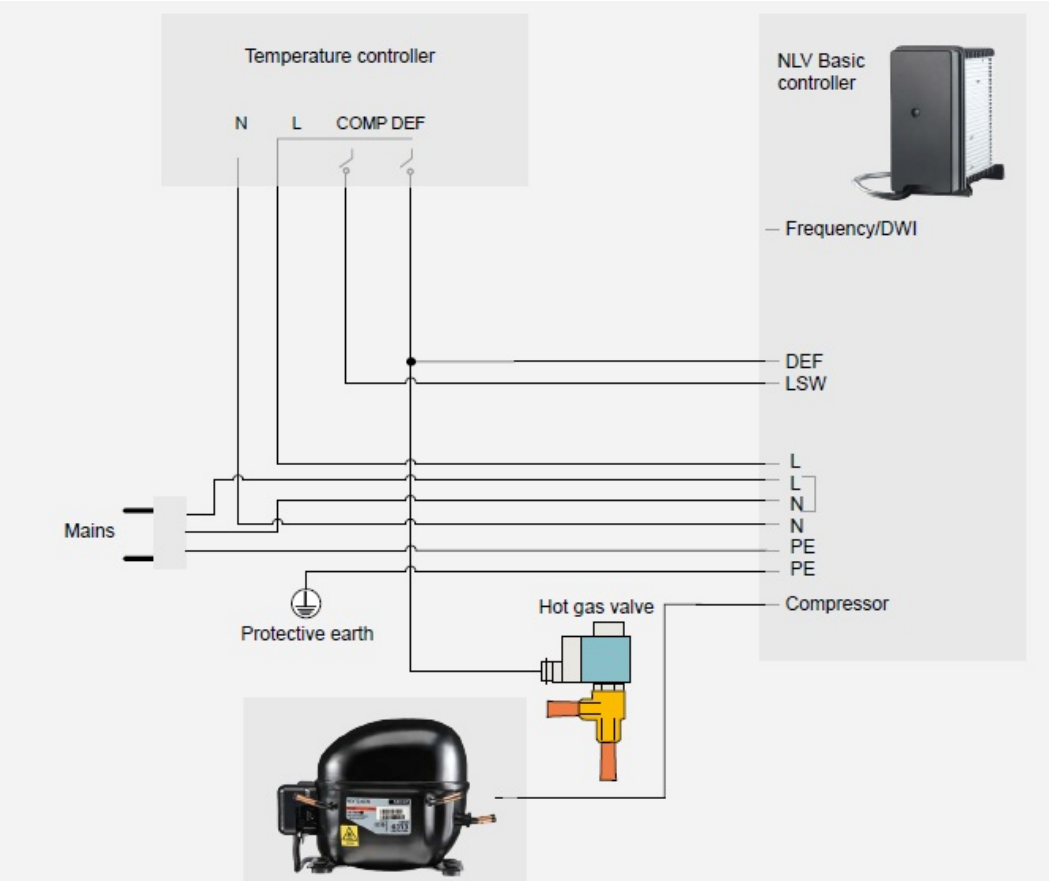
1. 2x Protective Earth
2. 2x Neutral
3. 2x Line
4. Thermostat/AEO
5. Defrost
6. Frequency and DWI

No.	Description	Type	Note
1	Protective Earth	FASTON 6.3 mm × 0.8 mm	Mandatory, must be connected
2	Neutral	FASTON 6.3 mm × 0.8 mm	Mandatory, must be connected
3	Line	FASTON 6.3 mm × 0.8 mm	Mandatory, must be connected

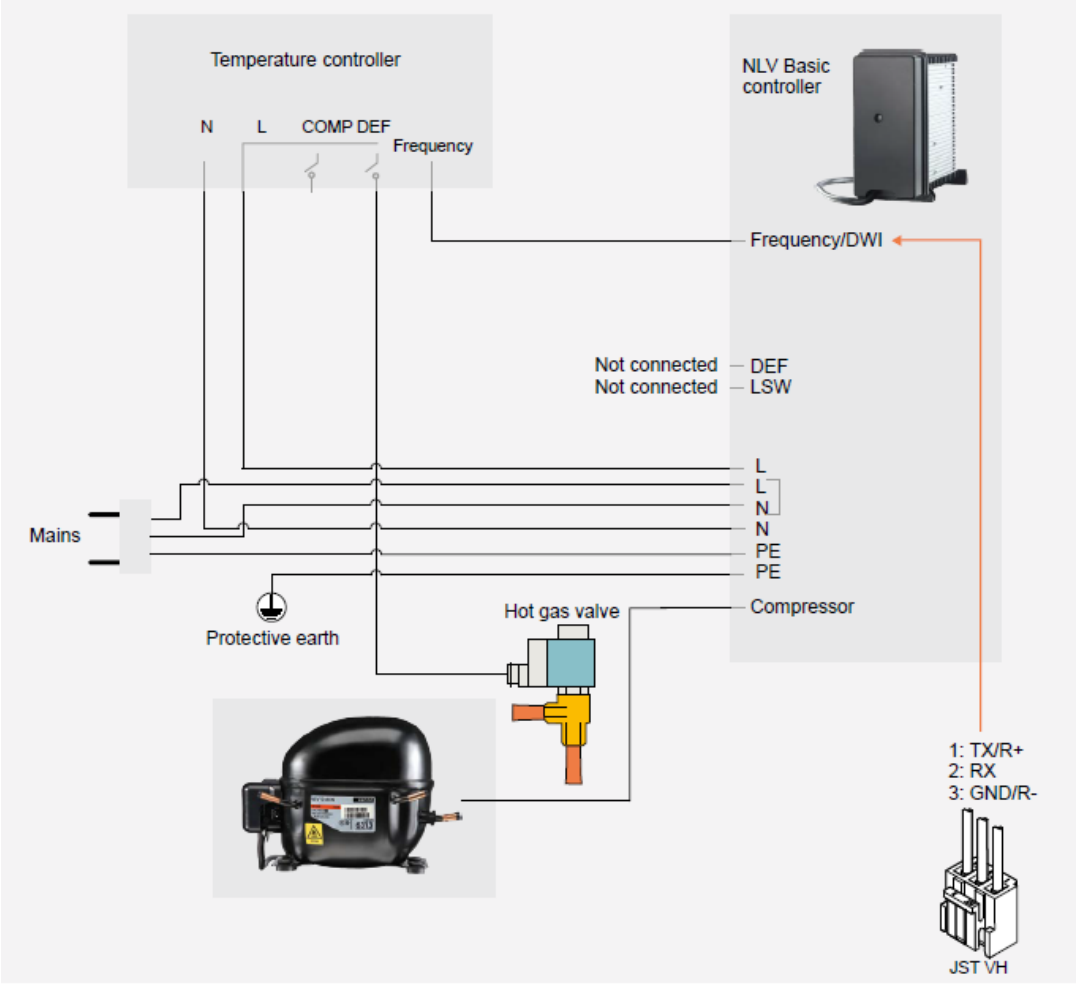
4	Thermostat	FASTON 6.3 mm × 0.8 mm	For AEO only
5	Defrost	FASTON 6.3 mm × 0.8 mm	For AEO and defrost only
6	Frequency/DWI	JST VH	For frequency or DWI only

Wiring for Thermostatic Operation

- For optimal hot-gas defrost performance, the relay output of the controller should be connected to the DEF input of the controller.
- This ensures that the compressor operates at full speed when the hot gas valve is activated.



Wiring for Frequency Operation/DWI Communication



SPEED CONTROL

The Secop Core Functions controller is equipped with three different inputs for speed control to ensure easy integration.

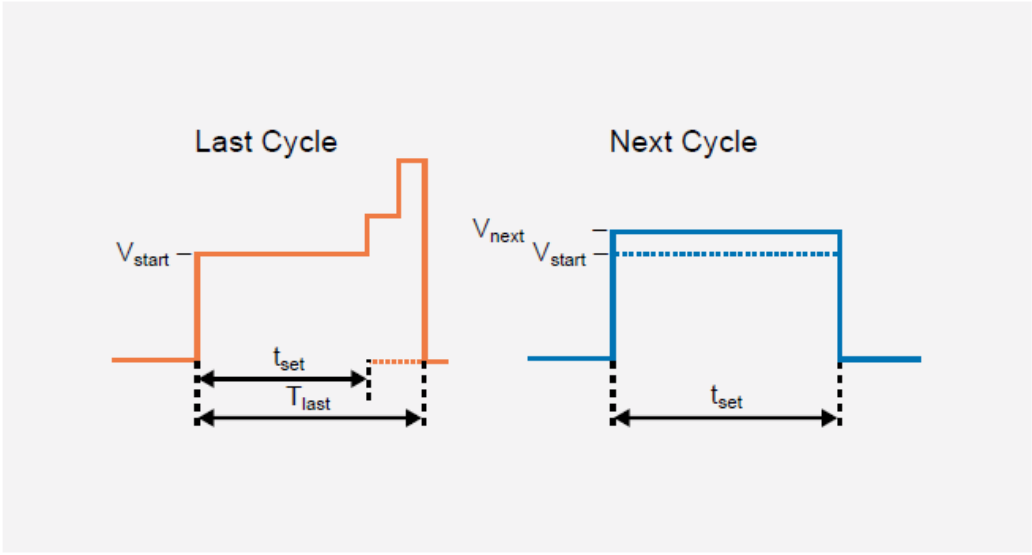
Almost any temperature controller can be used to control the speed without needing to change the setup.

The Core Functions controller has automatic input detection and will automatically select the input that is active.

1. Frequency signal.
2. Thermostatic operation with AEO, Adaptive Energy Optimization.
3. DWI, Dual Wire Interface with separated RX and TX lines.
    - If more signals are connected, the input with the highest priority (1–3) will be used.
    - DWI input has the lowest priority and can be used for monitoring in combination with the other inputs.
    - If DWI sends an active start command, the DWI input will change priority to 1 and

overrule all other input signals.

Thermostatic Operation with AEO



- AEO is the only control mode where there is no direct relation between speed and input signal.
- The speed is automatically calculated based on the runtime (time between cut-in and cut-out).
- The AEO can be interfaced by a normal thermostat or relay.

% Runtime	% Speed

100	105
110	110
120	120
140	130
160	140
190	180
220	225

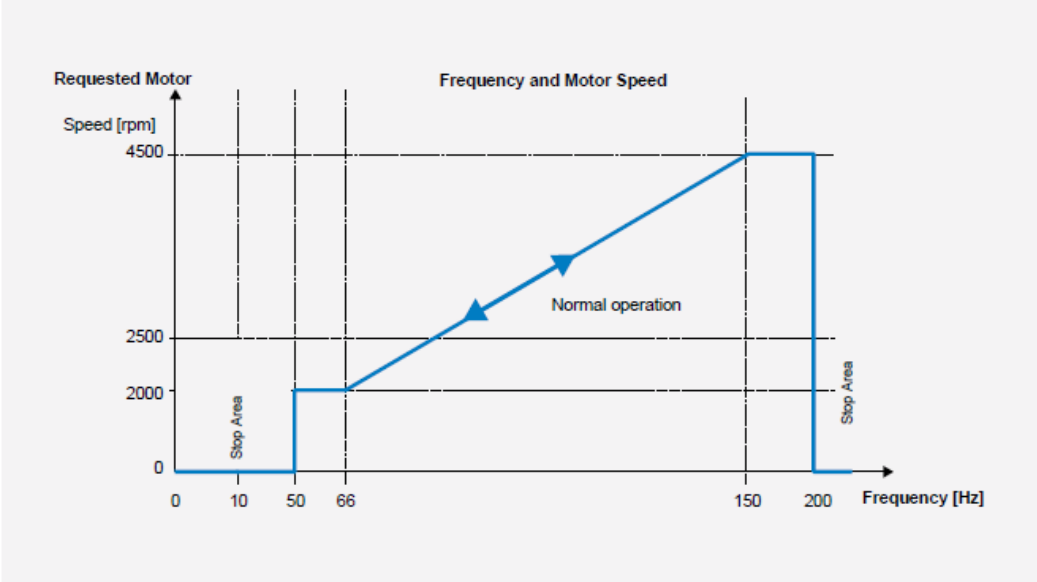
Advantages of the AEO:

- Easy to interface.
- Mechanical thermostat.
- Electronic control with relay output.
- Perfect for applications with stable conditions, such as freezers, catering equipment.

The AEO operates with a target runtime and will automatically adapt the speed until the target runtime is met.

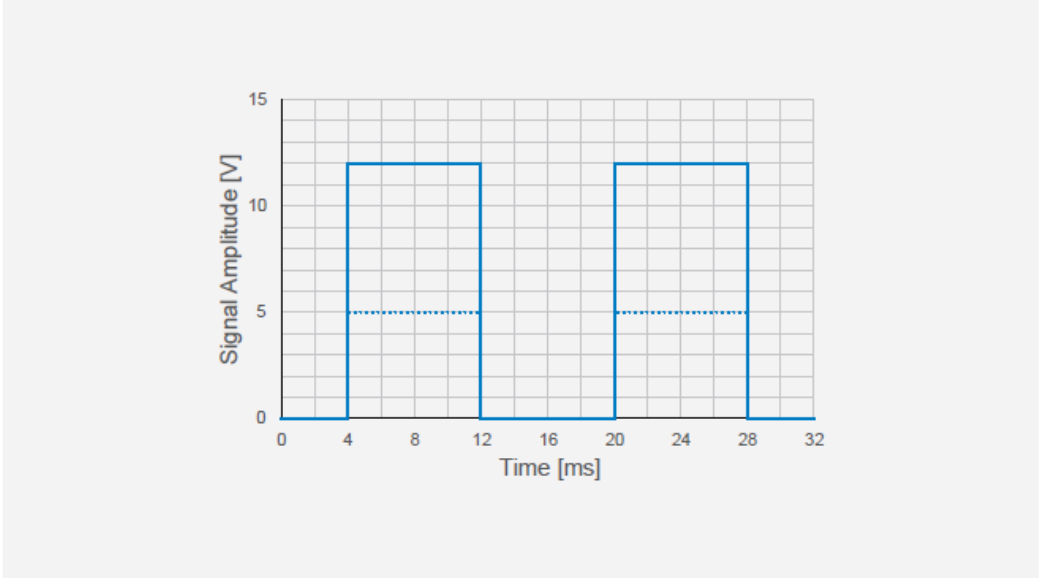
- If the compressor runtime is shorter than the target time, the speed in the next cycle will be reduced.
- If the runtime is longer than the target time, the speed in the current cycle will be increased until the cut-out is reached. The next cycle is calculated as the average speed for the last cycle.

Frequency Speed Control



The speed can be controlled by applying a low-voltage frequency signal to the frequency input

- The speed is changed linearly between 66 Hz and 150 Hz.
- The frequency of 66 Hz corresponds to 2000 rpm, 150 Hz to 4500 rpm (30 rpm/1 Hz by default).
- If the frequency is between 10-50 Hz, the compressor stops.
- The frequency signal should have a voltage of 5–12 V and a duty cycle of 50%.



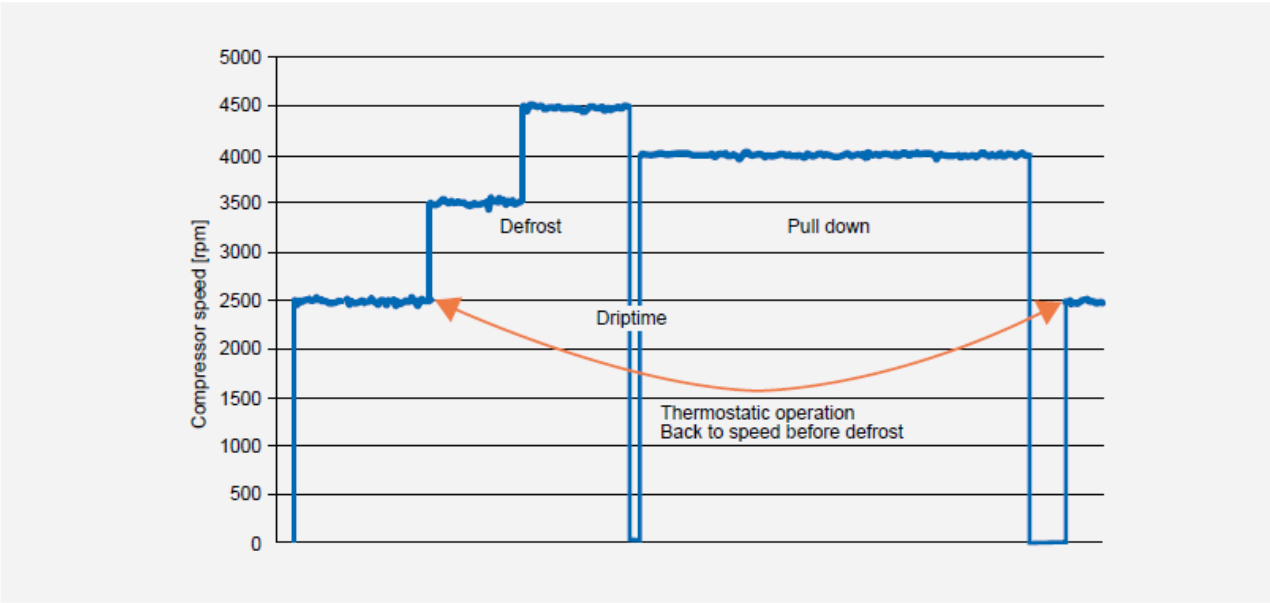
DWI Serial Communication

- The DWI, Dual Wire interface, is a bidirectional communication protocol that allows the temperature controller to communicate with the compressor controller.

- In addition to speed, the temperature controller can get different information from the controller, such as power consumption, actual speed, electronic temperature, and fault status.
- The communication interface is shared with the frequency interface. A full description of the interface and a list of supported commands may be requested from Secop.

Communication Specification	
Baud Rate:	600 Baud
Start Bits:	1
Data Bits:	8
Stop Bits:	1
Parity:	No
Frame Size:	5 Bytes
Appliance Controller:	Master
Compressor Controller:	Client
Start Bit:	1 -> 0 (logic level)
Data Bits:	Inverted logic (0V -> “1”)
Stop Bit:	0 -> 1 (logic level)
Control Mode:	Half duplex

Defrost Control with AEO



When variable-speed compressors are used in self-adapting capacity modes, defrosting may not work properly since the compressor speed cannot be controlled during defrost: The compressor lacks capacity for hot gas and the following pull-down.
To improve defrost when AEO is used, the Core Functions controller has an extra input that can be connected to the defrost relay output of the temperature controller.

- Hot-gas defrosting: When the defrost and AEO inputs are activated simultaneously, the Core Functions controller switches to a defined speed (defrost low speed). After a defined defrost low-speed time, the compressor will increase to defrost high speed until the defrost is completed.
- The two-speed defrost is a new feature of all next-generation controllers to avoid liquid refrigerant inside the compressor.
- Electrical defrosting: When only the defrost input is activated, the compressor will remain stopped, but the information is used to trigger pull-down after defrosting.
- After defrosting, the Core Functions controller will run the first cycle at high speed to ensure that the heat is removed as fast as possible.
- After the pull-down, it reverts to the speed it had before defrost.

TECHNICAL DATA

Controller Data

	Electronic Unit	105N4120
Power supply	Nominal voltage	220–240 V AC
	Minimum operating voltage	187 V AC
	Minimum starting voltage	198 V AC
	Maximum voltage	264 V AC
	Frequency	50–60 Hz
	Max power input	1000 W
	Power Factor Corrector	No

	Motor cable length	680±20 mm / 26.0-27.6 in.

Environment	IP class	IP31
	Humidity	30–90% rH
	Maximum operating temperature	50°C / 120°F
	Minimum operating temperature	0°C / 32°F
	Storage temperature	-30 to 70°C / -22°F to 158°F

Approvals/ Safety	Compressor protection	Software protection + internal in the compressor
	RoHs Conformity	IEC 62321

Speed-Con- trol	Frequency input	5–12 V, max. 8 mA, 0–200 Hz
	AEO Thermostat input (Lsw)	198 V–264 V AC, non-isolated
	AEO Defrost input (Def)	198 V–264 V AC, non-isolated
	RX/TX interface (DWI)	5–12 V, max. 8 mA, 600 baud

Compressor Data

	NLV8.0CN / NLV10CN / NLV12.6CN	
	Application	LBP/MBP

Compressor	Evaporating temperature °C (°F)	-40 to 0 (-40 to 32)
	Voltage range/frequency V /Hz	198–270/50/60
	Speed range rpm	2000–4500

Capacity and Performance Data NLV12.6CN

LBP: ASHRAE	230 V, 50/60 Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	428.3	488.9	549.5	603.6	657.6	751.0	844.3	937.7	Evaporation pressure	-23.3°C	-10°F
Capacity [BTU/h]	1463	1670	1877	2061	2246	2565	2884	3202	Condensing pressure	54.4°C	130°F
Power cons. [W]	237.4	265.7	294.0	322.2	350.4	416.0	481.7	547.3	Liquid temperature	32.2°C	90°F
Current cons. [A]	1.59	1.77	1.95	2.13	2.32	2.70	3.09	3.47	Return gas temp.	32.2°C	90°F
COP [W/W]	1.80	1.84	1.87	1.87	1.88	1.81	1.75	1.71			

EER [BTU/Wh]	6.16	6.28	6.38	6.40	6.41	6.16	5.99	5.85	

LBP: CEC OMAF	230 V, 50/60 Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	320.4	366.0	411.7	452.9	494.1	563.3	632.4	701.6	Evaporation pressure	-25° C	-13° F
Capacity [BTU/h]	1094	1250	1406	1547	1688	1924	2160	2396	Condensing pressure	55° C	131° F
Power cons. [W]	227.7	254.3	280.9	308.0	335.2	398.3	461.5	524.7	Liquid temperature	55° C	131° F
Current cons. [A]	1.53	1.70	1.86	2.04	2.22	2.59	2.96	3.34	Return gas temp.	32° C	90°F
COP [W/W]	1.41	1.44	1.47	1.47	1.47	1.41	1.37	1.34			
EER [BTU/Wh]	4.81	4.92	5.01	5.02	5.04	4.83	4.68	4.57			

LBP: EN12900	230 V, 50/60 Hz, fan cooling F2								
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions

Capacity [W]	243.4	273.1	302.8	335.4	367.9	424.0	480.1	536.2	Evaporation pressure	-35°C	-31°F
Capacity [BTU/h]	831	933	1034	1145	1257	1448	1640	1831	Condensing pressure	40°C	104°F
Power cons. [W]	158.6	173.9	189.2	211.9	234.7	277.3	319.8	362.3	Liquid temperature	40°C	104°F
Current cons. [A]	1.09	1.18	1.28	1.42	1.57	1.84	2.11	2.38	Return gas temp.	20°C	68°F
COP [W/W]	1.54	1.57	1.60	1.58	1.57	1.53	1.50	1.48			
EER [BTU/Wh]	5.24	5.36	5.47	5.40	5.35	5.22	5.13	5.05			

MBP: ASHRAE	230 V, 50/60 Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	764.3	864.3	964.2	1059	1154	1327	1501	1674	Evaporation pressure	-6.7°C	20°F
Capacity [BTU/h]	2610	2952	3293	3617	3942	4533	5125	5717	Condensing pressure	54.4°C	130°F
Power cons. [W]	336.5	379.7	423.0	462.2	501.4	601.9	702.5	803.1	Liquid temperature	46.1°C	115°F

Current cons. [A]	2.23	2.51	2.79	3.04	3.29	3.85	4.40	4.95	Return gas temp.	35°C	95°F
COP [W/W]	2.27	2.28	2.28	2.29	2.30	2.21	2.14	2.08			
EER [BTU/Wh]	7.76	7.77	7.79	7.83	7.86	7.53	7.30	7.12			

MBP: CEC OMAF	230 V, 50/60 Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	607.1	688.6	770.1	844.3	918.6	1056	1193	1330	Evaporation pressure	-10°C	14°F
Capacity [BTU/h]	2073	2352	2630	2884	3137	3605	4073	4540	Condensing pressure	55°C	131°F
Power cons. [W]	317.7	359.1	400.4	436.6	472.9	566.4	659.9	753.4	Liquid temperature	55°C	131°F
Current cons. [A]	2.11	2.38	2.64	2.88	3.11	3.63	4.15	4.67	Return gas temp.	32°C	90°F
COP [W/W]	1.91	1.92	1.92	1.93	1.94	1.86	1.81	1.77			
EER [BTU/Wh]	6.53	6.55	6.57	6.60	6.63	6.36	6.17	6.03			

MBP: EN12900	230 V, 50/60 Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	683.4	765.9	848.4	927.6	1007	1170	1334	1497	Evaporation pressure	-10° C	14°F
Capacity [BTU/h]	2334	2616	2897	3168	3438	3997	4555	5113	Condensing pressure	45° C	113° F
Power cons. [W]	291.1	326.2	361.2	395.5	429.8	514.5	599.1	683.8	Liquid temperature	45° C	113° F
Current cons. [A]	1.94	2.17	2.40	2.61	2.83	3.31	3.79	4.28	Return gas temp.	20° C	90°F
COP [W/W]	2.35	2.35	2.35	2.35	2.34	2.28	2.23	2.19			
EER [BTU/Wh]	8.02	8.02	8.02	8.01	8.00	7.77	7.60	7.48			

Capacity and Performance Data NLV10CN

LBP: ASHRAE	230 V, 50/60 Hz, fan cooling F2								
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions

Capacity [W]	340.3	388.2	436.1	479.0	521.9	597.7	673.5	749.3	Evaporation pressure	-23.3°C	-10°F
Capacity [BTU/h]	1162	1326	1489	1636	1782	2041	2300	2559	Condensing pressure	54.4°C	130°F
Power cons. [W]	186.1	208.7	231.4	253.5	275.7	322.9	370.1	417.3	Liquid temperature	32.2°C	90°F
Current cons. [A]	1.26	1.41	1.55	1.69	1.83	2.13	2.42	2.71	Return gas temp.	32.2°C	90°F
COP [W/W]	1.83	1.86	1.89	1.89	1.89	1.85	1.82	1.80			
EER [BTU/Wh]	6.25	6.35	6.44	6.45	6.46	6.32	6.22	6.13			

LBP: CEC OMAF	230 V, 50/60 Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	254.6	290.7	326.8	359.5	392.2	448.3	504.4	560.5	Evaporation pressure	-25°C	-13°F
Capacity [BTU/h]	869	993	1116	1228	1339	1531	1723	1914	Condensing pressure	55°C	131°F
Power cons. [W]	178.7	200.0	221.3	242.6	264.0	309.4	354.8	400.2	Liquid temperature	55°C	131°F

Current cons. [A]	1.22	1.35	1.48	1.62	1.76	2.04	2.32	2.61	Return gas temp.	32°C	90°F
COP [W/W]	1.43	1.45	1.48	1.48	1.49	1.45	1.42	1.40			
EER [BTU/Wh]	4.87	4.96	5.04	5.06	5.07	4.95	4.85	4.78			

LBP: EN12900	230 V, 50/60 Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	192.8	216.5	240.3	266.2	292.0	332.1	372.2	412.3	Evaporation pressure	-35°C	-31°F
Capacity [BTU/h]	658	740	821	909	997	1134	1271	1408	Condensing pressure	40°C	104°F
Power cons. [W]	125.5	137.6	149.7	168.1	186.4	222.0	257.6	293.2	Liquid temperature	40°C	104°F
Current cons. [A]	0.88	0.96	1.04	1.15	1.26	1.50	1.74	1.98	Return gas temp.	20°C	68°F
COP [W/W]	1.54	1.57	1.61	1.58	1.57	1.50	1.45	1.41			
EER [BTU/Wh]	5.25	5.37	5.48	5.41	5.35	5.11	4.93	4.80			

MBP: ASHRAE	230 V, 50/60 Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	606.1	685.7	765.3	840.7	916.0	1063	1210	1357	Evaporation pressure	-6.7 °C	20°F
Capacity [BTU/h]	2070	2342	2614	2871	3128	3631	4133	4635	Condensing pressure	54.4 °C	130° F
Power cons. [W]	260.8	295.0	329.1	360.3	391.6	462.2	532.9	603.5	Liquid temperature	46.1 °C	115° F
Current cons. [A]	1.74	1.96	2.18	2.38	2.58	2.99	3.39	3.80	Return gas temp.	35° C	95°F
COP [W/W]	2.32	2.33	2.33	2.33	2.34	2.30	2.27	2.25			
EER [BTU/Wh]	7.94	7.94	7.94	7.97	7.99	7.85	7.76	7.68			

MBP: CECOMAF	230 V, 50/60 Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	481.7	546.4	611.2	670.1	729.0	845.2	961.3	1077	Evaporation pressure	-10° C	14°F

Capacity [BTU/h]	1645	1866	2087	2288	2490	2886	3283	3680	Condensing pressure	55°C	131°F
Power cons. [W]	246.7	279.5	312.2	341.0	369.8	436.0	502.2	568.4	Liquid temperature	55°C	131°F
Current cons. [A]	1.65	1.86	2.07	2.26	2.44	2.83	3.21	3.59	Return gas temp.	32°C	90°F
COP [W/W]	1.95	1.96	1.96	1.965	1.97	1.94	1.94	1.90			
EER [BTU/Wh]	6.67	6.68	6.69	6.71	6.73	6.62	6.54	6.47			

MBP: EN12900	230 V, 50/60 Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	543.4	608.4	673.3	736.2	799.1	928.6	1058	1188	Evaporation pressure	-10°C	14°F
Capacity [BTU/h]	1856	2078	2300	2514	2729	3171	3614	4057	Condensing pressure	45°C	113°F
Power cons. [W]	226.8	254.8	282.7	309.7	336.8	402.0	467.3	532.5	Liquid temperature	45°C	113°F
Current cons. [A]	1.52	1.70	1.88	2.05	2.23	2.61	3.00	3.38	Return gas temp.	20°C	90°F

COP [W/W]	2.40	2.39	2.38	2.38	2.37	2.31	2.27	2.23	
EER [BTU/Wh]	8.18	8.16	8.13	8.12	8.10	7.89	7.73	7.62	

Capacity and Performance Data NLV8.0CN

LBP: ASHRAE	230 V, 50/60Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	271.9	310.4	348.9	383.2	417.5	464.3	511.1	557.9	Evaporation pressure	-23.3°C	-10°F
Capacity [BTU/h]	929	1060	1192	1309	1426	1586	1745	1905	Condensing pressure	54.4°C	130°F
Power cons. [W]	147.7	165.8	184.0	201.7	219.5	252.1	284.7	317.4	Liquid temperature	32.2°C	90°F
Current cons. [A]	1.02	1.13	1.25	1.36	1.47	1.69	1.90	2.12	Return gas temp.	32.2°C	90°F
COP [W/W]	1.84	1.87	1.90	1.90	1.90	1.84	1.80	1.76			
EER [BTU/Wh]	6.29	6.39	6.48	6.49	6.50	6.29	6.13	6.00			

LBP: CECOMAF	230 V, 50/60Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	203.4	232.4	261.4	287.6	313.7	347.4	381.0	414.7	Evaporation pressure	-25° C	-13° F
Capacity [BTU/h]	695	794	893	982	1071	1186	1301	1416	Condensing pressure	55° C	131° F
Power cons. [W]	141.9	159.0	176.0	193.2	210.3	241.9	273.4	305.0	Liquid temperature	55° C	131° F
Current cons. [A]	0.98	1.09	1.20	1.31	1.41	1.62	1.84	2.05	Return gas temp.	32° C	90°F
COP [W/W]	1.43	1.46	1.49	1.49	1.49	1.44	1.39	1.36			
EER [BTU/Wh]	4.89	4.99	5.07	5.08	5.10	4.91	4.76	4.64			

LBP: EN12900	230 V, 50/60Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	154.6	173.4	192.2	212.9	233.6	261.2	288.7	316.3	Evaporation pressure	-35° C	-31° F

Capacity [BTU/h]	528	592	657	727	798	892	986	1080	Condensing pressure	40°C	104°F
Power cons. [W]	100.8	110.3	119.8	135.0	150.2	175.0	199.7	224.5	Liquid temperature	40°C	104°F
Current cons. [A]	0.72	0.79	0.85	0.94	1.03	1.21	1.39	1.57	Return gas temp.	20°C	68°F
COP [W/W]	1.53	1.57	1.61	1.58	1.56	1.49	1.45	1.41			
EER [BTU/Wh]	5.24	5.37	5.48	5.39	5.31	5.10	4.94	4.81			

MBP: ASHRAE	230 V, 50/60Hz, fan cooling F2										
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	485.3	548.7	612.2	672.5	732.8	838.1	943.4	1049	Evaporation pressure	-6.7°C	20°F
Capacity [BTU/h]	1657	1874	2091	2297	2503	2862	3222	3581	Condensing pressure	54.4°C	130°F
Power cons. [W]	205.5	233.0	260.5	285.3	310.2	356.7	403.3	449.8	Liquid temperature	46.1°C	115°F
Current cons. [A]	1.39	1.56	1.73	1.89	2.06	2.34	2.62	2.90	Return gas temp.	35°C	95°F

COP [W/W]	2.36	2.36	2.35	2.36	2.36	2.35	2.34	2.33	
EER [BTU/Wh]	8.06	8.04	8.03	8.05	8.07	8.02	7.99	7.96	

MBP: CECOMAF	230 V, 50/60Hz, fan cooling F2									
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions	
Capacity [W]	385.5	437.2	488.9	536.1	583.2	664.4	745.6	826.8	Evaporation pressure	-10°C 14°F
Capacity [BTU/h]	1316	1493	1670	1831	1992	2269	2546	2824	Condensing pressure	55°C 131°F
Power cons. [W]	194.7	221.0	247.4	270.3	293.2	337.3	381.4	425.5	Liquid temperature	55°C 131°F
Current cons. [A]	1.32	1.48	1.65	1.80	1.95	2.22	2.49	2.75	Return gas temp.	32°C 90°F
COP [W/W]	1.98	1.98	1.98	1.98	1.99	1.97	1.96	1.94		
EER [BTU/Wh]	6.76	6.75	6.75	6.77	6.79	6.73	6.68	6.64		

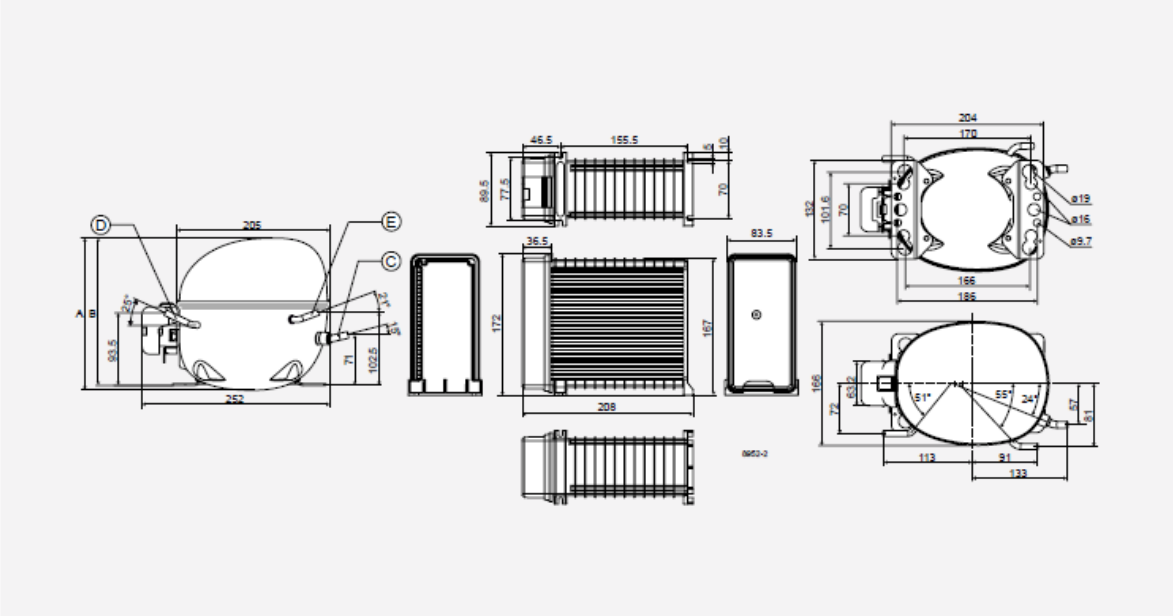
MBP: EN12900	230 V, 50/60Hz, fan cooling F2	

Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500	Test conditions		
Capacity [W]	433.9	486.3	538.7	589.0	639.2	739.7	840.2	940.6	Evaporation pressure	-10°C	14°F
Capacity [BTU/h]	1482	1661	1840	2011	2183	2526	2869	3212	Condensing pressure	45°C	113°F
Power cons. [W]	179.4	201.9	224.4	245.9	267.4	312.6	357.7	402.8	Liquid temperature	45°C	113°F
Current cons. [A]	1.22	1.36	1.50	1.64	1.78	2.06	2.34	2.62	Return gas temp.	20°C	90°F
COP [W/W]	2.42	2.41	2.40	2.40	2.39	2.37	2.35	2.34			
EER [BTU/Wh]	8.26	8.23	8.20	8.18	8.16	8.08	8.02	7.98			

DIMENSIONS

Compressor Dimensions		NLV8.0CN | NLV10CN | NLV12.6CN	
Height	mm (in.)	A B	203 197
Suction connector	location/I.D. mm (in.) | angle material | seal	C	8.2 | 15° Copper | Rubber plug

Process connector	location/I.D. mm (in.) | angle material | seal	D	6.2 | 25° Copper | Rubber plug
Discharge connector	location/I.D. mm (in.) | angle material | seal	E	6.2 | 21° Copper | Rubber plug
Connector tolerance	I.D. mm		



ORDERING

	Item	Code No.	Comment
Controller	Electronic controller (Core Functions), 220–240 V AC	105N4120	single unit

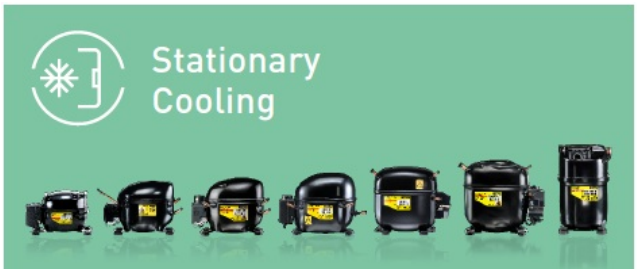
Compressor/ Accessories	NLV8.0CN compressor	105H7813	compressor w/ metric connectors
	NLV10CN compressor	105H7013	compressor w/ metric connectors
	NLV12.6CN compressor	105H6313	compressor w/ metric connectors
	Cover for the compressor	103N2008	
	Bolt joint for one compressor	118-1917	
	Bolt joint in quantities	118-1918	
	Snap-on in quantities	118-1919	

SECOP GROUP: AROUND THE WORLD

- 12 international partners for advanced developments
- 33 laboratories located in Germany, Slovakia, China, the U.S.A., and Turkey
- 150+ R&D engineers and technicians

- 400+ patents globally
- 50+ countries with customer support

Secop is the expert for advanced hermetic compressor technologies and cooling solutions in commercial refrigeration. We develop high performance stationary and mobile cooling solutions for leading international commercial refrigeration manufacturers and are the first choice when it comes to leading hermetic compressors and electronic controls for refrigeration solutions for light commercial and DC-powered applications. Secop was formerly known as Danfoss Compressors and is one of the founding fathers of modern compressor technology, with years of experience that go back to the beginning of the 1950s.



CONTACT

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

FAQ

- **Q: Can I install the Core Functions Controller myself?**
  - **A:** Installation should only be done by trained personnel to ensure proper setup and avoid any risks.
- **Q: How long should I wait before accessing terminals after disconnecting from**

power?

- **A:** Wait for at least 30 seconds after disconnecting from power before accessing terminals to ensure safety.

- **Q: What is the maximum cable length allowed for signal connections?**
  - **A:** The maximum cable length for signal connections should not exceed 3 meters to maintain proper functionality.

Documents / Resources

	Secop 105N4120 NLV-CN Core Functions Controllers Compressors [pdf] Instruction Manual 105N4120, 105N4120 NLV-CN Core Functions Controllers Compressors, 105N4120, NLV-CN Core Functions Controllers Compressors, Core Functions Controllers Compressors, Controllers Compressors, Compressors

References

- User Manual

SECOP

105N4120, 105N4120 NLV-CN Core Functions Controllers Compressors, Compressors, Controllers Compressors, Core Functions Controllers Compressors, NLV-CN Core Functions Controllers Compressors, SECOP

Leave a comment

Your email address will not be published. Required fields are marked *

Comment *

Name

Email

Website

Save my name, email, and website in this browser for the next time I comment.

Post Comment

Search:

e.g. whirlpool wrf535swhz

Search