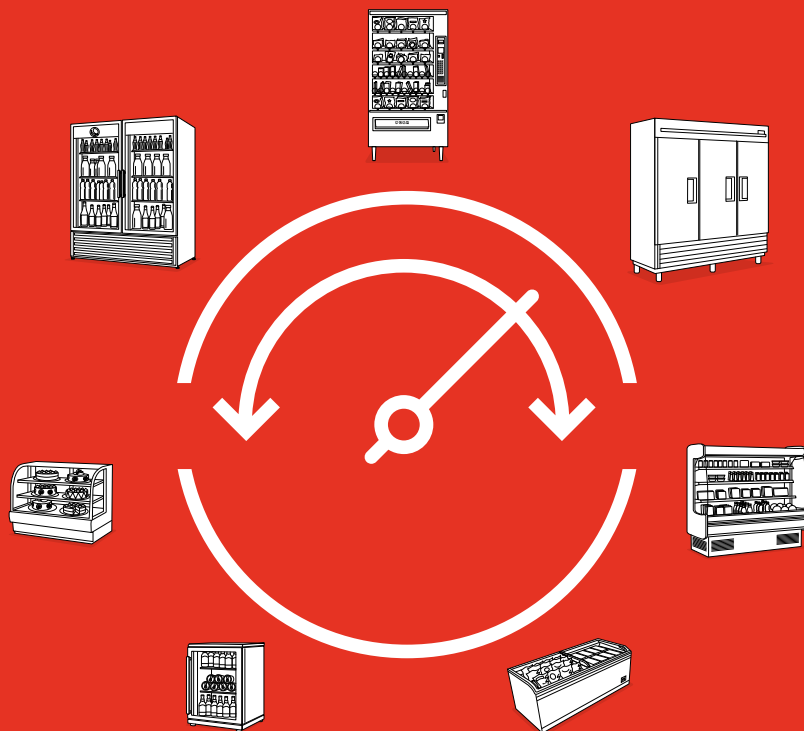


Secop is the first choice for partners looking for leading-edge refrigeration solutions and a premium customer experience.

Secop delivers advanced refrigeration compressors and controls, providing customers tailored sustainable solutions for light commercial, battery-driven, and special cooling applications.

VARIABLE-SPEED DRIVE COMPRESSORS

SECCOP

R290 Propane

Energy savings of up to 40% compared to a fixed speed R404A compressor

115-127V | 100-240V | 220-240V | 50/60 Hz

Intelligent variable-speed drive CF, MP, and XT controllers with automatic input detection and easy customization via TOOL4COOL® for MP and XT models



Stationary
Cooling



Natural
Refrigerant



NLV-CN · MP · XT · R290 (metric connectors)

Compressor	Code number	Application	ASHRAE Capacity [W] Tc=54.4°C, Tliq=32.2°C, Tsuc=32.2°C Evaporating temperature [°C]							ASHRAE						Displacement [cm³]	Compressor Cooling (refer to data sheet)
			LBP rating point -23.3°C / 54.4°C		MBP rating point -6.7°C / 54.4°C		HBP rating point 7.2°C / 54.4°C										
			Cooling capacity	COP	Cooling capacity	COP	Cooling capacity	COP									
			[W]	[W/W]	[W]	[W/W]	[W]	[W/W]									
NLV8.0CN 2000 rpm	105H7865	L/MBP	128	383	573	687	-	-	259	1.76	481	2.35	783	3.34	7.96	F2	
NLV8.0CN 4500 rpm	105H7865	L/MBP	318	892	1302	1547	-	-	620	1.82	1097	2.33	1747	3.22	7.96	F2	
NLV10CN 2000 rpm	105H7065	L/MBP	182	490	722	863	-	-	340	1.76	607	2.26	981	3.13	10.09	F2	
NLV10CN 4500 rpm	105H7065	L/MBP	428	1144	1680	2004	-	-	797	1.81	1413	2.25	2275	2.99	10.09	F2	
NLV12.6CN 2000 rpm	105H7365	L/MBP	242	623	910	1085	-	-	438	1.76	766	2.18	1230	2.98	12.55	F2	
NLV12.6CN 4500 rpm	105H7365	L/MBP	564	1448	2104	2501	-	-	1022	1.80	1772	2.12	2830	2.65	12.55	F2	
NLV15CN 2000 rpm	105H7520	L/MBP	276	739	1067	1264	-	-	521	1.67	900	2.03	1424	2.76	14.65	F2	
NLV15CN 4500 rpm	105H7520	L/MBP	619	1617	2313	2730	-	-	1152	1.61	1954	1.95	3062	2.61	14.65	F2	
NLV15CN 5000 rpm	105H7520	L/MBP	681	1776	2540	2997	-	-	1266	1.63	-	-	-	-	14.65	F2	

Multi Purpose (MP) Controllers

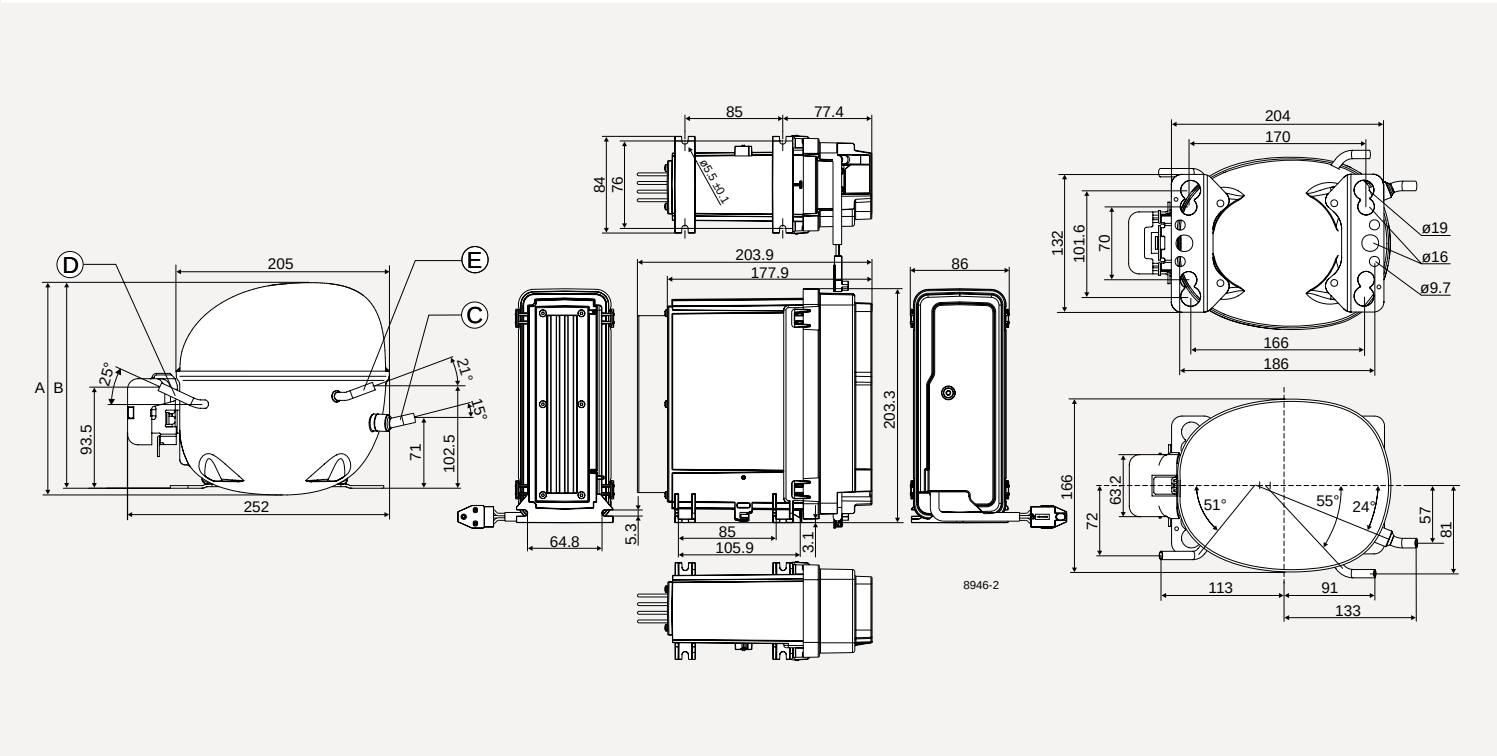
Compressor	NLV 105N4910	NLV 105N4960	NLV 105N4962/72	NLV 105N4964	NLV 105N4966
	Standard, PFC	Multi Voltage, PFC	Multi Voltage, PFC US GFCI-Conformity	Multi Voltage, PFC	Multi Voltage, PFC US GFCI-Conformity
	Nominal voltage range: 220-240 V, 50/60 Hz	Nominal voltage range: 100-240 V, 50/60 Hz	Nominal voltage range: 100-240 V, 50/60 Hz	Nominal voltage range: 100-240 V, 50/60 Hz	Nominal voltage range: 100-240 V, 50/60 Hz
	Inputs: Thermostat, defrost, frequency signal, serial, 2 relays	Inputs: Thermostat, defrost, frequency signal, serial, 2 relays	Inputs: Thermostat, defrost, frequency signal, serial, 2 relays	Inputs: Thermostat, defrost, frequency signal, serial, 2 relays	Inputs: Thermostat, defrost, frequency signal, serial, 2 relays
NLV8.0CN	✓	✓	✓	-	-
NLV10CN	✓	✓	✓	-	-
NLV12.6CN	✓	✓	✓	-	-
NLV15CN	-	-	-	✓	✓

CECOMAF Capacity [W] Tc=55°C, Tliq=55°C, Tsuc=32°C Evaporating temperature [°C]						CECOMAF						Dimensions					Connection	
						LBP rating point -25°C / 55°C		MBP rating point -10°C / 55°C		HBP rating point 5°C / 55°C		Height [mm]		Connectors location/I.D. [mm]			Cord relief	Cover
						Cooling capacity	COP	Cooling capacity	COP	Cooling capacity	COP	A (I.D.)	B (I.D.)	Suction C (I.D.)	Process D (I.D.)	Discharge E (I.D.)		
-35	-15	-5	0	10	15	[W]	[W/W]	[W]	[W/W]	[W]	[W/W]	A (I.D.)	B (I.D.)	C (I.D.)	D (I.D.)	E (I.D.)		
103	310	463	554	–	–	192	1.36	382	1.95	656	2.81	203	197	8.20	6.20	6.20	103N1004	103N2008
256	722	1052	1249	–	–	462	1.41	877	1.95	1469	2.73	203	197	8.20	6.20	6.20	103N1004	103N2008
147	397	583	696	–	–	254	1.36	484	1.89	823	2.64	203	197	8.20	6.20	6.20	103N1004	103N2008
346	926	1357	1617	–	–	595	1.41	1128	1.90	1910	2.55	203	197	8.20	6.20	6.20	103N1004	103N2008
196	505	736	875	–	–	329	1.37	613	1.83	1033	2.52	203	197	8.20	6.20	6.20	103N1004	103N2008
457	1172	1700	2018	–	–	767	1.41	1419	1.81	2377	2.29	203	197	8.20	6.20	6.20	103N1004	103N2008
223	598	863	1021	–	–	390	1.30	723	1.71	1198	2.33	203	197	8.20	6.20	6.20	103N1004	103N2008
500	1310	1871	2205	–	–	864	1.26	1574	1.65	2580	2.22	203	197	8.20	6.20	6.20	103N1004	103N2008
550	1439	2054	2421	–	–	950	1.27	–	–	–	–	203	197	8.20	6.20	6.20	103N1004	103N2008

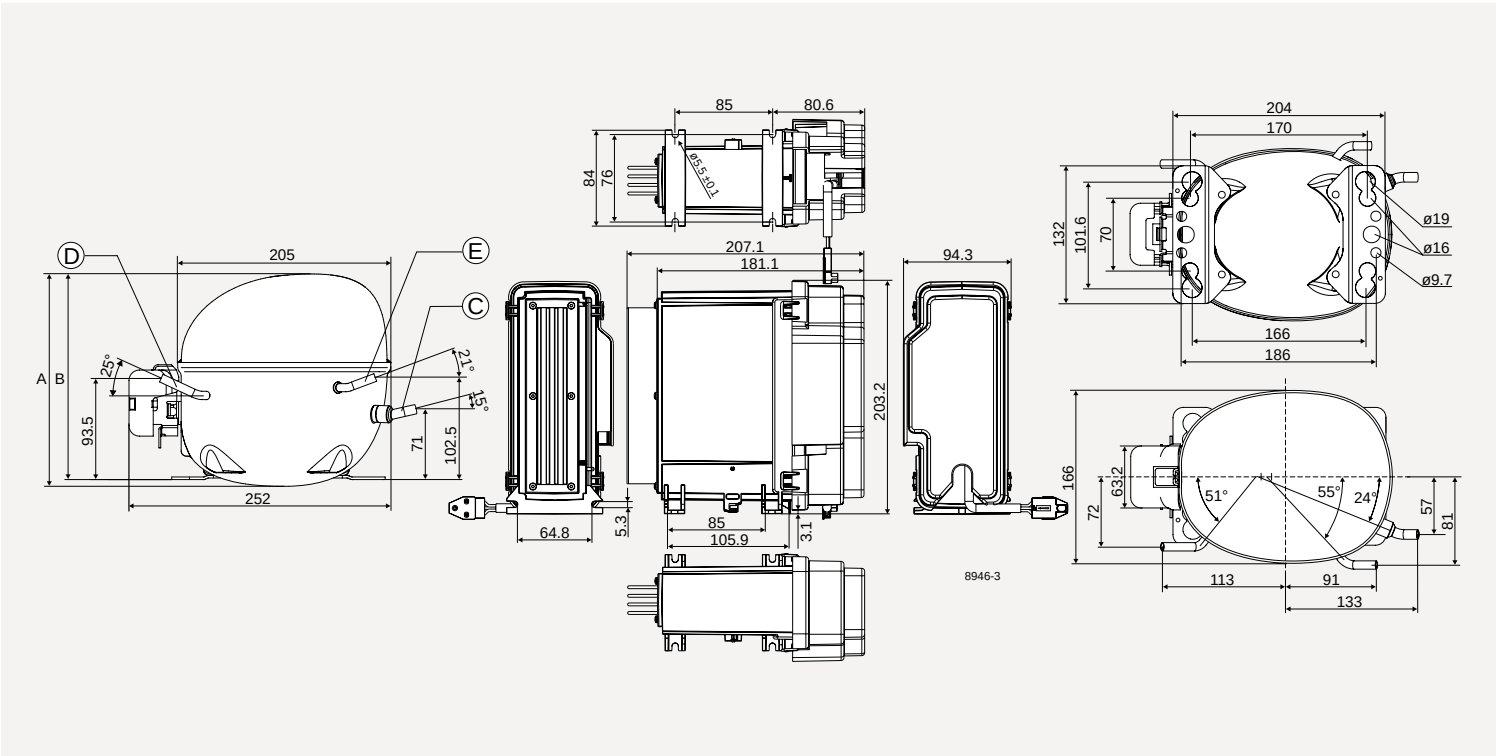
Extended (XT) Controllers

Compressor	NLV 105N4866
	Multi Voltage, PFC
	Nominal voltage range: 100-240 V, 50/60 Hz
	Inputs: Serial, integrated temp.controller, 4 digital/analog I/O, 8 relays
NLV8.0CN	✓
NLV10CN	✓
NLV12.6CN	✓
NLV15CN	-

NLV Compressor & Multi Purpose (MP) Controller



NLV Compressor & Extended (XT) Controller



NLV-CN · MP · XT · R290 (inch connectors)

Compressor	Code number	Application	ASHRAE Capacity [BTU/h] Tc=130°F, Tliq=90°F, Tsuc=90°F Evaporating temperature [°F]							ASHRAE						Displacement	Power	Compressor Cooling (refer to data sheet)
										LBP rating point -10°F / 130°F		MBP rating point 20°F / 130°F		HBP rating point 45°F / 130°F				
			-31	-13	5	14	32	50	Cooling capacity [BTU/h]	EER	Cooling capacity [BTU/h]	EER	Cooling capacity [BTU/h]	EER				
NLV8.0CN 2000 rpm	105H7866	L/MBP	436	809	1309	1613	2347	–	883	6.02	1646	8.04	2674	11.40	0.49	1/4	F2	
NLV8.0CN 4500 rpm	105H7866	L/MBP	1085	1950	3046	3703	5282	–	2114	6.21	3749	7.97	5969	11.00	0.49	1/2	F2	
NLV10CN 2000 rpm	105H7066	L/MBP	622	1071	1673	2043	2946	–	1160	5.99	2076	7.70	3352	10.70	0.62	1/3	F2	
NLV10CN 4500 rpm	105H7066	L/MBP	1460	2510	3905	4760	6842	–	2716	6.17	4831	7.69	7775	10.19	0.62	3/4	F2	
NLV12.6CN 2000 rpm	105H7366	L/MBP	826	1385	2129	2586	3703	–	1494	6.01	2620	7.45	4204	10.17	0.77	3/8	F2	
NLV12.6CN 4500 rpm	105H7366	L/MBP	1926	3230	4943	5989	8539	–	3484	6.15	6059	7.25	9669	9.04	0.77	1	F2	
NLV15CN 2000 rpm	105H7522	L/MBP	941	1645	2522	3048	4316	–	1777	5.69	3076	6.94	4867	9.41	0.89	1/2	F2	
NLV15CN 4500 rpm	105H7522	L/MBP	2112	3641	5520	6637	9321	–	3926	5.50	6678	6.66	10464	8.90	0.89	1 1/4	F2	
NLV15CN 5000 rpm	105H7522	L/MBP	2326	4003	6064	7289	10234	–	4316	5.57	–	–	–	–	0.89	1 1/3	F2	

Multi Purpose (MP) Controllers

Compressor	NLV 105N4910	NLV 105N4960	NLV 105N4962/72	NLV 105N4964	NLV 105N4966
	Standard, PFC	Multi Voltage, PFC	Multi Voltage, PFC US GFCI-Conformity	Multi Voltage, PFC	Multi Voltage, PFC US GFCI-Conformity
	Nominal voltage range: 220-240 V, 50/60 Hz	Nominal voltage range: 100-240 V, 50/60 Hz	Nominal voltage range: 100-240 V, 50/60 Hz	Nominal voltage range: 100-240 V, 50/60 Hz	Nominal voltage range: 100-240 V, 50/60 Hz
	Inputs: Thermostat, defrost, frequency signal, serial, 2 relays	Inputs: Thermostat, defrost, frequency signal, serial, 2 relays	Inputs: Thermostat, defrost, frequency signal, serial, 2 relays	Inputs: Thermostat, defrost, frequency signal, serial, 2 relays	Inputs: Thermostat, defrost, frequency signal, serial, 2 relays
NLV8.0CN	✓	✓	✓	–	–
NLV10CN	✓	✓	✓	–	–
NLV12.6CN	✓	✓	✓	–	–
NLV15CN	–	–	–	✓	✓

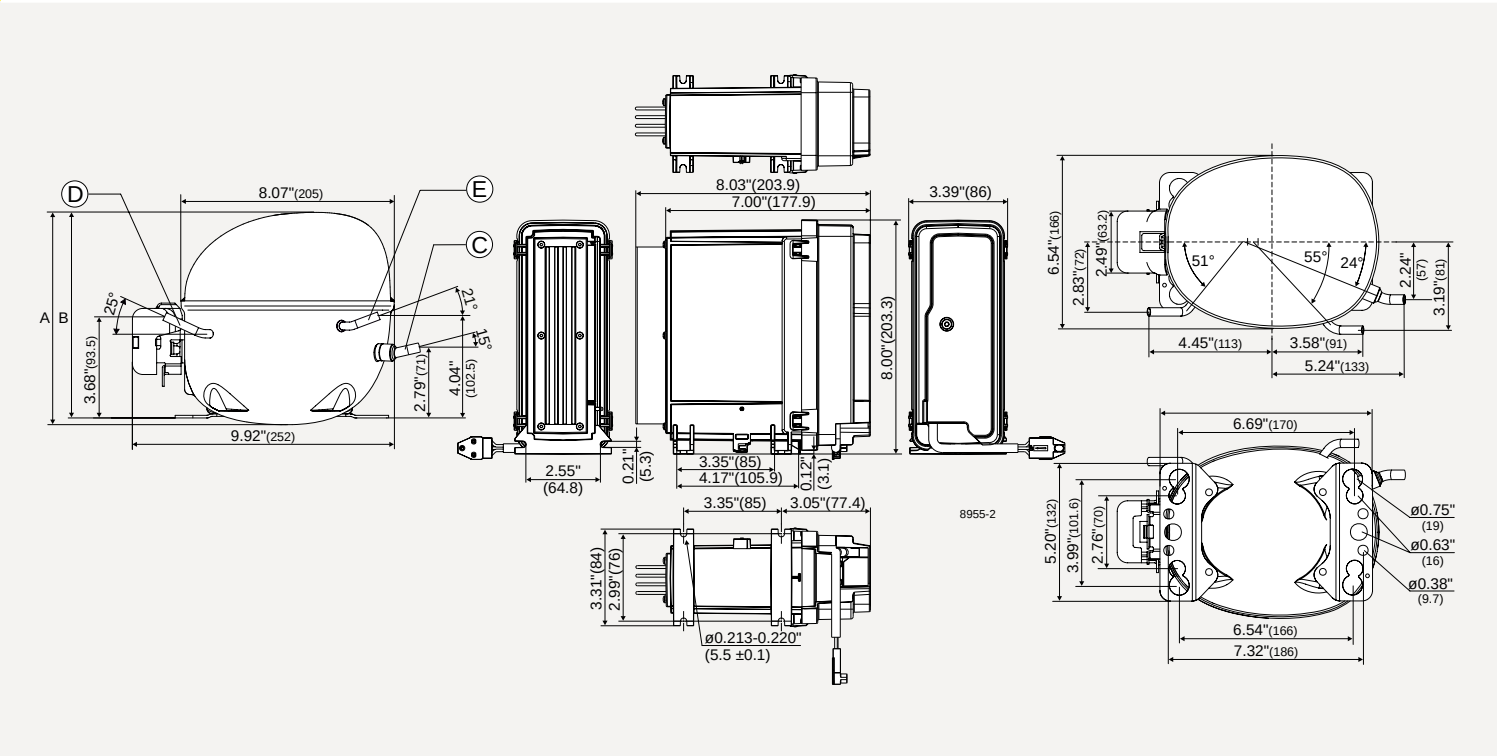
ARI

ARI Capacity [BTU/h] Tc=120°F, Tliq=120°F, Tsuc=40°F Evaporating temperature [°F]						ARI						Dimensions					Connection		
						LBP rating point -10°F / 120°F		MBP rating point 20°F / 120°F		HBP rating point 45°F / 120°F		Height [inch]		Connectors location/I.D. [inch]			Cord relief req. for US GFCI variants	Cover	
						Cooling capacity [BTU/h]	EER	Cooling capacity [BTU/h]	EER	Cooling capacity [BTU/h]	EER	A [I.D.]	B [I.D.]	Suction C [I.D.]	Process D [I.D.]	Discharge E [I.D.]			
-30	-20	5	10	32	50														
387	541	1050	1175	1825	–	722	5.09	1450	7.57	2292	10.84	8.0	7.8	0.32	0.26	0.26	103N1004	103N2008	
955	1308	2419	2688	4088	–	1709	5.21	3279	7.45	5101	10.38	8.0	7.8	0.32	0.26	0.26	103N1004	103N2008	
534	719	1333	1485	2289	–	937	5.05	1823	7.24	2875	10.23	8.0	7.8	0.32	0.26	0.26	103N1004	103N2008	
1254	1685	3107	3458	5312	–	2190	5.16	4238	7.15	6664	9.48	8.0	7.8	0.32	0.26	0.26	103N1004	103N2008	
700	930	1689	1878	2875	–	1199	5.04	2296	7.01	3605	9.68	8.0	7.8	0.32	0.26	0.26	103N1004	103N2008	
1634	2169	3916	4347	6619	–	2792	5.08	5301	6.65	8282	8.24	8.0	7.8	0.32	0.26	0.26	103N1004	103N2008	
820	1105	1994	2209	3336	–	1427	4.78	2684	6.51	4158	8.93	8.0	7.8	0.32	0.26	0.26	103N1004	103N2008	
1831	2449	4349	4805	7185	–	3140	4.59	5808	6.19	8922	8.38	8.0	7.8	0.32	0.26	0.26	103N1004	103N2008	
2015	2693	4776	5277	7888	–	3451	4.65	–	–	–	–	8.0	7.8	0.32	0.26	0.26	103N1004	103N2008	

Extended (XT) Controllers

Compressor	NLV 105N4866
	Multi Voltage, PFC
	Nominal voltage range: 100-240 V, 50/60 Hz
	Inputs: Serial, integrated temp.controller, 4 digital/analog I/O, 8 relays
NLV8.0CN	✓
NLV10CN	✓
NLV12.6CN	✓
NLV15CN	–

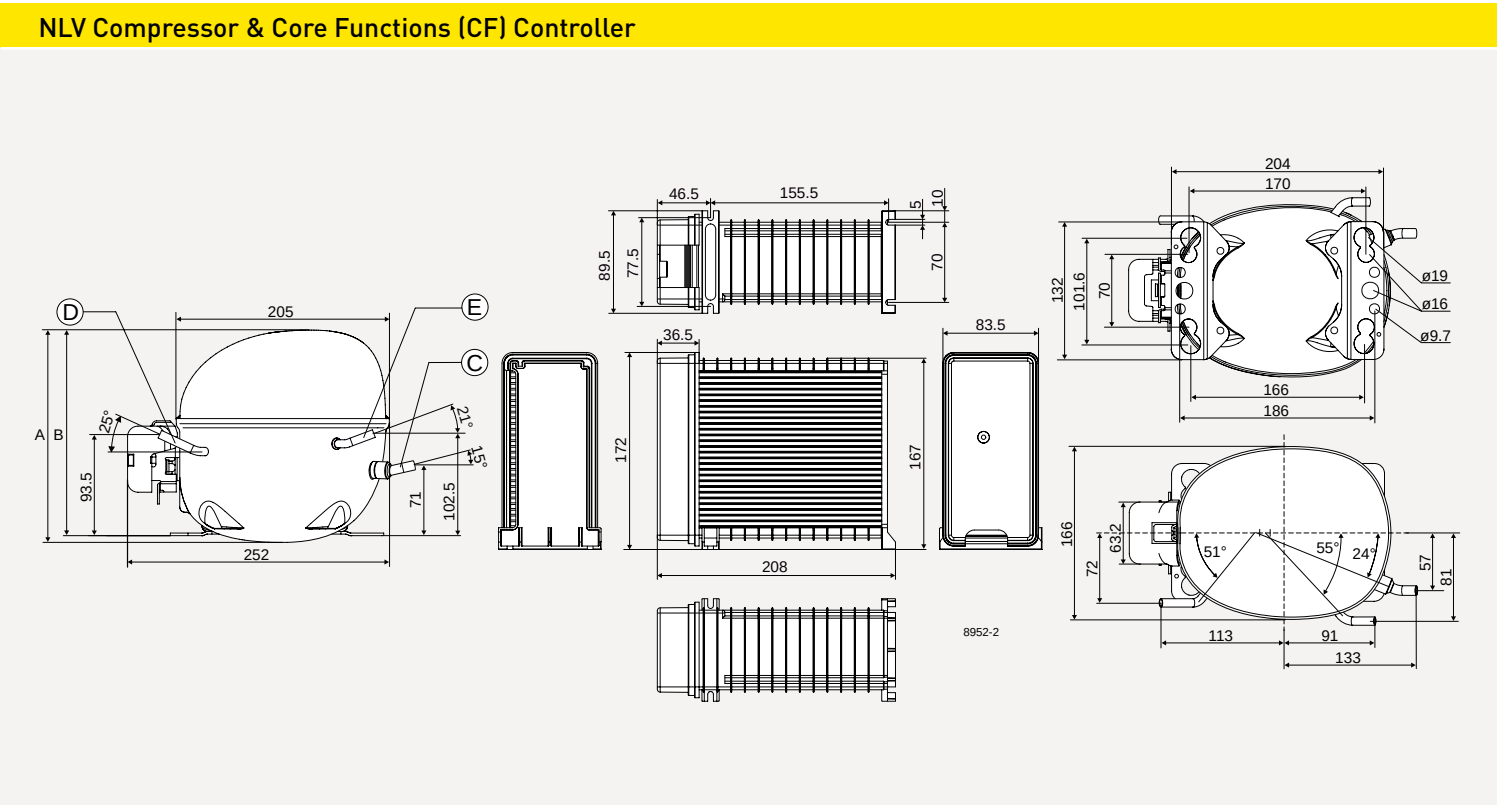
NLV Compressor & Multi Purpose (MP) Controller



NLV-CN · CF · R290 · CCC Certified (metric connectors)																
Compressor	Code number	Application	ASHRAE Capacity [W] Tc=54.4°C, Tliq=32.2°C, Tsuc=32.2°C Evaporating temperature [°C]						ASHRAE						Displacement	Compressor Cooling (refer to data sheet)
									LBP rating point -23.3°C / 54.4°C		MBP rating point -6.7°C / 54.4°C		HBP rating point 7.2°C / 54.4°C			
			-35	-15	-5	0	10	15	Cooling capacity	COP	Cooling capacity	COP	Cooling capacity	COP		
									[W]	[W/W]	[W]	[W/W]	[W]	[W/W]		
NLV8.0CN 2000 rpm	105H7813	L/MBP	151	390	578	693	–	–	272	1.84	485	2.36	–	–	7.96	F2
NLV8.0CN 4500 rpm	105H7813	L/MBP	305	826	1252	1510	–	–	558	1.76	1049	2.33	–	–	7.96	F2
NLV10CN 2000 rpm	105H7013	L/MBP	188	488	721	864	–	–	340	1.83	606	2.32	–	–	10.09	F2
NLV10CN 4500 rpm	105H7013	L/MBP	418	1085	1617	1941	–	–	749	1.80	1357	2.25	–	–	10.09	F2
NLV12.6CN 2000 rpm	105H7363	L/MBP	239	624	911	1084	–	–	438	1.75	767	2.19	–	–	12.55	F2
NLV12.6CN 4500 rpm	105H7363	L/MBP	556	1450	2105	2500	–	–	1022	1.77	1774	2.13	–	–	12.55	F2

CECOMAF Capacity [W] Tc=55°C, Tliq=55°C, Tsuc=32°C Evaporating temperature [°C]												CECOMAF						Dimensions					Connection	
												LBP rating point -25°C / 55°C		MBP rating point -10°C / 55°C		HBP rating point 5°C / 55°C		Height [mm]		Connectors location/I.D. [mm]			Cord relief	Cover
												Cooling capacity [W]	COP [W/W]	Cooling capacity [W]	COP [W/W]	Cooling capacity [W]	COP [W/W]	A (I.D.)	B (I.D.)	Suction	Process	Discharge		
-35	-15	-5	0	10	15															C	D	E		
122	316	466	558	–	–							203	1.43	385	1.98	–	–	203	197	8.20	6.20	6.20	103N1004	103N2008
248	667	1010	1216	–	–							415	1.36	827	1.94	–	–	203	197	8.20	6.20	6.20	103N1004	103N2008
152	395	581	695	–	–							255	1.42	482	1.95	–	–	203	197	8.20	6.20	6.20	103N1004	103N2008
340	878	1306	1565	–	–							560	1.40	1077	1.90	–	–	203	197	8.20	6.20	6.20	103N1004	103N2008
193	505	736	875	–	–							328	1.36	613	1.84	–	–	203	197	8.20	6.20	6.20	103N1004	103N2008
450	1174	1701	2019	–	–							766	1.38	1421	1.82	–	–	203	197	8.20	6.20	6.20	103N1004	103N2008

Core Functions (CF) Controllers	
Compressor	NLV 105N4120 Standard
	Nominal voltage range: 220-240 V, 50/60 Hz
	Inputs: Thermostat, defrost, frequency signal, serial
NLV8.0CN	✓
NLV10CN	✓
NLV12.6CN	✓



NLVE-CN · CF · R290 · UL Recognized (inch connectors)

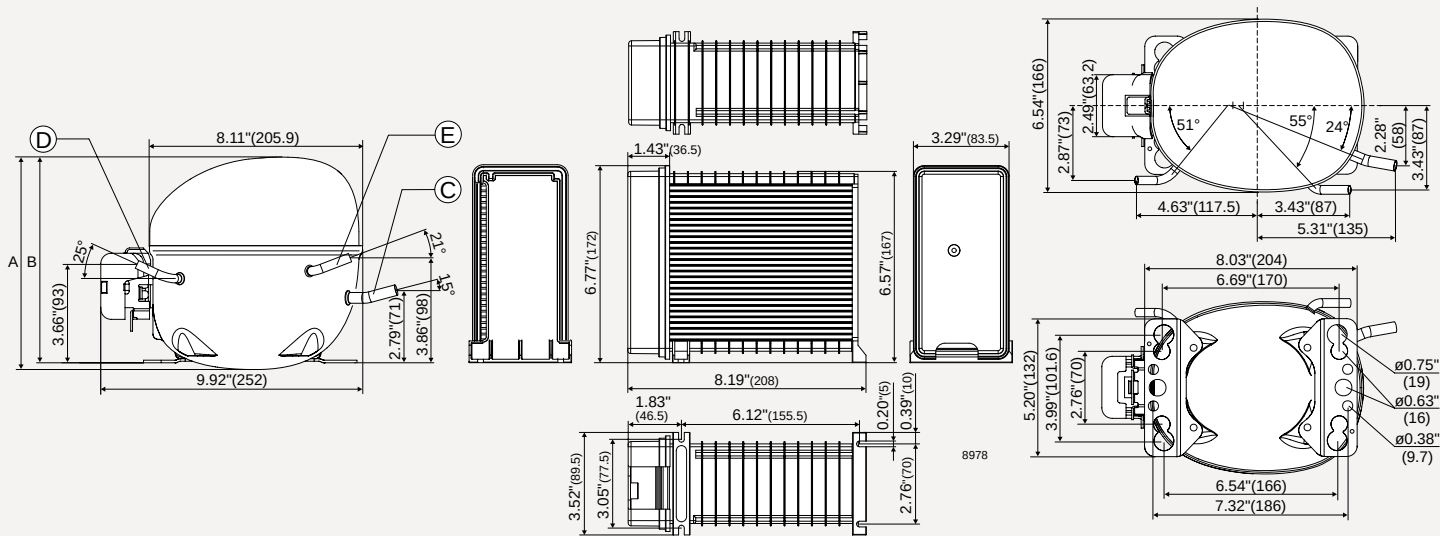
Compressor	Code number	Application	ASHRAE Capacity [BTU/h] Tc=130°F, Tliq=90°F, Tsuc=90°F Evaporating temperature [°F]							ASHRAE						Displacement	Power	Compressor Cooling (refer to data sheet)
										LBP rating point -10°F / 130°F		MBP rating point 20°F / 130°F		HBP rating point 45°F / 130°F				
										Cooling capacity	EER	Cooling capacity	EER	Cooling capacity	EER			
			-31	-13	5	14	32	50	[BTU/h]	[BTU/Wh]	[BTU/h]	[BTU/Wh]	[BTU/h]	[BTU/Wh]	[cu.in]			
NLVE13CN 2000 rpm	105H7374	L/MBP	816	1382	2130	2588	3703	–	1493	6.05	2622	7.68	–	–	0.77	3/8	F2	
NLVE13CN 4500 rpm	105H7374	L/MBP	1801	3067	4706	5701	8118	–	3311	5.79	5765	7.01	–	–	0.77	1	F2	

ARI Capacity [BTU/h] Tc=120°F, Tliq=120°F, Tsuc=40°F Evaporating temperature [°F]						ARI						Dimensions					Connection	
						LBP rating point -10°F / 120°F		MBP rating point 20°F / 120°F		HBP rating point 45°F / 120°F		Height [inch]		Connectors location/I.D. [inch]			Cord relief	Cover
						Cooling capacity	EER	Cooling capacity	EER	Cooling capacity	EER			Suction	Process	Discharge		
-30	-20	5	10	32	50	[BTU/h]	[BTU/Wh]	[BTU/h]	[BTU/Wh]	[BTU/h]	[BTU/Wh]	A [I.D.]	B [I.D.]	C [I.D.]	D [I.D.]	E [I.D.]		
697	929	1691	1879	2871	–	1200	5.06	2296	7.18	–	–	8.0	7.8	0.32	0.26	0.26	103N1004	103N2008
1545	2062	3727	4136	6285	–	2658	4.82	5040	6.41	–	–	8.0	7.8	0.32	0.26	0.26	103N1004	103N2008

Core Functions (CF) Controllers

Compressor	NLVE 105N4100 Standard US GFCI-Conformity
	Nominal voltage range: 115-127 V, 50/60 Hz
	Inputs: Thermostat, defrost, frequency signal, serial
NLVE13CN	✓

NLVE Compressor & Core Functions (CF) Controller



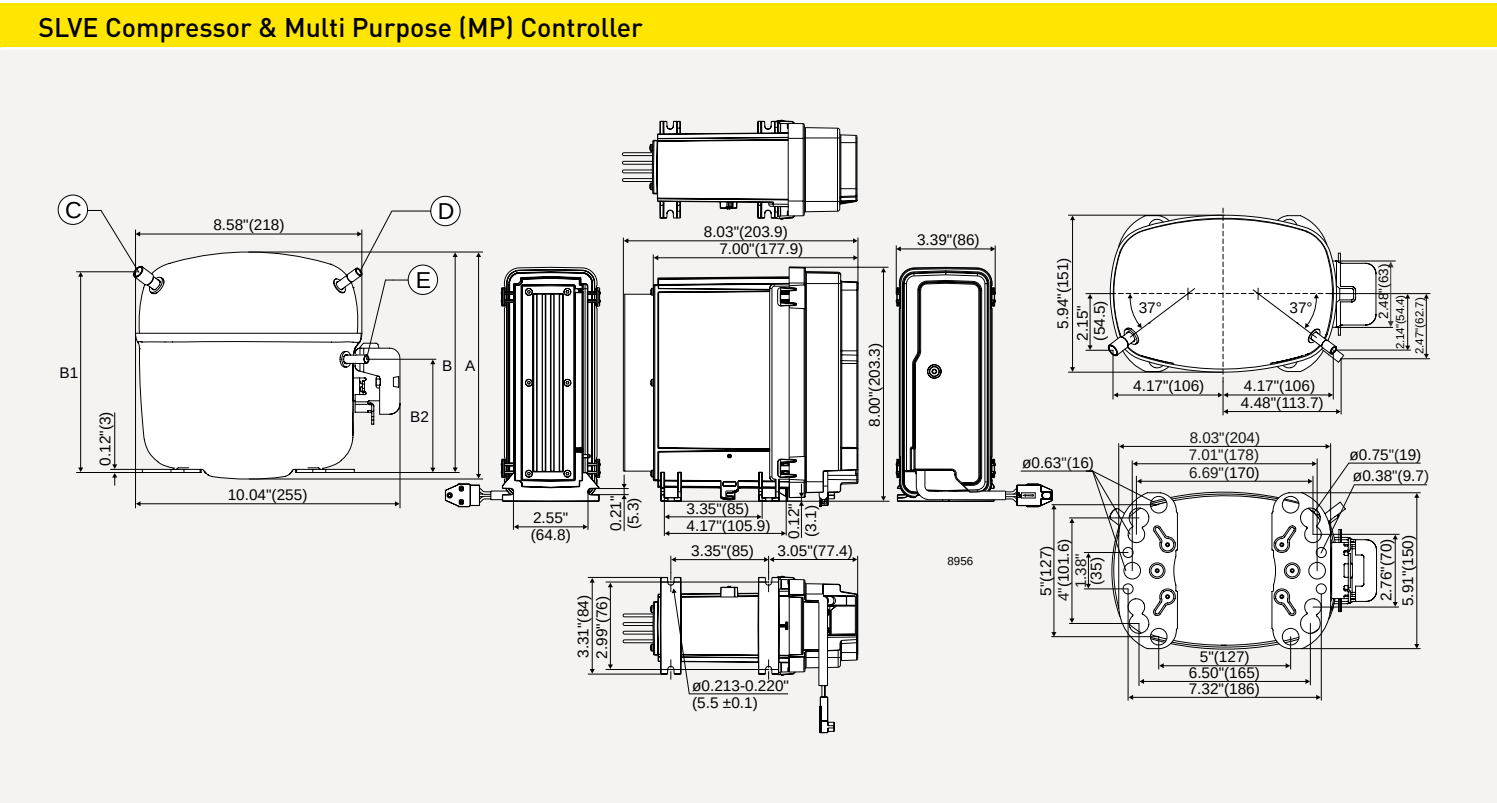
SLVE-CN · MP · R290 (metric connectors)																
Compressor	Code number	Application	ASHRAE Capacity [W] Tc=54.4°C, Tliq=32.2°C, Tsuc=32.2°C Evaporating temperature [°C]						ASHRAE						Displacement	Compressor Cooling (refer to data sheet)
									LBP rating point -23.3°C / 54.4°C		MBP rating point -6.7°C / 54.4°C		HBP rating point 7.2°C / 54.4°C			
			-35	-15	-5	0	10	15	Cooling capacity	COP	Cooling capacity	COP	Cooling capacity	COP		
									[W]	[W/W]	[W]	[W/W]	[W]	[W/W]		
SLVE18CN 2200 rpm	104H8846	L/MBP	353	964	1427	1708	2384	–	666	1.73	1199	2.21	1947	3.08	17.69	F2
SLVE18CN 4500 rpm	104H8846	L/MBP	631	1726	2554	3057	4268	–	1192	1.67	2146	2.14	3485	2.98	17.69	F2

SLVE-CN · MP · R290 (inch connectors)																	
Compressor	Code number	Application	ASHRAE Capacity [BTU/h] Tc=130°F, Tliq=90°F, Tsuc=90°F Evaporating temperature [°F]]						ASHRAE						Displacement	Power	Compressor Cooling (refer to data sheet)
									LBP rating point -10°F / 130°F		MBP rating point 20°F / 130°F		HBP rating point 45°F / 130°F				
			-31	-13	5	14	32	50	Cooling capacity	EER	Cooling capacity	EER	Cooling capacity	EER			
			[BTU/h]	[BTU/Wh]	[BTU/h]	[BTU/Wh]	[BTU/h]	[BTU/Wh]									
SLVE18CN 2200 rpm	104H8845	L/MBP	1203	2094	3291	4029	5831	8140	2270	5.90	4099	7.55	6653	10.51	1.08	3/4	F2
SLVE18CN 4500 rpm	104H8845	L/MBP	2154	3749	5892	7212	10438	14572	4064	5.69	7337	7.30	11909	10.18	1.08	1 1/4	F2

Multi Purpose (MP) Controllers	
Compressor	SLVE 105N4932 Multi Voltage, PFC US GFCI-Conformity
	Nominal voltage range: 100-240 V, 50/60 Hz
	Inputs: Thermostat, defrost, frequency signal, serial, 2 relays
SLVE18CN	✓

CECOMAF Capacity [W] Tc=55°C, Tliq=55°C, Tsuc=32°C Evaporating temperature [°C]																			CECOMAF						Dimensions					Connection	
						LBP rating point -25°C / 55°C		MBP rating point -10°C / 55°C		HBP rating point 5°C / 55°C		Height [mm]		Connectors location/I.D. [mm]			Cord relief req. for US GFCI	Cover													
						Cooling capacity	COP	Cooling capacity	COP	Cooling capacity	COP			Suction	Process	Discharge															
-35	-15	-5	0	10	15	[W]	[W/W]	[W]	[W/W]	[W]	[W/W]	A (I.D.)	B (I.D.)	C (I.D.)	D (I.D.)	E (I.D.)															
285	780	1152	1377	1916	–	497	1.34	954	1.85	1631	2.6	219	213	10.20	6.20	6.20	103N1004	103N2008													
510	1396	2063	2466	3430	–	889	1.29	1708	1.79	2920	2.51	219	213	10.20	6.20	6.20	103N1004	103N2008													

ARI Capacity [BTU/h] Tc=120°F, Tliq=120°F, Tsuc=40°F Evaporating temperature [°F]]																			
						ARI						Dimensions						Connection	
						LBP rating point -10°F / 120°F		MBP rating point 20°F / 120°F		HBP rating point 45°F / 120°F		Height [inch]		Connectors location/I.D. [inch]				Cord relief	Cover
						Cooling capacity	EER	Cooling capacity	EER	Cooling capacity	EER			Suction	Process	Discharge			
-30	-20	5	10	32	50	[BTU/h]	[BTU/W]	[BTU/h]	[BTU/W]	[BTU/h]	[BTU/W]	A [I.D.]	B [I.D.]	C [I.D.]	D [I.D.]	E [I.D.]			
1041	1406	2626	2930	4541	6230	1837	4.96	3606	7.09	5722	10.00	8.6	8.4	0.38	0.26	0.26	103N1004	103N2008	
1864	2517	4701	5246	8129	11152	3289	4.79	6456	6.86	10242	9.67	8.6	8.4	0.38	0.26	0.26	103N1004	103N2008	



NLV – electronic unit 105N4910 (220-240 V, 50/60 Hz)

NLV – electronic unit 105N4960 (100-240 V, 50/60 Hz)

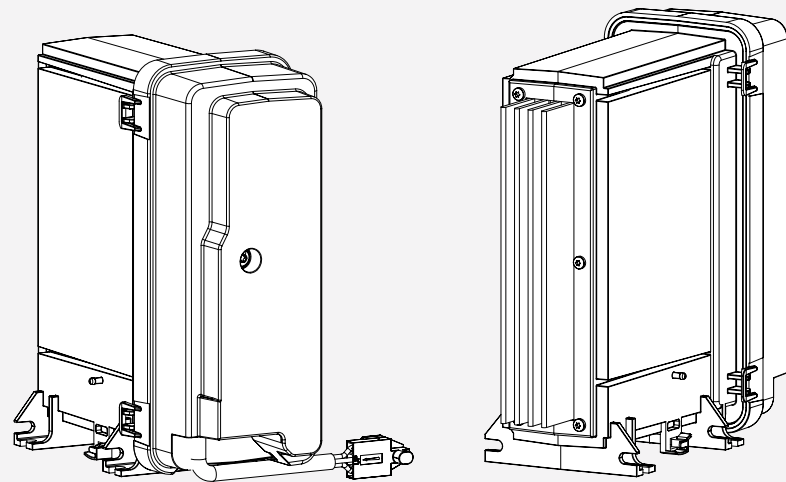
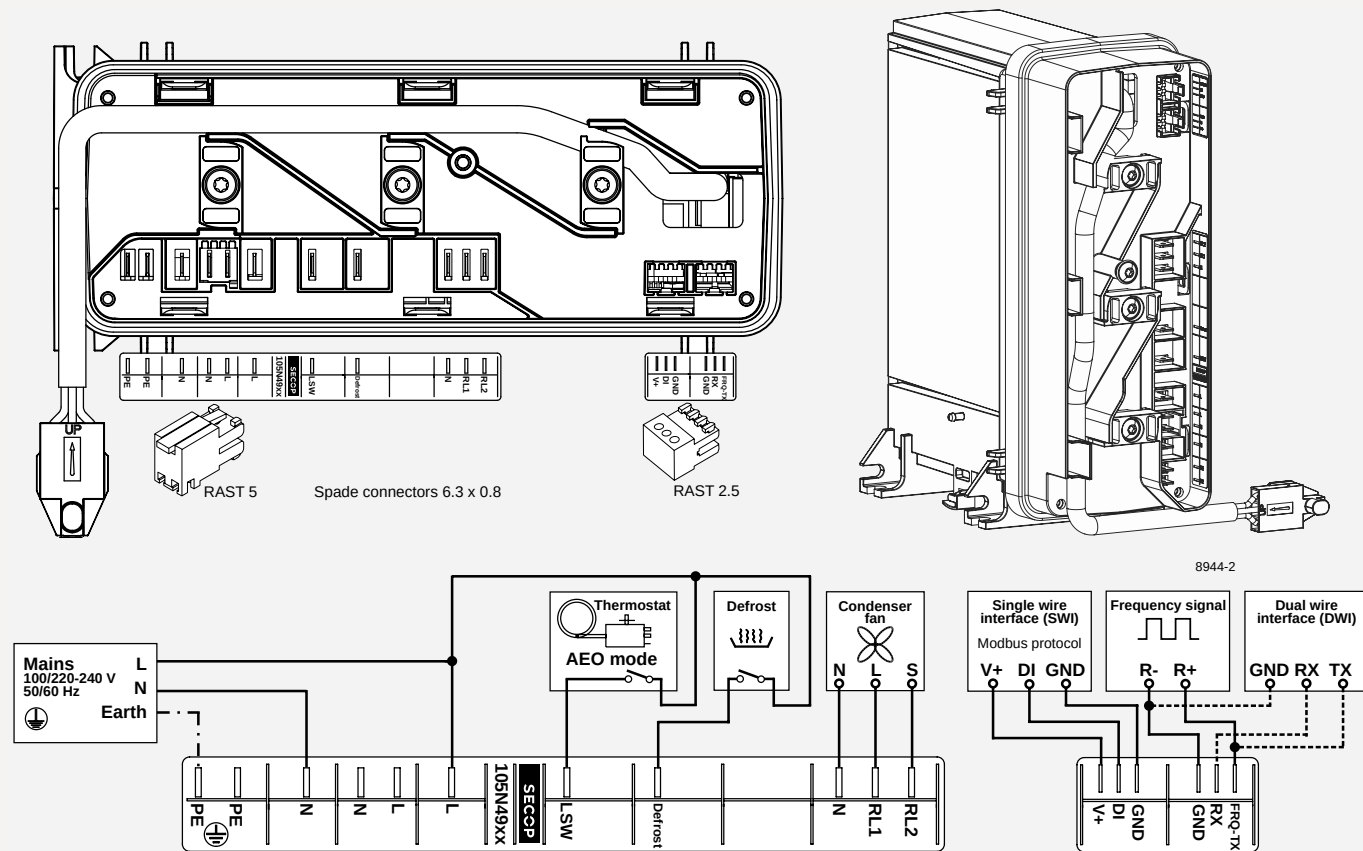
NLV – electronic unit 105N4962/72 (100-240 V, 50/60 Hz, US GFCI-Conformity)

NLV – electronic unit 105N4964 (100-240 V, 50/60 Hz)

NLV – electronic unit 105N4966 (100-240 V, 50/60 Hz, US GFCI-Conformity)

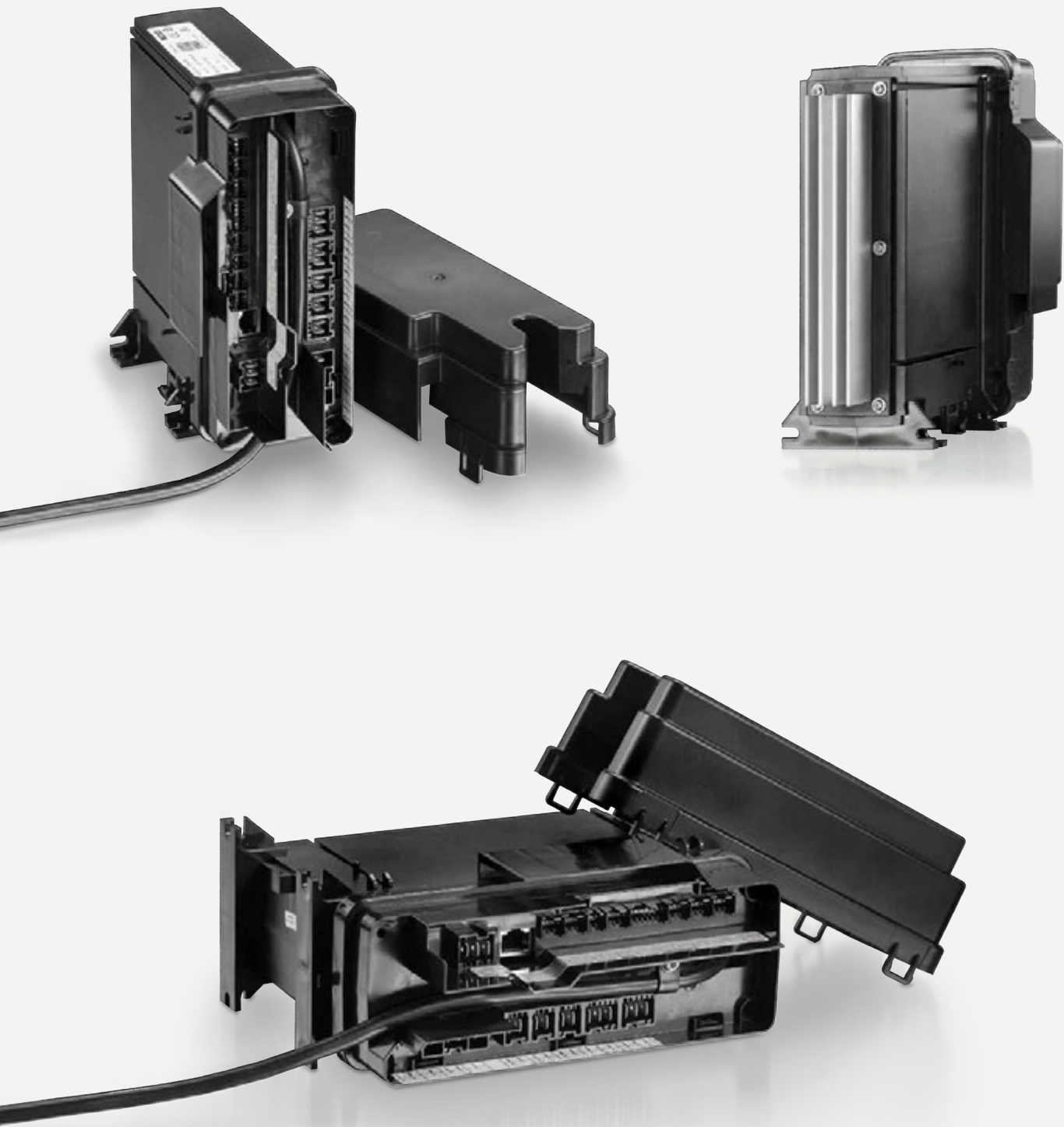
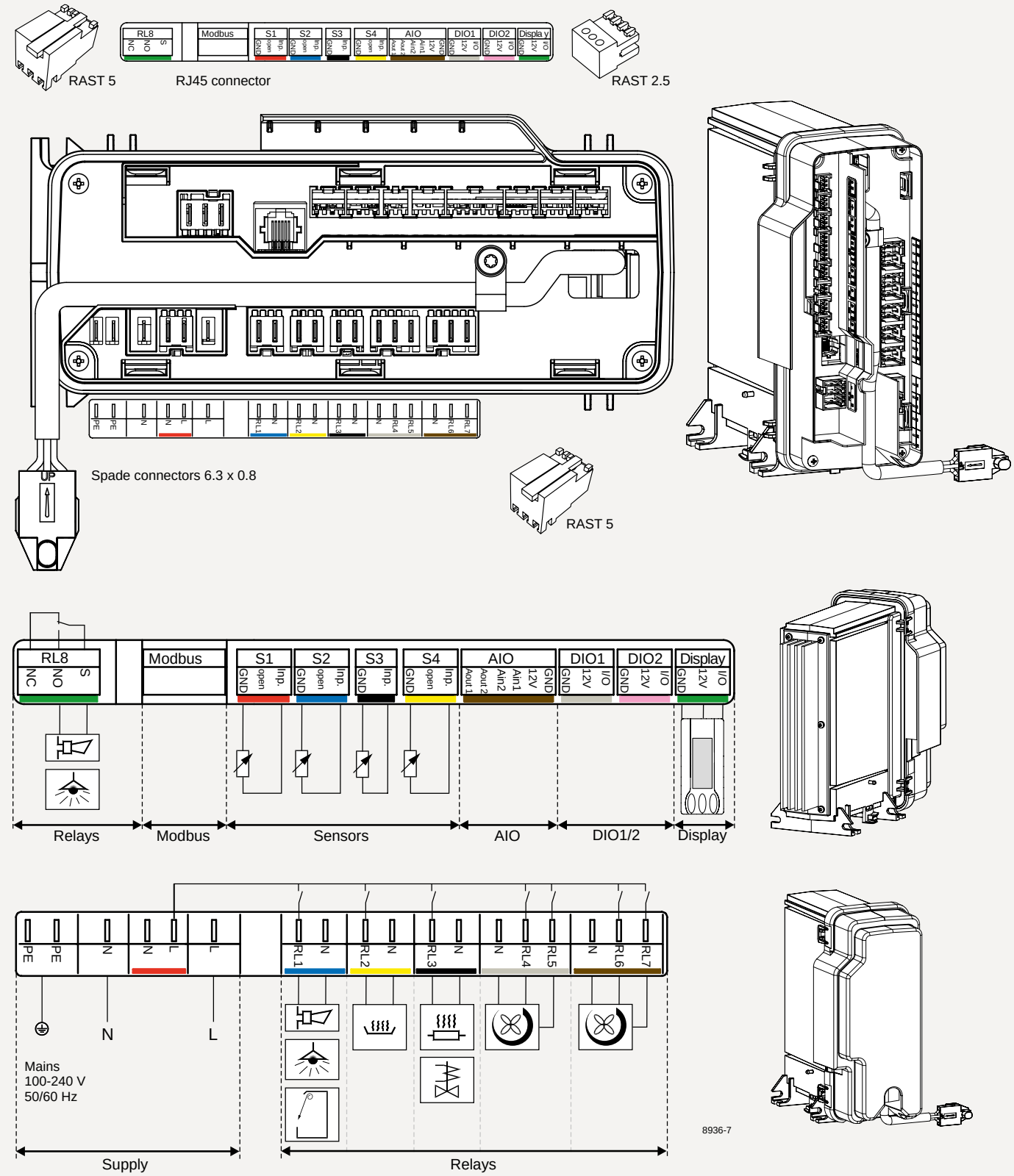
SLVE – electronic unit 105N4932 (100-240 V, 50/60 Hz, US GFCI-Conformity)

- IP protection class: **IP54**
- PFC = power factor correction according to EN 61000-3-2:2014
- Customization via Tool4Cool®



NLV – electronic unit 105N4866 (100-240 V, 50/60 Hz)

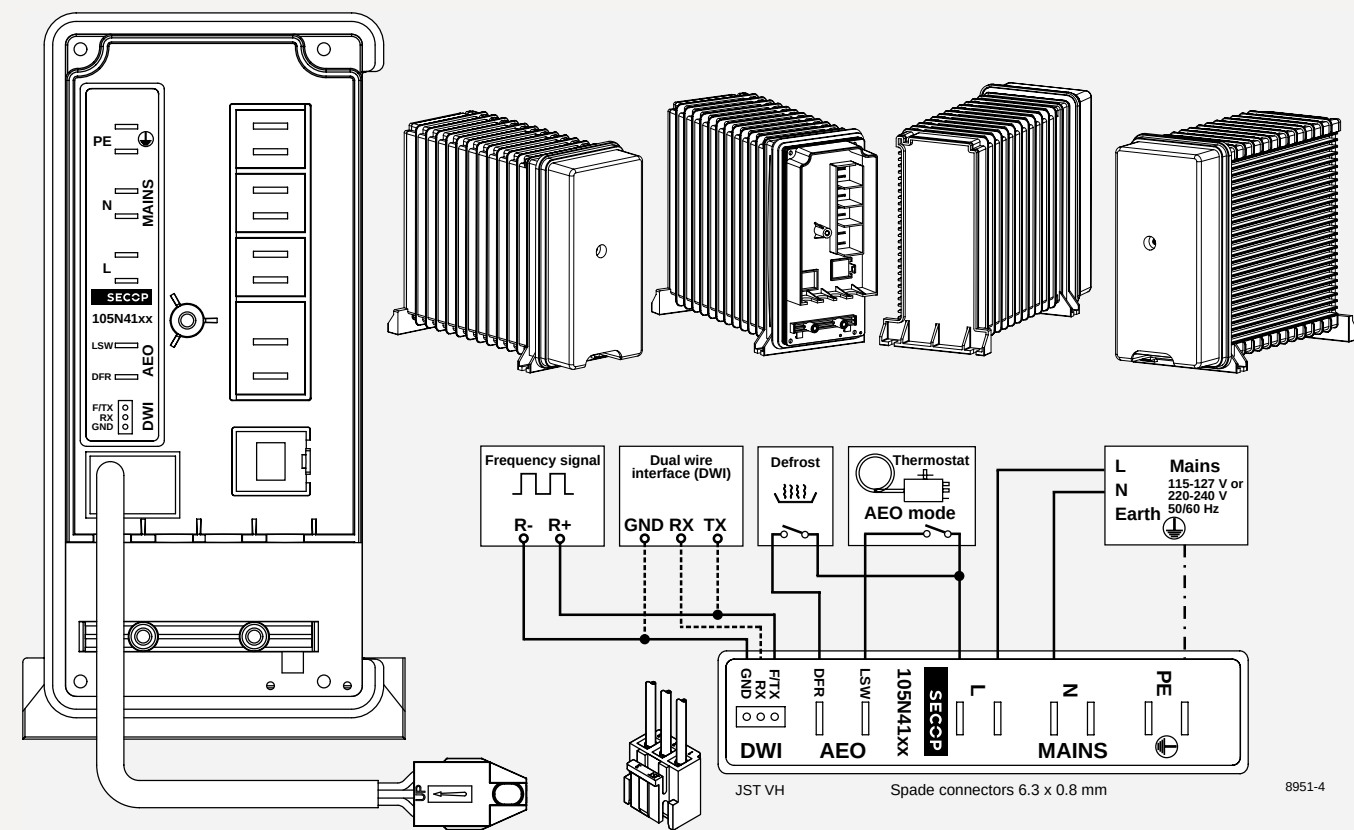
- IP protection class: **IP43**
- PFC = power factor correction according to EN 61000-3-2:2014
- Customization via Tool4Cool®



NLV – electronic unit 105N4100 (115-127 V, 50/60 Hz, US GFCI-Conformity)

• IP protection class: IP31

NLV – electronic unit 105N4120 (220-240 V, 50/60 Hz)



VARIABLE-SPEED CF, MP AND XT CONTROLLERS (ELECTRONIC UNITS)

Operating at full capacity is extremely rare in most cooling applications, restricted to a just few days per year. That is why Secop has built variable-speed control into the NLV/E and SLVE compressor series. This unique technology makes capacity automatically adapt to your current requirement. The compressor runs at low speed most of the time, thus minimizing energy consumption. System efficiency is also greatly improved thanks to reduced loss when less heat is transferred via the evaporator and condenser. Overall, this equates to substantial energy savings.

Tool4Cool® is a unique PC software tool that enables you to precisely configure your Secop variable-speed compressors with MP and XT controllers to your cooling systems.

The variable-speed compressor motors are electronically controlled. Starting the compressor without a complete electronic unit is not necessary, as specified in the data sheet for the compressor type in use. Secop's electronic units have built-in overload and thermal protection. When activated, the electronic unit protects the compressor motor and itself. The electronic unit also automatically restarts the compressor after a specified time. It provides the compressor with high starting torque (HST) so that system pressure does not need to be equalized before start. The compressors are equipped with permanent magnet rotors (PM motor) and three identical stator windings. The electronic unit (attached or detached) controls the PM motor.

Connecting the motor to AC power, by fault, will damage the magnets and lead to a system that runs either at drastically reduced efficiency or even not at all.

For more information on which starting device to use on individual compressors, please refer to the respective data sheets (some compressors have limitations for either LST or HST). and to our "Operating Instructions" and "Instructions". The compressor application must factor in power supply from an electrical circuit with the appropriate fuse or circuit breaker. In addition, the use of a GFCI (Ground Fault Circuit Interrupter) or RCD (Residual Current Device) is recommended.

FLAMMABLE REFRIGERANT R290 (PROPANE)



R290 (propane) is a hydrocarbon. Hydrocarbon refrigerants are flammable and are only allowed for use in appliances that meet the requirements set out in the latest revision of EN/IEC 60335-2-34.

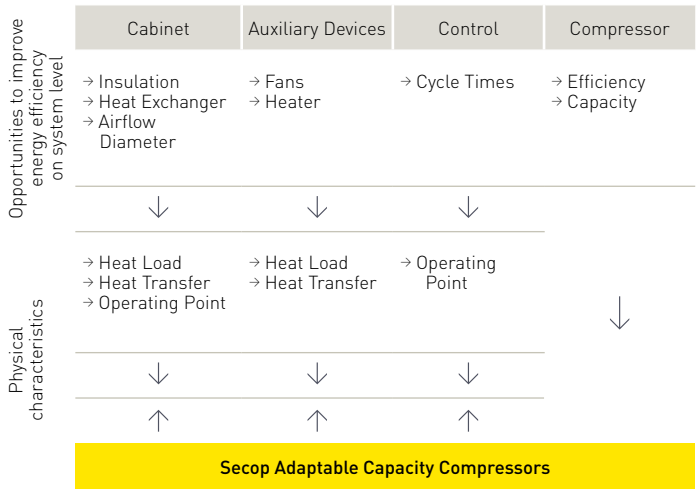
Do not use the refrigerant R290 near an open fire near. The refrigeration systems must be opened with a tube cutter.

To properly perform maintenance and repair work on R290 systems, service staff must be properly trained in handling flammable refrigerants. This includes knowledge of tools, transportation of the compressor and refrigerant, and the relevant regulations and safety precautions when carrying out service and repair work.

Secop compressors that use flammable refrigerant R290 are equipped with a yellow warning label as shown.

WHY CHOOSE VARIABLE-SPEED COMPRESSORS?

In general, a variable-speed drive compressor offers engineers far more options when it comes to building electronic systems and products. Altering the settings for each individual device built will result in efficiency gains that benefit both the business and customer, i.e. the initial investment might be slightly higher when using a compressor with an inverter, but the operating costs and therefore the total cost of ownership will be significantly lower. The return on investment is extremely quick especially in high priced energy markets.



Advantages of adaptable capacity

- Improved system efficiency thanks to higher t_0 and lower t_c — up to 40% energy savings
- Dynamic speed range from 1:4
- Adjustable cooling capacity for actual system demand
- Smaller compressor in terms of displacement and size
- Lower noise emission thanks to low speed — up to 5 dB(A)
- Released for rough applications, unstable power supply, and tropical regions
- Bi-frequency at 115-127V, 100-240V, and 220-240V with 50/60 Hz
- R290 models for commercial applications (LBP/MBP)
- High starting torque (HST) — no pressure equalization required to start compressor

Same compressor type for different markets!

Conclusion: The most important advantage of adaptable capacity is reduced energy consumption, which can be achieved in different ways.

The easiest, most efficient, and cheapest way to reach this target is to use adaptable capacity compressors.

General: Secop adaptable capacity compressors enable users to adjust the refrigeration capacity according to the desired need by controlling the motor speed of the compressor and therefore the cycle times of the piston. The compressors have been highly optimized to offer excellent motor and mechanical efficiency. Tests have shown improvements in energy consumption of up to 40%, depending on the system design. The average noise level can be reduced by up to 5 dB(A). The compressors are small in volume which allows space for greater net volume for usage.

Targets: The aim of all refrigeration appliance design is to define and optimize the essential functions such as: minimal cost, high performance, and high efficiency, minimized compressor size to enable larger internal cabinet volume, low noise levels and stabilized cabinet temperature at different operation capacities.

TOOL4COOL® FLEXIBLE CONTROL SETTINGS

Optimum control and monitoring

Tool4Cool® is a unique PC software tool that enables you to precisely configure Secop variable-speed drive compressors (inverter) to your cooling systems. In addition to using Tool4Cool® to customise and optimize settings during development, it can also be used for remote control and monitoring of refrigeration circuit during operation.

Tool4Cool® retrieves and sends information to all controllers in the refrigeration system, including settings, temperature, and speed. This lets operators control and monitor their systems from a central station. With Tool4Cool®, service departments have a constant overview of cooling systems and can perform any trouble-shooting remotely. Technicians only need to visit the site if a component needs to be replaced, for example.

Software installation

Visit and download our Tool4Cool® page
www.secop.com/tool4cool

Standalone system

- Optimize operation during development
- Alarm and event log readout
- Logging during development
- Download settings on the production line

Network system

- Easy monitoring and optimization
- Alarm log and event log
- Easy service

Mounting Accessories

Mounting	Code number	Bolt / pin dimension	Comp. base hole	Type of packaging	Compressor series	Parts list
Bolt joint	118-1917	M6 metric	16 mm	Single pack for one compressor	NLV/E	I
Bolt joint	118-1918	M6 metric	16 mm	Industrial pack in any quantity	NLV/E	I
Bolt joint	118-1958	M6 metric	16 mm	Single pack for one compressor	SLVE	II
Bolt joint	118-1961	M6 metric	16 mm	Industrial pack in any quantity	SLVE	II

Bolt joint	118-1946	1/4 inch	16 mm	Single pack for one compressor	NLV/E	III
Bolt joint	118-1949	1/4 inch	19 mm	Single pack for one compressor	all with 19 mm base holes	IV

Snap-on	118-1947	Ø 7.3 mm	16 mm	Single pack for one compressor	NLV/E	V
Snap-on	118-1919	Ø 7.3 mm	16 mm	Industrial pack in any quantity	NLV/E	V
Snap-on	118-1962	Ø 7.3 mm	16 mm	Industrial pack in any quantity	SLVE	VI

Parts list (4 pcs. per compressor needed)			Symbol drawings	
I	Sleeve Ø 8 mm x 6.4 mm x 0.8 mm	112-2052		Bolt joint mounting
	Washer Ø 20 mm x Ø 6.7 mm x 1 mm	112-2053		
	Bolt M6 x 25 mm	681X1130		
	Nut M6	118-3659		
	Rubber grommet 16 mm	118-3661		
II	Sleeve Ø 8 mm x 6.4 mm x 0.8 mm	112-2052		Bolt joint mounting
	Washer Ø 20 mm x Ø 6.7 mm x 1 mm	112-2053		
	Bolt M6 x 25 mm	681X1130		
	Nut M6	118-3659		
	Rubber grommet 16 mm	118-3670		
III	Sleeve Ø 8.3 mm x 6.7 mm x 0.8 mm	112-2088		Bolt joint mounting
	Washer Ø 20 mm x Ø 6.7 mm x 1 mm	112-2053		
	Bolt 1/4 x 1 inch, 20 UNC	119-3002		
	Nut 1/4 inch, 20 UNC	119-3031		
	Rubber grommet 16 mm	118-3661		
IV	Sleeve Ø 9.5 mm x 7.9 mm x 0.8 mm	112-2085		Bolt joint mounting
	Washer Ø 20 mm x Ø 6.7 mm x 1 mm	112-2053		
	Bolt 1/4 x 1 1/4 inch, 20 UNC	119-3002		
	Nut 1/4 inch, 20 UNC	119-3031		
	Rubber grommet 19 mm	118-3666		
V	Steel pin	118-3586		Bolt joint mounting
	Washer Ø 21 x Ø 8.1 mm x 0.9 mm	118-3588		
	Clip	118-3585		
	Rubber Grommet 16 mm	118-3661		
	Steel pin	118-3586		
VI	Washer Ø 21 x Ø 8.1 mm x 0.9 mm	118-3588		Bolt joint mounting
	Clip	118-3585		
	Rubber Grommet 16 mm	118-3670		

SECOP GROUP: AROUND THE WORLD

SECOP**12**

international
partners for
advanced
developments

33

laboratories
located in Germany,
Slovakia, China,
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 goes back to the beginning of the 1950s.



Flensburg: Sales and R&D



Turin: Sales



Atlanta: Sales and Logistics



Zlaté Moravce: R&D, Logistics, and Manufacturing



Tianjin: Sales, R&D, Logistics, and Manufacturing



Stationary Cooling



Mobile Cooling



Medical Cooling



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

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