Single
Packs

Single Pack DLV4.0CN 220-240V 50Hz / 208-230V 60Hz PM

Single pack code number: **195B4383**

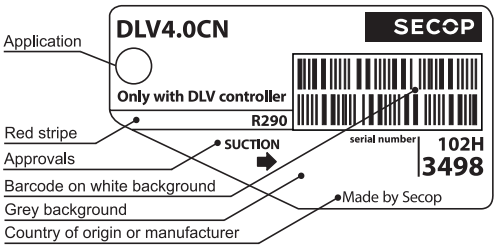
Position	Title	Code	Amount
1	Compressor DLV4.0CN	102H3498	1
2	Motor cable (900mm)	105B4477	1
3	Electronic unit DLV	105N4511	1
4	Cord relief	103N1010	1
5	Cover	103N0492	1
6	Bolt joint in quantities | M6 | ø16mm	118-1918	1

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

DLV4.0CN
Variable Speed Drive Compressor
R290, 220-240V 50/60Hz

- with 105N4410 & 105N4510 Controllers

TOOL4COOL®



S = Static cooling normally sufficient
O = Oil cooling
F_1 = Fan cooling 1.5 m/s (compressor compartment temp. equal to ambient temperature)
F_2 = Fan cooling 3.0 m/s necessary
SG = Suction gas cooling normally sufficent
– = not applicable in this area

Yellow warning label

General

Code number (without electronic unit)	102H3498
Electronic unit (without PFC) Approvals: UL 60335-2-34 with Annex AA, CCC	105N4410
Electronic unit (with PFC) Approvals: EN 60335-2-34 with Annex AA, CCC	105N4510
Compressors on pallet	100
Remarks: PFC = power factor correction according to EN 61000-3-2:2014	

Application

Application		LBP/MBP	
Frequency	Hz	50	60
Evaporating temperature	°C	-35 to 7.2	-35 to 7.2
Voltage range / frequency	V/Hz	180 - 270	180 - 270
Max. condensing temperature continuous (short)	°C	60 (65)	60 (65)
Max. winding temperature continuous (short)	°C	125 (135)	125 (135)

Cooling requirements

Frequency	Hz	50			60		
Application		LBP	MBP	HBP	LBP	MBP	HBP
32°C		F_2	F_2	–	F_2	F_2	–
38°C		F_2	F_2	–	F_2	F_2	–
43°C		F_2	F_2	–	F_2	F_2	–

Features

Speed range	rpm	2000 - 4500
Speed control		AEO, frequency, serial com.
Thermostat		integrated, electronic
Protections		current, speed, temperature
Protection class (electronic unit)		IP54

Motor

Motor type		permanent magnet
LRA (rated after 4 sec. UL984),	A	electronic cut off
Maximum current	A	3.1
Resistance, all 3 windings (25°C)	Ω	4.1

Design

Displacement	cm^3	4.00
Oil quantity (type)	cm^3	230 (polyolester)
Maximum refrigerant charge	g	150
Free gas volume in compressor	cm^3	1390
Weight - Compressor/Electronic unit	kg	7.8 / 0.5

Dimensions

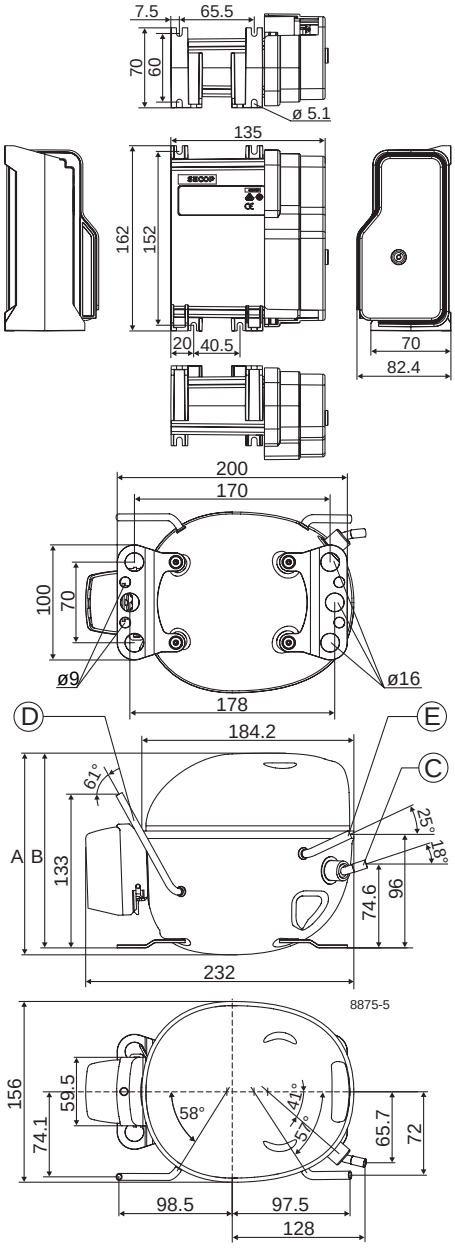
Height	mm	A	175
		B	169
Suction connector	location/I.D. mm | angle	C	8.2 | 18°
	material | comment		Copper | Rubber plug
Process connector	location/I.D. mm | angle	D	6.2 | 61°
	material | comment		Copper | Rubber plug
Discharge connector	location/I.D. mm | angle	E	6.2 | 25°
	material | comment		Copper | Rubber plug
Connector tolerance	I.D. mm		±0.09

Accessories

		Code number
Cover		103N0492
Cord relief		103N1010
Motor cable	900 mm cable length	105B4477

Mounting accessories

Bolt joint for one compressor	Ø: 16 mm	118-1917
Bolt joint in quantities	Ø: 16 mm	118-1918
Snap-on in quantities	Ø: 16 mm	118-1919



LBP: ASHRAE 230V, 50/60Hz, fan cooling F_2

Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500
Capacity [W]	119	136	153	170	186	219	251	299
Capacity [BTU/h]	406	465	524	580	635	747	859	1022
Power cons. [W]	79	87	95	106	116	137	158	175
Current cons. [A]	0.43	0.45	0.48	0.52	0.57	0.65	0.74	0.80
COP [W/W]	1.51	1.57	1.61	1.61	1.60	1.60	1.59	1.72
EER [BTU/Wh]	5.14	5.34	5.51	5.49	5.48	5.45	5.43	5.86

Test conditions

Evaporation pressure	-23.3°C	-10°F
Condensing presssure	54.4°C	130°F
Liquid temperature	32.2°C	90°F
Return gas temperature	32.2°C	90°F

LBP: CECOMAF 230V, 50/60Hz, fan cooling F_2

Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500
Capacity [W]	88	101	114	126	138	162	186	222
Capacity [BTU/h]	302	346	390	431	472	554	636	758
Power cons. [W]	76	84	92	102	112	132	153	169
Current cons. [A]	0.42	0.44	0.47	0.51	0.55	0.63	0.71	0.77
COP [W/W]	1.16	1.21	1.24	1.24	1.23	1.23	1.22	1.32
EER [BTU/Wh]	3.95	4.11	4.25	4.23	4.21	4.19	4.17	4.50

Test conditions

Evaporation pressure	-25°C	-13°F
Condensing presssure	55°C	131°F
Liquid temperature	55°C	131°F
Return gas temperature	32°C	90°F

LBP: EN12900 230V, 50/60Hz, fan cooling F_2

Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500
Capacity [W]	71	79	88	98	109	130	151	168
Capacity [BTU/h]	241	270	300	335	371	443	515	574
Power cons. [W]	55	63	70	77	84	98	112	130
Current cons. [A]	0.32	0.36	0.39	0.41	0.44	0.48	0.53	0.61
COP [W/W]	1.27	1.27	1.26	1.28	1.30	1.33	1.35	1.30
EER [BTU/Wh]	4.35	4.33	4.31	4.38	4.44	4.54	4.61	4.43

Test conditions

Evaporation pressure	-35°C	-31°F
Condensing presssure	40°C	104°F
Liquid temperature	40°C	104°F
Return gas temperature	20°C	68°F

MBP: ASHRAE 230V, 50/60Hz, fan cooling F_2

Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500
Capacity [W]	225	257	289	319	349	410	471	549
Capacity [BTU/h]	767	877	986	1090	1193	1400	1607	1875
Power cons. [W]	107	118	129	143	157	186	215	238
Current cons. [A]	0.55	0.58	0.61	0.67	0.74	0.86	0.99	1.06
COP [W/W]	2.11	2.18	2.25	2.23	2.22	2.20	2.19	2.31
EER [BTU/Wh]	7.19	7.45	7.67	7.62	7.58	7.52	7.48	7.88

Test conditions

Evaporation pressure	-6.7°C	20°F
Condensing presssure	54.4°C	130°F
Liquid temperature	46.1°C	115°F
Return gas temperature	35°C	95°F

MBP: CECOMAF 230V, 50/60Hz, fan cooling F_2

Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500
Capacity [W]	176	201	227	251	275	323	371	436
Capacity [BTU/h]	600	687	774	857	939	1103	1268	1488
Power cons. [W]	102	113	123	137	150	178	205	227
Current cons. [A]	0.53	0.56	0.59	0.65	0.71	0.82	0.94	1.02
COP [W/W]	1.72	1.79	1.84	1.84	1.83	1.82	1.81	1.92
EER [BTU/Wh]	5.88	6.11	6.30	6.27	6.24	6.21	6.18	6.56

Test conditions

Evaporation pressure	-10°C	14°F
Condensing presssure	55°C	131°F
Liquid temperature	55°C	131°F
Return gas temperature	32°C	90°F

MBP: EN12900 230V, 50/60Hz, fan cooling F_2

Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500
Capacity [W]	203	229	255	282	310	364	418	471
Capacity [BTU/h]	694	783	872	964	1057	1242	1427	1610
Power cons. [W]	90	101	112	124	136	160	183	209
Current cons. [A]	0.48	0.51	0.55	0.60	0.65	0.75	0.85	0.94
COP [W/W]	2.26	2.27	2.28	2.28	2.28	2.28	2.28	2.25
EER [BTU/Wh]	7.70	7.76	7.80	7.79	7.79	7.79	7.79	7.69

Test conditions

Evaporation pressure	-10°C	14°F
Condensing presssure	45°C	113°F
Liquid temperature	45°C	113°F
Return gas temperature	20°C	68°F

Optimization Point 230V, 50/60Hz, fan cooling F_2

Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500
Capacity [W]	130	146	163	181	198	233	268	304
Capacity [BTU/h]	443	500	557	617	676	796	916	1039
Power cons. [W]	67	75	83	91	99	116	133	152
Current cons. [A]	0.37	0.40	0.44	0.47	0.50	0.56	0.63	0.70
COP [W/W]	1.95	1.96	1.98	1.98	1.99	2.00	2.01	2.00
EER [BTU/Wh]	6.66	6.71	6.75	6.78	6.8	6.84	6.87	6.83

Test conditions

Evaporation pressure	-25°C	-13°F
Condensing presssure	35°C	95°F
Liquid temperature	35°C	95°F
Return gas temperature	32°C	90°F

Optimization Point 230V, 50/60Hz, fan cooling F_2

Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500
Capacity [W]	212	239	266	294	322	379	435	491
Capacity [BTU/h]	723	815	908	1004	1100	1293	1486	1676
Power cons. [W]	90	101	112	124	136	160	183	209
Current cons. [A]	0.48	0.51	0.55	0.60	0.65	0.75	0.85	0.94
COP [W/W]	2.35	2.36	2.38	2.38	2.38	2.38	2.37	2.35
EER [BTU/Wh]	8.02	8.07	8.12	8.11	8.11	8.11	8.11	8.01

Test conditions

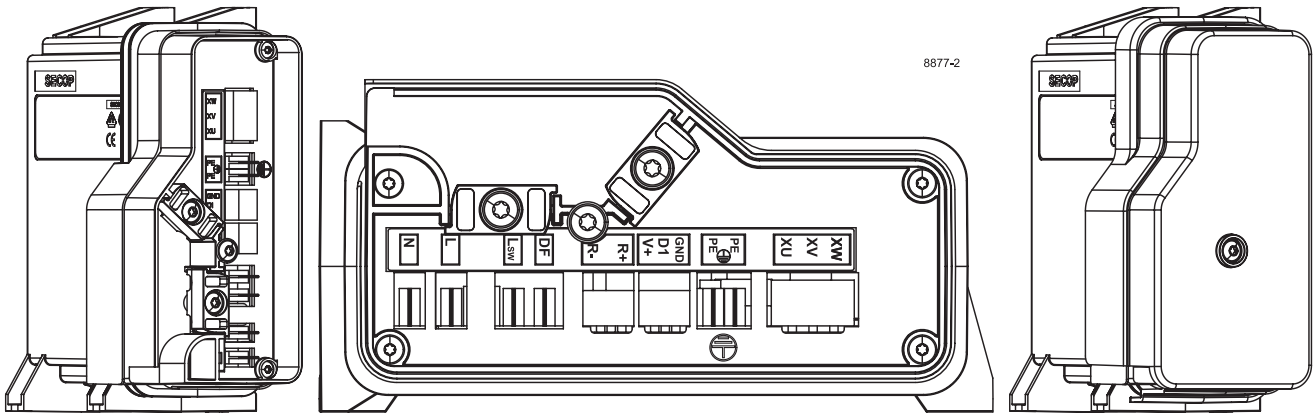
Evaporation pressure	-10°C	14°F
Condensing presssure	45°C	113°F
Liquid temperature	45°C	113°F
Return gas temperature	32°C	90°F

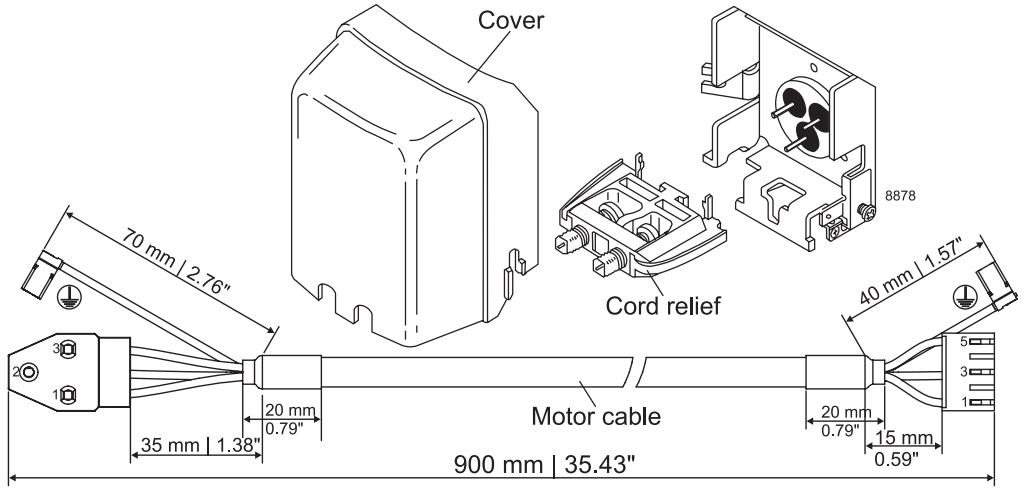
Optimization Point 230V, 50/60Hz, fan cooling F_2

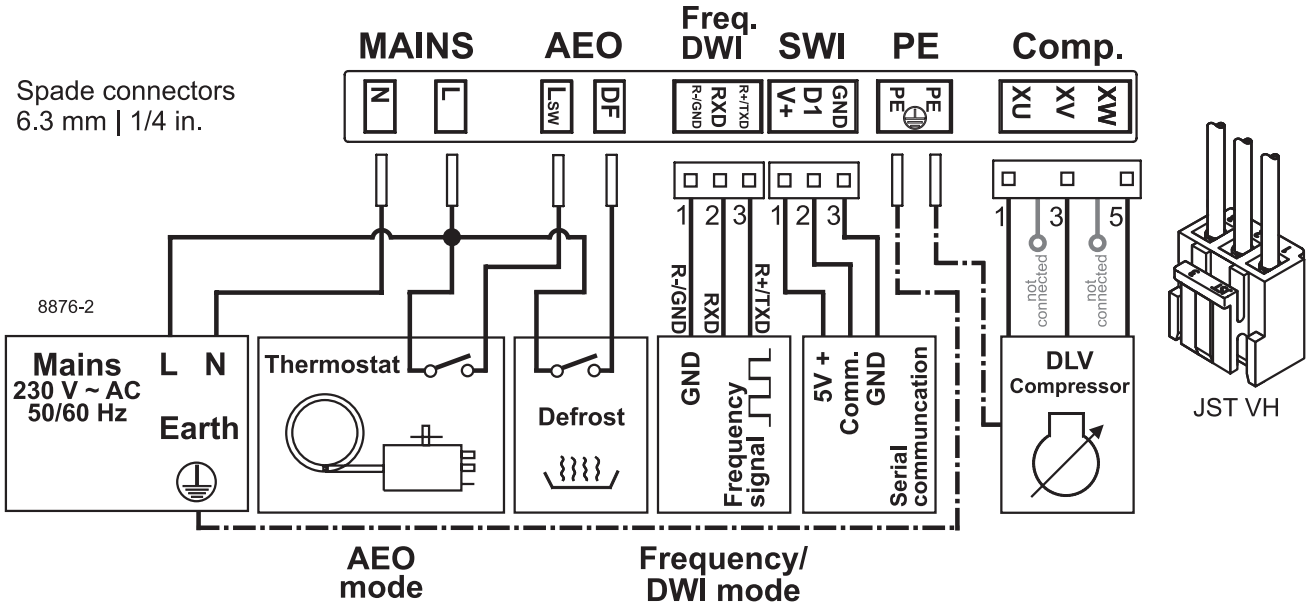
Speed (rpm)	2000	2250	2500	2750	3000	3500	4000	4500
Capacity [W]	376	424	473	522	570	667	764	856
Capacity [BTU/h]	1285	1451	1616	1782	1948	2279	2610	2923
Power cons. [W]	103	115	128	142	156	184	212	242
Current cons. [A]	0.53	0.58	0.63	0.69	0.75	0.86	0.97	1.08
COP [W/W]	3.66	3.68	3.70	3.68	3.66	3.63	3.60	3.54
EER [BTU/Wh]	12.48	12.58	12.65	12.57	12.5	12.39	12.31	12.08

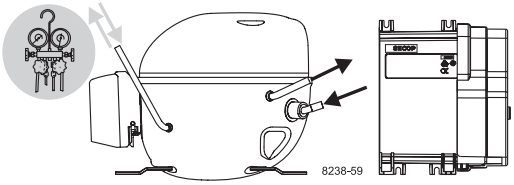
Test conditions

Evaporation pressure	5°C	41°F
Condensing presssure	45°C	113°F
Liquid temperature	45°C	113°F
Return gas temperature	32°C	90°F









Instructions

DLV Compressors
220-240V 50/60Hz
105N441x & 105N451x
Series Controllers

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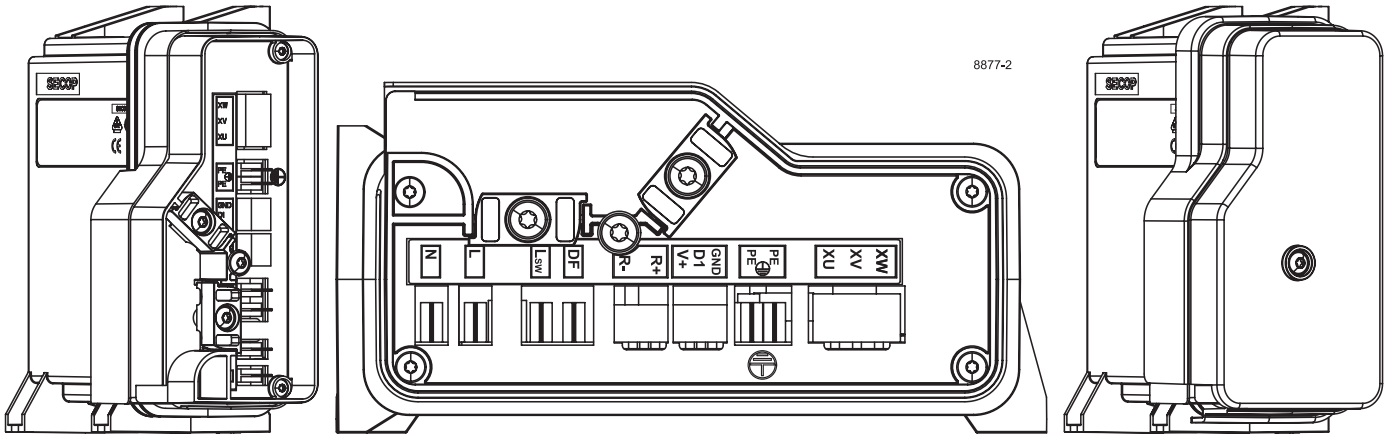

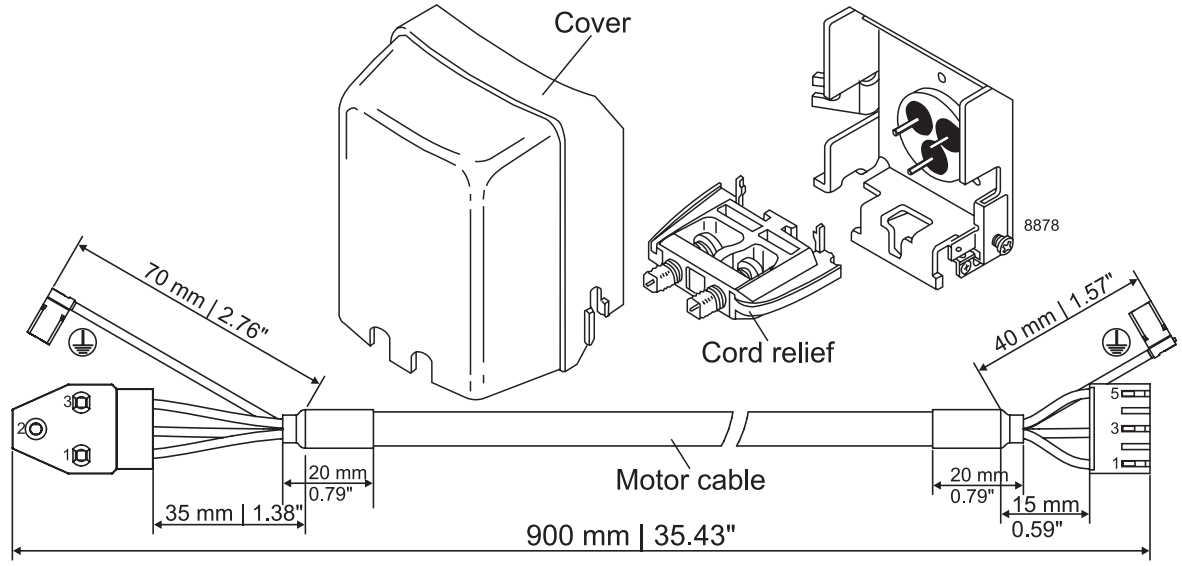

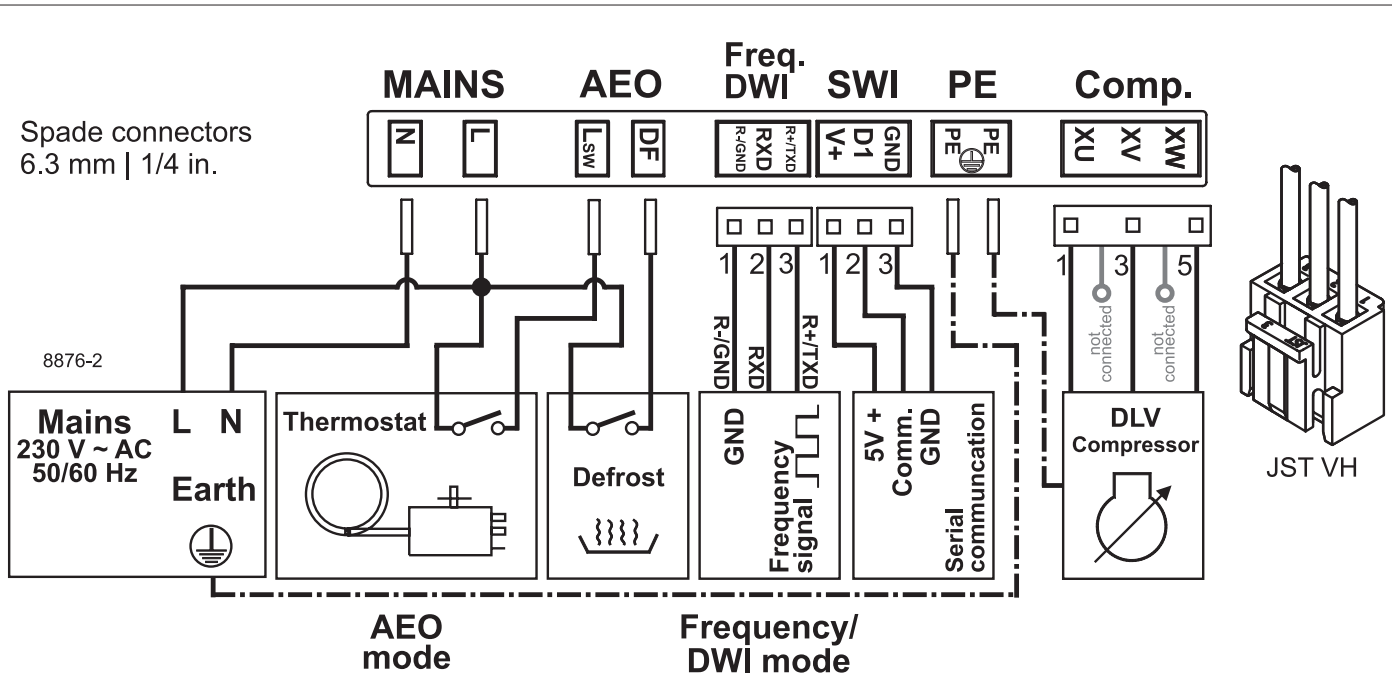

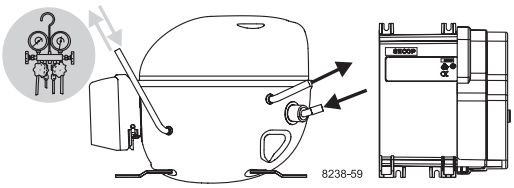

Instructions

DLV Compressors
220-240V 50/60Hz
105N441x & 105N451x
Series Controllers

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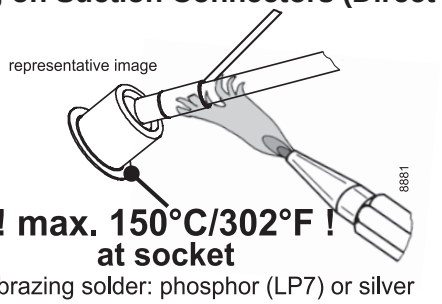
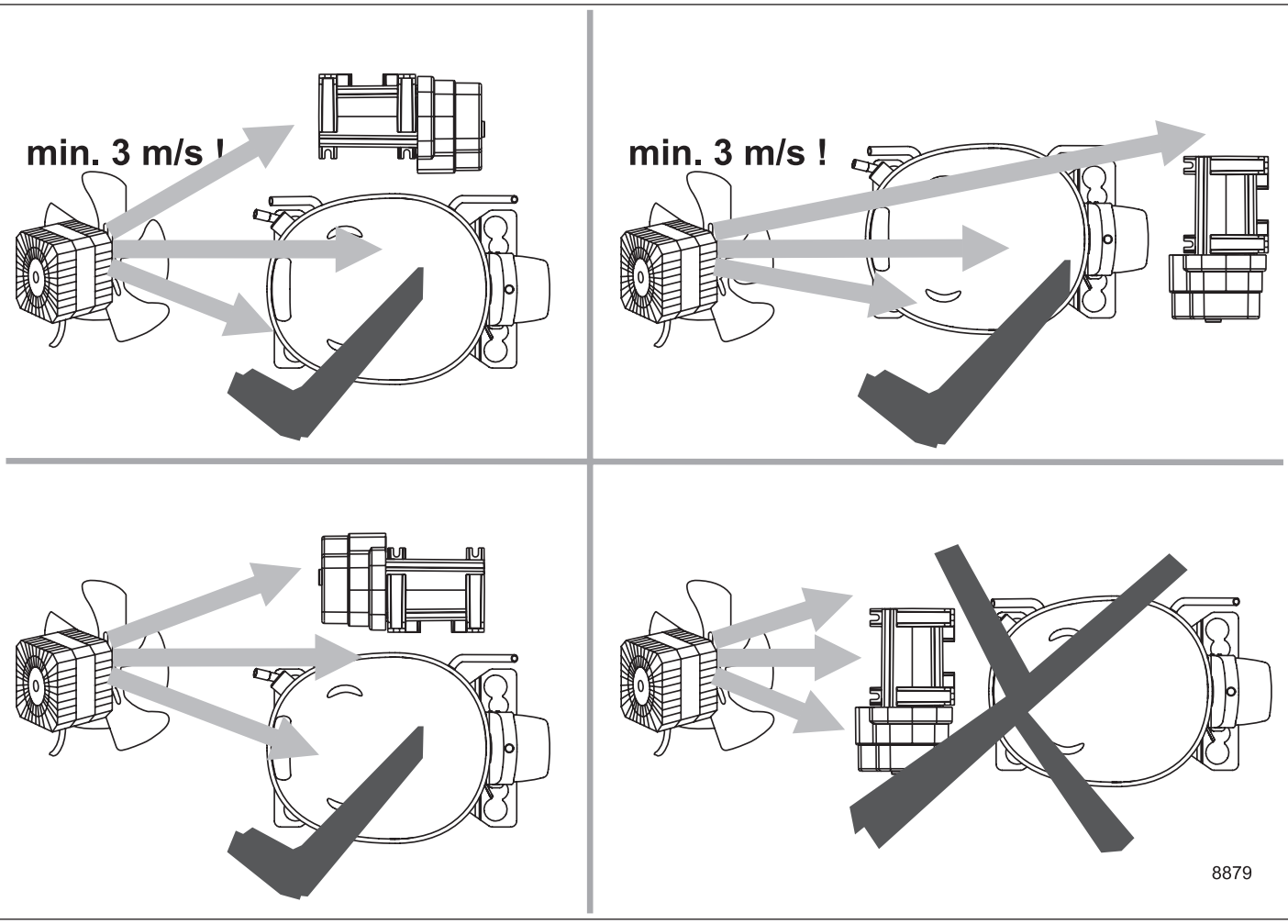
Service/Repair R290

Brazing on Suction Connectors (Direct Intake)



brazing solder: phosphor (LP7) or silver

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



Airflow	3 m/s
Operating conditions 105N441x, 105N451x	+ 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 rating	450 W