Technical Data Compressor

SECOP

Model

Designation	NLU8.8DN	220-240V/50Hz 1~	Sales code:	105H6085

Compressor design

Oil type	Polyolester	Refrigerant(s)	**R290**
Oil viscosity	32cST	Displacement	8,76cm³ / 0,53cu.in
Oil quantity	298cm³ / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	300g / 10,6oz		
Free gas volume comp.	2360cm³ / 79,8fl.oz		
Weight	11,8kg / 26lbs		
Motor protection	1# internal		
Winding resistance main	5,68Ω (at 25°C)		
Winding resistance aux	21,15Ω (at 25°C)		
Max. winding temp.	135°C / 275°F		
Max. discharge temp.	130°C / 266°F		

General - Configurations with NLU8.8DN

	Conf. 1
Motorconfiguration	CSCR
Power supply (nominal)	220-240V/50Hz
Number of phases	1
Voltage range	187-254V
Approvals	VDE
Starting torque	HST
Note	- / -

Applications with NLU8.8DN

	Conf. 1
Refrigerant	R290
Application	MBP+HBP
System cooling	fan 3m/s
Hot gas defrost	OK
Long interval pull down	OK

Electrical data - Configurations with NLU8.8DN

	Conf. 1
Starting device type	relay
Run capacitor	5µF
Start capacitor	60µF
LRA (locked rotor amps / 4s)	13A
RLA (rated load amps / 1s)	2,4A
Cut in current	

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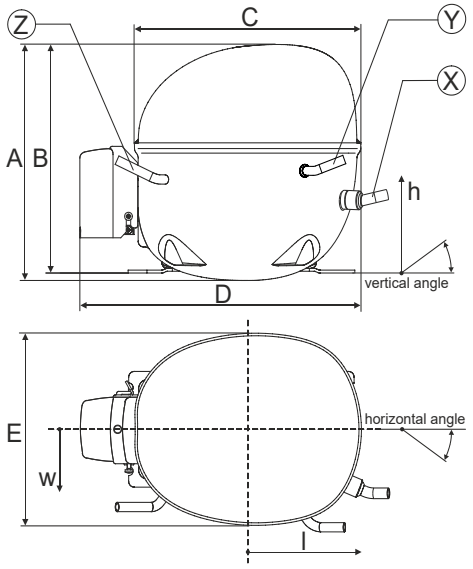
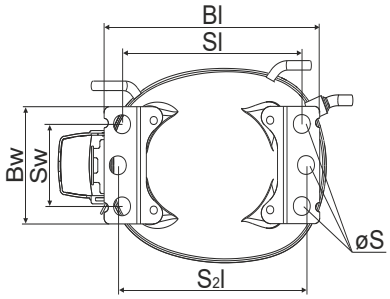
Compressor dimensions

Housing	A Height	203mm / 7,99in
	B Height	197mm / 7,76in
	C Length shell	205mm / 8,07in
	D Length w. cover	254mm / 10in
	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

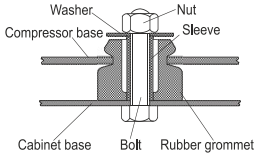
Compressor fixation



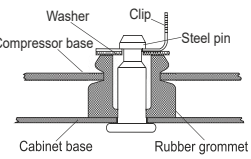
Baseplate	[mm]	[inch]
Bl	204	8.03
Bw	100	3.94

Small holes	[mm]	[inch]
Sl	170	6.7
Sw	70	2.76
S2l	178	7
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	
Snap-on | ø7,3 | ø16mm	118-1947	118-1919

Application notes

Provision for PE Grounding is located at the PE Stamp on the compressor

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Configuration

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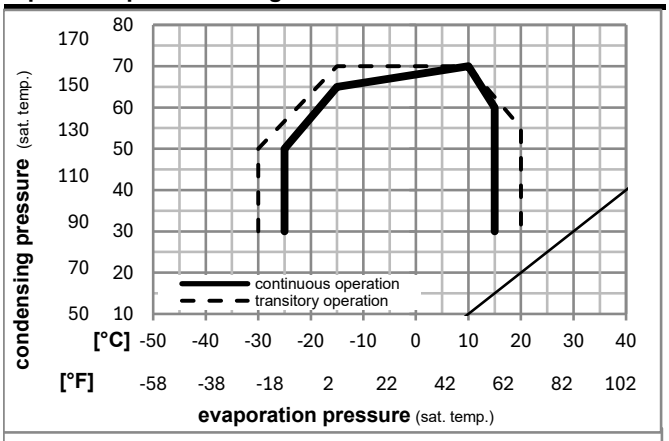
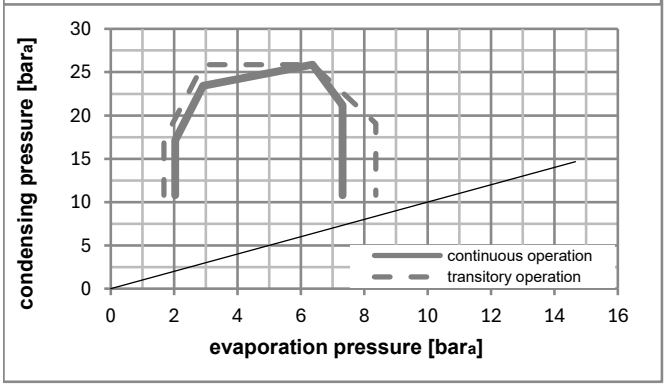
Refrigerant	R290
Application	MBP+HBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE

Ambient/ machine room temperatures minimum /maximum

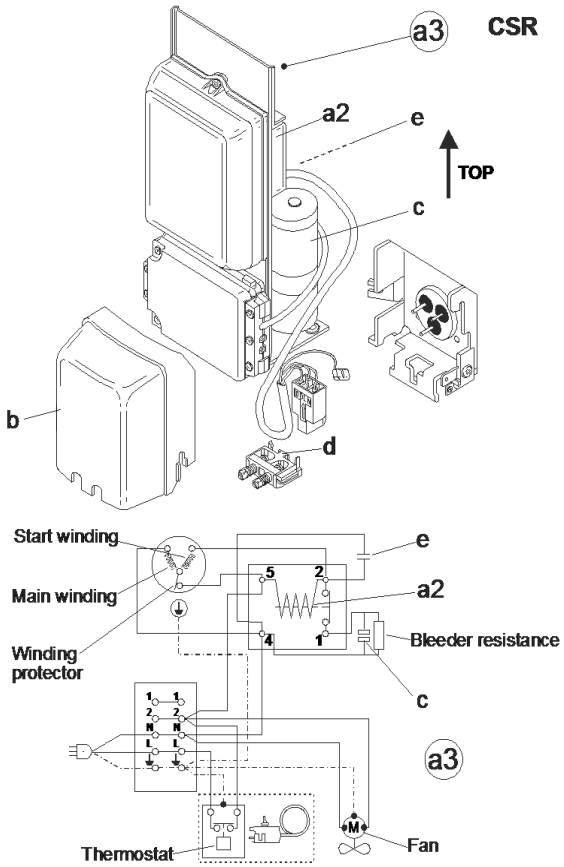
Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

Operation pressure range





Electrical accessories / wiring diagram



Components

a3	SC starter kit (550mm)	117-7812

Alternative components

a2	potential relay (RVA 6M3R 339)	117-7425
c	start capacitor (60µF, 6.3mm)	117U5389
e	run capacitor (5µF, 6.3mm)	117-7111
b	plastic cover	103N2010
d	cord relief	103N1010
	assy. cable (1035mm)	117-7095

Noise emission

Operation pressures:	pe:	-25°C / -13°F
	pc:	45°C / 113°F
Motor speed appr.:		2900rpm
Lw(A):		49dB(A)

Model

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Optimization + standard conditions R290, 220V/50Hz, CSCR, fan 3m/s, VDE

	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]	7	54	35	46	1210,0	4132	1041,3	3,09	10,54	2,66	392,0	1,82	14,10	**ASHRAE HBP**
[°F]	45	130	95	115										
[°C]	5	55	32	55	1007,5	3441	867,1	2,60	8,89	2,24	386,8	1,79	13,06	**cecomaf HBP**
[°F]	41	131	90	131										
[°C]	5	50	20	50	1038,1	3545	893,4	2,89	9,86	2,48	359,7	1,67	13,82	**EN12900 HBP**
[°F]	41	122	68	122										
[°C]	-7	54	35	46	722,4	2467	621,7	2,17	7,41	1,87	333,0	1,53	8,24	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	568,4	1941	489,2	1,79	6,11	1,54	318,0	1,46	7,19	**cecomaf MBP**
[°F]	14	131	90	131										
[°C]	-10	45	20	45	636,5	2174	547,7	2,21	7,54	1,90	288,3	1,34	7,81	**EN12900 MBP**
[°F]	14	113	68	113										

Performance tables R290, 220V/50Hz, CSCR, fan 3m/s, VDE

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-25	-13	351,5	1201	302,5	1,54	5,27	1,33	227,9	1,11	3,96
cond. pressure	-20	-4	434,3	1483	373,7	1,74	5,95	1,50	249,2	1,18	4,92
pc= 45/113	-10	14	662,6	2263	570,2	2,30	7,85	1,98	288,3	1,34	7,58
return gas temp.	-5	23	809,6	2765	696,8	2,65	9,06	2,28	305,2	1,42	9,32
RGT= 32/90	0	32	979,6	3346	843,1	3,06	10,46	2,64	319,9	1,50	11,36
liquid temp	5	41	1173,3	4007	1009,7	3,53	12,07	3,04	332,0	1,56	13,73
Tliq= 45/113	15	59	1634,5	5582	1406,7	4,72	16,11	4,06	346,5	1,63	19,54
[°C / °F]	-25	-13	292,9	1000	252,1	1,24	4,24	1,07	236,0	1,14	3,65
cond. pressure	-20	-4	367,8	1256	316,6	1,39	4,76	1,20	264,1	1,24	4,60
pc= 55/131	-10	14	568,4	1941	489,2	1,79	6,11	1,54	318,0	1,46	7,19
return gas temp	-5	23	695,6	2376	598,7	2,03	6,93	1,75	342,9	1,58	8,86
RGT= 32/90	0	32	841,7	2875	724,4	2,30	7,85	1,98	366,0	1,69	10,81
liquid temp	5	41	1007,5	3441	867,1	2,60	8,89	2,24	386,8	1,79	13,06
Tliq= 55/131	15	59	1401,0	4785	1205,7	3,34	11,39	2,87	420,1	1,94	18,61