

Model

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

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	32cSt	Displacement	8,76cm ³ / 0,53cu.in
Oil quantity	300cm ³ / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	300g / 10,6oz		
Free gas volume comp.	2360cm ³ / 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	
IP class	21

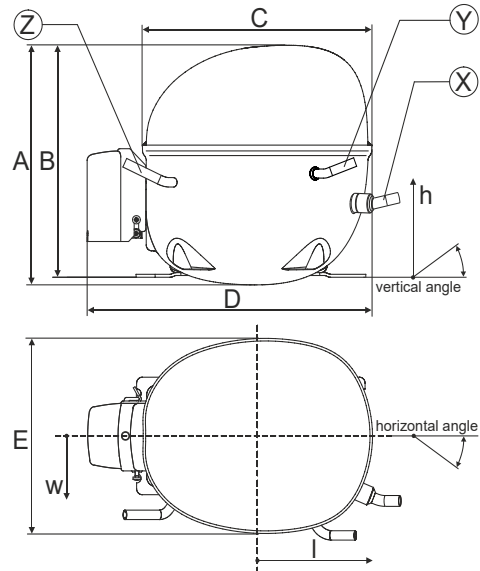
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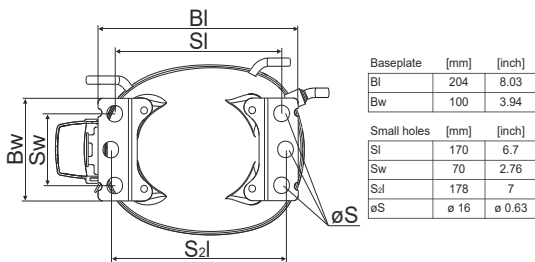
Compressor dimensions

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

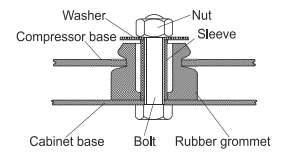
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	15°	21°	155°
Position l/h/w	[mm]	132/69/56	94/99/86	-111/92/72
	[in]	5,2/2,7/2,2	3,7/3,9/3,4	-4,4/3,6/2,8
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5



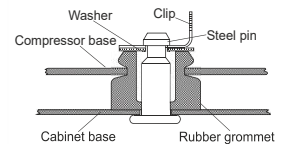
Compressor fixation



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

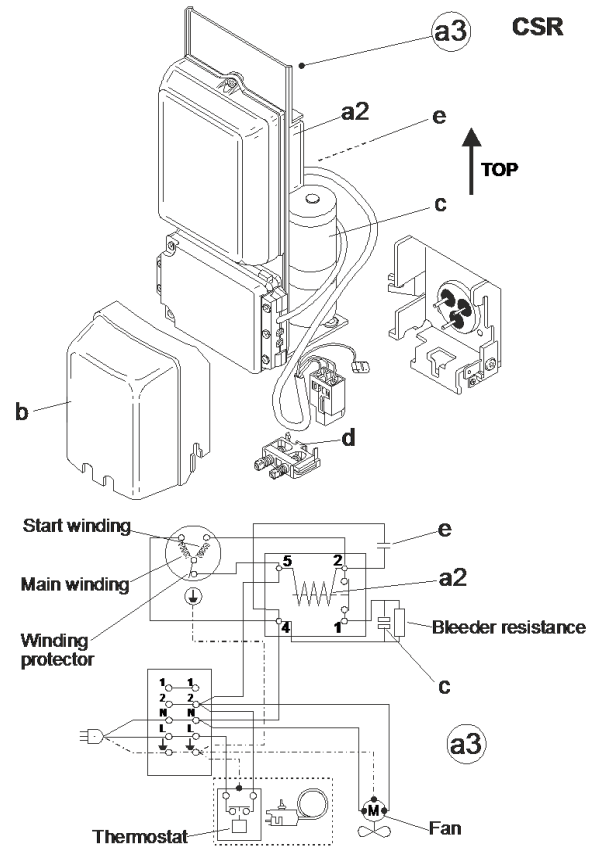
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Configuration

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

Electrical accessories / wiring diagram

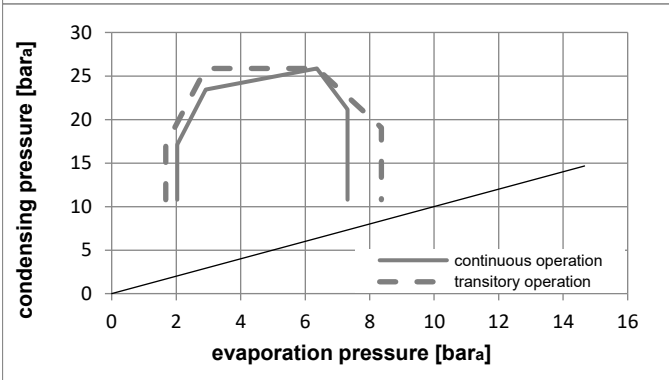
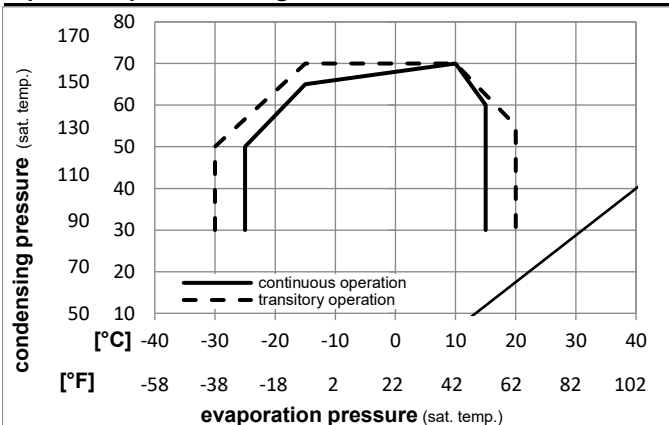


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	n/a	fan 3m/s	fan 3m/s
38°C / 100°F	n/a	fan 3m/s	fan 3m/s
43°C / 110°F	n/a	fan 3m/s	fan 3m/s

Operation pressure range



Components

a3	SC starter kit (550mm)	117-7812
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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

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

Optimization + standard conditions

220-240V/50Hz 1~, CSCR, fan 3m/s, VDE

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			ASHRAE HBP
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	[W]	[A]	[kg/h]	Ref. mass flow					
[°C]	7,22	54,4	35	46,1	1210,0	4132	1041,3	3,09	10,54	2,66	392,0	1,82	14,10									
[°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	89,6	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]	-6,66	54,4	35	46,1	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	89,6	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

220-240V/50Hz 1~, 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		

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Optimization + standard conditions

220-240V/50Hz 1~, CSCR, fan 3m/s, VDE

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			ASHRAE HBP			
	pe	pc	RGT	Tliq	Heating capacity			Heating efficiency			Current consumption		Ref. mass flow				
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1 [W]	I [A]	m [kg/h]				
	7,22	45	54,4	130	35	46,1	115	1602,0	5471	1378,7	4,09	13,96	3,52	392,0	1,82	14,10	ASHRAE HBP
	5	41	55	131	32	55	131	1394,4	4762	1200,0	3,60	12,31	3,10	386,8	1,79	13,06	cecomaf HBP
	5	41	50	122	20	50	122	1397,9	4774	1203,0	3,89	13,27	3,34	359,7	1,67	13,82	EN12900 HBP
	-6,66	20	54,4	130	35	46,1	115	1055,4	3604	908,3	3,17	10,82	2,73	333,0	1,53	8,24	ASHRAE MBP
	-10	14	55	131	32	55	131	886,4	3027	762,8	2,79	9,52	2,40	318,0	1,46	7,19	cecomaf MBP
	-10	14	45	113	20	45	113	924,7	3158	795,8	3,21	10,96	2,76	288,3	1,34	7,81	EN12900 MBP

Performance tables

220-240V/50Hz 1~, CSCR, fan 3m/s, VDE

	pe	Heating 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	579,5	1979	498,7	2,54	8,68	2,19	227,9	1,11	3,96		
cond. pressure	-20	-4	683,5	2334	588,2	2,74	9,37	2,36	249,2	1,18	4,92		
pc= 45/113	-10	14	950,8	3247	818,3	3,30	11,27	2,84	288,3	1,34	7,58		
return gas temp.	-5	23	1114,9	3807	959,5	3,65	12,47	3,14	305,2	1,42	9,32		
RGT= 32/90	0	32	1299,6	4438	1118,4	4,06	13,87	3,50	319,9	1,50	11,36		
liquid temp	5	41	1505,3	5141	1295,4	4,53	15,48	3,90	332,0	1,56	13,73		
Tliq= 45/113	15	59	1981,0	6766	1704,9	5,72	19,52	4,92	346,5	1,63	19,54		
[°C / °F]	-25	-13	528,9	1806	455,2	2,24	7,65	1,93	236,0	1,14	3,65		
cond. pressure	-20	-4	631,9	2158	543,8	2,39	8,17	2,06	264,1	1,24	4,60		
pc= 55/131	-10	14	886,4	3027	762,8	2,79	9,52	2,40	318,0	1,46	7,19		
return gas temp	-5	23	1038,5	3547	893,8	3,03	10,34	2,61	342,9	1,58	8,86		
RGT= 32/90	0	32	1207,8	4125	1039,4	3,30	11,27	2,84	366,0	1,69	10,81		
liquid temp	5	41	1394,4	4762	1200,0	3,60	12,31	3,10	386,8	1,79	13,06		
Tliq= 55/131	15	59	1821,1	6219	1567,2	4,34	14,81	3,73	420,1	1,94	18,61		