

## Model

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

Oil type	Polyolester	Refrigerant(s)	<b>R290</b>
Oil viscosity	32cSt	Displacement	8,76cm <sup>3</sup> / 0,53cu.in
Oil quantity	298cm <sup>3</sup> / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	300g / 10,6oz		
Free gas volume comp.	2360cm <sup>3</sup> / 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	
Motor configuration	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

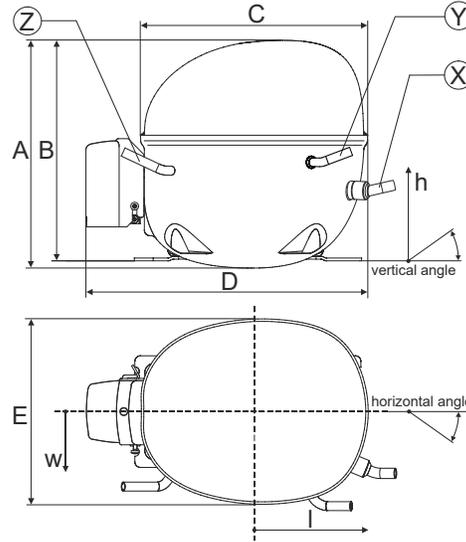
Conf. 1	
Starting device type	relay
Run capacitor	5μF
Start capacitor	60μF
LRA (locked rotor amps / 4s/ U(N))	13A
RLA (rated load amps / 1s/ U(N))	2,4A
Cut in current (U(N))	

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## Compressor dimensions

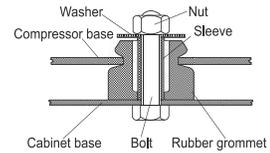
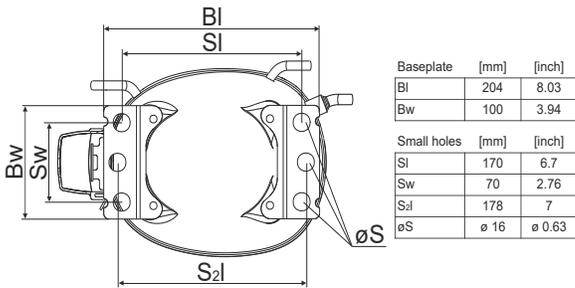
<b>Housing</b>	A Height	203mm / 7,99in
	B Height	197mm / 7,76in
	C Length shell	205mm / 8,07in
	D Length w. cover	254mm / 10in
	E Width	166mm / 6,54in



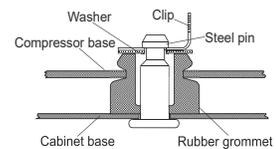
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	15°	21°	155°
Position l/h/w	[mm]	132/69/57	94/102/81	-109/94/72
	[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

### 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

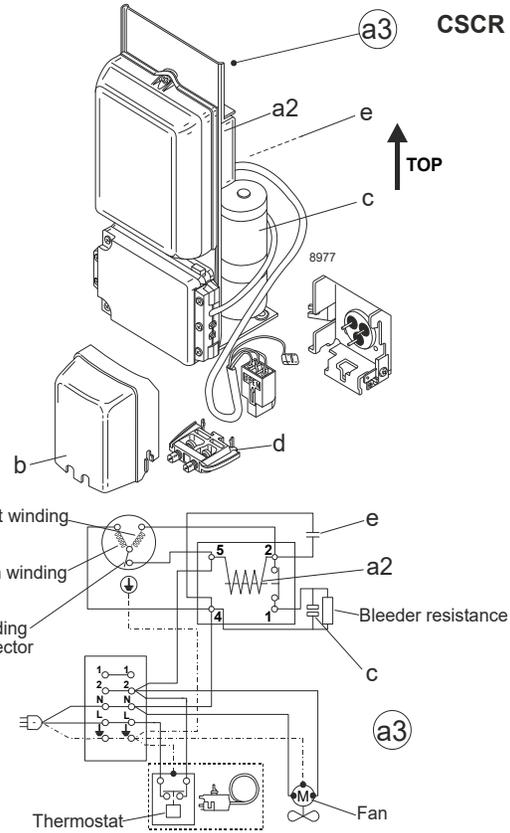
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 Starting torque **HST**  
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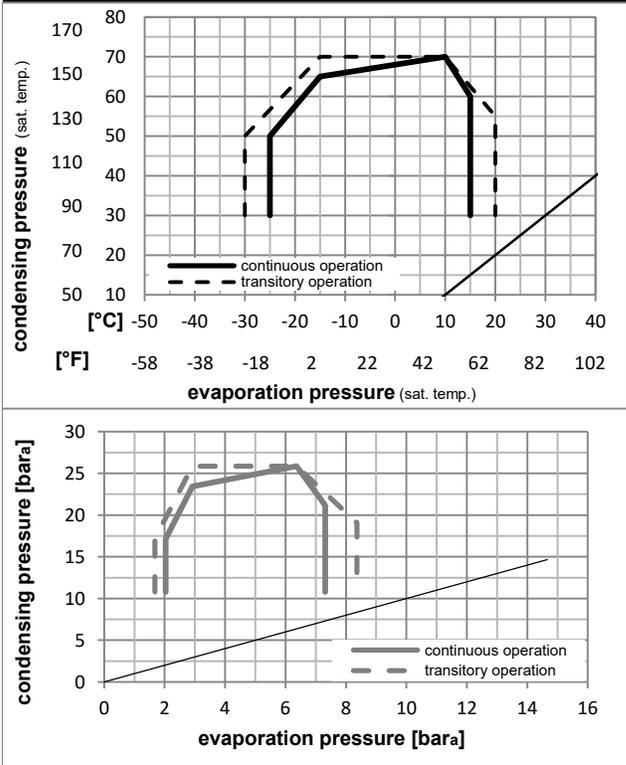
## Electrical accessories / wiring diagram



## 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



## 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)

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## Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Cooling capacity			COP	EER	Power consumption				
		Condensing pressure (saturation temperature)									Current consumption		Ref. mass flow		
		Return gas temp.									I		m		
		Liquid temp.													
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1 [W]	I [A]	[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