

Single Pack NLE10CN 220-240V 50Hz CSIR

Single pack code number: **195B4104**

Position	Title	Code	Amount
1	Compressor NLE10CN	105H6175	1
2	Starting relay	117U7002	1
3	Starting capacitor (80 μ F 220V, 6.3mm)	117U5015	1
4	Cord relief	103N1010	1
5	Cover	103N2010	1
6	Bolt joint for one compressor M6 \varnothing 16mm	118-1917	1

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Model

Designation	NLE10CN	220-240V/50Hz 1~	Sales code:	105H6175
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	32cST	Displacement	10,09cm ³ / 0,62cu.in
Oil quantity	268cm ³ / 9,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2360cm ³ / 79,8fl.oz		
Weight	10,9kg / 24lbs		
Motor protection	1# internal		
Winding resistance main	7,79Ω (at 25°C)		
Winding resistance aux	18,39Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	120°C / 248°F		



General - Configurations with NLE10CN

	Conf. 1	Conf. 2	Conf. 3
Motorconfiguration	CSIR	RSIR	RSCR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1	1
Voltage range	198-254V	198-254V	198-254V
Approvals	VDE, CCC, EAC	VDE, CCC, EAC	VDE, CCC, EAC
Starting torque	HST	LST	LST
Note	- / -		

Applications with NLE10CN

	Conf. 1	Conf. 2	Conf. 3
Refrigerant	R290	R290	R290
Application	LBP+MBP	LBP+MBP	LBP+MBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK
Long interval pull down	OK	OK	OK

Electrical data - Configurations with NLE10CN

	Conf. 1	Conf. 2	Conf. 3
Starting device type	relay	PTC	PTC
Run capacitor	-/-	-/-	4μF
Start capacitor	80μF	-/-	-/-
LRA (locked rotor amps / 4s)	12,25A	10,9A	12,25A
RLA (rated load amps / 1s)	2,58A	2,58A	2,27A
Cut in current	12,25A	15,8A	12,25A

Model

Designation

NLE10CN

220-240V/50Hz 1~

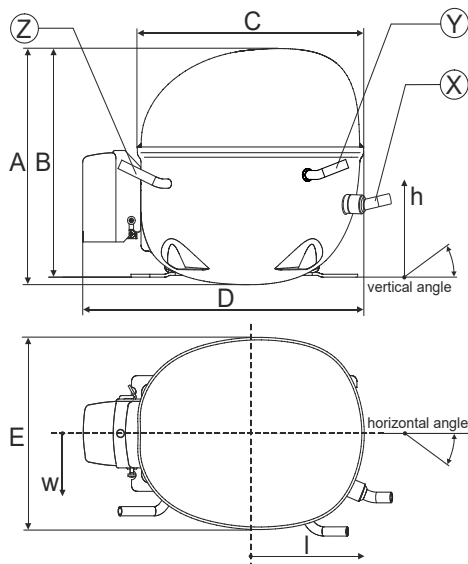
Sales code:

105H6175

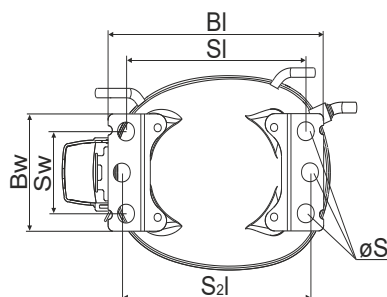
Compressor dimensions

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]
BI	204	8.03
BW	100	3.94
Small holes	[mm]	[inch]
SI	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

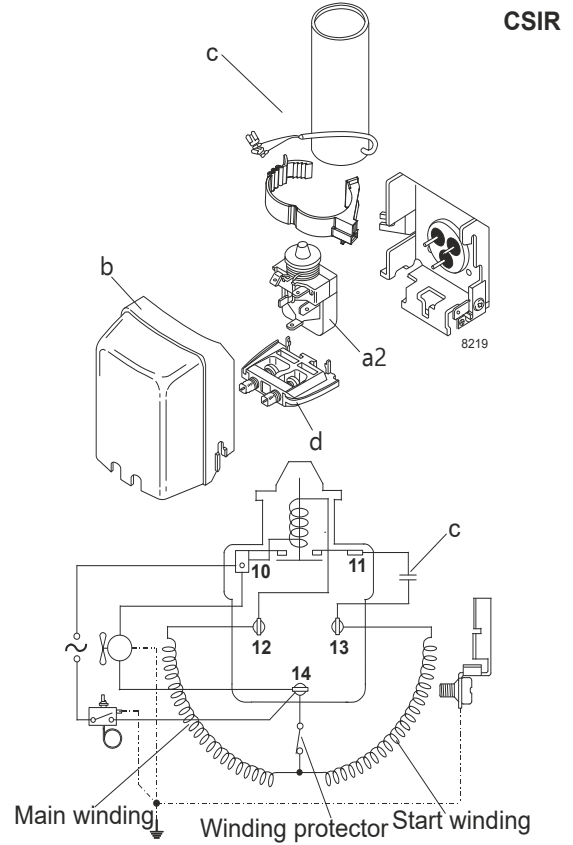
Model

Designation	NLE10CN	220-240V/50Hz	Conf. 1	Sales code:	105H6175
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE (2)
(1): Made in China	CCC (1),(2)
(2): Made in Slovakia	EAC (1),(2)

Electrical accessories / wiring diagram



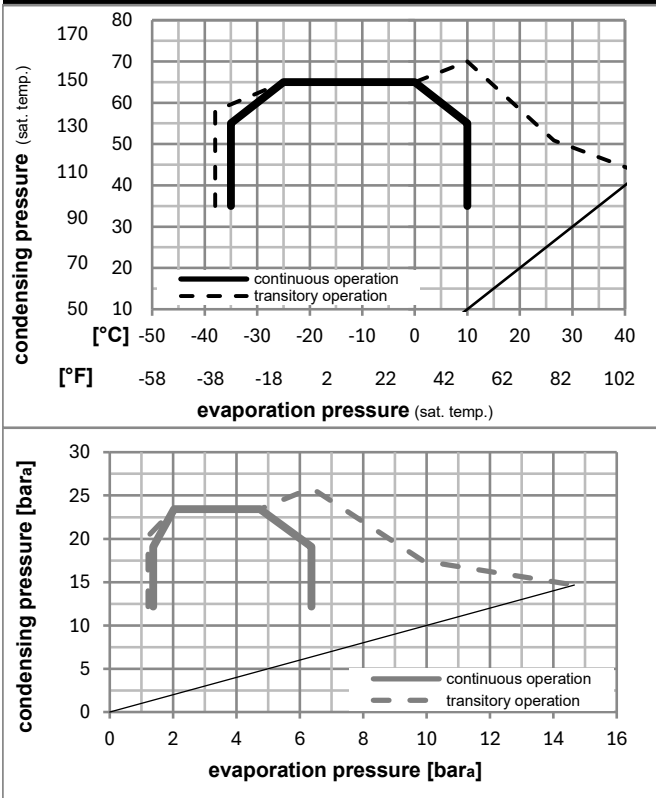
Ambient/ machine room temperatures minimum /maximum

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

a2	relay	117U7002
c	start capacitor (80µF)	117U5015
b	plastic cover	103N2010
d	cord relief	103N1010

Alternative components

b	plastic cover	103N2011
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Model

Designation	NLE10CN	220-240V/50Hz	Conf. 1	Sales code:	105H6175
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Optimization + standard conditions

R290, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, EAC

	Evaporating pressure (saturation temperature)				Cooling capacity			COP	EER	P1	Power consumption		ASHRAE LBP	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]				I	m		
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	485,4	1658	417,7	1,47	5,00	1,26	331,3	2,15	4,92	ASHRAE LBP
	-10	130	90	90										
	-25	55	32	55	362,5	1238	312,0	1,14	3,88	0,98	318,8	2,11	4,51	cecomaf LBP
	-13	131	90	131										
	-35	40	20	40	285,5	975	245,7	1,23	4,21	1,06	231,7	1,87	3,26	EN12900 LBP
	-31	104	68	104										
	-7	54	35	46	873,2	2982	751,5	1,89	6,44	1,62	462,7	2,62	9,96	ASHRAE MBP
	20	130	95	115										
	-10	55	32	55	693,0	2367	596,4	1,58	5,39	1,36	439,1	2,53	8,77	cecomaf MBP
	14	131	90	131										
	-10	45	20	45	781,1	2667	672,2	1,96	6,70	1,69	398,0	2,39	9,59	EN12900 MBP
	14	113	68	113										

Performance tables

R290, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, EAC

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]		[Btu/Wh]	[kcal/Wh]			
[°C / °F]	-35	-31	274,0	936	235,8	1,16	3,96	1,00	236,0	1,89	3,07
cond. pressure	-25	-13	436,9	1492	376,0	1,45	4,94	1,25	301,9	2,06	4,93
pc= 45/113	-15	5	668,8	2284	575,6	1,82	6,21	1,57	367,6	2,28	7,61
return gas temp.	-10	14	813,1	2777	699,8	2,04	6,98	1,76	398,0	2,39	9,30
RGT= 32/90	0	32	1163,7	3974	1001,5	2,59	8,85	2,23	449,2	2,58	13,50
liquid temp	5	41	1371,8	4685	1180,6	2,93	10,01	2,52	468,2	2,65	16,05
Tliq= 45/113	10	50	1603,3	5475	1379,8	3,33	11,37	2,87	481,5	2,70	18,95
[°C / °F]	-35	-31	215,5	736	185,4	0,88	3,01	0,76	244,6	1,91	2,66
cond. pressure	-25	-13	362,5	1238	312,0	1,14	3,88	0,98	318,8	2,11	4,51
pc= 55/131	-15	5	566,9	1936	487,9	1,42	4,85	1,22	399,1	2,38	7,13
return gas temp	-10	14	693,0	2367	596,4	1,58	5,39	1,36	439,1	2,53	8,77
RGT= 32/90	0	32	998,3	3409	859,2	1,94	6,63	1,67	514,5	2,82	12,82
liquid temp	5	41	1179,4	4028	1015,0	2,15	7,35	1,85	547,9	2,96	15,29
Tliq= 55/131	10	50	1380,9	4716	1188,4	2,39	8,17	2,06	577,2	3,09	18,11

Model

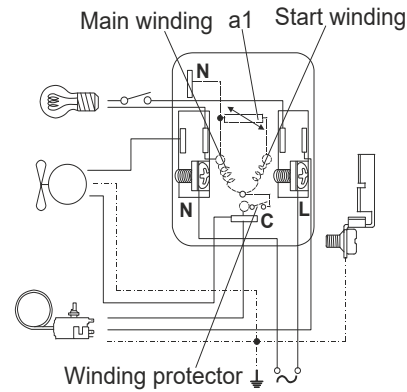
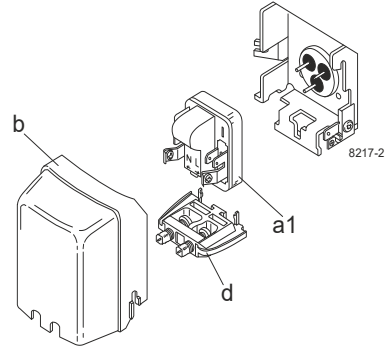
Designation	NLE10CN	220-240V/50Hz	Conf. 2	Sales code:	105H6175
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Configuration

Motorconfiguration	RSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE (2)
	CCC (1),(2)
(1): Made in China	EAC (1),(2)
(2): Made in Slovakia	

Electrical accessories / wiring diagram

RSIR



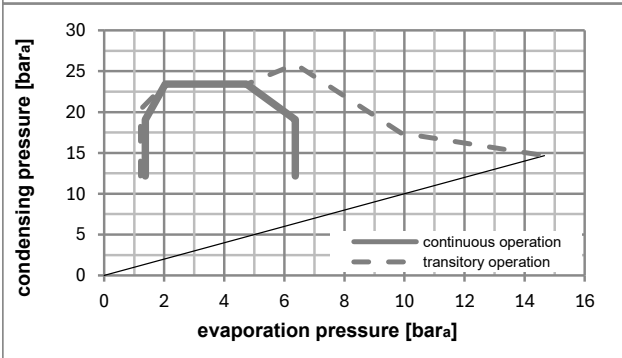
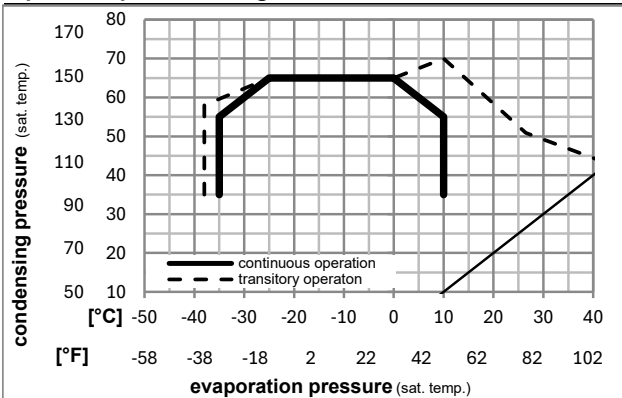
Ambient/ machine room temperatures minimum /maximum

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

a1	e-PTC starter (220V, 250hm, 4.8mm)	103N0050
b	plastic cover	103N2010
d	cord relief	103N1010

Alternative components

b	plastic cover	103N2011
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Model

Designation	NLE10CN	220-240V/50Hz	Conf. 2	Sales code:	105H6175
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Optimization + standard conditions

R290, 220V/50Hz, RSIR, fan 3m/s, VDE, CCC, EAC

		Evaporating pressure (saturation temperature)				Cooling capacity			COP	EER	Power consumption				
		Condensing pressure (saturation temperature)		Return gas temp.	Liquid temp.	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Ref. mass flow	
[°C]	[°F]	pe	pc	RGT	Tliq							[W]	[A]	[kg/h]	
-23	-10	54	32	32		485,4	1658	417,7	1,47	5,00	1,26	331,3	2,15	4,92	ASHRAE LBP
55	131	32	55	55		362,5	1238	312,0	1,14	3,88	0,98	318,8	2,11	4,51	cecomaf LBP
40	104	20	40	40		285,5	975	245,7	1,23	4,21	1,06	231,7	1,87	3,26	EN12900 LBP
54	130	35	46	46		873,2	2982	751,5	1,89	6,44	1,62	462,7	2,62	9,96	ASHRAE MBP
55	131	32	55	55		693,0	2367	596,4	1,58	5,39	1,36	439,1	2,53	8,77	cecomaf MBP
45	113	20	45	45		781,1	2667	672,2	1,96	6,70	1,69	398,0	2,39	9,59	EN12900 MBP

Performance tables

R290, 220V/50Hz, RSIR, fan 3m/s, VDE, CCC, EAC

	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]	-35	-31	274,0	936	235,8	1,16	3,96	1,00	236,0	1,89	3,07	
cond. pressure	-25	-13	436,9	1492	376,0	1,45	4,94	1,25	301,9	2,06	4,93	
pc= 45/113	-15	5	668,8	2284	575,6	1,82	6,21	1,57	367,6	2,28	7,61	
return gas temp.	-10	14	813,1	2777	699,8	2,04	6,98	1,76	398,0	2,39	9,30	
RGT= 32/90	0	32	1163,7	3974	1001,5	2,59	8,85	2,23	449,2	2,58	13,50	
liquid temp	5	41	1371,8	4685	1180,6	2,93	10,01	2,52	468,2	2,65	16,05	
Tliq= 45/113	10	50	1603,3	5475	1379,8	3,33	11,37	2,87	481,5	2,70	18,95	
[°C / °F]	-35	-31	215,5	736	185,4	0,88	3,01	0,76	244,6	1,91	2,66	
cond. pressure	-25	-13	362,5	1238	312,0	1,14	3,88	0,98	318,8	2,11	4,51	
pc= 55/131	-15	5	566,9	1936	487,9	1,42	4,85	1,22	399,1	2,38	7,13	
return gas temp	-10	14	693,0	2367	596,4	1,58	5,39	1,36	439,1	2,53	8,77	
RGT= 32/90	0	32	998,3	3409	859,2	1,94	6,63	1,67	514,5	2,82	12,82	
liquid temp	5	41	1179,4	4028	1015,0	2,15	7,35	1,85	547,9	2,96	15,29	
Tliq= 55/131	10	50	1380,9	4716	1188,4	2,39	8,17	2,06	577,2	3,09	18,11	

Model

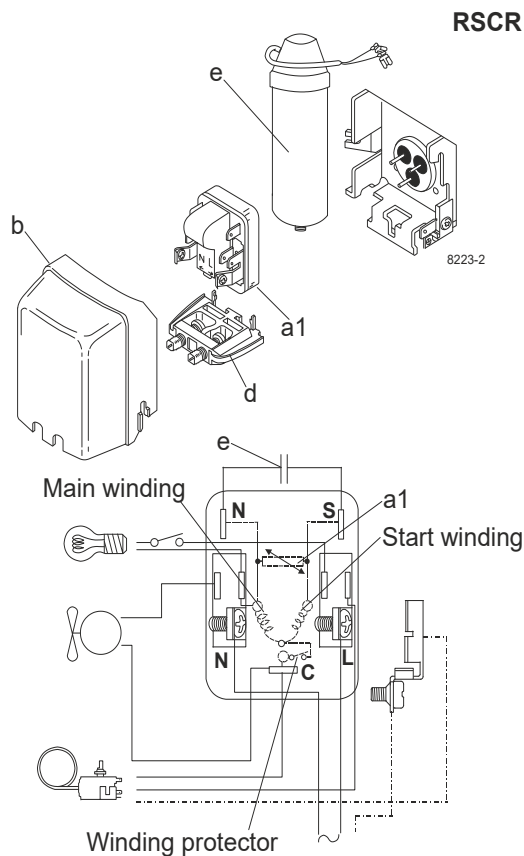
Designation	NLE10CN	220-240V/50Hz	Conf. 3	Sales code:	105H6175
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Configuration

Motorconfiguration	RSCR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE (2)
	CCC (1),(2)
	EAC (1),(2)

(1): Made in China

Electrical accessories / wiring diagram



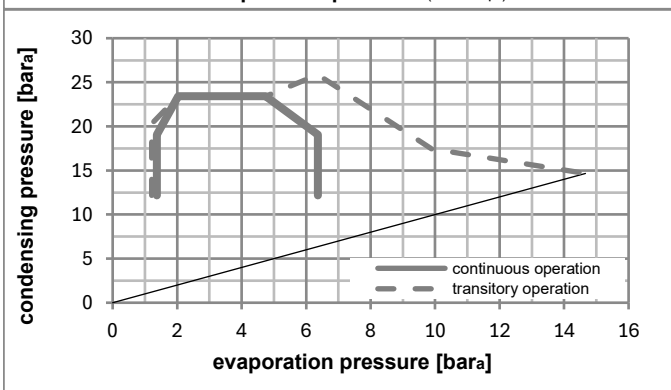
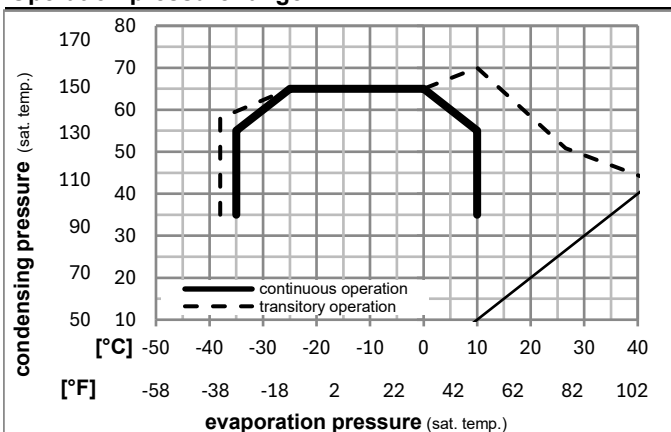
Ambient/ machine room temperatures minimum /maximum

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

a1	e-PTC starter (220V, 250hm, 4.8mm)	103N0050
e	run capacitor (4μF, 4.8mm)	117-7119
b	plastic cover	103N2010
d	cord relief	103N1010
	bracket for run capacitor	117-0300
	screw M4x8mm	117-0301

Alternative components

b	plastic cover	103N2011
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Model

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Optimization + standard conditions

R290, 220V/50Hz, RSCR, fan 3m/s, VDE, CCC, EAC

	Evaporating pressure (saturation temperature)				Cooling capacity			COP	EER	P1	Power consumption		Ref. mass flow	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]				[W]	[A]		
[°C]	-23	54	32	32	490,2	1674	421,9	1,54	5,24	1,32	319,3	1,88	4,96	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	366,2	1251	315,1	1,19	4,07	1,03	307,3	1,84	4,56	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	288,3	985	248,1	1,27	4,33	1,09	227,4	1,43	3,29	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	881,9	3012	759,0	1,99	6,79	1,71	443,7	2,30	10,06	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	700,0	2391	602,4	1,66	5,67	1,43	421,4	2,22	8,85	cecomaf MBP
[°F]	14	131	90	131										
[°C]	-10	45	20	45	788,9	2694	678,9	2,06	7,03	1,77	383,5	2,03	9,69	EN12900 MBP
[°F]	14	113	68	113										

Performance tables

R290, 220V/50Hz, RSCR, fan 3m/s, VDE, CCC, EAC

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]						[W/W]
[°C / °F]	-35	-31	276,7	945	238,2	1,20	4,08	1,03	231,6	1,46	3,10
cond. pressure	-25	-13	441,2	1507	379,7	1,51	5,14	1,30	293,1	1,72	4,98
pc= 45/113	-15	5	675,5	2307	581,3	1,90	6,50	1,64	354,8	1,94	7,68
return gas temp.	-10	14	821,3	2805	706,8	2,14	7,31	1,84	383,5	2,03	9,40
RGT= 32/90	0	32	1175,3	4014	1011,5	2,72	9,29	2,34	432,2	2,19	13,63
liquid temp	5	41	1385,5	4732	1192,4	3,08	10,51	2,65	450,4	2,24	16,21
Tliq= 45/113	10	50	1619,3	5530	1393,6	3,49	11,94	3,01	463,3	2,29	19,13
[°C / °F]	-35	-31	217,6	743	187,3	0,92	3,15	0,79	236,0	1,59	2,69
cond. pressure	-25	-13	366,2	1251	315,1	1,19	4,07	1,03	307,3	1,84	4,56
pc= 55/131	-15	5	572,6	1955	492,8	1,49	5,10	1,28	383,6	2,10	7,20
return gas temp	-10	14	700,0	2391	602,4	1,66	5,67	1,43	421,4	2,22	8,85
RGT= 32/90	0	32	1008,3	3444	867,7	2,05	7,00	1,76	491,8	2,47	12,95
liquid temp	5	41	1191,2	4068	1025,2	2,28	7,78	1,96	522,6	2,59	15,45
Tliq= 55/131	10	50	1394,7	4763	1200,3	2,54	8,67	2,18	549,4	2,71	18,29



NL Compressors





Service/Repair – R600a, R290



8545

Brazing on Suction Connectors (Direct Intake)

representative image



**! max. 150°C/302°F !
at socket**
brazing solder: phosphor (LP7) or silver

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

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