

Model

Designation	NLY10CN	115-127V/60Hz 1~	Sales code:	105H6164
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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	150g / 5,3oz		
Free gas volume comp.	2360cm ³ / 79,8fl.oz		
Weight	10,9kg / 24lbs		
Motor protection	1# internal		
Winding resistance main	1Ω (at 25°C)		
Winding resistance aux	5,4Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	120°C / 248°F		



General - Configurations with NLY10CN

	Conf. 1	Conf. 2	Conf. 3
Motorconfiguration	CSIR	RSIR	RSCR
Power supply (nominal)	115V/60Hz	115V/60Hz	115V/60Hz
Number of phases	1	1	1
Voltage range	95-135V	95-135V	95-135V
Approvals	UL	UL	UL
Starting torque	HST	LST	LST
Note	- / -		

Applications with NLY10CN

	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 NLY10CN

	Conf. 1	Conf. 2	Conf. 3
Starting device type	relay	PTC	PTC
Run capacitor	-/-	-/-	15μF
Start capacitor	125μF	-/-	-/-
LRA (locked rotor amps / 4s)	31,5A	33,1A	33,1A
RLA (rated load amps / 1s)	6,2A	6,2A	6,2A
Cut in current	31,5A	40,6A	40,6A

Model

Designation

NLY10CN

115-127V/60Hz 1~

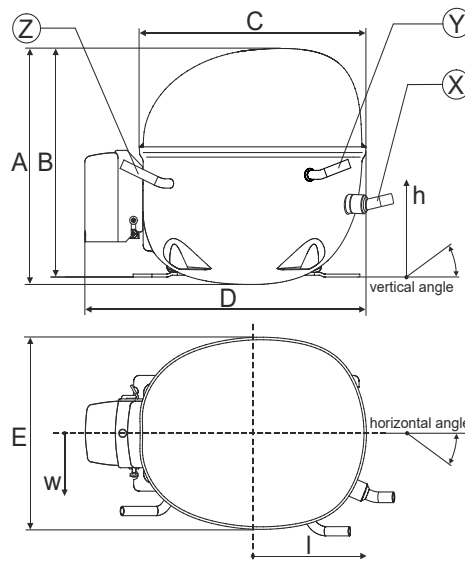
Sales code:

105H6164

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 6,41-6,59	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,25-0,26	øi 0,25-0,26
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	
Bolt joint ø1/4" ø19mm	118-1949	
Snap-on ø7,3 ø16mm	118-1947	118-1919

Application notes

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

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

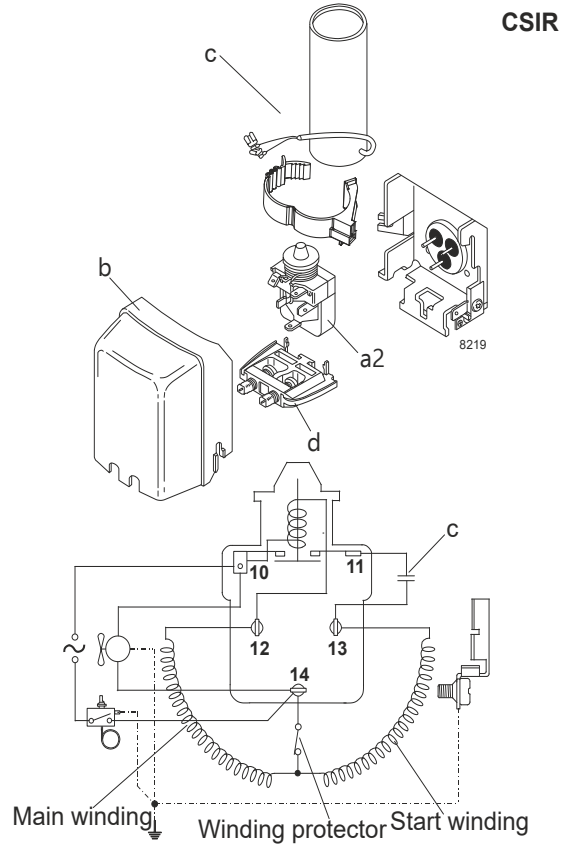
Model

Designation	NLY10CN	115V/60Hz	Conf. 1	Sales code:	105H6164
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Configuration

Motorconfiguration	CSIR	
Power supply (nominal)	115V/60Hz 1~	
Refrigerant	R290	
Application	LBP+MBP	
Voltage range	95-135V	
Starting torque	HST	
Approvals	UL	SA3693

Electrical accessories / wiring diagram



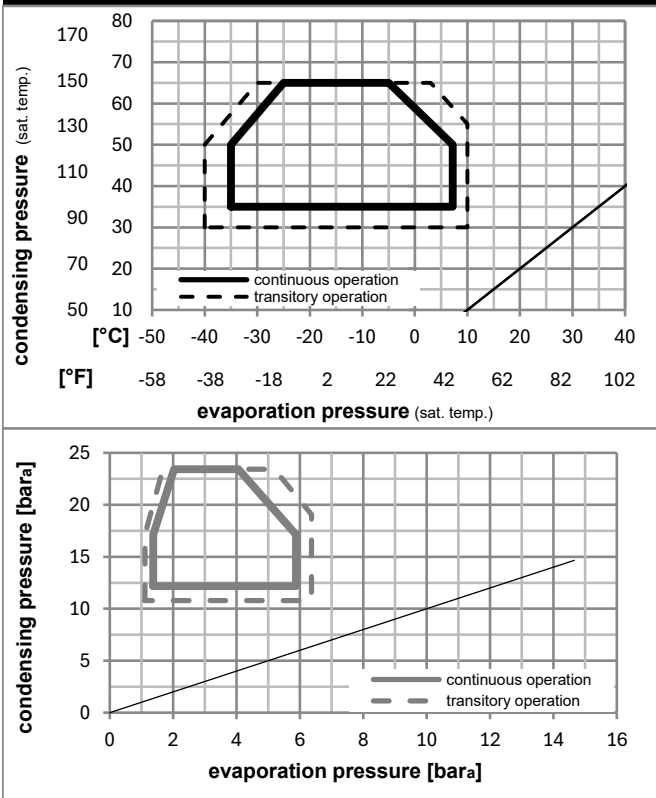
Ambient/ machine room temperatures minimum /maximum

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	117U7020
c	start capacitor (125µF, 6,3mm)	117U5035
b	plastic cover	103N2011
d	cord relief	103N1010

Model

Designation **NLY10CN** **115V/60Hz** Conf. 1 Sales code: **105H6164**

Optimization + standard conditions

R290, 115V/60Hz, CSIR, fan 3m/s, UL

	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]	-23	54	32	32	592,4	2023	509,8	1,60	5,46	1,37	370,8	4,73	6,00	
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	444,7	1519	382,7	1,24	4,25	1,07	357,5	4,64	5,54	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	339,7	1160	292,4	1,23	4,20	1,06	276,2	4,26	3,88	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	1068,8	3650	919,8	2,15	7,33	1,85	497,7	5,64	12,19	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	848,5	2898	730,2	1,78	6,10	1,54	475,4	5,48	10,73	cecomaf MBP
[°F]	14	131	90	131										
[°C]	-10	45	20	45	935,3	3194	804,9	2,14	7,31	1,84	436,7	5,24	11,48	EN12900 MBP
[°F]	14	113	68	113										

Performance tables

R290, 115V/60Hz, CSIR, fan 3m/s, UL

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]		[Btu/Wh]	[kcal/Wh]			
[°C / °F]	-35	-31	325,0	1110	279,7	1,17	3,99	1,01	278,0	4,23	3,64
cond. pressure	-23	-10	565,5	1931	486,7	1,58	5,39	1,36	358,6	4,69	6,39
pc= 45/113	-15	5	805,3	2750	693,1	1,97	6,73	1,70	408,7	5,03	9,16
return gas temp.	-9	15	993,5	3393	855,0	2,26	7,72	1,94	439,7	5,26	11,37
RGT= 32/90	-4	25	1202,4	4107	1034,8	2,56	8,75	2,20	469,5	5,49	13,87
liquid temp	0	32	1360,2	4645	1170,6	2,78	9,48	2,39	489,9	5,65	15,78
Tliq= 45/113	7,2	45	1676,0	5724	1442,4	3,18	10,85	2,73	527,5	5,95	19,69
[°C / °F]	-35	-31	292,9	1000	252,1	1,09	3,71	0,93	269,7	4,07	3,62
cond. pressure	-23	-10	479,5	1638	412,7	1,29	4,41	1,11	371,3	4,74	5,98
pc= 55/131	-15	5	692,0	2363	595,5	1,58	5,40	1,36	437,4	5,20	8,70
return gas temp	-9	15	867,1	2961	746,3	1,81	6,18	1,56	479,5	5,51	10,98
RGT= 32/90	-4	25	1067,3	3645	918,5	2,05	7,00	1,76	520,7	5,81	13,62
liquid temp	0	32	1221,3	4171	1051,1	2,22	7,59	1,91	549,3	6,01	15,69
Tliq= 55/131	7,2	45	1535,7	5245	1321,7	2,55	8,70	2,19	602,6	6,38	20,01

Model

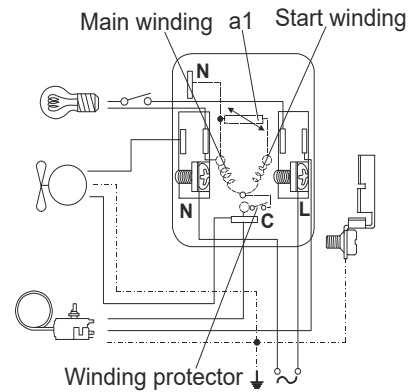
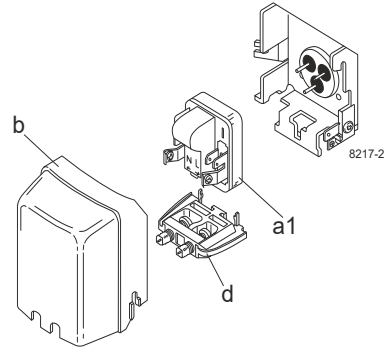
Designation	NLY10CN	115V/60Hz	Conf. 2	Sales code:	105H6164
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Configuration

Motorconfiguration	RSIR				
Power supply (nominal)	115V/60Hz 1~				
Refrigerant	R290				
Application	LBP+MBP				
Voltage range	95-135V				
Starting torque	LST				
Approvals	UL	SA3693			

Electrical accessories / wiring diagram

RSIR



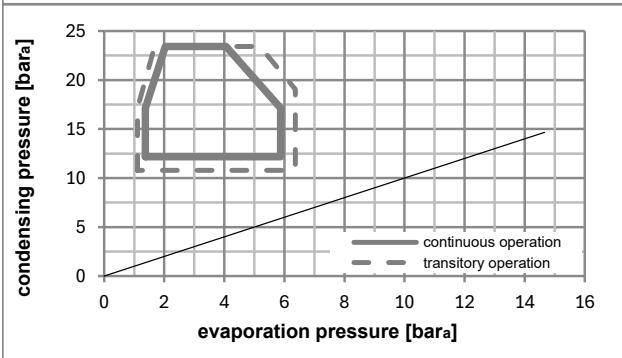
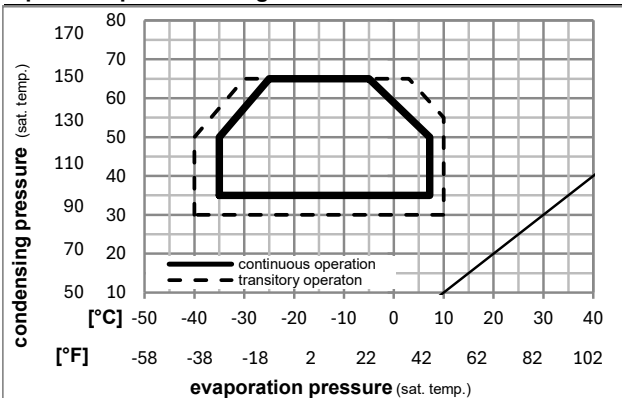
Ambient/ machine room temperatures minimum /maximum

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 (115V, 50hm, 6.3mm, 4.8-cap)	103N0057
b	plastic cover	103N2011
d	cord relief	103N1010

Alternative components

a1	e-PTC starter	103N0058
b	plastic cover	103N2011
d	cord relief	103N1010

Model

Designation	NLY10CN	115V/60Hz	Conf. 2	Sales code:	105H6164
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Optimization + standard conditions

R290, 115V/60Hz, RSIR, fan 3m/s, UL

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.		Liquid temp.		Cooling capacity			COP	EER	Power consumption			
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m							
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]							[W]	[A]	[kg/h]							
-23	-10	54	130	32	90	592,4	2023	509,8	1,60	5,46	1,37	370,8	4,73	6,00						ASHRAE LBP	
-25	-13	55	131	32	90	444,7	1519	382,7	1,24	4,25	1,07	357,5	4,64	5,54						cecomaf LBP	
-35	-31	40	104	20	68	339,7	1160	292,4	1,23	4,20	1,06	276,2	4,26	3,88						EN12900 LBP	
-7	20	54	130	35	95	1068,8	3650	919,8	2,15	7,33	1,85	497,7	5,64	12,19						ASHRAE MBP	
-10	14	55	131	32	90	848,5	2898	730,2	1,78	6,10	1,54	475,4	5,48	10,73						cecomaf MBP	
-10	14	45	113	20	68	935,3	3194	804,9	2,14	7,31	1,84	436,7	5,24	11,48						EN12900 MBP	

Performance tables

R290, 115V/60Hz, RSIR, fan 3m/s, UL

	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	325,0	1110	279,7	1,17	3,99	1,01	278,0	4,23	3,64	
cond. pressure	-23	-10	565,5	1931	486,7	1,58	5,39	1,36	358,6	4,69	6,39	
pc= 45/113	-15	5	805,3	2750	693,1	1,97	6,73	1,70	408,7	5,03	9,16	
return gas temp.	-9	15	993,5	3393	855,0	2,26	7,72	1,94	439,7	5,26	11,37	
RGT= 32/90	-4	25	1202,4	4107	1034,8	2,56	8,75	2,20	469,5	5,49	13,87	
liquid temp	0	32	1360,2	4645	1170,6	2,78	9,48	2,39	489,9	5,65	15,78	
Tliq= 45/113	7,2	45	1676,0	5724	1442,4	3,18	10,85	2,73	527,5	5,95	19,69	
[°C / °F]	-35	-31	292,9	1000	252,1	1,09	3,71	0,93	269,7	4,07	3,62	
cond. pressure	-23	-10	479,5	1638	412,7	1,29	4,41	1,11	371,3	4,74	5,98	
pc= 55/131	-15	5	692,0	2363	595,5	1,58	5,40	1,36	437,4	5,20	8,70	
return gas temp	-9	15	867,1	2961	746,3	1,81	6,18	1,56	479,5	5,51	10,98	
RGT= 32/90	-4	25	1067,3	3645	918,5	2,05	7,00	1,76	520,7	5,81	13,62	
liquid temp	0	32	1221,3	4171	1051,1	2,22	7,59	1,91	549,3	6,01	15,69	
Tliq= 55/131	7,2	45	1535,7	5245	1321,7	2,55	8,70	2,19	602,6	6,38	20,01	

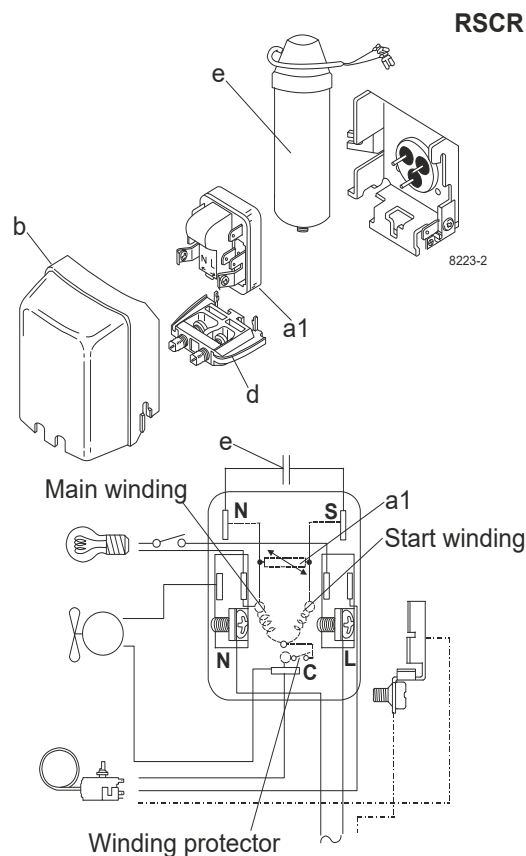
Model

Designation	NLY10CN	115V/60Hz	Conf. 3	Sales code:	105H6164
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Configuration

Motorconfiguration	RSCR	
Power supply (nominal)	115V/60Hz 1~	
Refrigerant	R290	
Application	LBP+MBP	
Voltage range	95-135V	
Starting torque	LST	
Approvals	UL	SA3693

Electrical accessories / wiring diagram



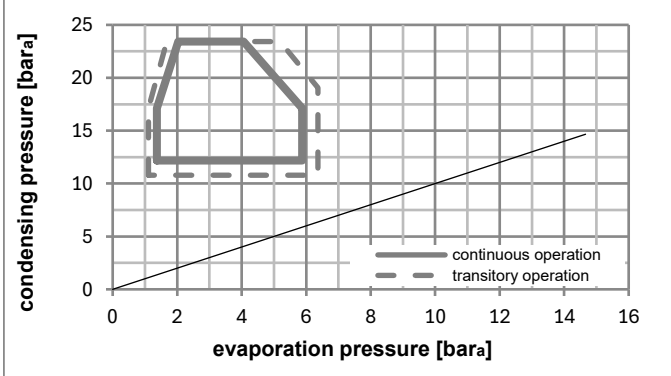
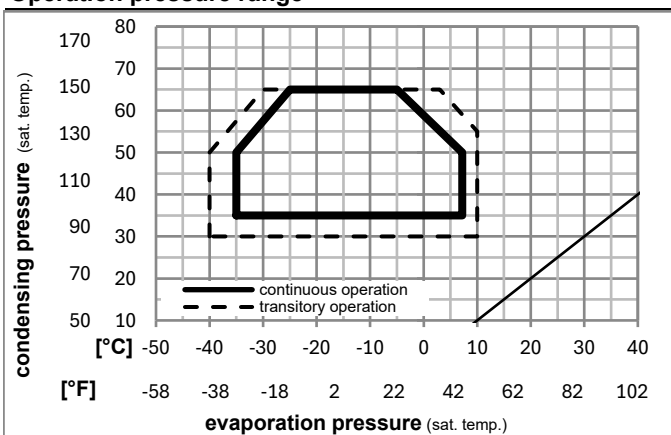
Ambient/ machine room temperatures minimum /maximum

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	103N0058
e	run capacitor (15 μ F, 6.3mm)	117-7118
b	plastic cover	103N2011
d	cord relief	103N1010
	bracket for run capacitor	117-0300
	screw M4x8mm	117-0301

Alternative components

a1	e-PTC starter (115V, 50 Ω , 6.3mm, 4.8-cap)	103N0057
e	run capacitor (15 μ F, 4.8mm)	117-7120
b	plastic cover	103N2011
d	cord relief	103N1010
	bracket for run capacitor	117-0300
	screw M4x8mm	117-0301

Model

Designation	NLY10CN	115V/60Hz	Conf. 3	Sales code:	105H6164
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Optimization + standard conditions

R290, 115V/60Hz, RSCR, fan 3m/s, UL

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.		Liquid temp.		Cooling capacity			COP	EER	Power consumption		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Current consumption		Ref. mass flow				
[°C]	[°F]											[W]	[A]	[A]		[kg/h]				
-23	-10	54	130	32	90	597,4	2040	514,1	1,69	5,76	1,45	353,9	4,52			6,05	ASHRAE LBP			
54	130	32	90	32	90	449,3	1535	386,7	1,32	4,50	1,13	340,7	4,42			5,59	cecomaf LBP			
-25	-13	55	131	32	90	449,3	1535	386,7	1,32	4,50	1,13	340,7	4,42			5,59	cecomaf LBP			
-35	-31	40	104	20	68	342,0	1168	294,3	1,31	4,47	1,13	261,5	4,03			3,91	EN12900 LBP			
40	104	20	68	20	68	1082,4	3697	931,5	2,30	7,84	1,98	471,4	5,34			12,35	ASHRAE MBP			
-7	20	54	130	35	95	1082,4	3697	931,5	2,30	7,84	1,98	471,4	5,34			12,35	ASHRAE MBP			
-10	14	55	131	32	90	858,5	2932	738,9	1,90	6,50	1,64	450,9	5,20			10,86	cecomaf MBP			
55	131	32	90	32	90	858,5	2932	738,9	1,90	6,50	1,64	450,9	5,20			10,86	cecomaf MBP			
-10	14	45	113	20	68	943,5	3222	812,0	2,26	7,73	1,95	416,7	4,99			11,58	EN12900 MBP			
45	113	20	68	20	68	943,5	3222	812,0	2,26	7,73	1,95	416,7	4,99			11,58	EN12900 MBP			

Performance tables

R290, 115V/60Hz, RSCR, fan 3m/s, UL

	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	331,1	1131	284,9	1,27	4,34	1,09	260,7	3,97	3,71	
cond. pressure	-23	-10	568,4	1941	489,2	1,66	5,66	1,43	343,1	4,49	6,42	
pc= 45/113	-15	5	811,0	2770	698,0	2,08	7,09	1,79	390,9	4,81	9,23	
return gas temp.	-9	15	1002,3	3423	862,6	2,39	8,16	2,06	419,5	5,01	11,47	
RGT= 32/90	-4	25	1214,6	4148	1045,3	2,72	9,28	2,34	446,9	5,22	14,01	
liquid temp	0	32	1374,5	4694	1182,9	2,95	10,08	2,54	465,8	5,37	15,94	
Tliq= 45/113	7,2	45	1693,2	5783	1457,2	3,37	11,53	2,90	501,7	5,65	19,89	
[°C / °F]	-35	-31	306,2	1046	263,5	1,22	4,16	1,05	251,3	3,80	3,79	
cond. pressure	-23	-10	483,8	1652	416,4	1,37	4,67	1,18	354,1	4,52	6,03	
pc= 55/131	-15	5	698,4	2385	601,0	1,68	5,73	1,44	416,4	4,96	8,78	
return gas temp	-9	15	877,7	2997	755,4	1,93	6,59	1,66	454,6	5,22	11,11	
RGT= 32/90	-4	25	1083,4	3700	932,4	2,20	7,53	1,90	491,4	5,48	13,83	
liquid temp	0	32	1241,9	4241	1068,8	2,40	8,20	2,07	517,0	5,66	15,95	
Tliq= 55/131	7,2	45	1564,9	5345	1346,8	2,77	9,46	2,38	565,1	5,98	20,39	