

Technical Data Sheet

Compressor model **NUY120NAa**
Voltage **220-240V 50Hz ~1**
Refrigerant **R290**
Compressor status

APPLICATION

COMPRESSOR

MOTOR

Application	Low-Medium Back Pressure	Displacement	12,50 cm ³	Voltage/Frequency	220-240V 50Hz
Refrigerant	R290	Diameter	27,00 mm	Voltage range	198-255 V
Evaporating Temp.	-40,0 °C to 0,0 °C	Stroke	21,13 mm	Type	CSIR
Expansion	Capillar/Valve	Net Weight	12,41 Kg	Phase number	1 PH
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Locked Rotor Amps (LRA)	17,40 A
Max. ambient temp.	43,0 °C	Oil charge	300 cm ³	Max. Cont. Current (MCC)	3,90 A
		HP	3/8 hp	Main W. resist. at 25°C	5,30 Ω
				Start W. resist. at 25°C	17,50 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	501 kCal/h	433 W
COP	1,40 W/W	1,08 W/W
EER	1,21 kCal/Wh	0,94 kCal/Wh
Input Power	415 W	400 W
Current	2,76 A	2,71 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE LMBP (B)	CECOMAF LMBP (A)
Evaporating temp. (T _e)	-23,3 °C	-25,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	32,0 °C	55,0 °C
Ambient temp. (T _{amb.})	32,0 °C	32,0 °C
Suction temp. (T _{suction})	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	60-61 µF 330 V			
Relay	Option 1	Option 2		
Reference	QLZ-7.8A	2014 149.		
Pick-Up	7,80 A	7,80 A		
Drop-Out	6,65 A	6,65 A		
Protector	Option 1			
Reference	B96-105P			
Current	11,50 A			
Time check	7,5-16 seg			
Disc temp. (Open/Close)	110,00 / 52,00 °C			

This product is approved for R290 and R600a regarding explosion safety according to standard EN 60335-1 and EN 60335-2-34

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	253	278	2,29	1,06	0,91
40	-35	325	307	2,38	1,23	1,06
40	-30	417	337	2,49	1,44	1,24
40	-25	528	368	2,59	1,67	1,44
40	-23,3	571	379	2,63	1,75	1,51
40	-20	659	400	2,71	1,91	1,64
40	-15	808	434	2,83	2,17	1,86
40	-10	977	469	2,95	2,42	2,08
40	-5	1.165	505	3,08	2,69	2,31
40	0	1.373	542	3,22	2,95	2,53

45	-40	236	277	2,28	0,99	0,85
45	-35	307	310	2,39	1,15	0,99
45	-30	397	344	2,51	1,34	1,15
45	-25	506	379	2,63	1,55	1,34
45	-23,3	547	391	2,67	1,63	1,40
45	-20	634	415	2,76	1,78	1,53
45	-15	782	452	2,89	2,01	1,73
45	-10	949	491	3,03	2,25	1,93
45	-5	1.135	530	3,18	2,49	2,14
45	0	1.340	571	3,33	2,73	2,35

50	-40	220	277	2,28	0,92	0,79
50	-35	288	313	2,41	1,07	0,92
50	-30	376	351	2,53	1,25	1,07
50	-25	483	390	2,67	1,44	1,24
50	-23,3	524	403	2,72	1,51	1,30
50	-20	610	429	2,81	1,65	1,42
50	-15	755	471	2,96	1,87	1,61
50	-10	920	513	3,11	2,09	1,79
50	-5	1.104	556	3,28	2,31	1,99
50	0	1.308	601	3,45	2,53	2,18

55	-40	203	276	2,28	0,86	0,74
55	-35	270	316	2,42	0,99	0,85
55	-30	356	358	2,56	1,16	0,99
55	-25	461	400	2,71	1,34	1,15
55	-23,3	501	415	2,76	1,40	1,21
55	-20	585	444	2,86	1,53	1,32
55	-15	729	489	3,03	1,73	1,49
55	-10	892	535	3,20	1,94	1,67
55	-5	1.074	582	3,37	2,15	1,85
55	0	1.275	630	3,56	2,35	2,02

60	-40	187	276	2,28	0,79	0,68
60	-35	251	320	2,43	0,91	0,79
60	-30	335	365	2,58	1,07	0,92
60	-25	438	411	2,75	1,24	1,07
60	-23,3	478	427	2,80	1,30	1,12
60	-20	561	458	2,92	1,42	1,22
60	-15	702	507	3,09	1,61	1,39
60	-10	863	557	3,28	1,80	1,55
60	-5	1.043	608	3,47	2,00	1,72
60	0	1.243	660	3,68	2,19	1,88

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	273	278	2,29	0,98	0,85
40	-35	363	307	2,38	1,18	1,02
40	-30	470	337	2,49	1,40	1,21
40	-25	596	368	2,59	1,62	1,40
40	-23,3	642	379	2,63	1,70	1,46
40	-20	739	400	2,71	1,85	1,59
40	-15	900	434	2,83	2,07	1,79
40	-10	1.078	469	2,95	2,30	1,99
40	-5	1.275	505	3,08	2,53	2,18
40	0	1.489	542	3,22	2,75	2,38

45	-40	246	277	2,28	0,89	0,77
45	-35	327	310	2,39	1,05	0,91
45	-30	425	344	2,51	1,24	1,07
45	-25	542	379	2,63	1,43	1,24
45	-23,3	585	391	2,67	1,50	1,29
45	-20	676	415	2,76	1,63	1,41
45	-15	828	452	2,89	1,83	1,58
45	-10	997	491	3,03	2,03	1,76
45	-5	1.185	530	3,18	2,23	1,93
45	0	1.390	571	3,33	2,43	2,10

50	-40	218	277	2,28	0,79	0,68
50	-35	290	313	2,41	0,93	0,80
50	-30	380	351	2,53	1,08	0,94
50	-25	488	390	2,67	1,25	1,08
50	-23,3	528	403	2,72	1,31	1,13
50	-20	613	429	2,81	1,43	1,23
50	-15	756	471	2,96	1,61	1,39
50	-10	917	513	3,11	1,79	1,54
50	-5	1.095	556	3,28	1,97	1,70
50	0	1.291	601	3,45	2,15	1,86

55	-40	191	276	2,28	0,69	0,60
55	-35	254	316	2,42	0,80	0,69
55	-30	335	358	2,56	0,94	0,81
55	-25	433	400	2,71	1,08	0,94
55	-23,3	471	415	2,76	1,14	0,98
55	-20	550	444	2,86	1,24	1,07
55	-15	684	489	3,03	1,40	1,21
55	-10	836	535	3,20	1,56	1,35
55	-5	1.005	582	3,37	1,73	1,49
55	0	1.192	630	3,56	1,89	1,64

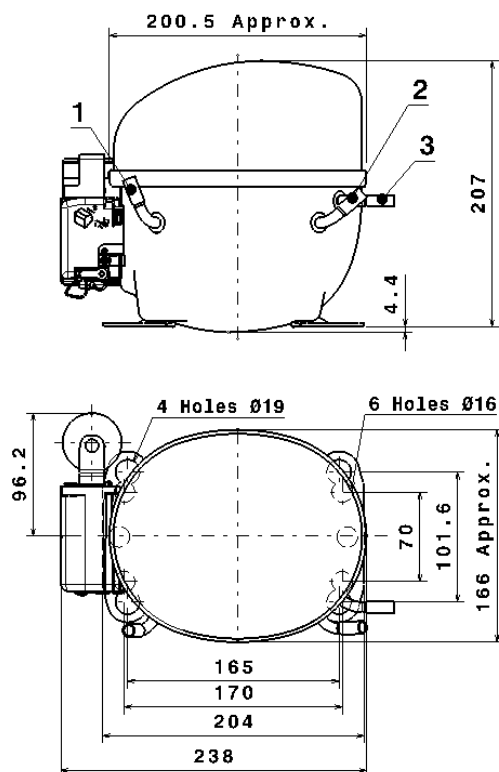
60	-40	164	276	2,28	0,60	0,51
60	-35	218	320	2,43	0,68	0,59
60	-30	290	365	2,58	0,79	0,69
60	-25	379	411	2,75	0,92	0,80
60	-23,3	414	427	2,80	0,97	0,84
60	-20	487	458	2,92	1,06	0,92
60	-15	612	507	3,09	1,21	1,04
60	-10	755	557	3,28	1,36	1,17
60	-5	915	608	3,47	1,51	1,30
60	0	1.094	660	3,68	1,66	1,43

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.278,1361373313	313,6846930692	2,3385596398	20,760364029077
2	58,6909012076	1,6597614253	0,0066156949	0,60965365171019
3	-20,3332102932	6,0580677221	0,0234036968	-0,082879372494956
4	0,3469854120	0,0251912790	0,0001531185	0,0052024137576591
5	-0,3719059255	0,1540058696	0,0005936692	-0,0010633346642171

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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COMPRESSOR DIMENSIONS

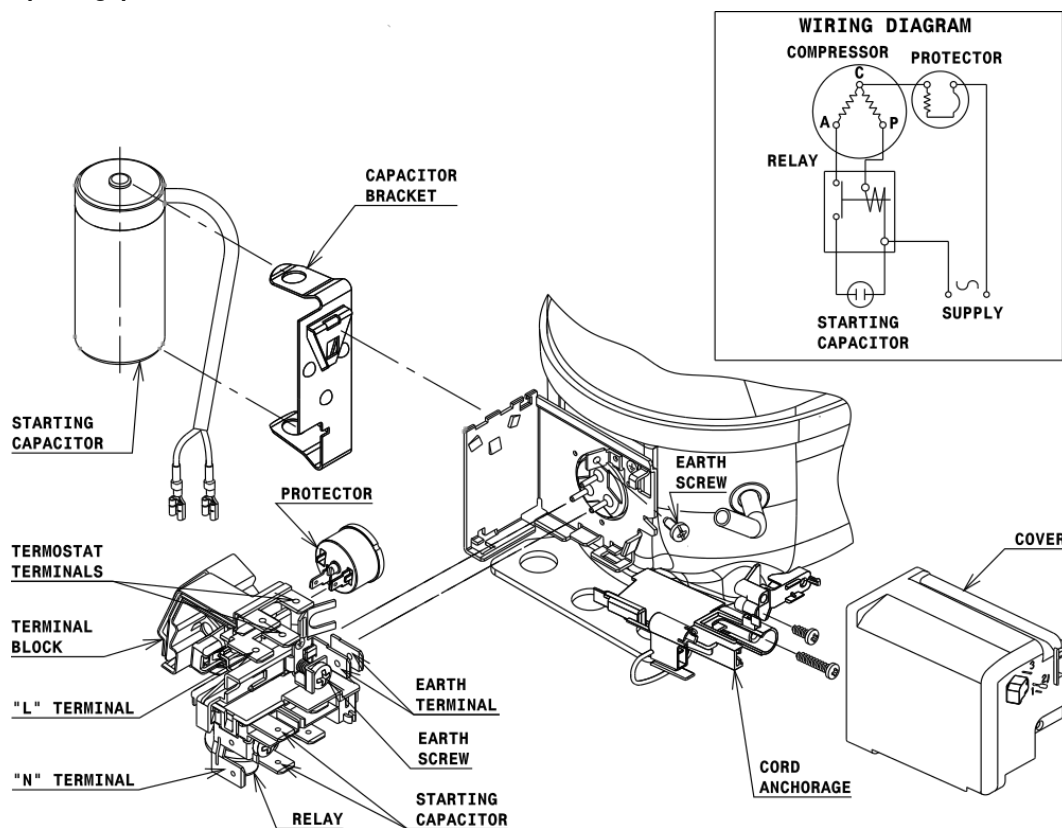


DESIGNATION INTERNAL DIAM.

1	Service	8,1 mm
2	Suction	8,1 mm
3	Discharge	6,5 mm

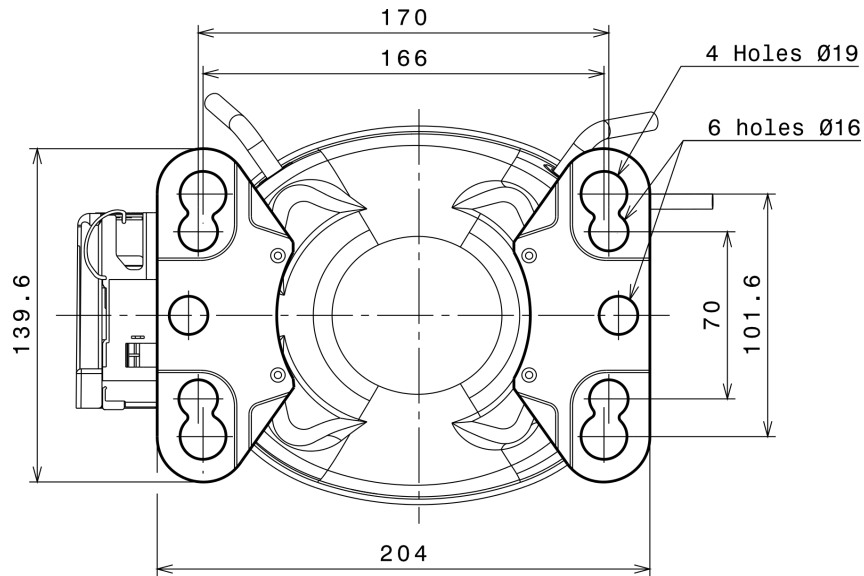
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (U range)



Technical Data Sheet

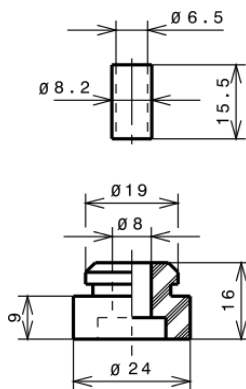
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

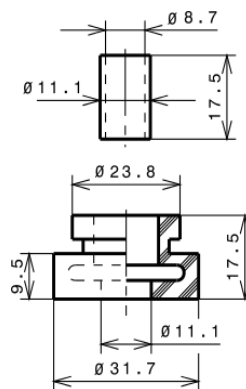
STANDARD

Ø16 holes (170x70 net)



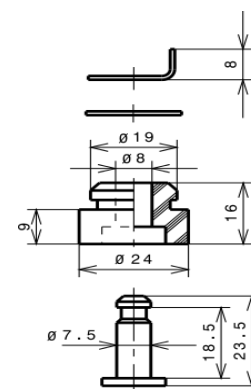
AMERICAN FEET

Ø19 holes (166x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R290 LMBP

