

# Technical Data Sheet

Compressor model **NLY75RAa**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R290**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	7,36 cm <sup>3</sup>	Nominal Power	3/8 hp
Refrigerant	R290	Diameter	24,27 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	15,90 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	10,49 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 46 MINER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	400 cm <sup>3</sup>	Locked Rotor Amps (LRA)	12,50 A
				Max. Cont. Current (MCC)	3,60 A
				Main W. resist. at 25°C	8,62 Ω
				Start W. resist. at 25°C	11,60 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	883 kCal/h	862 W
COP	2,64 W/W	2,25 W/W
EER	2,27 kCal/Wh	1,94 kCal/Wh
Input Power	389 W	384 W
Current	2,54 A	2,52 A

## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	64- 77 μF 330 V			
Relay	Option 1			
Reference	2014 149.			
Pick-Up	7,80 A			
Drop-Out	6,65 A			
Protector	Option 1			
Reference	T0266			
Current	11,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 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	-25	319	235	2,09	1,58	1,36
40	-20	401	252	2,13	1,85	1,59
40	-15	497	268	2,17	2,16	1,86
40	-10	607	281	2,20	2,51	2,16
40	-5	732	293	2,23	2,90	2,50
40	0	871	303	2,26	3,34	2,87
40	5	1.024	311	2,28	3,83	3,29
40	7,2	1.096	314	2,29	4,06	3,49
40	10	1.191	317	2,30	4,37	3,76

45	-25	289	236	2,10	1,42	1,22
45	-20	365	257	2,14	1,65	1,42
45	-15	455	276	2,19	1,91	1,65
45	-10	559	294	2,23	2,21	1,90
45	-5	677	309	2,27	2,55	2,19
45	0	809	323	2,31	2,92	2,51
45	5	956	334	2,35	3,32	2,86
45	7,2	1.025	339	2,36	3,52	3,02
45	10	1.117	344	2,38	3,77	3,24

50	-25	260	237	2,10	1,27	1,09
50	-20	329	262	2,15	1,46	1,26
50	-15	412	285	2,21	1,68	1,45
50	-10	510	306	2,26	1,94	1,67
50	-5	622	325	2,32	2,22	1,91
50	0	748	342	2,38	2,54	2,18
50	5	888	358	2,43	2,89	2,48
50	7,2	954	364	2,45	3,05	2,62
50	10	1.042	371	2,47	3,26	2,81

55	-25	230	238	2,10	1,12	0,97
55	-20	293	267	2,16	1,28	1,10
55	-15	370	293	2,23	1,47	1,26
55	-10	461	318	2,30	1,69	1,45
55	-5	566	341	2,37	1,93	1,66
55	0	686	362	2,44	2,20	1,89
55	5	820	381	2,51	2,50	2,15
55	7,2	883	389	2,54	2,64	2,27
55	10	968	398	2,58	2,82	2,43

60	-25	201	239	2,10	0,98	0,84
60	-20	257	271	2,17	1,10	0,95
60	-15	327	302	2,25	1,26	1,09
60	-10	412	330	2,34	1,45	1,25
60	-5	511	357	2,42	1,67	1,43
60	0	624	382	2,51	1,90	1,64
60	5	751	405	2,60	2,16	1,86
60	7,2	812	414	2,64	2,28	1,96
60	10	893	426	2,69	2,44	2,10

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	342	236	2,10	1,45	1,25
40	-20	432	254	2,13	1,70	1,47
40	-15	536	269	2,17	1,99	1,72
40	-10	655	283	2,20	2,31	2,00
40	-5	789	295	2,23	2,67	2,31
40	0	937	305	2,26	3,07	2,66
40	5	1.101	313	2,29	3,52	3,04
40	7,2	1.177	316	2,29	3,72	3,22
40	10	1.279	319	2,30	4,00	3,46

45	-25	309	237	2,10	1,30	1,13
45	-20	391	258	2,14	1,51	1,31
45	-15	487	278	2,19	1,75	1,52
45	-10	599	295	2,24	2,03	1,75
45	-5	725	311	2,28	2,33	2,01
45	0	866	325	2,32	2,67	2,30
45	5	1.021	337	2,36	3,03	2,62
45	7,2	1.094	341	2,37	3,21	2,77
45	10	1.192	347	2,39	3,44	2,97

50	-25	276	238	2,10	1,16	1,00
50	-20	350	263	2,16	1,33	1,15
50	-15	439	286	2,21	1,53	1,32
50	-10	542	308	2,27	1,76	1,52
50	-5	660	327	2,33	2,02	1,75
50	0	794	344	2,38	2,30	1,99
50	5	942	360	2,44	2,61	2,26
50	7,2	1.011	366	2,46	2,76	2,38
50	10	1.104	374	2,48	2,95	2,55

55	-25	243	239	2,10	1,01	0,88
55	-20	309	268	2,17	1,15	1,00
55	-15	390	295	2,23	1,32	1,14
55	-10	486	320	2,31	1,52	1,31
55	-5	596	343	2,38	1,74	1,50
55	0	722	364	2,45	1,98	1,71
55	5	862	384	2,52	2,25	1,94
55	7,2	928	392	2,55	2,37	2,05
55	10	1.017	401	2,59	2,54	2,19

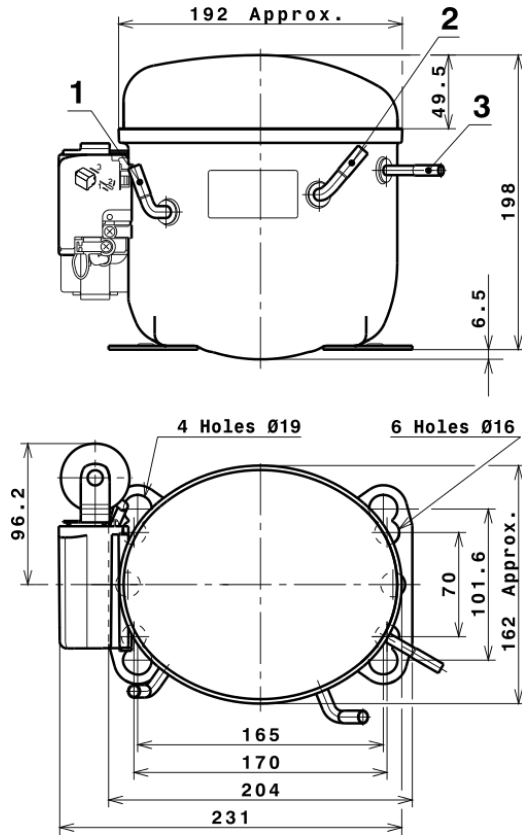
60	-25	209	240	2,10	0,87	0,75
60	-20	268	273	2,18	0,98	0,85
60	-15	341	303	2,26	1,12	0,97
60	-10	429	332	2,34	1,29	1,12
60	-5	532	359	2,43	1,48	1,28
60	0	650	384	2,52	1,69	1,46
60	5	782	407	2,61	1,92	1,66
60	7,2	845	417	2,65	2,03	1,75
60	10	930	428	2,70	2,17	1,87

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.513,7571441082	150,4014458319	1,6673467396	13,807768221677
2	43,6899560594	-4,2255930528	-0,0161314525	0,43418325398829
3	-14,7567051573	4,0677270479	0,0147979977	-0,072151233425027
4	0,2908854144	-0,0361363243	0,0000314180	0,0046279427138159
5	-0,3227107611	0,1544815552	0,0005746375	-0,00094647645448933

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

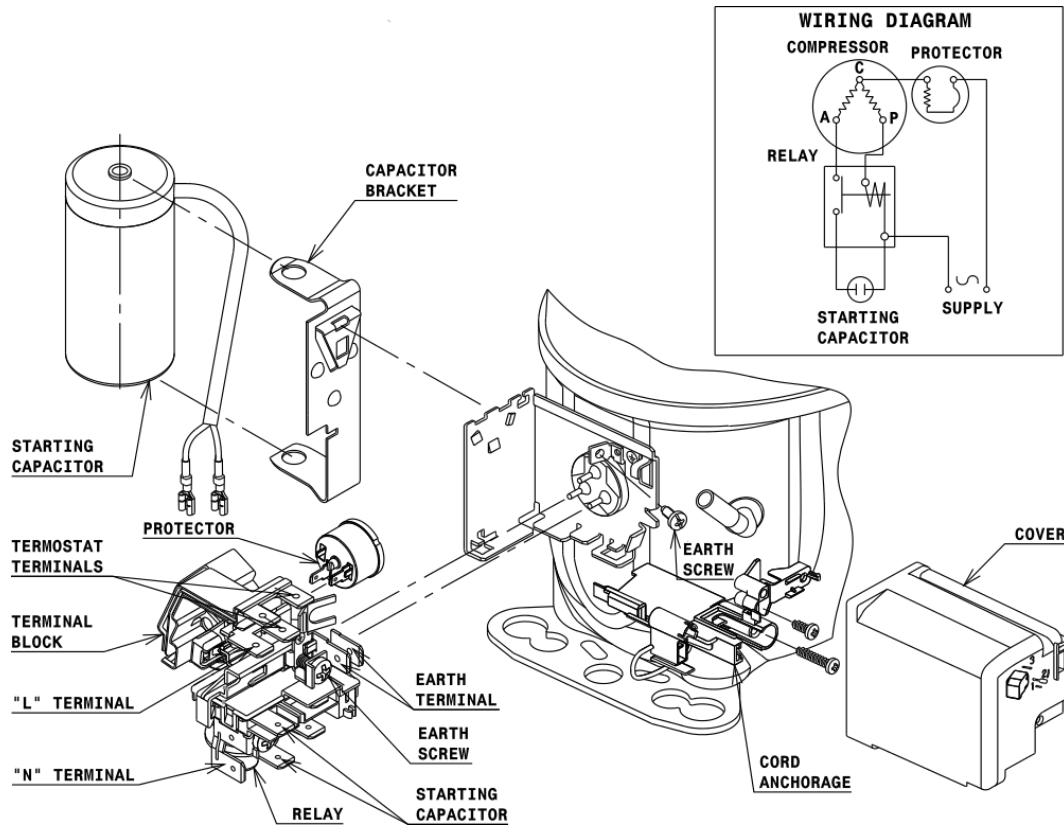


## DESIGNATION INTERNAL DIAM.

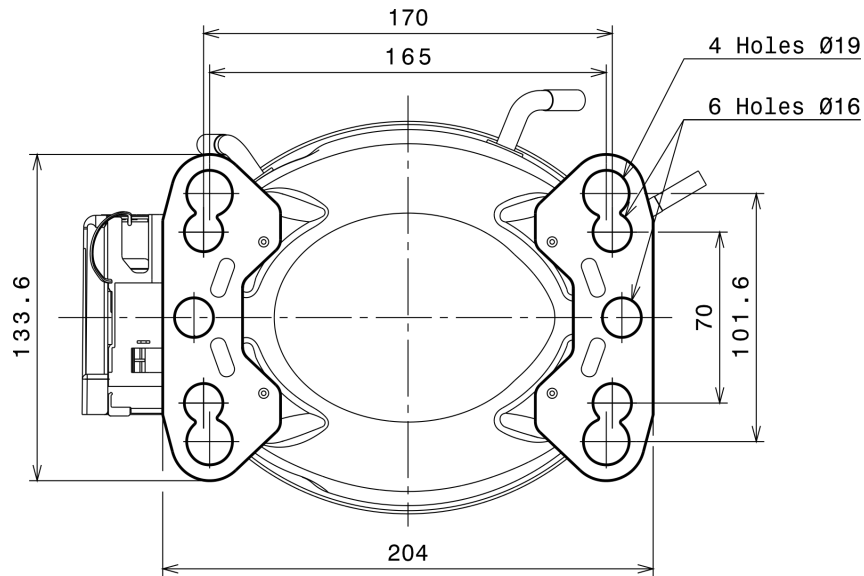
DESIGNATION	INTERNAL DIAM.
1 Suction	6,5 mm
2 Service	6,5 mm
3 Discharge	4,9 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



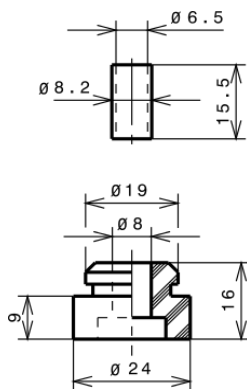
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

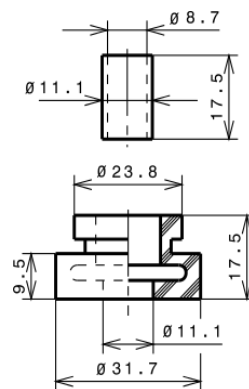
### STANDARD

$\varnothing 16$  holes (170x70 net)



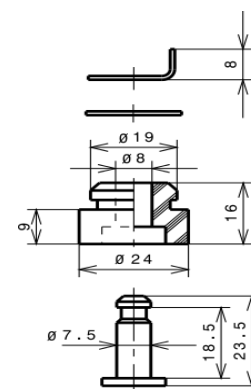
### AMERICAN FEET

$\varnothing 19$  holes (165x101.6 net)



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R290 HMBP

