

# Technical Data Sheet

Compressor model **NLY12NRa**  
 Voltage **115-127V 60Hz ~1**  
 Refrigerant **R290**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low-Medium Back Pressure	Displacement	10,70 cm <sup>3</sup>	Nominal Power	1/3 hp
Refrigerant	R290	Diameter	25,40 mm	Voltage/Frequency	115-127V 60Hz
Evaporating Temp.	-40,0 °C to 0,0 °C	Stroke	21,12 mm	Voltage range	103-140 V
Expansion	Capillar/Valve	Net Weight	10,94 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	395 cm <sup>3</sup>	Locked Rotor Amps (LRA)	42,00 A
				Max. Cont. Current (MCC)	8,80 A
				Main W. resist. at 25°C	1,00 Ω
				Start W. resist. at 25°C	6,50 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	505 kCal/h	437 W
COP	1,42 W/W	1,10 W/W
EER	1,22 kCal/Wh	0,95 kCal/Wh
Input Power	415 W	398 W
Current	5,35 A	5,24 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LMBP (B)	CECOMAF LMBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °C	32,0 °C
Voltage/Frequency	115 V 60 Hz	115 V 60 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	250 µF 160 V			
Relay	Option 1	Option 2		
Reference	2014 187.	QLZ-20.3A		
Pick-Up	20,30 A	20.3 A		
Drop-Out	17,25 A	17.25 A		
Protector	Option 1			
Reference	T0258			
Current	23,50 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	120,00 / 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	214	256	4,42	0,97	0,83
40	-35	290	295	4,63	1,14	0,98
40	-30	384	337	4,87	1,33	1,14
40	-25	496	380	5,13	1,52	1,31
40	-23,3	539	396	5,23	1,58	1,36
40	-20	626	426	5,42	1,71	1,47
40	-15	775	474	5,75	1,90	1,63
40	-10	941	524	6,10	2,09	1,80
40	-5	1.125	576	6,50	2,27	1,95
40	0	1.327	631	6,93	2,45	2,10

45	-40	209	256	4,42	0,95	0,82
45	-35	283	297	4,64	1,11	0,95
45	-30	376	341	4,89	1,28	1,10
45	-25	486	386	5,17	1,46	1,26
45	-23,3	527	402	5,27	1,53	1,31
45	-20	614	434	5,47	1,65	1,42
45	-15	760	484	5,81	1,83	1,57
45	-10	924	536	6,19	2,01	1,73
45	-5	1.106	590	6,60	2,18	1,88
45	0	1.306	646	7,06	2,35	2,02

50	-40	205	256	4,42	0,93	0,80
50	-35	277	299	4,65	1,08	0,93
50	-30	367	344	4,91	1,24	1,07
50	-25	475	392	5,20	1,41	1,21
50	-23,3	516	409	5,31	1,47	1,26
50	-20	601	442	5,52	1,58	1,36
50	-15	746	493	5,88	1,76	1,51
50	-10	908	547	6,28	1,93	1,66
50	-5	1.088	603	6,71	2,10	1,80
50	0	1.286	662	7,19	2,26	1,94

55	-40	200	256	4,42	0,91	0,78
55	-35	270	301	4,66	1,04	0,90
55	-30	359	348	4,94	1,20	1,03
55	-25	465	398	5,24	1,36	1,17
55	-23,3	505	415	5,35	1,42	1,22
55	-20	589	449	5,58	1,52	1,31
55	-15	731	503	5,95	1,69	1,45
55	-10	891	559	6,36	1,85	1,59
55	-5	1.069	617	6,82	2,02	1,73
55	0	1.265	677	7,32	2,17	1,87

60	-40	196	256	4,42	0,89	0,76
60	-35	264	303	4,67	1,01	0,87
60	-30	350	352	4,96	1,16	0,99
60	-25	454	404	5,28	1,31	1,13
60	-23,3	494	421	5,39	1,36	1,17
60	-20	576	457	5,63	1,47	1,26
60	-15	717	513	6,02	1,63	1,40
60	-10	875	570	6,45	1,78	1,53
60	-5	1.051	630	6,93	1,94	1,67
60	0	1.245	693	7,45	2,09	1,80

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	232	256	4,42	0,91	0,78
40	-35	325	295	4,63	1,10	0,95
40	-30	435	337	4,87	1,29	1,12
40	-25	561	380	5,13	1,48	1,28
40	-23,3	608	396	5,23	1,54	1,33
40	-20	704	426	5,42	1,65	1,43
40	-15	863	474	5,75	1,82	1,57
40	-10	1.039	524	6,10	1,98	1,71
40	-5	1.232	576	6,50	2,14	1,85
40	0	1.441	631	6,93	2,29	1,97

45	-40	218	256	4,42	0,85	0,73
45	-35	302	297	4,64	1,02	0,88
45	-30	403	341	4,89	1,18	1,02
45	-25	520	386	5,17	1,35	1,16
45	-23,3	564	402	5,27	1,40	1,21
45	-20	654	434	5,47	1,51	1,30
45	-15	804	484	5,81	1,66	1,44
45	-10	971	536	6,19	1,81	1,57
45	-5	1.155	590	6,60	1,96	1,69
45	0	1.355	646	7,06	2,10	1,81

50	-40	203	256	4,42	0,79	0,69
50	-35	278	299	4,65	0,93	0,80
50	-30	370	344	4,91	1,07	0,93
50	-25	479	392	5,20	1,22	1,05
50	-23,3	519	409	5,31	1,27	1,10
50	-20	603	442	5,52	1,37	1,18
50	-15	745	493	5,88	1,51	1,30
50	-10	903	547	6,28	1,65	1,43
50	-5	1.078	603	6,71	1,79	1,54
50	0	1.269	662	7,19	1,92	1,66

55	-40	188	256	4,42	0,74	0,64
55	-35	255	301	4,66	0,85	0,73
55	-30	338	348	4,94	0,97	0,84
55	-25	437	398	5,24	1,10	0,95
55	-23,3	475	415	5,35	1,14	0,99
55	-20	553	449	5,58	1,23	1,06
55	-15	686	503	5,95	1,36	1,18
55	-10	835	559	6,36	1,49	1,29
55	-5	1.001	617	6,82	1,62	1,40
55	0	1.183	677	7,32	1,75	1,51

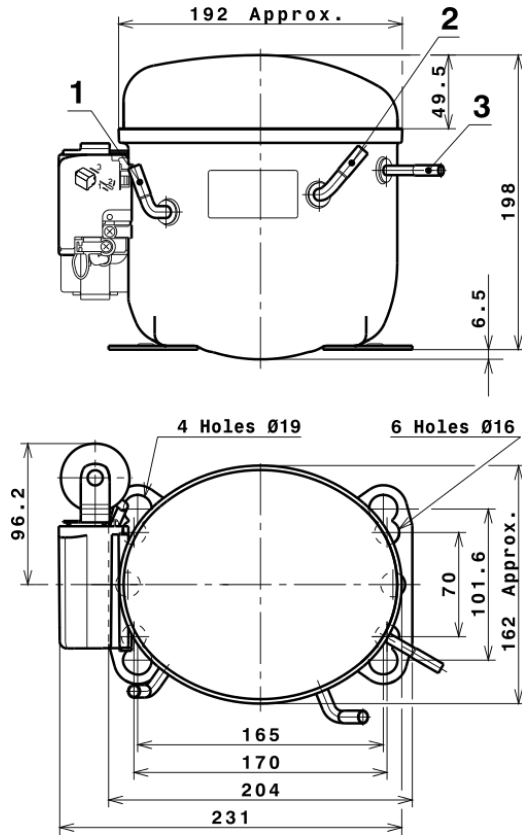
60	-40	174	256	4,42	0,68	0,59
60	-35	231	303	4,67	0,76	0,66
60	-30	305	352	4,96	0,87	0,75
60	-25	396	404	5,28	0,98	0,85
60	-23,3	430	421	5,39	1,02	0,88
60	-20	503	457	5,63	1,10	0,95
60	-15	627	513	6,02	1,22	1,06
60	-10	767	570	6,45	1,34	1,16
60	-5	924	630	6,93	1,47	1,27
60	0	1.097	693	7,45	1,58	1,37

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.128,8411203502	520,0697120771	5,9751479586	18,955514082259
2	57,4973320348	8,3183538805	0,0690908992	0,59303221716288
3	-17,7841471782	3,1830525320	0,0272979209	-0,052374364341306
4	0,3237374801	0,0463825778	0,0007734748	0,0048843340006232
5	-0,3700006763	0,0795763133	0,0006824480	-0,001033565805034

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

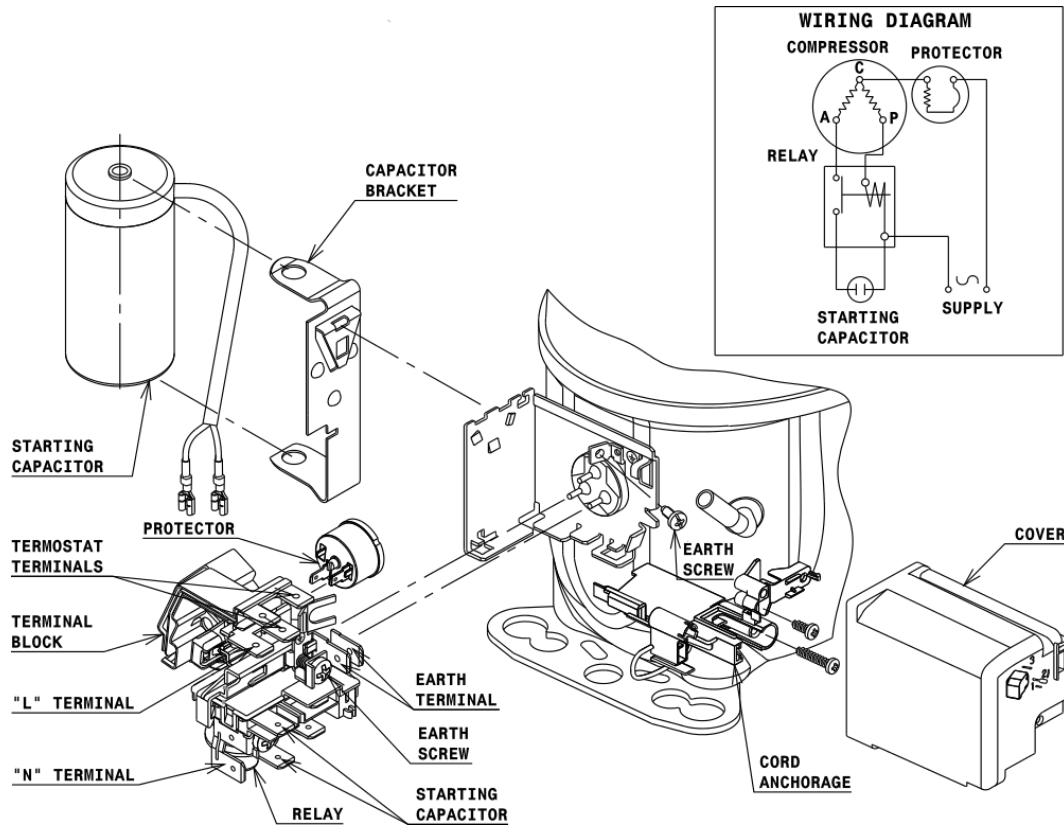


## DESIGNATION INTERNAL DIAM.

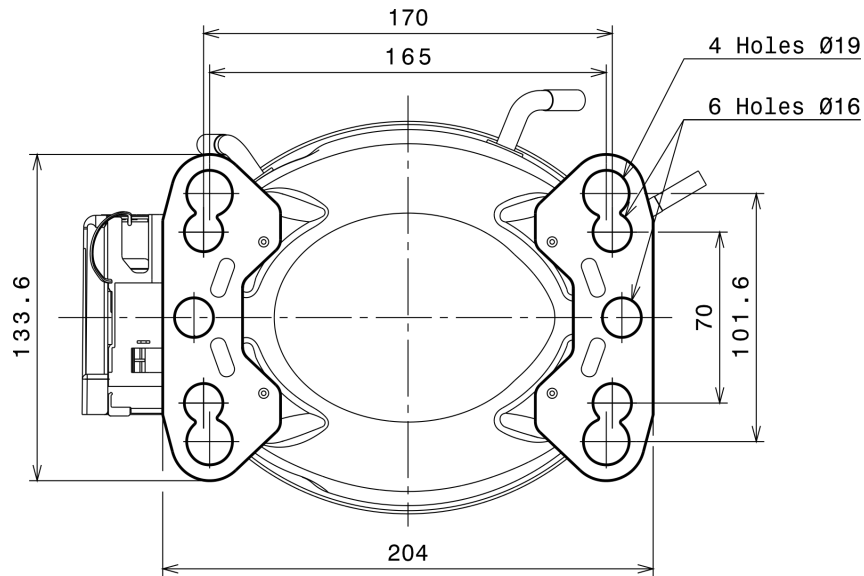
1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (L, P ranges)



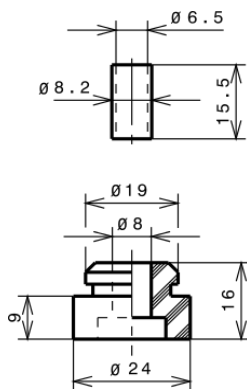
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

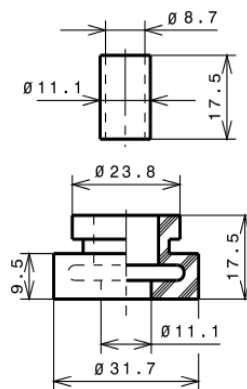
### STANDARD

$\varnothing 16$  holes (170x70 net)



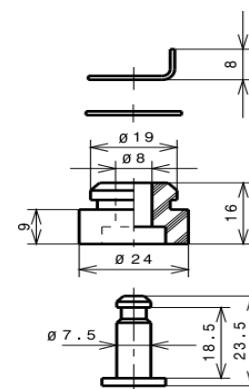
### AMERICAN FEET

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



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R290 LMBP

