

# Technical Data Sheet

Compressor model **NUY90NGb**  
 Voltage **200-220/220-230V 50/60Hz ~1**  
 Refrigerant **R290**

APPLICATION		COMPRESSOR		MOTOR	
Application	Low-Medium Back Pressure	Displacement	8,90 cm <sup>3</sup>	Nominal Power	1/3 hp
Refrigerant	R290	Diameter	24,30 mm	Voltage/Frequency	230V 60Hz
Evaporating Temp.	-40,0 °C to 0,0 °C	Stroke	19,00 mm	Voltage range	187-254 V
Expansion	Capillar/Valve	Net Weight	10,32 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	200 cm <sup>3</sup>	Locked Rotor Amps (LRA)	14,50 A
				Main W. resist. at 25°C	6,12 Ω
				Start W. resist. at 25°C	21,11 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	440 kCal/h	382 W
COP	1,58 W/W	1,22 W/W
EER	1,36 kCal/Wh	1,06 kCal/Wh
Input Power	324 W	312 W
Current	1,48 A	1,43 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	230 V 60 Hz	230 V 60 Hz

## ELECTRICAL COMPONENTS

Starting capacitor	64-77 / 60-61 μF 330 V			
Run capacitor	5 μF 400 V			
Relay	Option 1	Option 2		
Reference	2014 145. + NTC15Ω	QLZ-7.1+NTC15		
Pick-Up	7,00 A	7 A		
Drop-Out	5,90 A	5.9 A		
Protector	Option 1			
Reference	B96-105			
Current	9,60 A			
Time check	7,5-16 seg			
Disc temp. (Open/Close)	115,00 / 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	215	207	0,98	1,21	1,04
40	-35	276	234	1,09	1,37	1,18
40	-30	353	261	1,21	1,57	1,35
40	-25	445	288	1,32	1,80	1,55
40	-23,3	480	297	1,36	1,88	1,62
40	-20	553	314	1,44	2,05	1,76
40	-15	676	340	1,55	2,31	1,99
40	-10	815	366	1,66	2,59	2,23
40	-5	970	391	1,77	2,89	2,48
40	0	1.140	416	1,88	3,19	2,74

45	-40	205	206	0,97	1,16	1,00
45	-35	265	236	1,10	1,30	1,12
45	-30	341	266	1,23	1,49	1,28
45	-25	432	296	1,36	1,70	1,46
45	-23,3	467	306	1,40	1,77	1,53
45	-20	539	325	1,48	1,93	1,66
45	-15	661	354	1,61	2,17	1,87
45	-10	799	382	1,73	2,43	2,09
45	-5	953	410	1,86	2,70	2,32
45	0	1.122	438	1,98	2,98	2,56

50	-40	195	206	0,97	1,10	0,95
50	-35	254	239	1,11	1,24	1,06
50	-30	329	272	1,25	1,41	1,21
50	-25	419	304	1,39	1,60	1,38
50	-23,3	453	315	1,44	1,67	1,44
50	-20	525	336	1,53	1,82	1,56
50	-15	646	368	1,67	2,04	1,76
50	-10	783	399	1,81	2,28	1,96
50	-5	936	430	1,94	2,53	2,18
50	0	1.104	461	2,08	2,79	2,40

55	-40	185	205	0,97	1,05	0,90
55	-35	243	241	1,12	1,17	1,01
55	-30	317	277	1,28	1,33	1,14
55	-25	406	312	1,43	1,51	1,30
55	-23,3	440	324	1,48	1,58	1,36
55	-20	511	347	1,58	1,71	1,47
55	-15	631	382	1,73	1,92	1,65
55	-10	767	416	1,88	2,15	1,85
55	-5	919	450	2,03	2,38	2,04
55	0	1.086	483	2,18	2,62	2,25

60	-40	175	205	0,97	1,00	0,86
60	-35	232	243	1,13	1,11	0,95
60	-30	305	282	1,30	1,26	1,08
60	-25	393	320	1,46	1,43	1,23
60	-23,3	427	333	1,52	1,49	1,28
60	-20	497	358	1,63	1,61	1,39
60	-15	616	395	1,79	1,81	1,56
60	-10	751	433	1,96	2,02	1,74
60	-5	902	469	2,12	2,24	1,92
60	0	1.068	506	2,28	2,46	2,11

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	233	207	0,98	1,13	0,97
40	-35	308	234	1,09	1,32	1,14
40	-30	398	261	1,21	1,52	1,32
40	-25	502	288	1,32	1,75	1,51
40	-23,3	541	297	1,36	1,82	1,57
40	-20	621	314	1,44	1,98	1,71
40	-15	753	340	1,55	2,22	1,91
40	-10	901	366	1,66	2,46	2,13
40	-5	1.062	391	1,77	2,72	2,35
40	0	1.238	416	1,88	2,98	2,57

45	-40	213	206	0,97	1,04	0,90
45	-35	282	236	1,10	1,19	1,03
45	-30	365	266	1,23	1,37	1,18
45	-25	462	296	1,36	1,56	1,35
45	-23,3	498	306	1,40	1,63	1,41
45	-20	574	325	1,48	1,77	1,53
45	-15	700	354	1,61	1,98	1,71
45	-10	840	382	1,73	2,20	1,90
45	-5	995	410	1,86	2,42	2,09
45	0	1.164	438	1,98	2,66	2,30

50	-40	194	206	0,97	0,94	0,82
50	-35	256	239	1,11	1,07	0,92
50	-30	332	272	1,25	1,22	1,06
50	-25	422	304	1,39	1,39	1,20
50	-23,3	456	315	1,44	1,45	1,25
50	-20	527	336	1,53	1,57	1,35
50	-15	646	368	1,67	1,76	1,52
50	-10	780	399	1,81	1,95	1,69
50	-5	928	430	1,94	2,16	1,86
50	0	1.090	461	2,08	2,37	2,04

55	-40	174	205	0,97	0,85	0,73
55	-35	229	241	1,12	0,95	0,82
55	-30	298	277	1,28	1,08	0,93
55	-25	382	312	1,43	1,22	1,06
55	-23,3	414	324	1,48	1,28	1,10
55	-20	480	347	1,58	1,38	1,20
55	-15	592	382	1,73	1,55	1,34
55	-10	719	416	1,88	1,73	1,49
55	-5	860	450	2,03	1,91	1,65
55	0	1.016	483	2,18	2,10	1,82

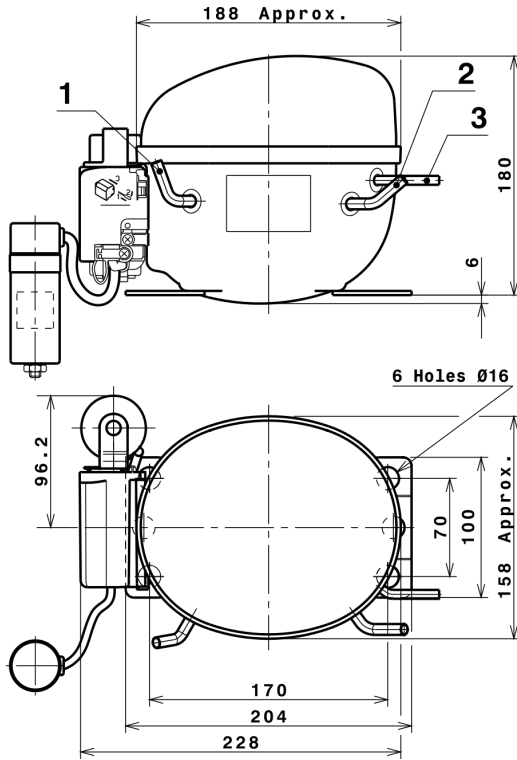
60	-40	155	205	0,97	0,76	0,65
60	-35	203	243	1,13	0,83	0,72
60	-30	265	282	1,30	0,94	0,81
60	-25	342	320	1,46	1,07	0,92
60	-23,3	371	333	1,52	1,11	0,96
60	-20	433	358	1,63	1,21	1,05
60	-15	539	395	1,79	1,36	1,18
60	-10	659	433	1,96	1,52	1,32
60	-5	793	469	2,12	1,69	1,46
60	0	942	506	2,28	1,86	1,61

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.832,0907280367	241,8093133152	1,1042823279	16,329303900383
2	47,3853425895	0,4240294628	0,0020908956	0,48737203086649
3	-15,3491976316	4,6205601270	0,0206113010	-0,045982061412244
4	0,2809767357	-0,0061165419	-0,0000049978	0,0042314646367088
5	-0,2850259902	0,1180681798	0,0005261119	-0,0005379457875372

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

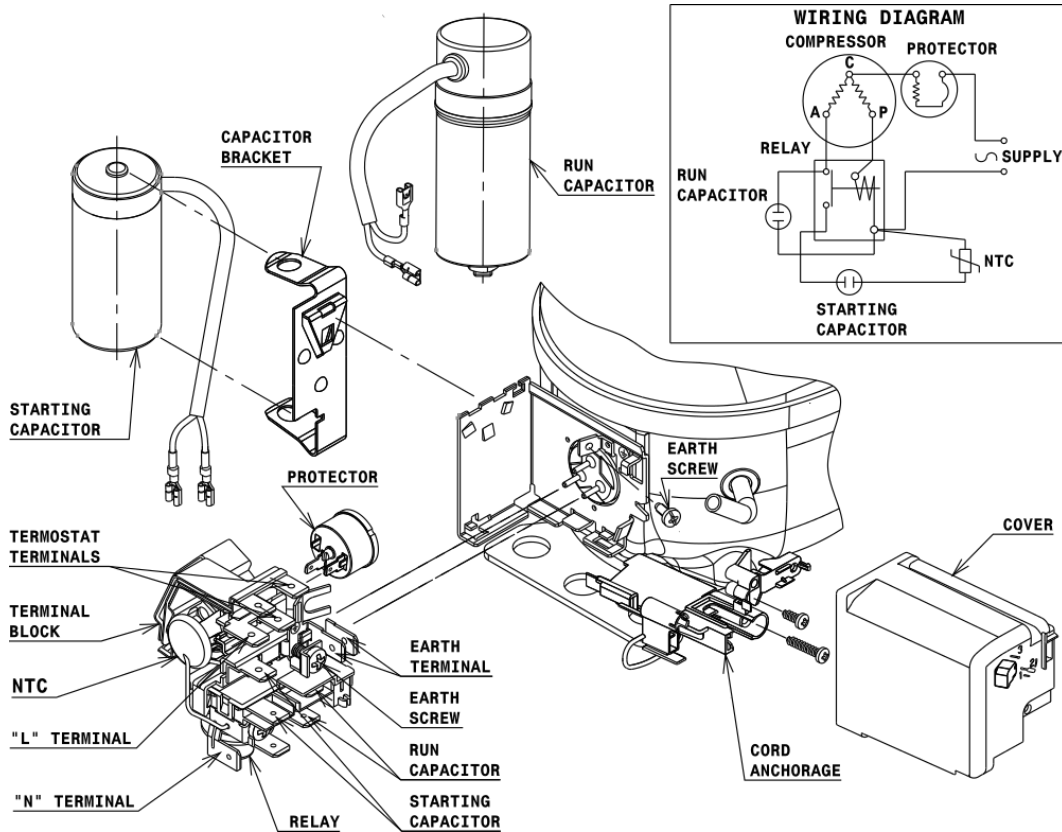


## DESIGNATION INTERNAL DIAM.

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

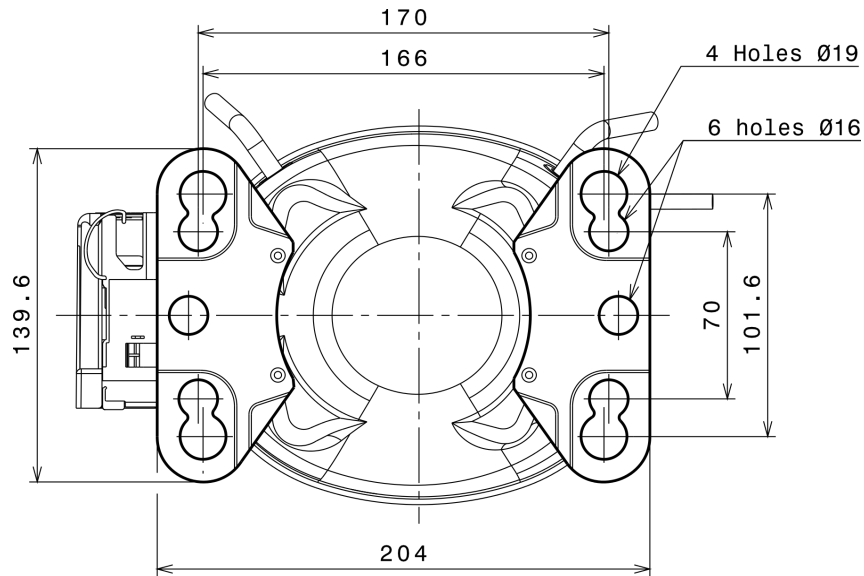
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (CURRENT RELAY + NTC) (U range)



# Technical Data Sheet

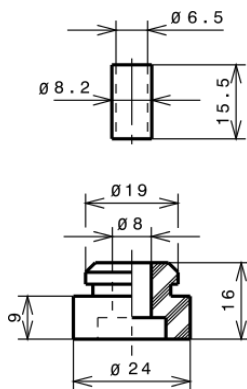
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

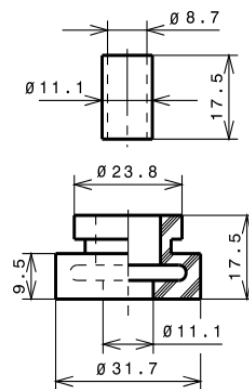
### STANDARD

Ø16 holes (170x70 net)



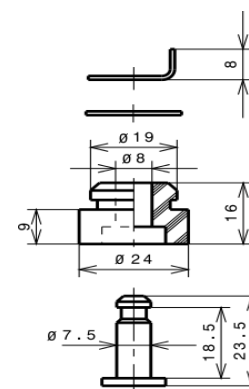
### AMERICAN FEET

Ø19 holes (166x101.6 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R290 LMBP

