

# Technical Data Sheet

Compressor model **NUY90CAa**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R290**

## APPLICATION

Application Low Back Pressure  
 Refrigerant R290  
 Evaporating Temp. -40,0 °C to -10,0 °C  
 Expansion Capillar  
 Comp. Cooling Fan cooled  
 Max. ambient temp. 43,0 °C

## COMPRESSOR

Displacement 8,90 cm<sup>3</sup>  
 Diameter 24,30 mm  
 Stroke 19,00 mm  
 Net Weight 9,30 Kg  
 Oil type ISO VG 32 ESTER  
 Oil charge 220 cm<sup>3</sup>

## MOTOR

Nominal Power 1/3 hp  
 Voltage/Frequency 220-240V 50Hz  
 Voltage range 187-255 V  
 Type RSIR  
 Phase number 1 PH  
 Locked Rotor Amps (LRA) 11,80 A  
 Max. Cont. Current (MCC) 2,50 A  
 Main W. resist. at 25°C 7,90 Ω  
 Start W. resist. at 25°C 22,70 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	388 kCal/h	338 W
COP	1,55 W/W	1,21 W/W
EER	1,33 kCal/Wh	1,04 kCal/Wh
Input Power	291 W	280 W
Current	1,82 A	1,78 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (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	220 V 50 Hz	220 V 50 Hz

## ELECTRICAL COMPONENTS

Relay	Option 1			
Reference	PTC K100			
Voltage	200-240 V			
Resistance	14.00 Ω			
Protector	Option 1	Option 2	Option 3	
Reference	T0138	AE86FHY	B77-105	
Current	7,70 A	7,70 A		
Time check	7,5-14 seg	7,5-14 seg		
Disc temp. (Open/Close)	105,00 / 62,00 °C	105,00 / 62,00 °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	191	184	1,50	1,21	1,04
40	-35	246	206	1,56	1,39	1,20
40	-30	313	229	1,62	1,59	1,37
40	-25	391	252	1,69	1,81	1,55
40	-23,3	420	260	1,72	1,88	1,62
40	-20	481	275	1,77	2,03	1,75
40	-15	582	299	1,85	2,26	1,95
40	-10	694	323	1,93	2,50	2,15

45	-40	183	185	1,50	1,15	0,99
45	-35	237	210	1,57	1,31	1,13
45	-30	303	236	1,64	1,50	1,29
45	-25	381	261	1,72	1,69	1,46
45	-23,3	410	270	1,75	1,76	1,52
45	-20	469	287	1,81	1,90	1,63
45	-15	569	314	1,90	2,11	1,82
45	-10	681	340	2,00	2,33	2,00

50	-40	175	187	1,51	1,09	0,94
50	-35	229	214	1,58	1,24	1,07
50	-30	294	243	1,66	1,41	1,21
50	-25	370	271	1,75	1,59	1,37
50	-23,3	399	281	1,78	1,65	1,42
50	-20	458	300	1,85	1,78	1,53
50	-15	557	328	1,95	1,97	1,70
50	-10	668	358	2,07	2,17	1,87

55	-40	167	188	1,51	1,03	0,89
55	-35	220	219	1,59	1,17	1,01
55	-30	284	249	1,68	1,32	1,14
55	-25	360	280	1,78	1,49	1,28
55	-23,3	388	291	1,82	1,55	1,33
55	-20	447	312	1,89	1,67	1,43
55	-15	545	343	2,01	1,85	1,59
55	-10	655	375	2,14	2,03	1,75

60	-40	159	190	1,51	0,98	0,84
60	-35	211	223	1,60	1,10	0,95
60	-30	274	256	1,71	1,25	1,07
60	-25	349	290	1,82	1,40	1,20
60	-23,3	377	301	1,86	1,46	1,25
60	-20	435	324	1,94	1,56	1,34
60	-15	533	358	2,07	1,73	1,49
60	-10	642	393	2,21	1,90	1,64

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	207	184	1,50	1,13	0,98
40	-35	272	206	1,56	1,32	1,14
40	-30	347	229	1,62	1,52	1,31
40	-25	433	252	1,69	1,72	1,49
40	-23,3	465	260	1,72	1,79	1,55
40	-20	530	275	1,77	1,92	1,66
40	-15	636	299	1,85	2,13	1,84
40	-10	754	323	1,93	2,34	2,02

45	-40	191	185	1,50	1,03	0,89
45	-35	250	210	1,57	1,19	1,03
45	-30	321	236	1,64	1,36	1,18
45	-25	401	261	1,72	1,54	1,33
45	-23,3	431	270	1,75	1,60	1,38
45	-20	493	287	1,81	1,72	1,48
45	-15	595	314	1,90	1,90	1,64
45	-10	707	340	2,00	2,08	1,80

50	-40	174	187	1,51	0,93	0,81
50	-35	229	214	1,58	1,07	0,92
50	-30	294	243	1,66	1,21	1,05
50	-25	370	271	1,75	1,37	1,18
50	-23,3	398	281	1,78	1,42	1,23
50	-20	456	300	1,85	1,52	1,32
50	-15	553	328	1,95	1,68	1,46
50	-10	661	358	2,07	1,85	1,60

55	-40	157	188	1,51	0,84	0,72
55	-35	207	219	1,59	0,95	0,82
55	-30	267	249	1,68	1,07	0,93
55	-25	338	280	1,78	1,21	1,04
55	-23,3	365	291	1,82	1,25	1,08
55	-20	420	312	1,89	1,35	1,16
55	-15	512	343	2,01	1,49	1,29
55	-10	614	375	2,14	1,64	1,42

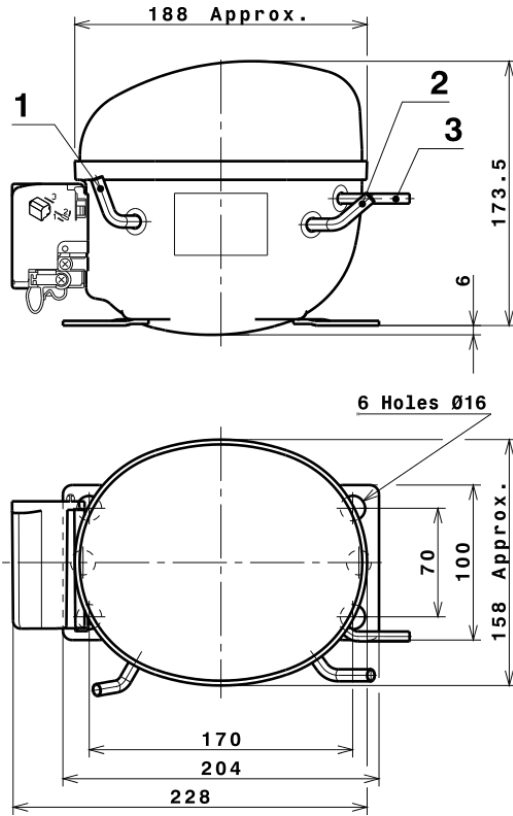
60	-40	141	190	1,51	0,74	0,64
60	-35	185	223	1,60	0,83	0,72
60	-30	241	256	1,71	0,94	0,81
60	-25	307	290	1,82	1,06	0,91
60	-23,3	331	301	1,86	1,10	0,95
60	-20	383	324	1,94	1,18	1,02
60	-15	470	358	2,07	1,31	1,13
60	-10	568	393	2,21	1,45	1,25

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.468,8957835839	193,4355903161	1,4150871125	13,510952762529
2	36,5349238291	0,7048127910	0,0063534258	0,38207474463165
3	-11,6650751683	4,6798443138	0,0193161372	-0,037050465382578
4	0,2060416865	0,0062333965	0,0001974447	0,0030550522527242
5	-0,2077511852	0,1093335781	0,0004630505	-0,00043688415735102

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

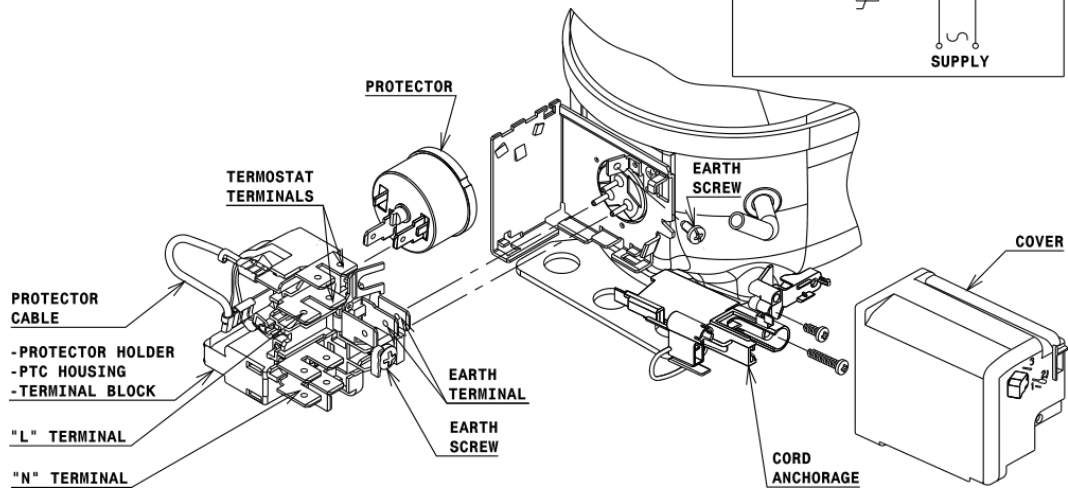
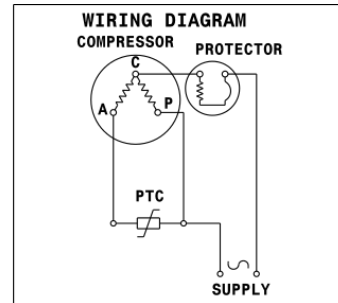


## DESIGNATION INTERNAL DIAM.

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

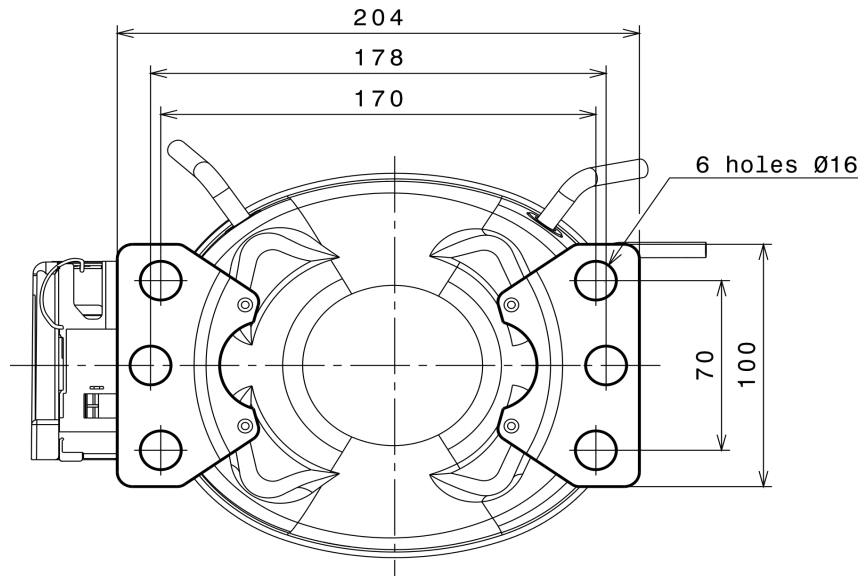
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### RSIR CONNECTION (PTC) (U range)



# Technical Data Sheet

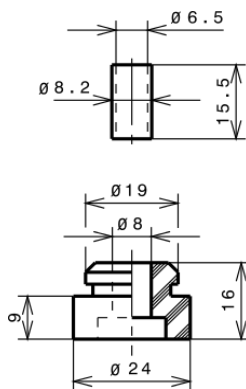
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

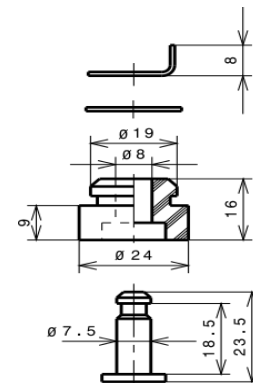
### STANDARD

$\varnothing 16$  holes (170x70 net)



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R290 LBP

