

# Technical Data Sheet

Compressor model **NUY90CAb**  
 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 9,40 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 RSCR  
 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	393 kCal/h	342 W
COP	1,64 W/W	1,28 W/W
EER	1,41 kCal/Wh	1,10 kCal/Wh
Input Power	278 W	268 W
Current	1,45 A	1,41 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

Run capacitor	6 µF 400 V			
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	176	1,05	1,26	1,09
40	-35	246	197	1,13	1,45	1,25
40	-30	312	218	1,21	1,66	1,43
40	-25	391	240	1,30	1,90	1,63
40	-23,3	421	247	1,33	1,98	1,70
40	-20	481	261	1,38	2,14	1,84
40	-15	584	282	1,47	2,40	2,07
40	-10	698	304	1,56	2,67	2,30

45	-40	183	178	1,06	1,20	1,03
45	-35	238	202	1,15	1,37	1,18
45	-30	304	226	1,24	1,57	1,35
45	-25	382	249	1,33	1,78	1,53
45	-23,3	411	257	1,37	1,86	1,60
45	-20	472	273	1,43	2,01	1,73
45	-15	574	297	1,53	2,25	1,93
45	-10	687	320	1,63	2,50	2,15

50	-40	176	181	1,07	1,13	0,97
50	-35	230	207	1,17	1,29	1,11
50	-30	295	233	1,27	1,48	1,27
50	-25	373	259	1,37	1,68	1,44
50	-23,3	402	268	1,41	1,75	1,50
50	-20	462	285	1,48	1,89	1,62
50	-15	564	311	1,59	2,11	1,81
50	-10	677	337	1,70	2,34	2,01

55	-40	168	183	1,08	1,07	0,92
55	-35	222	212	1,19	1,22	1,05
55	-30	287	240	1,30	1,39	1,20
55	-25	364	268	1,41	1,58	1,36
55	-23,3	393	278	1,45	1,64	1,41
55	-20	453	297	1,53	1,78	1,53
55	-15	554	325	1,65	1,98	1,70
55	-10	666	353	1,77	2,19	1,89

60	-40	161	186	1,09	1,01	0,87
60	-35	214	216	1,21	1,15	0,99
60	-30	278	247	1,33	1,31	1,13
60	-25	355	278	1,45	1,49	1,28
60	-23,3	384	288	1,49	1,55	1,33
60	-20	443	308	1,58	1,67	1,44
60	-15	544	339	1,71	1,86	1,60
60	-10	656	370	1,84	2,06	1,77

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	207	176	1,05	1,18	1,02
40	-35	271	197	1,13	1,38	1,19
40	-30	347	218	1,21	1,59	1,37
40	-25	433	240	1,30	1,81	1,56
40	-23,3	465	247	1,33	1,88	1,63
40	-20	531	261	1,38	2,03	1,76
40	-15	639	282	1,47	2,26	1,96
40	-10	758	304	1,56	2,50	2,16

45	-40	191	178	1,06	1,07	0,92
45	-35	251	202	1,15	1,24	1,07
45	-30	321	226	1,24	1,42	1,23
45	-25	403	249	1,33	1,62	1,40
45	-23,3	433	257	1,37	1,68	1,45
45	-20	496	273	1,43	1,82	1,57
45	-15	599	297	1,53	2,02	1,75
45	-10	714	320	1,63	2,23	1,93

50	-40	174	181	1,07	0,97	0,83
50	-35	230	207	1,17	1,11	0,96
50	-30	296	233	1,27	1,27	1,10
50	-25	373	259	1,37	1,44	1,24
50	-23,3	401	268	1,41	1,50	1,30
50	-20	461	285	1,48	1,62	1,40
50	-15	559	311	1,59	1,80	1,56
50	-10	669	337	1,70	1,99	1,72

55	-40	158	183	1,08	0,86	0,75
55	-35	209	212	1,19	0,99	0,85
55	-30	270	240	1,30	1,13	0,97
55	-25	342	268	1,41	1,28	1,10
55	-23,3	369	278	1,45	1,33	1,15
55	-20	426	297	1,53	1,43	1,24
55	-15	520	325	1,65	1,60	1,38
55	-10	625	353	1,77	1,77	1,53

60	-40	142	186	1,09	0,77	0,66
60	-35	188	216	1,21	0,87	0,75
60	-30	245	247	1,33	0,99	0,85
60	-25	312	278	1,45	1,12	0,97
60	-23,3	338	288	1,49	1,17	1,01
60	-20	391	308	1,58	1,27	1,09
60	-15	480	339	1,71	1,42	1,22
60	-10	580	370	1,84	1,57	1,36

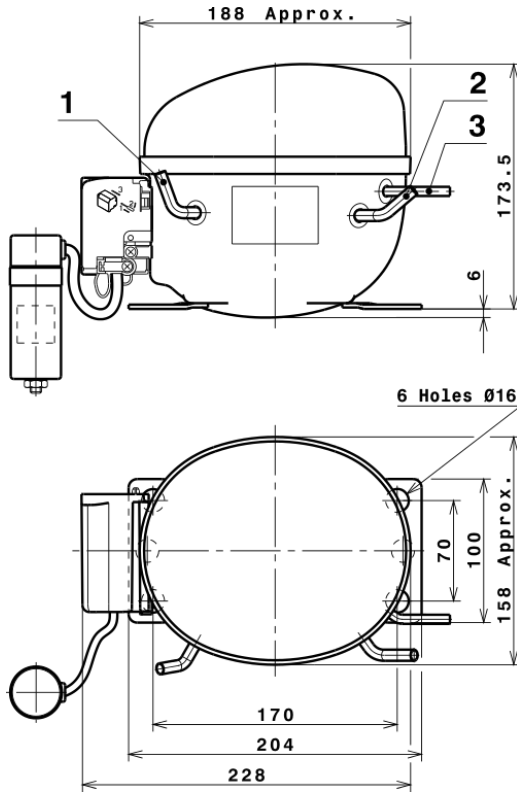
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.457,4435501322	181,1256123819	1,0203231015	13,290628681373
2	36,6073649605	0,5327606598	0,0036077592	0,3816033068172
3	-11,1728748778	4,3384751455	0,0191868884	-0,029114922613049
4	0,2124397189	-0,0005908768	0,0000718016	0,0031466224037701
5	-0,1977311930	0,0956909958	0,0004325084	-0,00026902576972586

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

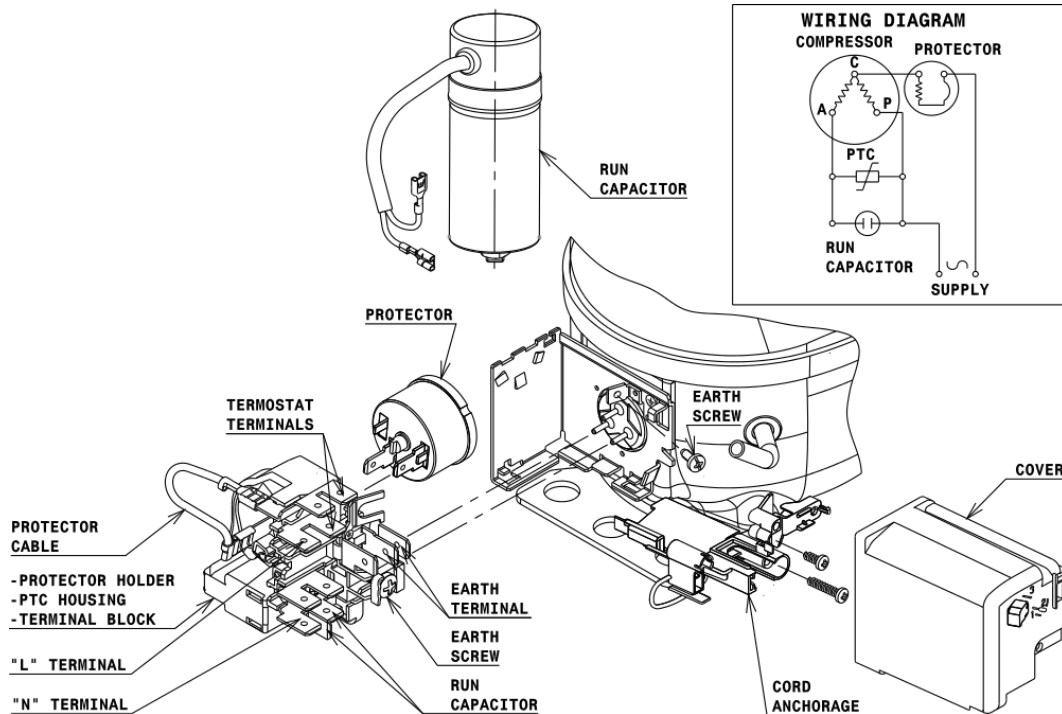


## DESIGNATION INTERNAL DIAM.

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

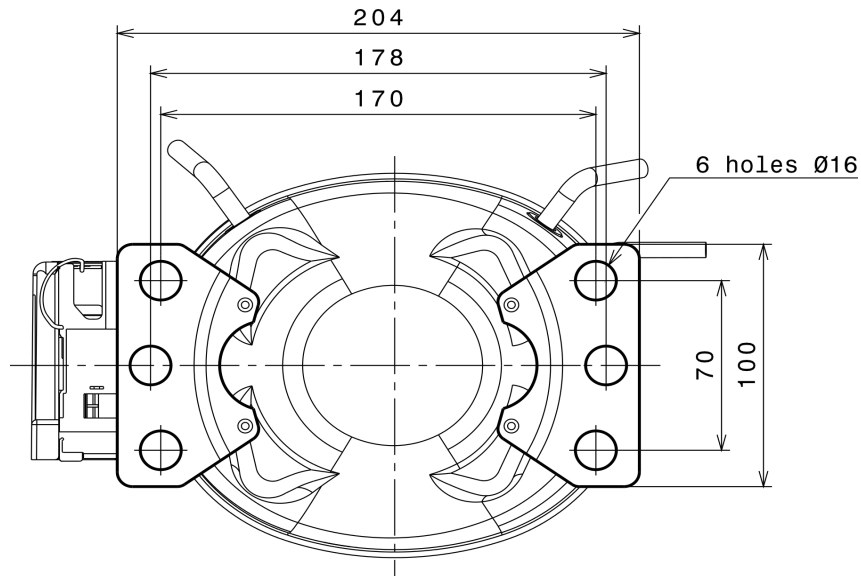
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### RSCR CONNECTION (U range)



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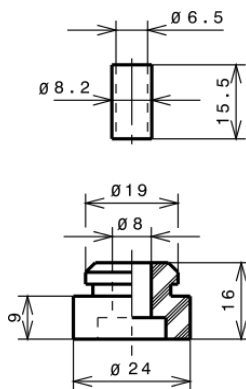
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

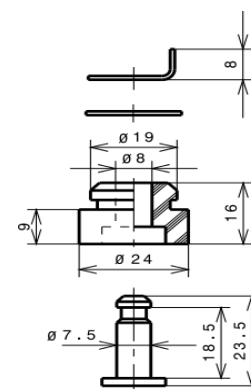
### STANDARD

$\varnothing 16$  holes (170x70 net)



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R290 LBP

