

# Technical Data Sheet

Compressor model **NUY80LAa**  
 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/Valve  
 Comp. Cooling Fan cooled  
 Max. ambient temp. 43,0 °C

## COMPRESSOR

Displacement 8,10 cm<sup>3</sup>  
 Diameter 24,28 mm  
 Stroke 17,50 mm  
 Net Weight 9,43 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 CSIR  
 Phase number 1 PH  
 Locked Rotor Amps (LRA) 11,50 A  
 Max. Cont. Current (MCC) 2,50 A  
 Main W. resist. at 25°C 9,40 Ω  
 Start W. resist. at 25°C 38,50 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	338 kCal/h	294 W
COP	1,49 W/W	1,16 W/W
EER	1,28 kCal/Wh	1,00 kCal/Wh
Input Power	264 W	254 W
Current	1,64 A	1,60 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

Starting capacitor	47- 56 µF 330 V		
Relay	Option 1		
Reference	2014 135.		
Pick-Up	5,80 A		
Drop-Out	4,95 A		
Protector	Option 1	Option 2	
Reference	T0057	AE39FHY	
Current	8,50 A	9,00 A	
Time check	7,5-14 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 61,00 °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	167	165	1,32	1,18	1,01
40	-35	221	186	1,38	1,38	1,18
40	-30	284	208	1,45	1,59	1,36
40	-25	357	231	1,53	1,80	1,55
40	-23,3	384	238	1,55	1,87	1,61
40	-20	440	254	1,60	2,01	1,73
40	-15	532	278	1,69	2,23	1,92
40	-10	635	303	1,78	2,44	2,10

45	-40	157	166	1,32	1,10	0,95
45	-35	209	189	1,39	1,28	1,10
45	-30	271	214	1,47	1,47	1,27
45	-25	342	238	1,55	1,67	1,43
45	-23,3	369	247	1,58	1,74	1,49
45	-20	423	264	1,64	1,87	1,60
45	-15	514	290	1,73	2,06	1,77
45	-10	615	317	1,84	2,26	1,94

50	-40	147	167	1,33	1,02	0,88
50	-35	197	193	1,40	1,19	1,02
50	-30	257	219	1,49	1,37	1,18
50	-25	327	246	1,58	1,55	1,33
50	-23,3	353	255	1,61	1,61	1,38
50	-20	407	274	1,68	1,73	1,49
50	-15	496	302	1,78	1,91	1,64
50	-10	596	332	1,89	2,09	1,80

55	-40	137	168	1,33	0,95	0,82
55	-35	186	196	1,41	1,10	0,95
55	-30	244	225	1,51	1,27	1,09
55	-25	313	254	1,60	1,43	1,23
55	-23,3	338	264	1,64	1,49	1,28
55	-20	391	284	1,71	1,60	1,38
55	-15	478	315	1,83	1,77	1,52
55	-10	576	346	1,95	1,94	1,66

60	-40	127	169	1,33	0,87	0,75
60	-35	174	199	1,42	1,02	0,87
60	-30	231	230	1,52	1,17	1,00
60	-25	298	262	1,63	1,32	1,14
60	-23,3	323	273	1,67	1,38	1,18
60	-20	374	294	1,75	1,48	1,27
60	-15	461	327	1,87	1,64	1,41
60	-10	557	361	2,01	1,80	1,54

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	181	165	1,32	1,09	0,95
40	-35	243	186	1,38	1,30	1,13
40	-30	314	208	1,45	1,51	1,30
40	-25	394	231	1,53	1,71	1,48
40	-23,3	423	238	1,55	1,77	1,53
40	-20	483	254	1,60	1,90	1,64
40	-15	581	278	1,69	2,09	1,81
40	-10	688	303	1,78	2,28	1,97

45	-40	163	166	1,32	0,98	0,85
45	-35	220	189	1,39	1,16	1,00
45	-30	286	214	1,47	1,34	1,16
45	-25	361	238	1,55	1,51	1,31
45	-23,3	388	247	1,58	1,57	1,36
45	-20	444	264	1,64	1,68	1,45
45	-15	537	290	1,73	1,85	1,60
45	-10	639	317	1,84	2,02	1,74

50	-40	146	167	1,33	0,88	0,76
50	-35	198	193	1,40	1,03	0,89
50	-30	258	219	1,49	1,18	1,02
50	-25	327	246	1,58	1,33	1,15
50	-23,3	353	255	1,61	1,38	1,19
50	-20	406	274	1,68	1,48	1,28
50	-15	493	302	1,78	1,63	1,41
50	-10	590	332	1,89	1,78	1,54

55	-40	129	168	1,33	0,77	0,66
55	-35	175	196	1,41	0,89	0,77
55	-30	230	225	1,51	1,02	0,88
55	-25	294	254	1,60	1,16	1,00
55	-23,3	318	264	1,64	1,20	1,04
55	-20	367	284	1,71	1,29	1,12
55	-15	449	315	1,83	1,43	1,23
55	-10	540	346	1,95	1,56	1,35

60	-40	112	169	1,33	0,66	0,57
60	-35	152	199	1,42	0,77	0,66
60	-30	202	230	1,52	0,88	0,76
60	-25	261	262	1,63	1,00	0,86
60	-23,3	283	273	1,67	1,04	0,90
60	-20	328	294	1,75	1,12	0,97
60	-15	405	327	1,87	1,24	1,07
60	-10	491	361	2,01	1,36	1,18

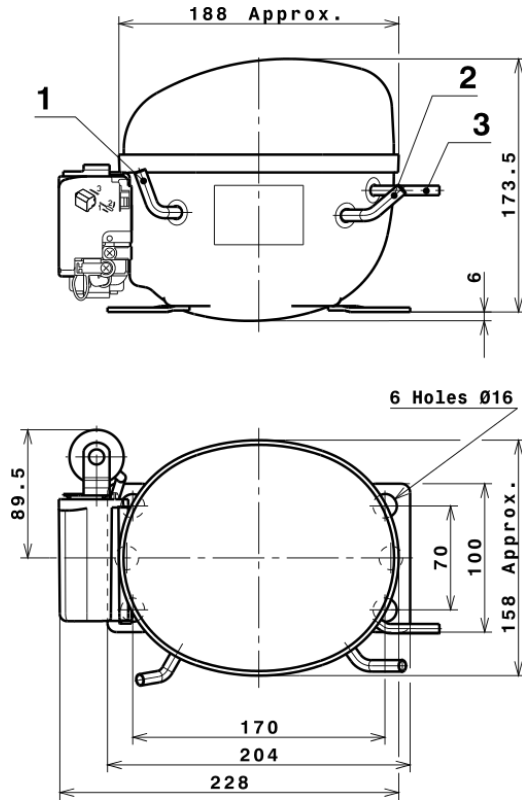
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.403,9788998625	207,4738625710	1,4077163673	13,245155547122
2	34,2776256533	1,7896293691	0,0092995332	0,36064882979803
3	-12,2794694641	3,8941266226	0,0156299357	-0,057100951657555
4	0,1763689349	0,0153210007	0,0001699053	0,002624292519119
5	-0,2206933968	0,0922448124	0,0003756887	-0,00081615268534987

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

## COMPRESSOR DIMENSIONS

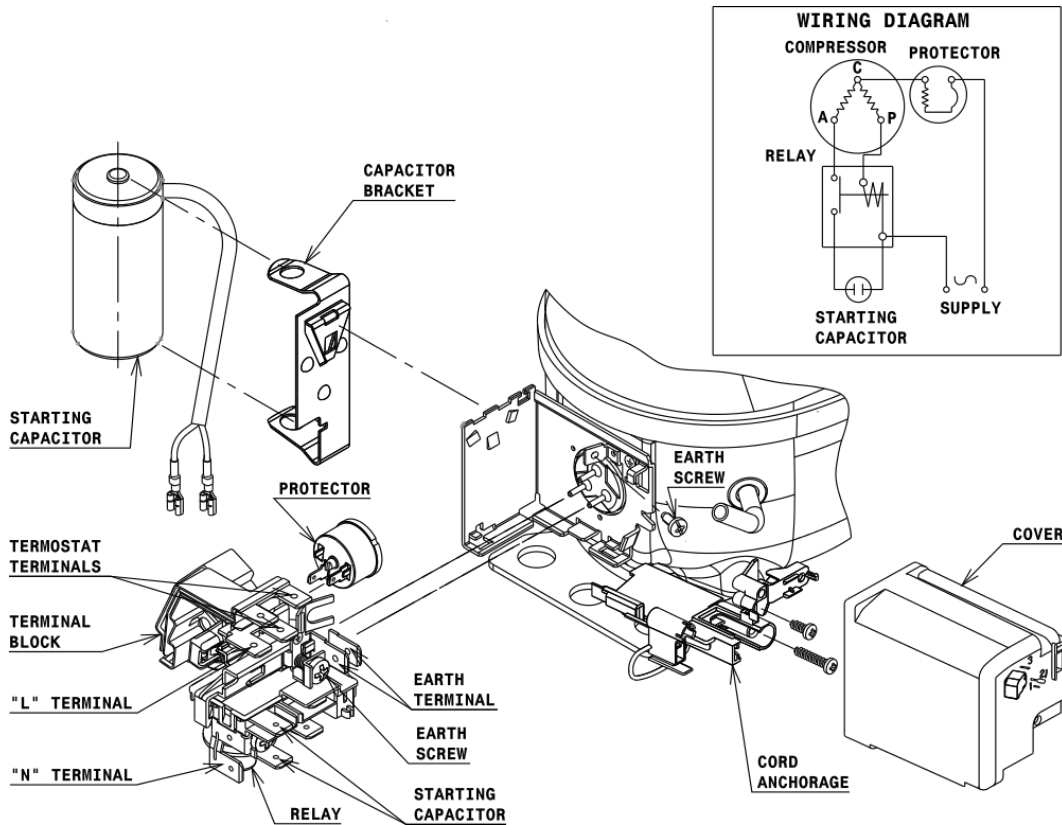


## DESIGNATION INTERNAL DIAM.

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

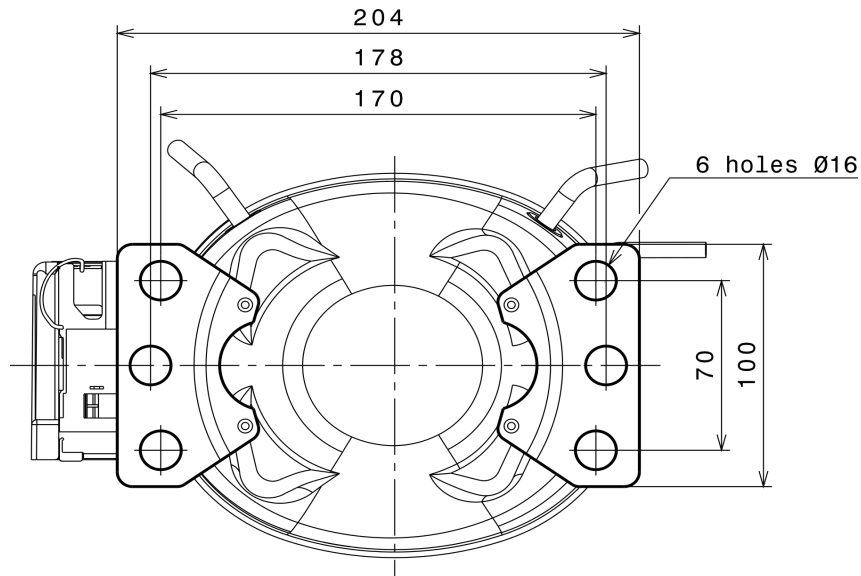
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (U range)



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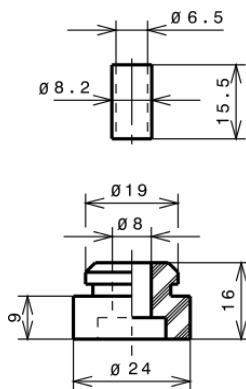
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

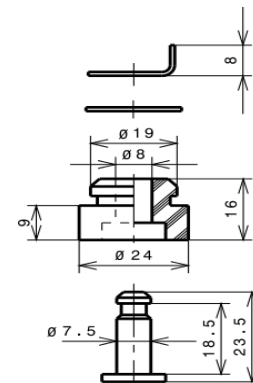
### STANDARD

$\varnothing 16$  holes (170x70 net)



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R290 LBP

