

# Technical Data Sheet

Compressor model **NUC45NGa**  
 Voltage **200-220/230V 50/60Hz ~1**  
 Refrigerant **R290**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	Low-Medium Back Pressure	Displacement	4,50 cm <sup>3</sup>	Nominal Power	1/5 hp
Refrigerant	R290	Diameter	21,99 mm	Voltage/Frequency	230V 60Hz
Evaporating Temp.	-40,0 °C to 0,0 °C	Stroke	11,88 mm	Voltage range	196-253 V
Expansion	Capillar	Net Weight	9,11 Kg	Type	RSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 22 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	200 cm <sup>3</sup>	Locked Rotor Amps (LRA)	7,40 A
				Max. Cont. Current (MCC)	2,00 A
				Main W. resist. at 25°C	14,31 Ω
				Start W. resist. at 25°C	18,90 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	217 kCal/h	187 W
COP	1,45 W/W	1,11 W/W
EER	1,25 kCal/Wh	0,96 kCal/Wh
Input Power	174 W	168 W
Current	1,12 A	1,10 A

## 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

Relay	Option 1			
Reference	PTC K100			
Voltage	200-240 V			
Resistance	14.00 Ω			
Protector	Option 1			
Reference	B65-135			
Current	6,50 A			
Time check	7,5-16 seg			
Disc temp. (Open/Close)	135,00 / 61,00 °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	104	119	0,98	1,02	0,87
40	-35	134	130	1,01	1,21	1,04
40	-30	175	141	1,03	1,44	1,24
40	-25	224	153	1,06	1,70	1,47
40	-23,3	244	157	1,07	1,80	1,55
40	-20	284	166	1,10	1,99	1,71
40	-15	352	179	1,13	2,29	1,97
40	-10	430	192	1,17	2,60	2,24
40	-5	517	206	1,22	2,92	2,51
40	0	614	220	1,27	3,24	2,79

45	-40	98	118	0,98	0,97	0,83
45	-35	128	131	1,01	1,14	0,98
45	-30	167	144	1,04	1,35	1,16
45	-25	216	158	1,08	1,59	1,37
45	-23,3	235	163	1,09	1,68	1,44
45	-20	274	172	1,12	1,85	1,59
45	-15	341	187	1,16	2,12	1,83
45	-10	418	202	1,21	2,41	2,07
45	-5	504	218	1,26	2,69	2,32
45	0	600	234	1,32	2,98	2,56

50	-40	93	118	0,98	0,92	0,79
50	-35	121	132	1,01	1,07	0,92
50	-30	160	147	1,05	1,26	1,08
50	-25	207	163	1,09	1,48	1,27
50	-23,3	226	168	1,10	1,56	1,34
50	-20	265	179	1,13	1,72	1,48
50	-15	331	196	1,19	1,97	1,69
50	-10	407	213	1,24	2,22	1,91
50	-5	492	230	1,30	2,49	2,14
50	0	587	248	1,37	2,75	2,36

55	-40	87	117	0,98	0,86	0,74
55	-35	115	134	1,02	1,00	0,86
55	-30	152	151	1,06	1,18	1,01
55	-25	199	168	1,10	1,38	1,18
55	-23,3	217	174	1,12	1,45	1,25
55	-20	255	186	1,16	1,60	1,37
55	-15	320	204	1,21	1,83	1,57
55	-10	395	223	1,28	2,06	1,77
55	-5	479	242	1,35	2,30	1,98
55	0	573	262	1,43	2,54	2,19

60	-40	82	117	0,98	0,81	0,70
60	-35	108	135	1,02	0,94	0,80
60	-30	145	154	1,06	1,10	0,94
60	-25	190	173	1,12	1,28	1,10
60	-23,3	208	180	1,14	1,35	1,16
60	-20	246	193	1,18	1,48	1,27
60	-15	310	213	1,24	1,69	1,46
60	-10	384	233	1,32	1,91	1,64
60	-5	467	254	1,40	2,13	1,84
60	0	560	276	1,49	2,36	2,03

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	112	119	0,98	0,95	0,82
40	-35	151	130	1,01	1,16	1,01
40	-30	198	141	1,03	1,41	1,21
40	-25	255	153	1,06	1,66	1,44
40	-23,3	276	157	1,07	1,75	1,51
40	-20	320	166	1,10	1,93	1,67
40	-15	393	179	1,13	2,20	1,90
40	-10	475	192	1,17	2,48	2,14
40	-5	566	206	1,22	2,75	2,38
40	0	666	220	1,27	3,03	2,61

45	-40	102	118	0,98	0,86	0,75
45	-35	137	131	1,01	1,04	0,90
45	-30	180	144	1,04	1,25	1,08
45	-25	232	158	1,08	1,47	1,27
45	-23,3	252	163	1,09	1,55	1,34
45	-20	293	172	1,12	1,70	1,47
45	-15	362	187	1,16	1,94	1,67
45	-10	440	202	1,21	2,18	1,88
45	-5	527	218	1,26	2,42	2,09
45	0	622	234	1,32	2,66	2,30

50	-40	92	118	0,98	0,78	0,68
50	-35	123	132	1,01	0,93	0,80
50	-30	162	147	1,05	1,10	0,95
50	-25	210	163	1,09	1,29	1,11
50	-23,3	228	168	1,10	1,35	1,17
50	-20	266	179	1,13	1,49	1,28
50	-15	331	196	1,19	1,69	1,46
50	-10	405	213	1,24	1,91	1,65
50	-5	488	230	1,30	2,12	1,83
50	0	579	248	1,37	2,34	2,02

55	-40	82	117	0,98	0,70	0,61
55	-35	108	134	1,02	0,81	0,70
55	-30	143	151	1,06	0,95	0,82
55	-25	187	168	1,10	1,11	0,96
55	-23,3	204	174	1,12	1,17	1,01
55	-20	240	186	1,16	1,29	1,11
55	-15	301	204	1,21	1,47	1,27
55	-10	370	223	1,28	1,66	1,43
55	-5	449	242	1,35	1,85	1,60
55	0	536	262	1,43	2,05	1,77

60	-40	72	117	0,98	0,62	0,53
60	-35	94	135	1,02	0,70	0,60
60	-30	125	154	1,06	0,81	0,70
60	-25	165	173	1,12	0,95	0,82
60	-23,3	180	180	1,14	1,00	0,87
60	-20	213	193	1,18	1,11	0,96
60	-15	270	213	1,24	1,27	1,10
60	-10	335	233	1,32	1,44	1,24
60	-5	410	254	1,40	1,61	1,39
60	0	493	276	1,49	1,78	1,54

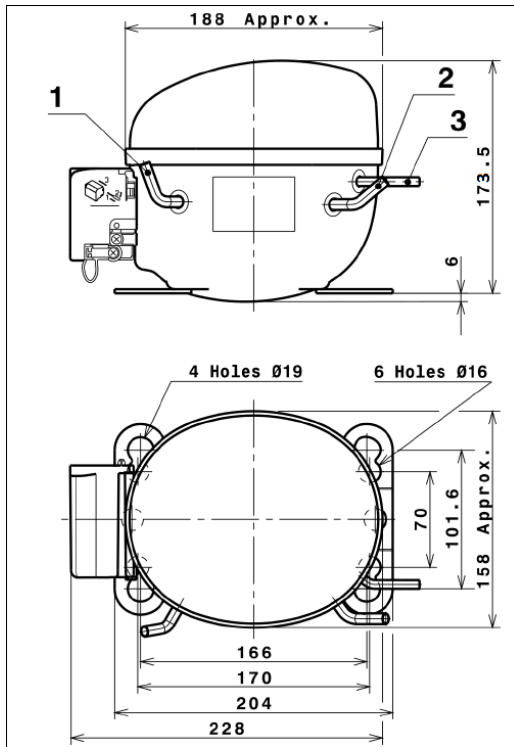
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.011,4463925080	110,8934430490	0,8173543686	9,1753439395657
2	27,2933845051	0,0497251436	0,0008241566	0,28510078107448
3	-8,9129877526	2,8750151902	0,0116777944	-0,034435912420157
4	0,1692807500	0,0101563843	0,0001328256	0,0025193887192471
5	-0,1723511983	0,0744295563	0,0002972618	-0,00052458675266391

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

## COMPRESSOR DIMENSIONS

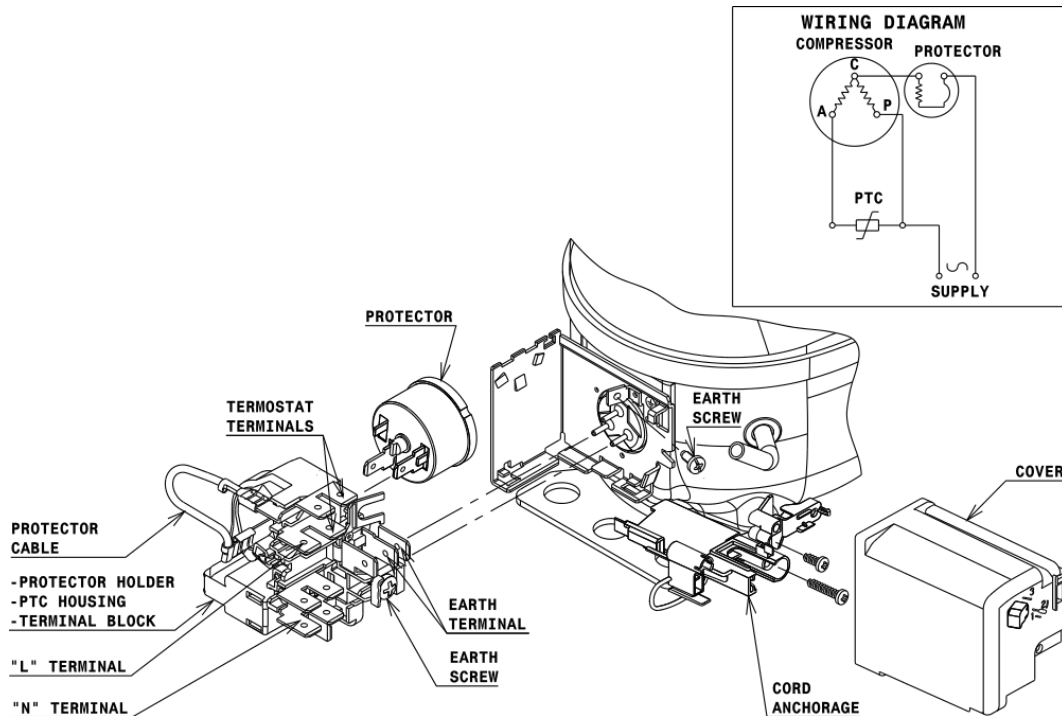


## DESIGNATION INTERNAL DIAM.

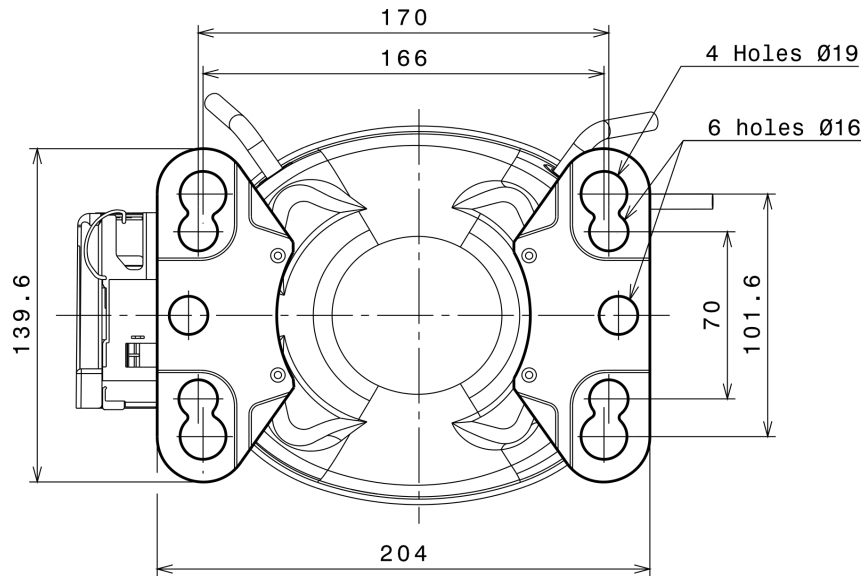
DESIGNATION	INTERNAL DIAM.
1 Service	6,2 mm
2 Suction	6,2 mm
3 Discharge	4,9 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

$\varnothing 16$  holes (170x70 net)



### AMERICAN FEET

$\varnothing 19$  holes (166x101.6 net)



### SNAP-ON

$\varnothing 16$  holes (170x70 net)



## SOA

SOA R290 LMBP

