

Technical Data Sheet

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

APPLICATION

COMPRESSOR

MOTOR

Application	Low-Medium Back Pressure	Displacement	4,50 cm ³	Voltage/Frequency	200-220V 50Hz
Refrigerant	R290	Diameter	21,99 mm	Voltage range	180-242 V
Evaporating Temp.	-40,0 °C to 0,0 °C	Stroke	11,88 mm	Type	RSIR
Expansion	Capillar	Net Weight	9,11 Kg	Phase number	1 PH
Comp. Cooling	Fan cooled	Oil type	ISO VG 22 ESTER	Locked Rotor Amps (LRA)	7,60 A
Max. ambient temp.	43,0 °C	Oil charge	200 cm ³	Max. Cont. Current (MCC)	1,90 A
		HP	1/5 hp	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	183 kCal/h	158 W
COP	1,35 W/W	1,03 W/W
EER	1,16 kCal/Wh	0,89 kCal/Wh
Input Power	158 W	153 W
Current	1,23 A	1,22 A

TEST CYCLE CONDITIONS

	ASHRAE LMBP (B)	CECOMAF LMBP (A)
Evaporating temp. (T _e)	-23,3 °C	-25,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	32,0 °C	55,0 °C
Ambient temp. (T _{amb.})	32,0 °C	32,0 °C
Suction temp. (T _{suction})	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			
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	86	110	1,15	0,90	0,78
40	-35	114	121	1,16	1,10	0,95
40	-30	150	131	1,18	1,33	1,14
40	-25	192	141	1,20	1,59	1,36
40	-23,3	208	144	1,20	1,68	1,44
40	-20	242	151	1,21	1,87	1,60
40	-15	298	160	1,23	2,16	1,86
40	-10	361	169	1,26	2,48	2,13
40	-5	431	178	1,28	2,81	2,42
40	0	508	187	1,30	3,16	2,71

45	-40	80	110	1,15	0,85	0,73
45	-35	108	122	1,17	1,03	0,88
45	-30	143	134	1,18	1,24	1,07
45	-25	184	145	1,20	1,48	1,27
45	-23,3	200	149	1,21	1,56	1,34
45	-20	233	156	1,23	1,73	1,49
45	-15	288	167	1,25	2,01	1,72
45	-10	350	178	1,28	2,29	1,97
45	-5	419	188	1,31	2,59	2,23
45	0	495	198	1,34	2,91	2,50

50	-40	75	110	1,15	0,79	0,68
50	-35	101	123	1,17	0,96	0,82
50	-30	135	136	1,19	1,15	0,99
50	-25	176	149	1,21	1,37	1,18
50	-23,3	191	153	1,22	1,45	1,25
50	-20	224	162	1,24	1,61	1,38
50	-15	278	174	1,27	1,86	1,60
50	-10	339	186	1,30	2,12	1,83
50	-5	407	198	1,33	2,40	2,06
50	0	483	209	1,37	2,69	2,31

55	-40	69	110	1,15	0,73	0,63
55	-35	95	125	1,17	0,89	0,76
55	-30	128	139	1,19	1,07	0,92
55	-25	168	153	1,22	1,27	1,10
55	-23,3	183	158	1,23	1,35	1,16
55	-20	215	167	1,25	1,49	1,28
55	-15	268	181	1,29	1,73	1,48
55	-10	329	194	1,32	1,97	1,69
55	-5	396	207	1,37	2,22	1,91
55	0	470	220	1,41	2,48	2,14

60	-40	64	110	1,15	0,67	0,58
60	-35	89	126	1,17	0,82	0,70
60	-30	121	142	1,20	0,99	0,85
60	-25	160	157	1,23	1,18	1,02
60	-23,3	175	163	1,24	1,25	1,07
60	-20	206	173	1,26	1,39	1,19
60	-15	258	188	1,31	1,60	1,38
60	-10	318	202	1,35	1,83	1,57
60	-5	384	217	1,40	2,06	1,77
60	0	458	231	1,45	2,30	1,98

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	92	110	1,15	0,84	0,73
40	-35	128	121	1,16	1,06	0,91
40	-30	169	131	1,18	1,29	1,12
40	-25	217	141	1,20	1,54	1,33
40	-23,3	234	144	1,20	1,62	1,40
40	-20	271	151	1,21	1,80	1,55
40	-15	331	160	1,23	2,07	1,79
40	-10	398	169	1,26	2,35	2,03
40	-5	471	178	1,28	2,64	2,28
40	0	551	187	1,30	2,94	2,54

45	-40	83	110	1,15	0,76	0,65
45	-35	115	122	1,17	0,94	0,81
45	-30	153	134	1,18	1,14	0,99
45	-25	197	145	1,20	1,36	1,17
45	-23,3	214	149	1,21	1,44	1,24
45	-20	248	156	1,23	1,59	1,37
45	-15	305	167	1,25	1,82	1,58
45	-10	368	178	1,28	2,07	1,79
45	-5	438	188	1,31	2,33	2,01
45	0	514	198	1,34	2,59	2,24

50	-40	74	110	1,15	0,67	0,58
50	-35	102	123	1,17	0,83	0,72
50	-30	137	136	1,19	1,00	0,87
50	-25	178	149	1,21	1,19	1,03
50	-23,3	193	153	1,22	1,26	1,09
50	-20	225	162	1,24	1,39	1,20
50	-15	278	174	1,27	1,60	1,38
50	-10	338	186	1,30	1,82	1,57
50	-5	404	198	1,33	2,05	1,77
50	0	477	209	1,37	2,28	1,97

55	-40	65	110	1,15	0,59	0,51
55	-35	90	125	1,17	0,72	0,62
55	-30	121	139	1,19	0,87	0,75
55	-25	158	153	1,22	1,03	0,89
55	-23,3	172	158	1,23	1,09	0,94
55	-20	202	167	1,25	1,21	1,04
55	-15	252	181	1,29	1,39	1,20
55	-10	308	194	1,32	1,59	1,37
55	-5	371	207	1,37	1,79	1,55
55	0	440	220	1,41	2,00	1,73

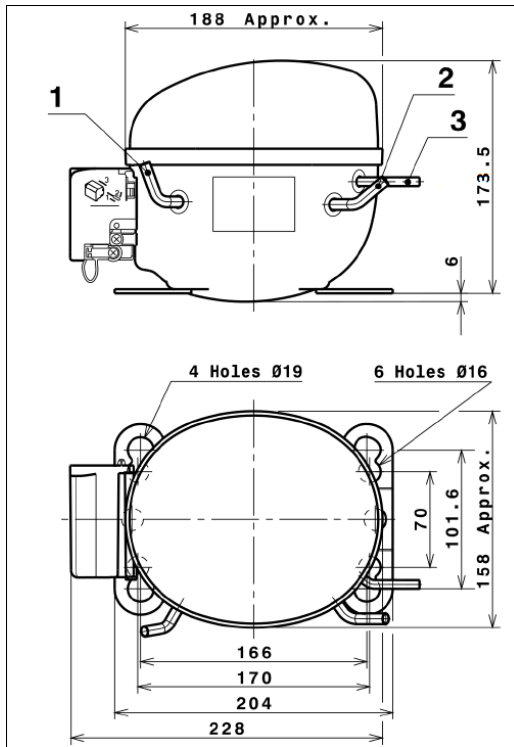
60	-40	56	110	1,15	0,51	0,44
60	-35	77	126	1,17	0,61	0,53
60	-30	105	142	1,20	0,74	0,64
60	-25	138	157	1,23	0,88	0,76
60	-23,3	151	163	1,24	0,93	0,80
60	-20	179	173	1,26	1,03	0,89
60	-15	225	188	1,31	1,20	1,04
60	-10	278	202	1,35	1,37	1,19
60	-5	337	217	1,40	1,55	1,34
60	0	403	231	1,45	1,74	1,51

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	845,5979129304	101,6523227949	0,9994014646	7,7254838537649
2	21,9982447559	-0,4586201032	-0,0006441733	0,22815956539723
3	-7,6010957650	2,2589405066	0,0078583417	-0,031872407827144
4	0,1238757673	-0,0047583485	0,0000797389	0,0018645140765665
5	-0,1442078777	0,0564735127	0,0001964585	-0,00046058712846855

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

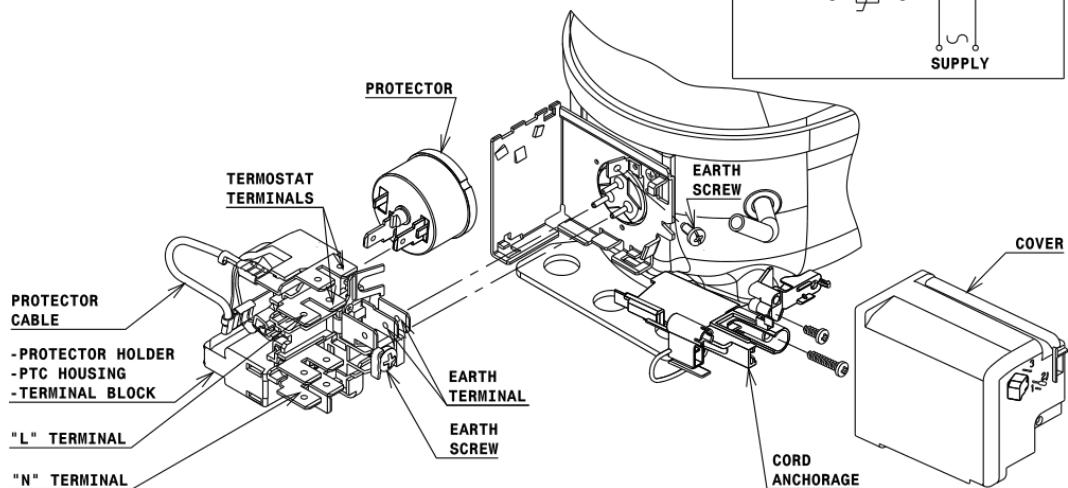
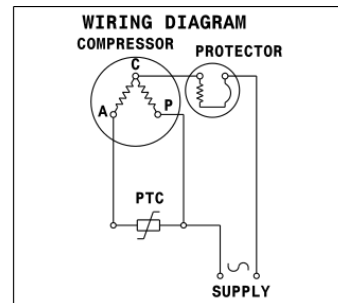


DESIGNATION INTERNAL DIAM.

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

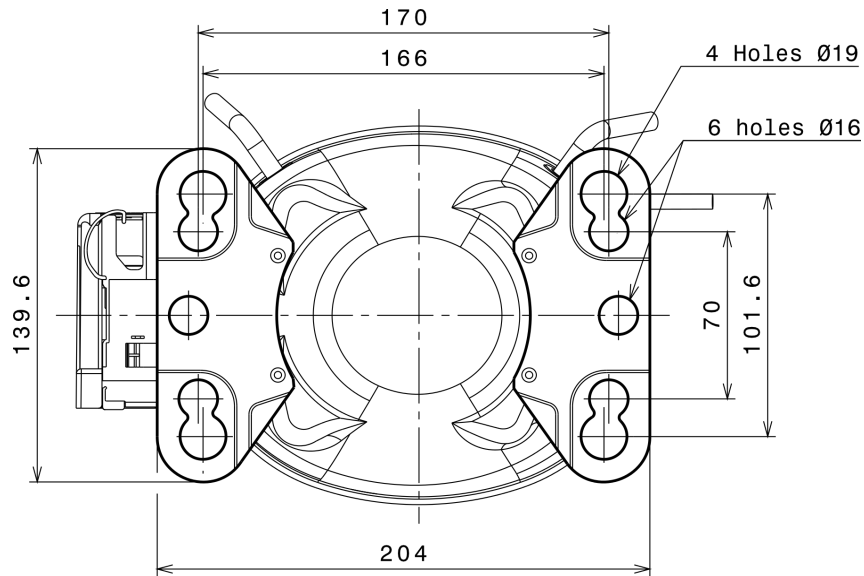
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

RSIR CONNECTION (PTC) (U range)



Technical Data Sheet

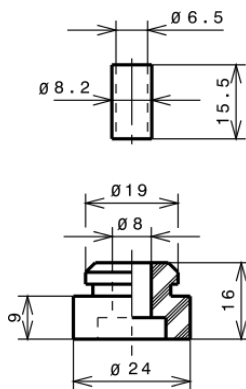
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

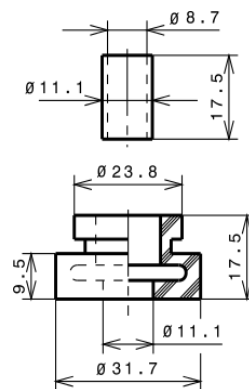
STANDARD

$\varnothing 16$ holes (170x70 net)



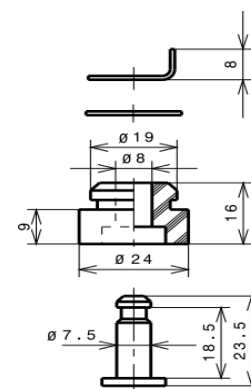
AMERICAN FEET

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



SNAP-ON

$\varnothing 16$ holes (170x70 net)



SOA

SOA R290 LMBP

