

Technical Data Sheet

Compressor model **NUY45RAb**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R290**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	4,50 cm ³	Nominal Power	1/5 hp
Refrigerant	R290	Diameter	21,99 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	11,88 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	9,45 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	220 cm ³	Locked Rotor Amps (LRA)	10,30 A
				Max. Cont. Current (MCC)	1,90 A
				Main W. resist. at 25°C	9,79 Ω
				Start W. resist. at 25°C	37,10 Ω

NOMINAL PERFORMANCE

APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	535 kCal/h	521 W
COP	2,94 W/W	2,49 W/W
EER	2,52 kCal/Wh	2,15 kCal/Wh
Input Power	212 W	209 W
Current	1,15 A	1,14 A



TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T _e)	7,2 °C	5,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	46,0 °C	55,0 °C
Ambient temp. (T _{amb.})	35,0 °C	32,0 °C
Suction temp. (T _{suction})	35,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	47- 56 µF 330 V		
Run capacitor	4 µF 400 V		
Relay	Option 1	Option 2	
Reference	2014 125. + NTC15Ω	QLZ-4.55A + NTC15Ω	
Pick-Up	4,55 A	4.55 A	
Drop-Out	3,90 A	3.90 A	
Protector	Option 1		
Reference	T0068		
Current	5,80 A		
Time check	7,5-14 seg		
Disc temp. (Open/Close)	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	-25	178	127	0,80	1,64	1,41
40	-20	226	135	0,83	1,94	1,67
40	-15	283	143	0,86	2,30	1,98
40	-10	348	150	0,89	2,70	2,32
40	-5	423	156	0,91	3,15	2,71
40	0	507	162	0,93	3,64	3,13
40	5	601	167	0,95	4,19	3,60
40	7,2	645	169	0,96	4,45	3,82
40	10	703	171	0,97	4,79	4,12

45	-25	164	130	0,82	1,47	1,26
45	-20	208	140	0,85	1,73	1,48
45	-15	262	150	0,89	2,03	1,74
45	-10	324	159	0,92	2,37	2,04
45	-5	395	167	0,95	2,76	2,37
45	0	476	174	0,98	3,18	2,74
45	5	566	180	1,01	3,65	3,14
45	7,2	608	183	1,02	3,86	3,32
45	10	664	186	1,03	4,15	3,57

50	-25	150	134	0,83	1,31	1,12
50	-20	191	146	0,87	1,52	1,31
50	-15	241	157	0,91	1,78	1,53
50	-10	299	167	0,95	2,08	1,79
50	-5	367	177	0,99	2,41	2,08
50	0	445	186	1,03	2,78	2,39
50	5	531	194	1,07	3,18	2,73
50	7,2	572	198	1,08	3,37	2,89
50	10	626	202	1,10	3,61	3,11

55	-25	136	137	0,84	1,15	0,99
55	-20	173	151	0,89	1,34	1,15
55	-15	220	164	0,94	1,56	1,34
55	-10	275	176	0,99	1,82	1,56
55	-5	339	187	1,04	2,11	1,81
55	0	413	198	1,09	2,43	2,09
55	5	496	208	1,13	2,77	2,38
55	7,2	535	212	1,15	2,94	2,52
55	10	587	217	1,17	3,15	2,71

60	-25	122	141	0,85	1,01	0,87
60	-20	156	156	0,91	1,16	1,00
60	-15	199	171	0,97	1,35	1,16
60	-10	251	185	1,03	1,58	1,36
60	-5	312	198	1,08	1,83	1,58
60	0	382	210	1,14	2,11	1,82
60	5	461	222	1,20	2,42	2,08
60	7,2	499	227	1,22	2,56	2,20
60	10	549	232	1,25	2,75	2,36

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	191	127	0,81	1,51	1,30
40	-20	243	136	0,84	1,79	1,55
40	-15	305	144	0,86	2,12	1,83
40	-10	376	151	0,89	2,49	2,15
40	-5	456	157	0,92	2,90	2,51
40	0	546	163	0,94	3,35	2,90
40	5	646	168	0,96	3,85	3,33
40	7,2	693	170	0,96	4,08	3,53
40	10	755	172	0,97	4,39	3,80

45	-25	175	131	0,82	1,34	1,16
45	-20	223	141	0,85	1,58	1,37
45	-15	280	151	0,89	1,86	1,61
45	-10	347	160	0,92	2,17	1,88
45	-5	423	168	0,96	2,52	2,18
45	0	509	175	0,99	2,91	2,51
45	5	604	182	1,01	3,33	2,88
45	7,2	649	184	1,02	3,52	3,04
45	10	709	187	1,04	3,78	3,27

50	-25	159	134	0,83	1,19	1,03
50	-20	203	146	0,87	1,39	1,20
50	-15	256	158	0,92	1,62	1,40
50	-10	318	168	0,96	1,89	1,63
50	-5	390	178	1,00	2,19	1,89
50	0	472	187	1,04	2,52	2,18
50	5	563	195	1,07	2,88	2,49
50	7,2	606	199	1,09	3,05	2,63
50	10	663	203	1,11	3,27	2,82

55	-25	143	138	0,84	1,04	0,90
55	-20	183	152	0,89	1,20	1,04
55	-15	231	165	0,94	1,41	1,21
55	-10	290	177	0,99	1,64	1,41
55	-5	357	189	1,04	1,90	1,64
55	0	435	199	1,09	2,18	1,88
55	5	521	209	1,14	2,49	2,15
55	7,2	563	213	1,16	2,64	2,28
55	10	618	218	1,18	2,83	2,44

60	-25	127	141	0,86	0,90	0,78
60	-20	162	157	0,91	1,04	0,89
60	-15	207	172	0,97	1,21	1,04
60	-10	261	186	1,03	1,41	1,21
60	-5	324	199	1,09	1,63	1,41
60	0	397	211	1,15	1,88	1,62
60	5	480	223	1,20	2,15	1,86
60	7,2	519	228	1,23	2,28	1,97
60	10	572	234	1,26	2,44	2,11

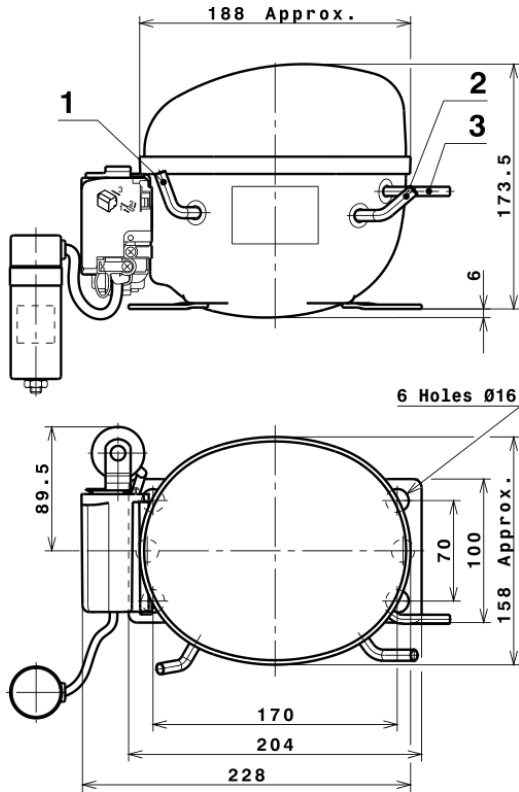
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	846,1686964242	67,5666870113	0,4916747312	7,474785480506
2	25,8183281895	-1,7226148754	-0,0092625622	0,2535150452328
3	-7,6967262103	2,4935794524	0,0113317949	-0,028156012724797
4	0,1862521660	-0,0149290187	-0,0000152019	0,0029431514204507
5	-0,1784776714	0,0709468347	0,0003513391	-0,00032858437971144

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

COMPRESSOR DIMENSIONS

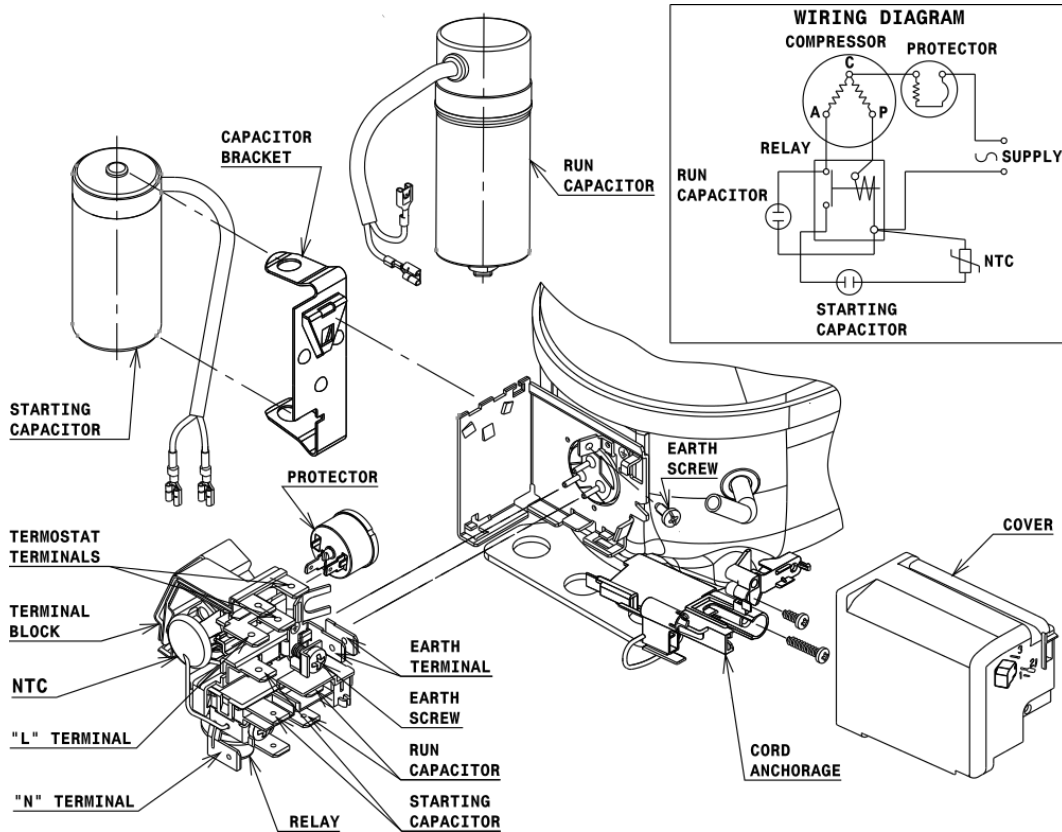


DESIGNATION INTERNAL DIAM.

1	Service	6,2 mm
2	Suction	6,2 mm
3	Discharge	4,9 mm

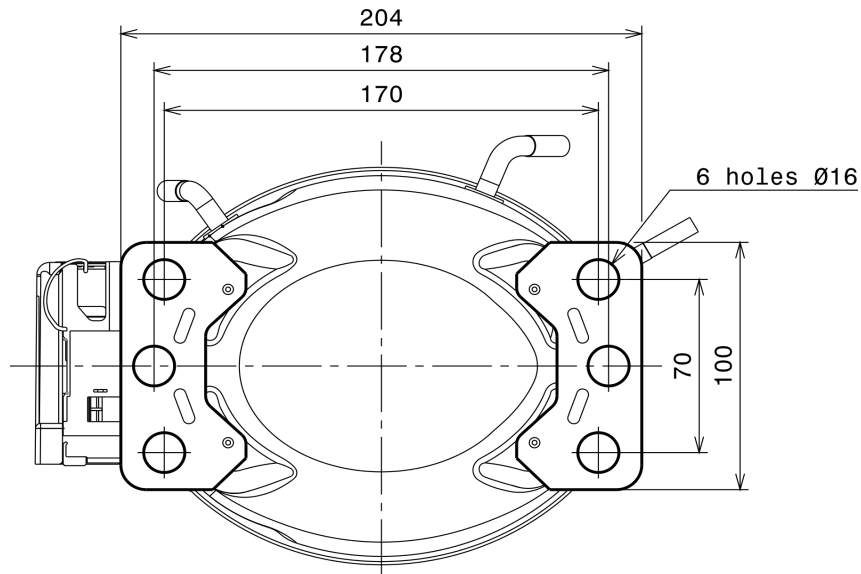
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (CURRENT RELAY + NTC) (U range)



Technical Data Sheet

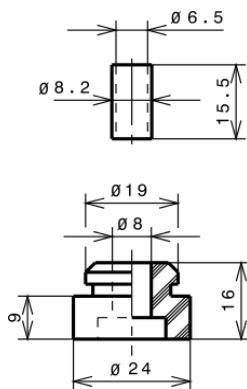
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

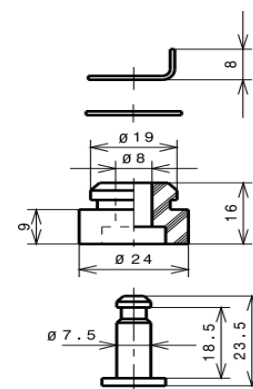
STANDARD

Ø16 holes (170x70 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R290 HMBP

