

# Technical Data Sheet

Compressor model **NUY70RAa**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R290**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	6,70 cm <sup>3</sup>	Nominal Power	1/4 hp
Refrigerant	R290	Diameter	24,30 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	14,50 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	9,60 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	200 cm <sup>3</sup>	Locked Rotor Amps (LRA)	15,00 A
				Max. Cont. Current (MCC)	3,20 A
				Main W. resist. at 25°C	6,50 Ω
				Start W. resist. at 25°C	30,30 Ω

## NOMINAL PERFORMANCE

## APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	836 kCal/h	817 W
COP	2,75 W/W	2,34 W/W
EER	2,36 kCal/Wh	2,02 kCal/Wh
Input Power	354 W	349 W
Current	2,33 A	2,31 A

## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	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			
Relay	Option 1			
Reference	2014 138.			
Pick-Up	6,10 A			
Drop-Out	5,20 A			
Protector	Option 1			
Reference	T0269			
Current	9,60 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 52,00 °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	285	217	1,99	1,52	1,31
40	-20	361	229	2,01	1,84	1,58
40	-15	451	240	2,03	2,19	1,88
40	-10	554	251	2,05	2,57	2,21
40	-5	671	261	2,07	2,99	2,57
40	0	801	270	2,09	3,44	2,96
40	5	944	280	2,12	3,93	3,38
40	7,2	1.012	284	2,13	4,15	3,57
40	10	1.101	288	2,14	4,44	3,82

45	-25	268	223	2,00	1,40	1,20
45	-20	338	237	2,02	1,66	1,42
45	-15	421	251	2,05	1,95	1,68
45	-10	518	265	2,08	2,28	1,96
45	-5	628	278	2,11	2,63	2,26
45	0	752	290	2,14	3,01	2,59
45	5	889	302	2,17	3,42	2,94
45	7,2	953	307	2,19	3,61	3,10
45	10	1.039	313	2,21	3,86	3,32

50	-25	252	229	2,01	1,28	1,10
50	-20	315	246	2,04	1,49	1,28
50	-15	392	263	2,08	1,73	1,49
50	-10	482	279	2,11	2,01	1,73
50	-5	586	294	2,15	2,31	1,99
50	0	703	310	2,19	2,64	2,27
50	5	833	324	2,24	2,99	2,57
50	7,2	895	331	2,26	3,15	2,71
50	10	977	338	2,28	3,36	2,89

55	-25	235	235	2,02	1,16	1,00
55	-20	292	255	2,06	1,33	1,15
55	-15	362	274	2,10	1,54	1,32
55	-10	446	293	2,15	1,77	1,52
55	-5	543	311	2,20	2,03	1,74
55	0	653	329	2,25	2,31	1,99
55	5	777	347	2,31	2,61	2,24
55	7,2	836	354	2,33	2,75	2,36
55	10	914	363	2,36	2,93	2,52

60	-25	219	241	2,03	1,05	0,91
60	-20	269	264	2,08	1,19	1,02
60	-15	333	286	2,13	1,36	1,17
60	-10	410	307	2,19	1,55	1,33
60	-5	500	328	2,25	1,77	1,52
60	0	604	349	2,31	2,02	1,73
60	5	722	369	2,38	2,28	1,96
60	7,2	778	378	2,41	2,40	2,06
60	10	852	388	2,45	2,55	2,19

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	306	218	1,99	1,40	1,21
40	-20	389	230	2,01	1,69	1,46
40	-15	487	241	2,03	2,02	1,74
40	-10	598	252	2,05	2,37	2,05
40	-5	723	262	2,08	2,76	2,38
40	0	862	272	2,10	3,17	2,74
40	5	1.015	281	2,12	3,61	3,12
40	7,2	1.087	285	2,13	3,81	3,29
40	10	1.182	290	2,14	4,07	3,52

45	-25	287	224	2,00	1,28	1,10
45	-20	362	239	2,03	1,52	1,31
45	-15	452	253	2,06	1,79	1,54
45	-10	555	266	2,08	2,09	1,80
45	-5	673	279	2,12	2,41	2,08
45	0	804	292	2,15	2,75	2,38
45	5	949	304	2,18	3,12	2,70
45	7,2	1.018	309	2,19	3,29	2,84
45	10	1.109	315	2,21	3,51	3,04

50	-25	267	230	2,01	1,16	1,00
50	-20	335	247	2,04	1,35	1,17
50	-15	417	264	2,08	1,58	1,36
50	-10	512	280	2,12	1,83	1,58
50	-5	622	296	2,16	2,10	1,81
50	0	746	312	2,20	2,39	2,07
50	5	883	326	2,24	2,71	2,34
50	7,2	948	333	2,26	2,85	2,46
50	10	1.035	341	2,29	3,04	2,62

55	-25	248	236	2,02	1,05	0,91
55	-20	308	256	2,06	1,20	1,04
55	-15	382	276	2,11	1,38	1,20
55	-10	470	295	2,15	1,59	1,38
55	-5	572	313	2,20	1,83	1,58
55	0	688	331	2,26	2,08	1,79
55	5	817	349	2,31	2,34	2,02
55	7,2	879	356	2,34	2,47	2,13
55	10	961	366	2,37	2,63	2,27

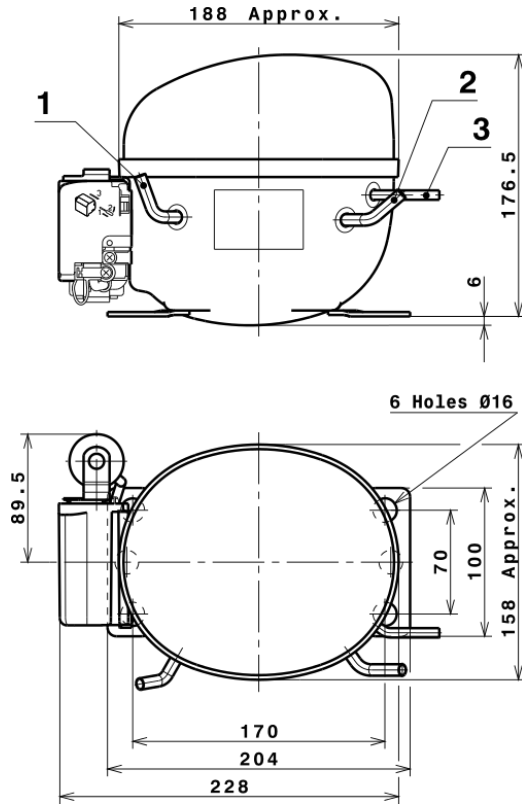
60	-25	228	242	2,03	0,94	0,81
60	-20	281	265	2,08	1,06	0,92
60	-15	347	287	2,14	1,21	1,04
60	-10	427	309	2,19	1,38	1,19
60	-5	521	330	2,25	1,58	1,36
60	0	629	351	2,32	1,79	1,55
60	5	752	371	2,39	2,02	1,75
60	7,2	810	380	2,42	2,13	1,84
60	10	888	391	2,46	2,27	1,96

## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.330,3348490597	117,1380738402	1,5955901636	11,760513410142
2	41,6875483340	-2,4694282453	-0,0106260021	0,41648185138641
3	-12,0252723244	4,0563848939	0,0125319751	-0,04339574538437
4	0,2741056959	-0,0081076463	0,0000681799	0,004355256752646
5	-0,3217932697	0,1128902357	0,0004074004	-0,0011375307364479

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

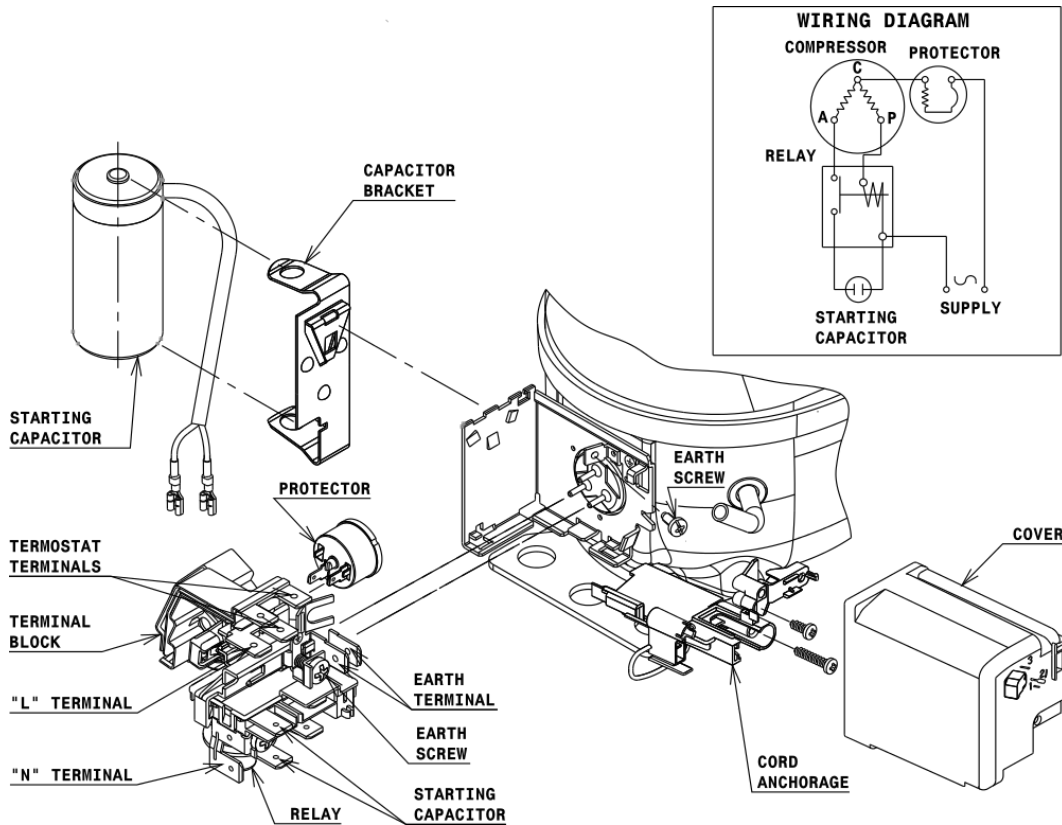


## DESIGNATION INTERNAL DIAM.

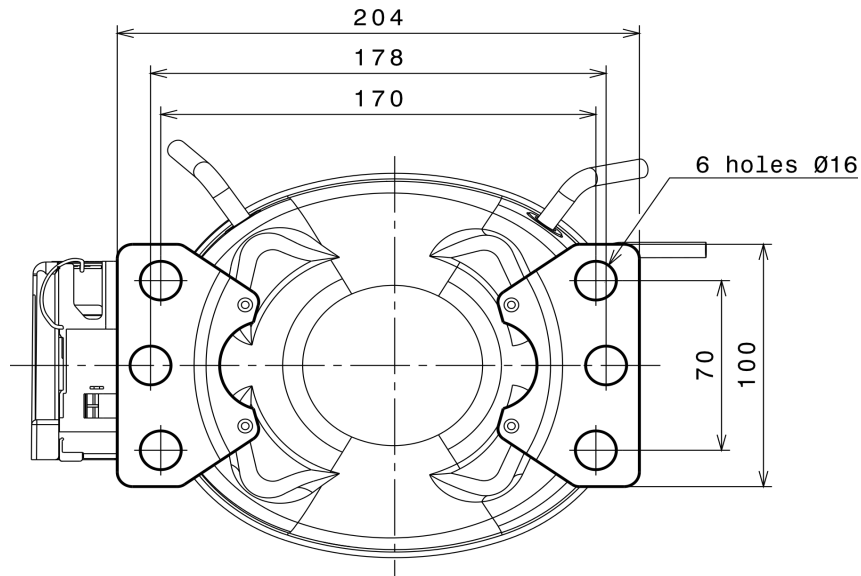
DESIGNATION	INTERNAL DIAM.
1 Service	6,2 mm
2 Suction	6,2 mm
3 Discharge	4,9 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSIR CONNECTION (U range)



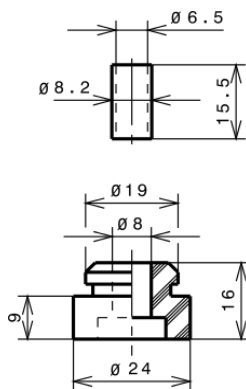
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

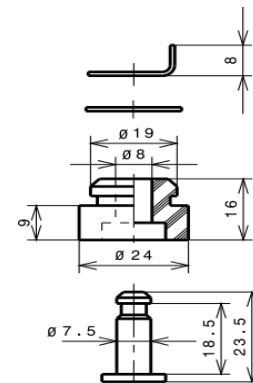
### STANDARD

Ø16 holes (170x70 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R290 HMBP

