Technical Data Sheet

Compressor model **NUY90NRa**

Voltage **115-127V 60Hz ~1**

Refrigerant **R290**

APPLICATION		COMPRESSOR		MOTOR	
Application	Low-Medium Back Pressure.	Displacement	8,90 cm³	Nominal Power	1/3 hp
Refrigerant	R290	Diameter	24,30 mm	Voltage/Frequency	115-127V 60Hz
Evaporating Temp.	-40,0 ºC to -5,0 ºC	Stroke	19,00 mm	Voltage range	98-140 V
Expansion	Capillar/Valve	Net Weight	9,54 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 46 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 ºC	Oil charge	200 cm³	Locked Rotor Amps (LRA)	31,90 A
				Max. Cont. Current (MCC)	7,00 A
				Main W. resist. at 25ºC	1,50 Ω
				Start W. resist. at 25ºC	9,24 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	467 kCal/h	456 W
COP	1,56 W/W	1,35 W/W
EER	1,34 kCal/Wh	1,17 kCal/Wh
Input Power	348 W	337 W
Current	4,23 A	4,16 A

APPROVALS

TEST CYCLE CONDITIONS

	ASHRAE	**CECOMAF**
	LMBP. (B)	**LMBP. (A)**
Evaporating temp. (T_e)	-23,3 ºC	-25,0 ºC
Condensing temp. (T_c)	55,0 ºC	55,0 ºC
Liquid temp. ($T_{liq.}$)	32,0 ºC	55,0 ºC
Ambient temp. ($T_{amb.}$)	32,0 ºC	32,0 ºC
Suction temp. ($T_{suction}$)	32,0 ºC	32,0 ºC
Voltage/Frequency	115 V 60 Hz	115 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	150 µF 160 V			
Relay	Option 1	Option 2		
Reference	2014 180.	QLZ-16.7A		
Pick-Up	16,70 A	16,70 A		
Drop-Out	14,00 A	14,00 A		
Protector	Option 1	Option 2		
Reference	T0535	B170-105		
Current	18,00 A	17,00 A		
Time check	7,5-14 seg	7,5-16 seg		
Disc temp. (Open/Close)	135,00 / 52,00 ºC	110,00 / 52,00 ºC		

This product is approved for R290 and R600a regarding explosion safety according to standard EN 60335-1 and EN 60335-2-34

Technical Data Sheet

cubigel compressors

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	221	223	3,56	1,16	0,99
40	-35	292	247	3,67	1,38	1,18
40	-30	377	273	3,80	1,60	1,38
40	-25	476	302	3,96	1,83	1,58
40	-23,3	512	312	4,01	1,91	1,64
40	-20	588	332	4,13	2,06	1,77
40	-15	715	364	4,33	2,28	1,96
40	-10	855	398	4,57	2,50	2,15
40	-5	1.009	435	4,83	2,70	2,32
45	-40	213	225	3,57	1,10	0,95
45	-35	282	252	3,70	1,30	1,12
45	-30	365	282	3,85	1,51	1,29
45	-25	461	313	4,02	1,71	1,47
45	-23,3	497	324	4,08	1,79	1,54
45	-20	572	346	4,22	1,92	1,65
45	-15	696	381	4,45	2,12	1,83
45	-10	834	418	4,71	2,32	2,00
45	-5	986	457	5,00	2,51	2,16
50	-40	205	228	3,58	1,05	0,90
50	-35	272	258	3,72	1,23	1,05
50	-30	352	290	3,89	1,41	1,22
50	-25	447	324	4,08	1,60	1,38
50	-23,3	482	336	4,16	1,67	1,44
50	-20	555	360	4,31	1,79	1,54
50	-15	677	398	4,56	1,98	1,70
50	-10	813	438	4,85	2,16	1,86
50	-5	963	480	5,18	2,34	2,01
55	-40	197	230	3,59	1,00	0,86
55	-35	262	263	3,75	1,16	0,99
55	-30	340	298	3,93	1,33	1,14
55	-25	432	335	4,15	1,50	1,29
55	-23,3	467	348	4,23	1,56	1,34
55	-20	539	374	4,40	1,68	1,44
55	-15	659	415	4,68	1,85	1,59
55	-10	792	457	5,00	2,01	1,73
55	-5	940	502	5,37	2,18	1,87
60	-40	189	233	3,60	0,95	0,81
60	-35	252	268	3,78	1,09	0,94
60	-30	328	306	3,98	1,24	1,07
60	-25	418	346	4,22	1,40	1,21
60	-23,3	452	360	4,31	1,46	1,25
60	-20	522	388	4,49	1,57	1,35
60	-15	640	431	4,80	1,72	1,48
60	-10	772	477	5,16	1,88	1,62
60	-5	917	525	5,57	2,03	1,75

CECOMAF

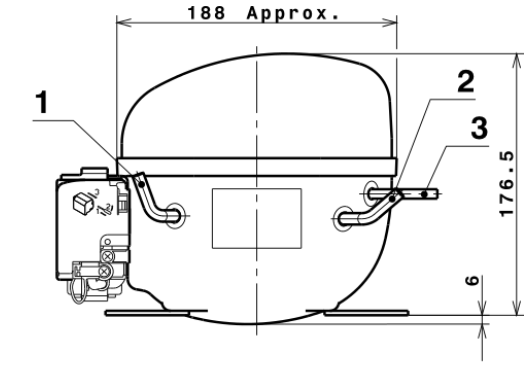
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	82	224	3,56	0,37	0,32
40	-35	77	248	3,68	0,31	0,27
40	-30	87	275	3,81	0,32	0,27
40	-25	112	303	3,96	0,37	0,32
40	-23,3	123	314	4,02	0,39	0,34
40	-20	151	334	4,14	0,45	0,39
40	-15	204	366	4,35	0,56	0,48
40	-10	272	401	4,58	0,68	0,59
40	-5	354	437	4,85	0,81	0,70
45	-40	124	226	3,57	0,55	0,47
45	-35	144	254	3,70	0,57	0,49
45	-30	178	283	3,85	0,63	0,54
45	-25	226	315	4,03	0,72	0,62
45	-23,3	246	326	4,09	0,76	0,65
45	-20	290	348	4,23	0,83	0,72
45	-15	367	383	4,46	0,96	0,83
45	-10	460	421	4,72	1,09	0,94
45	-5	566	460	5,02	1,23	1,06
50	-40	166	229	3,58	0,73	0,63
50	-35	210	259	3,73	0,81	0,70
50	-30	268	291	3,90	0,92	0,80
50	-25	341	326	4,09	1,05	0,91
50	-23,3	369	338	4,17	1,09	0,94
50	-20	429	362	4,32	1,18	1,02
50	-15	531	400	4,58	1,33	1,15
50	-10	647	440	4,87	1,47	1,27
50	-5	778	482	5,21	1,61	1,39
55	-40	208	231	3,60	0,90	0,78
55	-35	276	264	3,76	1,04	0,90
55	-30	359	300	3,94	1,20	1,03
55	-25	456	337	4,16	1,35	1,17
55	-23,3	492	350	4,24	1,41	1,22
55	-20	568	376	4,41	1,51	1,30
55	-15	694	417	4,70	1,66	1,44
55	-10	835	460	5,03	1,81	1,57
55	-5	990	505	5,40	1,96	1,69
60	-40	250	234	3,61	1,07	0,92
60	-35	342	270	3,78	1,27	1,10
60	-30	449	308	3,99	1,46	1,26
60	-25	571	348	4,23	1,64	1,42
60	-23,3	615	362	4,32	1,70	1,47
60	-20	707	390	4,51	1,81	1,57
60	-15	857	434	4,82	1,98	1,71
60	-10	1.022	480	5,18	2,13	1,84
60	-5	1.201	528	5,59	2,28	1,97

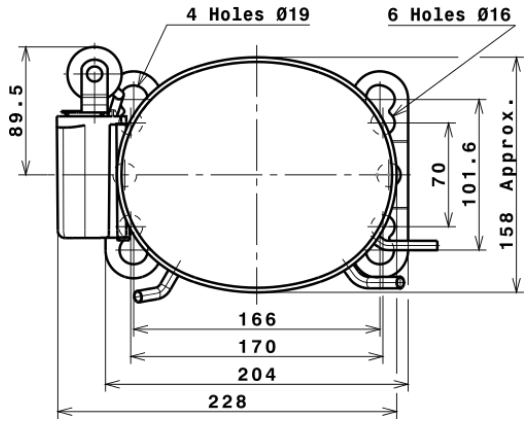
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	-1.369,4824224659	278,7765273637	3,4885381436	-23,837421415275
2	-16,8674372380	3,4358040118	0,0297371675	-0,32248356225939
3	45,3960370912	5,2339596211	0,0443420243	0,71861028369495
4	0,2830105116	0,0416485662	0,0007432560	0,0042515621860667
5	0,9332473935	0,1180105910	0,0010492566	0,014860667891525

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

COMPRESSOR DIMENSIONS

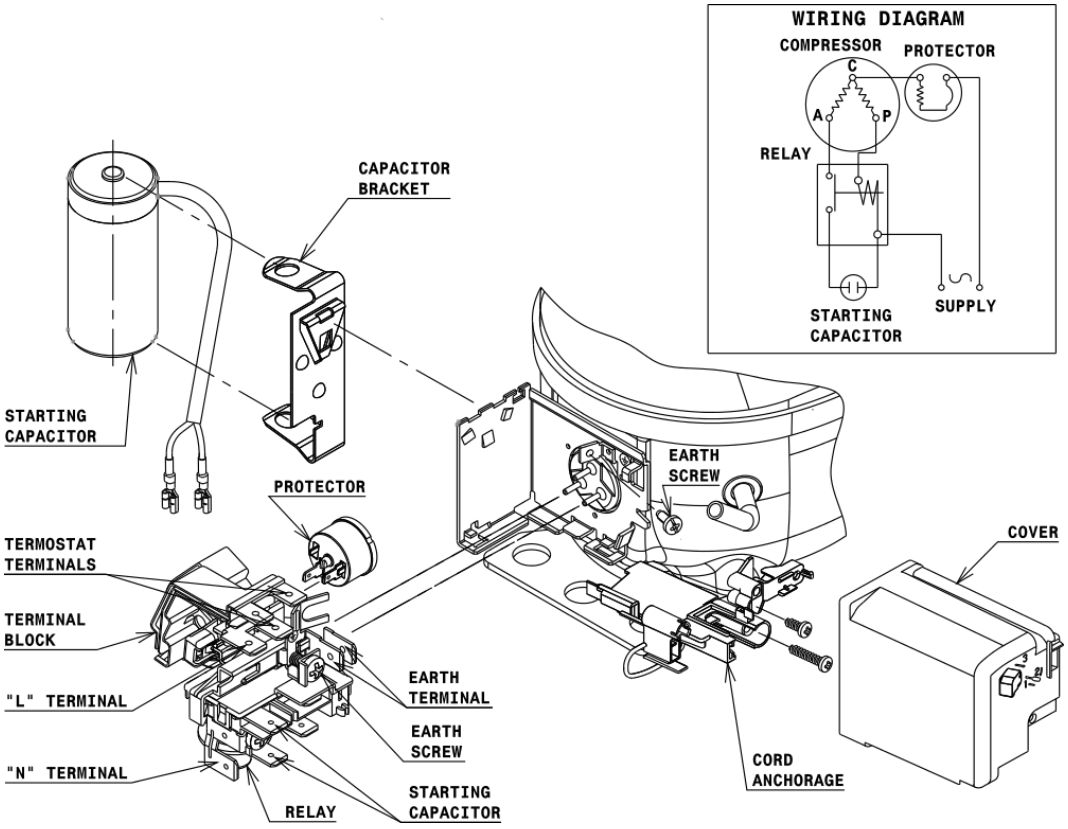




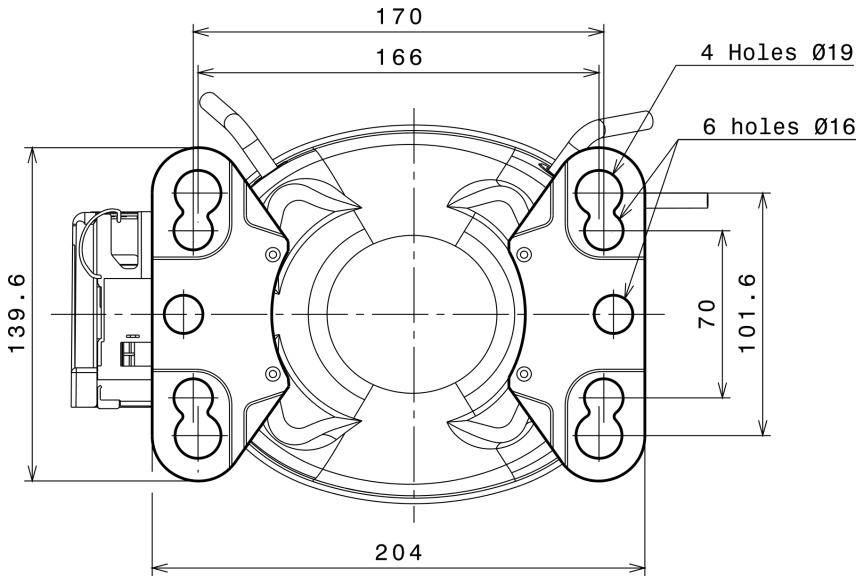
	DESIGNATION	INTERNAL DIAM.
1	Service	6,2 mm
2	Suction	6,2 mm
3	Discharge	4,9 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (U range)



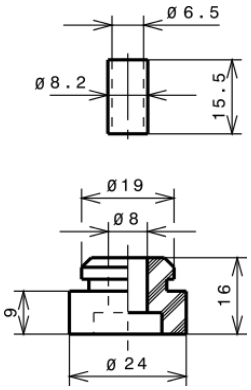
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

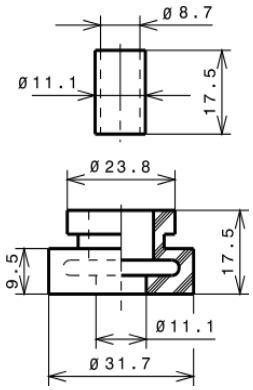
STANDARD

Ø16 holes (170x70 net)



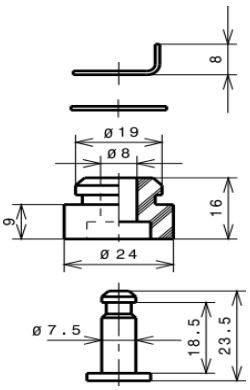
AMERICAN FEET

Ø19 holes (166x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R290 LMBP.