Technical Data Sheet

Compressor model **NST34LA_T**

Voltage **220-240V 50Hz ~1**

Refrigerant **R290**

Compressor status

APPLICATION

Application	Low Back Pressure
Refrigerant	R290
Evaporating Temp.	-40,0 ºC to -10,0 ºC
Expansion	Capillar/Valve
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 ºC

COMPRESSOR

Displacement	34,42 cm³
Diameter	42,86 mm
Stroke	23,85 mm
Net Weight	23,00 Kg
Oil type	ISO VG 46 ESTER
Oil charge	700 cm³
HP	1 hp

MOTOR

Voltage/Frequency	220-240V 50Hz
Voltage range	198-255 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	29,50 A
Max. Cont. Current (MCC)	8,10 A
Main W. resist. at 25ºC	2,60 Ω
Start W. resist. at 25ºC	3,85 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	1.323 kCal/h	1.143 W
COP	1,53 W/W	1,19 W/W
EER	1,31 kCal/Wh	1,03 kCal/Wh
Input Power	1.008 W	962 W
Current	4,76 A	4,55 A

APPROVALS

TEST CYCLE CONDITIONS

	ASHRAE	**CECOMAF**
	LBP (B)	**LBP (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	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	88-108 µF 330 V			
Run capacitor	25 µF 420 V			
Relay	Option 1	Option 2		
Reference	3ARR3 3AV3	RVA 2L..		
Pick-Up	224-252 V	224-252 V		
Drop-Out	40-90 V	40-105 V		
Protector	Option 1			
Reference	T0534			
Current	20,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 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	558	609	2,91	1,07	0,92
40	-35	775	701	3,33	1,29	1,11
40	-30	1.041	797	3,78	1,52	1,31
40	-25	1.355	898	4,25	1,76	1,51
40	-23,3	1.473	933	4,41	1,84	1,58
40	-20	1.717	1.003	4,74	1,99	1,71
40	-15	2.128	1.113	5,25	2,22	1,91
40	-10	2.587	1.228	5,78	2,45	2,11
45	-40	542	600	2,86	1,05	0,90
45	-35	749	702	3,34	1,24	1,07
45	-30	1.005	808	3,83	1,45	1,24
45	-25	1.309	919	4,35	1,66	1,42
45	-23,3	1.423	958	4,53	1,73	1,49
45	-20	1.661	1.035	4,88	1,87	1,60
45	-15	2.061	1.155	5,44	2,08	1,78
45	-10	2.510	1.280	6,02	2,28	1,96
50	-40	526	591	2,82	1,04	0,89
50	-35	723	703	3,34	1,20	1,03
50	-30	968	820	3,89	1,37	1,18
50	-25	1.262	941	4,45	1,56	1,34
50	-23,3	1.373	983	4,64	1,62	1,40
50	-20	1.604	1.067	5,03	1,75	1,50
50	-15	1.994	1.197	5,64	1,94	1,67
50	-10	2.433	1.332	6,26	2,12	1,83
55	-40	510	582	2,78	1,02	0,88
55	-35	697	704	3,35	1,15	0,99
55	-30	932	831	3,94	1,30	1,12
55	-25	1.216	962	4,55	1,47	1,26
55	-23,3	1.323	1.008	4,76	1,53	1,31
55	-20	1.547	1.098	5,18	1,64	1,41
55	-15	1.928	1.239	5,83	1,81	1,56
55	-10	2.356	1.384	6,50	1,98	1,70
60	-40	494	573	2,74	1,00	0,86
60	-35	671	705	3,35	1,11	0,95
60	-30	896	842	3,99	1,24	1,06
60	-25	1.169	984	4,65	1,38	1,19
60	-23,3	1.273	1.033	4,88	1,43	1,23
60	-20	1.491	1.130	5,32	1,53	1,32
60	-15	1.861	1.281	6,02	1,69	1,45
60	-10	2.279	1.436	6,74	1,85	1,59

CECOMAF

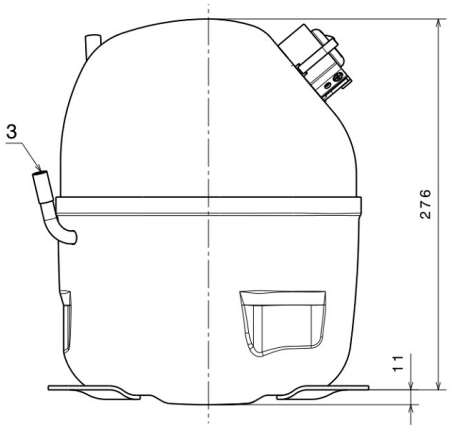
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	606	609	2,91	1,00	0,86
40	-35	861	701	3,33	1,23	1,06
40	-30	1.160	797	3,78	1,46	1,26
40	-25	1.505	898	4,25	1,68	1,45
40	-23,3	1.632	933	4,41	1,75	1,51
40	-20	1.894	1.003	4,74	1,89	1,63
40	-15	2.328	1.113	5,25	2,09	1,81
40	-10	2.806	1.228	5,78	2,29	1,97
45	-40	564	600	2,86	0,94	0,81
45	-35	793	702	3,34	1,13	0,98
45	-30	1.066	808	3,83	1,32	1,14
45	-25	1.384	919	4,35	1,51	1,30
45	-23,3	1.503	958	4,53	1,57	1,36
45	-20	1.747	1.035	4,88	1,69	1,46
45	-15	2.155	1.155	5,44	1,87	1,61
45	-10	2.607	1.280	6,02	2,04	1,76
50	-40	522	591	2,82	0,88	0,76
50	-35	725	703	3,34	1,03	0,89
50	-30	972	820	3,89	1,19	1,02
50	-25	1.264	941	4,45	1,34	1,16
50	-23,3	1.373	983	4,64	1,40	1,21
50	-20	1.601	1.067	5,03	1,50	1,30
50	-15	1.982	1.197	5,64	1,66	1,43
50	-10	2.409	1.332	6,26	1,81	1,56
55	-40	480	582	2,78	0,83	0,71
55	-35	657	704	3,35	0,93	0,81
55	-30	878	831	3,94	1,06	0,91
55	-25	1.143	962	4,55	1,19	1,03
55	-23,3	1.244	1.008	4,76	1,23	1,07
55	-20	1.454	1.098	5,18	1,32	1,14
55	-15	1.809	1.239	5,83	1,46	1,26
55	-10	2.210	1.384	6,50	1,60	1,38
60	-40	438	573	2,74	0,77	0,66
60	-35	588	705	3,35	0,83	0,72
60	-30	783	842	3,99	0,93	0,80
60	-25	1.023	984	4,65	1,04	0,90
60	-23,3	1.115	1.033	4,88	1,08	0,93
60	-20	1.307	1.130	5,32	1,16	1,00
60	-15	1.636	1.281	6,02	1,28	1,10
60	-10	2.011	1.436	6,74	1,40	1,21

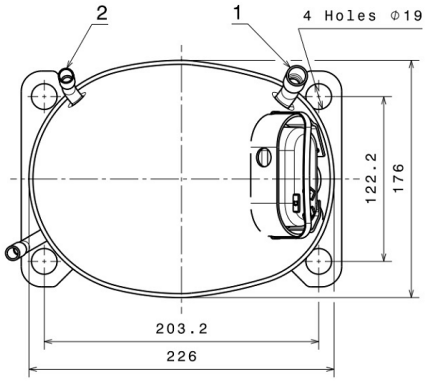
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	5.880,3496663268	917,0349387142	4,3396716706	55,821886213899
2	158,5890573485	9,4846842243	0,0433081150	1,6985142089593
3	-51,3404288327	14,8224076124	0,0684902897	-0,2446246439054
4	0,8740756266	0,0988188310	0,0004390581	0,012813745543433
5	-1,0702537597	0,4165353687	0,0019263881	-0,0051360007903818

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

COMPRESSOR DIMENSIONS

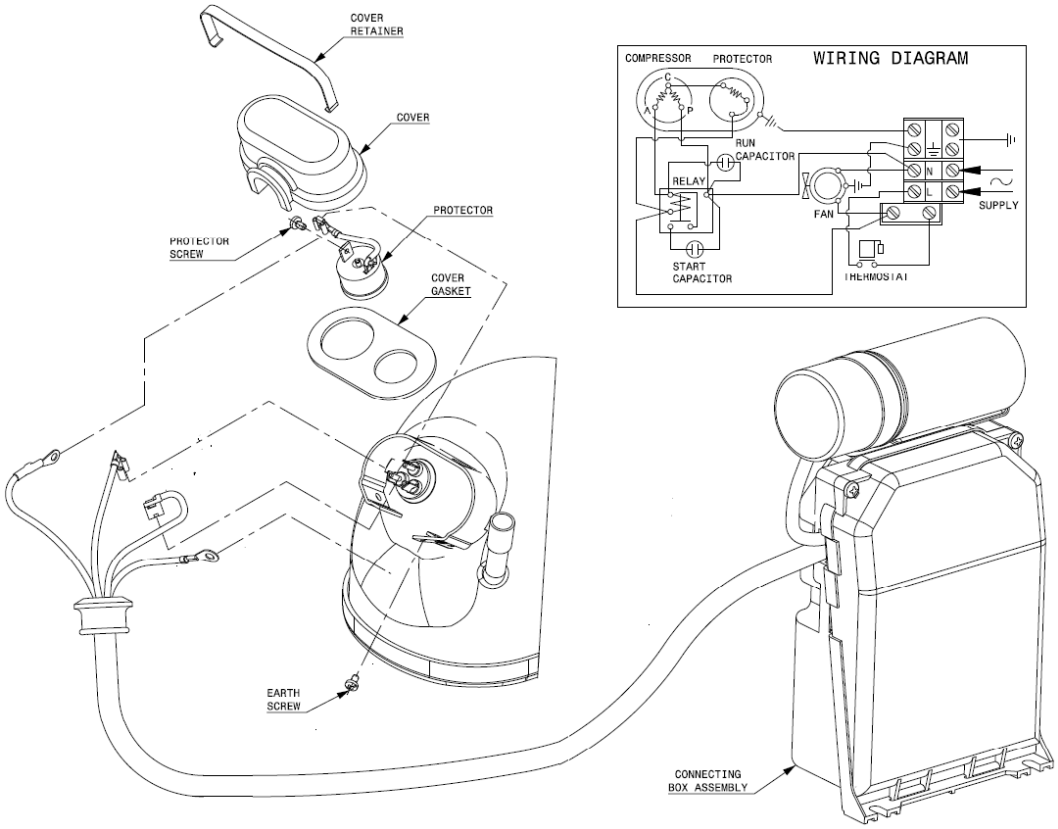




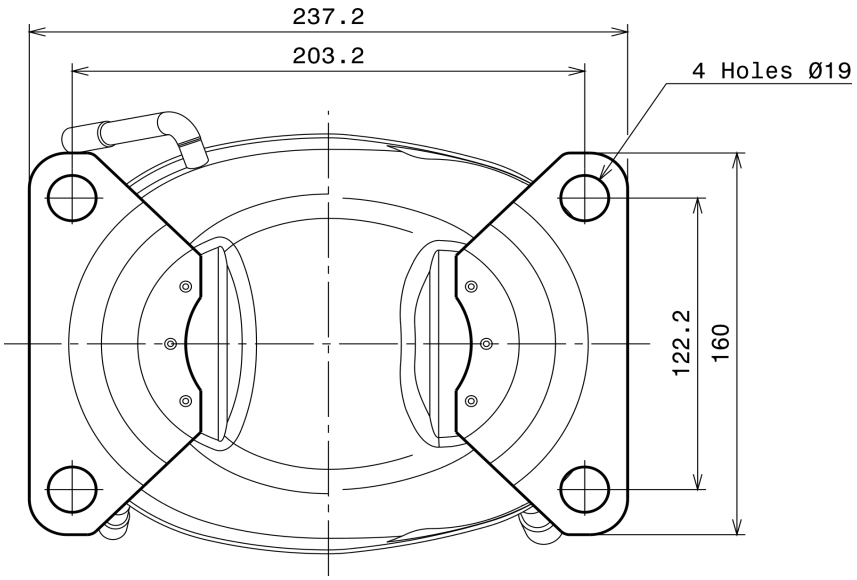
	DESIGNATION	INTERNAL DIAM.
1	Suction	12,7 mm
2	Service	9,7 mm
3	Discharge	8,0 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (EXTERNAL CONNECTING BOX) (NS Range)



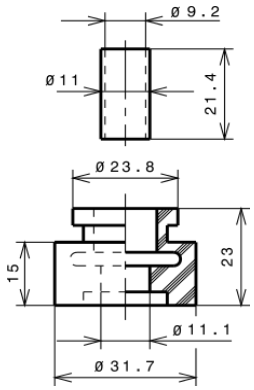
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (203.2x122.2 net)



SOA

SOA R290 LBP