

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **NST34RA_T**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R290**
 Compressor status

APPLICATION

COMPRESSOR

MOTOR

Application	High Back Pressure	Displacement	34,42 cm ³	Voltage/Frequency	220-240V 50Hz
Refrigerant	R290	Diameter	42,86 mm	Voltage range	198-255 V
Evaporating Temp.	-15,0 °C to 10,0 °C	Stroke	23,85 mm	Type	CSR
Expansion	Capillar/Valve	Net Weight	22,00 Kg	Phase number	1 PH
Comp. Cooling	Fan cooled	Oil type	ISO VG 46 ESTER	Locked Rotor Amps (LRA)	55,60 A
Max. ambient temp.	43,0 °C	Oil charge	700 cm ³	Max. Cont. Current (MCC)	12,90 A
		HP	1 3/8 hp	Main W. resist. at 25°C	1,38 Ω
				Start W. resist. at 25°C	4,58 Ω

NOMINAL PERFORMANCE

APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	4.115 kCal/h	4.010 W
COP	2,67 W/W	2,28 W/W
EER	2,30 kCal/Wh	1,97 kCal/Wh
Input Power	1.792 W	1.762 W
Current	9,36 A	9,23 A

TEST CYCLE CONDITIONS

	ASHRAE HBP (D)	CECOMAF HBP (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	88-108 μF 330 V			
Run capacitor	25 μF 420 V			
Relay	Option 1			
Reference	3ARR3 10AS3			
Pick-Up	180-195 V			
Drop-Out	40-105 V			
Protector	Option 1			
Reference	GA3PMV00			
Current	35,00 A			
Time check	6,0-16 seg			
Disc temp. (Open/Close)	120,00 / 57,00 °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	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	kCal/h	W	A	W/W	kCal/Wh
40	-15	2.071	1.193	7,48	2,02	1,74
40	-10	2.572	1.273	7,64	2,35	2,02
40	-5	3.147	1.345	7,81	2,72	2,34
40	0	3.797	1.411	7,98	3,13	2,69
40	5	4.521	1.469	8,15	3,58	3,08
40	7,2	4.864	1.492	8,22	3,79	3,26
40	10	5.320	1.519	8,31	4,07	3,50

45	-15	1.957	1.230	7,55	1,85	1,59
45	-10	2.427	1.324	7,76	2,13	1,83
45	-5	2.972	1.411	7,98	2,45	2,11
45	0	3.591	1.491	8,21	2,80	2,41
45	5	4.285	1.563	8,45	3,19	2,74
45	7,2	4.614	1.592	8,55	3,37	2,90
45	10	5.054	1.627	8,68	3,61	3,11

50	-15	1.843	1.268	7,63	1,69	1,45
50	-10	2.283	1.376	7,88	1,93	1,66
50	-5	2.797	1.477	8,17	2,20	1,89
50	0	3.386	1.570	8,48	2,51	2,16
50	5	4.049	1.656	8,79	2,84	2,44
50	7,2	4.365	1.692	8,94	3,00	2,58
50	10	4.787	1.735	9,11	3,21	2,76

55	-15	1.729	1.305	7,71	1,54	1,32
55	-10	2.138	1.427	8,03	1,74	1,50
55	-5	2.622	1.542	8,38	1,98	1,70
55	0	3.180	1.650	8,77	2,24	1,93
55	5	3.813	1.750	9,18	2,53	2,18
55	7,2	4.115	1.792	9,36	2,67	2,30
55	10	4.520	1.843	9,59	2,85	2,45

60	-15	1.615	1.343	7,80	1,40	1,20
60	-10	1.994	1.479	8,18	1,57	1,35
60	-5	2.447	1.608	8,61	1,77	1,52
60	0	2.974	1.730	9,09	2,00	1,72
60	5	3.577	1.844	9,60	2,26	1,94
60	7,2	3.866	1.892	9,83	2,38	2,04
60	10	4.254	1.951	10,13	2,54	2,18

CECOMAF

Tc	Te	Cooling Capacity	Consumption	Current	COP	EER
°C	°C	W	W	A	W/W	kCal/Wh
40	-15	2.228	1.199	7,49	1,86	1,61
40	-10	2.770	1.280	7,65	2,16	1,87
40	-5	3.389	1.353	7,83	2,50	2,16
40	0	4.086	1.420	8,00	2,88	2,49
40	5	4.861	1.478	8,18	3,29	2,84
40	7,2	5.227	1.502	8,25	3,48	3,01
40	10	5.714	1.530	8,34	3,73	3,23

45	-15	2.093	1.237	7,56	1,69	1,46
45	-10	2.597	1.332	7,77	1,95	1,68
45	-5	3.180	1.420	8,00	2,24	1,94
45	0	3.840	1.500	8,24	2,56	2,21
45	5	4.577	1.573	8,49	2,91	2,51
45	7,2	4.927	1.603	8,59	3,07	2,66
45	10	5.393	1.639	8,73	3,29	2,84

50	-15	1.957	1.275	7,64	1,54	1,33
50	-10	2.425	1.384	7,91	1,75	1,51
50	-5	2.970	1.486	8,20	2,00	1,73
50	0	3.593	1.580	8,51	2,27	1,96
50	5	4.294	1.667	8,84	2,58	2,23
50	7,2	4.627	1.703	8,98	2,72	2,35
50	10	5.072	1.747	9,16	2,90	2,51

55	-15	1.822	1.312	7,73	1,39	1,20
55	-10	2.252	1.436	8,05	1,57	1,36
55	-5	2.761	1.552	8,41	1,78	1,54
55	0	3.347	1.660	8,81	2,02	1,74
55	5	4.010	1.762	9,23	2,28	1,97
55	7,2	4.327	1.804	9,41	2,40	2,07
55	10	4.752	1.856	9,65	2,56	2,21

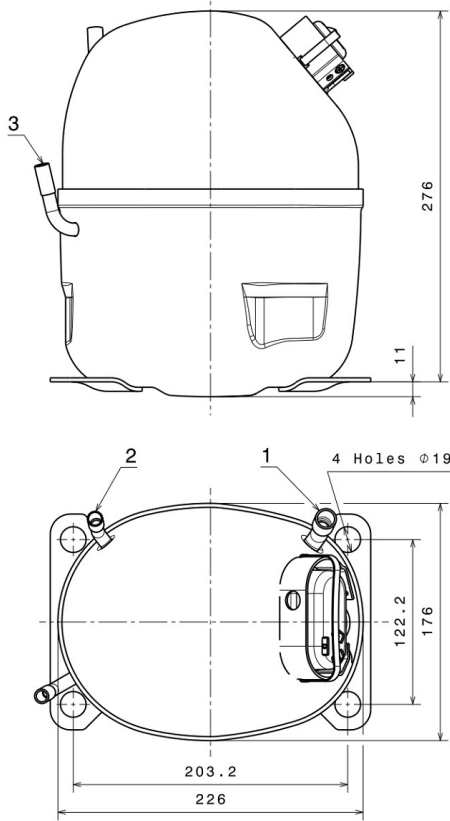
60	-15	1.687	1.350	7,82	1,25	1,08
60	-10	2.080	1.488	8,20	1,40	1,21
60	-5	2.551	1.618	8,65	1,58	1,36
60	0	3.100	1.741	9,14	1,78	1,54
60	5	3.727	1.856	9,66	2,01	1,73
60	7,2	4.027	1.905	9,89	2,11	1,83
60	10	4.431	1.964	10,20	2,26	1,95

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	6.075,0338116213	797,2990768990	5,3617891798	52,724195037876
2	207,9956546464	-10,1789288875	-0,0879727399	1,9567085700795
3	-51,2760858319	16,5051005172	0,0659349332	-0,13191767187374
4	1,5331770325	-0,1369518772	0,0006298268	0,025593322775493
5	-1,5633064816	0,5853995091	0,0032075460	-0,0027515854860366

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

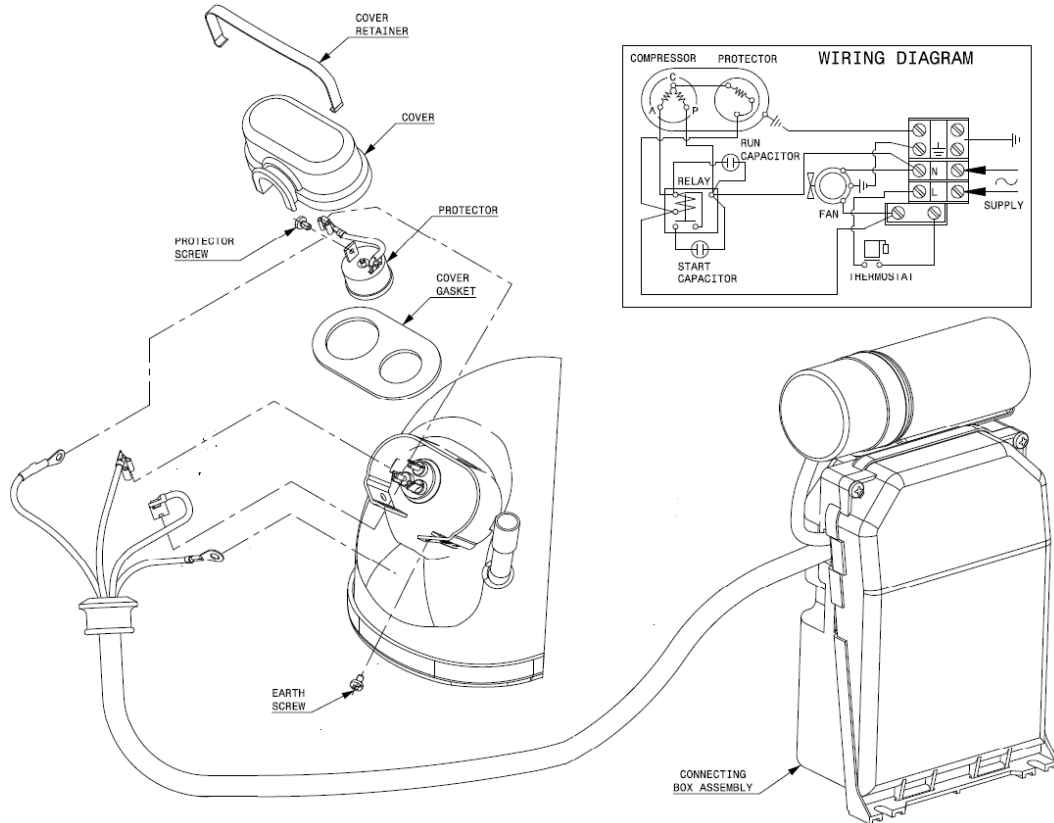


DESIGNATION INTERNAL DIAM.

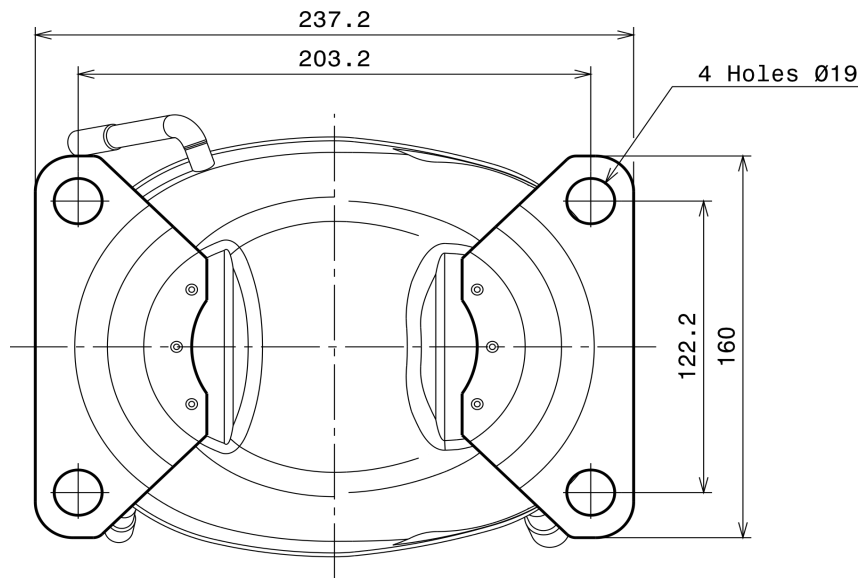
1	Suction	12,7 mm
2	Service	9,7 mm
3	Discharge	8,0 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (EXTERNAL CONNECTING BOX) (NS Range)



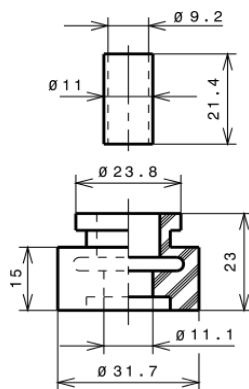
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

$\varnothing 19$ holes (203.2x122.2 net)



SOA

SOA R290 HBP

