Technical Data Sheet

Compressor model **NX23NGa**

Voltage **220-240V 50/60Hz ~1**

Refrigerant **R290**

Compressor status

APPLICATION

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

COMPRESSOR

Displacement	23,20 cm³
Diameter	34,93 mm
Stroke	24,20 mm
Net Weight	16,75 Kg
Oil type	ISO VG 32 ESTER
Oil charge	650 cm³
HP	3/4 hp

MOTOR

Voltage/Frequency	220-240V 50Hz
Voltage range	187-255 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	31,60 A
Max. Cont. Current (MCC)	8,40 A
Main W. resist. at 25ºC	2,56 Ω
Start W. resist. at 25ºC	6,50 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	862 kCal/h	744 W
COP	1,41 W/W	1,09 W/W
EER	1,21 kCal/Wh	0,94 kCal/Wh
Input Power	711 W	683 W
Current	3,66 A	3,53 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	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	88-108 µF 330 V			
Run capacitor	16 µF 420 V			
Relay	Option 1	Option 2		
Reference	2014 180. + NTC15Î©	QLZ 16.7A + NTC15Î©		
Pick-Up	16.7 A	16.7 A		
Drop-Out	14 A	14 A		
Protector	Option 1			
Reference	T0258			
Current	23,50 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	120,00 / 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	396	454	2,41	1,01	0,87
40	-35	530	512	2,70	1,20	1,03
40	-30	695	572	3,00	1,41	1,21
40	-25	892	634	3,30	1,63	1,41
40	-23,3	966	656	3,40	1,71	1,47
40	-20	1.121	698	3,60	1,87	1,60
40	-15	1.381	764	3,91	2,10	1,81
40	-10	1.673	832	4,21	2,34	2,01
40	-5	1.997	901	4,52	2,58	2,22
40	0	2.353	973	4,83	2,81	2,42
45	-40	373	450	2,39	0,96	0,83
45	-35	503	515	2,72	1,14	0,98
45	-30	665	582	3,04	1,33	1,14
45	-25	858	651	3,37	1,53	1,32
45	-23,3	931	674	3,49	1,61	1,38
45	-20	1.084	721	3,71	1,75	1,50
45	-15	1.341	794	4,04	1,96	1,69
45	-10	1.629	868	4,37	2,18	1,88
45	-5	1.950	944	4,71	2,40	2,07
45	0	2.302	1.022	5,04	2,62	2,25
50	-40	350	446	2,37	0,91	0,78
50	-35	477	518	2,73	1,07	0,92
50	-30	635	591	3,09	1,25	1,07
50	-25	825	667	3,45	1,44	1,24
50	-23,3	897	693	3,57	1,51	1,29
50	-20	1.047	744	3,81	1,64	1,41
50	-15	1.300	823	4,17	1,84	1,58
50	-10	1.585	904	4,53	2,04	1,75
50	-5	1.902	987	4,89	2,24	1,93
50	0	2.251	1.072	5,25	2,44	2,10
55	-40	327	442	2,35	0,86	0,74
55	-35	450	520	2,74	1,01	0,86
55	-30	605	601	3,14	1,17	1,01
55	-25	791	683	3,53	1,35	1,16
55	-23,3	862	711	3,66	1,41	1,21
55	-20	1.010	767	3,92	1,53	1,32
55	-15	1.260	852	4,31	1,72	1,48
55	-10	1.541	940	4,69	1,91	1,64
55	-5	1.855	1.030	5,07	2,10	1,80
55	0	2.200	1.121	5,45	2,28	1,96
60	-40	304	438	2,33	0,81	0,69
60	-35	424	523	2,76	0,94	0,81
60	-30	575	610	3,18	1,10	0,94
60	-25	758	699	3,60	1,26	1,08
60	-23,3	827	729	3,75	1,32	1,13
60	-20	973	789	4,02	1,43	1,23
60	-15	1.219	882	4,44	1,61	1,38
60	-10	1.497	976	4,85	1,78	1,53
60	-5	1.807	1.072	5,25	1,96	1,69
60	0	2.149	1.171	5,65	2,14	1,84

CECOMAF

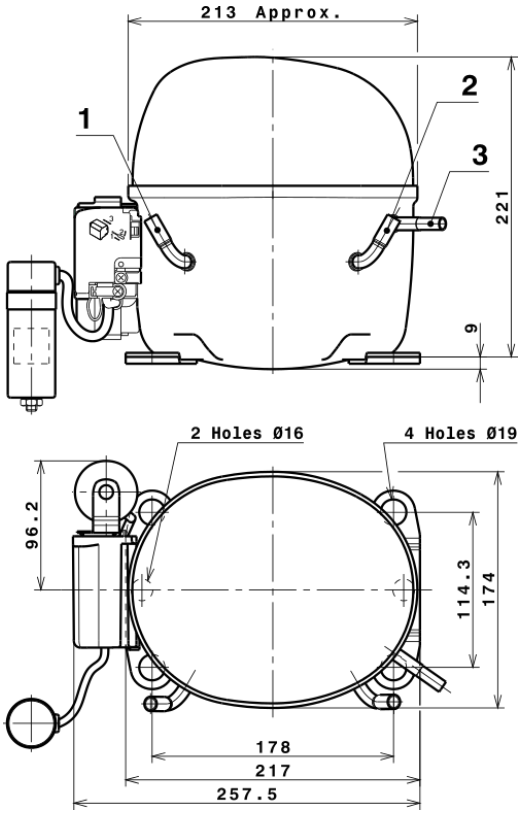
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	429	454	2,41	0,94	0,82
40	-35	592	512	2,70	1,15	1,00
40	-30	784	572	3,00	1,37	1,18
40	-25	1.006	634	3,30	1,58	1,37
40	-23,3	1.088	656	3,40	1,66	1,43
40	-20	1.257	698	3,60	1,80	1,55
40	-15	1.537	764	3,91	2,01	1,74
40	-10	1.846	832	4,21	2,22	1,92
40	-5	2.185	901	4,52	2,42	2,10
40	0	2.553	973	4,83	2,63	2,27
45	-40	388	450	2,39	0,86	0,75
45	-35	536	515	2,72	1,04	0,90
45	-30	712	582	3,04	1,22	1,06
45	-25	919	651	3,37	1,41	1,22
45	-23,3	995	674	3,49	1,48	1,28
45	-20	1.154	721	3,71	1,60	1,38
45	-15	1.418	794	4,04	1,79	1,54
45	-10	1.712	868	4,37	1,97	1,70
45	-5	2.036	944	4,71	2,16	1,86
45	0	2.388	1.022	5,04	2,34	2,02
50	-40	348	446	2,37	0,78	0,67
50	-35	480	518	2,73	0,93	0,80
50	-30	641	591	3,09	1,08	0,94
50	-25	831	667	3,45	1,25	1,08
50	-23,3	903	693	3,57	1,30	1,13
50	-20	1.051	744	3,81	1,41	1,22
50	-15	1.300	823	4,17	1,58	1,36
50	-10	1.578	904	4,53	1,75	1,51
50	-5	1.886	987	4,89	1,91	1,65
50	0	2.223	1.072	5,25	2,07	1,79
55	-40	308	442	2,35	0,70	0,60
55	-35	424	520	2,74	0,82	0,70
55	-30	570	601	3,14	0,95	0,82
55	-25	744	683	3,53	1,09	0,94
55	-23,3	810	711	3,66	1,14	0,98
55	-20	948	767	3,92	1,24	1,07
55	-15	1.182	852	4,31	1,39	1,20
55	-10	1.444	940	4,69	1,54	1,33
55	-5	1.736	1.030	5,07	1,69	1,46
55	0	2.058	1.121	5,45	1,84	1,59
60	-40	268	438	2,33	0,61	0,53
60	-35	368	523	2,76	0,70	0,61
60	-30	498	610	3,18	0,82	0,71
60	-25	657	699	3,60	0,94	0,81
60	-23,3	718	729	3,75	0,98	0,85
60	-20	846	789	4,02	1,07	0,93
60	-15	1.063	882	4,44	1,21	1,04
60	-10	1.310	976	4,85	1,34	1,16
60	-5	1.587	1.072	5,25	1,48	1,28
60	0	1.892	1.171	5,65	1,62	1,40

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.874,0740808384	591,9450918311	3,2833131551	35,111814444552
2	101,2012960110	4,0593445499	0,0151239575	1,0458037264812
3	-34,0515279347	10,1652322795	0,0415999248	-0,13009863279463
4	0,5726693594	0,0418503854	-0,0000330509	0,0086295925899856
5	-0,6497367197	0,2745642196	0,0011431722	-0,0018462541042778

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

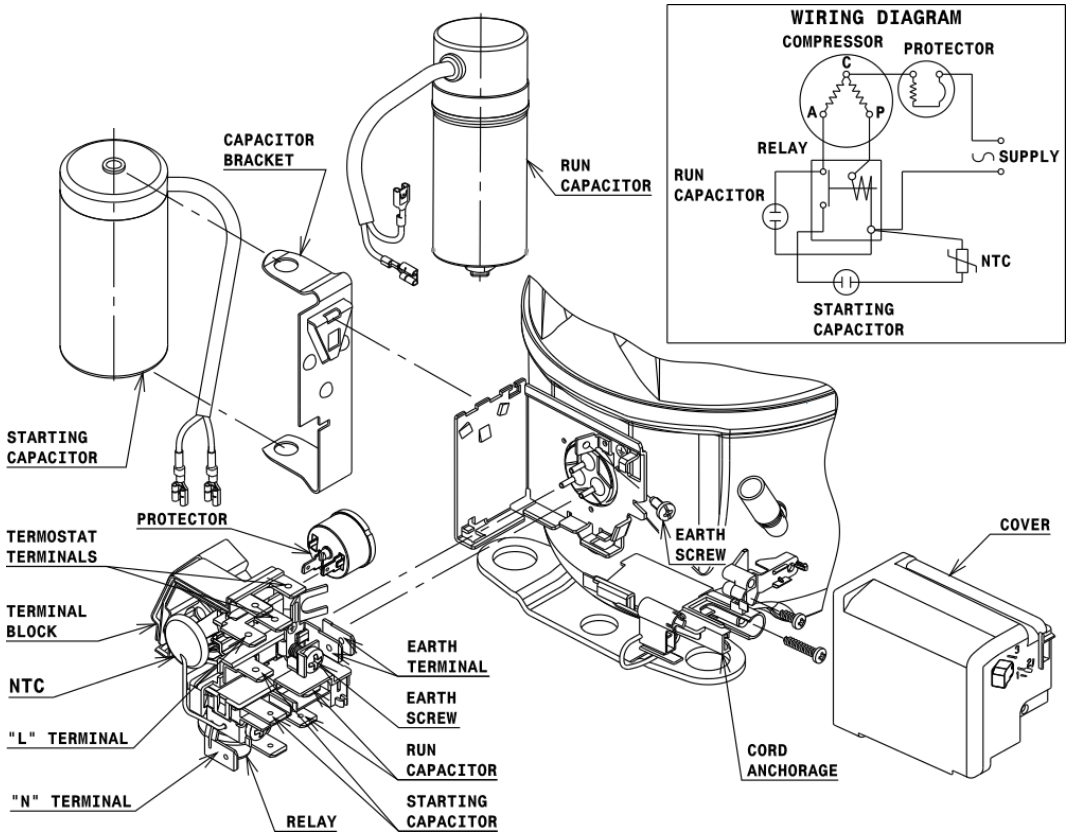
COMPRESSOR DIMENSIONS



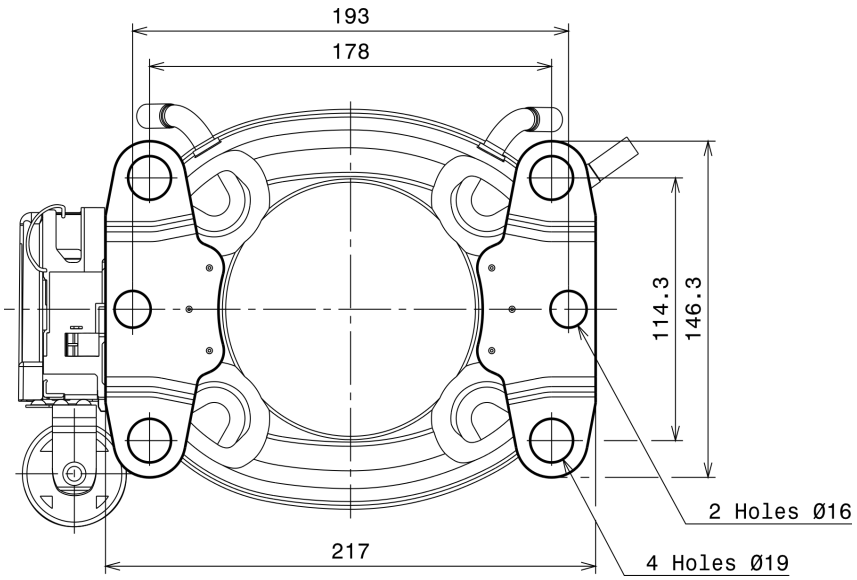
	DESIGNATION	INTERNAL DIAM.
1	Service	9,7 mm
2	Suction	9,7 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



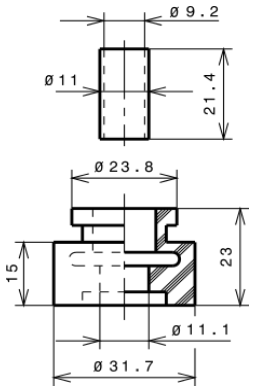
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø19 holes (178x114.3 net)



SOA

SOA R290 LMBP