

# Technical Data Sheet

Compressor model **NX23FBa**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R290**

## APPLICATION

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

## COMPRESSOR

Displacement 23,20 cm<sup>3</sup>  
 Diameter 34,93 mm  
 Stroke 24,20 mm  
 Net Weight 16,75 Kg  
 Oil type ISO VG 32 ESTER  
 Oil charge 650 cm<sup>3</sup>

## MOTOR

Nominal Power 7/8 hp  
 Voltage/Frequency 220-240V 50Hz  
 Voltage range 187-255 V  
 Type CSR  
 Phase number 1 PH  
 Locked Rotor Amps (LRA) 30,00 A  
 Max. Cont. Current (MCC) 5,60 A  
 Main W. resist. at 25°C 2,56 Ω  
 Start W. resist. at 25°C 6,50 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	862 kCal/h	746 W
COP	1,41 W/W	1,09 W/W
EER	1,21 kCal/Wh	0,94 kCal/Wh
Input Power	711 W	685 W
Current	3,66 A	3,53 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T <sub>e</sub> )	-23,3 °C	-25,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	32,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	32,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	32,0 °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	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 °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	-40	386	432	2,27	1,04	0,89
40	-35	527	492	2,58	1,25	1,07
40	-30	695	550	2,86	1,47	1,26
40	-25	889	605	3,14	1,71	1,47
40	-23,3	961	623	3,23	1,79	1,54
40	-20	1.109	658	3,40	1,96	1,69
40	-15	1.355	708	3,65	2,22	1,91
40	-10	1.627	757	3,88	2,50	2,15

45	-40	362	437	2,30	0,96	0,83
45	-35	501	504	2,64	1,16	0,99
45	-30	666	569	2,96	1,36	1,17
45	-25	857	632	3,27	1,58	1,36
45	-23,3	928	653	3,37	1,65	1,42
45	-20	1.074	692	3,57	1,81	1,55
45	-15	1.317	750	3,85	2,04	1,76
45	-10	1.586	805	4,12	2,29	1,97

50	-40	339	442	2,32	0,89	0,77
50	-35	475	517	2,70	1,07	0,92
50	-30	637	589	3,06	1,26	1,08
50	-25	825	659	3,40	1,46	1,25
50	-23,3	895	682	3,52	1,53	1,31
50	-20	1.039	726	3,73	1,66	1,43
50	-15	1.279	791	4,05	1,88	1,62
50	-10	1.546	854	4,36	2,11	1,81

55	-40	315	447	2,35	0,82	0,70
55	-35	448	529	2,76	0,99	0,85
55	-30	608	608	3,15	1,16	1,00
55	-25	793	685	3,53	1,35	1,16
55	-23,3	862	711	3,66	1,41	1,21
55	-20	1.004	760	3,90	1,54	1,32
55	-15	1.242	832	4,25	1,74	1,49
55	-10	1.505	902	4,59	1,94	1,67

60	-40	292	452	2,38	0,75	0,64
60	-35	422	541	2,82	0,91	0,78
60	-30	579	628	3,25	1,07	0,92
60	-25	761	712	3,67	1,24	1,07
60	-23,3	829	740	3,80	1,30	1,12
60	-20	970	794	4,07	1,42	1,22
60	-15	1.204	873	4,45	1,60	1,38
60	-10	1.465	951	4,82	1,79	1,54

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	417	432	2,27	0,97	0,83
40	-35	582	492	2,58	1,18	1,02
40	-30	770	550	2,86	1,40	1,21
40	-25	983	605	3,14	1,62	1,40
40	-23,3	1.061	623	3,23	1,70	1,47
40	-20	1.220	658	3,40	1,85	1,60
40	-15	1.481	708	3,65	2,09	1,81
40	-10	1.766	757	3,88	2,33	2,02

45	-40	377	437	2,30	0,86	0,75
45	-35	529	504	2,64	1,05	0,91
45	-30	704	569	2,96	1,24	1,07
45	-25	904	632	3,27	1,43	1,24
45	-23,3	977	653	3,37	1,50	1,29
45	-20	1.128	692	3,57	1,63	1,41
45	-15	1.376	750	3,85	1,84	1,59
45	-10	1.648	805	4,12	2,05	1,77

50	-40	337	442	2,32	0,76	0,66
50	-35	475	517	2,70	0,92	0,80
50	-30	638	589	3,06	1,08	0,94
50	-25	825	659	3,40	1,25	1,08
50	-23,3	894	682	3,52	1,31	1,13
50	-20	1.036	726	3,73	1,43	1,23
50	-15	1.271	791	4,05	1,61	1,39
50	-10	1.530	854	4,36	1,79	1,55

55	-40	297	447	2,35	0,66	0,57
55	-35	422	529	2,76	0,80	0,69
55	-30	572	608	3,15	0,94	0,81
55	-25	746	685	3,53	1,09	0,94
55	-23,3	810	711	3,66	1,14	0,98
55	-20	944	760	3,90	1,24	1,07
55	-15	1.166	832	4,25	1,40	1,21
55	-10	1.411	902	4,59	1,56	1,35

60	-40	257	452	2,38	0,57	0,49
60	-35	369	541	2,82	0,68	0,59
60	-30	506	628	3,25	0,81	0,70
60	-25	667	712	3,67	0,94	0,81
60	-23,3	727	740	3,80	0,98	0,85
60	-20	852	794	4,07	1,07	0,93
60	-15	1.060	873	4,45	1,21	1,05
60	-10	1.293	951	4,82	1,36	1,18

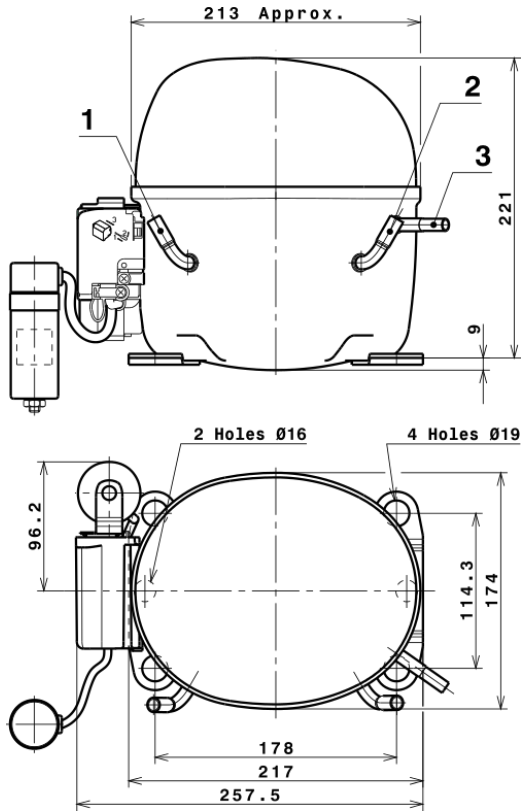
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.546,9153693836	351,3796671687	1,9178937635	33,032679349462
2	89,1938277873	-3,0878325644	-0,0160799884	0,9300156255013
3	-29,5760362402	12,9124460819	0,0624537350	-0,11645276960757
4	0,4693330639	-0,0464988016	-0,0002776757	0,0069846640182262
5	-0,5384085106	0,2972693863	0,0014332714	-0,0014746311150401

Equation	$x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$
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# Technical Data Sheet

## COMPRESSOR DIMENSIONS

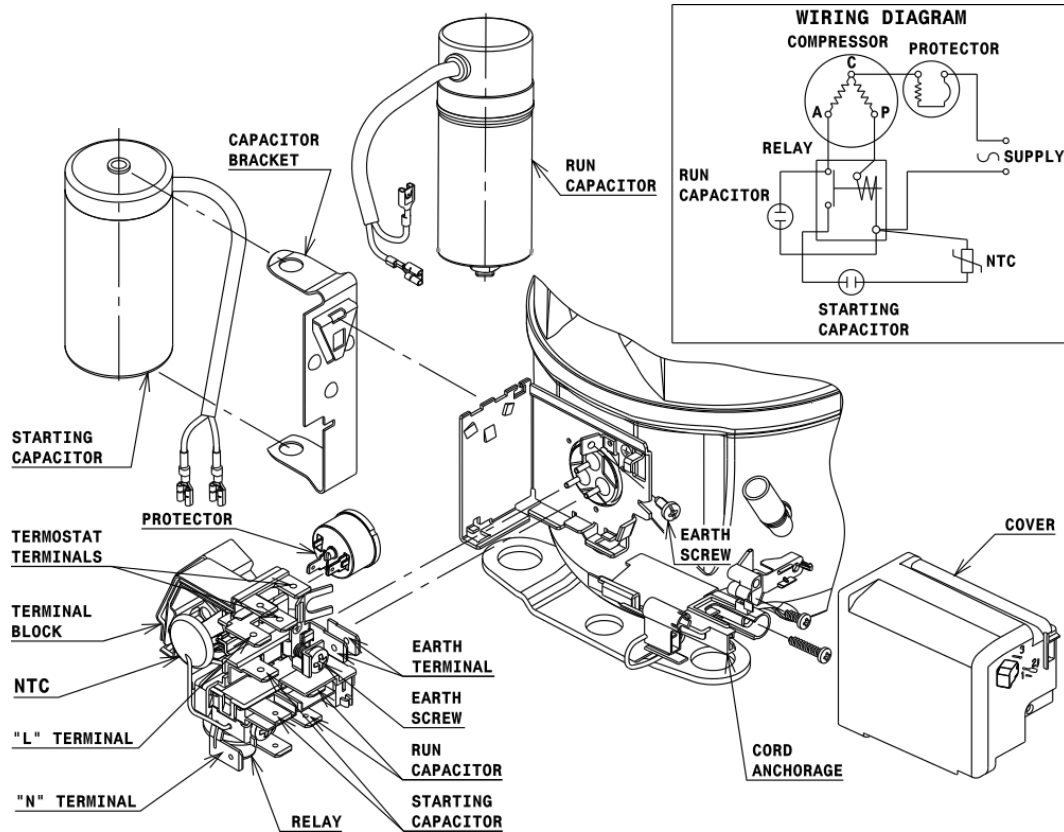


## DESIGNATION INTERNAL DIAM.

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

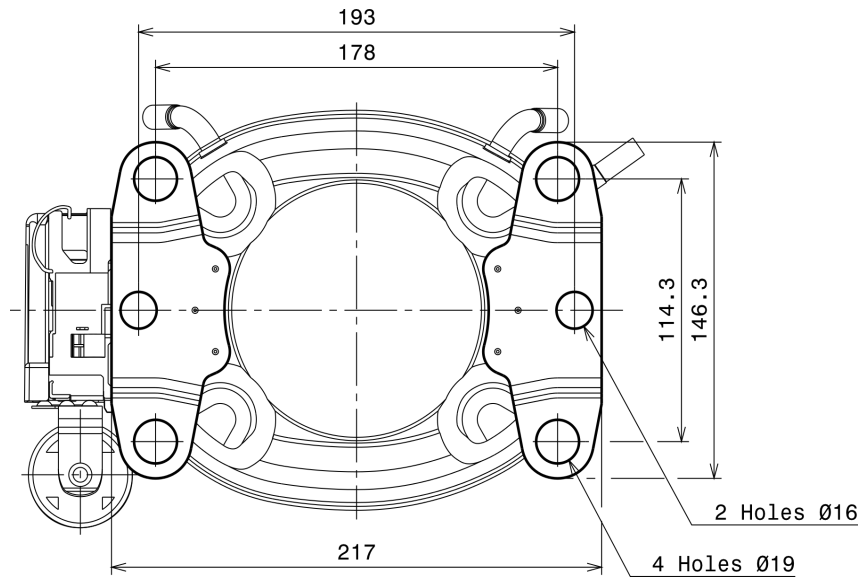
## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



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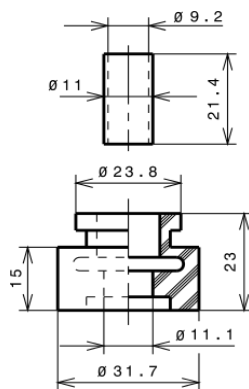
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

Ø19 holes (178x114.3 net)



## SOA

SOA R290 LBP

