

# Technical Data Sheet

Compressor model **NX18TBa**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R290**

## APPLICATION

## COMPRESSOR

## MOTOR

Application	High-Medium Back Pressure	Displacement	18,40 cm <sup>3</sup>	Nominal Power	3/4 hp
Refrigerant	R290	Diameter	34,93 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	19,20 mm	Voltage range	187-255 V
Expansion	Capillar/Valve	Net Weight	16,14 Kg	Type	CSR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	500 cm <sup>3</sup>	Locked Rotor Amps (LRA)	31,50 A
				Max. Cont. Current (MCC)	6,70 A
				Main W. resist. at 25°C	2,70 Ω
				Start W. resist. at 25°C	7,85 Ω

## NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.102 kCal/h	2.039 W
COP	2,61 W/W	2,22 W/W
EER	2,24 kCal/Wh	1,92 kCal/Wh
Input Power	937 W	919 W
Current	4,76 A	4,68 A

## APPROVALS



## TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T <sub>e</sub> )	7,2 °C	5,0 °C
Condensing temp. (T <sub>c</sub> )	55,0 °C	55,0 °C
Liquid temp. (T <sub>liq.</sub> )	46,0 °C	55,0 °C
Ambient temp. (T <sub>amb.</sub> )	35,0 °C	32,0 °C
Suction temp. (T <sub>suction</sub> )	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	16 µF 420 V			
Relay	Option 1	Option 2		
Reference	2014 180. + NTC15Ω	QLZ 16.7A + NTC15Ω		
Pick-Up	16.70 A	16.70 A		
Drop-Out	14.00 A	14.00 A		
Protector	Option 1			
Reference	T0253			
Current	15,00 A			
Time check	7,5-14 seg			
Disc temp. (Open/Close)	105,00 / 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	-25	662	528	3,00	1,46	1,25
40	-20	850	573	3,20	1,72	1,48
40	-15	1.078	616	3,38	2,04	1,75
40	-10	1.346	656	3,56	2,39	2,05
40	-5	1.655	694	3,72	2,77	2,38
40	0	2.003	730	3,87	3,19	2,75
40	5	2.392	763	4,02	3,65	3,14
40	7,2	2.576	777	4,07	3,86	3,32
40	10	2.821	793	4,15	4,14	3,56

45	-25	603	531	3,01	1,32	1,14
45	-20	776	584	3,24	1,54	1,33
45	-15	988	635	3,46	1,81	1,56
45	-10	1.241	683	3,67	2,11	1,82
45	-5	1.534	729	3,87	2,45	2,11
45	0	1.868	772	4,05	2,81	2,42
45	5	2.241	813	4,23	3,21	2,76
45	7,2	2.418	830	4,30	3,39	2,91
45	10	2.655	851	4,39	3,63	3,12

50	-25	544	534	3,03	1,18	1,02
50	-20	701	595	3,29	1,37	1,18
50	-15	899	653	3,54	1,60	1,38
50	-10	1.136	709	3,79	1,86	1,60
50	-5	1.414	763	4,02	2,15	1,85
50	0	1.732	814	4,24	2,47	2,13
50	5	2.090	863	4,44	2,82	2,42
50	7,2	2.260	884	4,53	2,98	2,56
50	10	2.488	909	4,64	3,18	2,74

55	-25	485	537	3,04	1,05	0,90
55	-20	627	606	3,34	1,20	1,03
55	-15	809	672	3,62	1,40	1,20
55	-10	1.031	736	3,90	1,63	1,40
55	-5	1.293	797	4,16	1,89	1,62
55	0	1.596	856	4,42	2,17	1,86
55	5	1.939	913	4,66	2,47	2,12
55	7,2	2.102	937	4,76	2,61	2,24
55	10	2.321	967	4,89	2,79	2,40

60	-25	426	540	3,05	0,92	0,79
60	-20	552	617	3,39	1,04	0,90
60	-15	719	691	3,71	1,21	1,04
60	-10	926	763	4,01	1,41	1,21
60	-5	1.173	832	4,31	1,64	1,41
60	0	1.460	899	4,60	1,89	1,62
60	5	1.787	963	4,87	2,16	1,86
60	7,2	1.944	991	4,99	2,28	1,96
60	10	2.155	1.025	5,13	2,45	2,10

## CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	712	531	3,01	1,34	1,16
40	-20	917	576	3,21	1,59	1,37
40	-15	1.164	619	3,40	1,88	1,62
40	-10	1.453	660	3,57	2,20	1,90
40	-5	1.784	698	3,74	2,55	2,21
40	0	2.157	734	3,89	2,94	2,54
40	5	2.572	768	4,04	3,35	2,89
40	7,2	2.768	782	4,10	3,54	3,06
40	10	3.029	799	4,17	3,79	3,28

45	-25	645	534	3,03	1,21	1,04
45	-20	832	587	3,26	1,42	1,22
45	-15	1.060	638	3,48	1,66	1,43
45	-10	1.331	687	3,69	1,94	1,67
45	-5	1.643	733	3,89	2,24	1,94
45	0	1.998	777	4,08	2,57	2,22
45	5	2.394	818	4,25	2,93	2,53
45	7,2	2.582	836	4,33	3,09	2,67
45	10	2.833	857	4,42	3,31	2,86

50	-25	578	537	3,04	1,08	0,93
50	-20	746	598	3,31	1,25	1,08
50	-15	956	657	3,56	1,46	1,26
50	-10	1.208	714	3,80	1,69	1,46
50	-5	1.502	768	4,04	1,96	1,69
50	0	1.838	819	4,26	2,24	1,94
50	5	2.216	869	4,47	2,55	2,20
50	7,2	2.396	889	4,56	2,69	2,33
50	10	2.636	915	4,67	2,88	2,49

55	-25	511	540	3,05	0,95	0,82
55	-20	661	609	3,35	1,09	0,94
55	-15	852	676	3,64	1,26	1,09
55	-10	1.086	740	3,92	1,47	1,27
55	-5	1.362	802	4,18	1,70	1,47
55	0	1.679	862	4,44	1,95	1,68
55	5	2.039	919	4,68	2,22	1,92
55	7,2	2.210	943	4,79	2,34	2,02
55	10	2.440	974	4,92	2,51	2,17

60	-25	445	543	3,07	0,82	0,71
60	-20	576	620	3,40	0,93	0,80
60	-15	749	695	3,72	1,08	0,93
60	-10	964	767	4,03	1,26	1,09
60	-5	1.221	837	4,33	1,46	1,26
60	0	1.520	904	4,62	1,68	1,45
60	5	1.861	969	4,90	1,92	1,66
60	7,2	2.024	997	5,02	2,03	1,75
60	10	2.244	1.032	5,16	2,17	1,88

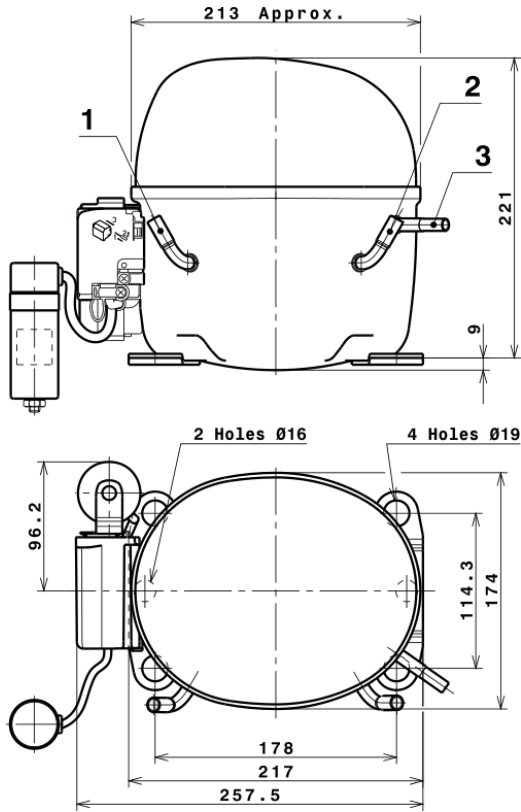
## EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	3.436,3720289564	404,2278535929	2,4890809238	30,83467162276
2	108,6289945479	-5,6770498906	-0,0240317919	1,0793850335493
3	-32,7782671798	8,7444893338	0,0372769319	-0,14426029295144
4	0,8234516925	-0,0445118723	-0,0002094041	0,012847225576462
5	-0,7737670156	0,3250969933	0,0013839455	-0,0020056335206285

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

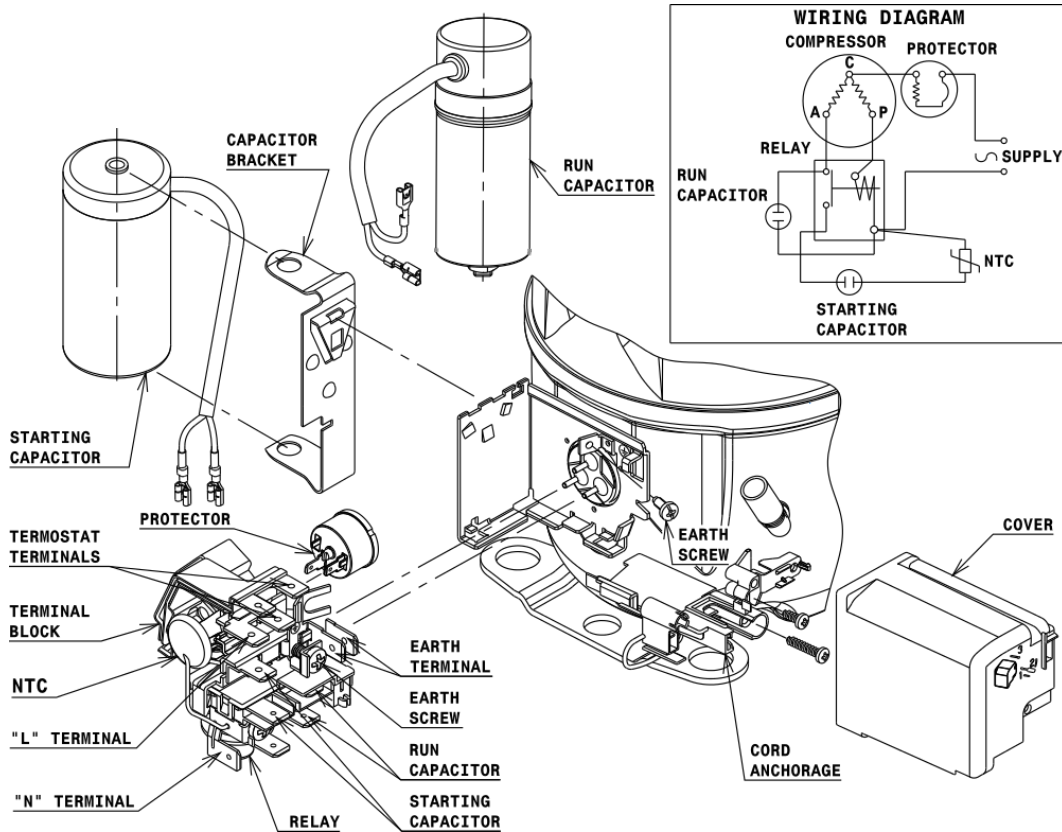
## COMPRESSOR DIMENSIONS



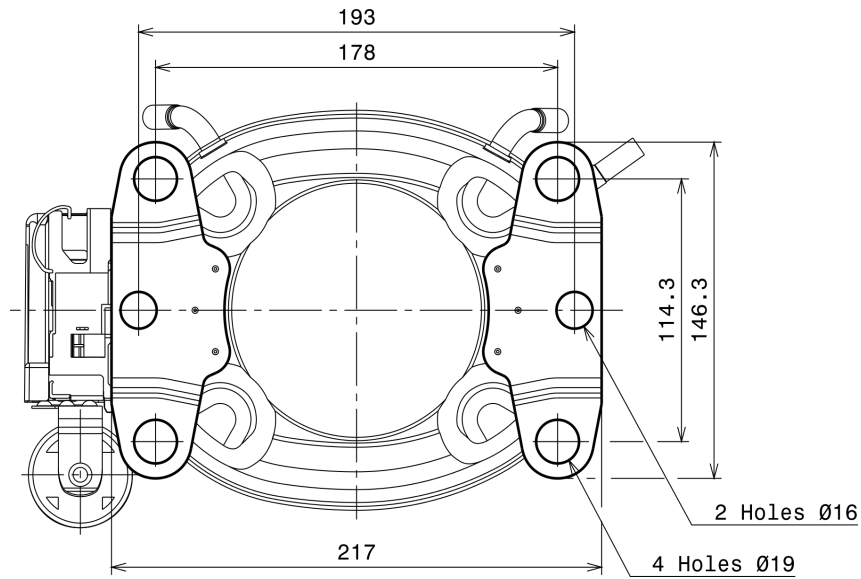
DESIGNATION	INTERNAL DIAM.
1 Service	9,7 mm
2 Suction	9,7 mm
3 Discharge	6,5 mm

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

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



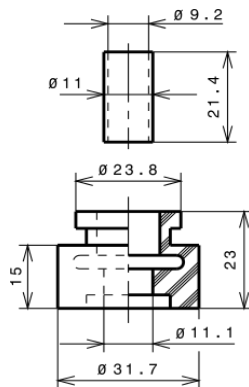
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

$\varnothing 19$  holes (178x114.3 net)



## SOA

SOA R290 HMBP

