Technical Data Sheet

Compressor model **NPT18RA**

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

Refrigerant **R290**

APPLICATION

Application	High Back Pressure
Refrigerant	R290
Evaporating Temp.	-15,0 ºC to 10,0 ºC
Expansion	Capillar/Valve
Comp. Cooling	Fan cooled
Max. ambient temp.	43,0 ºC

COMPRESSOR

Displacement	18,00 cm³
Diameter	31,19 mm
Stroke	23,57 mm
Net Weight	12,15 Kg
Oil type	POE 32
Oil charge	400 cm³

MOTOR

Nominal Power	hp
Voltage/Frequency	220-240V 50Hz
Voltage range	198-255 V
Type	CSR
Phase number	1 PH
Locked Rotor Amps (LRA)	21,10 A
Max. Cont. Current (MCC)	6,20 A
Main W. resist. at 25ºC	4,38 Ω
Start W. resist. at 25ºC	6,22 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	2.099 kCal/h	2.036 W
COP	2,41 W/W	2,05 W/W
EER	2,07 kCal/Wh	1,77 kCal/Wh
Input Power	1.012 W	995 W
Current	4,66 A	4,58 A

APPROVALS

TEST CYCLE CONDITIONS

	ASHRAE	**CECOMAF**
	HBP (D)	**HBP (C)**
Evaporating temp. (T_e)	7,2 ºC	5,0 ºC
Condensing temp. (T_c)	55,0 ºC	55,0 ºC
Liquid temp. ($T_{liq.}$)	46,0 ºC	55,0 ºC
Ambient temp. ($T_{amb.}$)	35,0 ºC	32,0 ºC
Suction temp. ($T_{suction}$)	35,0 ºC	32,0 ºC
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

Starting capacitor	72- 88 µF 330 V			
Run capacitor	25 µF 420 V			
Relay	Option 1	Option 2		
Reference	2014 166. + NTC15Î©	QLZ-11.0A+NTC15		
Pick-Up	11,00 A	11,00 A		
Drop-Out	9,35 A	9,35 A		
Protector	Option 1	Option 2		
Reference	T0348	B154-105		
Current	15,40 A	15,80 A		
Time check	7,5-14 seg	7,5-16 seg		
Disc temp. (Open/Close)	105,00 / 52,00 ºC	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	-15	1.072	648	3,00	1,92	1,65
40	-10	1.292	699	3,23	2,15	1,85
40	-5	1.561	746	3,44	2,43	2,09
40	0	1.879	789	3,63	2,77	2,38
40	5	2.246	827	3,80	3,16	2,72
40	7,2	2.423	843	3,87	3,34	2,88
40	10	2.662	861	3,96	3,60	3,09
45	-15	1.010	676	3,13	1,74	1,49
45	-10	1.220	734	3,38	1,93	1,66
45	-5	1.478	787	3,62	2,18	1,88
45	0	1.786	836	3,84	2,48	2,14
45	5	2.143	881	4,05	2,83	2,43
45	7,2	2.315	899	4,13	2,99	2,58
45	10	2.548	921	4,23	3,22	2,77
50	-15	949	705	3,25	1,57	1,35
50	-10	1.148	769	3,54	1,74	1,49
50	-5	1.396	828	3,81	1,96	1,69
50	0	1.693	884	4,06	2,23	1,92
50	5	2.039	934	4,30	2,54	2,18
50	7,2	2.207	956	4,39	2,69	2,31
50	10	2.434	981	4,51	2,89	2,48
55	-15	887	733	3,38	1,41	1,21
55	-10	1.076	803	3,70	1,56	1,34
55	-5	1.313	869	4,00	1,76	1,51
55	0	1.600	931	4,28	2,00	1,72
55	5	1.936	988	4,55	2,28	1,96
55	7,2	2.099	1.012	4,66	2,41	2,07
55	10	2.321	1.041	4,80	2,59	2,23
60	-15	826	762	3,51	1,26	1,08
60	-10	1.004	838	3,85	1,39	1,20
60	-5	1.231	911	4,18	1,57	1,35
60	0	1.507	978	4,50	1,79	1,54
60	5	1.832	1.042	4,80	2,05	1,76
60	7,2	1.991	1.069	4,93	2,17	1,86
60	10	2.207	1.101	5,09	2,33	2,00

CECOMAF

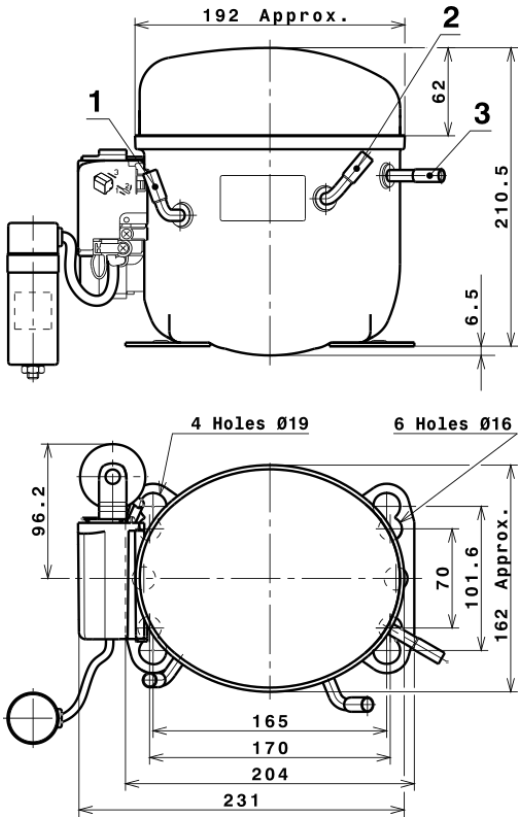
Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-15	1.153	651	3,02	1,77	1,53
40	-10	1.391	703	3,25	1,98	1,71
40	-5	1.682	750	3,46	2,24	1,94
40	0	2.023	794	3,65	2,55	2,20
40	5	2.415	832	3,83	2,90	2,51
40	7,2	2.604	848	3,90	3,07	2,65
40	10	2.859	867	3,98	3,30	2,85
45	-15	1.080	680	3,15	1,59	1,37
45	-10	1.305	738	3,40	1,77	1,53
45	-5	1.582	792	3,64	2,00	1,73
45	0	1.910	841	3,87	2,27	1,96
45	5	2.289	887	4,07	2,58	2,23
45	7,2	2.472	905	4,16	2,73	2,36
45	10	2.719	927	4,26	2,93	2,53
50	-15	1.007	708	3,27	1,42	1,23
50	-10	1.219	773	3,56	1,58	1,36
50	-5	1.482	833	3,83	1,78	1,54
50	0	1.797	889	4,09	2,02	1,75
50	5	2.162	941	4,32	2,30	1,99
50	7,2	2.339	962	4,42	2,43	2,10
50	10	2.579	988	4,55	2,61	2,26
55	-15	935	737	3,40	1,27	1,10
55	-10	1.133	808	3,72	1,40	1,21
55	-5	1.383	875	4,02	1,58	1,37
55	0	1.684	937	4,31	1,80	1,55
55	5	2.036	995	4,58	2,05	1,77
55	7,2	2.207	1.019	4,69	2,17	1,87
55	10	2.439	1.048	4,83	2,33	2,01
60	-15	862	766	3,53	1,13	0,97
60	-10	1.047	843	3,88	1,24	1,07
60	-5	1.283	916	4,21	1,40	1,21
60	0	1.571	985	4,53	1,60	1,38
60	5	1.909	1.049	4,83	1,82	1,57
60	7,2	2.075	1.076	4,96	1,93	1,67
60	10	2.299	1.109	5,12	2,07	1,79

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.938,7574189843	422,3148816285	1,9113301332	24,817961210645
2	95,8389181910	-1,8765831029	-0,0133463277	0,87270556573385
3	-23,6563181646	9,8138794258	0,0457028676	-0,035283932041967
4	1,0067780589	-0,0819045660	-0,0002916348	0,016189061024226
5	-0,5833099340	0,2629038291	0,0013115439	0,0012627241670794

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

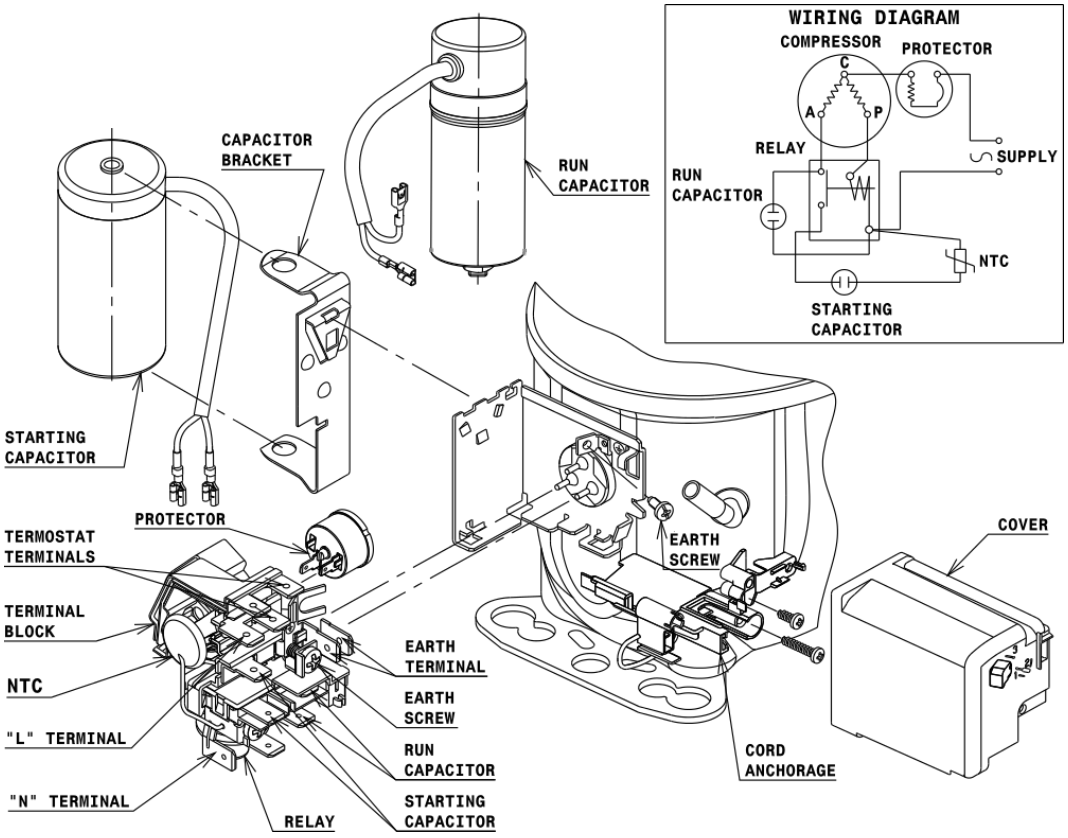
COMPRESSOR DIMENSIONS



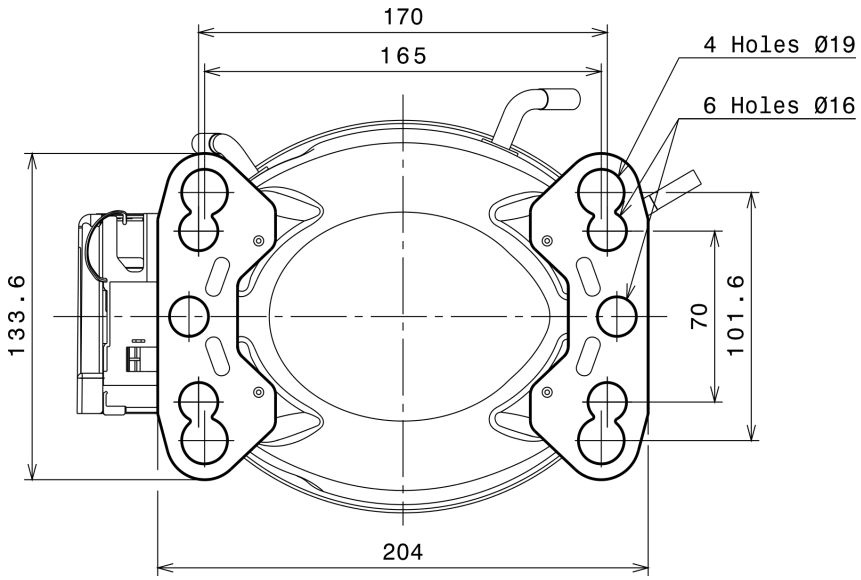
	DESIGNATION	INTERNAL DIAM.
1	Suction	8,1 mm
2	Service	8,1 mm
3	Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSR CONNECTION (CURRENT RELAY + NTC) (L, P ranges)



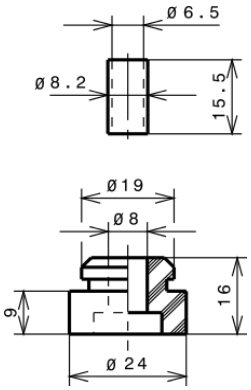
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

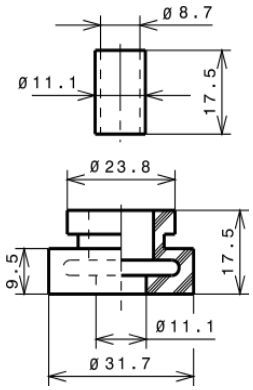
STANDARD

Ø16 holes (170x70 net)



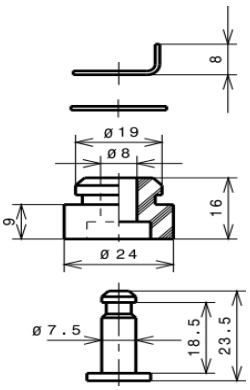
AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R290 HBP