

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **NPY14LAa**
Voltage **220-240V 50Hz ~1**
Refrigerant **R290**

APPLICATION

COMPRESSOR

MOTOR

Application	Low Back Pressure	Displacement	14,32 cm ³	Nominal Power	1/2 hp
Refrigerant	R290	Diameter	29,37 mm	Voltage/Frequency	220-240V 50Hz
Evaporating Temp.	-40,0 °C to -10,0 °C	Stroke	21,13 mm	Voltage range	198-255 V
Expansion	Capillar/Valve	Net Weight	12,17 Kg	Type	CSIR
Comp. Cooling	Fan cooled	Oil type	ISO VG 32 ESTER	Phase number	1 PH
Max. ambient temp.	43,0 °C	Oil charge	400 cm ³	Locked Rotor Amps (LRA)	18,00 A
				Max. Cont. Current (MCC)	3,90 A
				Main W. resist. at 25°C	5,56 Ω
				Start W. resist. at 25°C	10,00 Ω

NOMINAL PERFORMANCE

	ASHRAE	CECOMAF
Cooling Capacity	560 kCal/h	485 W
COP	1,35 W/W	1,05 W/W
EER	1,16 kCal/Wh	0,91 kCal/Wh
Input Power	482 W	463 W
Current	2,85 A	2,78 A

APPROVALS



TEST CYCLE CONDITIONS

	ASHRAE LBP (B)	CECOMAF LBP (A)
Evaporating temp. (T _e)	-23,3 °C	-25,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	32,0 °C	55,0 °C
Ambient temp. (T _{amb.})	32,0 °C	32,0 °C
Suction temp. (T _{suction})	32,0 °C	32,0 °C
Voltage/Frequency	220 V 50 Hz	220 V 50 Hz

ELECTRICAL COMPONENTS

	Option 1	Option 2		
Starting capacitor	64-77 / 60-61 μF 330 V			
Relay	Option 1	Option 2		
Reference	2014 158.	QLZ-9.05A		
Pick-Up	9,05 A	9.05 A		
Drop-Out	7,70 A	7.70 A		
Protector	Option 1	Option 2		
Reference	T0266	B113-105		
Current	11,00 A	11,50 A		
Time check	7,5-14 seg	7,5-16 seg		
Disc temp. (Open/Close)	105,00 / 52,00 °C	110,00 / 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

Made by Huayi for Danfoss

Technical Data Sheet NPY14LAa

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ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	275	316	2,29	1,01	0,87
40	-35	357	352	2,40	1,18	1,01
40	-30	460	389	2,52	1,37	1,18
40	-25	583	429	2,66	1,58	1,36
40	-23,3	630	443	2,71	1,65	1,42
40	-20	728	471	2,81	1,80	1,55
40	-15	893	515	2,98	2,02	1,74
40	-10	1.080	561	3,16	2,24	1,93

45	-40	260	312	2,27	0,97	0,83
45	-35	339	353	2,40	1,12	0,96
45	-30	440	396	2,54	1,29	1,11
45	-25	561	440	2,70	1,48	1,27
45	-23,3	607	456	2,75	1,55	1,33
45	-20	703	487	2,87	1,68	1,44
45	-15	866	536	3,06	1,88	1,62
45	-10	1.050	587	3,27	2,08	1,79

50	-40	245	308	2,26	0,93	0,80
50	-35	322	354	2,40	1,06	0,91
50	-30	420	402	2,56	1,21	1,04
50	-25	538	452	2,74	1,39	1,19
50	-23,3	583	469	2,80	1,45	1,24
50	-20	678	504	2,93	1,57	1,35
50	-15	838	557	3,15	1,75	1,50
50	-10	1.020	614	3,38	1,93	1,66

55	-40	230	304	2,25	0,88	0,76
55	-35	304	355	2,41	1,00	0,86
55	-30	400	408	2,58	1,14	0,98
55	-25	516	463	2,78	1,30	1,11
55	-23,3	560	482	2,85	1,35	1,16
55	-20	653	520	3,00	1,46	1,26
55	-15	811	579	3,24	1,63	1,40
55	-10	990	640	3,50	1,80	1,55

60	-40	215	300	2,24	0,83	0,72
60	-35	287	356	2,41	0,94	0,81
60	-30	380	414	2,60	1,07	0,92
60	-25	493	474	2,82	1,21	1,04
60	-23,3	537	495	2,90	1,26	1,08
60	-20	628	536	3,06	1,36	1,17
60	-15	783	600	3,33	1,52	1,31
60	-10	960	667	3,62	1,68	1,44

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-40	298	316	2,29	0,94	0,81
40	-35	395	352	2,40	1,12	0,97
40	-30	511	389	2,52	1,31	1,13
40	-25	647	429	2,66	1,51	1,30
40	-23,3	698	443	2,71	1,58	1,36
40	-20	803	471	2,81	1,70	1,47
40	-15	978	515	2,98	1,90	1,64
40	-10	1.172	561	3,16	2,09	1,81

45	-40	271	312	2,27	0,87	0,75
45	-35	359	353	2,40	1,02	0,88
45	-30	466	396	2,54	1,18	1,02
45	-25	593	440	2,70	1,35	1,16
45	-23,3	641	456	2,75	1,41	1,21
45	-20	740	487	2,87	1,52	1,31
45	-15	905	536	3,06	1,69	1,46
45	-10	1.091	587	3,27	1,86	1,61

50	-40	244	308	2,26	0,79	0,68
50	-35	323	354	2,40	0,91	0,79
50	-30	421	402	2,56	1,05	0,91
50	-25	539	452	2,74	1,19	1,03
50	-23,3	584	469	2,80	1,24	1,08
50	-20	677	504	2,93	1,34	1,16
50	-15	833	557	3,15	1,49	1,29
50	-10	1.010	614	3,38	1,65	1,42

55	-40	217	304	2,25	0,71	0,62
55	-35	287	355	2,41	0,81	0,70
55	-30	376	408	2,58	0,92	0,80
55	-25	485	463	2,78	1,05	0,91
55	-23,3	527	482	2,85	1,09	0,94
55	-20	613	520	3,00	1,18	1,02
55	-15	761	579	3,24	1,31	1,14
55	-10	928	640	3,50	1,45	1,25

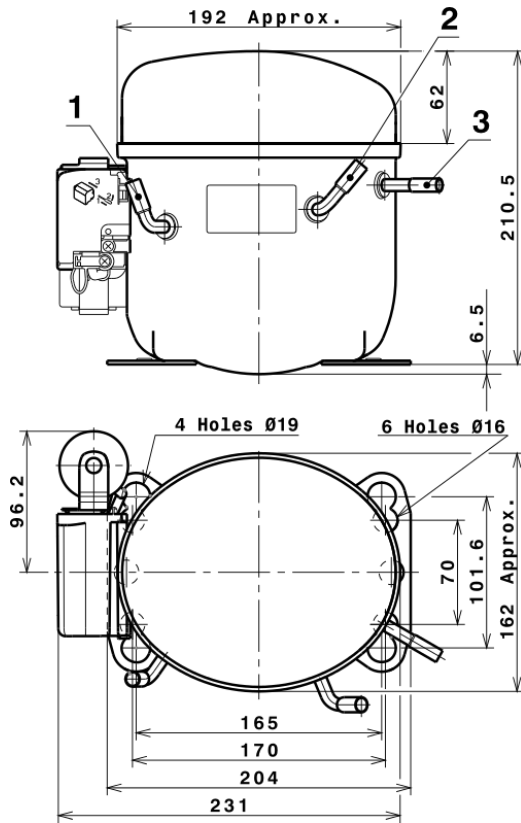
60	-40	190	300	2,24	0,63	0,55
60	-35	251	356	2,41	0,70	0,61
60	-30	331	414	2,60	0,80	0,69
60	-25	431	474	2,82	0,91	0,79
60	-23,3	469	495	2,90	0,95	0,82
60	-20	550	536	3,06	1,03	0,89
60	-15	689	600	3,33	1,15	0,99
60	-10	847	667	3,62	1,27	1,10

EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	2.401,9288235412	375,1162471402	2,3861689803	22,651986211538
2	62,4930041471	2,2372052971	0,0179310242	0,66726642216217
3	-20,3189448505	7,5137770150	0,0327816254	-0,088187819787492
4	0,3791980160	0,0436958401	0,0004604590	0,0055407721978098
5	-0,3721990290	0,2082778380	0,0008813378	-0,0012875190705297

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

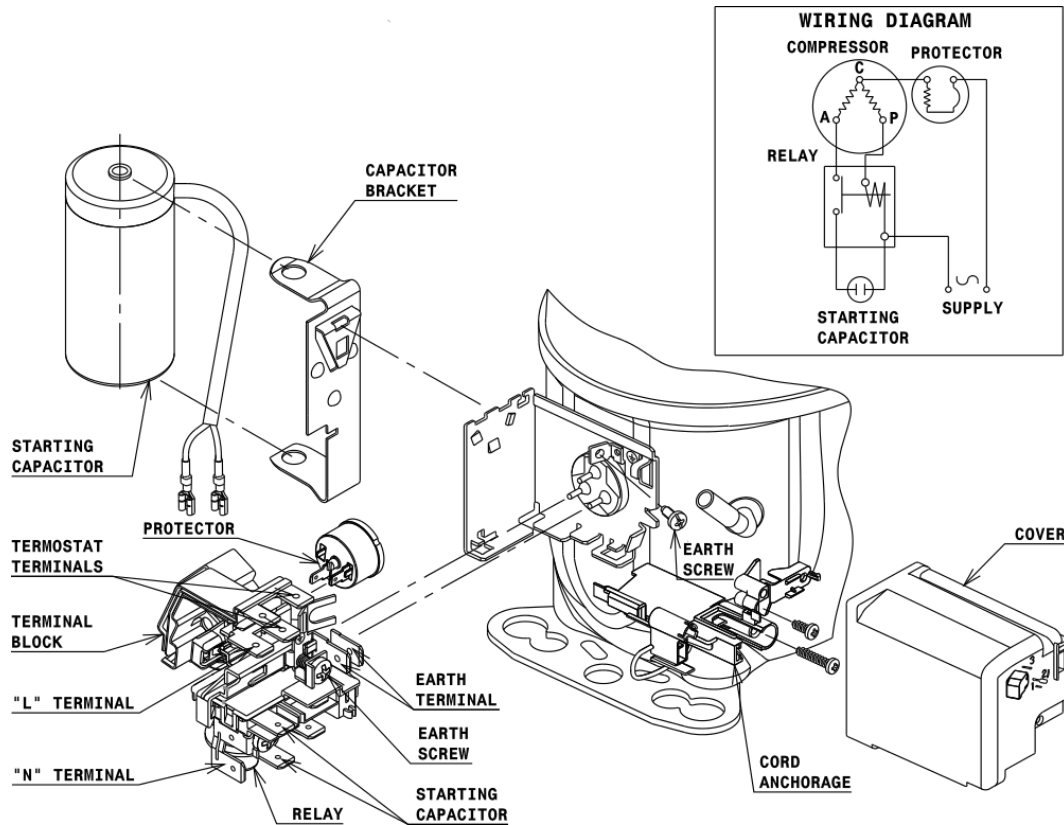


DESIGNATION INTERNAL DIAM.

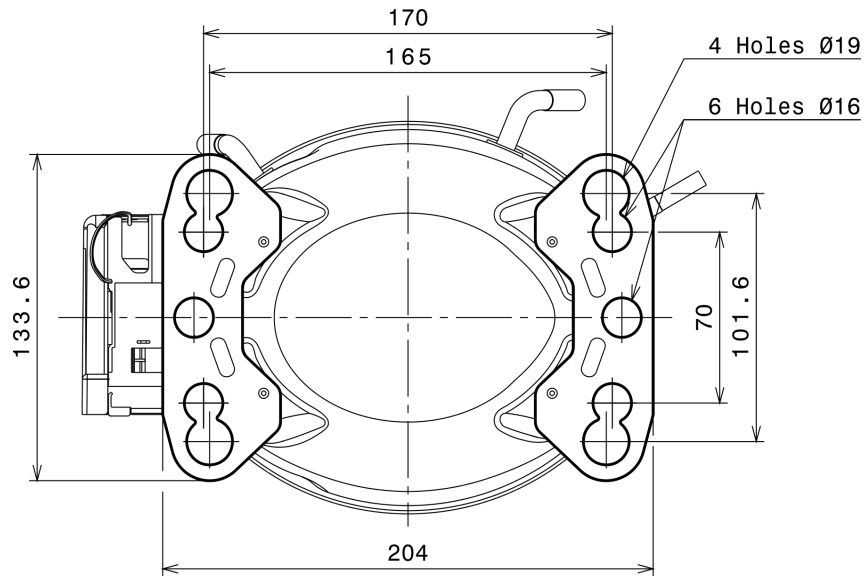
DESIGNATION	INTERNAL DIAM.
1 Suction	8,1 mm
2 Service	8,1 mm
3 Discharge	6,5 mm

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



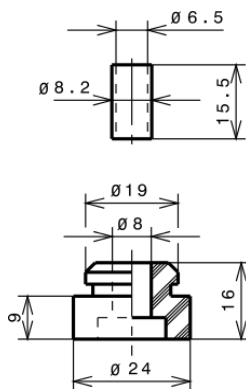
FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

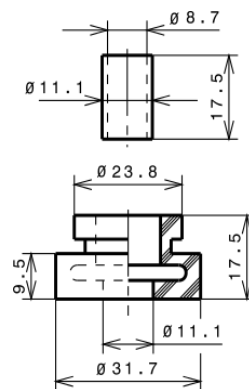
STANDARD

$\varnothing 16$ holes (170x70 net)



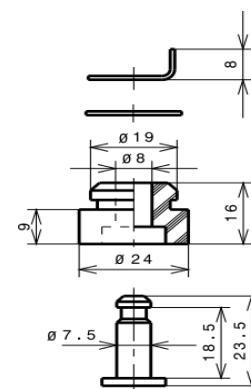
AMERICAN FEET

$\varnothing 19$ holes (165x101.6 net)



SNAP-ON

$\varnothing 16$ holes (170x70 net)



SOA

SOA R290 LBP

