

Technical Data Sheet

Compressor model **GPY12RDb**
 Voltage **115V 60Hz ~1**
 Refrigerant **R134a**

APPLICATION

COMPRESSOR

MOTOR

Application	High-Medium Back Pressure	Displacement	12,10 cm ³	Nominal Power	3/8 hp
Refrigerant	R134a	Diameter	27,00 mm	Voltage/Frequency	115V 60Hz
Evaporating Temp.	-25,0 °C to 10,0 °C	Stroke	21,13 mm	Voltage range	98-132 V
Expansion	Capillar/Valve	Net Weight	12,13 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	400 cm ³	Locked Rotor Amps (LRA)	39,50 A
Compatible refriger.	R1234yf			Max. Cont. Current (MCC)	9,00 A
				Main W. resist. at 25°C	1,00 Ω
				Start W. resist. at 25°C	6,50 Ω

NOMINAL PERFORMANCE

APPROVALS

	ASHRAE	CECOMAF
Cooling Capacity	1.180 kCal/h	1.150 W
COP	2,44 W/W	2,11 W/W
EER	2,10 kCal/Wh	1,82 kCal/Wh
Input Power	562 W	545 W
Current	5,70 A	5,56 A



TEST CYCLE CONDITIONS

	ASHRAE HMBP (D)	CECOMAF HMBP (C)
Evaporating temp. (T _e)	7,2 °C	5,0 °C
Condensing temp. (T _c)	55,0 °C	55,0 °C
Liquid temp. (T _{liq.})	46,0 °C	55,0 °C
Ambient temp. (T _{amb.})	35,0 °C	32,0 °C
Suction temp. (T _{suction})	35,0 °C	32,0 °C
Voltage/Frequency	115 V 60 Hz	115 V 60 Hz

ELECTRICAL COMPONENTS

Starting capacitor	250 µF 160 V		
Run capacitor	15 µF 250 V		
Relay	Option 1		
Reference	2014 184. + NTC3Ω		
Pick-Up	18,70 A		
Drop-Out	15,60 A		
Protector	Option 1	Option 2	
Reference	MRA38152	T0260	
Current	27,50 A	22,00 A	
Time check	2,8-5,2 seg	7,5-14 seg	
Disc temp. (Open/Close)	105,00 / 52,00 °C	105,00 / 52,00 °C	

ASHRAE

Tc °C	Te °C	Cooling Capacity kCal/h	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	330	268	3,54	1,43	1,23
40	-20	438	303	3,76	1,68	1,45
40	-15	567	337	4,00	1,95	1,68
40	-10	717	373	4,25	2,24	1,92
40	-5	889	409	4,51	2,53	2,18
40	0	1.083	445	4,77	2,83	2,43
40	5	1.298	482	5,06	3,14	2,70
40	7,2	1.400	498	5,18	3,27	2,81
40	10	1.535	519	5,35	3,44	2,96

45	-25	308	271	3,56	1,32	1,14
45	-20	408	309	3,80	1,54	1,32
45	-15	529	346	4,06	1,78	1,53
45	-10	671	385	4,33	2,03	1,75
45	-5	836	423	4,61	2,30	1,97
45	0	1.021	462	4,91	2,57	2,21
45	5	1.229	502	5,21	2,85	2,45
45	7,2	1.327	519	5,35	2,97	2,55
45	10	1.457	542	5,53	3,13	2,69

50	-25	287	275	3,58	1,21	1,04
50	-20	378	315	3,84	1,40	1,20
50	-15	491	355	4,12	1,61	1,38
50	-10	626	396	4,41	1,84	1,58
50	-5	782	438	4,72	2,08	1,79
50	0	960	480	5,04	2,33	2,00
50	5	1.159	522	5,37	2,58	2,22
50	7,2	1.253	541	5,53	2,70	2,32
50	10	1.380	565	5,72	2,84	2,44

55	-25	265	278	3,60	1,11	0,95
55	-20	348	321	3,89	1,26	1,09
55	-15	453	364	4,19	1,45	1,24
55	-10	580	408	4,50	1,65	1,42
55	-5	728	452	4,83	1,87	1,61
55	0	898	497	5,17	2,10	1,81
55	5	1.089	542	5,54	2,34	2,01
55	7,2	1.180	562	5,70	2,44	2,10
55	10	1.302	588	5,91	2,58	2,22

60	-25	243	281	3,62	1,01	0,86
60	-20	319	327	3,93	1,13	0,97
60	-15	416	373	4,25	1,30	1,11
60	-10	534	420	4,59	1,48	1,27
60	-5	674	467	4,94	1,68	1,44
60	0	836	514	5,31	1,89	1,63
60	5	1.019	562	5,70	2,11	1,81
60	7,2	1.107	583	5,88	2,21	1,90
60	10	1.224	610	6,11	2,33	2,01

65	-25	222	285	3,64	0,91	0,78
65	-20	289	333	3,97	1,01	0,87
65	-15	378	382	4,31	1,15	0,99
65	-10	489	431	4,67	1,32	1,13
65	-5	621	481	5,05	1,50	1,29
65	0	774	532	5,45	1,69	1,46
65	5	949	582	5,87	1,90	1,63
65	7,2	1.033	605	6,06	1,99	1,71
65	10	1.146	633	6,31	2,10	1,81

CECOMAF

Tc °C	Te °C	Cooling Capacity W	Consumption W	Current A	COP W/W	EER kCal/Wh
40	-25	355	269	3,54	1,32	1,14
40	-20	473	304	3,77	1,55	1,34
40	-15	612	339	4,01	1,80	1,56
40	-10	775	375	4,26	2,07	1,79
40	-5	960	411	4,52	2,34	2,02
40	0	1.168	448	4,80	2,61	2,25
40	5	1.398	485	5,08	2,88	2,49
40	7,2	1.507	501	5,21	3,01	2,60
40	10	1.651	522	5,38	3,16	2,73

45	-25	330	273	3,57	1,21	1,05
45	-20	438	310	3,81	1,41	1,22
45	-15	568	348	4,07	1,63	1,41
45	-10	721	387	4,35	1,86	1,61
45	-5	896	426	4,63	2,11	1,82
45	0	1.095	465	4,93	2,35	2,03
45	5	1.315	505	5,24	2,61	2,25
45	7,2	1.420	523	5,38	2,72	2,35
45	10	1.559	545	5,56	2,86	2,47

50	-25	305	276	3,59	1,11	0,96
50	-20	403	316	3,86	1,27	1,10
50	-15	524	357	4,14	1,47	1,27
50	-10	667	399	4,43	1,67	1,45
50	-5	833	440	4,74	1,89	1,63
50	0	1.022	482	5,06	2,12	1,83
50	5	1.233	525	5,40	2,35	2,03
50	7,2	1.333	544	5,55	2,45	2,12
50	10	1.467	568	5,75	2,58	2,23

55	-25	280	279	3,61	1,00	0,87
55	-20	369	323	3,90	1,14	0,99
55	-15	480	366	4,20	1,31	1,13
55	-10	613	410	4,52	1,49	1,29
55	-5	770	455	4,85	1,69	1,46
55	0	949	500	5,20	1,90	1,64
55	5	1.150	545	5,56	2,11	1,82
55	7,2	1.246	566	5,73	2,20	1,90
55	10	1.375	591	5,95	2,32	2,01

60	-25	255	283	3,63	0,90	0,78
60	-20	334	329	3,94	1,02	0,88
60	-15	436	375	4,26	1,16	1,00
60	-10	560	422	4,60	1,33	1,15
60	-5	706	469	4,96	1,50	1,30
60	0	876	517	5,34	1,69	1,46
60	5	1.068	566	5,73	1,89	1,63
60	7,2	1.159	587	5,91	1,97	1,71
60	10	1.283	614	6,14	2,09	1,80

65	-25	230	286	3,65	0,81	0,70
65	-20	300	335	3,98	0,89	0,77
65	-15	391	384	4,33	1,02	0,88
65	-10	506	434	4,69	1,17	1,01
65	-5	643	484	5,07	1,33	1,15
65	0	803	535	5,48	1,50	1,30
65	5	985	586	5,90	1,68	1,45
65	7,2	1.073	609	6,09	1,76	1,52
65	10	1.190	638	6,34	1,87	1,61

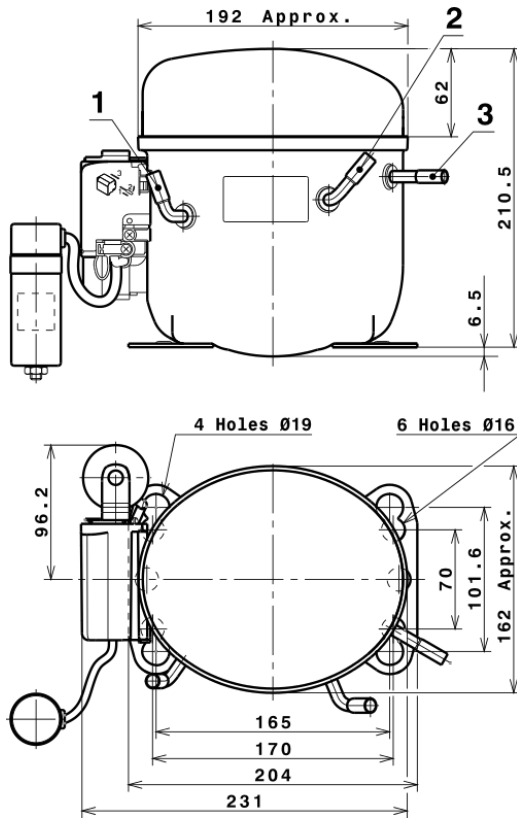
EN12900

X	Cooling Capacity (W)	Consumption (W)	Current (A)	Mass Flow (kg/h)
1	1.758,3208123877	316,0889216786	3,7067978488	29,04946078411
2	59,3559418150	3,0453353028	0,0209580317	1,1046434818946
3	-15,1413401595	3,5806933129	0,0290393884	-0,084342610222156
4	0,4458583816	0,0128961648	0,0003537425	0,012962388434338
5	-0,4019609914	0,1158226892	0,0009823219	-0,0015186935370922

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

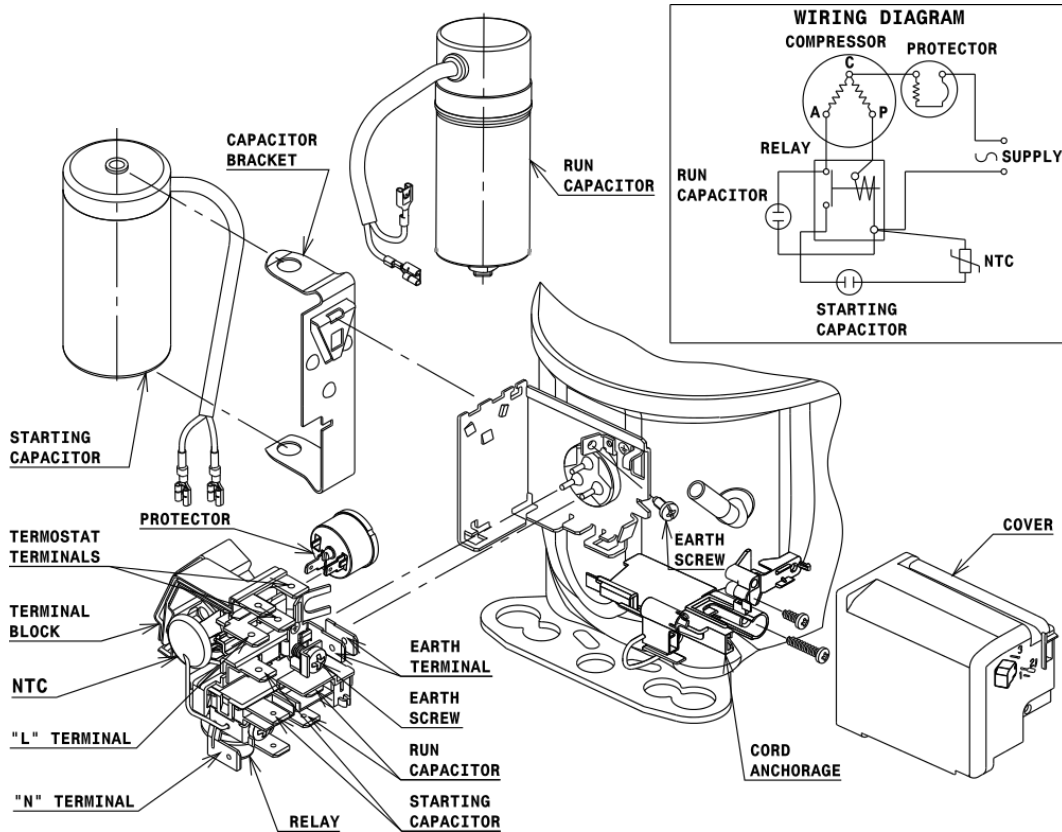
COMPRESSOR DIMENSIONS



DESIGNATION	INTERNAL DIAM.
1 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

$\varnothing 16$ holes (170x70 net)



AMERICAN FEET

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



SNAP-ON

$\varnothing 16$ holes (170x70 net)



SOA

SOA R134a HMBP

