



SECOP

BD COMPRESSORS FOR
EXTREME CONDITIONS

12|24|48

DIRECT CURRENT COMPRESSORS

APPLICATION ALSO WITH MULTIPLE VOLTAGES WITH
MINIMUM ENERGY CONSUMPTION AND MAXIMUM
PERFORMANCE

STABLE

PORTABLE BEYOND LIMITS
RELIABLE OPERATION EVEN
WHEN TILTED UP





BD compressors bring comfort at work and leisure

The direct current compressors BD35F/50F/80F for 12/24 V DC power supply can be used in mobile refrigerators and freezers with refrigerant R134a.

The BD250GH.2 and the BD350GH compressors in 12/24 or 48 V DC versions are R134a HBP compressors used for mobile spot cooling systems or telecommunication cooling.

BD35/50K (R600a) and BD80/100CN (R290) are compressors using HFC-free refrigerants.

All compressors are equipped with an electronic unit with built-in protection against shortages, operation outside temperature limits and destructive battery discharge. The advanced micro controller technology enables new functions like: electronic thermostat, fan speed, ECO function, alarm log, event log and software main switch.

Second to none – even cooling "without power supply"

Thanks to an extensive voltage rate the BD compressors are ideal for solar energy supply.

The exceptionally low starting current eliminates the need for current batteries if an ice bank is used for energy storage. When storing the sun energy in ice packs the cabinet can be kept at desired temperatures both night and day.

This feature offers numerous uses in areas without power supply like storage and transportation of drugs, ice cream stands in holiday resorts, food preservation under off road conditions, refrigerators in boats to name only a few.

Compressors R134a R404A/R507 * R600a **, R290 ***	Capacity [W] at max. speed **** EN12900 Household/CECOMAF ASHRAE Evaporating temperature [°C]													
	-40	-35	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10	15
	BD35F /-B /-HD.2			27 34	36 45	40 51	50 63	70 87	94 117	122 153				
BD50F			37 46	52 64	58 72	71 88	95 117	123 152	157 194					
BD80F			55 68	78 96	87 108	105 130	138 170	176 218	221 274					
BD250GH.2				61 76	69 86	87 108	119 148	156 194	200 249	251 311	308 383	336 418	373 465	446 556
BD250GH.2 /-HD (48V)				64 80	73 91	91 113	124 153	162 201	208 257	261 323	322 400	352 437	392 488	472 589
BD350GH (12V)				126 156	139 173	169 209	220 273	282 349	355 440	440 546	540 670	588 731	654 814	786 979
BD350GH (24V)				126 156	139 173	169 209	220 273	282 349	355 440	440 546	540 670	588 731	654 814	786 979
BD350GH (48V)				121 150	135 167	164 203	216 267	277 343	350 434	436 540	535 664	584 725	650 808	781 973
BD220CL *	83 96	121 140	166 193	220 255	240 279	283 328	355 413	439 511	535 624					
BD35K **			25 31	36 44	40 49	49 60	65 79	84 102	106 129					
BD50K **			30 36	42 51	47 57	58 70	77 94	101 123	129 158	162 198	199 244	218 266	242 296	
BD80CN ***	31 35	45 51	62 69	82 91	90 100	105 118	133 148	164 184						
BD100CN ***	44 49	62 70	83 93	108 120	117 131	137 153	170 190	209 233						
BD1.4F-VSD.2 /-HD			12 15	23 29	27 34	36 45	52 65	71 88	92 114	116 144	144 179	158 197	178 222	218 272
BD1.4F-AUTO.3				14 18	18 22	24 31	36 45	50 62	66 83	86 106	108 134			

**** Please refer to the individual compressor data sheets for the complete application range.

Compressors R134a R404A/R507 * R600a **, R290 ***	Code numbers	Power consumption [W] at max. speed **** Evaporating temperature [°C]														
		-40	-35	-30	-25	-23.3	-20	-15	-10	-5	0	5	7.2	10	15	
		BD35F /-B /-HD.2	101Z0200 /204 /205 /216				35	41	44	49	57	66	75			
BD50F	101Z1220 /0203				45	57	61	68	80	91	104					
BD80F	101Z0280				66	83	89	100	118	138	161					
BD250GH.2	101Z0406					65	69	78	91	104	117	132	150	158	170	194
BD250GH.2 /-HD (48V)	101Z0405 /410					72	77	85	99	113	128	143	160	167	177	196
BD350GH (12V)	102Z3015					140	149	168	197	228	259	292	325	340	358	391
BD350GH (24V)	102Z3016					122	129	144	169	194	221	248	276	288	303	330
BD350GH (48V)	102Z3031					131	139	155	181	208	236	265	294	307	323	352
BD220CL *	102Z3020	121	147	173	200	209	227	255	284	314						
BD35K **	101Z0211				34	41	44	48	54	60	67					
BD50K **	101Z0213				42	50	53	59	68	77	86	94	103	107	111	
BD80CN ***	101Z0403	47	55	63	72	75	81	89	97							
BD100CN ***	101Z0401	55	66	78	89	93	100	110	120							
BD1.4F-VSD.2 /-HD	109Z0204 /206 /250 /251				27	34	36	41	48	55	61	68	76	79	83	90
BD1.4F-AUTO.3	109Z0104					26	28	30	35	40	45	50	56			



BD1.4F-VSD.2 (Variable Speed Drive)

The new BD1.4F-VSD.2 from Nidec GA Compressors is 60% smaller than previous models and weighs in at only 2.3 kilos. Perfect for 10-30 litre in car / van / boat cabinets or portable boxes that need to fit into tight spaces without compromising storage space. Specially designed for maximum efficiency and reliability this powerhouse of a compressor makes it easier than ever to provide leading class mobile refrigerators.

Enabling the variable speed function increases the system's COP. Low energy consumption is good for car/ boat/ van batteries – as well as the environment. The optimized, low noise motor ensures outstanding performance when you want to provide that extra degree of luxury on the move.

The electronic thermostat (NTC sensor support) provides an accurate temperature while the failure detection allows a fast fault diagnosis. The computer interface makes it easier for customization.

BD35F-HD.2, BD250GH.2-HD, BD1.4F-VSD-HD (Heavy Duty)

BD35F-HD.2, BD250GH.2-HD (48V) and BD1.4F-VSD-HD and are new versions which can handle extreme vibrations.

BD35F-B (Bus-optimized)

The BD35F-B is a special version optimized for rough vehicle motions, especially in buses.

BD50K (Isobutane, R600a)

The new BD50K offers 25 % additional cooling capacity compared to the BD35K compressor.



Compressors	Code numbers	Electronic units (voltages & code numbers)									
		Standard 12-24V DC 101N0212	High Speed 12-24V DC 101N0390	AEO 12-24V DC 101N0340	Solar 10-45V DC 101N0420	AC/DC converter 12-24V DC & 100-240V AC 101N0510	Automotive 12-24V DC 101N0650	101N08xxx 12V DC 101N0820+0800 (alt.: 101N0830)	101N8xxx 24V DC 101N0820+0810	101N07xx 24V DC 101N0715	Telecom 48V DC 101N0720
BD35F	101Z0200	✓		✓	✓	✓	✓				
BD35F (inch con.)	101Z0204	✓		✓	✓	✓	✓				
BD35F-B	101Z0205	✓		✓	✓	✓	✓				
BD35F-HD.2	101Z0216	✓		✓		✓	✓				
BD50F	101Z1220	✓		✓		✓	✓				
BD50F (inch con.)	101Z0203	✓		✓		✓	✓				
BD80F	101Z0280		✓								
BD250GH.2	101Z0406		✓								
BD250GH.2 (48V)	101Z0405										✓
BD250GH.2-HD (48V)	101Z0410										✓
BD350GH (12V)	102Z3015						✓+✓				
BD350GH (24V)	102Z3016							✓+✓	✓		
BD350GH (48V)	102Z3031									✓	
BD220CL *	102Z3020						✓+✓				
BD35K **	101Z0211	✓		✓	✓		✓				
BD50K **	101Z0213		✓								
BD80CN ***	101Z0403	✓		✓		✓	✓				
BD100CN ***	101Z0401		✓								
TOOL4COOL® applicable		✓					✓	✓	✓	✓	✓

Compressors	Code numbers	Electronic units		
		Variable Speed (VSD) 12-24V DC 101N2100	Variable Speed (VSD) w. AC/DC converter 12-24V DC & 100-240V AC 101N5100	Automotive 12V DC 101N1010
BD1.4F-AUTO.3	109Z0104			✓
BD1.4F-VSD.2	109Z0204	✓	✓	
BD1.4F-VSD-HD	109Z0250	✓		
BD1.4F-VSD.2 (inch connectors)	109Z0206	✓	✓	
BD1.4F-VSD-HD (inch connectors)	109Z0251	✓		
TOOL4COOL® applicable		✓	✓	✓

Applications	Compressors														
	BD1.4F-AUTO.3	BD1.4F-VSD.2	BD1.4F-VSD-HD	BD35F	BD35F-B	BD35F-HD.2	BD35K	BD50K	BD50F	BD80F	BD80CN	BD100CN	BD250GH.2	BD350GH	BD220CL
Truck refrigerators		✓	✓	✓		✓	✓	✓	✓		✓				
Boat refrigerators		✓		✓			✓	✓	✓	✓	✓	✓			
Bus refrigerators		✓		✓	✓		✓	✓			✓				
Portable boxes		✓		✓			✓	✓	✓						
Car minibars (high end)	✓	✓		✓			✓								
Car minibars (SUV, MPV)		✓		✓			✓								
Spot cooling (e.g. trucks)													✓	✓	
Van boxes									✓	✓	✓	✓	✓	✓	✓
Battery cooling													✓	✓	
Solar cabinets				✓			✓	✓	✓		✓	✓			

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BD80/100CN
R290, -40°C, -10°C evap. temp.
Freezer application, solar-powered systems, ice cream boxes up to 200 l, 20-164 W / 31-209 W cooling capacity*.



BD35K/50K
R600a, -30°C, +10°C evap. temp.
Solar-powered applications, etc., 100-250 l coolers, 13-242 W cooling capacity*.



BD1.4F-AUTO.3 and BD1.4F-VSD.2
R134a, -30°C, +5 and +15 / 0°C evap. temp.
In-car cabinets and all mobile applications for portable boxes, boats, trucks, etc., 14-108 W and 7-218 W / 5-85 W cooling capacity*.



BD350GH
R134a, -25°C, +15°C evap. temp.
Tailored for spotcooling systems in sleeping compartments in trucks, caravans, golf buggies, etc., 85-786 W single cooling capacity*.



BD250GH.2
R134a, -25°C, +15°C evap. temp.
Designed for cabin cooling in trucks during nighttime, very silent operation, 31-446 W cooling capacity*.



BD35F/50F Multivoltage
R134a, -30°C, +10°C evap. temp.
All mobile applications for portable boxes, boats, trucks, etc., can be powered with AC and DC, 85-240 V AC 50/60 Hz, 12-24 V DC, automatic selection of AC when available, 15-152 / 20-191 W cooling capacity*.



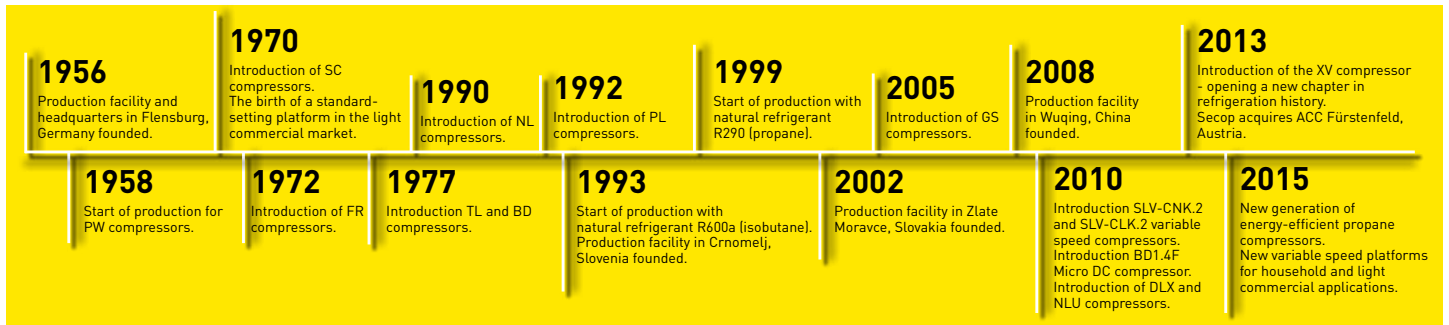
BD35F/50F/80F Basic
R134a, -30°C, +10°C evap. temp.
All mobile applications for portable boxes, boats, trucks, etc., 15-152 W / 20-191 W / 35-221 W cooling capacity*.



TOOL4COOL® Software
Tool4Cool® is a unique PC software tool that enables you to precisely configure your Secop BD compressors to your cooling systems.
Via microprocessor-based controllers, Tool4Cool® gives you easy access to all parameters. These can be changed, monitored, downloaded or uploaded to get the optimum performance out of your cooling system.

* CECOMAF conditions

OUR JOURNEY SO FAR



Nidec Global Appliance Germany GmbH · Mads-Clausen-Str. 7 · 24939 Flensburg · Germany · Tel: +49 461 4941 0 · www.secop.com

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