

WE HAVE MORE THAN 35 YEARS OF EXPERIENCE, DEVELOPING DIRECT CURRENT COMPRESSORS AND HELPING CUSTOMERS BENEFIT FROM THE OPPORTUNITIES OF MOBILE REFRIGERATION TECHNOLOGY.

WITH A DEEP INSIGHT OF THE USAGE ACROSS VARIOUS APPLICATIONS WE HAVE EARNED A POSITION AS MARKET LEADER, WORKING WITH OEM-CUSTOMERS.



# BD COMPRESSORS FOR EXTREME CONDITIONS

**SECOP**

# 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

Modern comfort is brought into life when leaving home. As people go mobile, so does food. The excellent performance of the BD series safeguards food preservation. With our outstanding DC compressors for cars, vans, boats, trucks, etc., Secop has transcended the barriers for mobile refrigeration.

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. BD35K (R600a) and BD80/100CN (R290) compressors can be used with 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 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 opens for 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.

Secop BD compressors mean: extraordinary performance at minimum power consumption, superbly silent running, reliable operation even when tilted up to 30 degrees, problem-free operation at 12/24/48 volts and more than 30 years' of experience in mobile refrigeration. Transport stable, speed/capacity stable, multifunctional electronic, silent, high COP and compact design.

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			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 (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
BD350GH Twin (12V)				251   312	279   346	337   418	440   546	564   698	710   880	880   1092	1080   1340	1176   1462	1308   1628	1572   1958
BD350GH Twin (24V)				252   312	278   346	338   418	440   546	564   698	710   880	880   1092	1080   1340	1176   1462	1308   1628	1572   1958
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					
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 /-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-FSD			5   6	13   17	16   21	23   29	35   44	49   62	66   82	85   106				
BD1.4F-AUTO				14   18	18   22	24   31	36   45	50   62	66   83	86   106	108   134			

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	101Z0200 /0204 /0205 /0206			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 (48V)	101Z0405				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
BD350GH Twin (12V)	102Z3018				280	298	336	394	456	518	584	650	680	716	782
BD350GH Twin (24V)	102Z3017				244	258	288	338	388	442	496	552	576	606	660
BD220CL *	102Z3020	121	147	173	200	209	227	255	284	314					
BD35K **	101Z0211			34	41	44	48	54	60	67					
BD80CN ***	101Z0403	47	55	63	72	75	81	89	97						
BD100CN ***	101Z0401	55	66	78	89	93	100	110	120						
BD1.4F-VSD /-HD	109Z0200 /0202 /0250 /0251			27	34	36	41	48	55	61	68	76	79	83	90
BD1.4F-FSD	109Z0305			16	23	25	29	35	40	44	49				
BD1.4F-AUTO	109Z0102				26	28	30	35	40	45	50	56			

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



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

Lose excess weight and use the extra space for what really matters. The new BD1.4F-VSD from Secop 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 fridges. 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. Cool beverages on demand make moving so much more of an experience.

## BD35F-HD & BD1.4F-VSD-HD (Heavy Duty)

BD35F-HD and BD1.4F-VSD-HD 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.

## BD1.4F-FSD (Fixed Speed Drive)

The new BD1.4F-FSD is a cost-optimized variant of our BD-Micro series which is perfect for portable boxes.



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	Telecom 48V DC 101N0732
R134a R404A/R507 * R600a ** R290 ***												
BD35F	101Z0200	✓		✓	✓	✓	✓					
BD35F (inch con.)	101Z0204	✓		✓	✓	✓	✓					
BD35F-B	101Z0205	✓		✓		✓	✓					
BD35F-HD	101Z0206	✓		✓			✓					
BD50F	101Z1220	✓		✓		✓	✓					
BD50F (inch con.)	101Z0203	✓		✓		✓	✓					
BD80F	101Z0280		✓									
BD250GH.2	101Z0406		✓									
BD250GH.2 (48V)	101Z0405										✓	
BD350GH (12V)	102Z3015							✓+✓				
BD350GH (24V)	102Z3016								✓+✓	✓		
BD350GH (48V)	102Z3031									✓		
BD350GH Twin (12V)	102Z3018							✓+✓✓				
BD350GH Twin (24V)	102Z3017								✓+✓✓	✓✓		
BD220CL *	102Z3020							✓+✓				
BD35K **	101Z0211	✓		✓	✓		✓					
BD80CN ***	101Z0403	✓		✓			✓					
BD100CN ***	101Z0401		✓									
TOOL4COOL® applicable		✓					✓	✓		✓	✓	

Compressors	Code numbers	Electronic units (voltages & code numbers)				
		Variable Speed (VSD) 12-24V DC 101N2100	Fixed Speed (FSD) 12-24V DC 101N2600	VSD w. AC/DC converter 12-24V DC & 100-240V AC 101N5100	FSD w. AC/DC converter 12-24V DC & 100-240V AC 101N5200	Automotive 12V DC 101N1010
R134a						
BD1.4F-AUTO	109Z0102					✓
BD1.4F-FSD	109Z0305		✓		✓	
BD1.4F-VSD	109Z0200	✓		✓		
BD1.4F-VSD-HD	109Z0250	✓				
BD1.4F-VSD (inch connectors)	109Z0202	✓		✓		
BD1.4F-VSD-HD (inch connectors)	109Z0251	✓				
TOOL4COOL® applicable		✓	✓	✓	✓	✓

Applications	Compressors											
	BD1.4F-AUTO	BD1.4F-VSD	BD1.4F-VSD-HD	BD1.4F-FSD	BD35F	BD35F-B	BD35F-HD	BD35K	BD50F	BD80F	BD80CN	BD100CN
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					✓			✓	✓		✓	✓





#### BD80/100CN

R290, -40°C, -10°C evap. temp.  
Stationary freezer application (not approved for vehicles), solar-powered systems, ice cream boxes up to 200 l, 20-164 W / 31-209 W cooling capacity\*.



#### BD35K

R600a, -30°C, +10°C evap. temp.  
Stationary application, solar-powered vaccine coolers etc., 100-200 l coolers, 13-128 W cooling capacity\*.



#### BD1.4F-AUTO and BD1.4F-VSD/-FSD

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 Single or Twin

Configuration  
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\*.

\* CECOMAF conditions



#### 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.

## OUR JOURNEY SO FAR

**1956**

Production facility and headquarters in Flensburg, Germany founded.

**1970**

Introduction of SC compressors.  
The birth of a standard-setting platform in the light commercial market.

**1990**

Introduction of NL compressors.

**1992**

Introduction of PL compressors.

**1999**

Start of production with natural refrigerant R290 (propane).

**2005**

Introduction of GS compressors.

**2008**

Production facility in Wuging, China founded.

**2013**

Introduction of the XV compressor - opening a new chapter in refrigeration history.  
Secop acquires ACC Fürstenfeld, Austria.

**1958**

Start of production for PW compressors.

**1972**

Introduction of FR compressors.

**1977**

Introduction TL and BD compressors.

**1993**

Start of production with natural refrigerant R600a (isobutane).  
Production facility in Crnomelj, Slovenia founded.

**2002**

Production facility in Zlate Moravce, Slovakia founded.

**2010**

Introduction SLV-CNK.2 and SLV-CLK.2 variable speed compressors.  
Introduction BD1.4F Micro DC compressor.  
Introduction of DLX and NLU compressors.

**2015**

New generation of energy-efficient propane compressors.  
New variable speed platforms for household and light commercial applications.



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