

WE HAVE MORE THAN 40 YEARS OF EXPERIENCE DEVELOPING DIRECT CURRENT COMPRESSORS AND HELPING CUSTOMERS BENEFIT FROM THE OPPORTUNITIES OF MOBILE REFRIGERATION TECHNOLOGY.

WITH IN-DEPTH KNOWLEDGE OF USE ACROSS VARIOUS APPLICATIONS, WE HAVE EARNED A POSITION AS MARKET LEADER, WORKING WITH OEM CUSTOMERS.

**SECO<sup>®</sup>P**

## SOLAR PANEL POWERED COMPRESSORS

**BD35K|BD35F Solar**  
**BD50K**



# 3 GWP

**ACHIEVABLE WITH**  
A POWERFUL EFFICIENT COMPRESSOR, DESIGNED FOR MOBILE SOLAR POWERED OPERATION, WITHIN A WIDE VOLTAGE RANGE FROM 10-45 V DC (BD35K with 101N0420 controller)



# BD35F & BD35/50K – COOLING WITH RENEWABLE ENERGY

With BD solar compressors, Secop offers a refrigeration solution for places with poor or no power supply. Due to the exceptionally low starting current, batteries are not necessary (BD35F/K) if an ice bank is used for energy storage.

At times when there is no sun, the ice packs keep the cabinet at the set temperatures.

BD solar compressors offer numerous functions for manufacturers within the rapidly growing area of mobile and stationary refrigeration. Some examples include the storage and transportation of drugs, storage of food under difficult conditions without power supply, ice cream stands in holiday resorts,

remote bottle coolers, and refrigerators in boats, just to name a few.

The BD35F/K solar controller with its wide voltage range (10-45 V DC) makes the BD compressors very suitable for photovoltaic powering.

The new BD50K with its High Speed controller needs an additional capacitor or battery but offers higher cooling capacity.

An example of the latter was displayed at an UN Johannesburg Summit.

On this occasion, Secop supplied the compressor for a solar cabinet, complying with the tough demands of WHO (storage for 3 days without power supply).

General (code numbers)	BD35F (R134a)	BD35K (R600a)	BD50K (R600a)
Compressor (without electronic unit)	101Z0200	101Z0211	101Z0213
Electronic units with Adaptive Energy Optimization (AEO)	101N0420 (Solar)	101N0420 (Solar)	101N0390 (High Speed)

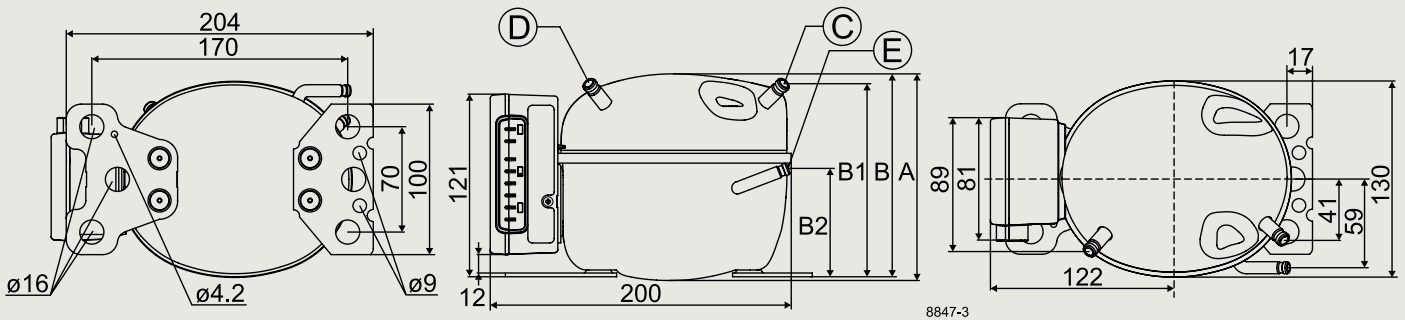
Application		LBP/MBP/HBP	LBP/MBP/HBP
Application			
Evaporating temperature	°C	-30 to 0	-30 to 10
Voltage	V DC	10 - 45	9.6 - 17 / 21.3 - 31.5

Performance data EN 12900/CECOMAF (static cooling)	12 V DC • 3,500 rpm		12 V DC • 3,500 rpm		12 V DC • 4,400 rpm		
Evaporating temperature	°C	-25	-5	-25	-5	-25	-5
Cooling capacity	W	35.9	122	36.0	106	42.0	129
Power consumption	W	41.3	75.4	41.1	67.1	50.0	85.7
Current consumption	A	3.42	6.28	3.42	5.58	3.81	6.80
COP	W/W	0.87	1.62	0.87	1.58	0.84	1.51

Performance data ASHRAE (static cooling)	12 V DC • 3,500 rpm		12 V DC • 3,500 rpm		12 V DC • 4,400 rpm		
Evaporating temperature	°C	-23.3	-6.7	-23.3	-6.7	-23.3	-6.7
Cooling capacity	W	50.5	125	49.0	108	57.2	129
Power consumption	W	43.7	71.9	43.5	64.5	53.1	85.7
Current consumption	A	3.63	5.99	3.61	5.37	4.06	6.80
COP	W/W	1.16	1.74	1.13	1.67	1.08	1.51

Dimensions		12 V DC • 3,500 rpm		12 V DC • 3,500 rpm		12 V DC • 4,400 rpm	
Height	mm	A					
		B					
		B1					
		B2					
Suction connector	location/I.D. mm   angle	C			6.2   40°		
	material   seal				Cu-plated steel   Al cap		
Process connector	location/I.D. mm   angle	D			6.2   45°		
	material   seal				Cu-plated steel   Al cap		
Discharge connector	location/I.D. mm   angle	E			5.0   21°		
	material   seal				Cu-plated steel   Al cap		
Connector tolerance	I.D. mm				±0.09, on 5.0	+0.12/+0.20	

Drawing shows BD35F/K, BD50K is similar



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