

SOLAR PANEL POWERED COMPRESSORS

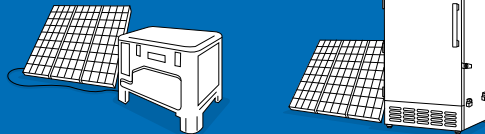
SECCP



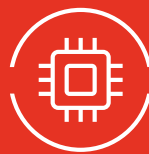
BD35F / BD35K



Mobile
Applications



Variable-Speed
Efficiency



Premium
Controllers



Customization via
Tool4Cool®



Low GWP
Refrigerants



Energy
Saving

- With BD solar compressors, Secop offers a refrigeration solution for places with poor or no power supply
- BD35F and BD35K – Cooling with renewable energy with dedicated solar controller 101N0420
- Due to the exceptionally low starting current, batteries are not necessary if an ice bank is used for energy storage
- BD35K with controller 101N0420: 3 GWP is achievable with a powerful efficient compressor, designed for mobile solar powered operation, within a wide voltage range from 10–45 V DC
- Easy customization via Tool4Cool®

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

The BD35F/K solar controller (101N0420) with its wide voltage range (10–45 V DC) makes the BD compressors very suitable for photovoltaic powering.

An example of the latter was displayed at an UN Johannesburg Summit. On this occasion, Secop (Danfoss Compressors at that time) supplied the compressor for a solar cabinet, complying with the tough demands of WHO (storage for 3 days without power supply).

General	BD35F (R134 • R1234yf)	BD35K (R600a)
Compressor	101Z0200	101Z0211
Electronic unit - Solar	101N0420	101N0420

Application		LBP/MBP/HBP	LBP/MBP/HBP
Application		LBP/MBP/HBP	LBP/MBP/HBP
Evaporating temperature	°C	-30 to 0	-30 to 0
Voltage range	V DC	10–45	10–45
Speed range	rpm	2000–3500	2000–3500

Performance Data ASHRAE LBP MBP		3,500 rpm • static cooling		3,500 rpm • static cooling	
Evaporating temperature	°C	-23.3	-6.7	-23.3	-6.7
Cooling capacity	W	50.5	125	49.0	108
Power consumption	W	43.7	71.9	43.5	64.5
COP	W/W	1.16	1.74	1.13	1.67
Test conditions LBP	Voltage: 12 V DC, Condensing temp.: 54.4°C Suction gas temp.: 32.2°C Ambient temp.: 32.2°C Liquid temp.: 32.2°C Performance data measured with R134a (R1234yf values for BD35F are similar)				
Test conditions MBP	Voltage: 12 V DC, Condensing temp.: 54.4°C Suction gas temp.: 35°C Ambient temp.: 32.2°C Liquid temp.: 46.1°C Performance data measured with R134a (R1234yf values for BD35F are similar)				

Performance Data EN 12900/CECOMAF		3,500 rpm • static cooling		3,500 rpm • static cooling	
Evaporating temperature	°C	-25	-5	-25	-5
Cooling capacity	W	35.9	122	36.0	106
Power consumption	W	41.3	75.4	41.1	67.1
COP	W/W	0.87	1.62	0.87	1.58
Test conditions	Voltage: 12 V DC, Condensing temp.: 55°C Suction gas temp.: 32°C Ambient temp.: 32°C Liquid temp.: no subcooling Performance data measured with R134a (R1234yf values for BD35F are similar)				

Dimensions			
Height	mm	A	137
		B	135
		B1	128
		B2	73
Suction connector	location/I.D. mm angle material seal	C	6.2 40° Cu-plated steel Al cap
Process connector	location/I.D. mm angle material seal	D	6.2 45° Cu-plated steel Al cap
Discharge connector	location/I.D. mm angle material seal	E	5.0 21° Cu-plated steel Al cap
Connector tolerance	I.D. mm		±0.09, on 5.0 +0.12/+0.20

