R134a | R1234yf · 12-24 V DC

## CONTROL YOUR COLD CHAIN MOBILE EFFICIENCY FOR VAN BOXES

## SECOP



- → Vans can be purchased in a standard model without requiring additional body modifications. The van remains versatile and can be used for other purposes when not transporting refrigerated goods.
- → A streamlined van design can be maintained, reducing wind resistance and leading to lower energy consumption and CO<sub>2</sub> emissions.
- → Easier resale value due to the van's unmodified structure and no hygiene concerns related to the vehicle itself.
- → The refrigeration box is mobile and can be handled separately. It can serve as an additional refrigerator and be loaded directly into a cooling or freezer room.
- → Refrigeration functions even when the engine is off with simplified operation and maintenance.
- $\rightarrow~$  Both battery power and AC utility can be used via a converter.
- → Easy customization via Tool4Cool $^{\circ}$

The most cost-effective and efficient solution for small-scale transport is a mobile refrigeration unit that can be easily mounted on cars and vans and powered by the vehicle's own battery. Savings of 30% are possible by building a flexible, battery driven refrigeration system that follows food to the end of the cold chain.

The advantages of this solution are evident. The vehicle remains unmodified, and the cabinets can be easily transferred between vehicles. Additionally, with the use of an AC/DC converter, they can operate on AC power when the engine is off. These systems are highly energy-efficient and can be custom-built in various sizes to accommodate specific storage needs.

Moreover, an expensive, impractical, specially adapted refrigerated van is no longer the only option on the market. In recent years, mobile cooling solutions have become increasingly competitive, offering more economical, practical, and efficient alternatives. This makes them the most flexible and cost-effective solution for complying with HACCP guidelines.

General		BD	5 <b>0F</b> (R13	4 • R123	34yf)	BD8	<b>BOF</b> (R13	4 • R123	4yf)	В	D250GH	.2 (R134	a)
Compressor		101Z1220				101Z0280				101Z0406			
Electronic unit - AEO		101N0340				_				_			
Electronic unit - AC/DC Converter		101N0510				_				_			
Electronic unit - High Speed (with AEO)		-				101N0390				101N0390			
Application													
Application		LBP/MBP/HBP			LBP				LBP/MBP/HBP				
Evaporating temperature	°C	-30 to -5 (0)			-30 to -5				-25 to 15				
Voltage range		12-24 V DC (9.6-17.0, 21.3-31.5 V DC) 100-240 V AC, 50/60 Hz			12-24 V DC (9.6-17.0, 21.3-31.5 V DC)				12-24 V DC (9.6-17.0, 21.3-31.5 V DC)				
Speed range	rpm	2000-3500				2500-4400				2500-4400			
Performance Data ASHRAE LBP		3,500 rpm • static cooling				4,400 rpm ● static cooling				4,400 rpm • static cooling			
Evaporating temperature	°C	-30	-20	-10	-5	-30	-20	-10	-5	-25	-20	-10	0
Cooling capacity	W	46	88	152	194	68	130	218	274	76	109	194	311
Power consumption	W	45	68	91	104	66	100	138	161	65	78	104	132
Current consumption	А	3.9	5.6	7.6	8.7	2.8	4.2	5.8	6.7	2.7	3.2	4.1	5.3
СОР	W/W	1.01	1.29	1.68	1.89	1.02	1.3	1.58	1.71	1.18	1.39	1.88	2.36
Test conditions	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												

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 BD50F and BD 80F are similar)

Performance Data EN 12900/CECOMAF		3,50	3,500 rpm • static cooling				4,400 rpm • static cooling				4,400 rpm • static cooling			
Evaporating temperature	°C	-30	-20	-10	-5	-30	-20	-10	-5	-25	-20	-10	0	
Cooling capacity	W	37	71	123	157	55	105	176	221	61	87	156	251	
Power consumption	W	45	68	91	104	66	100	138	161	65	78	104	132	
Current consumption	А	3.9	5.6	7.6	8.7	2.8	4.2	5.8	6.7	2.7	3.2	4.1	5.3	
СОР	W/W	0.82	1.04	1.35	1.51	0.83	1.05	1.27	1.37	0.94	1.11	1.51	1.89	
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 BD50F and BD 80F are similar)

Dimensions			
Height	mm	А	137
		B / B1 / B2	135 / 128 / 73
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

## **BD50F** with 101N0340

**BD80F** with 101N0390

## BD250GH.2 with 101N0390







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