

## AUTO SELECT BATTERY CHARGER



### DESCRIPTION

DATAKOM BC-4A series are fixed output voltage, current limited lead acid battery chargers specially designed for use in gensets. Thanks to their continuous DC outputs they may also be used in a wide range of industrial applications where DC power is required.

Chargers offer automatic battery voltage detection. Thus the same unit operates as 12V or 24V without the need of a manual selection, removing human errors.

The charger continuously measures its output voltage. If the voltage is below 18V, it operates in 12V mode. If the voltage is above 18V then it operates in 24V mode. If the output of the charger is open, it will operate in 12V.

The chargers are designed for permanent connection to genset starter batteries. When the battery voltage is below the float charge level, the charger provides constant current, nearly equal to the rated output current allowing a rapid recovery of the missing charge. When the battery voltage reaches the float level, the charger switches to constant voltage charge mode and maintains the battery fully charged, providing the maximum battery life, without overcharging or gassing.

The overload and short circuit protections make the unit deliver only the rated current during engine cranking or short circuit. It does not need disconnection during cranking.

The high temperature protection reduces the output current in case of overheating, allowing operation in warm environments.

The rectifier fail output is a semiconductor output pulling to battery negative when the unit is not operating. Thanks to this output, a rectifier fail signal is provided for the genset control module which will give an alarm in case of failure.

The units provide a "boost charge" input as a standard feature. When this input is pulled to battery negative, the output voltage of the charger will be set to the boost charge voltage.

### TECHNICAL SPECIFICATIONS

		12V MODE	24V MODE
Technology	-	Switchmode (flyback) 100KHz	
Output Voltage	V-DC	13.7	27.4
Output Current	Amp.	4	
Input Voltage Range	V-AC	170-270	
Input Frequency Range	Hz	45-65	
Operating Temp. Range	°C	-20 / +70	
Storage Temp. Range	°C	-40 / +80	
Max. Relative Humidity	%	95 (non-condensing)	
Max. Input Power	Watt	60	115
Efficiency (at full load)	%	≥ 86	
Output Noise (Vpp)	Volt	0.2	
Rectifier Fail Output	-	Yes	
Fail Output Imp.	ohm	270	
Boost Charge Input	-	Yes	
Boost Charge Voltage	Volt	15.0	30.0
High Temp. Protection	-	Yes	
Short Circuit Protection	-	Yes	
Electrical Connections	-	2 Part plug-in connectors	
Width	mm	108	
Height	mm	112	
Depth	mm	55	
Weight (approx.)	gram	260	

## INSTALLATION



The unit is designed only for installation within other equipment by professional installers. It must not be operated as a stand alone product.

The unit is for enclosed panel mounting. The user should not be able to access the unit. Only authorized service personnel will be allowed to access the unit. Mount the unit on a flat, vertical surface. Allow at least 5cm space on the bottom and top sides to enable cooling by natural ventilation. Blocking the aeration will cause the unit to overheat.



Use 6 Amps external fuse at the phase input.

**ALWAYS** disconnect the power **BEFORE** connecting the unit.

## CONNECTION DIAGRAM

