

DKG-190

BATTERY CHARGE CONTROLLER

DESCRIPTION

The DKG-190 is a high-tech product designed to reduce engine run hours of gensets used in telecommunication systems.

The unit brings considerable economies to genset run-hours, fuel consumption and service cost.

In simple telecom systems, gensets run during mains failure periods. Thus the genset run hour is equal to the sum of mains failure hours.

The DKG-190 feeds the existing genset control unit with the AC voltage that it generates internally and prevents the engine from running when not necessary. It also controls the mains contactor. It can be adapted to any brand and model of genset control unit.

When the mains is off, the DKG-190 continues to feed the genset controller with AC voltage and monitors the battery voltage. When the battery voltage falls below the preprogrammed level, then it cuts the AC voltage and causes the genset to run.

The genset runtime is adjusted on the DKG-190. When this timer is expired, the unit sends again the AC voltage to the genset controller causing the genset to stop. It also energizes its MC relay output. The genset stays in rest until batteries are discharged again.

When the mains is restored, the genset stops regardless of the battery charge status.

The unit measures and displays precisely battery, genset and mains voltages.

The AC voltage generated by the unit is a pure sinus with adjustable voltage and frequency. These features are obtained thanks to the high voltage PWM control and PID loop.

The unit can be virtually adapted to any genset controller thanks to its adjustable parameters.



FEATURES

- **Supports both 24V and 48V DC systems**
- **Supply voltage range: 19-70VDC**
- **Accurate DC voltage measurement**
- **True RMS mains/genset voltage measurements**
- **Adjustable and PID controlled AC output**
- **Adjustable AC output frequency**
- **Pure sinus AC output voltage**
- **Mains contactor output**
- **Genset test capability**
- **Adjustable parameters**
- **DIN rail mounted**
- **Small dimensions**
- **Wide operating temperature range**
- **2 part connection system**



TECHNICAL SPECIFICATIONS

DC Supply Range: 19.0 - 70.0 V-DC.
Power Consumption: < 4W
Alternator Voltage: 0 - 300 V-AC (L-N)
Alternator Frequency: 45-65 Hz.
Mains Voltage: 0 - 300 V-AC (L-N)
Mains Frequency: 45-65 Hz
AC Voltage Accuracy: ±2V
DC Voltage Accuracy: ±0.2V
AC Output:
 Voltage Range: 70-260VAC
 Output Power: 0.5VA max
 Min. Load Impedance: 100 k-ohms
 Frequency Range: 45-65Hz
 Regulation: PID

MC Relay Output: 5A @ 250V AC
Operating Temp Range: -20°C to 70°C
Storage Temp Range: -40°C to 80°C
Max. Relative Humidity: 95% non-condensing
IP Protection: IP30
Dimensions: 133 x 107 x 46mm (WxHxD)
Weight: 350 g (approx.)
Case Material: High temperature, flame retardant ABS/PC (UL94-V0)
Installation: DIN Rail mounted

EU Directives:	Reference Standards:
2006/95/EC (LVD)	EN 61010 (safety)
2004/108/EC (EMC)	EN 61326 (EMC)

INSTALLATION DIAGRAM

