



DKG-101 AUTOMATIC MAINS FAILURE UNIT



FEATURES

*Microprocessor controlled,
Automatic engine starting and stopping,
Automatic load transfer,
Automatic shutdown on fault condition,
Survive cranking dropouts,
Operation in Automatic, Test and Off modes,
Low cost,
Small dimensions,
Standard panel dimensions, (72x144mm)
Emergency backup operation,
Different models for 12V and 24V battery systems,
3 Phase mains voltage monitoring,
Alternator phase monitoring,
Overspeed and underspeed protection,
Low oil pressure protection,
High engine temperature protection,
Dust proof,
Vibration proof,
Two part connectors for easy replacement,
Low failure rate,*

DESCRIPTION

The DATAKOM model DKG-101 automatic start unit is a microprocessor based low cost digital unit offering all functions needed for automatic control of a genset.

The unit is housed in a metal chassis.

In automatic mode, the unit monitors 3 phases of the mains voltage and controls the automatic starting, stopping and load transfer of the generator. Once the generator is running the device monitors the internal protections and external fault inputs.

As the device needs no programming process, it is easy to use and has a very low rate of failure.

The unit has different models for 12 Volt and 24 Volt gensets.

MODES OF OPERATION

OFF: Mains contactor will be energized if AC mains are present.

AUTOMATIC: The unit monitors the 3 phases of the mains and will start the generator and control the changeover of mains and generator contactors if a mains failure on any phase is detected.

TEST: The unit will start the generator without a mains failure, but the load will not be transferred until a mains failure occurs. (Also called EMERGENCY BACKUP mode)

OUTPUTS

FUEL: Positive output relay used to control the fuel solenoid. (10 amps) Use an external power relay to increase the output current rating.

START: Positive output relay used to control the engine starter solenoid. (10 amps) Use an external power relay to increase the output current rating.

ALARM: Negative transistor output activated by any alarm condition. (1.0 amps)

GENERATOR CONTACTOR: Outputs the alternator phase voltage to energize the generator contactor. (5 amps @250V-AC)

MAINS CONTACTOR: Outputs the mains phase voltage to energize the mains contactor. (5 amps @250V-AC)

INPUTS

LOW OIL PRESSURE: negative closing switch input.

HIGH TEMP SWITCH: negative closing switch input.

DC SUPPLY: 12 or 24 volts DC, (+) and (-) terminals.

R-S-T: 3 phase mains voltages.

G: Generator phase voltage.

NEUTRAL: Mains and generator neutral terminal.

TECHNICAL SPECIFICATIONS

Overspeed: 57Hz

Underspeed : 30Hz

Multi attempts to start : 3 attempts

Start delay : 3 secs

Crank time: 10 secs

Rest time : 10 secs

Crank disconnect : 10Hz

Return time: 60 secs

Run on: 180 secs

Operating temperature: -10 to + 70 degrees C.

Relative humidity: %10 to %90.

DC Supply:

DKG-101/12V: 9 to 18 volts.

4.0-18 V while cranking

DKG-102/24V: 18 to 33 volts

8.0-33 V while cranking

Power consumption: 1W average, 3W max.

Dimensions: 144 x 72 x 32mm (WxHxD)

Mounting hole dimensions:

139x67 mm minimum.

Weight: 250g (approx.)

DATAKOM Electronics Limited

Tel : + 90-216-466 84 60

Fax : + 90-216-364 65 65

e-mail : datakom@datakom.com.tr

<http://www.datakom.com.tr>