



DKG-112 MANUAL START UNIT

DESCRIPTION

The DATAKOM model DKG-112 is a low cost, microprocessor controlled unit designed to manually start and stop the genset using the key switch on the front panel.

In the **OFF** position, the DC supply is removed from the module, thus zero power consumption is achieved.

The unit powers up when the **RUN** position on the front panel is selected. This will also energize the fuel solenoid relay. The engine is then started using the next spring-loaded position marked **START**. Once the engine has started, the switch should be released.

To shut down the engine, select the **OFF** position on the switch.

The safety on signal, which is picked up from the AC generator input, enables the alarm monitoring after 4 seconds delay. (DC signal input option provided during manufacture)

If a fault condition occurs, the engine will be stopped, the led associated with this condition will turn on and the alarm output will be energized. Only the first occurring fault will be indicated. To reset the fault condition turn off the switch for a few seconds.

The limits for the correct generator frequency are 30 to 57 Hz. A 3 second delay is provided to enable high current startups.

The unit has Energize to Stop and 60Hz options selected at the manufacture stage.

The unit uses two part connectors for easy replacement.

Every unit use the same key code for interchangeability.

The unit is housed in a steel chassis with polycarbonate front panel.

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

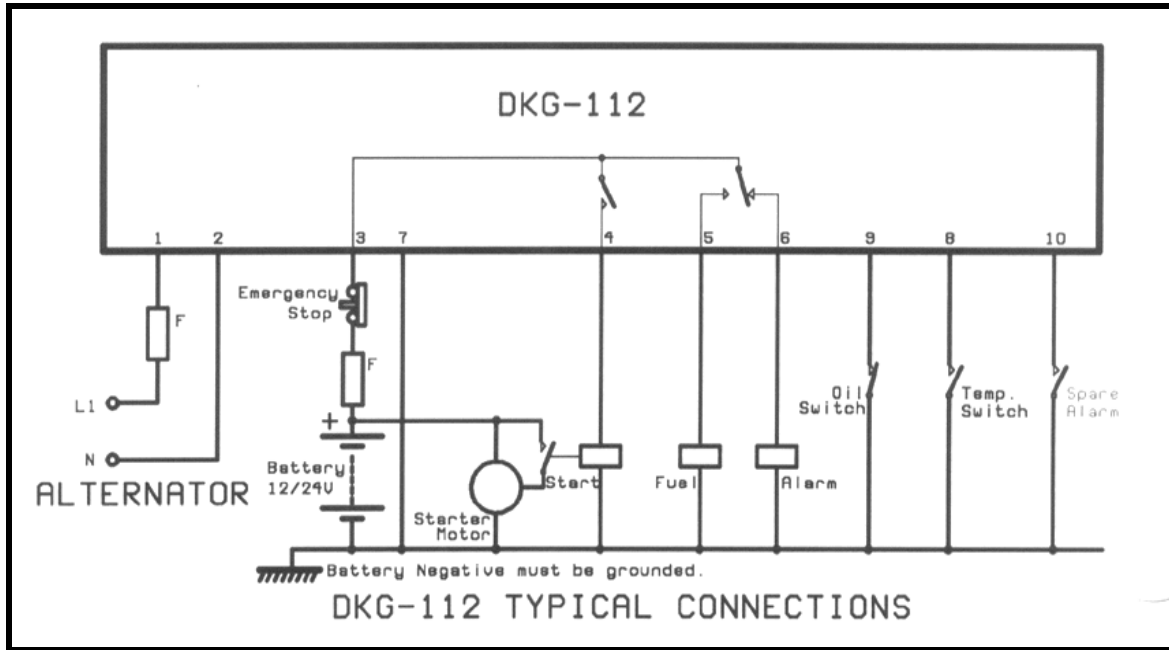


FEATURES

*Microprocessor controlled,
Manual fuel control and start,
Automatic shutdown on fault condition,
Survives cranking dropouts,
Standard panel dimensions (72x72mm),
Digital display of generator frequency,
High engine temperature protection,
Low oil pressure protection,
Overspeed-underspeed protection,
Spare fault input,
Alarm output,
Two part connectors for easy replacement,
Low cost,
Low failure rate,*

OPTIONS

**60Hz operation,
Energize to stop output,
DC signal for safety on signal,**



INPUTS

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

G: Generator phase voltage.

NEUTRAL: Generator neutral terminal.

HIGH TEMP SWITCH: Negative closing switch input.

LOW OIL PRESSURE: Negative closing switch input.

A-11: Spare fault input. A negative supply connection to this input will cause the engine immediately stopped and an alarm given.

OUTPUTS

FUEL SOLENOID: 16amps@28V-DC.

START : 16amps@28V-DC.

ALARM : 16amps@28V-DC.

TECHNICAL SPECIFICATIONS

Step control: 8 bit microcontroller.

Alternator Voltage: 40 to 277 V-AC (Ph-N)

Alternator Frequency: 0-100Hz.

Overspeed: 57Hz

Underspeed: 30Hz

DC Supply Range:

DKG-112/12V : 9 to 18 volts

DKG-112/24V : 17 to 33 volts

Current consumption: 120mA max.

Operating temp.: -20°C (-4°F) to 70 °C (158°F).

Storage temp.: -30°C (-22°F) to 80 °C (176°F).

Maximum humidity: 95% non-condensing.

Dimensions: 72x72x70mm (WxHxD)

Panel cutout dimensions: 68x68 mm

Weight: 400g (approx.)

Conformity (EU directives)

-73/23/EEC and 93/68/EEC (low voltage)

-89/336/EEC, 92/31/EEC and 93/68/EEC
(electro-magnetic compatibility)

Norms of reference:

EN 61010 (safety requirements)

EN 50081-2 (EMC requirements)

EN 50082-2 (EMC requirements)

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