DKG-112 MANUAL START UNIT

INPUTS

DC SUPPLY: The positive (+) and negative (-) terminals of the DC Supply shall be connected to these terminals. Be careful for the polarization, in case of polarization error the unit will not operate.
Minimum operating voltage is 9 volts. Since the unit has different models for 12 volt and 24 volt gensets, be careful not to connect 12 volt unit to a 24 volt DC supply.
The operating voltage of the unit is written on the rear cover.
G: Connect one of the generator phases to this input. Threshold level is 30 volts.
NEUTRAL: Connect the generator neutral terminal to this input. Neutral and DC supply (-) terminal are independent and there is no need to connect them.
HIGH TEMPERATURE SWITCH: Connect the high temperature switch to this input. This switch shall be negative closing switch type.
LOW OIL PRESSURE: Connect the low oil pressure switch to this input. The switch should be negative closing in case of loss of oil pressure. This input must be kept connected for the proper operation of the unit.
A-11 INPUT: Spare alarm input. If DC supply (-) is connected to this terminal, the engine will stop, alarm output will be activated and A-11 alarm light will turn on.

OUTPUTS

FUEL OUTPUT: Fuel solenoid control output. Activated when start key is at RUN or START position, deactivated if an alarm occurs. Relay contact rating is 16A/28V-DC.
START OUTPUT: Generator start output. Active while the start key is hold in START position. Relay contact rating is 16A/28V-DC.
ALARM/STOP OUTPUT: This output can be used as alarm or stop relay output. Specific output selection is made during the manufacturing process and this information is marked on the rear cover.
If it is an alarm option unit, the relay turns on under an alarm condition.
If it is a stop option unit, this relay turns on for a period of 30 seconds in order to stop the diesel. Relay contact rating is 16A/28V-DC.

DISPLAYS

FREQUENCY: it displays the generator phase frequency as two digits. It is operational when the generator is on.

ALARMS

If an alarm occurs while the diesel is in operation, the generator will stop immediately and the related alarm LED will turn on, the alarm output will be energized. The alarm LED will stay on and disable the operation of the generator even if the alarm source disappears. In order to remove alarm condition, turn the key switch in OFF position, wait 5 seconds and turn it on again.

HIGH TEMPERATURE ALARM: (red) it is on when a signal comes from the high coolant temperature input.

LOW OIL PRESSURE ALARM: (red) it is on when a signal arrives from the oil pressure input. This input will be controlled 6 seconds after the diesel is running.

FREQUENCY ALARM: (red) it is on when the generator frequency is above 57 Hertz (overspeed) or below 30 Hertz (underspeed). Generator frequency will be controlled 6 seconds after the diesel is running.

MODES OF OPERATION

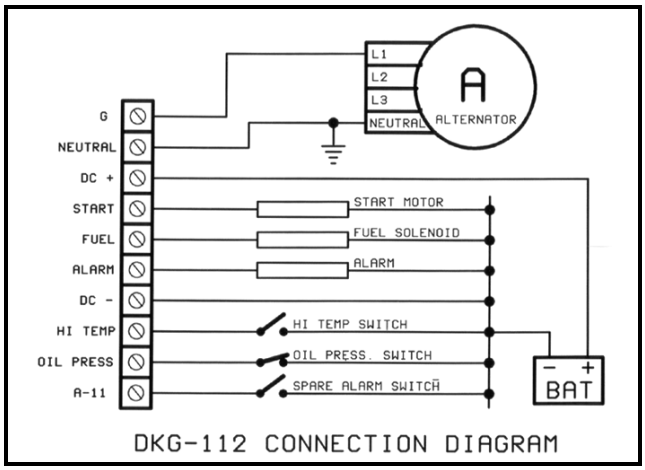
The engine is started manually with the start switch. 6 seconds after the diesel is running, speed and oil pressure protections are activated. The alternator frequency should be between 30 and 57 Hertz.

In case of alarm, the related alarm LED turns on, fuel solenoid turns off and alarm relay output is activated.

To remove the alarm, turn off the unit with the start key.

TECHNICAL SPECIFICATIONS

Overspeed: 57Hz
Underspeed: 30Hz
Operating temperature:
-10 to 70 degrees C
Relative humidity: %10 to %90
DC Supply:
DKG-112/12V : 9 to 18 volts
DKG-112/24V : 17 to 33 volts
Power consumption: 2 Watt max.
Dimensions: 72x72x70mm (WxHxD)
Mounting hole dimensions: 68x68 mm
Weight: 400g (approx.)



DKG-112 CONNECTION DIAGRAM

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