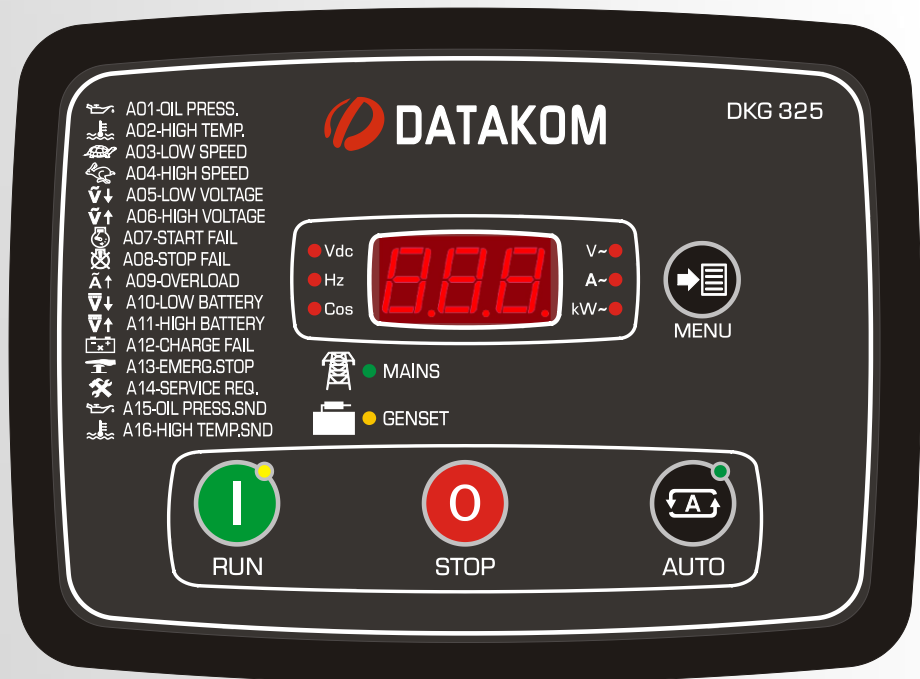


DKG-325

GENSET CONTROL & ATS PANEL



DESCRIPTION

DKG-325, is a ready-to-use control and transfer panel for gasoline and diesel gensets rated up to 15kVA. It supports both 1 and 3 phase gensets.

The unit incorporates all necessary components for battery charging, genset control and load transfer between mains and genset.

Gensets may be automatized using the DKG-325, without the need for any additional equipment. Thanks to the unit, automatization of small gensets has become easy and cost effective.

In AUTO position, the unit monitors 3 phases of the mains, runs and stops the genset automatically and performs load transfer. When the engine is running, it monitors internal protections and alarm inputs.

The unit features 2 contactors, battery charging rectifier and the automatic control circuitry in one enclosure. It is the equivalent of a complete genset control panel.

Internal contactors are rated for 40Amp switching and are capable of carrying 25Amp continuously.

Fuel and crank outputs are provided through 40Amp rated relays and do not require additional relays.

The internal battery charging rectifier is rated 1Amp @ 12V-DC. The internal rectifier is sufficient for the float charging of the engine start battery.

The unit features 3 internal current transformers. It measures currents and power from both genset and mains.

Timers, threshold levels, input and output configurations are digitally programmable. Programs are modified through front panel pushbuttons and do not require an additional unit.

FEATURES

- **Automatic mains monitoring**
- **Automatic load transfer**
- **Automatic starting and stopping**
- **Automatic stopping in fault condition**
- **Test mode available**
- **Emergency backup mode**
- **Internal current transformers**
- **Detailed load measurements and protections**
- **Internal battery charging rectifier**
- **40 Amp rated Fuel and Crank outputs**
- **Front panel adjustable parameters**
- **Stop, preheat and choke output capability**
- **Configurable spare digital input**
- **Survives cranking voltage dropouts**
- **Compact dimensions, flush mounted**

MEASUREMENTS

Mains Voltages: L1-N, L2-N, L3-N
Mains Voltages: L1-L2, L2-L3, L3-L1
Genset Voltages: L1-N, L2-N, L3-N
Genset Voltages: L1-L2, L2-L3, L3-L1
Load Currents: L1, L2, L3
Load phase and total kW, kVA, kVAr, cosΦ
Genset Frequency
Battery Voltage
Oil pressure
Coolant temperature
Engine run Hours
Service Counters



MODES OF OPERATION

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

AUTOMATIC: The unit starts the genset and controls the load switching between mains and genset if a mains failure on any phase is detected.

RUN: The unit will start the generator without a mains failure, but the load will not be transferred until a mains failure occurs. (Emergency backup mode)

PROGRAM: Used to set timers and operational limits

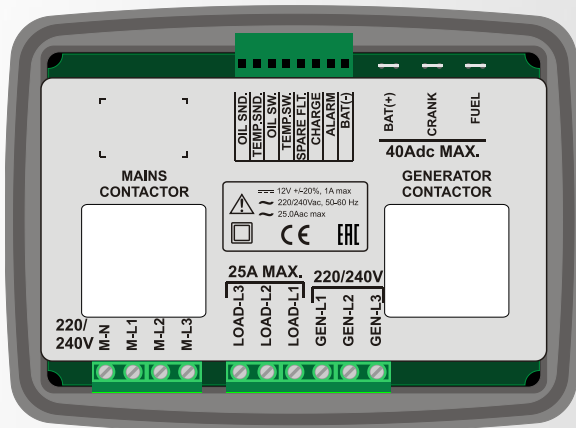
OUTPUTS

FUEL: Positive output relay used to control the fuel solenoid. May also be programmed for **activate to stop** (40A @12Vdc)

CRANK: Positive output relay used to control the engine starter solenoid. (40A@12Vdc)

ALARM: Positive output relay activated by any alarm condition. This output can also be configured as **stop, preheat, choke or gas engine fuel solenoid.** (10A@12Vdc)

LOAD: These outputs are supplied with mains or genset voltage through internal contactors. (25A@230Vac)



ANALOG INPUTS

OIL PRESSURE SENDER: Preprogrammed for 7 bars, 10-180 ohms VDO sender. Different sender types are selectable.

TEMPERATURE SENDER: Preprogrammed for VDO sender. Different sender types are selectable.

DIGITAL INPUTS

LOW OIL PRESSURE SWITCH: negative closing switch input for low oil pressure protection.

HIGH TEMP SWITCH: negative closing switch input for engine high temperature protection.

SPARE FAULT: any fault signal may be tied to this input.

TECHNICAL SPECIFICATIONS

Alternator Voltage: 0-280 V-AC (Phase-Neutral)

Alternator Frequency: 0-100 Hz.

Mains Voltage: 0-280 V-AC (Phase-Neutral)

Mains Frequency: 0-100 Hz.

Load Current: 3x25A / 230V-AC continuous

Cranking Dropouts: survives 0V for 100ms.

Fuel and Crank Relay Outputs: 40 A / 12V-DC

Alarm Output: 10A / 12 V-DC

Charge Excitation: min 2 W.

Battery Charge Current: min 1A / 13.7V-DC (195-276V-AC)

Operating temp.: -40°C (-40°F) to 70°C (158°F).

Storage temp.: -55°C (-67°F) to 80°C (176°F).

Maximum humidity: 95% non-condensing.

Dimensions: 200x 148 x 72 mm (GxYxD)

Panel Cutout: 176 x 121mm minimum.

Weight: 700 g (approx..)

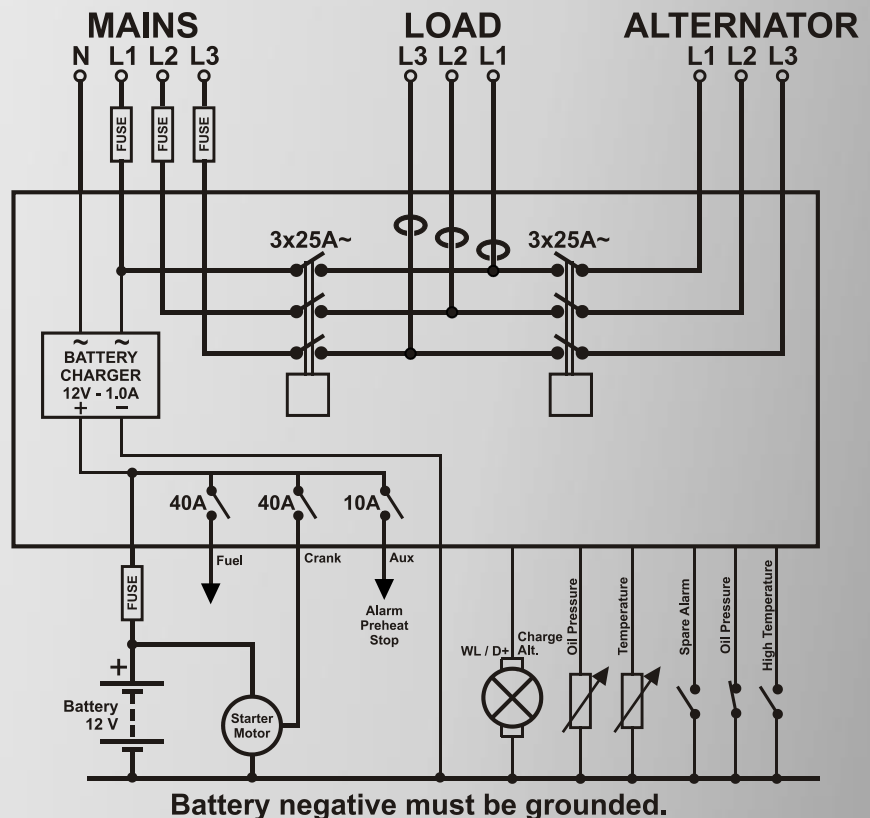
Enclosure: Flame retardant, high temp ABS/PC (UL94-V0)

IP Protection: IP54 (front).

Reference standards for EU Conformity:

-EN 61010 (safety)

-EN 61326 (EMC)



Battery negative must be grounded.

