DKG-116

MANUAL AND REMOTE START UNIT

DESCRIPTION

The DKG-116 is a low cost, comprehensive unit designed to start and stop a generating set both manually and remotely.

The unit is suitable for both gasoline and diesel gensets. The standard unit controls gasoline engines. Diesel engine control is selected with a wire jumper connection.

The manual control is made using RUN and STOP pushbuttons on the front panel. The remote control is made via REMOTE START input signal.

When the engine is running, the unit monitors fault conditions and shuts-down the engine automatically in the occurrence of an alarm. The alarms are identified by a group of LEDs displaying only the first occurring one.

The MENU button select the display parameter scroll and allows program mode entry and lamp test functions.

The unit provides a set of digitally adjustable program parameters. All parameters are modified through front panel pushbuttons.

The FUEL output is programmable for ‘Activate to start’ or ‘Activate to stop’ solenoids.

The optional auxiliary output may be programmed for alarm, choke, preheat or stop functions.

The total engine run hours is kept in a tamper-proof non-erasable memory which is not affected by power failures.

An optional MPU input is provided for fast crank cutting.

The unit is designed for front panel mounting. Connections are made with 2 part plug and socket connectors.

The unit is only available in 12V version.

MEASUREMENTS

Generator Volts: L1-N, L2-N, L3-N
Generator Volts: L1-L2, L2-L3, L3-L1
Generator Frequency
Battery Voltage

OPTIONS

Auxiliary output (negative pulling).
Magnetic pickup input

FEATURES

Both Manual and remote control
Generator protection
Built in alarms and warnings
Remote Start operation available
True RMS measurements
Tamper proof engine hours display
Field adjustable parameters
High current Fuel and Crank outputs
Optional auxiliary output
Optional magnetic pickup input
Digital inputs: 4
Survives cranking dropouts
Sealed front panel
Standard panel dimensions: 96x48mm
Plug-in connection system
Alternator voltage: 15 to 300 V-AC (Ph-N)
Alternator frequency: 50 or 60 Hz nominal.
Measurement Accuracy: 0.5% + 1 digit
Overspeed: nominal frequency + 14%
(+24% overshoot)
Underspeed: 30 Hz
Crank time: 10 sec.
Crank rest: 10 sec.
Crank attempts: 3
Stop timer: 10 sec.

Both High Temperature and Emergency Stop inputs must be connected to Battery negative prior to enter the programming mode.

The program mode is entered by long-pressing the MENU button. Each depression of the MENU button will switch to the next parameter.

Another long press will enable lamp test mode. Another press on MENU button will return the display to normal mode.

Below parameters can be set as required:
AC voltage low limit: 70 to 500 VAC (Ph-N)
AC voltage high limit: 70 to 500 VAC (Ph-N)
MPU crank-cut frequency / 4: 0–1000Hz
Nominal frequency: 0=50Hz 1=60Hz
Oil switch type: 0=oil pressure 1=oil level
Fuel relay function: 0=Activate to start 1=activate to stop.
Auxiliary relay function: 0=Alarm, 1=choke, 2=stop, 3=preheat.
Choke timer: 0 to 15 sec.
Number of phases: 0=1ph 1=2ph 2=3ph 3=3ph