PC&S

DKG-116
Manual and Remote Start Unit

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
- ❏ Protected semiconductor auxiliary outputs
- ❏ Digital inputs: 4
- ❏ Survives cranking dropouts
- ❏ Sealed front panel
- ❏ Standard panel measurements: 96 x 48mm
- ❏ Plug-in connection system

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 jumper at the back of the unit.

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, 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.

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, L1-L2, L2-L3, L3-L1
- ❏ Generator Frequency
- ❏ Battery Voltage

OPTIONS

- ❏ Auxiliary output (negative pulling)

TECHNICAL SPECIFICATIONS

Alternator Voltage	15 - 300V,AC (L-N)	**Cranking Dropouts**	survives 0V for 100ms
Alternator Frequency	50 - 60Hz nominal	**Typical Standby Current**	60mA,DC
Overspeed	nominal frequency + 14% (+24% overshoot)	**Maximum Operating Current**	130mA,DC
		Fuel and Crank Outputs	10A@12V,DC
Underspeed	30Hz	**Alarm Output**	1A@12V,DC (negative pulling protected semiconductor output)
Crank Time	10 sec.		
Crank Reset	10 sec.	**Operating Temperature**	-40°F to +176°F (-40°C to +80°C)
Crank Attempts	3	**Maximum Humidity**	95% non-condensing
Stop Timer	10 sec.	**IP Protection**	IP65 from front panel. IP30 from rear
Cooldown Timer	30 sec.	**Dimensions**	4.02" W x 2.17" H x 1.57" D
Holdoff Timer	10 sec.	**Panel Cut-out Dimensions**	3.62" W x 1.73" H minimum
DC Supply Range	9.0 to 16.0V,DC	**Weight**	0.31 lbs. (140 g. approx.)
		Case Material	High-temperature, self-extinguishing ABS/PC (UL94-V0, 100°C / 230°F)

PROGRAMMING

The program mode is entered by pressing and holding the MENU button. Each press of the MENU button will switch to the next parameter.

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

Below parameters can be set as required:

AC Voltage low limit	70 to 500V,AC (L-N)
AC Voltage high limit	70 to 500V,AC (L-N)
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
Choke timer	0 to 15 seconds

COMPATIBILITY / CONFORMITY

EU Directives Conformity
2006 / 95 / EC (low voltage)
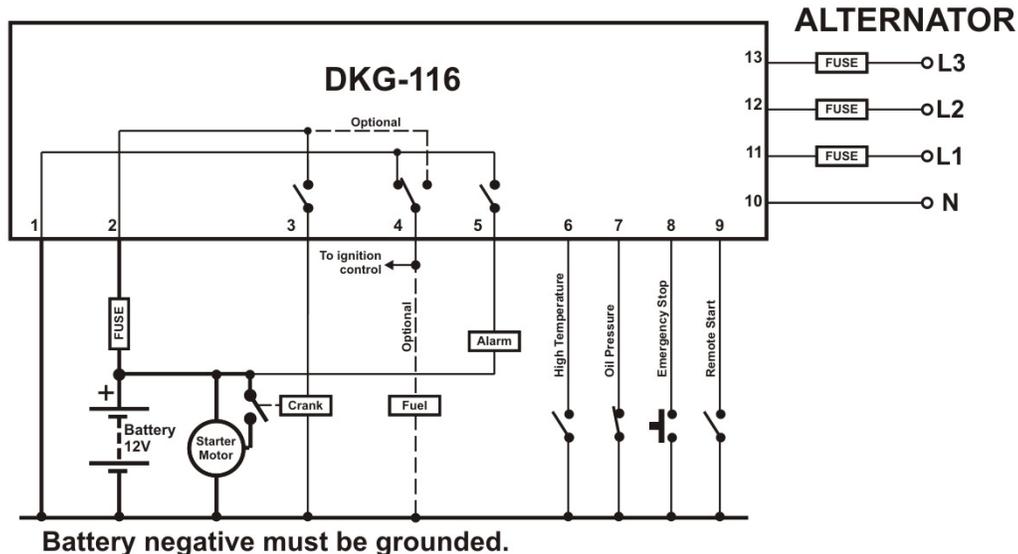2004 / 108 / EC (electro-magnetic compatibility)
Norms of Reference:
EN 61010 (safety requirements)
EN 61326 (EMC requirements)

CE

TYPICAL CONNECTIONS

Battery negative must be grounded.