



TECHNICAL MANUAL

DSE4620

Generator Control Module

<https://gensetpart.com/generator-controller/>

COMPATIBLE REPLACEMENT PART

POPULACE has manufactured generator electronic parts in Xiamen, China since 2006. 1000+ SKUs in stock, 1-5 day dispatch, every unit burn-in tested before shipment.

Document contents

- Specification and technical characteristics
- Terminal assignment and wiring diagram
- Installation, adjustment and settings
- Troubleshooting table

This document is supplied by POPULACE Electronic Co., Ltd. as an installation and operating guide for a POPULACE compatible replacement part. It is not an original equipment manufacturer (OEM) document. Any brand names or part numbers mentioned are for cross-reference and identification purposes only and do not indicate affiliation with, or endorsement by, the respective manufacturers.

Why source this part from POPULACE

- Factory in Xiamen, China - operating since 2006 (20 years)
- Over 1000 SKUs held in stock; dispatch within 1-5 days
- Every unit burn-in tested at 65 C before shipment
- CE and ISO 9001 production system; full batch traceability
- Free technical support for wiring, settings and fault diagnosis

Get a quote / technical support

Web: <https://gensetpart.com>
Email: grace@genpart.cn
Phone / WhatsApp: +86-138-5038-3550

No.702 Xiniya Building, No.90 Anling Second Road, XIAMEN, FUJIAN, China

正面

105克铜板

205*280mm

反面

4610/20

AUTO START AND AUTO MAINS FAILURE CONTROL MODULES

(ALTERNATOR FREQUENCY & MAGNETIC PICK-UP SPEED SENSING)

FEATURES



The 4610 Auto Start Control Module and the 4620 Auto Mains (Utility) Failure Control Module are suitable for a wide variety of single gen-set applications.

Whilst maintaining functions included within higher end controllers, such as generator or load power monitoring, the 46xx range of especially compact controllers provide the user with the ultimate size to feature ratio.

Monitoring engine speed, oil pressure, coolant temperature, frequency, voltage, current, power and fuel level, the modules will give comprehensive engine and alternator protection. This will be indicated on the largest back-lit LCD icon display in its class via an array of warning, electrical trip and shutdown alarms.

Alternator frequency & magnetic pick up speed sensing support for diesel, gas and petrol engines all in one variant. With a number of flexible inputs, outputs and protections, the modules can be easily adapted to suit a wide range of applications including lighting towers with the added option for staged loading outputs.

Through USB Communication both modules can be easily configured using the Configuration Suite PC Software or can be fully configured through the module's front panel editor.

All products are supported by the global technical support team which gives our customers and end users access to 24 hour system help and advice.

ENVIRONMENTAL TESTING STANDARDS

ELECTRO-MAGNETIC COMPATIBILITY
BS EN 61000-6-2
EMC Generic Immunity Standard for the Industrial Environment
BS EN 61000-6-4
EMC Generic Emission Standard for the Industrial Environment

ELECTRICAL SAFETY
BS EN 60950
Safety of Information Technology Equipment, including Electrical Business Equipment

TEMPERATURE
BS EN 60068-2-1
Ab/Ac Cold Test -30 °C
BS EN 60068-2-2
Bb/Bc Dry Heat +70 °C

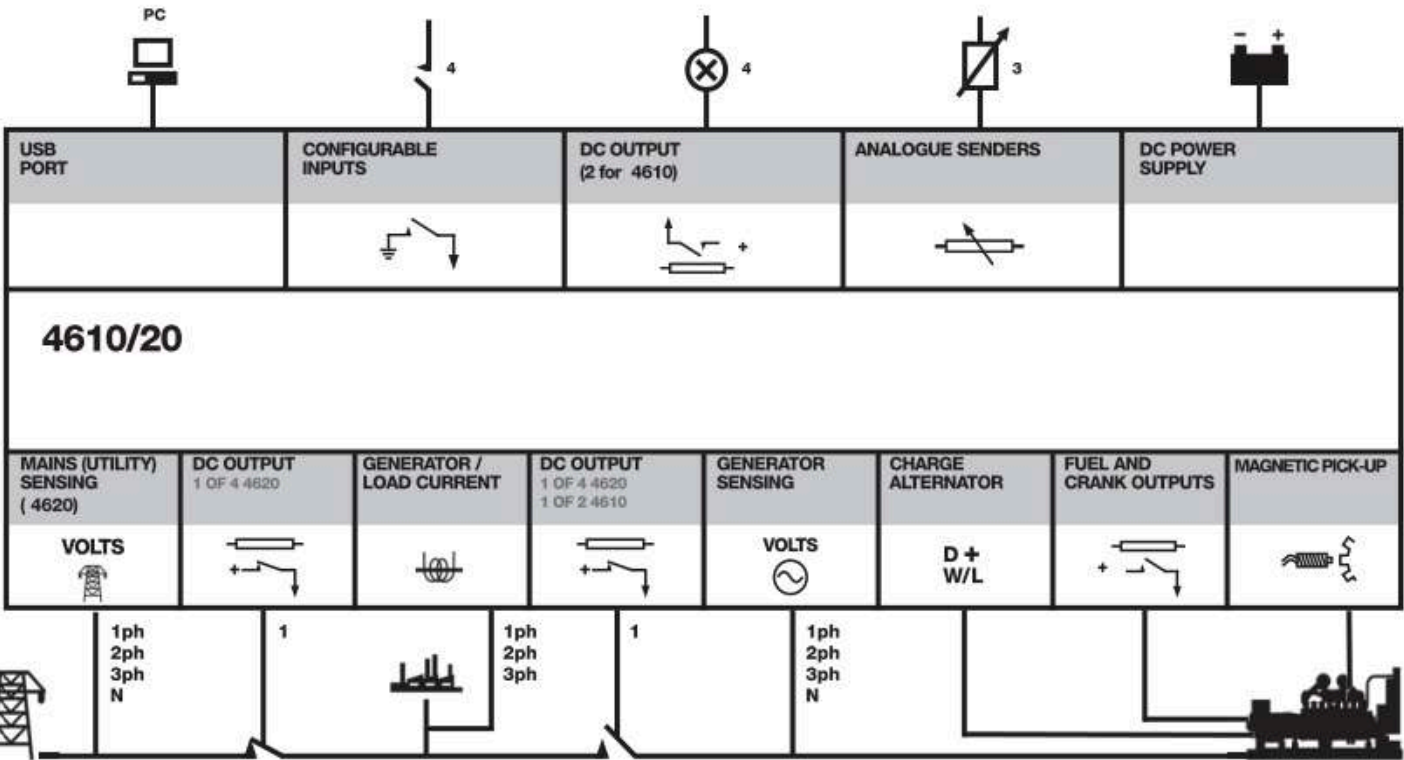
VIBRATION
BS EN 60068-2-6
Ten sweeps in each of three major axes
5 Hz to 8 Hz at +/-7.5 mm,
8 Hz to 500 Hz at 2 gn

HUMIDITY
BS EN 60068-2-30
Db Damp Heat Cyclic 20/55 °C at 95% RH 48 Hours
BS EN 60068-2-78
Cab Damp Heat Static 40 °C at 93% RH 48 Hours

SHOCK
BS EN 60068-2-27
Three shocks in each of three major axes
15 gn in 11 ms

DEGREES OF PROTECTION PROVIDED BY ENCLOSURES
BS EN 60529
IP65 - Front of module when installed into the control panel with the optional sealing gasket.

COMPREHENSIVE FEATURE LIST TO SUIT A WIDE VARIETY OF GEN-SET APPLICATIONS



4610/20

AUTO START AND AUTO MAINS FAILURE CONTROL MODULES

(ALTERNATOR FREQUENCY & MAGNETIC PICK-UP SPEED SENSING)

FEATURES



4610



4620



KEY BENEFITS

- Ultimate size to feature ratio
- Automatically transfers between mains (utility) and generator
- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored simultaneously which are clearly displayed on the largest back-lit icon display in its class
- The module can be configured to suit a wide range of applications
- Uses Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress

KEY FEATURES

- Alternator frequency & MPU speed sensing in one variant
- Largest back-lit icon display in its class
- Real time clock provides accurate event logging
- Fully configurable via the fascia or PC using USB communication
- Extremely efficient power save mode
- 3 phase generator sensing
- 3 phase mains (utility) sensing (4620 only)
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Generator/load current monitoring and protection
- Fuel and crank outputs
- Compatible with 600 V ph to ph nominal systems
- 4 configurable DC outputs
- 3 configurable analogue/digital inputs
- 4 configurable digital inputs
- Configurable staged loading outputs
- 3 engine maintenance alarms
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Battery voltage monitoring
- Start on low battery voltage
- Configurable remote start input
- 1 alternative configuration
- Comprehensive warning, electrical trip or shutdown protection upon fault condition
- LCD alarm indication
- Event log (50)

RELATED MATERIALS

TITLE
4610/20 Installation Instructions
4610/20 Operator Manual
4610/20 Configuration Suite PC Manual

PART NO'S
053-156
057-200
057-201

SPECIFICATION

DC SUPPLY CONTINUOUS VOLTAGE RATING 8 V to 35 V Continuous
CRANKING DROPOUTS Able to survive 0 V for 50 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.
MAXIMUM OPERATING CURRENT 85 mA at 12 V, 96 mA at 24 V
MAXIMUM STANDBY CURRENT 51 mA at 12 V, 47 mA at 24 V
MAXIMUM SLEEP CURRENT 35 mA at 12 V, 32 mA at 24 V
MAXIMUM DEEP SLEEP CURRENT <10 uA at 12 V, <10 uA at 24 V
MAINS (UTILITY) 4620 ONLY VOLTAGE RANGE 15 V to 415 V AC (Ph to N) 26 V to 719 V AC (Ph to Ph)
FREQUENCY RANGE 3.5 Hz to 75 Hz
OUTPUTS OUTPUT A (FUEL) 10 A short term, 5 A continuous, at supply voltage
OUTPUT B (START) 10 A short term, 5 A continuous, at supply voltage
AUXILIARY OUTPUTS C & D 2 A DC at supply voltage
AUXILIARY OUTPUTS E & F 4620 2 A DC at supply voltage
GENERATOR VOLTAGE RANGE 15 V to 415 V AC (Ph to N) 26 V to 719 V AC (Ph to Ph)
FREQUENCY RANGE 3.5 Hz to 75 Hz
MAGNETIC PICK UP VOLTAGE RANGE +/- 0.5 V to 70 V
FREQUENCY RANGE 10,000 Hz (max)
DIMENSIONS OVERALL 140 mm x 113 mm x 43 mm 5.5" x 4.4" x 1.7"
PANEL CUT-OUT 118 mm x 92 mm 4.6" x 3.6"
MAXIMUM PANEL THICKNESS 8 mm 0.3"
STORAGE TEMPERATURE RANGE -40 °C to +85 °C -40 °F to +185 °F
OPERATING TEMPERATURE RANGE -30 °C to +70 °C -22 °F to +158 °F

OPTIONAL PARTS

PART	PART NUMBER
IP65 Gasket	020-282