

ERSYGEN 1000

Product Specification 37686B

easYgen-1400 / easYgen-1600 / easYgen-1700 | easYgen-1800







easYgen-1400

easYgen-1600

easYgen-1800

Automatic Mains Failure Control

Do you package gensets, build switchgears or integrate systems? With several decades of experience in genset control technology, Woodward's easYgen family offers a one-stop-shop solution for all of your genset control needs. easYgen family genset controls cover the full range of generator system applications, ranging from simple functions, such as start/stop of a genset to complex ones, like synchronizing and power management of large fleet of gensets.

DESCRIPTION

The Woodward easYgen-1000 series is designed for a single-generator set used in critical stand-by or prime power applications with automatic changeover capability. The controllers include purpose-built algorithms and logic to start, stop, control, and protect the genset, open/close circuit breakers and mains supply monitoring with automatic changeover. Equipped with state-of-the-art communication interfaces, Woodward's easYgen-1000 Series of AMF genset controllers provides exceptional versatility and value for OEM genset packagers.

The easYgen-1000 Series is available in four versions:

- easYgen-1800, advanced AMF controller comes with a large liquid crystal display (LCD), I/O expansion capability, Ethernet and SD card connectivity
- **easYgen-1700**, based on easYgen-1800 platform, easYgen-1700 offers all the capabilities except Ethernet and SD card connectivity and a 240x128 pixels Monochrome LCD in same size.
- easYgen-1600, compact AMF controller offers a state of the art LCD, adequate on-board I/Os and common industrial connectivity
- **easYgen-1400**, small AMF controller contains a big liquid crystal display (LCD), configurable I/Os and electronic engine support.

ToolKit-SC is a single service tool for configuring easYgen-100 and –1000 series controllers. The module's password-protected integral front panel lets you adjust various parameters on-site.

FEATURES

- Three-phase true RMS power sensing
- Operation modes: AUTO, STOP, and MANUAL modes accessible through front panel, discrete inputs or via interfaces
- Remote control via multiple interfaces and discrete inputs
- Direct support of several ECUs, such as Bosch, Cummins, John Deere, MTU, Perkins, Scania, Volvo, Woodward
- Two heavy-duty relay outputs for cranking and fuel solenoid
- Event and data logging capabilities with real time clock
- Maintenance scheduler with multipurpose flexible timers
- Operating hours, start, maintenance counters and monitoring
- Three switchable parameter sets of AC system winding, Rated Voltage, Rated Frequency, Rated Current, Rated Power, Rated Speed
- Can be applied on pumping units as an indicating instrument (relays are inhibited)
- Can be configured from computer via USB or from front panel with password protection
- Manual breaker operation with tactile buttons on front panel
- Custom boot-up logo with adjustable screen display time
- Multilingual customizable user interface

easYgen-1800 Unique Features

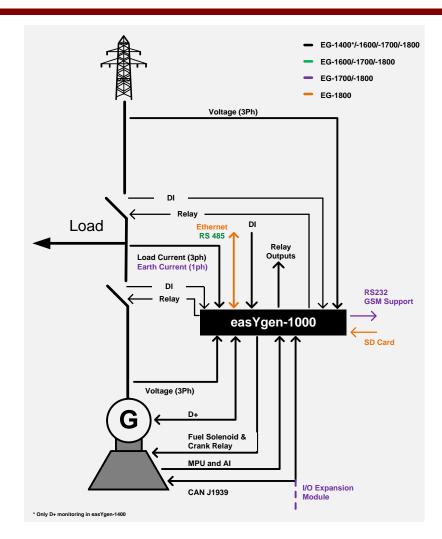
- Large LCD display for enhanced user experience
- Built-in Ethernet for remote control, browser based visualization, and service tool connectivity
- SD card slot for life long data log
 - Standard break-beforemake application in
 - Stand-by operation
 - AMF (Automatic Mains Failure) operation
 - ATS (Automatic Transfer Switch) operation
 - Rental power operation
 - Peak shaving operation
 - Easy to set up and commission
 - Best in class large liquid crystal display
 - Comprehensive engine, generator and utility protection
 - Engine ECU interface to electronic engines
 - Programmable I/Os
 - Six communication ports: Ethernet TCP/IP, CAN J1939, RS-485, RS232, USB, SD card slot
 - Dedicated heavy-duty relays for engine and breaker interface
 - Switchable parameter sets for mobile genset applications
 - Event log and eventtriggered data log

Released

SPECIFICATIONS

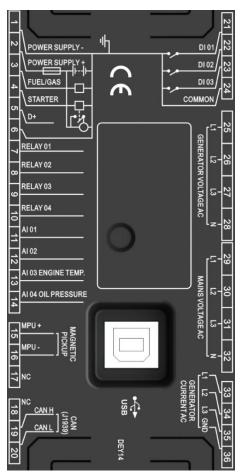
Power Supply		Overload Measurement	Max.: 10 A	
Operating Voltage	8.0 V_{DC} to 35.0 $V_{\text{DC}},$ Continuous Power	Current Accuracy	1 %	
(Reverse polarity protected)	Supply.	Excitation current D+	110 mA (12 V); 230 mA (24 V)	
Maximum supply voltage	Short Time 80 V (5-10 s); Long T. 50 V	(easYgen-1600, 1700 and		
Minimum supply voltage	6.5 V	1800)		
Maximum operating current	(All relays closed, LCD bright)	Start Relay and Fuel Relay	lay 16 A DC28V supply output in easYgen-	
(easYgen-1800)	450 mA (12 V); 220 mA (24 V)	Outputs	1600/-1700/-1800	
Maximum standby current	(All relays closed, LCD dimmed)		5 A DC28V supply output in easYgen-	
(easYgen-1800)	420 mA (12 V); 200 mA (24 V)		1400	
Power Consumption	<4 W (standby ≤ 2 W)	Housing		
Alternator Input Range	50 Hz/60 Hz	Case Dimensions	easYgen-1700/1800: 237 x 172 x 45 mm	
3-Phase 4-Wire	AC15V - AC360V (ph-N)		easYgen-1600: 209 x 166 x 45 mm	
3-Phase 3-Wire	AC30V - AC620V (ph-ph)		easYgen-1400: 135 x 110 x 44 mm	
Single-Phase 2-Wire	AC15V - AC360V (ph-N)	Panel Cutout	easYgen-1700/1800: 214 x 160 mm	
2-Phase 3-Wire	AC15V - AC360V (ph-N)		easYgen-1600: 186 x 141 mm	
AC-Measurement	Phase-phase: 100624 V : 1%;		easYgen-1400: 114 x 88 mm	
Voltage Accuracy	50100 V : 1.5 % Phase-neutral: 100360 V : 1%; 50100 V : 1.5 %	Operating Conditions	Temperature: (-25 to +70) °C; Humidity: (20 to 93) %RH	
(400/480 V % rated)				
		Storage Condition	Temperature: (-25 to +70) °C	
Minimum frequency	Generator: 10 Hz; Mains: 27 Hz	Protection Level	IP65 in the front, mounted with kit	
Maximum frequency	Generator: 99.5 Hz; Mains: 99.5 Hz		IP20 on rear side	
Frequency resolution	0.1 Hz (1099 Hz)	Net Weight	easYgen-1400: 0.3 kg	
Frequency accuracy	±0.1 Hz		easYgen-1600: 0.56 kg	
Nominal CT secondary rating	5 A		easYgen-1700/-1800: 0.85 kg	

APPLICATION

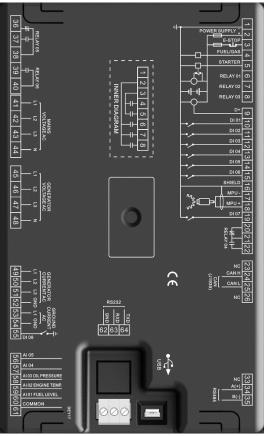


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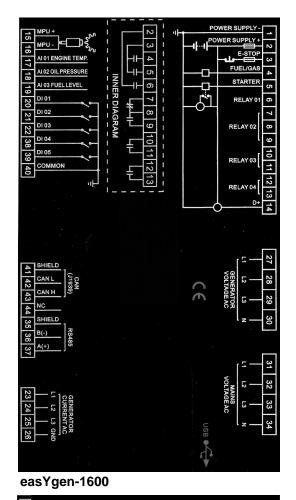
TERMINAL DIAGRAM

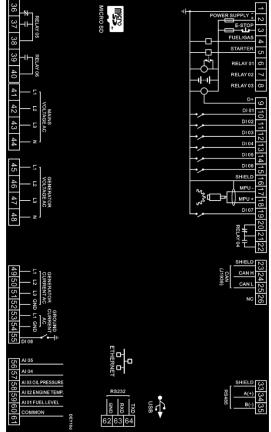


easYgen-1400









easYgen-1800



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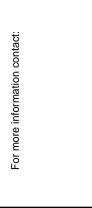
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FEATURES OVERVIEW

Model easYgen-1400 easYgen-1600 easYgen-1700 easYgen-1800 Generator voltage (3-phase/4-wire)			easYgen-1000 Series				
Measuring Image of the strint is it is	EASYGEN 1000	Model	easYgen-1400			easYgen-1800	
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Spare connector kit 10-009-352 10-004-674 10-004-675 10-004-675							
		ning kit					
RELATED PRODUCTS			10-009-352	10-004-674	10-004-675	10-004-675	
	RELATED PRODUCTS						

Configuration tool ToolKit-SC (Product Specification # 37695)

I/O Expansion Board IKD1 (Product Specification # 37171): P/N 8440-2116

Small Engine Control Module SECM-70 (Product Specification # 36363)