

800 – 2,500 kVA Range

Delivering a New Level of Power



Introduction



Introduction



800 – 900 kVA Range

4006TAG

910 – 1250 kVA Range

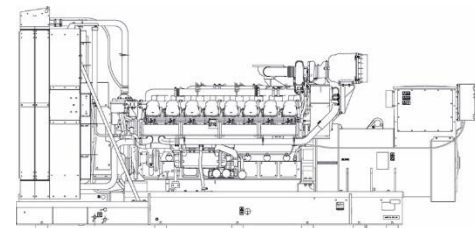
4008TAG

1250 – 1875 kVA Range

4012TWG / 4012TAG

1750 – 2500 kVA Range

4016TAG / 4016TRG

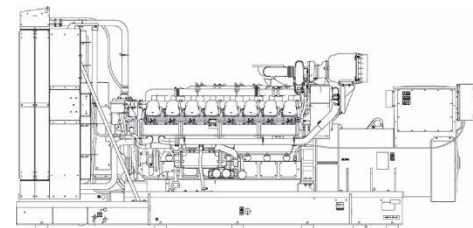


Introduction



FG Wilson 800 – 2500 kVA range applications:

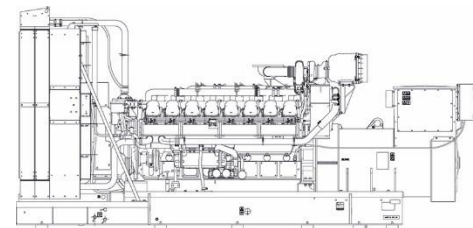
- Large factories & mini power stations
- Airports
- Telecommunications
- Hospitals
- Financial sector
- Rental market
- Oil and Gas industries



Introduction



- All equipment carries full manufacturers warranty.
- Extended warranty terms available:
12m prime (unlimited hours), 24m prime (6000hrs), 36m standby (500 hours)
- Full set of operation and maintenance manuals, wiring diagrams and commissioning instruction brochures
- Total service and support provided through FG Wilson Global Dealer Network
- Wide range standard features and additional optional features



Product Overview

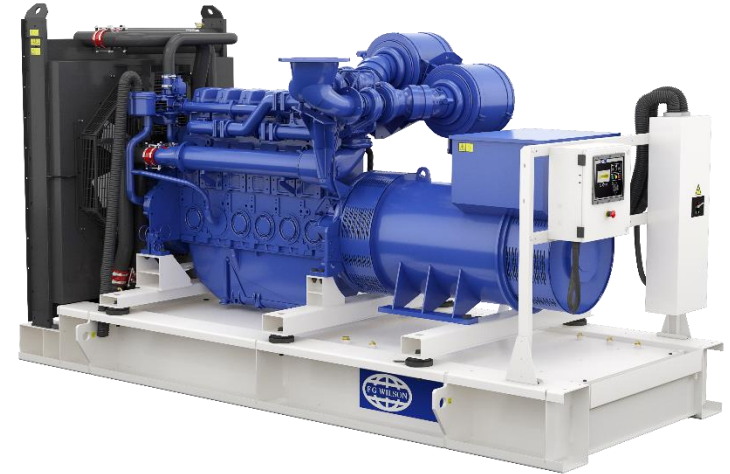


Product Overview...



800 – 900 kVA Product Range

- Powered by Perkins 4006 Series



Model	Engine	Alternator	50 Hz				60 Hz			
			Prime		Standby		Prime		Standby	
			kVA	kW	kVA	kW	kVA	kW	kVA	kW
730 – 900 kVA Range Powered by Perkins 4016TAG										
P900-1	4006-23TAG3A	FGL70030	800	640	891	713	-	-	-	-

Product Overview...



900 – 1250 kVA Product Range

- Powered by Perkins 4008 Series



Model	Engine	Alternator	50 Hz				60 Hz			
			Prime		Standby		Prime		Standby	
			kVA	kW	kVA	kW	kVA	kW	kVA	kW
1400 – 2200 kVA Range Powered by Perkins 4016TAG										
P1001-1	4008TAG1	LL7224N	-	-	-	-	900	720	1000	800
P1000-1	4008TAG1A	FGL70040	910	728	1000	800	-	-	-	-
P1100-1	4008TAG2A	FGL70050	1000	800	1100	880	-	-	-	-
P1101-1	4008TAG2	LL7224P	-	-	-	-	1000	800	1100	880
P1250-1	4008-30TAG3	LL8224H	1125	900	1250	1000				

Product Overview...



1250 – 1875 kVA Product Range

- Powered by Perkins 4012 Series



Model	Engine	Alternator	50 Hz				60 Hz			
			Prime		Standby		Prime		Standby	
			kVA	kW	kVA	kW	kVA	kW	kVA	kW
1250 – 1500 kVA Range Powered by Perkins 4012TWG										
P1375-1	4012-46TWG2A	LL8224H / LL8224L	1250	1000	1375	1100	1250	1000	1375	1100
P1500-1	4012-46TWG3A	LL8224L / LL8224P	1350	1080	1500	1200	1350	1080	1500	1200
1500– 1875 kVA Range Powered by Perkins 4012TAG										
P1650-1	4012-46TAG2A	LL8224N	1500	1200	1650	1320	-	-	-	-
P1875-1	4012-46TAG3A	LL9324F	1700	1360	1875	1500	-	-	-	-

Product Overview...



1750 – 2500 kVA Product Range

- Powered by Perkins 4016 Series



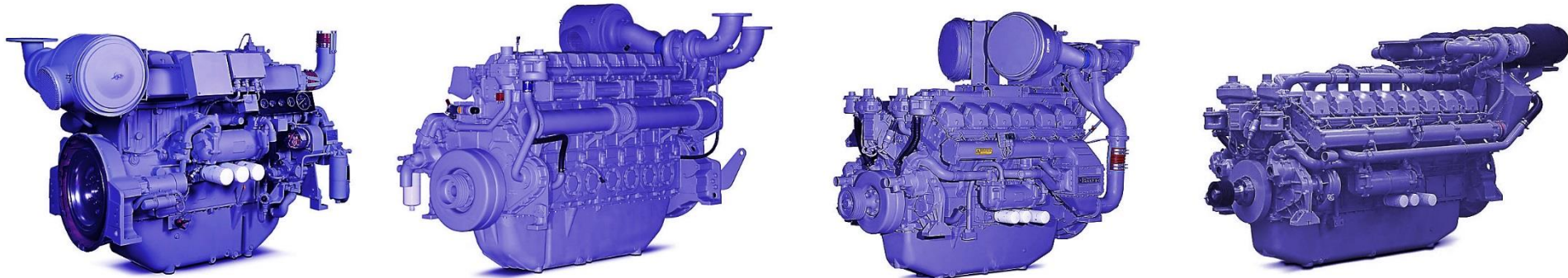
Model	Engine	Alternator	50 Hz				60 Hz			
			Prime		Standby		Prime		Standby	
			kVA	kW	kVA	kW	kVA	kW	kVA	kW
1850– 2500 kVA Range Powered by Perkins 4016TRG										
P2000-3	4016-61TRG1	LL9324F	1850	1480	2000	1600	-	-	-	-
P2250-3	4016-61TRG2	LL9324H	2000	1600	2250	1800	-	-	-	-
P2500-3	4016-61TRG3	LL9324P	2250	1800	2500	2000	-	-	-	-

Product Features



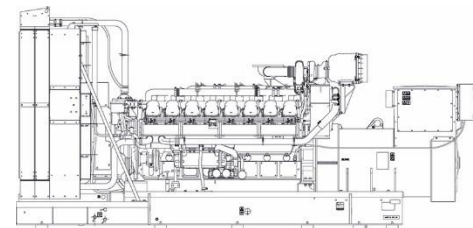
Engine

- Perkins 4000 series – 6, 8, 12 & 16 cylinder engines
- Exceptional Power to Weight ratio
- High efficiency turbochargers for performance and durability
- New 4016-61TRG1 & 2 engines delivering improved rating, performance and durability
- 4016-61TRG3 engine providing 2,500 kVA (2 MW) output
- 500 hours service interval



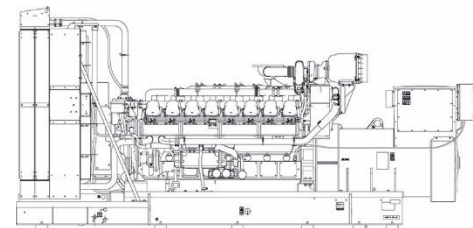
Alternator

- FG Wilson FGL[‡] & Leroy Somer alternators as standard*
- R150 / R449 / R450M AVR
- New Digital D510 AVR fitted as standard on 4016TRG engines
 - Providing excellent load response and control
 - 100% full load step no stall capability when hot
- Insulation class H
- Temperature class H
- Ingress Protection IP23



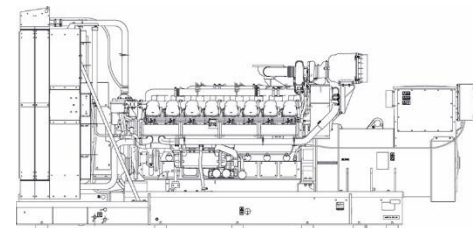
Cooling System

- Standard cooling system delivering 35°C or above
- Tropical cooling system option for a minimum of 50°C without derate
- Aluminium charge air coolers for optimum performance (TRG models)
- Secondary water circuit after cooling system

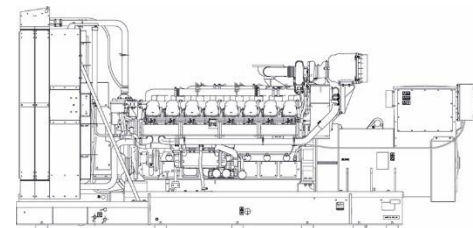


Vibration

- Vibration levels all within ISO limits
- Additional target of 50 mm/s for radiator cowl ring and plate also met

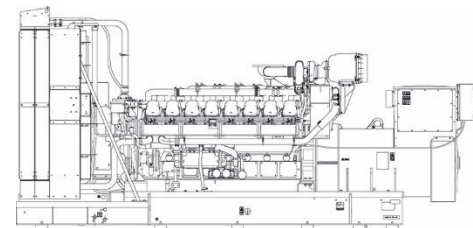


- Base frame
 - Base frame designed for package mounted cooling system
 - Design structure provides low vibration levels
 - Drip catchment area in base frame underneath engine
- Structurally robust baseframe with low vibration levels
 - Critical structure mounted areas less than 15 mm/s
 - Non critical areas less than 32 mm/s
- Lift points on baseframe as standard for ease of transport and installation
- Fluid lines connections using o-ring face seals



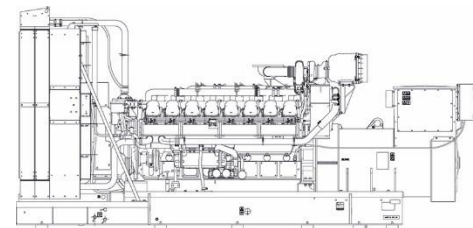
Ease of Serviceability

- All drains piped to same side of base frame
- Optional ports available to relocate drains if required
- Fast drain times due to optimised flow systems
- Engine breather extended to terminate beyond radiator



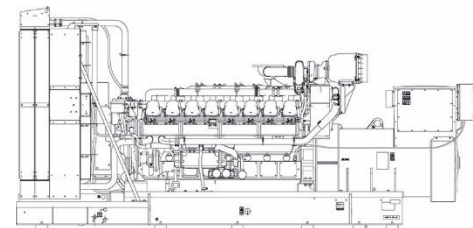
Ease of Serviceability

- Clearance between base and sump to allow drop removal for potential gasket replacement
- Radiator sight gauges fitted as standard
- Air filters positioned away from hot engine manifold



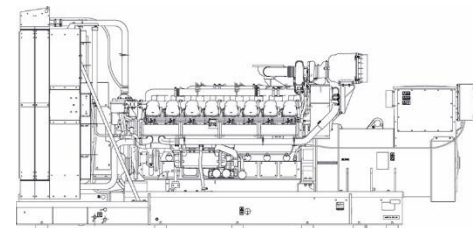
Ease of Serviceability

- Access hatch provided in fan guards for quick belt tension check
- Easy radiator belt tensioning using screw type idler on main fan bar
- Improved fan guard design for optimum safety and belt servicing
- Manual pack in robust holder positioned beside operator controls



Ease of Power Control

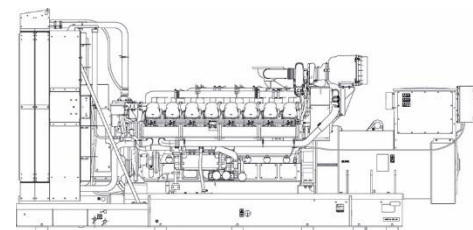
- DeepSea DSE7410 with simple mono display remote start panel. as standard
- Compatible with non electronic engines
- Digital AVR providing 4 regulation modes
 - Voltage
 - Power factor
 - Reactive power
 - Manual
- Simple USB communication to EasyReg software for easy configuration of digital AVR



Standard Features



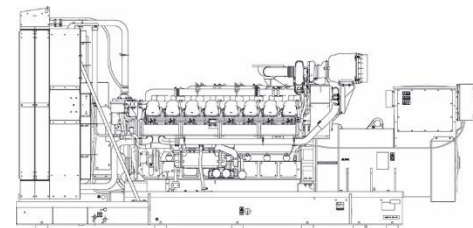
- Fully adjustable electronic governor
- Engine mounted battery charging alternator
- Engine mounted fuel and water separator
- Low oil pressure protection
- High water temperature protection
- Air filters
- Alternator IP23 protection
- AREP excitation (LL Alternator)
- AVR
- D510 voltage regulator (4016TRG only)
- Robust steel constructed base frame
- Containment drip tray on base frame
- Base frame lift points
- Coolant drain piped to edge of base frame
- Lube oil drain piped to edge of base frame
- DeepSea DSE7410 control panel
- Heavy duty dry batteries
- Radiator fan and charging alternator guards
- Low coolant level shutdown
- Operation and maintenance manual in robust holder



Key Optional Features



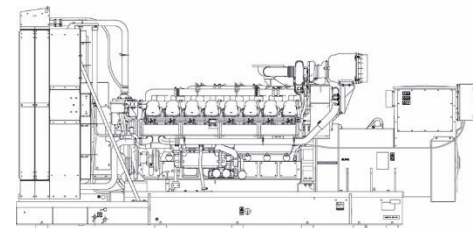
- Anti condensation alternator heater
- Coolant heater
- LL Alternator upgrades
- Battery charger with auto boost
- AR6 Quadrature droop
- PMG Excitation
- Three phase sensing module
- D350 voltage regulator (FGL Alternators)
- D510 voltage regulator (LL Alternators)
- easYgen-2500
- 3 / 4 Pole circuit breakers
- Overload via alarm switch on breaker
- Circuit breaker auxiliary contacts
- Volt free contacts for common alarm and generator set running
- Lube oil temperature display / high shutdown
- Low coolant temperature alarm
- Industrial silencer 10 dBA reduction
- Residential silencer 25 dBA reduction
- Critical silencer 35 dBA reduction
- Stainless steel bellows
- CE Certification
- Lube oil drain pump



Fuel Options



- 800 – 900 kVA range fitted with fuel tank as standard
- 900 – 2500 kVA range supplied on skidbase (no fuel tank)



DeepSea 7410



Benefits

Provides secure and simple off site monitoring.
All ports are continuously active

Provides access to historical alarms and operational status

Ensures additional applications are easily integrated into the system

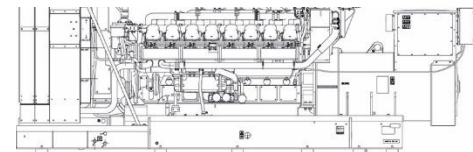
Provides clear accurate power measurement information

Allows load options and dummy load requirements to be independently controlled

Provides current and historical status information

Provides complete user-friendly configuration and easy-to-use high-level system control & monitoring

Ensures the control module can be used with the latest in modern electronic engine technology



DeepSea 7410



Features

CAN and magnetic pick-up sensing

Configurable inputs/outputs (11/8)

Remote communications (RS232, RS485, Ethernet, Modbus, RTU/TCP)

Configurable event log (250)

Integral PLC editor

Power monitoring (kW h, kVAR, kv Ah, kV Ar h)

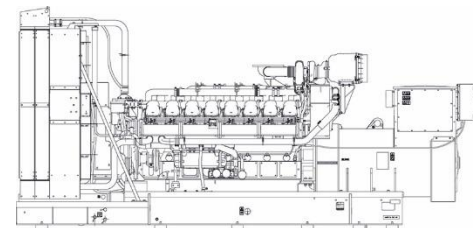
Reverse power protection

kW overload protection

Load switching, load shedding & dummy load outputs

Data logging (HDD/USB)

DSE Configuration Suite PC Software



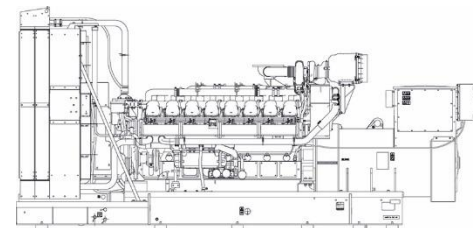
Control Panel Options



The easYgen-2500 is a generator set-to-set controller for paralleling and load sharing applications of up to 16 generator sets

Key Features:

- Easy system navigation via programmable soft keys
- Multiple communication protocols for communication with engine
- Control units (ECUs), external I/O boards, PLCs and modems
- Capable of working with all common industrial interfaces
- Full generator set control and protection
- Multilingual (11 languages)
- Auto-sequencing load management system



Floor Standing Circuit Breakers

ABB new EMax2 breakers



Key Features

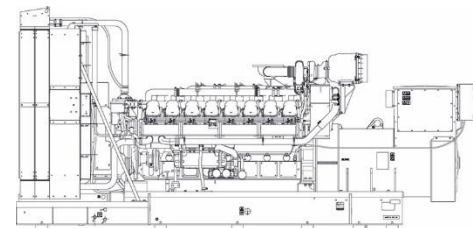
- 1600A, 2000A, 2500A, 3200A and 4000A breaker frame sizes available
- Independently certified to meet IEC61439-2
- Floor standing breaker certified to IEC 60890
- CE and EAC marked as standard
- Assembly fault rated to 66kA/1s (Icu)
- 3 and 4 pole fixed breaker options
- IP23
- Form 2a separation
- Configurable for top or bottom cable entry
- All round access to ease cable assembly
- Plinth with pallet truck pockets fitted
- EKip Dip trip fitted as standard
- Overload Protection (L) adjustable 0.4 to 1 of breaker rating
- Short-circuit Selective Protection (S) adjustable up to 10 times breaker rating
- Short-circuit Instantaneous Protection (I) adjustable up to 15 times breaker rating

Options:

- IP54 upgrade
- Form 4b separation
- Motorised breaker
- Swivel lifting eye (4 point lift)
- 100kA fault rating assembly

Solution Options:

- Low profile breaker assemblies suitable for power enclosures
- Full height assemblies allow control section options
- Modular design allows integrated solutions with PLC, MCC, switchboards.



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