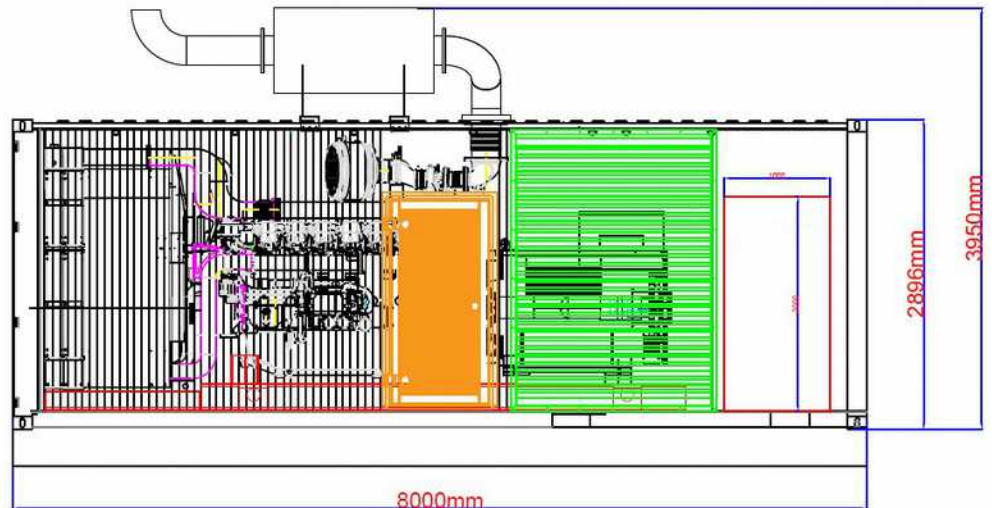
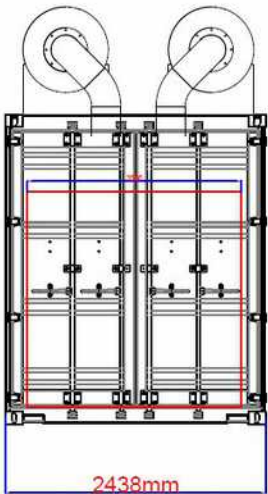


GEN-GER Standby 1250kVA – 1Hour 1375kVA Diesel Generator Outdoor and Voice Isolated



Continuous Power

The maximum power which a generating set is capable of delivering continuously whilst supplying a constant electrical load. Average load can be 100%. The generator must not be overloaded.

Standby Power

The max power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hrs of operation per year under average of 70% load.

Prime Power

The maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load. Average load should be 70%. The generator can be overloaded 10% for 1 hour per 12 hrs. Overloading isn't permissible.

GEN-GER 1250kVA Baudouin Diesel Motor



MOTEURS
Baudouin

PowerKit Engine

12M33 Series

General Specifications

Bore x Stroke	150 x 185 mm
Displacement	39.2 L
N° of Cylinders	12
Cylinders Arrangement	At Vee
Fuel System	Mechanical Pump
Governor (Gov.)	Electronic
Aspiration (Asp.)	T/A-A



Diesel Engine	Speed	Gross Engine Output		Typical Generator Output				Asp.	Gov.
		Prime Power PRP	Standby Power ESP	Prime Power PRP		Standby Power ESP			
		kWm	kWm	kWe	kVA	kWe	kVA		
12M33G1250/5	1500	1007	1108	920	1150	1000	1250	T/A-A	Elec
12M33G1400/5	1500	1100	1210	1000	1250	1120	1400	T/A-A	Elec
12M33G1500/5^	1500	1200	1320	1100	1375	1200	1500	T/A-A	Elec
12M33G1000/6	1800	1007	1108	900	1125	1000	1250	T/A-A	Elec
12M33G1100/6	1800	1150	1265	1000	1250	1100	1375	T/A-A	Elec
12M33G1200/6^	1800	1200	1320	1092	1365	1200	1500	T/A-A	Elec
12M33G1300/6^	1800	1290	1420	1176	1470	1300	1625	T/A-A	Elec

Aspiration : T/A-A = Turbocharged & Air-to-Air Aftercooled

^ These engines are designed for emergency standby power (ESP) applications only. The indicated PRP Power is for reference only.

Standard Equipment

Engine and block

- Cast iron cylinder block with inspection door per cylinder
- Cast iron cylinder liners, wet type and replaceable valves guides and seats
- Separate cast iron cylinder heads with 4 valves
- Hardened steel forged crankshaft with induction hardened journals, crankpins and radius
- Lube oil cooled light alloy pistons with high performance piston rings

Cooling system

- Radiator and hoses supplied separately
- Thermostatically-controlled system with belt driven coolant pump and pusher fan

Lubrication system

- Full flow screw able oil filters
- Lube oil purifier with replaceable cartridge
- Water cooled lube oil cooler

Fuel system

- In line fuel injection pump with flanged electronic governor
- Duplex fine filter and water separation filter assembly with transparent cup for better efficiency
- Electric fuel priming pump integrated in the filters support

Air intake and exhaust system

- Top mounted turbocharger optimized for genset application
- Special rear mounted air filter with restriction indicator
- Exhaust manifold and turbocharger shield for heat isolating

Electrical system

- 24 Vdc electric starter motor and battery charging alternator
- LOP + HWT sensors

Flywheel and housing

- SAE 0 flywheel housing and 18" flywheel

Ratings definitions

Emergency Standby Power (ESP)

Emergency Standby Power is the maximum power available for a varying load for the duration of a main power network failure. The average load factor over 24 hours of operation should not exceed 70% of the engine's ESP power rating.

Typical operational hours of the engine is 200 hours per year, with a maximum usage of 500 hours per year. This includes an annual maximum of 25 hours per year at the ESP power rating. No overload capability is allowed. The engine is not to be used for sustained utility paralleling applications.

Unlimited Prime Rated Power (PRP)

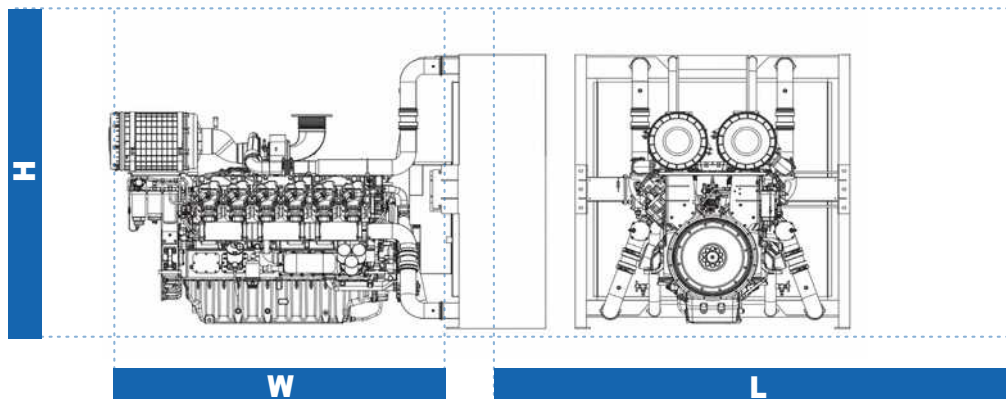
Prime Power is the maximum power available for unlimited hours of usage in a variable load application. The average load factor should not exceed 70% of the engine's PRP power rating during any 24 hour period. An overload capability of 10% is available, however, this is limited to 1 hour within every 12 hour period.

Continuous Power (COP)

Continuous Power is the maximum power available for an unlimited period of use at a constant load factor. No overload capability is allowed.

- 1) All ratings are based on operating conditions under ISO 8528-1, ISO 3046, DIN6271. Performance tolerance of $\pm 5\%$.
- 2) Test conditions : 100 kPa, 25°C air inlet temperature, relative humidity of 30%, with fuel density 0.84 kg/L. Derating may be required for conditions outside these; please contact the factory for details.
- 3) Power output curves are based on the engine operating with fuel system, water pump and lubricating oil pump; not included are battery charging alternator, fan and optional equipment.

Dimensions and dry weight (mm / kg)



Diesel Engine	Speed Rpm	Dimensions and dry weights including radiator			
		L mm	W mm	H mm	Weight Kg.
12M33G1250/5	1500	3511	2192	2246	4395
12M33G1400/5	1500	3511	2192	2246	4395
12M33G1500/5	1500	3511	2192	2246	4395
12M33G1000/6	1800	3511	2192	2246	4395
12M33G1100/6	1800	3511	2192	2246	4395
12M33G1200/6	1800	3511	2192	2246	4395
12M33G1300/6	1800	3511	2192	2246	4395

Alternator 1250kVA/1000kW- Max 1375kVA



Alternator

Manufacturer	İşbir (Turkish Army Alternator Company)
Model	SGB 666 / 4-T
Type	Syncron
Frequency	60Hz @440V (or same with software 50Hz @400V)
Voltage	60Hz @440V (or same with software 50Hz @400V)
Current	1986Amper @400V-50Hz and 1788Amper @440V - 60Hz
Pole Number	4 Poles
RPM	@400V-50Hz - 1500RPM & @440V - 60Hz - 1800RPM
Power	Nominal Steady = 1250kVA/1000kW – for 1. Hour=1375kVA/1100kW
Over Speed	%120
Steady Long Time Working Dist.	%1
Total Harmonic Dis. THd	>%3
Connection Type Quantity	4 Pole
Over Load Capacity	2 Minutes - %150
Voltage Range for Output	+ - %10
Efficiency (CosF 0.8)	(Load %100 - %95,30) - (Load %75 - %94,30) - (Load %50 - %93,40)
Heating Limit	90Celsius
Insulation Class (Rotor & Stator)	H Class
Excitation System	Self Excited (DC V 69Volt – DC Current 3,9Amper – Power 269VA)
Connection	Star & Delta (You can use Both)
Protection System	Alternators' Protection Class IP23
Protection for Failure & Overload	Included
Short Circuit Current Ratio >500kVA	2 – 4 Times Higher
Damping Windings	Included
Voltage Regulator (Steady State)	Branded: LSA / Type: R450 / Accuracy: %+0,1
Dimensions	W880mm x D1570mm x H13000mm – Weight: 2410kg
Production Quality	For Military & Navy Usage, Mountain and At the Seaside Harbor



GEN-GER 1375kVA General Schematic



General Details

Manufacturer	(Alternator , Isbir – Diesel Motor: Perkins, Assembled Turkey)
ATS	ATS Included
Electrical Panel Protection	Optional, not Included, Recommended MCCB 2500Amper
Carriage	Same As Container, Top 4 Corners, Crane Carriage Possible
Auto Start	Auto Start – Only with Start Buttom
Working Min Temperature	-32 Celsious, Heating via Electrical Heater
Cold Weather Operation	Via Anti-Freeze Liquid and Electrical Heater – ReHeating System
Working Max Temperature	+55C up to +60C Via -%5 Power Degradation
SeaSide Working	Anti Rust Painted and Produced Anti Corrosion
Lubricant and Service	All Oils and Lubricants Used, First 50Hours Control and Service
Needed Service	Every 6 Months
Alarms	Diesel Low, Water Low, Over Low Temperature, Service, Low Oil, Low Battery
Connection	Directly to Bar in a Electrical Box(See the Sample Photo)
Voltage And Frequency	400V 50Hz or 440V 60HZ possible Via Software Change
Service for DieselEngine	Perkins Motor International Service Possibility
Used Sectors	Iraq, USA Army, Turkish Army, Harbors, Hospitals, Factories, Turkish Navy
Cooling	With Fans
Water and Voice Isolation	Outdoor Water Protection & Dust & Voice Isolation
Diesel Tank	1600Liter
Connection	Star with Neutral or Delta Without Neutral
Protection System	IP54 Outdoor Container
Warranty	1 year or 500Hours
Software Update	Free of Charge During 1 year
Voltage & Frequency Adjustment	Voltage and Frequency Control via Software and Computer
Monitoring Controlling	Please Check Next Page
Container Dimensions	W2438mm x D 8000mm x H 2896mm(3950mm with Exhaust)
Container Total Weight	11630kg

GEN-GER BusBar Cable Connection

BusBar
Connection

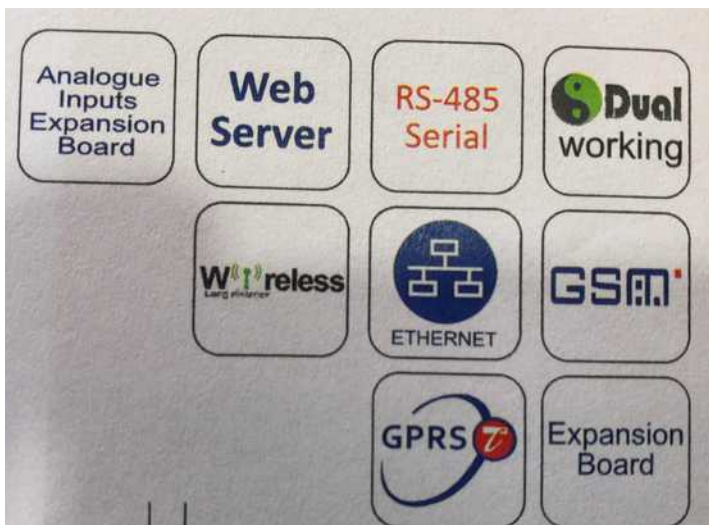


GEN-GER All Alarms

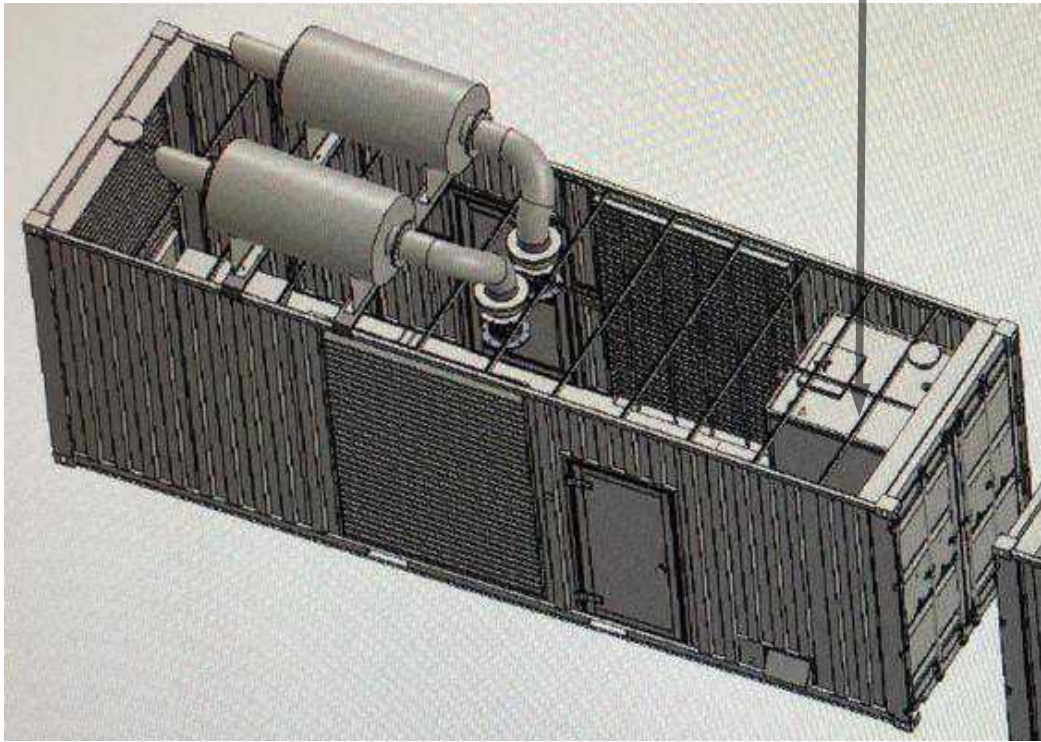


Pre-Alarm Engine temperature Oil pressure Fuel level Over / Under voltage Over / Under frequency Over / Under speed	Fail Monitoring Emergency stop Multiple engage fail Failed to start Low oil pressure High temperature Speed failure Voltage Charging fail Shutdown Warning
Warning & Electrical trip Earth fault Over current Short circuit	
Alarm Mains breaker not opened Mains breaker not closed Generator breaker not opened Generator breaker not closed	Error Over / Under speed Speed loss Earth fault Fuel level Battery low Battery high Maintenance Over current Short circuit Engine stop CanBus Charge alternator
Controls Fuel and Stop solenoid ECU power and stop Starter motor Automatic generator start Load transfer to mains Preheat External alarm horn Engine cooling Idle mode	

GEN-GER Remote Control, Monitoring

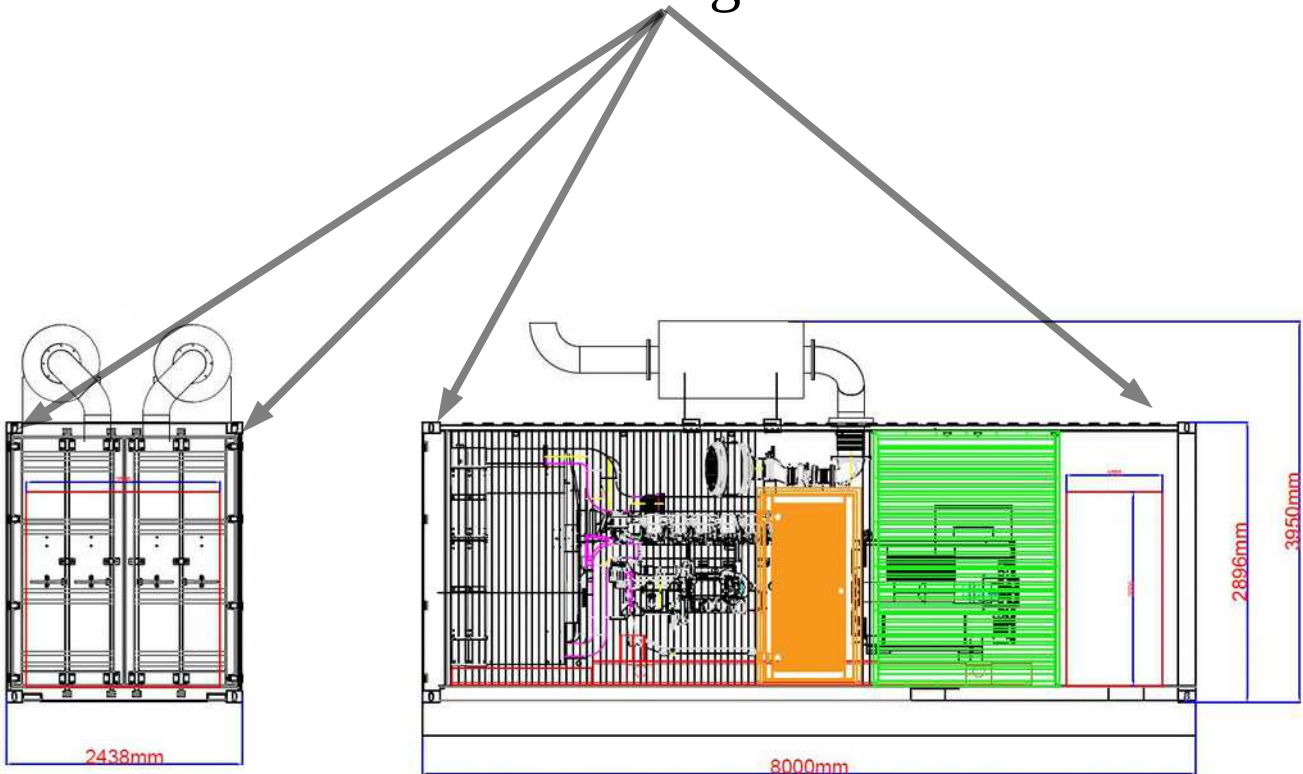


1600lt Tank

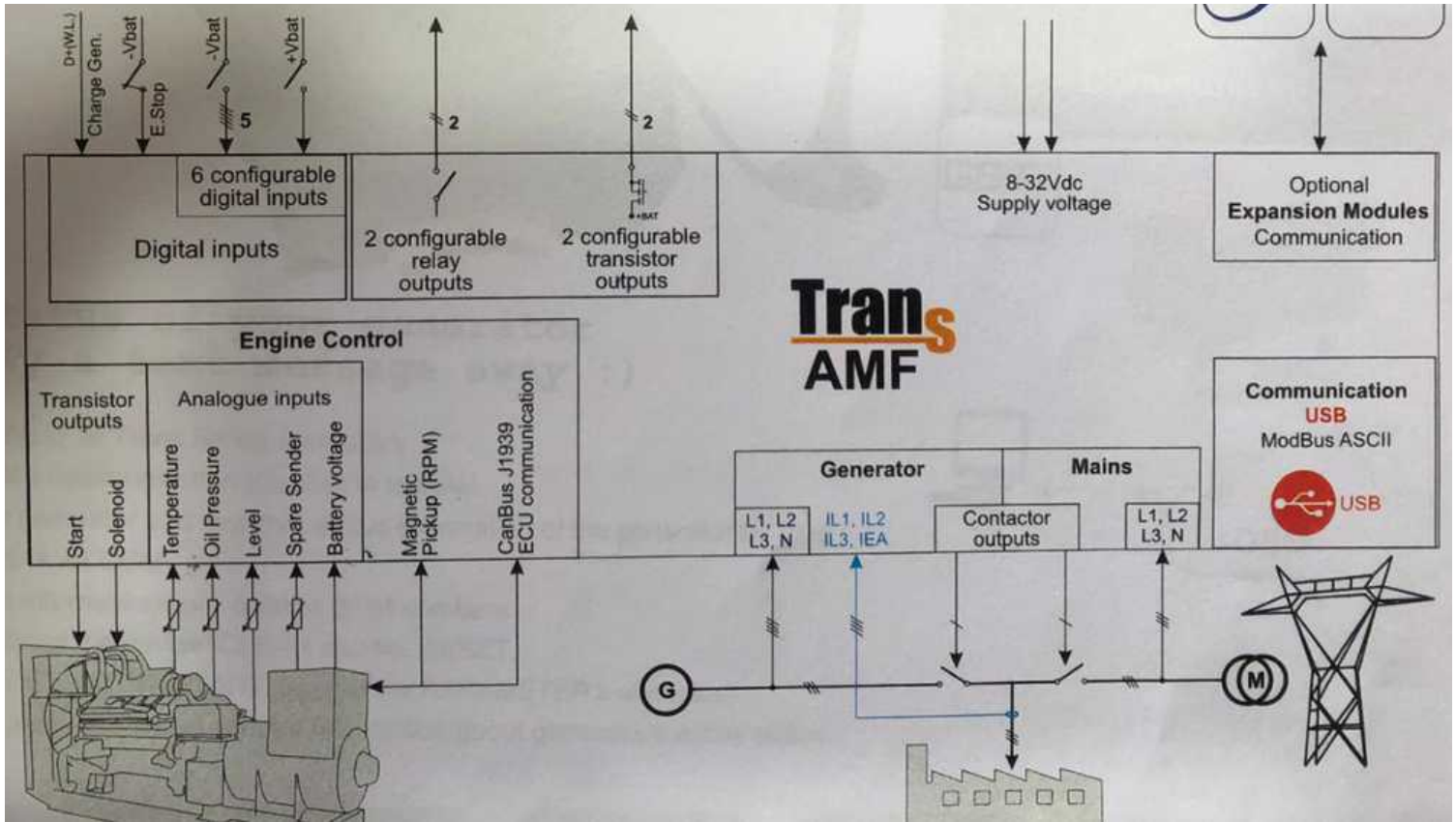


GEN-GER Carriage

Carriage

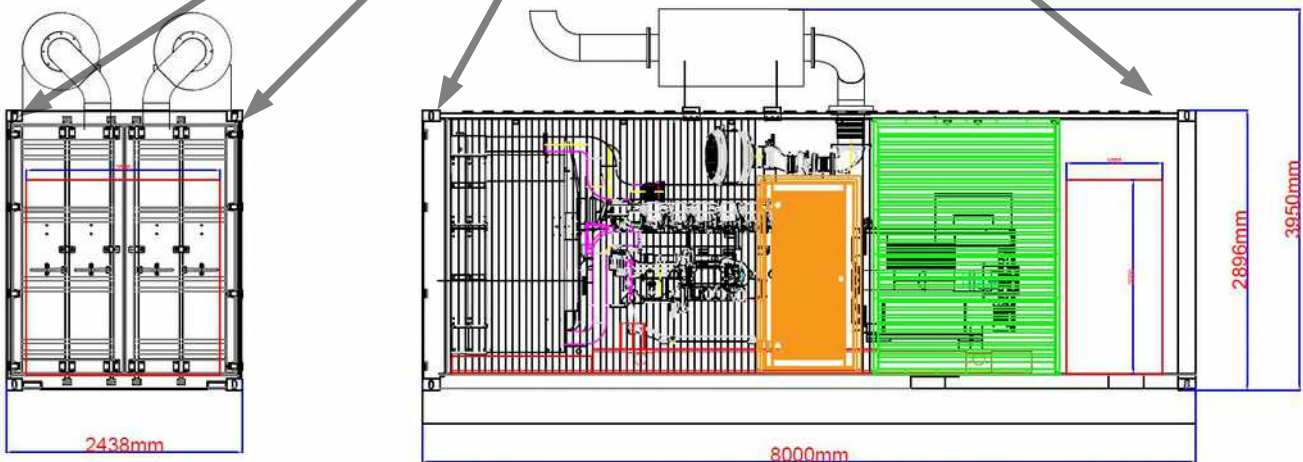


GEN-GER General Schematic



GEN-GER Carriage

Carriage





Control Panel Features GEN-GER Series

- The Control Unit is a next generation genset control unit combining multi-functionality and wide communication possibilities together with a reliable and low cost design.
- The unit complies and mostly exceeds world's tightest safety, EMC, vibration and environmental standards for the industrial category.
- Software features are complete with easy firmware upgrade process through USB port. The Windows based PC software allows monitoring and programming through USB, RS-485, Ethernet and GPRS.
- The PC and server based Rainbow Scada software allows monitoring and control of an unlimited number of gensets from a single central location.

Functions

- AMF unit with uninterrupted transfer
- ATS unit with uninterrupted transfer
- Remote start controller
- Manual start controller
- Engine controller
- Remote display & control unit
- Waveform display of V & I
- Harmonic analysis of V & I
- CTs at genset or load side

Communications

- SM-GPRS
- Web monitoring
- Web programming
- GSM-SMS
- e-mail
- USB Device
- RS-232
- J1939-CANBUS

Topologies

- 2 phase 3 wires, L1-L2
- 2 phase 3 wires, L1-L3
- 3 phase 3 wires, 3 CTs
- 3 phase 3 wires, 2 CTs (L1-L2)
- 3 phase 3 wires, 2 CTs (L1-L3)
- 3 phase 4 wires, star
- 3 phase 4 wires, delta
- 1 phase 2 wires

- Technical information and values are according to ISO8528, ISO3046, NEMA MG-1.22, IEC 600341, BS 4999-5000, VDE 0530 standards.
- Producing with ISO9001, ISO14001, OHSAS18001, TSE, CE standards.
- All information given in this leaflet is intended for general purposes only.
- Due to a policy continuous improvement Germarel reserves the right to amend details and specifications without notice and all given is subject to the Germarel's current condition of sales.

GEN-GER 180kVA Outdoor



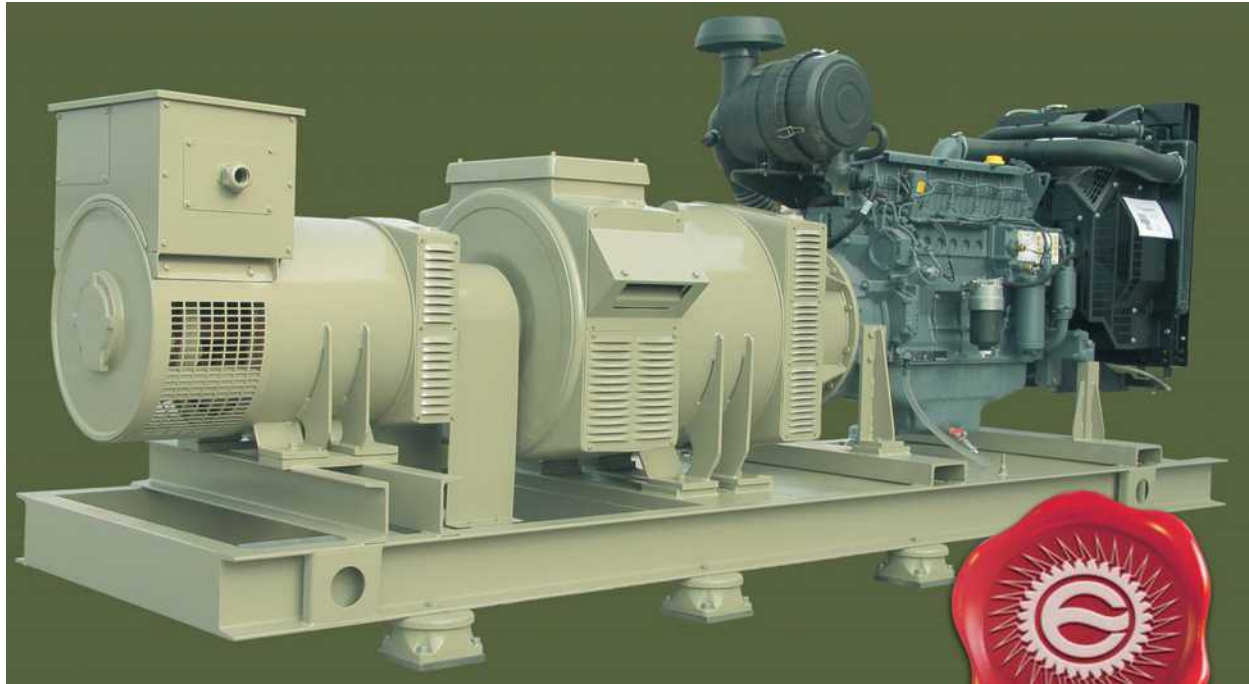
GEN-GER 2000kVA Outdoor Parallel 2 Pieces



GEN-GER Military Application 400kVA Mobile



GEN-GER Internal View



GEN-GER Internal Mobile View



GEN-GER 2X1650kVA Outdoor



GEN-GER Military Application 2000kVA Mobile



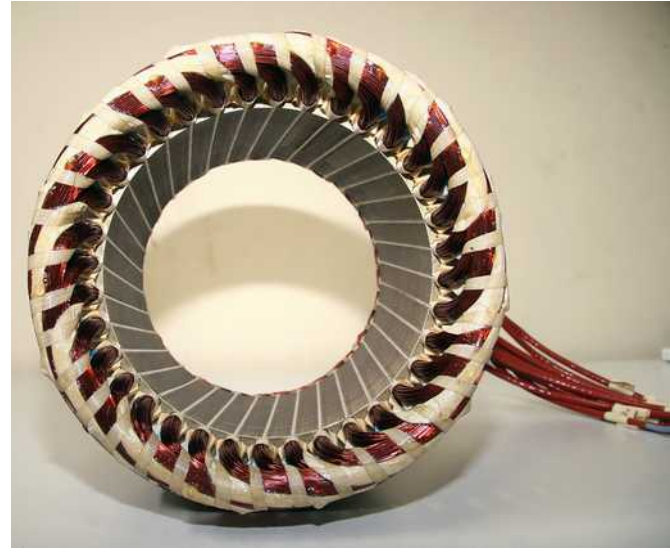
GEN-GER 250kVA Outdoor Military



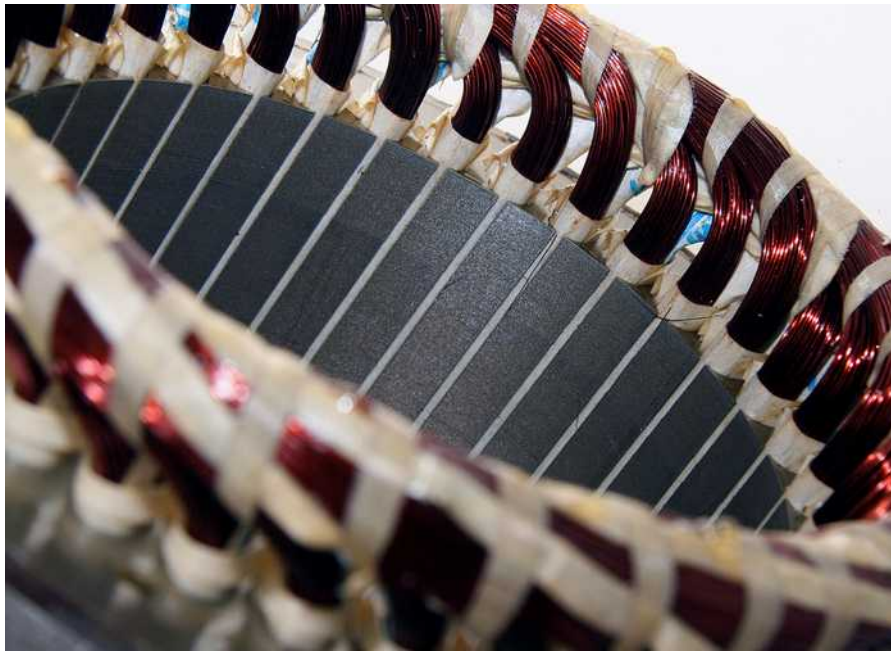
GEN-GER Military Application 400kVA Mobile



GEN-GER Internal High Technology



GEN-GER Internal High Technology



GEN-GER Internal High Technology

