

**Durability & low noise**

Designed for easiest, fastest and most economical installation. Well-balanced to produce smooth and vibration-free operation with low noise level.

To maintain a controlled working temperature in cylinders and combustion chambers, the engine is equipped with piston cooling. The engine is also fitted with replaceable cylinder liners and valve seats/guides to ensure maximum durability and service life of the engine.

Low exhaust emission

The state of the art, high-tech injection and charging system with low internal losses contributes to excellent combustion and low fuel consumption.

Generator performance class in accordance with ISO 8528

Easy service & maintenance

Easily accessible service and maintenance points contribute to the ease of service of the engine.

- **Electronic governing EMS**
- **CAN bus communication**
- **Compact design for the power class**
- **High power to weight ratio**
- **Emission compliant acc. to EU Stage II**
- **Noise optimized engine design**
- **RoHS2 Compliant**
- **Dual speed**

DG Technical Specification

Technical Data Sheet of 320 KVA		
Voltage, Frequency & Power		
Switchable to dual frequency with a selector switch (50/60 Hz)		
Specification (50Hz)		
Frequency	Hz	50
Voltage (3PH)	V	380-415-480
Power factor	cos θ	0.8
Phase		3
Power rating		
Emergency Standby Power ESP	kVA	359
Emergency Standby Power ESP	KWM	308
Prime power PRP	kVA	326
Prime power PRP	KWM	280
Specification (60Hz)		
Frequency	Hz	60
Voltage (3PH)	V	220-380-415-480
Power factor	cos θ	0.8
Phase		3
Power rating		
Emergency Standby Power ESP	kVA	350
Emergency Standby Power ESP	KWM	301
Prime power PRP	kVA	318
Prime power PRP	KWM	274

Ratings definition (According to standard ISO8528 1:2005)

All performance and de ration parameters to be considered for load calculations accordingly.

PRP - Prime Power: It is defined as being the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output over 24 h of operation shall not exceed 70 % of the prime power.

ESP - Emergency Standby Power: For supplying emergency power for the duration of a utility power failure, not to exceed 200 hrs/yr. Average load factor of 70% of the standby rating over 24 hour period.

Engine specifications		
Engine Brand		Volvo
Model		TAD843GE
Low exhaust emissions		Equal to EU stage II
Engine cooling system		Ready mix or Volvo Penta coolant mixed with clean fresh water 40 / 60
Configuration and no.of cylinders		in line 6
Displacement	ltr	7.7
Aspiration		Turbocharged intercooled
Speed governor		Electronic
Prime gross power PRP @1500	kWM	280
Maximum gross power LTP ESP @1800	kWM	301
Oil capacity		ltr
Lube oil consumption PRP (max)	ltr/hr	0.01
Total Coolant capacity		ltr
Fuel		Diesel
Specific fuel consumption 75%/100% PRP @1500 rpm	g/kWh	198
Specific fuel consumption 75%/100% PRP @1800 rpm	g/kWh	203
Starting system		Electric
Starting engine capability	KW	5.6
Electric circuit	V	24
Alternator Specifications		
Make		Stamford
Model		HCI444D1
Voltage	V	415
Frequency	Hz	50-60
Power factor	cos θ	0.8
Poles		4
Type		Brushless
Voltage regulation (with 4% Engine Governing)	%	± 1
Efficiency @ 75% load		93.3
Insulation System		Class H
Protection		IP 23



DSE4520 MKII AUTO MAINS FAILURE CONTROL MODULE

Load unbalanced alarm, • Configurable for use as an auto start and AMF control module • J1939-75 support and CAN alarm ignore function • Alternator frequency & CAN speed sensing in one variant • Largest back-lit icon display in its class • Heated display option • Real time clock provides accurate event logging

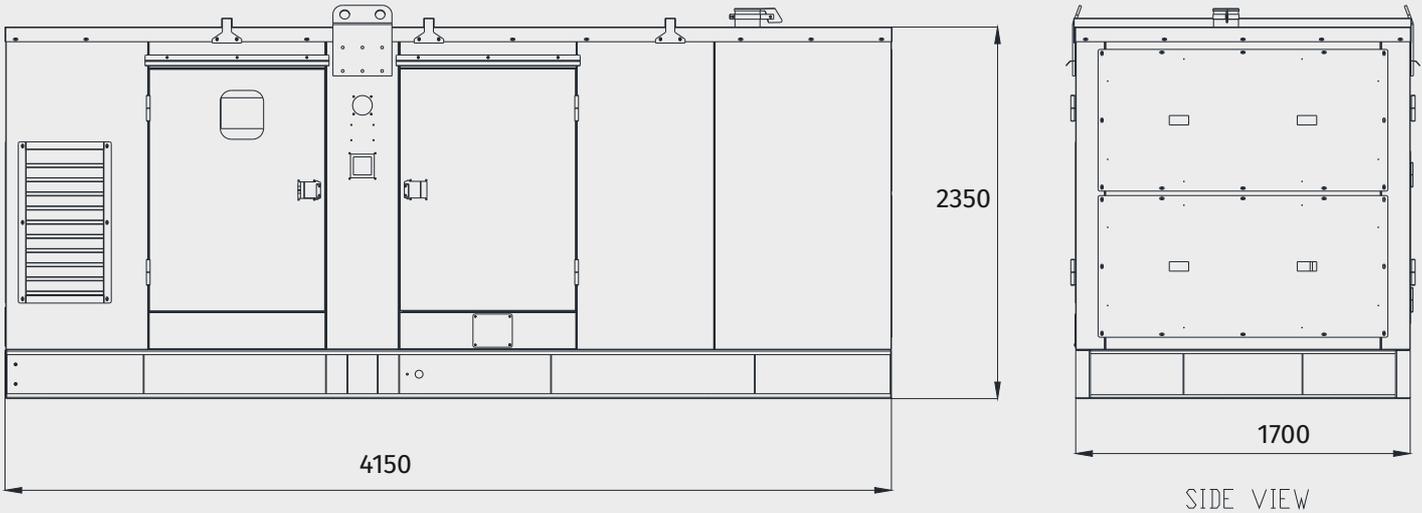
- Fully configurable via the fascia or PC using USB communication • Extremely efficient power save mode • 3 phase generator sensing • 3 phase mains (utility) sensing • Compatible with 600 V ph to ph nominal systems • Generator/load power monitoring (kW, kV A, kV Ar, pf) • Accumulated power monitoring (kW h, kVA h, kVAr h)
- Generator overload protection (kW) • Generator/load current monitoring and protection • Fuel and start outputs (configurable when using CAN) • 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 • Engine idle control for starting & stopping • Tier 4 engine instrumentation screens
- 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) • Fuel solenoid pulling circuit • On-screen line diagram on/off functionality
- Configurable CAN instrumentation (10) • Water in fuel digital input • Tank bund alarm digital input • Generator at rest output • ECU periodic wake-up for information retrieval • Back-light power-save mode • Adjustable delay crank timer • Pre/post heat functionality • Overload protection • Mains/generator A/C system selection • Output timer for external audible alarm

KEY BENEFITS

- 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 large back-lit icon display.
- The module can be configured to suit a wide range of applications
- Uses DSE Configuration Suite PC Software for simplified configuration
- Compatible with a wide range of CAN engines including Tier 4
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress

Dimensional Data		
Length	(L) mm	4150
Width	(W) mm	1700
Height	(H) mm	2350
Dry weight	kg	4250
Fuel Tank capacity	ltr	500
Fuel Tank material		metal
Autonomy		
Fuel consumption @ 75% PRP	G/KWH	200
Fuel consumption @ 100% PRP	G/KWH	204
Running time @ 75% PRP	Hr	10
Running time @ 100% PRP	Hr	7.5
Installation Data		
Total air flow	m3/min	504
Exhaust gas flow	m3/min	52
Exhaust gas temperature	celcius	505
Electrical Data		
Battery Capacity (minimum)	Ah	2X150
Max current (DG Set)	A	630
Scope of Supply and Supplements		
Draw Out type Fuel Tank		
Leak proof Tray		
Customized canopy colour (RAL - 9003 / Ral- 9005)		
Fork Lift Pockets , Top Lifting Provision		
Special Baseframe design		
Manual Oil Pump		
Battery Isolator Switch for Protection		

Dimensions & Weight



Overall Size (L x W x H) : 45150x1700x2350 mm

Weight (Dry, Max) : 4250 Kg

NOTE: Drawing provided is for reference only and should not be used for planning installation. Please contact the Company or latest updated details. All the data is as per respective manufacturers' specification. PERFECT reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Disclaimer: Due to continues product improvements, specifications are subject to change without prior.



ISO Certified



OHSAS Certified

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