

# PFD50

## 50kVA Silent Diesel Generator

Three Phase Industrial Diesel Generator



The 50 kVA Three-Phase Diesel Genset is built around technical excellence. It delivers highly efficient, clean power (0.8 power factor) with superior voltage stability. An integrated advanced digital control system provides comprehensive monitoring of all vital operating parameters—including frequency, voltage, and fuel use—ensuring optimal technical performance and maximizing operational periods."

### Key Protective Features:

Low Oil Pressure Shutdown | High Engine Temperature Shutdown | Emergency Stop (E-Stop) | Overload Protection | Weatherproof/Acoustic Enclosure



Model		PFD50
Prime Power	kVA	50kVA
Standby Power	kVA	53kVA
Rated Voltage Line to Line	V	230V / 400V
Rated Current	A	72A
Max. Sound Level -	dB (@7m)	72dB

Engine		FAW
Model		4DX22-65D
Aspiration Type		Natural
Injection Type		Direct
No. Cylinders		4 In-line
Displacement	L	3.86
Bore* Size	mm	102x118
Compression Ratio		17:1
Rated Speed	r/min	1500
Engine Prime Power	Kw	48
Governor Type		Electric

Exhaust System		
Exhaust Gas Flow	m <sup>3</sup> /min	10
Exhaust Gas Temperature	°C	520
Max. Intake Restriction	kPa	6.7

Electrical System		
Charging Alternator Voltage	V	24
Charging Alternator Capacity	A	45
Starting Voltage	V	24

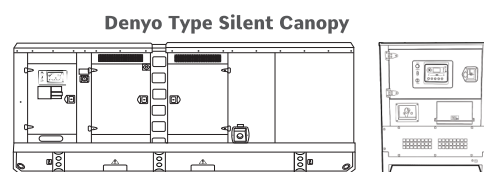
Fuel System		
100% Load (Prime Power)	L/h	12.6
75% Load (Prime Power)	L/h	9.4
50% Load (Prime Power)	L/h	6.3
Fuel Tank Capacity	L	150

Lubrication System		
Oil Capacity	L	13
Lubrication Oil Specification		15W40
Max. Oil Temperature	°C	120°C
Lubrication Method	Fully forced pressure feed type	
Oil Pump	Gear type driven by camshaft	

Cooling System		
Water Capacity For Engine	L	6
Max. Permissible Temperature	°C	100°C
Max. Shutdown Temperature	°C	104°C

Alternator		PINNACLE
Model		P184DT
Phase		Three Phase
Voltage	V	230V/400V
Wiring Type	3ph	4 Wire, Y Type
Bearings		1
Power Factor		0.8
Frequency	Hz	50
Prime Power	kW	50
Exciter Type	Brush-less, Self-excitation	
Voltage Regulation	%	±0.5
Protection Grade	IP	23
Insulation Grade		H/H
Altitude	m	≤1000

Controller	DeepSea DSE6120
Protective Functions:	
• High Engine Temperature and Overspeed	
• Voltage Regulator Frequency Calculator	
• Low Oil Pressure	
• High Water Temperatures	
• High/Low Voltage	
• Emergency Stop	
• Start Failure	



Weight: 340kg L x W x H: 800mm x 680mm x 850mm

- Specifications to change without notice.
- All rating at sea level, 25°C ambient temperature.

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DSE6110 MKIII



DSE6120 MKIII



### KEY FEATURES:

- 4-line back-lit LCD text digital
- Multiple display languages
- Five-key menu navigation
- LCD alarm indication
- Customisable power-up text and screen images.
- DSENet® expansion compatibility
- Data logging facility
- Internal PLC editor
- Protections disable feature
- Fully configurable via PC using USB communications
- Front panel configuration with PIN protection
- Power save mode
- 3-phase generator sensing and protection
- 3-phase mains (utility) sensing and protection (DSE6120 MKIII only)
- Automatic load transfer control (DSE6120 MKIII only)
- Generator current and power monitoring (kW, kvar, kVA, pf)
- Mains (utility) current and power monitoring (kW, kvar, kVA, pf) (DSE6120 MKIII only)
- kW overload alarm
- Over current protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN

- 6 configurable DC outputs
- 4 configurable analogue/digital inputs
- Support for 0 V to 10 V & 4 mA to 20 mA sensors
- 8 configurable digital inputs
- CAN, MPU and alternator frequency speed sensing in one variant
- Real time clock
- Manual and automatic fuel pump control
- Engine pre-heat and post-heat functions
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel level alarms
- 3 configurable maintenance alarms
- Compatible with a wide range of CAN engines, including Tier 4 engine support
- Uses DSE Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress
- Configurable CAN read & transmitted information.
- 1 alternative configuration.

### KEY FEATURES:

- Automatically transfers between mains (utility) and generator (DSE6120 MKIII only) for convenience.
- 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 & displayed simultaneously for full visibility
- The module can be configured to suit a wide range of applications for user flexibility
- PLC editor allows user configurable functions to meet user specific application requirements.

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

