DPX-17951
Power Generator S-Q
450 kVA

Main Features

- Digital voltage regulation +/-0,25 %
- Three phase voltage control
- Low disturbance level THD >1,5%
- Alternator short circuit capacity 270% I_n 10s
- Class H insulation
- Protection index IP23
- Performance class G3 (acc. ISO 8528-5)
- Ready to load just after start
- AMF and MRS functionality and protection
- Autonomy 15,0 h with 75 % load

General Data

Maximum power ESP	450,0 kVA / 360,0 kW
Nominal power PRP	410,0 kVA / 328,0 kW
Nominal Current PRP	592,0 A
Frequency	50 Hz
Voltage	400 V
Emission standard	fuel optimized
Fuel	Diesel (EN 590)
Fuel tank capacity	999 l
Fuel consumption @ 50% / 75% / 100% / 110% PRP	41,1 / 59,9 / 78,8 / 87,8 l/h
Autonomy @ 75% / 100% load	15,0 / 11,4 h
Weight without fuel	3770 kg
Dimensions L x W x H	4320 x 1600 x 2500 mm
Guaranteed noise power L_{wa}	98 dBA
Acoustic pressure @7mL_{pa}	68,8 ± 1 dBA

Main Components & Equipment

- Scania DC13 072A 02-12 engine
- Leroy Somer TAL 0473 A alternator
- Brushless alternator
- Digital AVR
- ComAp IL4-AMF25 Controller
- Schneider NSX 630 3P + Mic.2.3 type generator circuit breaker
- GCB shunt release coil
- Linear automatic battery charger
- Engine heater
- Electronic speed governor
- Fuel system unit injectors, PDE
- Welded frame with 999 l fuel tank, spill containment and noise insulation
- Two fuel inlets
- Four lifting eyes
- Extended forklift skids for easy attachment to the ground

For details see page 3

Definitions

Nominal Power PRP:

Prime power available in variable load application in accordance with ISO 8528, 10% overload capacity is available for a period of 1 hour within a 12-hour period of operation. Average power consumption should not exceed 70% PRP for each 24-hour period of operation.

Maximum power ESP:

Emergency standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload allowed, limited to 200h of operation per year. Max mean load factor of 70% of rated power over 24-hour period of operation.

Norms and Directives

- Machinery directive 2006/42/EC
- Low voltage directive 2014/35/EU
- EMC directive 2014/30/EU
- Noise directive 2000/14/EC
- ISO 8528-1/2018, ISO 8528-5/2022
- ISO 8528-13:2016
- IEC 60204-1

Contact data

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Engine

Manufacturer	Scania
Type	DC13 072A 02-12
Made in	Sweden
Engine power	355,0 kW
Emission standard	fuel optimized
Rotation per minute	1500 rpm
Engine governor	electronic
Governor class	G3 (ISO 8528-5)
Displacement	12,7 l
No of cylinder	6
Fuel system	unit injectors, PDE
Electrical system	24 V
Cooling system capacity	38,0 l
Oil pan capacity	36,0 l
Fuel type	Diesel (EN 590)

Alternator

Manufacturer	Leroy Somer
Type	TAL 0473 A
Made in	Czech Republic
Nominal Voltage	400 V
Nominal power factor (cos φ)	0,8
Ambient temperature, altitude	40 °C, 1000 m a.s.l.
Nominal Power	410,0 kVA
Protection index	IP 23
No of bearing	Single bearing
Coupling	Direct
Technology	Brushless
Short circuit maintaining capacity	270% 10s
Efficiency	93,2 %
Insulation class	H
Total harmonic content THD	17,2 %
Reactance Xd"	15,2 %
Voltage regulator type	digital
Voltage measurement	3 phase
Voltage accuracy	+/- 0,25 %
AVR supply system	AREP+
AVR supply optional	PMG

Controller

- Controller type: ComAp InteliLite AMF 25
- Support of Dual AMF/MRS applications
- Direct communication with EFI engines
- Total remote monitoring and control
- Intuitive operator interface, adjustable Main Screen
- Real time clock
- Comprehensive history log with up to 350 events
- 3 phase true RMS current and voltage measurement
- Both mains and generator voltage detection
- Active/Reactive Power and Power Factor per phase measurement
- Run Hours counter with source selector
- 3 maintenance timers (counting even under zero)
- Multipurpose flexible timers (also for rental)
- Battery voltage measurement
- Complete engine and alternator protection
- CAN modules support
- USB port on-board
- 2 slots for plug-in modules
- Plug-in module concept for more capabilities (RS232, RS485, Ethernet, GPRS, 4G/LTE, Modbus, SNMP, emails, SMS, I/Os)
- Cloud-based monitoring and control via WebSupervisor) (optional module required)
- Geofencing and tracking via WebSupervisor (optional module required)
- Control and monitoring over SMS (GSM module required)
- 3 levels of password protection
- In-built PLC, complemented with a monitoring/debugging tool, for additional functionality, if required
- Spare inputs and outputs available by default: binary input – 3, binary output – 2, analogue input – 3,
- A version for low temperature is also available

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Standard equipment

- Scania DC13 072A 02-12 engine
- Electronic engine speed governor
- Oil low pressure switch
- Oil pressure sensor
- Engine high temperature switch
- Engine high temperature sensor
- Engine preheating with thermostat
- Engine oil Titan Cargo 15W40
- Fuel filter with water separator
- Coolant Fuchs Maintain Fuchs Maintain Fricofin LL-50
- Coolant inlet outside, on the top of the canopy
- Starting batteries 2x180Ah
- Linear automatic battery charger
- Leroy Somer TAL 0473 A alternator
- Digital AVR
- GCB Schneider NSX 630 3P + Mic.2.3
- GCB shunt release coil
- ComAp IL4-AMF25 controller
- Acoustic alarm
- Emergency stop button
- Silenced canopy, RAL 7024
- Fuel tank integrated with a frame and spill containment
- Two fuel inlets inside the canopy
- Fuel level indicator
- Engine and alternator anti vibration mounts
- Exhaust silencer with compensator
- Forklift supports and lifting eyes

Optional equipment

- Battery disconnector
- 4P Schneider NSX Micrologic 2.3 GCB
- Power Lock type power output
- Power sockets box
- Transfer switch controlled by generator controller
- Transfer switch with ATS controller
- ATS accessories for outdoor application
- GPRS communication card
- Ethernet card
- RS 485, RS 232 card
- Remote display
- Fuel inlet outside of the canopy with lock
- Generator spill containment level detector
- External, double wall fuel tank 1 000 – 10 000 l
- Fuel tank filling pump and shut-off valve

Maintenance guidelines

Fuel filters replacement	500 h / 1 year
Oil replacement	After first 100h, then every 500 h / 1 year
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Coolant replacement	1000 h / 2 years
Air filter replacement	500 h
Battery replacement	2 years
Electrical installation	According to local requirements, at least once per year

Installation guidelines

Power terminal	GCB terminal
Recommended cable for up to 30m power cable way	Flexible 2x5x150 mm^2
Recommended cable for do 30m generator heater supply	Flexible 3x2,5 mm^2
Exhaust pipe min diameter (max. 7 m, 4 bends)	133 mm
Exhaust pipe min diameter (max. 15 m, 4 bends)	

*For additional cable connection with ATS see ATS wiring diagram

Warranty

Continuous operation generators	12 months up to 1000 working hours