

# **FOCUSED ON GENERATORS ONLY**

# **Power Generator FD 100 P-ST**

#### **MAIN FEATURES**

Highest quality and reliability.	Wide range of standard and optional equipment.
ComAp InteliLite AMF 25 controller.	Engine heater – ready to load just after start.
Ready to control MAINS – GENERATOR transfer switch.	Drip tray,
Configured for both manual and automatic mode (MRS + AMF).	Anticorrosion coating: frame - Zr, canopy - Zr, Al-Zn.
Wide range of remote communications options.	Brushless alternator.





### Pictures for reference only

110,0 / 88,0

#### **GENERAL DATA**

Standby power E.S.P. [kVA] / [kW]

71	3	- ) ) -	
Prime power P.R.P. [kVA] / [k	W]	100,0 / 80,0	
Prime current P.R.P [A]		144,0	
Frequency [Hz]		50	
Voltage [V]		400	
Exhaust emission		stage II	
Fuel type	D	Diesel (EN 590)	
Fuel consumption - 50% load [1/h	1]	11,6	
- 75% load [l/h	1]	16,8	
- 100% load [l	/h]	22,2	
- 110% load [l	/h]	24,5	
Engine control voltage [V]		12	
Standard fuel tank capacity [1]		290	
Autonomy with 100% load [h]		12,4	
Design		S2670T290	
Generator version	open	canopy	
Model	FD 100 P-ST1	FD 100 P-ST	
Weight without fuel [kg]	~1020	1410	
Dimensions L x W x H [mm]	2660 x 1110 x 1470	2670 x 1130 x 1700	
Guaranteed noise power Lwa [dBA]	$113,8 \pm 2,1$	97	
Acoustic pressure L <sub>pa</sub> 7m [dBA]	$84,6\pm21$	$68,1 \pm 1$	
L <sub>pa</sub> /m [dBA]			

#### Prime 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 80% PRP for each 24-hour period of

#### Standby 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 500 hours of operation per year. Continous operation limited to 300h.

#### Remarks:

Ratings represent the genset performance capabilities to standard conditions specified in ISO 8528-1

#### Norms and directives:

- Machinery directive 2006/42/EC
- Low voltage directive 2014/35/EU
- EMC directive 2014/30/EU
- Noise directive 2000/14/EC
- Emission directive 97/68/EC
- ISO 8528-1/2018, ISO 8528-5/2018
- ISO 8528-13:2016
- IEC 60204-1



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#### STANDARD CONTROLLER

Controller type: ComAp InteliLite AMF 25

Easy to operate, intuitive graphical interface

Real time clock with battery supply

Stan-by and Prime power applications, AMF function available

Flexible event based history with up to 350 events

3 Phase generator current measurement

Generator and Mains phase voltage measurement

Active/reactive power measurement

Active and reactive energy counter

Running hours counter, multipurpose flexible timers

Battery charging alternator circuit connection

Comprehensive gen-set protections

Wide range of communication capabilities including:

- CAN and USB on board
- Internet access using Ethernet, GPRS or 4G module
- Support for Modbus and SNMP protocols

Cloud-based monitoring and control via WebSupervisor

Active SMS or e-mails (module required)

Geofencing and tracking via WebSupervisor

Operating temperature  $-20 + 70^{\circ}$ C

IP65 operator interface protection



#### **ENGINE**

#### Brand Perkins 1104C-44TAG2 Type Great Britain Made in Engine power [kW] 90,1 Emission standard\* stage II 1500 Rotation per minute [rpm] Engine governor electronic Governor class\*\* G3 Displacement [1] 4,4 No of cylinder 4 direct injection Fuel system Electrical system [V] 12 12,6 Cooling system capacity [1] 8,0 Oil pan capacity [1] Fuel type Diesel (EN 590)

#### **ALTERNATOR**

ALILIMATON	
Nominal Voltage [V]	400
Nominal power factor (cos phi)	0,8
Ambient temperature, altitude	40 °C, 1000m n.p.m.
Nominal Power [kVA]	100,0
IP protection	IP 23
No of bearing	single bearing
Coupling	direct
Technology	brushless
Short circuit maintaining capacity	270% 10s
Efficiency [%]	90,8
Insulation class	Н
Total harmonic content THD [%]	<2
Reactance Xd'' [%]	8,8
Voltage regulator type	DVR, digital
Voltage measurement	3 phases
Voltage accuracy [%]	+/- 0,25
AVR supply system	auxiliary winding
AVR supply optional	PMG
Made in	EU

- \* According directive 97/68/WE non road mobile machinery engine emission.
- \*\* According PN-ISO 8528-5/2018



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#### **STANDARD EQUIPMENT**

#### **OPTIONAL EQUIPMENT**

Perkins 1104C-44TAG2 engine	✓	Oil pressure sensor	
Electronic engine speed governor	✓	Engine temperature sensor	
Oil low pressure switch	✓	Oil draining hand pump	
Engine high temperature switch	✓	Battery disconnection switch	
Engine preheating with thermostat	✓	GCB 4P Schneider NSX Micrologic 2.2	
Engine oil Titan Cargo 15W40	✓	Power Lock type power output *	
Fuel filter with water separator	✓	Power sockets box SOM 104 *	
Coolant	$\checkmark$	Transfer switch controlled by generator controller	
Coolant inlet outside of the canopy *	✓	Transfer switch with ATS controller	
Starting batteries 100 Ah	✓	GPRS communication card	
Battery charger	✓	Ethernet card	
GCB Schneider NSX 160 3P Micrologic 2.2	$\checkmark$	RS 485, RS 232 card	
GCB shunt release coil	✓	Remote display	
Controller ComAp IL-AMF25	$\checkmark$	Fuel inlet outside of the canopy with lock *	
Acoustic alarm	✓	Drip space level sensor	
Emergency stop button	$\checkmark$	Fuel and retention pump	
Silenced canopy made with AlZn. *	✓	Alternative fuel tank size 720l	
Standard color 7024	✓	External fuel tank 1 000 - 10 000 l	
Fuel tank integrated with a frame with drip tray	✓	Fuel tank filling pump and shut-off valve	
Welded frame with fuel tank	✓		
Fuel inlet inside, protected by canopy locked doors *	✓		
Fuel level measurement	✓		
Engine and alternator vibro isolators	✓		
Exhaust compensator and silencer	✓		
Transportation brackets	✓		

<sup>\*</sup> Applies only for canopied version

## **INSTALLATION GUIDELINES**

Power terminal	GCB terminal
Recommended cable for up to 30m power cable way	Flexible 5x50 mm <sup>2</sup>
Recommended cable for do 30m generator heater supply	Flexible 3x2,5 mm <sup>2</sup>
*For additional cable connection with FOGO ATS see ATS wiring diagram	
Exhaust pipe min diameter (max. 7 m, 4 bends)	60,3 mm
Exhaust pipe min diameter (max. 15 m, 4 bends)	76,1 mm

# **MAINTENANCE GUIDELINES**

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

### **WARRANTY**

Continuous operation generators 12 mo	nths up to 1000 working hours
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Version: Apr-21 Datasheet could be changed without notification

