Fiche technique

DEPARTEMENT OUTILLAGE

GROUPE ELECTROGENE 16KVA DIESEL TRIPHASE

Generator Model:	SDG16FS	FIRMAN FD485DY	FIRMAN FG16K

Frequency 50HZ	3Phase4Wire	Power Factor Cosφ=0.8

RATINGS		PRIME POWER		STANDBY POWER	
		SDG16FS			
Voltage	Amps	kVA	kWe	kVA	kWe
380	24	**16**	13	**18**	14

DEFINITION OF RATINGS

Prime power 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 24h of operation shall not exceed 70% of the PRP.

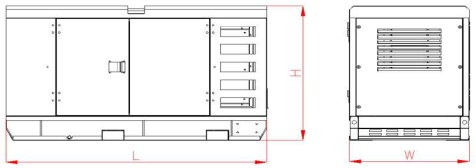
Emergency standby power is defined as the maximum power available during a variable electrical power sequence, under the stated operating conditions for up to 200h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output over 24h of operation shall not exceed 70% of the ESP.

Standard Reference Conditions: air inlet temperature 25°C (77°F), barometric pressure 100kPa [110m (361ft) altitude] and 30% relative humidity.

Note: The above ratings may be subject to derate at different operating conditions. All power ratings and reference conditions in accordance with ISO 8528-1 and ISO 3046-1.

Key Features:

- Efficient water cooled diesel engine.
- Radiator with pressure cap and drain point
- Fully guarded engine-driven fan
- Fully welded steel baseframe with lifting points
- Various fuel system options
- Heavy duty rubber anti-vibration mountings
- 12V starter batteries and connecting cables
- Engine-driven battery charging alternator
- Spin on oil and fuel filters and dry type air filter element
- Auto Start control with digital instrumentation
- Factory Test Certificate
- Operation & Maintenance Manual
- Optional extra features available



Overall Dimensions

Length (L1) = 1750mm
Width (W1) = 720mm
Height (H1) = 980mm
Weight=590kg

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SDG16FS

2020-rev01

ENGINE				FIRMAN FD485DY	
General Data			Units	PRIME	STANDBY
	Engine Speed		r/min	1500	
	Gross Power		kWm	17	18.7
	Governor/Class			Mechanical	
	Cylinder No.			4	
	Cycle			Four stroke	
	Cylinder arrangement			Vertical in-line	
	Type of injection			Direct injection	
	Aspiration			Natually Aspirated	
	Cooling mode			Water cooled	
	Bore and stroke		mm	85x95	
	Compression ratio			18:1	
	Displacement		L	2.156	
	Battery capacity		A/hr	45	
	Direction of rotation(Facing output end)			Counter clockwise	
	Steady speed regulation		%	≤5	
	Lubricanting Oil Capacity		L	5.5	
	Coolant Capacity		L	9.4	
	Fuel Tank Capacity		L	25L(≥8h)	
	Fuel Type			0# Diesel (Natural temperature)	
	Filter system			Adopt lubricating oil , fuel and air filter	
	Exhaust system			Adopt industrial high efficiency silencer	
	Fuel Consumption at	100% Load	L/h	5.2	
		75% Load	L/h	4.36	
		50% Load	L/h	3.46	

ALTERNATOR			FIRMAN FG16K
General Data	Standard		IEC34-1, GB755, ISO9001
	Alternator Type		Brushless Synchronous
	Rated Voltage		220V/380V
	Rated Frequency		50HZ
	Rated Speed		1500 RPM
	Poles		4
	Alternator Voltage Regulation	%	≤±1
	Waveform Distortion		no load ≤1.5%; Non-distorting
	Telephone Interference	%	THF≤2
	Exciting Mode		self exciting
	Power Factor		0.8
	Phase & Wires		3 phase 4 wires
	Rated Current	A	24
	Efficiency	%	81.00%
	Insulation Class		H
	Protection Class		IP23
	Max. Ambient Temperature / Relative Humidity	℃ / %	40 / ≥60

CONTROLLER				FIRMAN HGM4020N
Automatic Control System	**Panel Configure:**		**Warnings(W) and shut down alarm (S)**	
	1	Automatic control module×1	**1**	Low oil pressure (W+S)
	2	Emergency stop button×1	**2**	Coolant over temperature(W+S)
	3	AC main circuit breaker×1	**3**	Failed start (W)
	Digital display:		**4**	Battery over and under voltage(W)
	1	Mains and generator voltage	**5**	Battery charge failure(W)
	2	3-phase gernerator current	**6**	Engine over and under speed (W+S)
	3	Mains and generator frequency	**7**	Gernerator over and und voltage(W+S)
	4	Out put(kva,kW,kvar,cos(phi)	**8**	Gernerator over and und frequency (W+S)
	5	Battery voltage	**9**	KW overload trip (W)
	6	Engine speed	**10**	Delayed over current(W)
	7	Fuel level	**11**	Emergency stop (W)
	8	Oil pressure		
	9	Water temperature		
	10	Run hours		

Specifications and designs are subjected to change refer lastest version