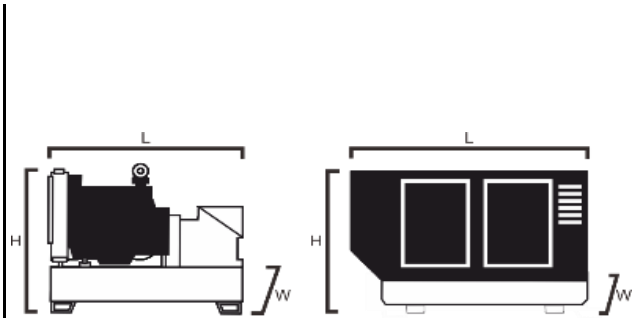


Technical Data													
Engine		Alternator			Generator Model								
Fawde 4DW91-29D		Werna WR184ES			<b>PC20-G / Silent</b>								
Frequency	Phase		Power Factor		Emissions								
<b>50Hz/1500rpm</b>	3-Phase		Factor Cos $\Phi = 0.8$		Stage II								
RATINGS	Prime Power (PRP)		Standby Power (ESP)		Rated Current (Amps)	Fuel Consumption @100% Load (L/h)							
	kWe	kVA	kWe	kVA	(A)								
Voltage (V)	380/220	400/230	415/240	16	20	18	22	30,4	28,9	27,8	5,9	5,9	5,9



### Key Features:

- High efficient water cooled diesel engine.
- Single bearing with brushless alternators (Class H, with AVR).
- Radiator with pressure cap and drain point.
- Fully guarded engine-driven fan.
- Fully welded steel skid base with lifting holes and fork lift legs.
- Integral fuel tank with filler cap and gauge ( $\leq 650\text{kVA}$ ).
- Heavy duty rubber anti-vibration mountings.
- 12V or 24V maintenance free starter battery and connecting cables.
- Separate engine-driven battery charging alternator.
- Spin on oil and fuel filters and dry type air filter element.
- Industrial silencer (15dBA reduction) supplied loose.
- Auto start control system with LCD show.
- Battery charger provided.
- Main line 3P circuit breaker.
- Rigorous factory test wiring with IEC standard.
- Operation & Maintenance manual & Wiring diagrams.

### Dimensions & Weights

	Silent
Length (L)-mm:	2000
Width (W)-mm:	950
Height (H)-mm:	1150
Dry Weight-kg:	778
Fuel tank (h)	10
(dBA)@7m no load	$\leq 85$

### Ratings:

All three phase generator sets are rated at 0.8 power factor. All single-phase generator sets are rated at 0.8 or 1.0 power factor.

#### (1)PRP (Prime Power):

Available continuously at variable load in lieu of commercially purchased power for an unlimited number of hours per year accordance with ISO8528-1, and an overload of 10% permitted for one hour in every twelve hours of operation in accordance with ISO 3046-1.

#### (2)ESP (Standby Power):

Emergency Standby Power in variable load applications in accordance with ISO8528-1 in the event of a utility power failure.

#### (3)STD:Standard Alternator.



Engine		Fawde 4DW91-29D			
General Performance	Frequency	Hz	50		
	Engine Speed	r/min	1500		
	Cylinders / Type	In line 4 cyl	4-stroke		
	Aspiration	Natural			
	Governor Type	Mechanical			
	Bore / Stroke	mm	90*00		
	Displacement	Litres	2,54		
	Compression Ratio	17:1			
	Brake Mean Effective Pressure	MPa	0,66		
	Rotation Direction (from flywheel)	Anti-clockwise			
	Engine Power	kWm	21	23	
	Fuel System	Fuel Consumption at 110% Prime Power	Litres/hour	7,08	
Fuel Consumption at 100% Prime Power		Litres/hour	5,9		
Fuel Consumption at 75% Prime Power		Litres/hour	4,72		
Fuel Consumption at 50% Prime Power		Litres/hour	3,5		
Fuel Consumption at 25% Prime Power		Litres/hour	1,77		
Standard Fuel Tank Capacity		Hours	10		
Oil System	Total Oil System Capacity	Litres	8		
	Oil consumption	L/h	0,05		
	Oil consumption (as % of fuel consumption)	0,64%			
	Maximum Oil Temperature	°C	115		
Cooling System	Coolant Capacity - Engine Only	Litres	2,5		
	Standard Thermostat (Modulating) Range	°C	82-95		
	Maximum Coolant Temperature - Engine Out	°C	97		
Electric System	Electrical System Voltage	V	12		
	Battery	Maintenance-free			
Energy Balance	Heat Rejection of Exhaust	kW	17,4		
	Heat Rejection from Engine	kW	1,3		
	Heat Rejection to Coolant	kW	13,7		
Alternator		50Hz/1500rpm			
General Data	Manufacture / Brand	Werna			
	Model	WR184ES			
	Coupling / No. of Bearings	Direct / Single Bearing			
	Phase / Poles	3-Phase / 4-Pole			
	Power Factor	Cos $\Phi$ = 0.8			
	AVR Regulation	Yes			
	Voltage Regulation	±1 %			
	Insulation Class	H			
	Drip Proof	IP23			
	Voltage Regulator	AVR			
Altitude	≤1000 m				