

# EF20

20 kVA, Silent Type, 4DW91-29D, WHI 184ES



## Standards & Conditions

### Design Standards

- The designs and the productions are in conformity with:
- Conformance Européenne (CE)
- China Compulsory Certification (CCC)
- ISO8528-5:2005
- GB/T2820.5-2009

### Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature:-25°C to 45°C
- Humidity: less than 80%.
- Altitude: Below one thousand (1000) meters.

### Factory Inspection

- Inspection items.
- Protection devices working test.
- Starting ability in normal temperature.
- 50% rated power load moment capability.
- Voltage deviation and speed variation:0%,25%,50%,75%,100%,110% Load.

### Painting process

- Painting process by powder coating,specification and colours are based on the manufacturer standard.
- The customer could also choose the colour which the manufacturer offers.



### GENERATOR SET

Genset Model	EF20
Standby power	23KVA/18kw
Rated power	20KVA/16kw
Output voltage	230/400
Rated speed (r/min.)	1500
Noise level (1m)	Less than 65 Dba
Power factor	COS $\phi$ =0.8 ( lagging )
Phase/wires	3 phase 4 wires
Start mode	Electric
Fuel consumption (g/kWh)	240
Rated current(amps)	29A
Protection	Low oil-pressure, High water temperature, Over-speed, Over-current.

### ALTERNATOR

Brand	WATTEK
Model	WHI 184ES
Protection	IP23
Frequency fluctuation	$\leq \pm 0.5$ %
Voltage distortion	< 4%
Power	20KVA(16KW)
Original	China
Rated voltage	400/230 V
Frequency regulation	$\leq \pm 0.5$ % ( stable )
Voltage control	AVR
Exciter	Brushless
Cooling Fan	Cast alloy aluminium
Windings	100% copper
Altitude	$\leq 1000$ m
Air Flow	0.15m <sup>3</sup> /s
Telephone interference	THF<2%;TIF<50

### ENGINE

Brand	FAWDE
Model	4DW91-29D
Cylinders	4
Fuel	0# light diesel
Inter-Cooling	water inter-cooling
Engine Power	21KW
Aspiration	Natural
Governor/Class	Mach
Bore and stroke	90×100mm
Start mode	DC24V electric start
Cylinders Layout	Line
Displacement	2.54L
Rated speed (r/min.)	1500
Dimensions LxWxH	750 x555 x 680mm
Dry weigh(approx.)	220kg
Compression Ratio	17:1
Type of Injection	Direct injection
Intake System	Water cooled
Fan	Pusher
Battery Voltage	12v
Oil Capacity	8L
Type of Coolant	Clycol mixture
Coolant Capacity	10.2L
Back Pressure	$\leq 8$ kPa

Specification may change without prior notice.

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## Technical parameters of Control Panel:

<b>Brand</b>	Smartgen	<b>Model</b>	6110
<b>Function:</b>	<ul style="list-style-type: none"> <li>• Start or Stop Generator set manually / automatically</li> <li>• Open controller output can be defined as Pre-heat/Idle output</li> <li>• High Coolant temperature protection</li> <li>• Low Oil pressure protection</li> <li>• Over load protection</li> <li>• Generator over/under frequency protection</li> <li>• Generator over/under/unbalance voltage Protection</li> <li>• Over speed protection</li> <li>• AMF</li> </ul>		



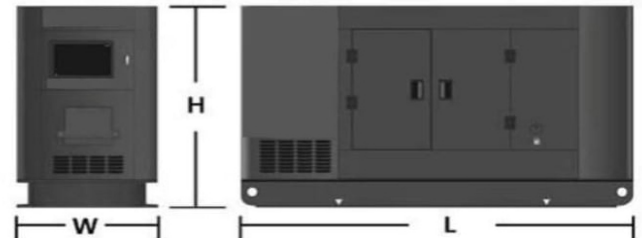
Note: Indicate this function depend on the set points of the controller in field.

## Optional accessories

Engine	• Heater • Battery Charger
Alternator	• Permanent Magnet Generator (PMG)
Control system	• Remote Control Panel • Auto Transfer Switch (ATS) • Paralleling System
Fuel system	• Daily Fuel Tank • Water Separator • Fuel Level Sensor
Others	• Rainproof Type • Soundproof Type • Trailer Type • Extra spare Parts

## Dimensions and Weights

Model	L x W x H mm	Weight kg
EF20	2200 x 850 x 1150	800



### Remark:

**Prime Power (PRP):** Prime power is available for an unlimited number of annual hours in variable load application, in accordance with GB/T2820 97(EQV ISO8528); a 10% overload capability is available for a period of 1 hour within a 12-hour period of operation.

**Standby Power Rating (ESP):** The standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

**Warranty:** We provides a full line of brand new and high quality products. Each Genset is strictly factory tested before delivery. We offer client warranty of 12 months or 1,000 running hours warranty which comes first (longer warranty period can be offered with extra charge)

### SOLE AGENT :

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