



# VSC44-5

Industrial Range | Powered by SDEC

## ■ General Characteristics



Item	Data
Standby Power (kVA)	44
Standby Power (kW)	35.2
Prime Power (kVA)	40
Prime Power (kW)	32
Power Factor (Cos Phi)	0.8
Diesel Engine	4ZT3.2-G21
Frequency (Hz)	50
Rated Speed (rpm)	1500
Phase	3
Standard Voltage (V)	400/230
Available Voltages (V)	380/220 · 415/240

### ● Power Definition

**Standby Power(ESP):** The standby power rating is applicable for supply emergency power in variable load applications in accordance with ISO8528-1, overload is not allowed.

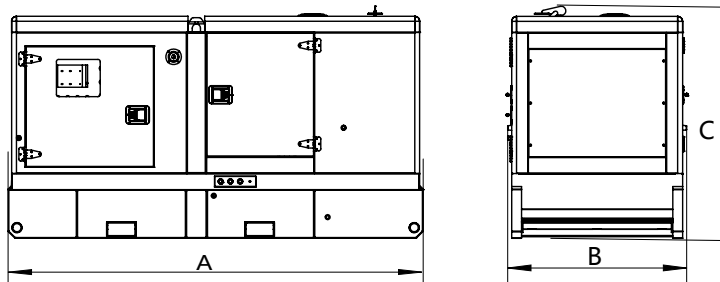
**Prime Power(PRP):** The prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

### ● Terms of use

According to the standard, the nominal power assigned by the genset is given for 25 °C air inlet temperature, of a barometric pressure of 100 kPa (100m A.S.L) and 30%.

Voltage	Standby Amps	Prime Amps
415/240V	61.2 A	55.6 A
400/230V	63.5 A	57.7 A
380/220V	66.9 A	60.8 A

## ■ Dimensions , weights & Fuel Tank



**Note:** General configuration not to be used for installation. See general dimension drawings for detail.

Model	Constructure	Dim "A" mm	Dim "B" mm	Dim "C" mm	Dry Weight kg	Fuel Tank Capacity L
VSC44-5	Silent set	2150	1100	1250	1084	144



**■ Engine Data**

<b>General Engine Data</b>	
Engine brand	SDEC
Engine model	4ZT3.2-G21
Engine type	4-stroke diesel
Governor type	Electrical
Injection type	Direct
Aspiration type	Turbocharged
Number of cylinders and arrangement	4-L
Bore and stroke (mm*mm)	98*105
Displacement (L)	3.2
Cooling system	Water-cooled
Lube oil consumption with full load	0.5%-1% of fuel consumption
Compression Ratio	18:1
Air Filter	Dry
<b>Fuel Consumption</b>	
Fuel Consumption @ 100% load ESP (L/H)	11.2
Fuel Consumption @ 100% load PRP (L/H)	10.1
Fuel Consumption @ 75% load PRP (L/H)	7.6
Fuel Consumption @ 50% load PRP (L/H)	5.3
<b>Air System</b>	
Intake air flow (m <sup>3</sup> /min )	4.1
Cooling air flow (m <sup>3</sup> /s)	-
<b>Exhaust System</b>	
Maximum exhaust temperature (°C)	550
Exhaust gas flow (m <sup>3</sup> /min)	11.1
Maximum allowed back pressure (kPa)	10
<b>Starting System</b>	
Starting power(kW)	3.8
Recommended battery (Ah)	60
Number of Batteries	1
Auxiliary voltage (Vdc)	12
<b>Oil System</b>	
Engine oil capacity (L)	7
<b>Cooling System</b>	
Total coolant capacity (L)	5.75 (engine)



## ■ Alternator Data

Alternator Data	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Insulation	H class
Enclosure(according IEC-34-5)	IP23
Excitation system	Self-excited, brushless
Voltage regulator	AVR (Electronic)
No. of bearings	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

## ■ Control Module



### Protections with alarm

- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

### Other Protections

- Emergency stop button.
- Panel protected through door with lockable handle

### Digital Instrumentation

- Generating set voltage.
- Mains voltage.
- Generating set frequency.
- Generating set current.
- Battery voltage.
- Power (kVA-kW-kVAr)
- Power factor Cos  $\phi$ .
- Hours-counter
- Engine speed r.p.m
- Fuel level (%)

### Commands and other

- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Remote starting availability.
- DC system disconnection switch.
- Acoustic alarm.
- Automatic battery charger.

### Protections with shutdown

- Engine protections: low fuel level, low oil pressure, high engine temperature,
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure.
- Circuit breaker protection: III poles.
- Earth Fault included in the control unit.