# WEBER



# WPS60



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# **GENERATING SET MODEL WPS 60**

Output Ratings	Prime	Standby
380-415 V,3 ph,50 Hz,1500 rpm	60 kVA	66 kVA
	48 kW	52.8 kW
480 V,3 ph,60 Hz,1800 rpm	68 kVA	75 kVA
	54 kW	60 kW
		Power Factor : 0.8

# **ENGINE / TECHNICAL DATA**

Engine Make	Perkins
Engine Model	1103A-33TG2
Governing Type	Mechanical
Number of Cylinders	3
Cylinder Arrangement	Vertical In Line
Bore and Stroke mm	105x127
Displacement / Cubic Capacity Itrs	3.3
Induction System	Turbocharged
Cycle	4 stroke
Combustion System	Direct Injection
Compression Ratio	17.25:1
Rotation	Anti-clockwise
Cooling System	Water Cooled

#### STANDARD SPECIFICATIONS

1.

Perkins four stroke heavy duty high performance industrial type diesel engine

#### 2. ENGINE FILTRATION SYSTEM

- Cartridge type dry airfilter
- Two cartridge type fuelfilters
- Full flow lube oilfilter

All filters have replacable elements

#### 3. COOLINGRADIATOR

Radiator and cooling fan, complete with safety guards, designed to cool the engine at high ambient temperatures(consult your dealer for deration factors)

#### 4. EXHAUSTSYSTEM

Heavy duty Industrial Exhaust Silencer

Silencer noisereductionlevel 14 (dB) Maximum allowablebackpressure 10.0(kPa)

#### 5. CIRCUIT BREAKERTYPE

ABB 3 pole MCCB.(4 pole is optional)

### 6. FUELSYSTEM

On Generating sets upto 700kVA, the baseframe design is incorporated with an integral fuel tank with a capacity of approx. 8 hours running at full load. The tank is supplied complete with fill cap breather, fuel speed and return lines to the engine and drain plug.

# 7. ALTERNATOR

#### 7.1 INSULATIONSYSTEM

• Insulation : ClassH

• All windings are impregnated in either a triple dip thermosetting liquid, oil and a cidres is ting polyester varnishor vaccumpressure impregnated with a special polyester resin.

• Heavycoatofantitrackingvarnishadditional protection against moisture or condenasation.

#### 7.2 AUTOMATIC VOLTAGE REGULATOR(AVR)

The fully sealed AVR maintains the voltage regulation at ±0.5%. Nominal adjustment by means of a trim pot incorporated on the AVR.

# 7.3 MOTORSTARTING

Anoverload capacity equivalent to 300% of the full load impedanceatzeropowerfactorcanbesustainedfor 10 sec., when AREP or PMG option is fitted.

# 8 MOUNTINGARRANGEMENT

8.1 BASEFRAME

The complete generating set is mounted as a whole on a heavy duty fabricated steel baseframe.

# 8.2 COUPLING

The engine and alternator are directly coupled by means of an SAE flange. The engine flywheel is flexibly coupled to the

#### 8.3 ANTI-VIBRATION MOUNTING PADS

Anti-vibration pads are affixed between the engine / alternator feet and the baseframe thus ensuring complete vibration isolation of the rotating assembly.



# **ENGINE / TECHNICAL DATA (continued)**

Frequency and Engine Speed	50Hz & 1500rpm		60Hz & 1800rpm	
	Prime	Standby	Prime	Standby
Gross Engine Power kW(hp)	55(73.8)	60.5(81.1)	63.3(84.9)	69.6(93.3)
Fuel Consumption @50%load L/hr	7.2	-	8.8	-
@75%load L/hr	10.4	-	12.5	-
@100%load L/hr	13.9	15.4	16.6	18.2
Total Lubrication System Capacity Itrs	7.9	7.9	7.9	7.9
Total Coolant Capacity Itrs	10.2	10.2	10.2	10.2
Exhaust Temperature °C	557	571	534	564
Radiator Cooling Air Flow(Min):m³/sec	1.48	1.48	1.85	1.85
Combustion Air Flow:m³/min	3.8	3.9	4.7	4.9
Exhaust Gas Flow:m³/min	10.1	10.4	11.8	12.5
Fuel Tank Capacity: ltrs	115	115	115	115

Dimension (mm) &Weight(Kg)	Length	Width	Height	Weight
Open	1570	800	1300	900
Soundproof	2290	1110	1600	1300

# **ALTERNATOR DATA**

Make	Leroy Somer TAL / Stamford
Model	TAL 042H / UCI224E
No. of bearings	1
Insulation Class	Н
Total Harmonic Content	on load <5%
Wires	6 / 12
Ingress Protection	IP23
Excitation System	Shunt / Slef Excited
Winding Pitch	2/3(n°6)
AVR Model	R120 / SX460
Overspeed	2250 mn <sup>-1</sup>
Voltage Regulation	±1% / ±1.5%
Short Circuit Capacity	-
AREP & PMG Excitation System Available as optional	al

#### STANDARD SPECIFICATIONS

#### 8.4 SAFETYGUARDS

The fan and fan drive along with the battery charging alternator are safety guard protected for personnel protection.

### 9. FACTORYTESTS

- The generating set is load tested beforedispatch.
- All protective devices control functions and site load conditions are simulated. The generator and it's systems are checked beforedispatch.

# 10. EQUIPMENTFINISHING

All mild steel components are fully degreased and painted with powder coated paint to ensure maximum scuff resistance and durability.

#### 11. DOCUMENTATIONS

Operation and Maintenance manual, circuit wiring diagrams and commissioning/fault finding instruction leaflets are accompanied with the generator.

# CONTROL PANEL

DSE4510

The DSE4510 is an Auto Start Control Module for single genset applications. It includes a backlit LCD display which clearly shows thestatus of the engine all the times. This module can either be programmed using the front panel or by using the DSE configuration suitr PCsoftware.

# Metering and AlarmIndications:

- GeneratorFrequency
- Underspeed, Overspeed
- Generatorvolts(L-L,L-N)
- GeneratorCurrentEngine OilPressure
- Engine CoolantTemperature
- FuelLevel
- Hours RunCounter
- BatteryVolts
- · Fail tostart/stop
- EmergencyStop
- Failed to reach loading voltage/frequency
  • Chargefail
- Loss of magnetic pick-up
- signal-Optional
   Low DCVoltage
- CAN diagnostics and CAN fail/error





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