

Diesel Powered Generating Sets S Range - 50Hz (3 Phase)



Standard Genset Features	Generator Set Performance	Generator Set Options
<ul style="list-style-type: none"> Cummins water cooled Diesel engine, Oil filter, standard fuel filter Lube-oil drain valve fitted Electric starter & Charge alternator 12V D.C. Mechanical governor Heavy duty air filter Single bearing alternator, class H, IP23 Exciter/Voltage reg - Torque Match as std Controller PCC 0301 with display unit 3 pole MCB Welded steel base frame with A/V mounting FRP fuel tank ,100 ltr cap. Tank capacity of min. 10 hours operation at 70% standby load Set mounted starting battery Engine & Alternator Munsell Jade Green Radiator and Guarding black Packing under plastic bag Operation & Maintenance manual Standard set of labels Soncap Certified 	<p>Voltage Regulation : Maintains voltage output to within $\pm 1\%$.</p> <ul style="list-style-type: none"> At any power factor between 0.8 and 1.0. At any variations from no load to full load. At any variations from Cold to Hot. At speed droop variations up to 4.0%. <p>Frequency Regulation</p> <ul style="list-style-type: none"> Isochronous under varying loads from no load to 100% full load when electronic governor is fitted. Random Frequency Variation Will not exceed $\pm 0.25\%$ of its mean value for constant loads – no load to full load. <p>Waveform Total voltage harmonic distortion on open circuit is less than 1.8%. With 3 Phase non distorting balanced linear load is less than 5.0%.</p> <p>Telephone Influence Factor (TIF) TIF less than 50. THF to BS 4999 Part 40 less than 2%.</p> <p>Alternator Temperature Rise Class H insulation.</p> <p>Radio Interference In compliance with BS EN 61000-6 and VDE levels G and N.</p>	<ul style="list-style-type: none"> PCC 1301 controller Coolant heater 230V, 300W Battery Charger ,12V 6 amps Electronic Governor Sound attenuated canopy, 80 dB(A) at 1 meter <p>Voltage Connections</p> <ul style="list-style-type: none"> 230/400V, 3 Phase 240/415V, 3 Phase 220/380V, 3 Phase 127/220V, 3phase

Technical Data

Genset Model	ES 43 D5	ES 55 D5	ES 68 D5
Genset Model	ES 43 D5	ES 55 D5	ES 68 D5
Prime Power Rating kVA/kW	40/32	50/40	62/50
Standby Rating kVA/kW	43/35	55/44	68/55
Standby Rating Current (Amps)	61	77	96
Specific Fuel Consumption (gms/bhp-hr) @ 100% Load	151	151	151
Model	S3.8G4	S3.8G6	S3.8G7
BHP (Prime power)	52	65	76
Cooling	Water cooled	Water cooled	Water cooled
Aspiration	Turbocharged	Turbocharged	Turbocharged, After cooled
No of Cylinders	4	4	4
RPM	1500	1500	1500
Bore (mm)	97	97	97
Stroke (mm)	128	128	128
Compression Ratio	17.5:1	17.5:1	17.5:1
Displacement (ltrs)	3.8	3.8	3.8
Fuel	Diesel ASTM No 2 Diesel	Diesel ASTM No 2 Diesel	Diesel ASTM No 2 Diesel
Governor	Mechanical A2	Mechanical A2	Mechanical A2
Starting System	12V Electrical	12V Electrical	12V Electrical
Lube Oil Specification	15W40	15W40	15W40
Lube Oil Sump Capacity (ltrs)	9	9	9
Coolant Capacity (ltrs)	11	11	11
Exhaust Pipe Size (mm)	75	75	75
Make (Brand)	Newage (Stamford)	Newage (Stamford)	Newage (Stamford)
Frame Size *	UC224C	UC224D	UC224F
Std Voltage	415 volts	415 volts	415 volts
RPM/Frequency	1500rpm/50Hz	1500rpm/50Hz	1500rpm/50Hz
No. Phases	3 phase	3 phase	3 phase
Power Factor	0.8 (lag)	0.8 (lag)	0.8 (lag)
Voltage Regulator (Max)	+/-1.0%	+/-1.0%	+/-1.0%
Class of Insulation	H	H	H
Recommended Cable size (Cu Armoured)	25 sq.mm (31/2 core)	35 sq.mm (31/2 core)	50 sq.mm (31/2 core)
Controller	PCC 0301	PCC 0301	PCC 0301
Battery	12V 120 AH	12V 120 AH	12V 120 AH

- **Prime Power (PRP)** 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. The permissible average power output over 24 hours of operation shall not exceed 70% of the PRP.
- **Emergency Standby Power Rating (ESP)** is defined as the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hours of operation per year. The permissible average power output over 24 hours of operation shall not exceed 70% of the ESP.
- **All ratings are based on the following reference conditions:**
 - Ambient temperature - 27oC - Altitude above sea level - 150 meters - Relative humidity - 60%

Dimensions (mm)

	OPEN			ENCLOSED		
Model	ES 43 D5	ES 55 D5	ES 68 D5	ES 43 D5	ES 55 D5	ES 68 D5
Length	1800	1800	1830	2300	2300	2300
Width	730	730	800	1100	1100	1100
Height	1215	1215	1320	1650	1650	1650
Weight (kgs.)	750	800	850	1250	1300	1350