

Lister Petter Engine Company Limited

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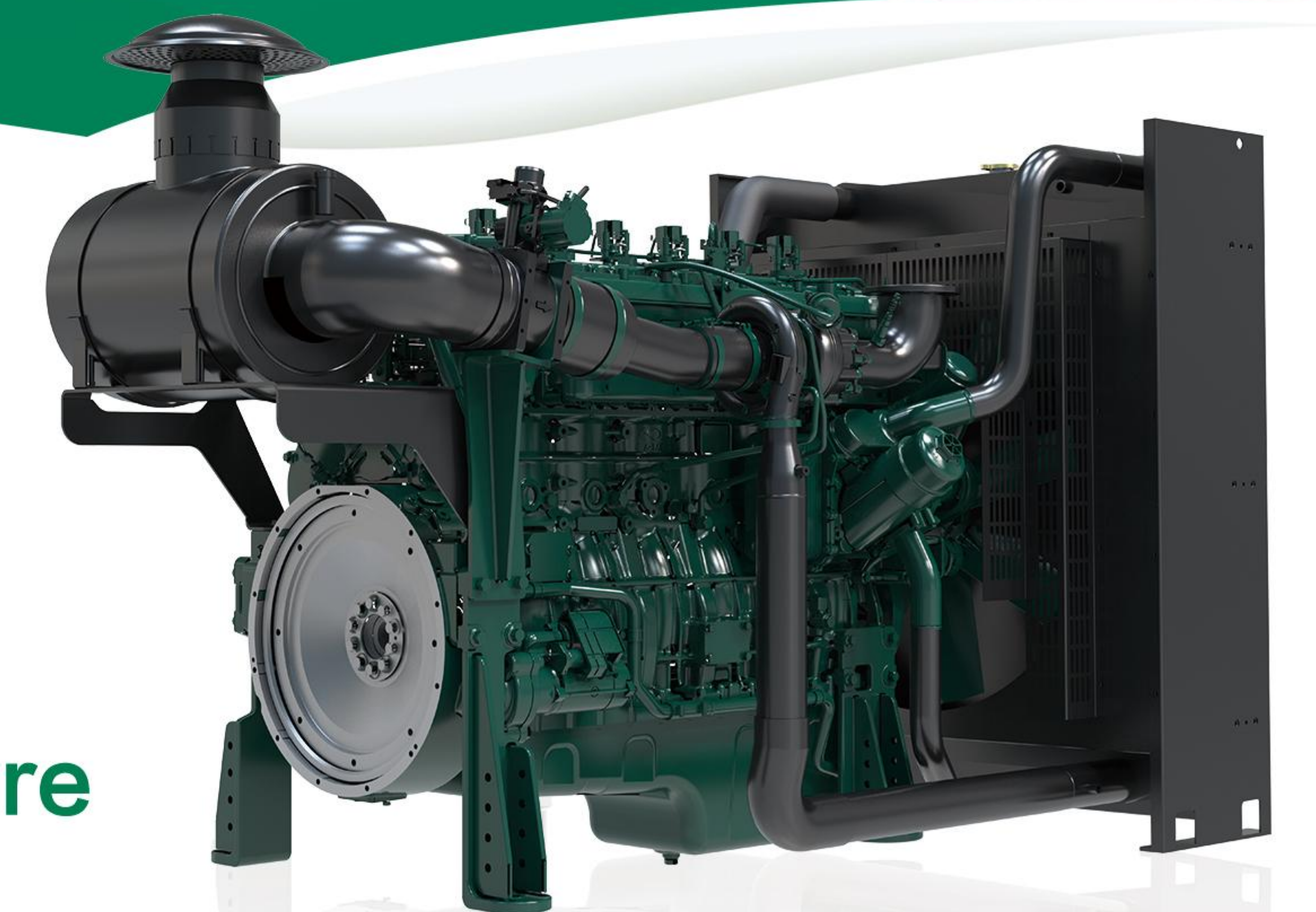
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Released in August 2025



G Drive Engine Jupiter Range Guide



Built on a legacy
focused on the future

Since **1865**

NATURAL GAS ENGINE

Model	LP4B27NG1			LP4E36NG1			LP4E51NG1			LP6E77NG1			LP6E128NG1			LP6E156NG1		
Engine prime power (kW) @1500rpm	28			50			90			140			300			435		
Engine prime power (kW) @1800rpm	28			50			90			140			300			435		
Typical genset prime power (kW) @1500rpm	22			40			72			112			250			350		
Typical genset prime power (kW) @1800rpm	22			40			72			112			250			350		
ENGINE BASIC DATA																		
Type	4-stroke-cycle, in-line, 4 cylinders			4-stroke-cycle, in-line, 4 cylinders			4-stroke-cycle, in-line, 4 cylinders			4-stroke-cycle, in-line, 6 cylinders			4-stroke-cycle, in-line, 6 cylinders			4-stroke-cycle, in-line, 6 cylinders		
Bore / Stroke (mm)	90 / 105			98 / 120			110 / 135			110 / 135			130/161			142 / 164		
Piston displacement (L)	2.7			3.6			5.1			7.7			12.8			15.56		
Compression Ratio	10.5 : 1			10.5 : 1			10.5 : 1			10.5 : 1			11.5 : 1			12.5 : 1		
Aspiration	Naturally Aspirated			Turbocharged intercooled			Turbocharged intercooled			Turbocharged intercooled			Turbocharged intercooled			Turbocharged intercooled		
Rated speed (rpm)	1500 / 1800			1500 / 1800			1500 / 1800			1500 / 1800			1500 / 1800			1500 / 1800		
Direction of rotation (flywheel end)	CCW			CCW			CCW			CCW			CCW			CCW		
Flywheel housing	SAE4			SAE3			SAE3			SAE3			SAE1			SAE1		
Flywheel diameter	7.5"			11.5"			11.5"			11.5"			14"			14"		
Number of flywheel teeth	115			130			130			130			143			121		
Ignition system	Digital ignition			Digital ignition			Digital ignition			Digital ignition			Digital ignition			Digital ignition		
Ignition order	1-3-4-2			1-3-4-2			1-3-4-2			1-5-3-6-2-4			1-5-3-6-2-4			1-5-3-6-2-4		
Governor type	ECU			ECU			ECU			ECU			ECU			ECU		
WEIGHTS AND DIMENSIONS																		
Net weight (kg)	280			290			500			620			1065			1350		
Length X Width X Height (mm)	1115x695x880			1147x620x972			1300x800x1150			1600x1000x1350			2408x1130x1557			2700x1350x1695		
ENGINE PERFORMANCE DATA																		
Load (%)	100	75	50	100	75	50	100	75	50	100	75	50	100	75	50	100	75	50
Input gas energy (kW)	74.7	56.3	37.8	133.3	100.5	67.6	240.0	181.0	121.6	373.3	281.5	189.2	775.2	584.4	391.6	1218.5	919.0	616.1
Engine power (kW)	28	21	14	50	37.5	25	90	67.5	45	140	105	70	300	225	150	435	326.25	217.5
Gas consumption (m³/hr)	8.1	6.1	4.1	14.5	11.0	7.4	26.2	19.7	13.3	40.7	30.7	20.6	84.5	63.7	42.7	139.6	105.3	70.6
Heat rejection to coolant (kW)	11.9	9.3	6.4	21.3	16.7	11.5	38.4	30.0	20.7	59.7	46.7	32.2	124.0	97.0	66.6	204.5	125.5	95.5
Heat rejection to aftercooling (kW)	5.6	4.2	2.8	10.0	7.5	5.1	18.0	13.6	9.1	28.0	21.1	14.2	58.1	43.8	29.4	78.8	46.7	36.7
Heat rejection to exhaust (kW)	24.3	18.0	11.7	43.3	32.1	20.9	78.0	57.7	37.7	121.3	89.8	58.6	251.9	186.4	121.4	215.5	131.0	99.6
Heat rejection to atmosphere (kW)	4.9	3.8	2.8	8.7	6.7	5.1	15.6	12.1	9.1	24.3	18.9	14.2	41.1	32.1	24.3	46.6	28.8	21.7
EFFICIENCY																		
Mechanical efficiency (%)	37.5	37.3	37	37.5	37.3	37	37.5	37.3	37	37.5	37.3	37	38.7	38.5	38.3	39.96	37.94	35.15
Thermal efficiency (%)	48.5	48.5	48	48.5	48.5	48	48.5	48.5	48	48.5	48.5	48	48.5	48.5	48	46	48	50
Total efficiency (%)	86	85.8	85	86	85.8	85	86	85.8	85	86	85.8	85	87.2	87	86.3	85.96	85.94	85.15
ENGINE EMISSIONS DATA																		
NOx @(5% oxygen content, 100% load)	<500 mg/Nm³			<500 mg/Nm³			<500 mg/Nm³			<500 mg/Nm³			<500 mg/Nm³			<500 mg/Nm³		
CO @(5% oxygen content, 100% load)	<650 mg/Nm³			<650 mg/Nm³			<650 mg/Nm³			<650 mg/Nm³			<650 mg/Nm³			<650 mg/Nm³		
GASEOUS FUEL SYSTEM																		
Gaseous fuel type	Natural gas			Natural gas			Natural gas			Natural gas			Natural gas			Natural gas		
Acceptable gas fuel	Pipeline quality natural gas			Pipeline quality natural gas			Pipeline quality natural gas			Pipeline quality natural gas			Pipeline quality natural gas			Pipeline quality natural gas		
Combustion system type	Standard			Standard			Standard			Standard			Lean-burn			Standard		
Minimum fuel supply pressure (kPa)	≥20			≥20			≥20			≥20			≥10			≥10		
Maximum fuel supply pressure (kPa)	<80			<80			<80			<80			<45			<45		
Maximum fuel pressure variation	+/-3%			+/-3%			+/-3%			+/-3%			+/-3%			±5%		
Maximum fuel temperature (°C)	≤40			≤40			≤40			≤40			≤40			≤40		
Minimum Gas methane number (MN)	80			80			80			80			80			80		
Minimum low heat value (LHV, MJ/m³)	33			33			33			33			33			31.4		
ENGINE NOISE DATA - @ 100% LOAD																		
Noise level @ 1 m	≤95 dB (A)			≤95 dB (A)			≤95 dB (A)			≤95 dB (A)			≤99 dB (A)			≤99 dB (A)		

*Note: Due to the difference in gas composition, the above data is for reference only.