

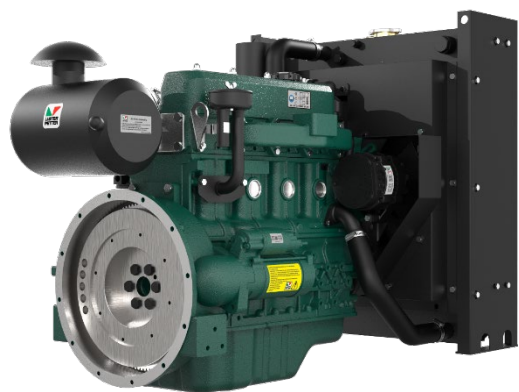
Starlite Series Industrial Engines



SA427i1

Variable speeds
Rated point 2650 r/min

39.7 kWm | 53.2 bhp



OVER VIEW

The engine is specifically designed as an industrial engine suitable for use in stage II emissions territories. It is durable, reliable and easy to maintain. It is designed for continuous operation in ambient temperatures up to 52° C (125° F) and a cold start capability down to -25° C (-13° F).

G Build

Note:

For further information and approval please contact Applications Department

* Optional items standard on most builds.

BASIC ENGINE CHARACTERISTICS

- direct fuel injection
- 4 cylinders
- liquid cooled
- natural aspirated

DESIGN FEATURES AND EQUIPMENT

- electric starting
- anti clockwise rotation, looking on the flywheel end
- SAE Flywheel connection
- SAE compliant flywheel housing
- radiator and fanguard
- cast-iron structural crankcase
- self-vent fuel injection system
- mechanical fuel injection equipment
- mechanical and electronic governing variants
- flywheel and gear ring
- cyclonic heavy duty airfiltration
- oil pressure protection switch
- coolant temperature protection switch
- spin-on full flow lubricating oil filter
- fuel filter
- intake and exhaust manifolds
- operators' handbook

OPTIONAL ITEMS

A range of options are available that allows you to select a specification that matches your requirements; please consult your Lister Petter Engine distributor.

TECHNICAL DATA

Engine Model		SA427i1
Type of fuel injection		Direct
Number of cylinders		4
Aspiration		Natural
Direction of rotation (flywheel end)		Anti clockwise
Nominal cylinder bore	mm	90
	in	3.54
Stroke	mm	105
	in	4.13
Total cylinder capacity	litre	2.67
	in ³	162.9
Compression ratio		18.5:1
Firing order (number 1 cylinder is at the gear end)		1-3-4-2
Alternator		14V × 35A
Starter motor		12V × 3.8kW
Fuel injection pump		Mechanical
Speed governor		Electronic
Speed regulation class		ISO 8528 G3
Fly wheel housing		SAE 4
Fly wheel		SAE J620 Size 7.5"
Heat rejection (kw)		31

EXHAUST AND INTAKE SYSTEM

Parameter	Engine Model
	SA427i1
EXHAUST	
Maximum allowable back-pressure (kPa)	≤ 10
Exhaust gas flow, (m ³ /min)	3.7
Emissions level	Stage II
Exhaust gas temperature, continuous (°C)	400
Exhaust gas temperature, overload (°C)	450
Exhaust pipe diameter -recommended	63.5mm
INTAKE	
Maximum allowable inlet restriction (kPa)	≤ 4
Air intake flow (m ³ /h)	200.7

ENGINE COOLANT SYSTEM

Parameter	Engine Model
	SA427i1
Cooling method	Liquid cooled (belt driven water pump)
RADIATOR	
Material	Aluminium
Radiator face area (m ²)	10.8
Pressure cap setting (kPa)	90
FAN	
Diameter (mm)	420
Number of blades	7
Material	Plastic
Type	Pusher
COOLANT	
Cooling package maximum operating temperature (°C)	≤110
Total system with radiator capacity (L)	9.8
Total system without radiator capacity (L)	4.1
Thermostat type	Wax Capsule
Thermostat opens at... (°C)	72
Thermostat fully open at... (°C)	82
Minimum temperature to engine (°C)	-25
Maximum static pressure head at pump (meters at 1500rpm)	14
Cooling fan flow rate (m ³ /s)	1

Recommended coolant:

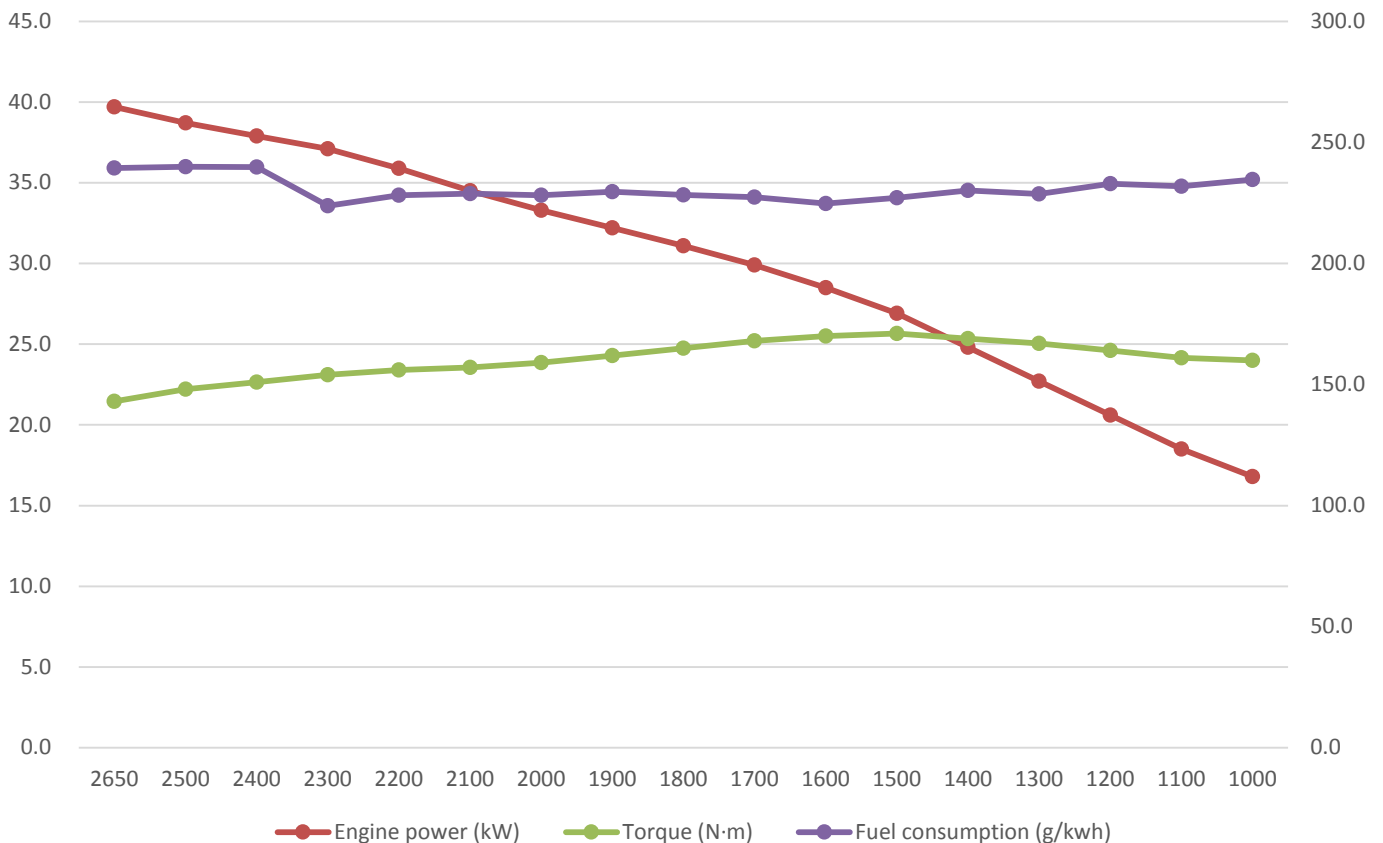
50% ethylene glycol with a corrosion inhibitor (BS 6580 : 1992 or ASTM D3306-89 or AS2108) and 50% de-ionised water

ENGINE LUBRICATION SYSTEM

Parameter	Engine Model
	SA427i1
Lubricating method	Pressure feed and splash
Sump capacity including filter (L)	8.0
Service Interval (hr)	250
Oil filter type	Spin-on full flow oil filter
Oil Specification	API CH-4
	ACEA E5
Oil consumption % SFC	≤ 0.2%
Oil consumption, 100% (l/hr)	0.012
Lubricating oil temperature (°C)	90-105
Maximum oil temperature (°C)	108
Maximum operation angle of engine (degrees)	10°

SA427i1 PERFORMANCE DATA			
Speed (rpm)	Engine power (kW)	Torque (N·m)	Fuel consumption (g/kwh)
2650	39.7	143.0	239
2500	38.7	148.0	240
2400	37.9	151.0	240
2300	37.1	154.0	224
2200	35.9	156.0	228
2100	34.5	157.0	229
2000	33.3	159.0	228
1900	32.2	162.0	230
1800	31.1	165.0	228
1700	29.9	168.0	227
1600	28.5	170.0	225
1500	26.9	171.0	227
1400	24.8	169.0	230
1300	22.7	167.0	229
1200	20.6	164.0	233
1100	18.5	161.0	232
1000	16.8	160.0	235

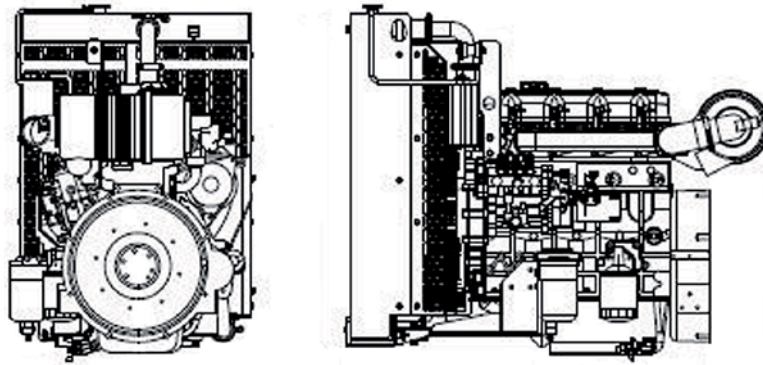
SA427i1 PERFORMANCE CURVE



ENGINE NOISE LEVELS

Parameter	Engine Model
	SA427i1
Sound pressure level at 1m	≤98 dB(A)

APPROXIMATE DIMENSIONS AND WEIGHT



Engine model		SA427i1
Dry weight	kg	297
	lb	653
Length (A)	mm	1155
	in	45
Width (B)	mm	670
	in	26.1
Height (C)	mm	845
	in	33.0

TYPICAL PACKING CASE DIMENSIONS

Engine packing case dimensions	Radiator packing case dimensions	Container quantities (Engine with Radiator)		
		20FT	40FT	40HQ
L*W*H(mm)	W*D*H(mm)			
975*645*870	790*430*1100	26 sets	50 sets	62 sets



Head Office
Lister Petter Engine Company Limited

Rutland House, Minerva Business Park,
Lynch Wood, Peterborough, PE2 6PZ.

Distributor Address
LISTER PETTER DIESEL S.A.S.
Pq. Industrial Los Pinos Bg 10
Manizales - Caldas - Colombia
Tels: 606 8982377
Cel: 310-3048367
ventas@listerpetter.com.co



enquiry@listerpetter.com
www.listerpetter.com