



ATA

Makes Life Brighter

Generators & Switchgear Solutions

ATA Perkins, 404A-22G1 20 KVA

Speed rpm	Type of operation	Typical generator output (Net)		Engine power			
				Gross		Net	
		kVA	kWe	kWm	hp	kWm	hp
1500	Prime power	20.3	16.2	18.7	25.1	18.4	24.7
	Standby power	22.3	17.8	20.6	27.6	20.3	27.2

Percent of prime power	Fuel consumption at 1500 rpm g/kWh	Fuel consumption at 1500 rpm l/hr
Standby power	244	6.1
Prime power	237	5.3
75%	238	4.0
50%	258	2.9

Engine package weights and dimensions		
Length	948 mm	37.3 in
Width	498 mm	19.6 in
Height	841 mm	33.1 in
Weight (dry)	242 kg	533 lb

Specification		
Number of cylinders	4 vertical in-line	
Bore and stroke	84 x 100 mm	3.3 x 3.9 in
Displacement	2.216 litres	135.2 in ³
Aspiration	Naturally aspirated	
Cycle	4 stroke	
Combustion system	Indirect injection	
Compression ratio	23.3:1	
Rotation	Anti-clockwise, viewed on flywheel	
Total lubricating capacity	10.6 litres	2.8 US gal
Cooling system	Water cooled	
Total coolant capacity	7.0 litres	1.8 US gal

Dimensions

Type	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
Open	1600	700	1000	120	500
Closed	1720	760	1060	120	750

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Technical information

Air inlet

- Mounted air filter

Fuel system

- Mechanically governed cassette type fuel injection pump
- Split element fuel filter

Lubrication system

- Wet steel sump with filler and dipstick
- Spin-on full-flow lub oil filter

Cooling system

- Thermostatically-controlled system with belt driven coolant pump and pusher fan
- Mounted radiator, piping and guards

Electrical equipment

- 12 volt starter motor and 12 volt 15 amp alternator with DC output
- Oil pressure and coolant temperature switches
- 12 volt shut-off solenoid energised to run
- Glow plug cold start aid and heater/starter switch

Flywheel and housing

- 1500 rpm
- High inertia flywheel to SAE J620 Size 190.5 mm (7½ in) Heavy
- Flywheel housing SAE 4 Long

Mountings

- Front and rear engine mounting bracket



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ALTERNATOR SPECIFICATIONS

TAL 040 - Three-phase 10 to 20 kVA- 50 Hz / 12.5 to 25 kVA- 60 Hz

Insulation class	H	Excitation system 6-wire	SHUNT AREP
Winding pitch	2/3 (wind.6S - 6-wire / wind.6 -12-wire)	AVR type	R120 R180
Number of wires	6-wire (12-wire option)	Excitation system 12-wire (option)	SHUNT AREP
Protection	IP 23	AVR type	R120 R180
Altitude	≤ 1000 m	Voltage regulation (*)	± 1 %
Overspeed	2250 R.P.M.	Total Harmonic Distortion THD (**) in no-load < 3.5 %	
Air flow 50 Hz (m³/s)	0.06	Total Harmonic Distortion THD (**) in linear load < 5 %	
Air flow 60 Hz (m³/s)	0.07	Waveform: NEMA = TIF (**)	< 50
AREP Short-circuit current = 2.7 In: 5 second		Waveform: I.E.C. = FHT (**)	< 2%

Control Panel

DSE4510

Auto Start Control Module

The DSE4510 is a compact Auto Start Control Module that has been developed to provide an outstanding range of features within a compact enclosure.

OVERALL SIZE

140 mm x 113 mm x 43 mm (5.5" x 4.4" x 1.5")

PANEL CUTOUT SIZE

118 mm x 92 mm (4.6" x 3.6")

MAXIMUM PANEL THICKNESS

8.0 mm (0.3")

WEIGHT

0.26kg

PRODUCT VARIANTS

4510-03 - 4510 Auto Start Control Module (Ct, Rtc)

4510-04 - 4510 Auto Start Control Module (Ct, Rtc, Htr)



Optional configurations:

Engine accessories:

- Heavy-duty air filter
- Coolant heater
- Lubricant oil heater
- Fuel and Water Separator
- Lube oil rotary pump

Alternator And Accessories:

- Leroy somer/stamford
- Anti condensation heater
- PMG + AVR ◇ Double bearing
- alternator High voltage _____kV
- RTDs for Bearing and winding

Cooling System:

- 55 degree Radiator
- Remote Radiator

Control System:

- AMF
- Parallel
- Practical type in low temperature environment
- Control Screen Heater
- Remote Annunciators
- Other (ComP, DEIF)

Circuit Breaker:

- 3/4 poles
- Fixed/handcart type
- Electric mechanism

Automatic Transfer Switch (ATS):

- ATS cabinet
- Contractor type ATS
- Motorized changeover type ATS

Start Battery:

- Nickel-cadmium battery
- Maintenance-free battery
- Battery charger and selector switch
- Charging current meter

External Fuel Tank:

- Single /double wall fuel tank (500-5000 L)
- Fuel Transfer pump

Exhaust Muffler:

- Residential grade
- Critical grade
- Hospital grade

Available for voltages :

- 400/230V, 480/277V, 380/220V, 440/254V, 416/240V, 220/127V, 208/120V

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Prime Rating:

Unlimited hours usage, with an average load factor of 80% over each 24 hours period. 10% overload is available for 1 hour in every 12 hours operation. 0 overload is permitted on standby power.

Standby Rating:

Limited to 500 hours annual usage, with an average load factor of 80% of the published standby power rating over each 24 hours period. Up to 300 hours of annual usage may be run continuously. No over-load is permitted on standby power.

Engine:

Perkins, including air filters, fuel filters, oil filter, starting motor and charging alternator etc.

Warranty policy:

ATA products have a warranty for 12 months or 1000 hours whichever occurs first against any manufacturing defects

Wearing parts (filters), incorrect man-made operation, maintenance failures are excluded from the warranty policy

Radiator:

50°C, fan protective shroud

Fuel Tank:

Capacity of fuel tank is for 8– 10 hours running
Built in fuel tank up to 800 kVA

Circuit Breaker:

3 pole LS MCCB

Alternator Type:

brushless AC alternator

Control system alarms:

Over and Under Speed
Low and High Battery Volt. Start and Stop Failure Over Current Under / Over Generator Voltage
Low Oil Pressure
Emergency stop High engine temperature



STAMFORD
power generation

DSE



**LEROY
SOMER**

Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice. All photos are representative and may not reflect exact mode.

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