



ATA

Makes Life Brighter

Generators & Switchgear Solutions

ATA Perkins, 1106A-70TAG4, 200 KVA

Speed rpm	Type of operation	Typical generator output (Net)		Engine power			
				Gross		Net	
		kVA	kWe	kWm	hp	kWm	hp
1500	Prime power	200	160				
	Standby power	220	176				

General Installation	Units	Prime	Standby
Gross engine power	kW	178.9	196..3
Gross BMEP	kPa	2041..8	2240..3
Mean piston speed	metres/s	6..8	
ElectropaK nett engine power	kW	173..9	191..3
Engine coolant flow (against 35 kPa restriction)	litres/min	142	
Combustion air flow (at STP)	m ³ /min	12..6	13..2
Exhaust gas flow (maximum)	m ³ /min	34..9	36..8
Exhaust gas temperature (maximum) in manifold (after turbocharger)	°C	550	
Nett engine thermal efficiency	%	38..6	39..4
Typical genset electrical output (0..8pf 25°C)	kWe	160	176
	kVA	200	220
Regenerative power (estimated)	kW	9..3	
Assumed alternator efficiency	%	92	

Designation	Units	Prime	Standby
Heat in fuel	kW	450..8	485..3
Power to cooling fan	kW	5..0	
Power to coolant and lubricating oil	kW	78..2	81
Power to exhaust	kW	148..1	158
Energy to charge coolers	kW	32..8	36..8
Power to radiation	kW	12..8	13..2

Load	Type of operation and application	
	g/kWh	litres/hr
110% Prime power	209	49..4
Prime power	213	45..8
75% Prime power	215	34..7
50% Prime power	215	23..1
25% Prime power	235	12..6

Position	Noise level dB(A)	
	Prime power	Standby
1	99..9	99..9
2	100	101
3	100..9	101..2
4	99..8	101
5	101	101
6	100	99..9

Dimensions

Type	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
Open	2248	900	1560	400	1560
Closed	3562	1155	1832	400	2201

UAE, Sharjah Airport, Saif Zone Warehouse 2, Street 14

Mobile: +971502296962

E-mail: info@ataswg.com

Website: www.ataswg.com



ATA

Makes Life Brighter

Generators & Switchgear Solutions

Basic technical data

Number of cylinders	.....6
Cylinder arrangement	.....In-line
Cycle	.....4 stroke
Induction system	.....Turbocharged and air charge cooled
Combustion system	.....Direct injection diesel
Compression ratio	.....16:1
Bore	.....105 mm
Stroke	.....135 mm
Cubic capacity	.....7.01 litres
Direction of rotation	.....Anticlockwise when viewed from flywheel
Firing order	.....1, 5, 3, 6, 2, 4
Estimated total weight (dry)	.....743 kg
Estimated total weight (wet)	.....777 kg

Overall dimensions, Electropak

Height	.....1142 mm
Length (air cleaner fitted)	.....1764 mm
Width	.....755 mm

Moments of inertia

Engine rotational components	.....0.27 kgm ²
Flywheel	.....1.26 kgm ² (SAE2) / 1.2 kgm ² (SAE3)

Centre of gravity, Electropak

Forward from rear of block (wet)	.....476 mm
Above crankshaft centre line (wet)	.....176 mm
Offset to RHS of crankshaft centre line (wet).....	.....16 mm

Performance

Speed variation at constant load	.....± 0.25%
Cyclic irregularity at standby power.....	.....0.028
All ratings within	.....± 3%

Note: All data based on operation to ISO 3046-1:2002 standard reference conditions..

Sound level

Average sound pressure level for prime power @ 1 m _ _ _ .TBA dB(A)

Test conditions

Air temperature	.....25°C
Barometric pressure	.....100 kPa
Relative humidity	.....31.5%
Air inlet restriction at maximum power.....	.....3 kPa (maximum)
Exhaust back pressure at maximum power..	.....6 kPa (maximum)
Fuel temperature	.....40°C

Note: If the engine is to operate in ambient conditions other than those of the test conditions, suitable adjustments must be made for these changes.. For full details, contact Perkins Technical Service Department..

Fuel system

Injection components

Injector	.....Mechanical
Fuel pump.....	.....DP210G

Fuel priming

Priming pump type	.....Manual
Maximum priming time..	.....90 seconds

Fuel feed

Maximum fuel flow	.....3 litres/min
Maximum suction head at engine fuel pump inlet.....	.....50 kPa
Maximum static pressure head	.....50 kPa
Fuel temperature at engine fuel pump inlet	.....85°C
Tolerance on fuel consumption	.....± 5%

Fuel specification

Fuel standard.. _ _ _ _Various (contact Perkins Technical Department)

UAE, Sharjah Airport, Saif Zone Warehouse 2, Street 14

Mobile: +971502296962

E-mail: info@ataswg.com

Website: www.ataswg.com



ATA

Makes Life Brighter

Generators & Switchgear Solutions

Cooling system

Cooling pack

Overall weight (wet) 70 kg
Overall face area.....524800 mm²
Width724 mm
Height 1090 mm

Radiator

Face area351200 mm²
Number of rows and materials 4 rows, Aluminium
Matrix density and material10 fins per inch, Aluminium
Width of matrix439 mm
Height of matrix..800 mm
Pressure cap setting (minimum)100 kPa

Charge cooler

Face area173,600 mm²
Number of rows and materials 2 rows, Aluminium
Matrix density and material10 fins per inch, Aluminium
Width of matrix220 mm
Height of matrix..789 mm

Fan

Diameter610 mm
Drive ratio 1.2:1
Number of blades.....7
Material.....Nylon
Type..... Pusher Air
flow @ 1500 rpm.282m³/min
Power @ 1500 rpm 5 kW

Coolant

Total system capacity..... 21 litres
System drawdown capacity10%
Engine capacity9.5 litres
Maximum top tank temperature110°C
Temperature rise across engine
(Maximum rating dependent)6°C - 12°C
Maximum permissible external system resistance 35 kPa
Thermostat operation range82°C to 93°C
Shutdown switch setting118°C
Coolant pump method of drive Gear
Recommended coolant immersion heater rating (minimum)0.75 kW
Recommended coolant
..... BS6580 - 1992, ASTM D3306 and ELC coolants to 1E1966

Electrical system

Alternator 8SI
Alternator voltage....12 volts
Alternator output65 amps
Starter.. AZF(E0421)/38MT(E0471)
Starter motor voltage12 volts
Starter motor power4.2kW(E0421)/5.0kW(E0471)
Number of teeth on the flywheel..126(D0004)/ 134(D0090)
Pull-in and hold-in current of starter motor solenoid
@ 25°C Maximum ⁽¹⁾
.....12 volts 68 amps (E0421)/12 volts 320 amps (E0471)
Hold-in current of starter motor solenoid
@ 25°C Maximum ⁽¹⁾.....
.....12 volts 20 amps (E0421)/12 volts 25 amps (E0471)
Engine stop methodSolenoid

1 All leads to rated at 10 amps minimum

Exhaust system

Maximum back pressure - 1500 rpm6.0 kPa
Exhaust outlet, internal diameter 72 mm

UAE, Sharjah Airport, Saif Zone Warehouse 2, Street 14

Mobile: +971502296962

E-mail: info@ataswg.com

Website: www.ataswg.com



ATA

Makes Life Brighter

Generators & Switchgear Solutions

ALTERNATOR SPECIFICATIONS

TAL044 - Three-phase 70 to 200 kVA- 50 Hz / 88 to 250 kVA- 60 Hz

Insulation class	H	Excitation system 6-wire	SHUNT AREP+ / PMG
Winding pitch	2/3 (wind.6S - 6-wire / wind.6 - 12-wire)	AVR type	R120 R180
Number of wires	6 (12 option)	Excitation system 12-wire (option)	SHUNT AREP+ / PMG
Protection	IP 23	AVR type	R120 R180
Altitude	≤ 1000 m	Voltage regulation (*)	± 1 % ± 0.5 %
Overspeed	2250 R.P.M.	Total Harmonic Distortion THD (**) in no-load < 2 %	
Air flow 50 Hz	0.29 m³/s	Total Harmonic Distortion THD (**) in linear load < 5 %	
Air flow 60 Hz	0.34 m³/s	Waveform: NEMA = TIF (**)	< 50
AREP+/PMG Short-circuit current = 2.7 In : 5 second		Waveform: I.E.C. = FHT (**)	< 2%

Control Panel

DSE6110
Auto Start Control Module
The DSE6110 MKIII is an Auto Start Control Module suitable for a wide variety of single, diesel or gas, genset applications.
OVERALL SIZE
216 mm x 158 mm x 43 mm (8.5" x 6.2" x 1.5")
PANEL CUTOUT SIZE
184 mm x 137 mm (7.2" x 5.3")
MAXIMUM PANEL THICKNESS
8.0 mm (0.3")
WEIGHT
0.5kg
PRODUCT VARIANTS
6110-05 - 6110 MKIII Auto Start Control Module



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

UAE, Sharjah Airport, Saif Zone Warehouse 2, Street 14

Mobile: +971502296962

E-mail: info@ataswg.com

Website: www.ataswg.com



ATA

Makes Life Brighter

Generators & Switchgear Solutions

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.

UAE, Sharjah Airport, Saif Zone Warehouse 2, Street 14

Mobile: +971502296962

E-mail: info@ataswg.com

Website: www.ataswg.com