### Makes Life Brighter

# Generators & Switchgear Solutions

# ATA P20, 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 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 <sup>3</sup>			
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**

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

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

Mobile: +971529597871

E-mail: <u>info@ataswg.com</u>





Makes Life Brighter

# Generators & Switchgear Solutions

### 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



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

Mobile: +971529597871





Makes Life Brighter

## Generators & Switchgear Solutions

### **ALTERNATOR SPECIFICATIONS**

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

Insulation class	Н	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-loa	
Air flow 50 Hz (m³/s)	0.06	Total Harmonic Distortion THD (**) in linear load < 5 %	
Air flow 60 Hz (m <sup>3</sup> /s)	0.07	Waveform: NEMA = TIF (**)	< 50
AREP Short-circuit cu		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
- \_ Paralle
- 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: +971529597871

E-mail: Info@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

### **Fuel Tank:**

Capacity of fuel tank
is for 8–10 hours
running

**Circuit Breaker:** 

3 pole LS MCCB

### Alternator Type:

prusniess 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









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: +971529597871