



**ATA**

Makes Life Brighter

*Generators & Switchgear Solutions*

## ATA, Cummins, 6CTA8.3-G1 204 KVA

Engine Speedc	Standby Power		Prime Power		Continuous Power	
RPM	Kw/KVA	HP	Kw/KVA	HP	kW	HP
1500	180/225	241	163/204	218	133	178

Fuel Rating Option used for these Data : FR93038

	STANDBY POWER		PRIME POWER			
	1800	1500	1800	1500		
Governed Engine Speed.....-rpm	N/A	700 - 900	N/A	700 - 900		
Engine Idle Speed.....-rpm						
Gross Engine Power Output..... -kW					180	163
Piston Speed.....-m/s					6.8	6.8
Friction Horsepower.....-kW					17	17
Engine Water Flow to Engine:.....-litre/sec.					3.3	3.3
Intake Air Flow.....-litre/sec.					206	192
Exhaust Gas Flow.....-litre/sec.					578	521
Exhaust Gas Temperature..... -°C					563	536
Air to Fuel Ratio.....-air:fuel					22.5 : 1	24.5 : 1
Radiated Heat to Ambient.....-kW					26	24
Heat Rejection to Coolant.....-kW	95	83				
Heat Rejection to Exhaust.....-kW	139	123				

Engine Performance Data @ 1500 RPM				
OUTPUT POWER			FUEL CONSUMPTION	
%	kW	HP	g/kW.h	L/h
STANDBY POWER				
100	180	241	219	48
PRIME POWER				
100	163	218	215	42
75	122	164	211	31
50	82	109	216	21
25	41	55	255	13

### 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

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**GENERAL ENGINE DATA**

Approximate Engine Weight (wet).....	-kg	637
Mass Moment of Inertia of Rotating Components (No Flywheel).....	-kg·m <sup>2</sup>	0.37
Center of Gravity from Front Face of Block.....	-mm	427
Center of Gravity above Crankshaft Centerline.....	-mm	163
Crankshaft Thrust Bearing Load Limit		
—Maximum Intermittent.....	-N	5338
—Maximum Continuous.....	-N	2670

**ENGINE MOUNTING**

Maximum (Static) Bending Moment at Front Support Mounting Surface.....	-N.m	495
Maximum (Static) Bending Moment at Side Pad Mounting Surface.....	-N.m	250
Maximum (Static) Bending Moment at Rear Face of Block.....	-N.m	1356
Moment of Inertia of Complete Engine		
— Roll Axis.....	-kg·m <sup>2</sup>	29.8
— Pitch Axis.....	-kg·m <sup>2</sup>	76.8
— Yaw Axis.....	-kg·m <sup>2</sup>	66.9

**EXHAUST SYSTEM**

Maximum Back Pressure.....	-kPa	10
Exhaust Pipe Size Normally Acceptable.....	-mm	75
Maximum Static Supported Weight at the Turbocharger Outlet Flange.....	-N.m	14
Exhaust Manifold Insulation Acceptable.....	-Yes/No	No
Turbocharger Insulation Acceptable.....	-Yes/No	No

**AIR INTAKE SYSTEM**

Maximum Intake Air Restriction with Heavy Duty Air Cleaner		
— Dirty Element.....	-kPa	6
— Clean Element.....	-kPa	4
Minimum Dirt Holding Capacity with Heavy Duty Air Cleaner.....	-g/cfm	25
Maximum Temperature Rise from Ambient to the Inlet of the Turbocharger.....	-°C	17
Recommended intake piping size (inner diameter).....	-mm	75

**LUBRICATION SYSTEM**

Minimum Engine Oil Pressure for Engine Protection Devices:		
— Idle Speed.....	-kPa	103
— Governed Speed.....	-kPa	276 - 414
Maximum Oil Temperature.....	-°C	121
Minimum Required Lube System Capacity - Sump plus Filters.....	-litre	27.6
Angularity of Standard Oil Pan: (Values stated are for intermittent operation only):		
— Front Down.....	-°	45
— Front Up.....	-°	45
— Side to Side.....	-°	45



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**FUEL SYSTEM**

Type Injection System.....	BYC PB Direct Injection
Maximum Restriction at Lift Pump.....-kPa	27
Maximum Allowable Head on Injector Return Line (Consisting of Friction Head and Static Head) ..... -kPa	33.7
Maximum Fuel Inlet Temperature.....-°C	71
Maximum Fuel Flow on the Supply Side of the Fuel Pump.....-kg/hr	193

**COOLING SYSTEM**

Coolant Capacity - Engine Only..... -litre	12.3
Maximum Coolant Friction Head External to Engine...-1800 rpm..... -kPa	35
.....-1500 rpm..... -kPa	28
Maximum Static Head of Coolant Above Engine Crank Centerline..... -m	18.3
Standard Thermostat (Modulating) Range.....-°C	82 - 95
Minimum Pressure Cap.....-kPa	69
Maximum Top Tank Temperature for Standby / Prime Power..... -°C	104 / 100

**ELECTRICAL SYSTEM**

Cranking Motor (Heavy Duty, Positive Engagement).....-volt	12V	24V
Battery Charging System, Negative Ground..... -ampere	63	40
Maximum Allowable Resistance of Cranking Circuit.....-ohm	0.00075	0.002
Minimum Recommended Battery Capacity —Cold Soak @ 10 °F (-12 °C) and Above.....-0°F CCA	TBD	

**EMISSIONS**

Gaseous Emissions per GB 20891-2007, at 1500rpm:		
—Weight-Specific NOx..... g/kW.h	9.2	
—Weight-Specific HC.....g/kW.h	1.3	
—Weight-Specific CO.....g/kW.h	5.0	
—Weight-Specific Particulates.....g/kW.h	0.54	



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**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 m <sup>3</sup> /s	Total Harmonic Distortion THD (**) in linear load < 5 %	
Air flow 60 Hz	0.34 m <sup>3</sup> /s	Waveform: NEMA = TIF (**)	< 50
AREP+/PMG Short-circuit current = 2.7 In : 5 second		Waveform: I.E.C. = FHT (**)	< 2%

**Control Panel**

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

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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:

Cummins, 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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