



ATA

Makes Life Brighter

Generators & Switchgear Solutions

ATA, Cummins, 6BTAA5.9-G2 150 KVA

Engine Speed	Standby Power		Prime Power		Continuous Power	
	RPM	Kw/KVA	HP	Kw/KVA	HP	kW
1500	130/162.5	174	120/150	161	96	129
1800	145/181	194	132/165	177	TBD	TBD

Fuel Rating Option used for these Data: FR9266-03

	STANDBY POWER		PRIME POWER	
	1800	1500	1800	1500
Governed Engine Speed.....-rpm	750 - 850	750 - 850	750 - 850	750 - 850
Engine Idle Speed.....-rpm	145	130	132	120
Gross Engine Power Output..... -kW	7.2	6	7.2	6
Piston Speed.....-m/s	16.4	12.7	16.4	12.7
Friction Horsepower.....-kW	2.4	2.0	2.4	2.0
Engine Water Flow to Engine:..... -litre/sec.	142	120	135	114
Intake Air Flow..... -litre/sec.	401	328	369	295
Exhaust Gas Flow.....-litre/sec.	570	540	540	500
Exhaust Gas Temperature..... -°C	21.0 : 1	20.0 : 1	22.5 : 1	21.5 : 1
Air to Fuel Ratio.....-air:fuel	20	18	18	16
Radiated Heat to Ambient.....-kW Heat	71	66	63	59
Rejection to Coolant.....-kW Heat	112	94	96	82
Rejection to Exhaust.....-kW				

Engine Performance Data @ 1800 RPM				
OUTPUT POWER			FUEL CONSUMPTION	
%	kW	HP	g/kW.h	L/h
STANDBY POWER				
100	145	194	215	38
PRIME POWER				
100	132	177	211	34
75	99	133	212	25
50	66	88	223	18
25	33	44	264	11

Engine Performance Data @ 1500 RPM				
OUTPUT POWER			FUEL CONSUMPTION	
%	kW	HP	g/kW.h	L/h
STANDBY POWER				
100	130	174	216	34
PRIME POWER				
100	120	161	208	30
75	90	121	207	23
50	60	80	214	16
25	30	40	252	9

Dimensions

Type	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
Open	2500	775	1425	400	1325
Closed	3200	1110	1790	400	1975

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GENERAL ENGINE DATA

Approximate Engine Weight (wet).....	-kg	411
Mass Moment of Inertia of Rotating Components (No Flywheel).....	-kg-m ²	0.25
Center of Gravity from Front Face of Block.....	-mm	391
Center of Gravity above Crankshaft Centerline.....	-mm	140
Fire Order.....		1-5-3-6-2-4

ENGINE MOUNTING

Maximum (Static) Bending Moment at Rear Face of Block.....	-N.m	1356
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EXHAUST SYSTEM

Maximum Back Pressure.....	-kPa	10
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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	53
Maximum Temperature Rise from Ambient to the Inlet of the Turbocharger.....	-°C	17
Recommended intake piping size (inner diameter).....	-mm	76

CHARGE AIR COOLING SYSTEM

Maximum Temp. Rise Between Engine Air Intake and Intake Manifold	-°C	25
Maximum Air Pressure Drop from Turbo Air outlet to Intake Manifold		
— 1500RPM.....	-kPa	8.5
— 1800RPM.....	-kPa	13.5
Maximum Intake Manifold Temperature Differential (Ambient to IMT) (IMTD).....	-°C	50
Maximum Intake Manifold Temperature for engine protection (Warning Thresh-°C		93

LUBRICATION SYSTEM

Minimum Engine Oil Pressure for Engine Protection Devices:		
— Idle Speed.....	-kPa	207
— Governed Speed.....	-kPa	345
Maximum Oil Temperature.....	-°C	121
Oil Capacity with OP 9006 Oil Pan : High - Low.....	-litre	14.2 - 12.3
Minimum Required Lube System Capacity - Sump plus Filters.....	-litre	16.4
Angularity of Standard Oil Pan: (Values stated are for intermittent operation only):		
— Front Down.....	- °	40
— Front Up.....	- °	40
— Side to Side.....	- °	40



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FUEL SYSTEM

Type Injection System.....	BYC PB Direct Injection
Maximum Restriction at Lift Pump.....-kPa	13.6
Maximum Allowable Head on Injector Return Line (Consisting of Friction Head and Static Head)	
..... -kPa	67.7
Total Drain Flow (constant for all loads)..... -litre/hr	30

COOLING SYSTEM

Coolant Capacity - Engine Only.....	-litre	10
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		14
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	800	400



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ALTERNATOR SPECIFICATIONS

TAL 044 - 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



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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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