

Generator set data sheet



**Power
Generation**

Model: C1250 D2R
Fuel type: Diesel
Document No.: EMERD-5882-EN

Fuel consumption 50 Hz

	Standby				Prime			
	kVA (kW)				kVA (kW)			
Ratings	1400 (1120)				1258 (1006)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
L/hr	83	153	221	293	76	139	199	261

Fuel consumption 60 Hz

	Standby				Prime			
	kVA (kW)				kVA (kW)			
Ratings	1588 (1270)				1400 (1120)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
L/hr	104	173	248	330	89	157	222	291

Engine

	Standby rating	Prime rating
Gross engine power output 50 Hz/60 Hz, kWm	1227 / 1380	1097 / 1220
BMEP at set rated load 50 Hz/60 Hz, kPa	1951 / 1827	1744 / 1620
Engine manufacturer	Cummins	
Engine model	KTA50 G3	
Configuration	4 cycle, 60 ° vee, 16 cylinder	
Aspiration	Turbo-charged and after-cooled	
Bore, mm	159	
Stroke, mm	159	
Rated speed 50 Hz/60 Hz, rpm	1500 / 1800	
Piston speed 50 Hz/60 Hz, m/s	7.9 / 9.5	
Compression ratio	13.9:1	
Lube oil capacity, L	178	
Overspeed limit 50 Hz/60Hz, rpm	1725 / 2070 ± 50	
Regenerative power 50 Hz/60 Hz, kW	116 / 168	
Governor type	Elec.	

Fuel flow

Maximum fuel flow, L/hr	625
Maximum fuel inlet restriction, mm Hg	203
Maximum fuel inlet temperature, °C	70

Air

Combustion air 50 Hz/60 Hz, m³/min	104.8 / 110.4	96.3 / 104.8
Maximum air cleaner restriction, kPa	6.2	

Exhaust

Exhaust gas flow at set rated load 50 Hz/60 Hz, m³/min	240.7 / 257.7	223.7 / 237.8
Exhaust gas temperature 50 Hz/60 Hz, °C	525 / 475	520 / 460
Maximum exhaust back pressure, kPa	6.7	

Standard set-mounted radiator cooling

	Standby rating	Prime rating
Ambient design, °C	50	
Fan load, kWm 1500 rpm/1800 rpm	17.6 / 30.3	
Coolant capacity (with radiator), L	470	
Cooling system air flow, m³/sec 1500 rpm/1800 rpm	16.45 / 20.84	
Total heat rejection, Btu/min 1500 rpm/1800 rpm	51000 / 44000	44000 / 38500

Weights*

Unit dry weight kgs	16879
Unit wet weight kgs	18132

* Weights represent a set with standard features. See outline drawing for weights of other configurations.

Dimensions

	Length	Width	Height
Enclosed set standard dimensions, m	6.058	2.438	2.591

Alternator data

Alternator	Connection	Temp rise °C	Duty	Voltage 50 Hz, L-L	Voltage 60 Hz, L-L
P7B	Series Star, 3Ph	150/40 / 125/40	Standby/Prime	380, 400, 415, 440	416, 440, 480

Transient performance class

50 Hz: G3; 60 Hz: G2

Details of voltage and frequency performance data available upon request

Noise data 50Hz

Enclosed set sound power level, LwA	113 dB(A)
Enclosed set sound pressure level, dB(A) @ 75% prime, 7m	83 dB(A)
Enclosed set sound pressure level, dB(A) @ 75% prime, 1m	92 dB(A)

Ratings definitions

Emergency standby power (ESP):	Limited-time running power (LTP):	Prime power (PRP):	Base load (continuous) power (COP):
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power to a constant electrical load for limited hours. Limited Time Running Power (LTP) is in accordance with ISO 8528.	Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.

Formulas for calculating full load currents:

Three phase output

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

Single phase output

$$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$$

See your distributor for more information.

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EMERD-5882a-EN (2/14)

TESTED BY:..... SIGNED

TEST AND TAG RECORD

Tag No: _____

Asset #: _____

Electrician Name: _____

Test Date: _____

Description: _____

Electrician Licence #: _____

Due Date: _____

Eng Hours: _____

Electrician Sign: _____

Ready For Rent Checklist

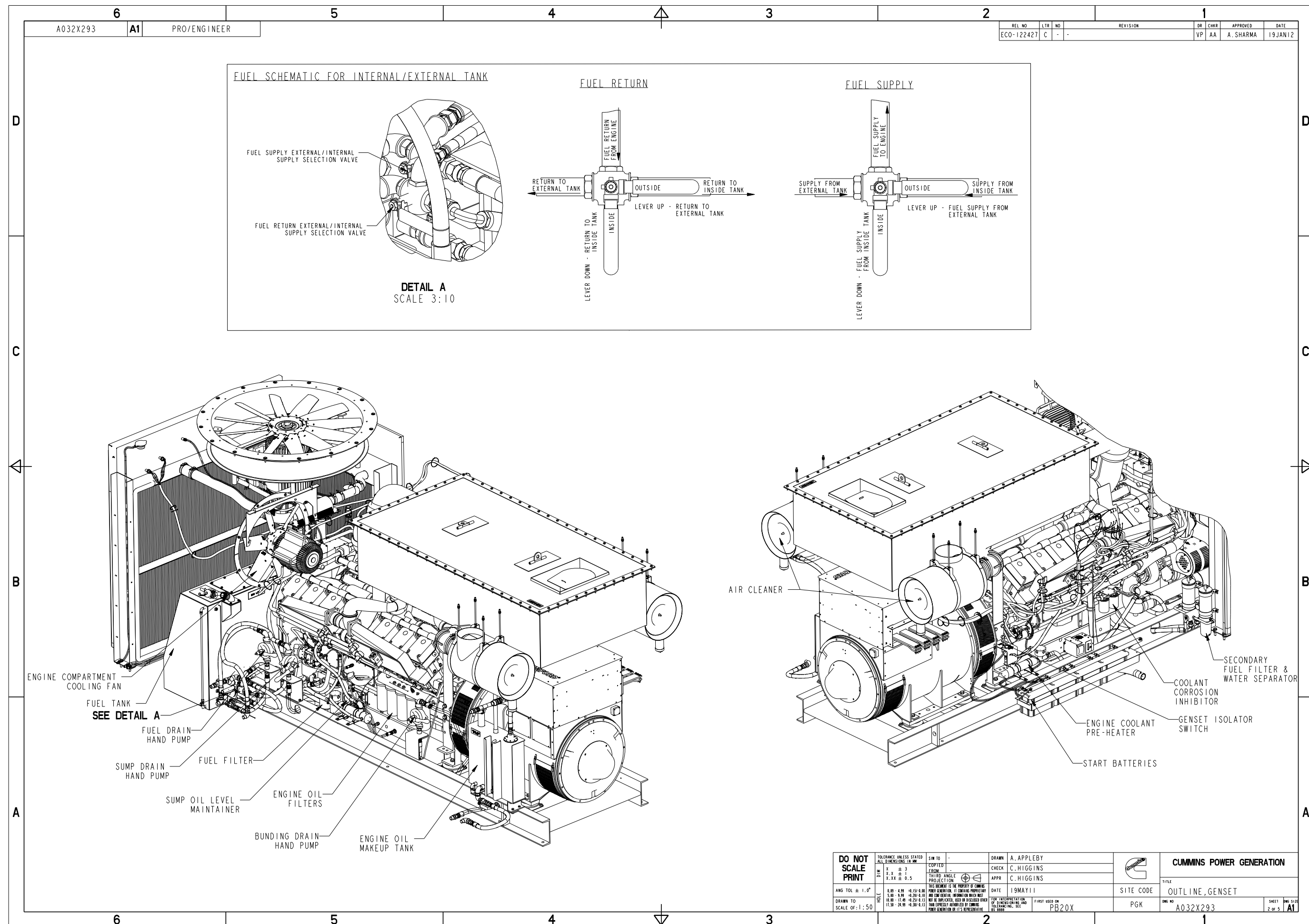
Test Meter		Main C/B Settings	AMPS	Time	General Checks			Continuity from main Earth	<0.5 Ω
Type		Long Time			Phase Rotation		Frequency	To A/C Alternator	
Serial Number		Short Time			Emergency Stop		Hz Biasing	To Generator Canopy Frame	
Calibration Date		Instantaneous			M.E.N Connected		Volt Biasing	To Main Neutral	
Calibration Due Date					M.E.N Location			To Engine Block	

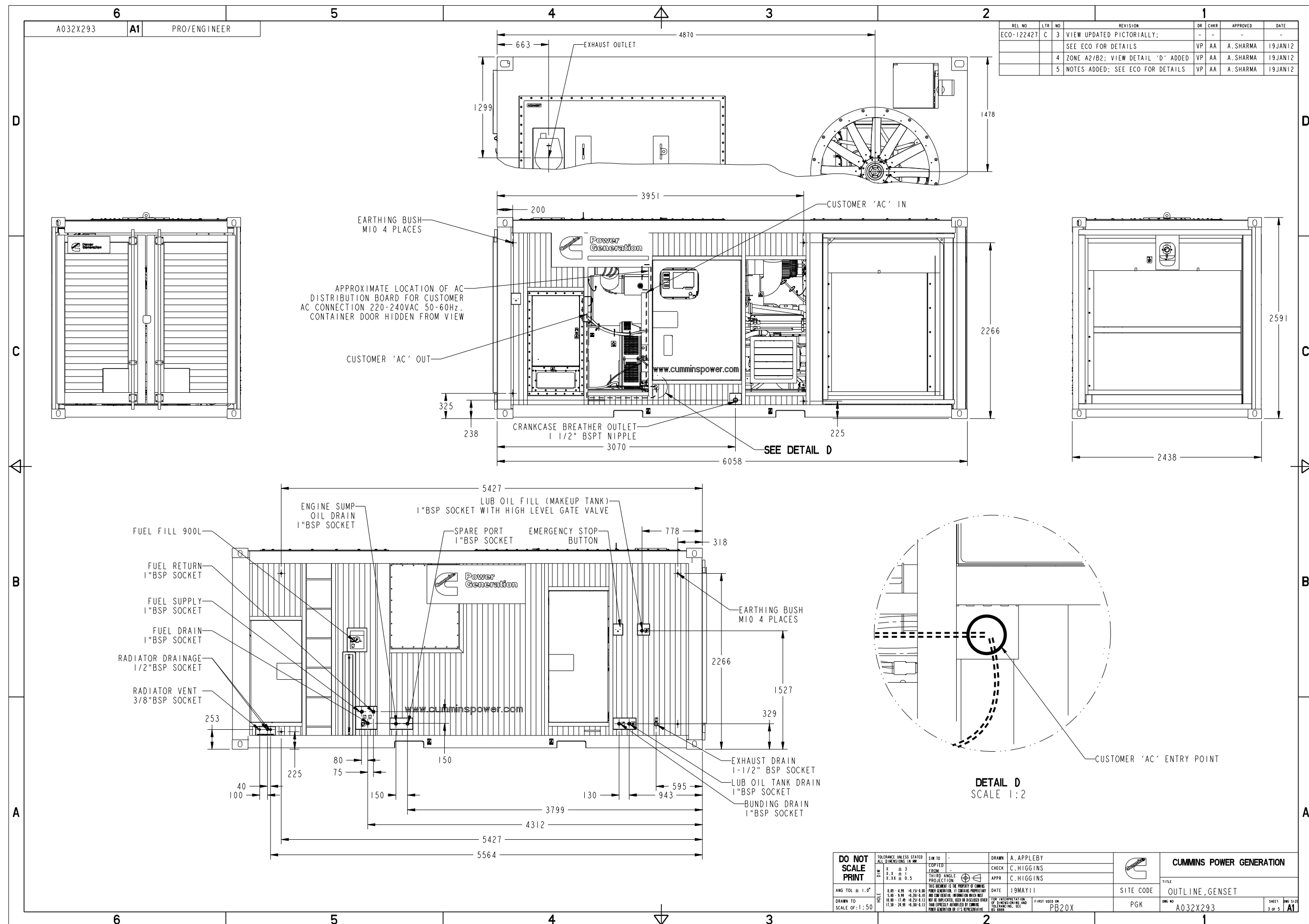
Main Terminal Connection	Earthing < 0.5Ω Continuity	Insulation Test must be >1MΩ				POLARITY TEST						Main Earth Leakage Relay Test		
		Ins Test	P-E	M Ω	P to P	M Ω	P - P	Volts	P - N	Volts	Volts	Set mA	Trip mA	Trip mS
		500VDC	L1		L1/L2		L1/L2		L1-N		N-E			
		500VDC	L2		L1/L3		L1/L3		L2-N					
		500VDC	L3		L2/L3		L2/L3		L3-N					

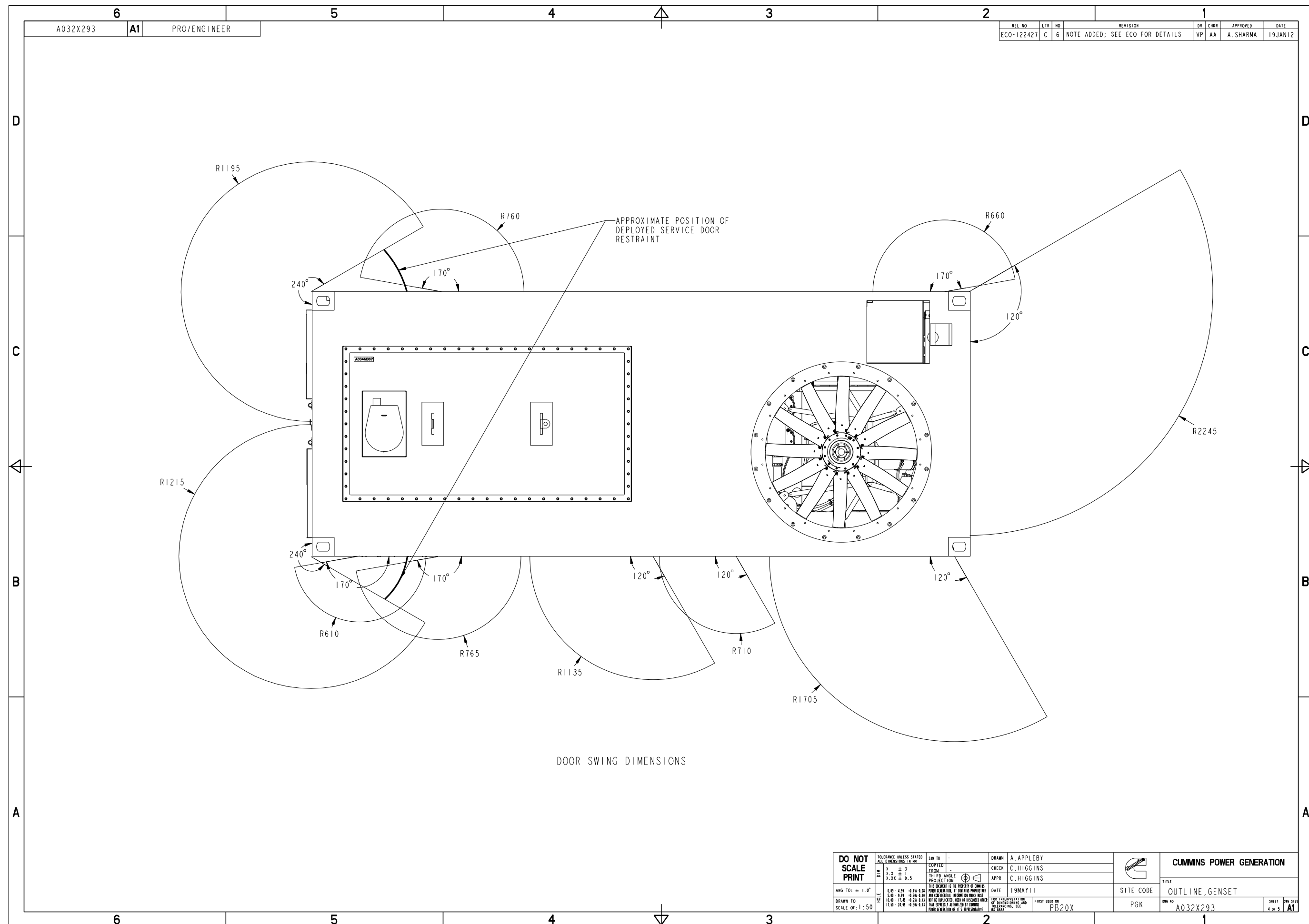
OUTLET #	Earthing < 0.5Ω Continuity	Insulation Test must be >1MΩ				POLARITY TEST						RCD Test		
415Volt		Ins Test	P-E	M Ω	P to P	M Ω	P to P	Volts	P to N	Volts	Volts	Test mA	Trip mA	Trip mS
Outlet		500VDC	L1		L1/L2		L1/L2		L1-N		N-E			
		500VDC	L2		L1/L3		L1/L3		L2-N					
		500VDC	L3		L2/L3		L2/L3		L3-N					
Outlet		500VDC	L1		L1/L2		L1/L2		L1-N		N-E			
		500VDC	L2		L1/L3		L1/L3		L2-N					
		500VDC	L3		L2/L3		L2/L3		L3-N					
Outlet		500VDC	L1		L1/L2		L1/L2		L1-N		N-E			
		500VDC	L2		L1/L3		L1/L3		L2-N					
		500VDC	L3		L2/L3		L2/L3		L3-N					
Outlet		500VDC	L1		L1/L2		L1/L2		L1-N		N-E			
		500VDC	L2		L1/L3		L1/L3		L2-N					
		500VDC	L3		L2/L3		L2/L3		L3-N					

OUTLET # 240Volt	Earthing < 0.5Ω Continuity	Insulation Test must be >1MΩ			POLARITY TEST						RCD Test		
		Ins Test	A-E	M Ω	A-E	Volts	A to N	Volts	N to E	Volts	Test mA	Trip mA	Trip mS
Outlet		500VDC	A - E		A - E		A - N		N - E				
Outlet		500VDC	A - E		A - E		A - N		N - E				
Outlet		500VDC	A - E		A - E		A - N		N - E				
Outlet		500VDC	A - E		A - E		A - N		N - E				
Outlet		500VDC	A - E		A - E		A - N		N - E				
Outlet		500VDC	A - E		A - E		A - N		N - E				

	Pass	Fail
Condition of Outlets Enclosures & C/B Box IP56 Rating		
Mounting of Outlets Enclosures & C/B Box		
Missing or Damaged Fasteners		
Labelling & Signage		
Glanding and bushing		
Cable Termination		
Wiring cable in good condition		
Earthstake & cable in good condition		
Security of glands		
Security of cables		
Security of plugs and elect components		
BusBar Bolts Tight		
Locks,handles latches		
IP56 Seals		
Gland Plate		
AC alternator Winding Free from Dust		
AC alternator Terminal Box Free from Dust		
CB & CB Compartment Free from Dust		
Control Panel Free from Dust		







Part A032X293 C

Description	Legacy Name	External Regulations	Application Status	Release Phase Code	Security Classification	Alternates
OUTLINE,GENSET	A032X293	None	Production & Service	Production	Proprietary	

Part Specifications :A032X293 C

Name	Description	Legacy Name
A030B356	SPECIFICATION,MATERIAL	CES10903
A032X294	DRAWING,ENGINEERING	A032X294