

**Output Step Response** 

# DATASHEET

# SKU: 09210FB / 02911B

# Linear 8/10Amp 13.8V Power Supply

with Battery Management



Power Supply (Front)



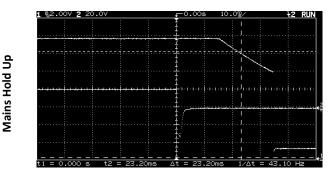
Power Supply (Back)



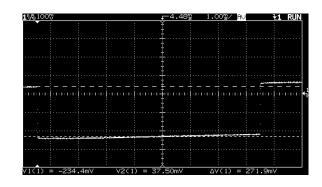
AC IEC Cable (Included) Part No. 10430188B

The power supply is designed to supply 13.8 Volts nominal D.C. at 7.5 Amps nominal (09210FB /APN6153B) or 10 Amps nominal (09211FB) from a 230 Volts 50 Hertz mains source to power radio communication equipment with an RF power output of up to 25W. A battery charger circuit is included to allow the charging of a 12 Ah SLA or AGM battery only, along with a battery manager to disconnect the battery when the voltage falls below 10.5 Volts, to stop deep discharge. It uses a thermostatically controlled internal fan to assist cooling.

This supply is presented as a black powder coated laser cut metal case and incorporates Nut-Serts in the side of the device for the inclusion in an external housing. The supply incorporates a socket to power an external housing fan.



The mains hold up at 230 Volts nominal and 50 Hertz and 7.5 Amps load. This shows in excess of 20ms hold up at full rated load.



The current step response (230VAC nominal input) for a 1.0 to 7.5 Amp step, showing only the step due to the regulation. No other artefacts can be seen.



# Innovative Radio Technology

## **SPECIFICATIONS**

#### **Overall Input Voltage and Current Ratings**

Model Number	09210FB (APN6153B)	09211B
Input Voltage Range	215 – 265	V AC 50 Hz
Input Current	107	'5 mA
Mains Fuse	4 A AT (Slov	v Blow M205)

#### **Overall Output Voltage and Current Ratings**

Model Number	09210FB (APN6153B)	09211B
Output Voltage	13.8	3 V DC
Output Current	7.5 A Nominal 8 A Maximum	10 A Nominal
Duty Cycle	50 % 3 Minutes On, 3 Minutes Off @ 8 A Total Current	50 % 3 Minutes On, 3 Minutes Off @ 10 A Total Current
Output Voltage Drop	< 350 mV DC @ 7.5 A	< 350 mV DC @ 8.5 A
Ripple and Noise	< 7 mV RMS with no discern	ible 50 or 100 Hz Component

#### **Battery Charger Specifications**

Model Number	09210FB (APN6153B)/ 09211B
Battery Type	Sealed Lead Acid or AGM Only
Maximum Voltage	13.8 V DC (Set by PSU)
Charging Current	Approx. 1.45 A @ 12 V * Note 1
Battery Fuse	10 A Red Automotive Type (ATC 18 mm)
Short Circuit Current	> 200 mA after 5 seconds

## Protection

Model Number	09210FB (APN6153B)	09211B
Over Current Disconnect	> 9.6 A	> 10.5 A
Over Voltage Disconnect	> 16	V DC
Under Voltage Lock Out (Battery Manager)	Approx. 10.5 V v	with 2V hysteresis
Over Head Shutdown	Case Temperati	ure exceeds 70° C

#### Indicators

Model Number	09210FB (APN6153B)/ 09211B
AC On	Green LED Indicates that power switch is On and AC main is supplied
DC Ok	Green LED Indicates that DC Output is within Specs
Error	Red LED Indicates when the Battery has been installed with reverse Polarity

#### Mechanical

Dimensions	180 W x 180 D x 80 H mm (inc. Feet)
Weight	2.8 Kg (Approx.)

#### Packaging

Individual Box	270 x 185 x 100 mm @ 3.6 kg
Shipping Carton	510 x 290 x 200 mm @ 18.3 kg gross (5pcs / Carton)

#### Approvals

SAA Certificate #	SAA130836EA
Standards Compliance	AS/NZS 60335.2.29:2017 + AMD 1/2020 used in conjunction with AS/NZS 60335.1:2020 +A1:2021

## \* Note 1: This current is subtracted from the total PSU Current. Battery Drypower 12SB12P-F2 is recommended.