MYPMA01218RCF-CCB
Non-isolated type

Typical unit

FEATURES

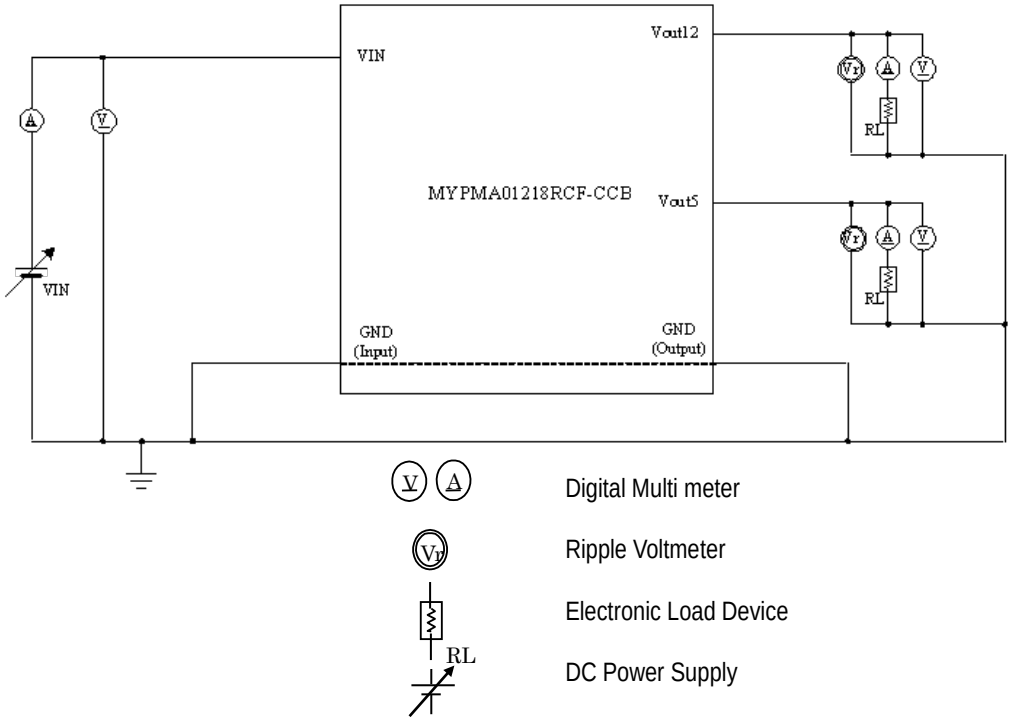
- 120W DC-DC converter(216W peak)
- 12V main output and 5V,1A Aux output
- Low ripple and Low surge output
- Input Voltage: 36V–75V
- Working Temperature: -20 - +85°C
- High Efficiency up to 95%
- Compact Size 86.5x122.4x35.4mm
- Small and Lightweight (160g)
- IP56 compliance
- Vibration-proof case design
- Over Temperature Protection
- Built-in Over-current and short circuit protection circuit
- RoHS Compliant

DESCRIPTION

MYPMA01218RCF-CCB is an ultra-efficient, non-isolated DC-DC converter providing 216W power at 12V output. It also provides a 5V/1A non-isolated auxiliary output. The small and lightweight converter is packaged in a plastic case conforming to IP56 standard.

Originally designed for lighting application on the E-motorcycle, E-scooter, E-tricycle and E-super small car using non-automotive grade components, the converter is suitable for a wide variety of industrial and commercial applications.

Connection Diagram



Digital Multi meter

Ripple Voltmeter

Electronic Load Device

DC Power Supply

GND terminals are connected inside of DC-DC converter. However, please make sure that they are to be connected outside in order to prevent DC-DC converter from malfunction by noise.

Performance Specifications Summary

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Model Number	Output	Output								Input		Efficiency	
		Vout (Volts)	Iout(Amps)			Power (Watts)	RIpple (mVp-p)	Regulation (Max)**		Vin Nom. (Volts)	Range ** (Volts)		
			(Min)	(Max)	(Peak)		(Max.)	Line	Load			Min.	Typ.
MYPMA01218 RCF-CCB	Main	12	2	10※	18	120	540	±5%	±5%	48	36-75	90%	95%
	Aux	5	0.2	1	1.2	5	120						

※When Iout(Aux)=1.0A that Iout(Main)=8.0A(Max) @Ta=25℃

Functional Specifications

Input	
Input Voltage Range	See Performance specification
Isolation	Not isolated. Input and output Commons are internally connected.
Start-Up Voltage	29.9Vdc
Undervoltage Shutdown	27.3Vdc
Overvoltage Shutdown	None
Internal Input Filter Type	Capacitive
Reverse Polarity Protection	None, install external fuse.
Recommended External Fuse	20A
Shutdown Mode	UVLO
Remote On/Off Control	None
Output	
Output Voltage**	See Performance Specification
Ripple/Noise	See Performance Specification
Line/Load Regulation	See Performance Specification
DC Load Output Current	See Performance Specification
Current Limit Inception	20A
Efficiency	See Performance Specification
Short Circuit Protection	Built-in
Protection Method	Hiccup auto-recovery upon overload removal.
Short Circuit Duration	Continuous, no damage (output shorted to ground).
Over Temperature Protection	Built-in
Protective Method	Autorecovery upon over temperature removal.
Over Temperature Duration	Continuous, no damage
Pre-bias Startup	Converter will start up if the external output voltage is less than Vnominal.
Dynamic Characteristics	
Start Up Time (Vin on to Vout regulated or On/Off to Vout)	< 100msecs
Switching Frequency	102kHz

Environmental	
Estimated life Expectancy for Electrolytic Capacitor (Note 1)	4 years or more
Operating Temperature Range with derating	-20 to +85℃
Storage Temperature Range	-30 to +85℃
Operating Humidity Range	+20 to +95%
Storage Humidity Range	+10 to +90%
Thermal Protection/Shutdown	+140°C
Physical	
Outline Dimensions	See Mechanical Specifications
Tightening torque	1.51Nm max. for each M5 screw
Weight	160g
Vibration	10G at 10-2000Hz,4Hrs ×3 axis
Shock	40G at 100 bumps/6msec ×3 axis
Safety Standard UL60950/IEC 60950	No registered Number. However the enclosure is made from UL94V-0 equivalent materials.
International Protection Code IEC60529	IP-56, exclude connector.

Specification Note:

(1)Rated load, ambient air temperature of 65°C.
Surface temperature of a maximum of 95°C of the metal plate.
3 hours in operation per one day