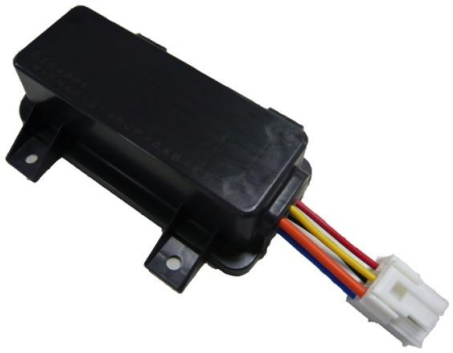
MYPMA01218RCF-CAB
Non-isolated type



FEATURES

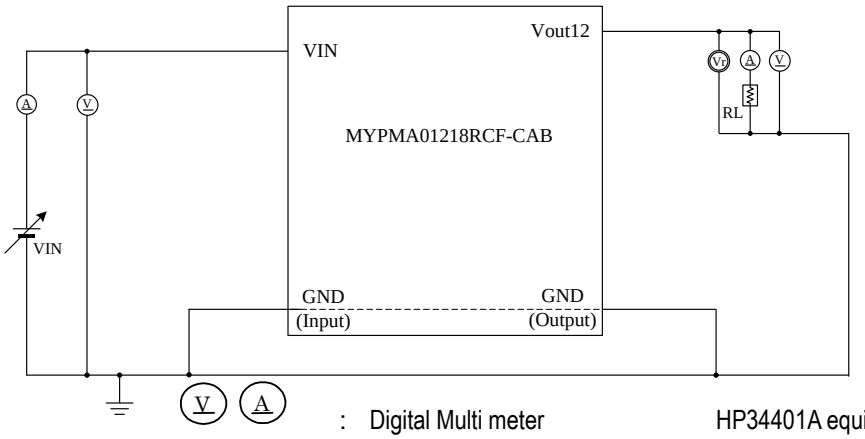
- 120W DC-DC converter(216W peak)
- Output Voltage:12V
- Low ripple and Low surge output.
- Input Voltage:36V-75V
- Working Temperature -20 - +85℃
- High Efficiency up to 95%
- Compact Size 86.5x122.4x35.4mm
- Small and Lightweight(160g)
- IP56 compliance
- Vibration-proof case design
- Over Temperature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

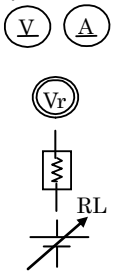
DESCRIPTION

MYPMA01218RCF-CAB is an ultra-efficient, non-isolated DC-DC converter providing 216W power at 12V 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 — HP34401A equivalent (Agilent Technologies)

: Ripple Voltmeter — RM - 101 equivalent (Keisoku Giken)

: Electronic Load Device — ELL - 355 equivalent (Keisoku Giken)

: DC Power Supply — HP6675A equivalent (Agilent Technologies)

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.

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Performance Specifications Summary												
	Output								Input		Efficiency	
		Iout(Amps)**				RIpple (mVp-p)	Regulation (Max)**		Vin Nom. (Volts)	Range ** (Volts)		
Model Number	Vout (Volts)	(Min)	(Max)	(Peak)	Power (Watts)	(Typ.)	Line	Load			Min. **	Typ. **
MYPMA01218RCF-CAB	12	1	10	18	120	150	±5%	±5%	48, 60	36-75	90	95

@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	
Protection Method	Hiccup auto-recovery upon overload removal.
Short Circuit Duration	Continuous, no damage(output shorted to ground).
Over Temperature Protection	
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 de-rating	-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

Reliability test Specifications

Reliability Test	
High temperature load test	Expose 100hrs in +65℃±3℃ with 48Vin.
High temperature high humidity load test	Expose 100hrs in +65℃±3℃/90%RH with 10A load and 48Vin.
ESD test	Expose condition A(r=1500Ω, C=100pF) on EIAJ ED-4701 method C-111.
Temperature cycling test	Expose 100 cycles in the following sequence..-40℃±3℃/30min->, Room temperature(+25℃)/10sec->+85℃±3℃/30min->Room temperature(+25℃)/10sec.

After above test, hold in the room temperature(+25℃) for 24hrs, then measure above parameters indicated (**) in the above specification.

This information is subject to change without notice. Please contact our sales or product engineers to confirm the latest before purchasing.