

## Preliminary Data Sheet

The APC-Q062

series power module is a low profile DC/DC converter, which operates over an input voltage range of 36V to 75V and provides precisely regulated dual DC outputs.

The outputs are fully isolated from the input and has a maximum power rating of 60 watts.

The power module is suited for board level applications in a distributed power architecture requiring isolated power.

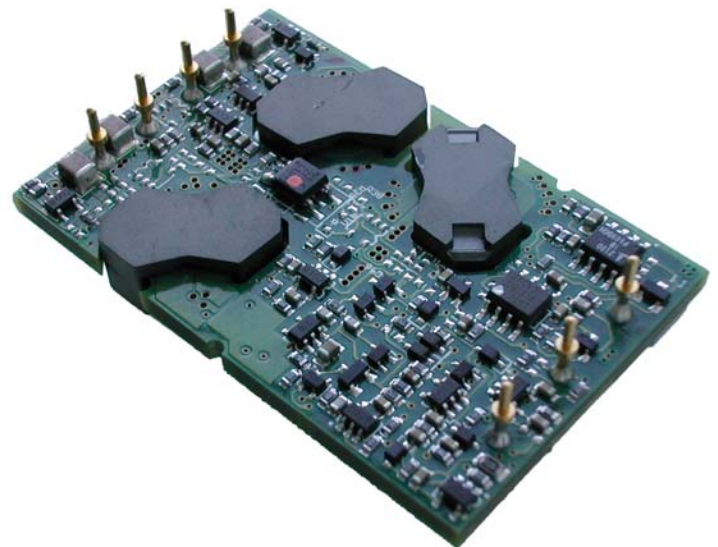
Industry standard size:

36.8mm x 57.9mm x 10.2mm

Industry standard terminal pin configuration

## FEATURES

- ❑ High Efficiency: 90% at full load
- ❑ Operates at the rated wattage without requiring a heat-sink
- ❑ Wide input voltage range: 36V-75V with 100V, 100ms input voltage transient protection
- ❑ Fixed Frequency
- ❑ Adjustable output voltage
- ❑ Low output noise
- ❑ Overtemperature protection
- ❑ Output overvoltage protection
- ❑ Output overcurrent protection
- ❑ Remote sense & Remote on/off
- ❑ Case ground pin
- ❑ Constant frequency
- ❑ 1500Vdc isolation (input to output)
- ❑ Designed to meet UL60950, EN60950 and CE mark requirements



## APC-Q062 Quarter Brick Dual Output DC-DC Converter - 48Vi, 5.0 & 3.3Vo 60W

### Preliminary Data Specification

Characteristics	Conditions	Min	Typ	Max	Unit
Efficiency	$V_i = V_{i,nom}$ , $I_o = I_o, max$ , $T_c = 25^\circ C$ , $I_o = 50\%$ of each output	-	90	-	%
Switching frequency		-	170	-	kHz
Isolation resistance input to output		-	10	-	
Calculated MTBF		1.5	-	-	Mhr
Weight		-	40	-	g

Characteristics	Min	Max	Unit
$T_m$ Module Operating Temperature	-40	115	$^\circ C$
$T_{slg}$ Storage temperature	-55	125	$^\circ C$
$V_i$ Input voltage (continuous)	-	75	Vdc
$V_{i,trans}$ Transient input voltage (100ms)	-	100	V
Viso Input to output isolation voltage	-	1500	V

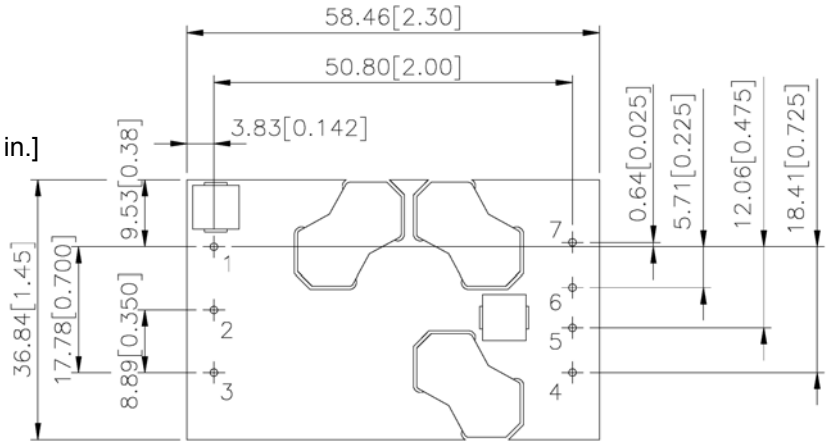
Characteristics	Conditions	Output			Unit
		Min	Typ	Max	
$V_o$ Output voltage set point (5.0V)	$V_i = V_{i,nom}$ , $I_o = I_o, max$ , $T_c = 25^\circ C$	-	4.98	-	V
			3.29		
$I_o$ Output current (5.0V)		0	-	12	A
		0	-	18	
$P_{o,max}$ Maximum output power		-	-	60	W

Input Characteristics	Min	Typ	Max	Unit
V Operating input voltage	36	48	75	V
$i_{i,max}$ Maximum input current	-	-	2.5	A
$I_t$ Inrush transient	-	-	0.1	A's
$I_{rr}$ Input reflected-ripple current, peak-to-peak (5Hz to 20MHz)		20		mA (p-p)
$I_r$ Input ripple rejection (120Hz)	-	-60	-	dB

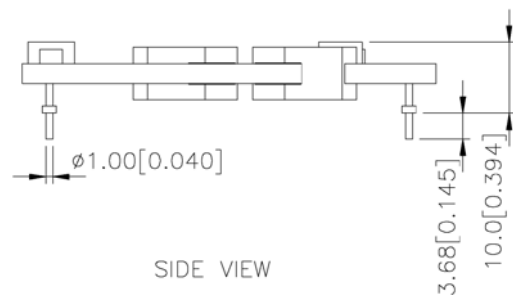
### Mechanical Outline

Dimensions are in millimetres and (inches)

Tolerances: x.x mm  $\pm$  0.5mm [x.xx in.  $\pm$  0.02 in.]  
 x.xx mm  $\pm$  0.25mm [x.xxx in.  $\pm$  0.010 in.]



TOP VIEW



SIDE VIEW



BOTTOM VIEW

### Pin Symbol Definition

- 1 VI (+) Position input voltage
- 2 ON/OFF Remote on/off control
- 3 VI (-) Negative input voltage
- 4 3.3Vo(+) 3.3V position output voltage
- 5 RTN(-) Negative output voltage
- 6 TRIM Output voltage adjustment
- 7 5.0Vo(+) 5.0V position output voltage

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