## Product Features

-- Single Output, high power DC/ DC Converter
-- 90% efficiency (3.3V out)
-- Synchronous Rectification Topology
-- Ideal for Telecom and Networking Applications
-- 2:1 Input Range, High Efficiency, up to 200W out
-- Industry Compatible Pin Out, ½ Brick Footprint
-- Remote On / Off, TTL level
-- Operating Temperature up to 100C at baseplate
-- Trim Capabilities +/- 10%
-- Over Current Protection, Over Voltage Protection
-- 1500VDC Isolation, UL, CUL, TUV, CE (48V) Approvals pending
-- OCA (Open Convection Architecture)
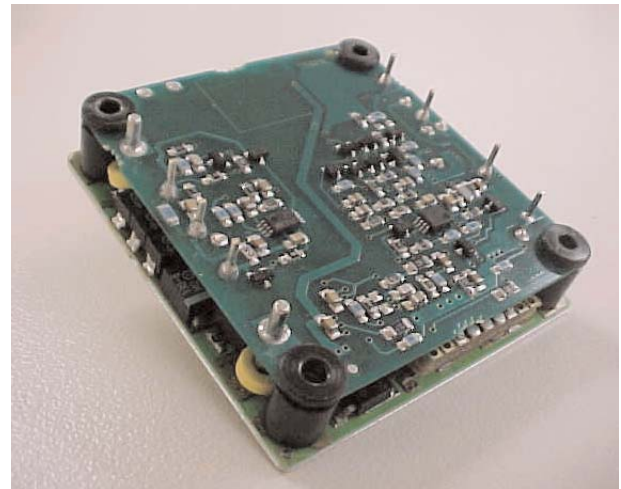
TYPICAL APPLICATIONS:

-- On-Board Distributed Power
-- Low Profile & Height PCB
-- High Current Applications
-- Higher ambient environment

OVERVIEW

The HC series is a family of highest performance open frame DC/DC converters (OCA), based on the common and industry compatible ½ brick footprint. The converter meets the typical telecom input voltage requirement of 36 to 75VDC, derating might be required.

Other standard features of the high efficiency converter are output voltages of 1.8VDC to 5VDC, short circuit and over voltage protection, remote On-Off control, trim capabilities. The isolation voltage spec is >1500VDC to meet the industry agency approvals. Output ripple voltage is rated at 1% (or less) of the nominal output voltage.

TABLE 1

Model Number	Input Voltage VDC	Output Volts//Amps VDC
HC48S1.8-72A	36-75	1.8 // 40
HC48S2.5-100A	36-75	2.5 // 40
HC48S3.3-132A	36-75	3.3 // 40
HC48S1.8-90A	36-75	1.8 // 50
HC48S2.5-125A	36-75	2.5 // 50
HC48S3.3-165A	36-75	3.3 // 50
HC48S5-200A	36-75	5 // 40

add "R" suffix for negative remote on/off logic
note: "A" suffix is for open construction

SPECIFICATIONS

Nominal Input:	48VDC (36-75VDC)
Output Voltage:	see Table 1
Output Power:	up to 200W
Efficiency:	3.3V out 90%, others - consult factory
Isolation Voltage:	>1500VDC I/O
Operating Temperature:	-40C to +100C
Dimensions:	2.28" x 2.4" x .5" Footprint

For further information or Application Support:
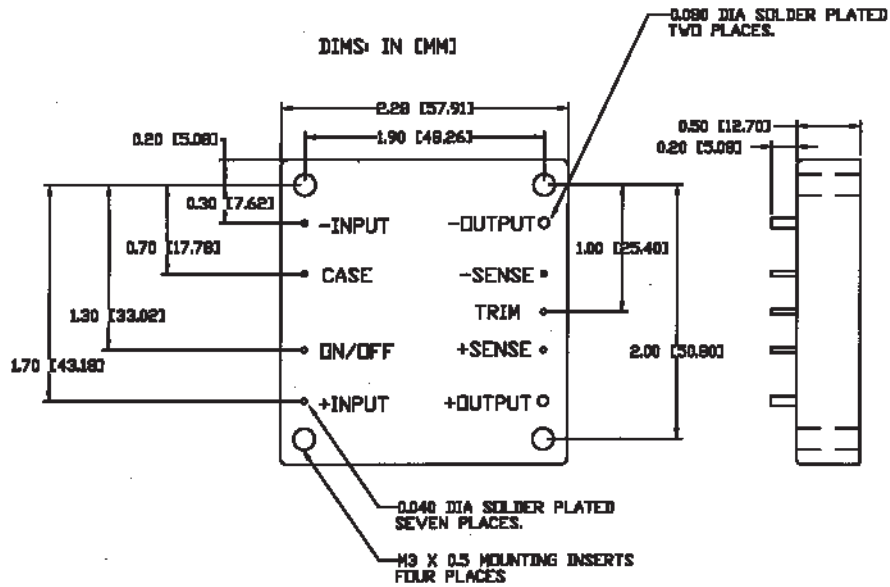*www.wallindustries.com*
or call 1-888-597-WALL

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SPECIFICATIONS

Specification	Method	Min.	Typ.	Max.	Units
INPUT VOLTAGE:	48V version	36	48	75	Volts
REMOTE ON/OFF	TTL (pos or neg logic- see note 1)				TTL logic
INPUT FILTER	Pi-Filter standard				
OUTPUT VOLTAGE			see table		Volts
OUTPUT VOLTAGE Set Point			+/- 1%		% of Vout
OUTPUT CURRENT			see table		A
OVERCURRENT PROTECTION	Limiting				% of Iout
OUTPUT RIPPLE	20MHz BW		100mVp-p typ.		mV peak/peak
SHORT CIRCUIT PROTECTION	continuous				
OVERVOLTAGE PROTECTION	Standard		15%		% of Vout
LINE REGULATION	HL / LL		+/- 0.2%		
LOAD REGULATION	0-100% load		+/- 0.5%		
TRANSIENT RESPONSE	within +/-1% Vout, ½ to F.L.		<200u sec		
OUTPUT TRIM	external		+/- 10%		% of Vout
EFFICIENCY	synchronous rectification		90%		3.3V out
ISOLATION VOLTAGE		1500VDC			VDC for 1 sec
ISOLATION RESISTANCE	In/Out/ >100MOhms				
SWITCHING FREQUENCY			200kHz typ.		
OPERATING TEMPERATURE		-40		+100	degree C
STORAGE TEMPERATURE		-55		+125	degree C
WEIGHT			~ 2 oz		ounces
DIMENSIONS	case w/o pin		½ brick footprint		inches
CONSTRUCTION	Open Convection Architecture (OCA)				

NOTES:

1) For negative logic, add suffix "R"

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bottom view

DIMS: IN [MM]

0.090 DIA SOLDER PLATED
TWO PLACES.

2.28 [57.91]
1.90 [48.26]

0.20 [5.08]
0.30 [7.62]
0.70 [17.78]
1.30 [33.02]
1.70 [43.18]

0.50 [12.70]
0.20 [5.08]

−INPUT   −OUTPUT
CASE   −SENSE
                TRIM
ON/OFF   +SENSE
+INPUT   +OUTPUT

1.00 [25.40]
2.00 [50.80]

0.040 DIA SOLDER PLATED
SEVEN PLACES.

M3 X 0.5 MOUNTING INSERTS
FOUR PLACES

NOTE:

Remote On/Off
(Referenced to -Vin)

No Suffix:
      TTL Open=On
      Low=Off
R Suffix:
      Open=Off
      Low=On

PIN CONNECTIONS

1. +Vin
2. Remote On/Off**
3. Case Ground
4. -Vin
5. +Vout
6. +Sense
7. Trim
8. -Sense
9. -Vout

All case and pin-to-case dimensions are for reference only, unless otherwise noted. All
DC/DC converters should be externally fused at the front end for protection. Please note
that significant capacitive load at the output of the converter may inhibit the start-up and the
overall operation.

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