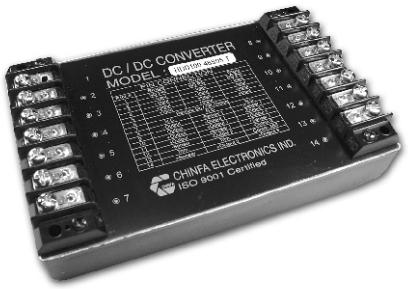
HDD100 SERIES



DC - DC CONVERTER
100W SINGLE OUTPUT

FEATURES

- 100W DC / DC CONVERTER
- 2:1 INPUT RANGE, Pi INPUT FILTER
- ISOLATION INPUT AND OUTPUT
- HIGH PERFORMANCE UP TO 86%
- SHORT CIRCUIT PROTECTION
- 2 YEARS WARRANTY

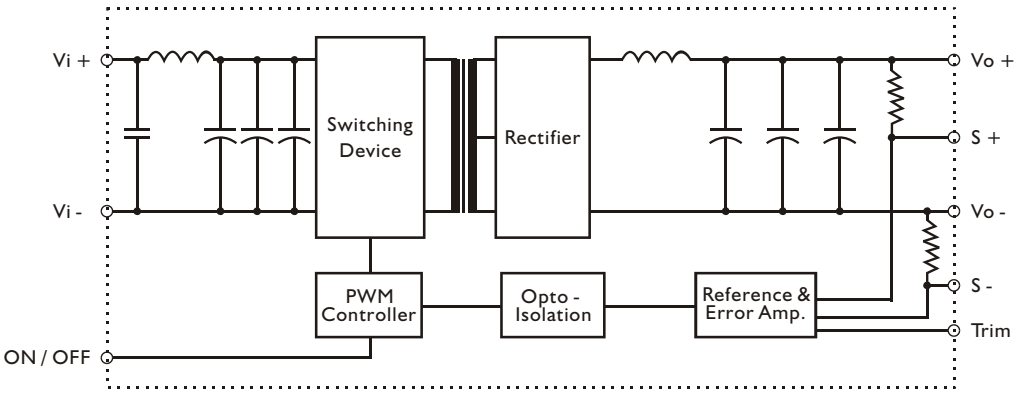
MODEL LIST

MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (min.)
Single Output Models					
HDD100 - 24S05-X	18~36 VDC	100 WATTS	+ 5 VDC	20000 mA	80%
HDD100 - 24S12-X	18~36 VDC	100 WATTS	+ 12 VDC	8300 mA	84%
HDD100 - 24S15-X	18~36 VDC	100 WATTS	+ 15 VDC	6600 mA	84%
HDD100 - 24S24-X	18~36 VDC	100 WATTS	+ 24 VDC	4000 mA	85%
HDD100 - 48S05-X	36~72 VDC	100 WATTS	+ 5 VDC	20000 mA	83%
HDD100 - 48S12-X	36~72 VDC	100 WATTS	+ 12 VDC	8300 mA	85%
HDD100 - 48S15-X	36~72 VDC	100 WATTS	+ 15 VDC	6600 mA	85%
HDD100 - 48S24-X	36~72 VDC	100 WATTS	+ 24 VDC	4000 mA	86%

- SUFFIX "X=P" : PCB MOUNTING TYPE, HEAT SINK WILL BE ADDED ON MODULE.
- SUFFIX "X=T" : CHASSIS MOUNTING TYPE:(TERMINAL BLOCK), NO HEAT SINK.
  USE CHASSIS AS HEAT SINK OR FAN FORCE COOLING.
  INDICATE SUFFIX WHEN ORDER.

CIRCUIT SCHEMATIC

- Block diagram for HDD100 series with single output



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SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

GENERAL

Characteristics	Conditions	min.	typ.	max.	unit
Switching frequency	Vi nom, Io nom		80		KHz
Isolation voltage	Input / Output	1,500			VDC
Isolation resistance	Input / Output, @ 500VDC	1G			Ω
Ambient temperature	Operating at Vi nom, Io nom	-25		+ 71	°C
Case temperature	Operating at Vi nom, Io nom			+ 100	°C
Derating	Vi nom	See derating curve			% / °C
Storage temperature	Non operational	-25		+100	°C
M.T.B.F.	According to MIL-HDBK-217F, GF40		100,000		Hrs
Dimension	L88.9 x W139.7 x H42.4 for "P" type				mm
	L88.9 x W139.7 x H32.9 for "T" type				mm
Cooling	Free air convection				
Case material	Metal				

INPUT SPECIFICATIONS

Characteristics	Conditions		min.	typ.	max.	unit
Input voltage range	Ta min ... Ta max, Io nom		18	24	36	VDC
			36	48	72	VDC
No load input current	Vi = nom, Io=0	24V models			20	mA
		48V models			15	mA
Input voltage w/o damage	Io nom	24V models			40	VDC
		48V models			75	VDC
Input filter	Pi type					

OUTPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Output voltage accuracy	Vi nom, Io nom			±1	%
Minimum load	Vi nom	0			%
Line regulation	Io nom, Vi min ...Vi max			±1	%
Load regulation	Vi nom, Io min ...Io nom			±2	%
Transient recovery time	25% load, step changed		500		μS
Temperature coefficient	Vi nom, Io nom			± 0.02	% / °C
Ripple & noise	Vi nom, Io nom, BW = 20MHz			Vout x ±1%	mV
Voltage trim range	Vi nom		±10		%
Efficiency	Vi nom, Io nom, Po / Pi	Up to 86%, See model list			

CONTROL AND PROTECTION

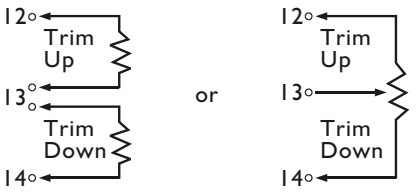
Remote ON / OFF	ON: opened or +5.5VDC applied, reference to input GND
	OFF: -1.8VDC applied, reference to input GND
Input reversed	Shunt diode built in, external fuse recommended
Output short circuit	Continuous

MECHANISM & PIN CONFIGURATION

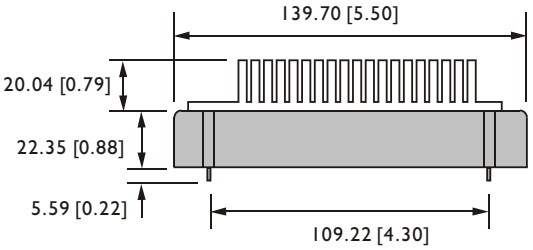
REMOTE ON / OFF CONTROL

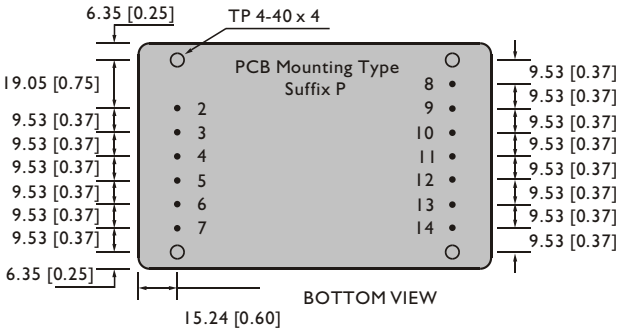
TERMINAL 6 CONTROL
LOGIC COMPATIBILITY : .....OPEN COLLECTOR TTL
CONTROL VOLTAGE. ON +5.5V MIN. OR OPEN CIRCUIT.
OFF .....+1.8V MAX.
CONVERTER SHUTDOWN IDLE CURRENT .....10 mA
CONTROL COMMON .....INPUT TERMINAL 2

EXTERNAL OUTPUT TRIMMING

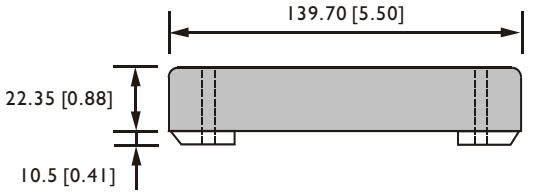


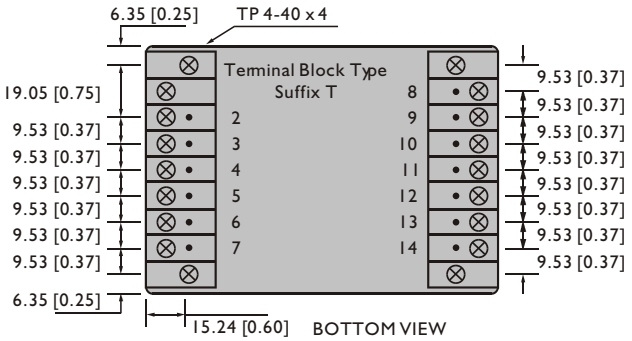
CASE : HH- P- 100





CASE : HH- T





PHYSICAL CHARACTERISTICS

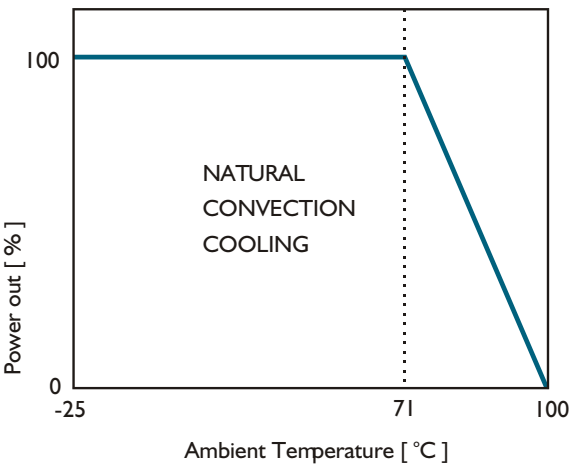
CASE SIZE	88.9 x 139.7 x 42.4 mm 3.5 x 5.5 x 1.67 inches for "P" type
	88.9 x 139.7 x 32.9 mm 3.5 x 5.5 x 1.29 inches for "T" type
CASE MATERIAL	Metal
WEIGHT	710 g for "P" type / 570 g for "T" type

PIN ASSIGNMENT

GENERAL

PIN NO.	SINGLE
1	NO PIN
2 & 3	Vi -
4 & 5	Vi +
6	REMOTE ON/OFF CONTROL
7	N. C.
8	Vo -
9	Vo -
10	Vo +
11	Vo +
12	SENSOR -
13	Trim
14	SENSOR +

DERATING



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