

## Low Cost Linear Power Supplies



**RoHS**

- ◆ Low Output Ripple
- ◆ Single and Multiple Outputs
- ◆ Excellent Line & Load Regulation
- ◆ Worldwide Voltage Taps

### Key Market Segments & Applications

Test & Measurement      Burn-in & Test, Automated Test, Instrumentation, Measurement, Detection

Low noise applications  
Light Industrial

### H Features and Benefits

#### Feature

- ◆ Industry standard footprint
- ◆ Low Output Ripple
- ◆ Tight regulation
- ◆ Operation up to 70C Ambients

#### Benefit

- ◆ Availability to second source
- ◆ Reduced system interference
- ◆ Better performance in sensitive equipment
- ◆ Easier system integration

### Specifications

ITEMS		
AC Input	-	100/120/220/230/240VAC, 47-63Hz (derate by 10% for 50Hz operation)
Efficiency	-	5V: 45%, 12/15V: 55%, 24V: 60%
Transient Response	-	50us for 50% load change
EMI	-	FCC Class B, VDE0871 Level B
Output Adjustment	-	±5% for all outputs (except outputs 2 & 3 on triple output models)
Remote Sense	-	On all single output models, HDC12 & HDC15, and output 1 of triple output models
Line Regulation	-	±0.05% for 10% line change
Load Regulation	-	±0.05% for 50% load change
Ripple and Noise	-	<3mV peak to peak
Overcurrent Protection	-	Foldback with automatic recovery (Contact factory before adjusting)
Overvoltage Protection	-	Standard on 5V outputs set at 6.2V ±0.4V OVP12 module sold separately for other outputs (see model selector)
Cooling	-	Convection or forced air
Operating Temp. Range	-	0 to +70°C, derate 3%/°C above 50°C
Storage Temperature	°C	-55 to +85°C
Temperature coefficient	-	±0.01% per °C
Humidity	-	5 - 95% RH (non condensing)
Leakage Current	uA	<50uA
Vibration	-	MIL-STD-810C, Method 514
Shock	-	MIL-STD-810C, Method 516
Safety Agency Approval	-	UL60950-1, EN60950-1, CE Mark
Size	-	Please see outline drawings
Warranty	-	Two years

Note: See Installation Manual for full details, test methods of parameters and application notes

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## Output Ratings

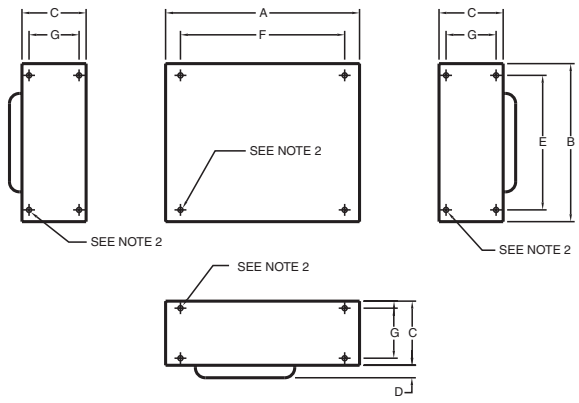
	Model	Output	Output (V)	Max Current (A)	Power (W)	
Single Output	HSB5-3-OVP	V1	5	3.0	15.0	
	HSC5-6-OVP	V1	5	6.0	30.0	
	HSN5-9-OVP	V1	5	9.0	45.0	
	HSD5-12-OVP	V1	5	12.0	60.0	
	HSB12-1.7	V1	12	1.7	20.4	
	HSC12-3.4	V1	12	3.4	40.8	
	HSN12-5.1	V1	12	5.1	61.2	
	HSB15-1.5	V1	15	1.5	22.5	
	HSC15-3	V1	15	3.0	45.0	
	HSN15-4.5	V1	15	4.5	67.5	
	HSB24-1.2	V1	24	1.2	28.8	
	HSC24-2.4	V1	24	2.4	57.6	
	HSN24-3.6	V1	24	3.6	86.4	
	HSD24-4.8	V1	24	4.8	115.2	
	HSB28-1.0	V1	28	1.0	28.0	
Dual Output	HDA12-15	V1	+12/15	1.0/0.8	24.0	
		V2	-12/15	1.0/0.8		
	HDB12-15	V1	+12/15	1.8/1.5	40.0	
		V2	-12/15	1.8/1.5		
	HDC12	V1	12*	3.4	80.0	
		V2	12*	3.4		
	HDC15	V1	15*	3.0	80.0	
		V2	15*	3.0		
	Triple Output	HTC1	V1	5*	3.0	40.0
			V2	+12/15	1.0/0.8	
		V3	-12/15	1.0/0.8		
	HTD1	V1	5*	6.0	70.0	
		V2	+12/15	1.7/1.5		
		V3	-12/15	1.7/1.5		
Accessories	OVP12 Adjustable 6.2-34V, 8A continuous, 12A peak					

\* Isolated Outputs

## Other Lambda Industrial Products

HWS	15 to 1800W single output (switching)
NNS	15 to 90W high reliability (linear)
ZWS	5 to 150W single output, universal input (switching)
VSB & VSC	10 to 150W single output, 115VAC input (switching)

## H Outline Drawing



DIMENSIONS:								WEIGHT:	
MODEL	A	B	C	D	E	F	G	MODEL	LBS
HSB A	4.881 (124.0)	3.976 (101.0)	1.614 (41.0)	.314 (8.0)	3.385 (86.0)	4.13 (105.0)	-	HSB	1.98
HSC B	4.881 (124.0)	5.629 (143.0)	2.480 (63.0)	.472 (12.0)	4.881 (124.0)	4.13 (105.0)	1.28 (32.5)	HSC	3.96
HSN C	4.881 (124.0)	7.007 (178.0)	2.755 (70.0)	.472 (12.0)	6.259 (159.0)	4.13 (105.0)	1.259 (32.0)	HSN	5.94
HSD I	4.881 (124.0)	8.818 (224.0)	2.755 (70.0)	.590 (15.0)	7.992 (203.0)	4.13 (105.0)	1.259 (32.0)	HSD	7.48
HDA H	4.015 (102.0)	6.496 (165.0)	1.653 (42.0)	.314 (8.0)	5.748 (146.0)	3.38 (86.0)	-	HDA	1.98
HDB D	4.881 (124.0)	7.007 (178.0)	2.755 (70.0)	.472 (12.0)	6.259 (159.0)	4.13 (105.0)	1.259 (32.0)	HDB	3.96
HDC I	4.881 (124.0)	8.818 (224.0)	2.755 (70.0)	.590 (15.0)	7.992 (203.0)	4.13 (105.0)	1.259 (32.0)	HDC	7.48
HTC F	4.015 (102.0)	10.236 (260.0)	2.519 (64.0)	.314 (8.0)	9.251 (235.0)	3.38 (86.0)	1.259 (32.0)	HTC	5.06
HTD G	4.881 (124.0)	11.023 (280.0)	2.755 (70.0)	.590 (15.0)	7.480 (190.0)	4.13 (105.0)	1.259 (32.0)	HTD	7.92

NOTE:  
 1. DIMENSIONS ARE IN INCHES EXCEPT DIMENSIONS ( ) ARE IN MM.  
 2. .188 (4.8) HOLES FOR CUSTOMER MTG.

For Additional Information, please visit  
[us.tdk-lambda.com/lp/products/h-series.htm](http://us.tdk-lambda.com/lp/products/h-series.htm)

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