

PH-S Series

Simple function, 50 to 600W DC-DC converters



- ♦ High Density
- ♦ Wide Range Input
- ◆ Output adjustment Capability
- ◆ Remote On/Off
- ◆ Fixed Switching Frequency
- International Safety Approvals

Key Market Segments & Applications

Telecom Custom Power Supplies Point of Load

PH Features and Benefits

Feature

- ◆ High density
- ♦ Low component count
- Fixed operating frequency
- ◆ Variety of input voltages

Benefit

- ◆ Smaller package size
- ◆ High reliability Demonstrated 5 million hours MTBF
- ◆ Easier system filtering
- ◆ Systems can operate from different input voltages

Specifications								
		3.3V	5V	12V	15V	24V	28V	48V
ITEMS								
Input range	VDC	24V nom:	: 18-36, 48	V nom: 36-70	6V, 110V nom	: 82-185V, 28	0V nom: 200	-400V
Output Voltage Adj. Range	VDC	2.97~3.63	4.5~5.5	10.8~13.2	13.5~16.5	21.6~26.4	25.2~30.8	43.2~52.8
Line Regulation						e input range		
Load Regulation		0.8% or 40mV (whichever is greater) from no load to full load with constant input line			nput line			
Ripple and Noise	pk-pk	100)mV	150)mV	240mV	280mV	480mV
Series Operation	-	Possible - Refer to installation manual						
Over Voltage Protection	-	150 - 180%				125 - 145%		
Overload Protection	-	Approximately 105 - 140%, automatic recovery						
Remote On/Off	-	Low = ON, Open = OFF						
Remote Sensing	-	PH100S, PH150S, PH300S, PH600S models						
Parallel operation	-	PH300S & PH600S only: Requires external circuitry						
Inverter Good signal	-	PH300S & PH600S only: Signal available for status of inverter						
Thermal Protection	-	Internal sensing, self resetting						
Cooling	-	Conduction or forced air. See application notes for cooling and heatsink selection						
Operating Temperature Range	-	Baseplate temperature -20°C to +85°C (100°C on PH300 & PH600).						
	-					nute warm up		
Storage Temperature	-	-40°C to +85°C (+100°C on PH300 & PH600)						
Temperature Coefficient	-	0.02%/°C						
Isolation	-	Input to output: 3000VAC, Input to Baseplate: 2500VAC(1)						
Isolation Resistance	-	Output to Baseplate -100MOhm at 500VDC and 70%RH						
Safety Agency Approval	-	UL1950, CSA234, EN60950 and CE Mark.						
Warranty	-	Two years						

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

(1) PH300S48 models: Input to output 1.5kVAC, input to baseplate 1.5kVAC



PH-S Series

Nominal Output Voltage (V)	Model S	elector					
Voltage (V) Current (A) Power (W) 24V input 48V input 110V input 280V input							
3.3 10.0 33.0 - PH50S48-3.3 - PH50S280-3.3 3.3 15.0 49.5 - PH75S48-3.3 - PH75S280-3.3 3.3 20.0 66.0 - PH100S48-3.3 - PH100S280-3.3 3.3 30.0 99.0 - PH150S48-3.3 - PH300S280-3.3 3.3 30.0 99.0 - PH150S48-3.3 - PH300S280-3.3 3.3 100.0 330.0 PH300S48-3.3 - PH300S280-3.3 3.3 100.0 330.0 PH50S28-5 PH50S110-5 PH50S280-5 5.0 15.0 75.0 - PH50S24-5 PH50S48-5 PH5S110-5 PH50S280-5 5.0 15.0 75.0 - PH100S48-5 - PH50S110-5 PH50S280-5 5.0 30.0 150.0 - PH30S48-5 - PH150S110-5 PH50S280-5 5.0 30.0 150.0 - PH30S48-5 - PH150S110-5 PH50S280-5 5.0 100.0 500.0 - PH30S48-5 - PH50S110-5 PH50S280-5 5.0 100.0 500.0 - PH30S48-5 PH75S110-5 PH50S280-5 5.0 100.0 500.0 - PH50S280-5 PH50S110-5 PH50S280-5 12.0 4.2 50.0 PH50S24-12 PH50S48-12 PH50S110-12 PH50S280-12 12.0 4.2 50.0 PH50S24-12 PH50S48-12 PH50S110-12 PH50S280-12 12.0 8.4 100.0 - PH100S48-12 PH75S110-12 PH50S280-12 12.0 8.4 100.0 - PH100S48-12 PH50S110-12 PH50S280-12 12.0 25.0 300.0 - PH300S48-12 PH50S110-12 PH50S280-12 12.0 50.0 600.0 - PH50S24-15 PH50S48-12 PH50S110-15 PH50S280-12 12.0 50.0 600.0 - PH50S24-15 PH50S48-15 PH50S110-15 PH50S280-15 15.0 5.0 75.0 - PH50S24-15 PH50S48-15 PH50S110-15 PH50S280-15 15.0 5.0 75.0 - PH50S24-15 PH50S48-15 PH50S110-15 PH50S280-15 15.0 40.0 600.0 - PH300S48-15 PH50S110-15 PH50S280-15 15.0 40.0 600.0 - PH300S48-15 PH50S110-24 PH5S280-15 PH50S280-15 15.0 40.0 600.0 - PH300S48-15 PH50S110-24 PH5S280-15 PH50S280-15 PH50S280-14 PH50S280-24 PH50S110-24 PH5S280-24 PH50S280-24 PH50S280-28 PH30S280-28				0.007	40)//:	110//:	000//:
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Pinout	
Pin Description	Function
-Vin +Vin +S	Negative Input Terminal Positive Input Terminal Positive Remote sense
-S +V	Negative Remote sense Positive Output Terminal
-V IOG	Negative Output Terminal Inverter Good Signal
TRIM CNT CS	Output adjustment trim pin On/Off Control Terminal Current Monitor Signal

Other Lam	bda DC-DC Products
	50 - 300W, full function versions of PH 50 - 700W quarter, half & full bricks 10 - 20W, 24 & 48V input DC-DC converters Surface Mount 20W, 24 & 48 input DC-DC converters

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