## Simple function, 50 to 600W DC-DC converters

#### **Features**

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





# **Key Market Segments & Applications**









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Specifications								
Model		3.3V	5V	12V	15V	24V	28V	48V
Input range	VDC	24V no	m: 18-36, 48	3V nom: 36-7	6V, 110V nor	n: 82-185V, 2	280V nom: 20	0-400V
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	-	0.4% o	r 20mV (whi	chever is gre	ater) over en	tire input rang	ge with consta	int load
Load Regulation	-	0.8% or 4	OmV (whiche	ever is greate	r) from no loa	ad to full load	with constant	t input line
Ripple and Noise	pk-pk	100	mV	150	)mV	240mV	280mV	480mV
Series Operation	-			Possible - R	efer to install	ation manua	l	
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	-						and heatsink	
Operating Temperature Range	°C	Ba					1300 & PH600	0).
					p possible - d			
Storage Temperature	°C		-40	°C to +85°C	(+100°C on I	PH300 & PH	600)	
Temperature Coefficient	-				0.02%/°C			
Isolation	-				AC, Input to			
Isolation Resistance	-				100MOhm a			
Safety Agency Certification (1)	-		UL609	50-1, CSA60	950-1, EN60	950-1 and C	E Mark.	
Warranty	yrs				Two years			

Note: See Installation Manual for full details, test methods of parameters and application notes (1) No safety certification on PH50S48-3.3, PH75S48-3.3, PH150S48-3.3

Nominal Output	Model Selector						
3.3	·	-	•	24V input	48V input	110V input	280V input
3.3	3.3	10.0	33.0	-	PH50S48-3.3	-	PH50S280-3.3
3.3 30.0 99.0 - PH150S48-3.3 - PH150S280-3.3 3.3 100.0 330.0 PH50S280-3.3 PH300S280-3.3 100.0 330.0 PH50S280-5 PH50S110-5 PH50S280-5 PH50S10-5 PH50S280-5 PH50S110-5 PH50S280-5 PH50S10-5 PH50S280-5 PH150S110-5 PH50S280-5 PH150S110-5 PH50S280-5 PH150S110-5 PH50S280-5 PH150S110-5 PH150S280-5 PH150S110-12 PH50S280-5 PH150S110-12 PH50S280-5 PH150S110-12 PH50S280-5 PH150S110-12 PH50S280-12 PH150S110-12 PH150S280-12 PH150S110-13 PH50S280-12 PH50S110-15 PH50S280-15 PH50S280-24 PH50S280-28 P			49.5	-	PH75S48-3.3	-	PH75S280-3.3
3.3 50.0 165.0 PH300S280-3.3   3.3 100.0 330.0 PH300S280-3.3   5.0 10.0 50.0 PH50S24-5 PH50S48-5 PH50S110-5 PH50S280-5   5.0 15.0 75.0 - PH75S48-5 PH75S110-5 PH75S280-5   5.0 20.0 100.0 - PH100S48-5 - PH150S110-5 PH75S280-5   5.0 30.0 150.0 - PH150S48-5 PH150S110-5 PH75S280-5   5.0 50.0 250.0 PH300S280-5   5.0 100.0 500.0 PH30S24-12 PH50S48-12 PH50S110-12 PH50S280-12   12.0 4.2 50.0 PH50S24-12 PH50S48-12 PH75S110-12 PH50S280-12   12.0 6.3 75.0 - PH75S48-12 PH75S110-12 PH75S280-12   12.0 8.4 100.0 - PH100S48-12 PH150S110-12 PH150S280-12   12.0 12.5 150.0 - PH50S24-12 PH50S48-12 PH50S110-12 PH50S280-12   12.0 25.0 300.0 PH30S280-12 PH50S280-12   12.0 50.0 600.0 PH30S280-12 PH50S280-12   15.0 3.4 50.0 PH50S24-15 PH50S48-15 PH50S110-15 PH50S280-12   15.0 3.4 50.0 PH50S24-15 PH50S48-15 PH50S110-15 PH50S280-15   15.0 6.7 100.0 - PH100S48-15 PH50S110-15 PH50S280-15   15.0 6.7 100.0 - PH50S24-15 PH50S48-15 PH50S110-15 PH50S280-15   15.0 10.0 150.0 - PH100S48-15 PH50S110-15 PH50S280-15   15.0 20.0 300.0 PH300S280-15   15.0 40.0 600.0 PH50S280-15 PH50S110-15 PH50S280-15   15.0 40.0 600.0 PH50S280-15 PH50S110-15 PH50S280-15   15.0 40.0 600.0 PH50S280-15 PH50S110-15 PH50S280-15   15.0 40.0 150.0 - PH50S24-24 PH50S48-24 PH50S110-24 PH50S280-15   15.0 40.0 600.0 PH300S280-15 PH50S280-15 PH50S280-15   15.0 40.0 600.0 PH50S280-15 PH50S280-2	3.3	20.0	66.0	-	PH100S48-3.3	-	PH100S280-3.3
3.3 100.0 330.0 PH600S280-3.3   5.0 10.0 50.0 PH50S24-5 PH50S48-5 PH50S110-5 PH50S280-5   5.0 15.0 75.0 - PH75S48-5 PH75S110-5 PH50S280-5   5.0 20.0 100.0 - PH100S48-5 - PH75S110-5 PH750S280-5   5.0 30.0 150.0 - PH150S48-5 PH150S110-5 PH150S280-5   5.0 50.0 250.0 PH600S280-5   5.0 100.0 500.0 PH50S280-5   5.0 100.0 500.0 PH50S280-5   5.0 100.0 500.0 PH600S280-5   5.0 12.0 4.2 50.0 PH50S24-12 PH50S48-12 PH50S110-12 PH50S280-12   5.0 8.4 100.0 - PH100S48-12 PH75S280-12 PH75S280-12   5.0 12.0 8.4 100.0 - PH150S48-12 PH50S110-12 PH50S280-12   5.0 12.0 12.5 150.0 - PH150S48-12 PH50S110-12 PH50S280-12   5.0 12.0 25.0 300.0 PH600S280-15   5.0 50.0 600.0 PH50S28-15 PH50S110-15 PH50S280-12   5.0 50.0 600.0 PH50S28-15 PH50S110-15 PH50S280-15   5.0 5.0 75.0 - PH50S24-15 PH50S48-15 PH50S110-15 PH50S280-15   5.0 6.7 100.0 - PH50S24-15 PH50S48-15 PH75110-15 PH50S280-15   5.0 10.0 150.0 - PH100S48-15 PH50S110-15 PH50S280-15   5.0 20.0 300.0 PH70S48-15 PH50S110-15 PH50S280-15   5.0 20.0 300.0 PH50S28-15 PH50S110-15 PH50S280-15   5.0 20.0 300.0 PH50S28-15 PH50S110-15 PH50S280-15   5.0 20.0 300.0 PH50S28-15 PH50S110-15 PH50S280-15   5.0 40.0 600.0 PH50S28-24 PH50S110-24 PH50S280-24   5.0 40.0 600.0 PH50S28-24 PH50S110-24 PH50S280-24   5.0 40.0 60.0 PH50S28-24 PH50S110-24 PH50S280-24   5.0 60.0 - PH50S28-24 PH50S48-24 PH50S110-24 PH50S280-24   5.0 60.0 - PH50S28-24 PH50S48-28 PH50S110-28 PH50S280-24   5.0 60.0 - PH50S28-28 PH50S48-28 PH50S110-28 PH50S280-28   5.0 5.4 50.0 PH50S28-28 PH50S48-28 PH50S110-28 PH50S280-28   5.0 60.0 - PH50S280-28 PH50S48-28 PH	3.3	30.0	99.0	-	PH150S48-3.3	-	PH150S280-3.3
5.0         10.0         50.0         PH50S24-5         PH50S48-5         PH50S110-5         PH50S280-5           5.0         15.0         75.0         -         PH70S48-5         PH75S110-5         PH75S280-5           5.0         20.0         100.0         -         PH100S48-5         -         PH100S280-5           5.0         30.0         150.0         -         -         -         PH300S280-5           5.0         50.0         250.0         -         -         -         PH300S280-5           5.0         100.0         500.0         -         -         -         PH300S280-5           5.0         100.0         500.0         -         -         -         PH300S280-5           5.0         100.0         500.0         -         -         -         PH600S280-5           12.0         4.2         50.0         PH50S24-12         PH50S48-12         PH50S110-12         PH50S280-12           12.0         8.4         100.0         -         PH75S48-12         PH75S110-12         PH150S280-12           12.0         25.0         300.0         -         -         -         PH450S280-12           12.0         50.0 <td< td=""><td>3.3</td><td>50.0</td><td>165.0</td><td>-</td><td>-</td><td>-</td><td>PH300S280-3.3</td></td<>	3.3	50.0	165.0	-	-	-	PH300S280-3.3
5.0         15.0         75.0         -         PH75S48-5         PH75S110-5         PH75S280-5           5.0         20.0         100.0         -         PH100S48-5         -         PH100S280-5           5.0         30.0         150.0         -         PH150S48-5         PH150S110-5         PH150S280-5           5.0         50.0         250.0         -         -         -         PH600S280-5           5.0         100.0         500.0         -         -         -         PH600S280-5           12.0         4.2         50.0         PH50S24-12         PH50S48-12         PH50S110-12         PH60S280-12           12.0         6.3         75.0         -         PH75S48-12         PH75S110-12         PH75S280-12           12.0         8.4         100.0         -         PH100S48-12         PH150S110-12         PH150S280-12           12.0         25.0         300.0         -         -         -         PH150S280-12           12.0         25.0         300.0         -         -         -         PH300S280-12           12.0         50.0         600.0         -         -         -         PH600S280-15           15.0         3.4	3.3	100.0	330.0	-	-	-	PH600S280-3.3
5.0         20.0         100.0         -         PH100S48-5         -         PH100S280-5           5.0         30.0         150.0         -         PH150S48-5         PH150S110-5         PH150S280-5           5.0         50.0         250.0         -         -         PH300S280-5           5.0         100.0         500.0         -         -         PH50S48-12         PH50S110-12         PH50S280-12           12.0         4.2         50.0         PH50S24-12         PH50S48-12         PH75S110-12         PH50S280-12           12.0         6.3         75.0         -         PH100S48-12         PH75S110-12         PH50S280-12           12.0         8.4         100.0         -         PH100S48-12         PH75S110-12         PH50S280-12           12.0         12.5         150.0         -         PH150S48-12         PH150S110-12         PH150S280-12           12.0         50.0         300.0         -         -         -         PH300S280-12           15.0         3.4         50.0         PH50S24-15         PH50S48-15         PH50S110-15         PH50S280-15           15.0         6.7         100.0         -         PH75S48-15         PH50S110-15         PH50S	5.0	10.0	50.0	PH50S24-5	PH50S48-5	PH50S110-5	PH50S280-5
5.0         30.0         150.0         -         PH150S48-5         PH150S110-5         PH150S280-5           5.0         50.0         500.0         -         -         -         PH300S280-5           5.0         100.0         500.0         -         -         -         PH600S280-5           12.0         4.2         50.0         PH50S24-12         PH50S48-12         PH50S110-12         PH50S280-12           12.0         6.3         75.0         -         PH150S48-12         PH75S110-12         PH50S280-12           12.0         8.4         100.0         -         PH150S48-12         PH150S110-12         PH150S280-12           12.0         12.5         150.0         -         PH150S48-12         PH150S110-12         PH150S280-12           12.0         25.0         300.0         -         -         -         PH300S280-12           12.0         25.0         300.0         -         -         -         PH300S280-12           12.0         3.4         50.0         PH50S24-15         PH50S48-12         PH50S110-12         PH150S280-12           15.0         3.4         50.0         PH50S24-15         PH50S48-15         PH50S110-15         PH50S280-15	5.0	15.0	75.0	-	PH75S48-5	PH75S110-5	PH75S280-5
5.0         50.0         250.0         -         -         -         PH300S280-5           5.0         100.0         500.0         -         -         -         PH600S280-5           12.0         4.2         50.0         PH50S24-12         PH50S48-12         PH50S110-12         PH50S280-12           12.0         6.3         75.0         -         PH100S48-12         PH75S110-12         PH75S280-12           12.0         12.5         150.0         -         PH150S48-12         PH150S110-12         PH150S280-12           12.0         25.0         300.0         -         -         -         PH300S280-12           12.0         50.0         600.0         -         -         -         PH300S280-12           12.0         50.0         600.0         -         -         -         PH300S280-12           15.0         3.4         50.0         PH50S24-15         PH50S48-15         PH50S110-15         PH50S280-15           15.0         6.7         100.0         -         PH100S48-15         -         PH100S280-15           15.0         10.0         150.0         -         PH150S48-15         PH150S110-15         PH150S280-15           15.0<				-	PH100S48-5	-	
5.0         100.0         500.0         -         -         PH600S280-5           12.0         4.2         50.0         PH50S24-12         PH50S48-12         PH50S110-12         PH50S280-12           12.0         6.3         75.0         -         PH75S48-12         PH75S110-12         PH75S280-12           12.0         8.4         100.0         -         PH100S48-12         -         PH100S280-12           12.0         12.5         150.0         -         PH150S48-12         PH150S110-12         PH150S280-12           12.0         25.0         300.0         -         -         -         PH300S280-12           12.0         50.0         600.0         -         -         -         PH300S280-12           12.0         50.0         600.0         -         -         -         PH300S280-12           15.0         3.4         50.0         PH50S24-15         PH50S48-15         PH50S110-15         PH60S280-15           15.0         5.0         75.0         -         PH75S48-15         PH75110-15         PH75S280-15           15.0         10.0         150.0         -         PH150S48-15         PH150S110-15         PH150S280-15           15.0 <td></td> <td></td> <td></td> <td>-</td> <td>PH150S48-5</td> <td>PH150S110-5</td> <td></td>				-	PH150S48-5	PH150S110-5	
12.0         4.2         50.0         PH50S24-12         PH50S48-12         PH50S110-12         PH50S280-12           12.0         6.3         75.0         -         PH75S48-12         PH75S110-12         PH75S280-12           12.0         8.4         100.0         -         PH100S48-12         -         PH100S280-12           12.0         12.5         150.0         -         PH150S48-12         PH150S110-12         PH150S280-12           12.0         25.0         300.0         -         -         -         PH300S280-12           12.0         50.0         600.0         -         -         -         PH300S280-12           15.0         3.4         50.0         PH50S24-15         PH50S48-15         PH50S110-15         PH50S280-15           15.0         5.0         75.0         -         PH75S48-15         PH75110-15         PH75S280-15           15.0         6.7         100.0         -         PH100S48-15         -         PH100S280-15           15.0         10.0         150.0         -         PH100S48-15         PH150S110-15         PH750S280-15           15.0         20.0         300.0         -         -         -         PH600S280-15				-	-	-	
12.0         6.3         75.0         -         PH75S48-12         PH75S110-12         PH75S280-12           12.0         8.4         100.0         -         PH100S48-12         -         PH100S280-12           12.0         12.5         150.0         -         PH150S48-12         PH150S110-12         PH150S280-12           12.0         25.0         300.0         -         -         -         PH300S280-12           12.0         50.0         600.0         -         -         -         PH300S280-12           15.0         3.4         50.0         PH50S24-15         PH50S48-15         PH50S110-15         PH50S280-15           15.0         5.0         75.0         -         PH75S48-15         PH75110-15         PH75S280-15           15.0         6.7         100.0         -         PH100S48-15         -         PH75S280-15           15.0         10.0         150.0         -         PH150S48-15         PH150S110-15         PH150S280-15           15.0         20.0         300.0         -         -         -         PH600S280-15           15.0         40.0         600.0         -         -         -         PH600S280-15           24.0<				-	-	-	
12.0         8.4         100.0         -         PH100S48-12         -         PH100S280-12           12.0         12.5         150.0         -         PH150S48-12         PH150S110-12         PH150S280-12           12.0         25.0         300.0         -         -         -         PH300S280-12           12.0         50.0         600.0         -         -         -         PH300S280-12           15.0         3.4         50.0         PH50S24-15         PH50S48-15         PH50S110-15         PH50S280-15           15.0         5.0         75.0         -         PH75S48-15         PH75110-15         PH75S280-15           15.0         6.7         100.0         -         PH100S48-15         -         PH700S280-15           15.0         10.0         150.0         -         PH150S48-15         PH150S110-15         PH300S280-15           15.0         20.0         300.0         -         -         -         PH300S280-15           15.0         40.0         600.0         -         -         -         PH600S280-15           24.0         2.1         50.0         PH50S24-24         PH50S48-24         PH50S110-24         PH50S280-24				PH50S24-12			
12.0       12.5       150.0       -       PH150S48-12       PH150S110-12       PH150S280-12         12.0       25.0       300.0       -       -       -       PH300S280-12         12.0       50.0       600.0       -       -       -       PH600S280-12         15.0       3.4       50.0       PH50S24-15       PH50S48-15       PH50S110-15       PH50S280-15         15.0       5.0       75.0       -       PH75S48-15       PH75110-15       PH75S280-15         15.0       6.7       100.0       -       PH100S48-15       -       PH100S280-15         15.0       10.0       150.0       -       PH150S48-15       PH150S110-15       PH150S280-15         15.0       20.0       300.0       -       -       -       PH300S280-15         15.0       40.0       600.0       -       -       -       PH600S280-15         15.0       40.0       600.0       -       -       -       PH600S280-15         24.0       2.1       50.0       PH50S24-24       PH50S48-24       PH50S110-24       PH75S280-24         24.0       4.2       100.0       -       PH100S48-24       PH150S110-24       PH75S280-24				-		PH75S110-12	
12.0       25.0       300.0       -       -       -       PH300S280-12         12.0       50.0       600.0       -       -       -       PH600S280-12         15.0       3.4       50.0       PH50S24-15       PH50S48-15       PH50S110-15       PH50S280-15         15.0       5.0       75.0       -       PH75S48-15       PH75110-15       PH50S280-15         15.0       6.7       100.0       -       PH100S48-15       PH150S110-15       PH150S280-15         15.0       10.0       150.0       -       PH150S48-15       PH150S110-15       PH150S280-15         15.0       20.0       300.0       -       -       -       PH300S280-15         15.0       40.0       600.0       -       -       -       PH300S280-15         15.0       40.0       600.0       -       -       -       PH600S280-15         24.0       2.1       50.0       PH50S24-24       PH50S48-24       PH75S110-24       PH50S280-24         24.0       4.2       100.0       -       PH100S48-24       PH150S110-24       PH150S280-24         24.0       12.5       300.0       -       -       -       PH300S280-24				-		-	
12.0 50.0 600.0 PH600S280-12 15.0 3.4 50.0 PH50S24-15 PH50S48-15 PH50S110-15 PH50S280-15 15.0 5.0 75.0 - PH75S48-15 PH75110-15 PH75S280-15 15.0 6.7 100.0 - PH100S48-15 - PH150S280-15 15.0 10.0 150.0 - PH150S48-15 PH150S110-15 PH50S280-15 15.0 20.0 300.0 PH300S280-15 15.0 40.0 600.0 PH300S280-15 15.0 40.0 600.0 PH50S24-24 PH50S110-24 PH50S280-15 24.0 2.1 50.0 PH50S24-24 PH50S48-24 PH75S110-24 PH75S280-24 24.0 3.2 75.0 - PH75S48-24 PH75S110-24 PH75S280-24 24.0 4.2 100.0 - PH100S48-24 - PH100S280-24 24.0 6.3 150.0 - PH150S48-24 PH150S110-24 PH50S280-24 24.0 12.5 300.0 PH300S280-24 24.0 12.5 300.0 PH300S280-24 24.0 25.0 600.0 PH300S280-24 28.0 1.8 50.0 PH50S24-28 PH50S48-28 PH50S110-28 PH50S280-28 28.0 3.6 100.0 - PH50S24-28 PH50S48-28 PH75S110-28 PH75S280-28 28.0 5.4 150.0 - PH150S48-28 PH75S110-28 PH75S280-28 28.0 10.8 302.0 PH300S280-28				-	PH150S48-12	PH150S110-12	
15.0         3.4         50.0         PH50S24-15         PH50S48-15         PH50S110-15         PH50S280-15           15.0         5.0         75.0         -         PH75S48-15         PH75110-15         PH75S280-15           15.0         6.7         100.0         -         PH100S48-15         -         PH100S280-15           15.0         10.0         150.0         -         PH150S48-15         PH150S110-15         PH150S280-15           15.0         20.0         300.0         -         -         -         PH300S280-15           15.0         40.0         600.0         -         -         -         PH600S280-15           15.0         40.0         600.0         -         -         -         PH600S280-15           24.0         2.1         50.0         PH50S24-24         PH50S48-24         PH50S110-24         PH50S280-24           24.0         3.2         75.0         -         PH75S48-24         PH75S110-24         PH150S280-24           24.0         4.2         100.0         -         PH150S48-24         PH150S110-24         PH150S280-24           24.0         12.5         300.0         -         -         -         PH300S280-24				-	-	-	
15.0         5.0         75.0         -         PH75S48-15         PH75110-15         PH75S280-15           15.0         6.7         100.0         -         PH100S48-15         -         PH100S280-15           15.0         10.0         150.0         -         PH150S48-15         PH150S110-15         PH150S280-15           15.0         20.0         300.0         -         -         -         PH300S280-15           15.0         40.0         600.0         -         -         -         PH600S280-15           24.0         2.1         50.0         PH50S24-24         PH50S48-24         PH50S110-24         PH50S280-24           24.0         3.2         75.0         -         PH75S48-24         PH75S110-24         PH75S280-24           24.0         4.2         100.0         -         PH100S48-24         -         PH100S280-24           24.0         12.5         300.0         -         -         -         PH300S280-24           24.0         12.5         300.0         -         -         -         PH600S280-24           24.0         25.0         600.0         -         -         -         PH600S280-24           28.0         1.8				-	-	-	
15.0       6.7       100.0       -       PH100S48-15       -       PH100S280-15         15.0       10.0       150.0       -       PH150S48-15       PH150S110-15       PH150S280-15         15.0       20.0       300.0       -       -       -       PH300S280-15         15.0       40.0       600.0       -       -       -       PH600S280-15         24.0       2.1       50.0       PH50S24-24       PH50S48-24       PH50S110-24       PH50S280-24         24.0       3.2       75.0       -       PH75S48-24       PH75S110-24       PH75S280-24         24.0       4.2       100.0       -       PH100S48-24       -       PH100S280-24         24.0       6.3       150.0       -       PH150S48-24       PH150S110-24       PH150S280-24         24.0       12.5       300.0       -       -       -       PH300S280-24         24.0       25.0       600.0       -       -       -       PH600S280-24         28.0       1.8       50.0       PH50S24-28       PH50S48-28       PH50S110-28       PH50S280-28         28.0       3.6       100.0       -       PH75S48-28       PH75S110-28       PH75S280-28				PH50S24-15			
15.0       10.0       150.0       -       PH150S48-15       PH150S110-15       PH150S280-15         15.0       20.0       300.0       -       -       -       PH300S280-15         15.0       40.0       600.0       -       -       -       PH600S280-15         24.0       2.1       50.0       PH50S24-24       PH50S48-24       PH50S110-24       PH50S280-24         24.0       3.2       75.0       -       PH75S48-24       PH75S110-24       PH75S280-24         24.0       4.2       100.0       -       PH100S48-24       -       PH100S280-24         24.0       6.3       150.0       -       PH150S48-24       PH150S110-24       PH150S280-24         24.0       12.5       300.0       -       -       -       PH300S280-24         24.0       12.5       300.0       -       -       -       PH600S280-24         24.0       12.5       300.0       -       -       -       PH600S280-24         28.0       1.8       50.0       PH50S24-28       PH50S48-28       PH50S110-28       PH50S280-28         28.0       3.6       100.0       -       PH100S48-28       -       PH100S280-28				-		PH75110-15	
15.0       20.0       300.0       -       -       -       PH300S280-15         15.0       40.0       600.0       -       -       -       PH600S280-15         24.0       2.1       50.0       PH50S24-24       PH50S48-24       PH50S110-24       PH50S280-24         24.0       3.2       75.0       -       PH75S48-24       PH75S110-24       PH75S280-24         24.0       4.2       100.0       -       PH100S48-24       -       PH100S280-24         24.0       6.3       150.0       -       PH150S48-24       PH150S110-24       PH150S280-24         24.0       12.5       300.0       -       -       -       PH300S280-24         24.0       12.5       300.0       -       -       -       PH600S280-24         24.0       25.0       600.0       -       -       -       PH600S280-24         28.0       1.8       50.0       PH50S24-28       PH50S48-28       PH50S110-28       PH50S280-28         28.0       3.6       100.0       -       PH75S48-28       PH75S110-28       PH75S280-28         28.0       5.4       15.0       -       PH150S48-28       PH150S110-28       PH150S280-28     <				-		-	
15.0       40.0       600.0       -       -       PH600S280-15         24.0       2.1       50.0       PH50S24-24       PH50S48-24       PH50S110-24       PH50S280-24         24.0       3.2       75.0       -       PH75S48-24       PH75S110-24       PH75S280-24         24.0       4.2       100.0       -       PH100S48-24       -       PH100S280-24         24.0       6.3       150.0       -       PH150S48-24       PH150S110-24       PH150S280-24         24.0       12.5       300.0       -       -       -       PH300S280-24         24.0       25.0       600.0       -       -       -       PH600S280-24         28.0       1.8       50.0       PH50S24-28       PH50S48-28       PH50S110-28       PH50S280-28         28.0       3.6       100.0       -       PH75S48-28       PH75S110-28       PH100S280-28         28.0       5.4       150.0       -       PH150S48-28       PH150S110-28       PH150S280-28         28.0       10.8       302.0       -       -       -       PH300S280-28         28.0       10.8       302.0       -       -       -       PH300S280-28				-	PH150S48-15	PH150S110-15	
24.0       2.1       50.0       PH50S24-24       PH50S48-24       PH50S110-24       PH50S280-24         24.0       3.2       75.0       -       PH75S48-24       PH75S110-24       PH75S280-24         24.0       4.2       100.0       -       PH100S48-24       -       PH100S280-24         24.0       6.3       150.0       -       PH150S48-24       PH150S110-24       PH150S280-24         24.0       12.5       300.0       -       -       -       PH300S280-24         24.0       25.0       600.0       -       -       -       PH600S280-24         28.0       1.8       50.0       PH50S24-28       PH50S48-28       PH50S110-28       PH50S280-28         28.0       3.6       100.0       -       PH75S48-28       PH75S110-28       PH100S280-28         28.0       3.6       100.0       -       PH100S48-28       -       PH100S280-28         28.0       5.4       150.0       -       PH150S48-28       PH150S110-28       PH150S280-28         28.0       10.8       302.0       -       -       -       PH300S280-28         28.0       21.5       602.0       -       -       -       PH600S280-28				-	-	-	
24.0       3.2       75.0       -       PH75S48-24       PH75S110-24       PH75S280-24         24.0       4.2       100.0       -       PH100S48-24       -       PH100S280-24         24.0       6.3       150.0       -       PH150S48-24       PH150S110-24       PH150S280-24         24.0       12.5       300.0       -       -       -       PH300S280-24         24.0       25.0       600.0       -       -       -       PH600S280-24         28.0       1.8       50.0       PH50S24-28       PH50S48-28       PH50S110-28       PH50S280-28         28.0       2.7       75.0       -       PH75S48-28       PH75S110-28       PH75S280-28         28.0       3.6       100.0       -       PH100S48-28       -       PH100S280-28         28.0       5.4       150.0       -       PH150S48-28       PH150S110-28       PH150S280-28         28.0       10.8       302.0       -       -       -       PH300S280-28         28.0       21.5       602.0       -       -       -       PH600S280-28				- DUI50004.04	- DUE0040.04	- DUE00440.04	
24.0       4.2       100.0       -       PH100S48-24       -       PH100S280-24         24.0       6.3       150.0       -       PH150S48-24       PH150S110-24       PH150S280-24         24.0       12.5       300.0       -       -       -       PH300S280-24         24.0       25.0       600.0       -       -       -       PH600S280-24         28.0       1.8       50.0       PH50S24-28       PH50S48-28       PH50S110-28       PH50S280-28         28.0       2.7       75.0       -       PH75S48-28       PH75S110-28       PH75S280-28         28.0       3.6       100.0       -       PH100S48-28       -       PH100S280-28         28.0       5.4       150.0       -       PH150S48-28       PH150S110-28       PH150S280-28         28.0       10.8       302.0       -       -       -       PH300S280-28         28.0       21.5       602.0       -       -       -       PH600S280-28				PH50S24-24			
24.0       6.3       150.0       -       PH150S48-24       PH150S110-24       PH150S280-24         24.0       12.5       300.0       -       -       -       PH300S280-24         24.0       25.0       600.0       -       -       -       PH600S280-24         28.0       1.8       50.0       PH50S24-28       PH50S48-28       PH50S110-28       PH50S280-28         28.0       2.7       75.0       -       PH75S48-28       PH75S110-28       PH75S280-28         28.0       3.6       100.0       -       PH100S48-28       -       PH100S280-28         28.0       5.4       150.0       -       PH150S48-28       PH150S110-28       PH150S280-28         28.0       10.8       302.0       -       -       -       PH300S280-28         28.0       21.5       602.0       -       -       -       PH600S280-28				-		PH/55110-24	
24.0       12.5       300.0       -       -       -       PH300S280-24         24.0       25.0       600.0       -       -       -       PH600S280-24         28.0       1.8       50.0       PH50S24-28       PH50S48-28       PH50S110-28       PH50S280-28         28.0       2.7       75.0       -       PH75S48-28       PH75S110-28       PH75S280-28         28.0       3.6       100.0       -       PH100S48-28       -       PH100S280-28         28.0       5.4       150.0       -       PH150S48-28       PH150S110-28       PH150S280-28         28.0       10.8       302.0       -       -       -       PH300S280-28         28.0       21.5       602.0       -       -       PH600S280-28	_			-		- DU1500110 04	
24.0       25.0       600.0       -       -       -       PH600S280-24         28.0       1.8       50.0       PH50S24-28       PH50S48-28       PH50S110-28       PH50S280-28         28.0       2.7       75.0       -       PH75S48-28       PH75S110-28       PH75S280-28         28.0       3.6       100.0       -       PH100S48-28       -       PH100S280-28         28.0       5.4       150.0       -       PH150S48-28       PH150S110-28       PH150S280-28         28.0       10.8       302.0       -       -       -       PH300S280-28         28.0       21.5       602.0       -       -       PH600S280-28	1			-	PH100046-24	PH1005110-24	
28.0       1.8       50.0       PH50S24-28       PH50S48-28       PH50S110-28       PH50S280-28         28.0       2.7       75.0       -       PH75S48-28       PH75S110-28       PH75S280-28         28.0       3.6       100.0       -       PH100S48-28       -       PH100S280-28         28.0       5.4       150.0       -       PH150S48-28       PH150S110-28       PH150S280-28         28.0       10.8       302.0       -       -       -       PH300S280-28         28.0       21.5       602.0       -       -       PH600S280-28				-	-	-	
28.0       2.7       75.0       -       PH75S48-28       PH75S110-28       PH75S280-28         28.0       3.6       100.0       -       PH100S48-28       -       PH100S280-28         28.0       5.4       150.0       -       PH150S48-28       PH150S110-28       PH150S280-28         28.0       10.8       302.0       -       -       -       PH300S280-28         28.0       21.5       602.0       -       -       -       PH600S280-28				- DU50924 20	- DUE0040 20	- DUE00110 20	
28.0 3.6 100.0 - PH100S48-28 - PH100S280-28 28.0 5.4 150.0 - PH150S48-28 PH150S110-28 PH150S280-28 28.0 10.8 302.0 PH300S280-28 28.0 21.5 602.0 PH600S280-28				- HOUOZ4-Z0			
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28.0 21.5 602.0 PH600S280-28					-	-	
, 1010 010 00E10 1110000Z00°T0 1				-	-	-	
48.0 12.5 600.0 PH600S280-48				-	_	_	

Pinout	
Pin Description	Function
-Vin	Negative Input Terminal
+Vin	Positive Input Terminal
+S	Positive Remote sense
-S	Negative Remote sense
+V	Positive Output Terminal
-V	Negative Output Terminal
IOG	Inverter Good Signal
TRIM	Output adjustment trim pin
CNT	On/Off Control Terminal
CS	Current Monitor Signal

Other DC-DC Products			
PH Full Function	50 - 300W, full function versions of PH		
PAQ, PAH, PAF	50 - 700W quarter, half & full bricks		
PX	10-40W, 12-48V input, DC-DC		
CC-E	1.5-30W, 5-48V input, DC-DC		

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