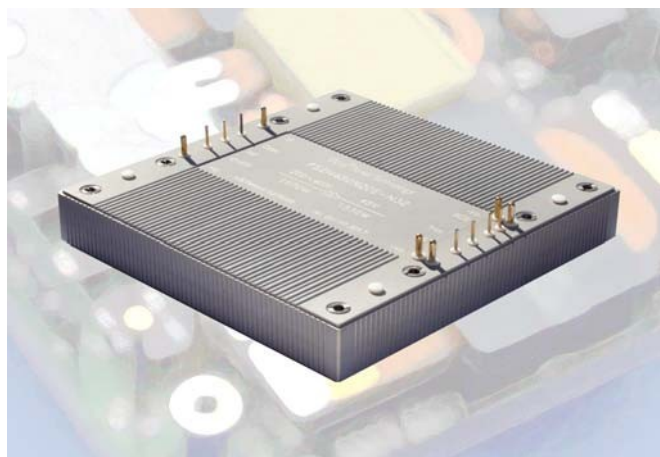


- High efficiency 92%@48V/32A
..... 92%@28V/54A
..... 92%@24V/63A
- High deliver power 1500W
- Outline footprint 5.0"×4.8"×0.75"
- Operation temperature -40°C~110°C

The *PowerSquare* series provides up to 1500W/100A outputs with industry standard full brick pin assignment. The high thermal conductivity silicone potted six-sides metal package is designed for applications under extreme environmental conditions. The efficient SR stage is combined with patented "Buck Reset" topology for reduce power loss to achieve 83W/in³ power density. The multi-layer single side circuit board design plus the unique module structure is able to enhance the thermal performance and improve its reliability. Modules are designed for Industrial, Telecom, Servers, Networking equipments and other applications that use a 300V (200V~400V) input bus.



Part Number *	Maximum Input	Maximum Output	Efficiency
PS2H480ABCD-XEF	200V~400V	1670W 48V/32A 1536W	92%
PS2H280ABCD-XEF	200V~400V	1644W 28V/54A 1512W	92%

Part Number *	Maximum Input	Maximum Output	Efficiency
PS2H240ABCD-XEF	200V~400V	1644W 24V/63A 1512W	92%
PS2H120ABCD-XEF	200V~400V	1304W 12V/100A 1200W	92%

* Options for **PS series** are listed as follows:

- A** (Enable Logic): **P**: Positive **N**: Negative
B (Pin Length): **0**: 0.12" **1**: 0.16" **2**: 0.20" **3**: 0.24"
C (Standoff Height): **0**: 0.04"
D (Base-Plate/Module Thickness): **E**: 1.5mm Metal Plate with metallic enclosure/0.75"
X (Current Share): **Blank**: Without current share **S**: Secondary current share
EF (Output): **00** to **A0** for output current rating



Example: **PS2H280P20E-S54** is a *PowerSquare* series 300V to 28V/54A dc/dc converter features current share function with positive control logic, 0.20" pin length, 0.04" of standoff height. The total height of this module is 0.04"+0.75"=0.79"

ABSOLUTE MAXIMUM RATINGS			
Temperature	Operation	-40°C to +110°C	
	Storage Operation:	-55°C to +125°C	
Input Voltage Range	Transient (100mS):	+190V to +410Vdc	
	Input to Output	500V Maximum	
Isolation Voltage	Input to Case	2.0KV Minimum	
	Output to Case	1.0KV Minimum	
		1.0KV Minimum	
Remote Control Voltage		-0.5V to +12Vdc	

GENERAL SPECIFICATION			
Conversion Efficiency	Typical	See table	
Switching Frequency	Typical	300KHz	
MTBF	Bellcore	1.7×10 ⁶ hrs @GB/25°C.	
	TR-332 issue 6	(PS2H480P20E-N32)	
OTP	Internal	110°C (T _c)	
Weight		800g	

CONTROL FUNCTIONS			
Remote Control	Logic High	+3.0V to +6.5V	
	Logic Low	0V to +1.0V	
Input Current of Remote Control Pin		-0.5mA ~ +1.5mA	

INPUT SPECIFICATIONS			
Operation Voltage Range		+200V to +400Vdc	
Reflected Ripple Current	L _{EXT} = 10uH	50mA Max	
Power ON Voltage Ranges		+190V to +198Vdc	
Power OFF Voltage Ranges		+185V to +194Vdc	
Off State Input Current	V _{NOM}	6mA Max	
Latch-State Input Current	V _{NOM}	8mA Max	
Input Capacitance		4.6uF Max	

OUTPUT SPECIFICATIONS			
Voltage Accuracy	Typical	±2.0%	
Line Regulation	Full Input Range	±0.5%	
Load Regulation	10%~100%	±0.5%	
Temperature Drift	-40°C ~100°C All	±0.04%/°C	
Output Tolerance Band	Conditions Peak-	±4%	
Ripple & Noise (20MHz)	Peak (RMS) V _{NOM} ,	3% (1%) V _o	
Over Voltage Protection	10% Load V _{NOM}	115~130 %V _o	
Output Current Limits	V _{NOM} , 10% Load	105%~125%	
Voltage Trim	V _{NOM} , Full Load	±10%	
Input Ripple Rejection (<1KHz)	50%~75% Load	-50dB	
Step Load (2.5A/uS)	V _{NOM} , Full Load	6%Vo/500uS	
Start-Up Delay Time		50mS/250mS	

Important Note: General specifications and the performances are related to standard series only, no special customer specification display here except requested items.



Designation	Function Description	Pin #
-Vi	Negative input	1
CASE	Connected to base plate	2
NC	No connection	3
ON/OFF	Remote control. To turn-on and turn-off output.	4
+Vi	Positive input	5
+Vo	Positive output	6
+S	Positive remote sense	7
TRIM	Output voltage adjust	8
-S	Negative remote sense	9
SCS	Secondary current chare bus	10
-Vo	Negative output	11

Pin plating: Golden over Nickel

TBD	TBD
-----	-----

8/N