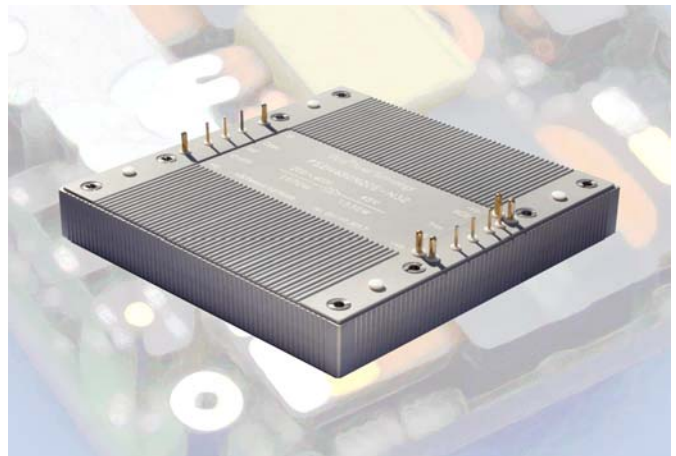


- High efficiency 92%@48V/32A
..... 92%@28V/54A
..... 92%@24V/63A
- High deliver power 1500W
- Outline footprint 5.0"×4.8"×0.75"
- Operation temperature -40°C~110°C

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	Part Number *	Maximum Input	Maximum Output	Efficiency
PS2H480ABCD-XEF	200V~400V 1670W	48V/32A 1536W	92%	PS2H240ABCD-XEF	200V~400V 1644W	24V/63A 1512W	92%
PS2H280ABCD-XEF	200V~400V 1644W	28V/54A 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	-55°C to +125°C
Input Voltage Range	Operation:	+190V to +410Vdc
	Transient (100mS):	500V Maximum
Isolation Voltage	Input to Output	2.0KV Minimum
	Input to Case	1.0KV Minimum
	Output to Case	1.0KV Minimum
Remote Control Voltage		-0.5V to +12Vdc

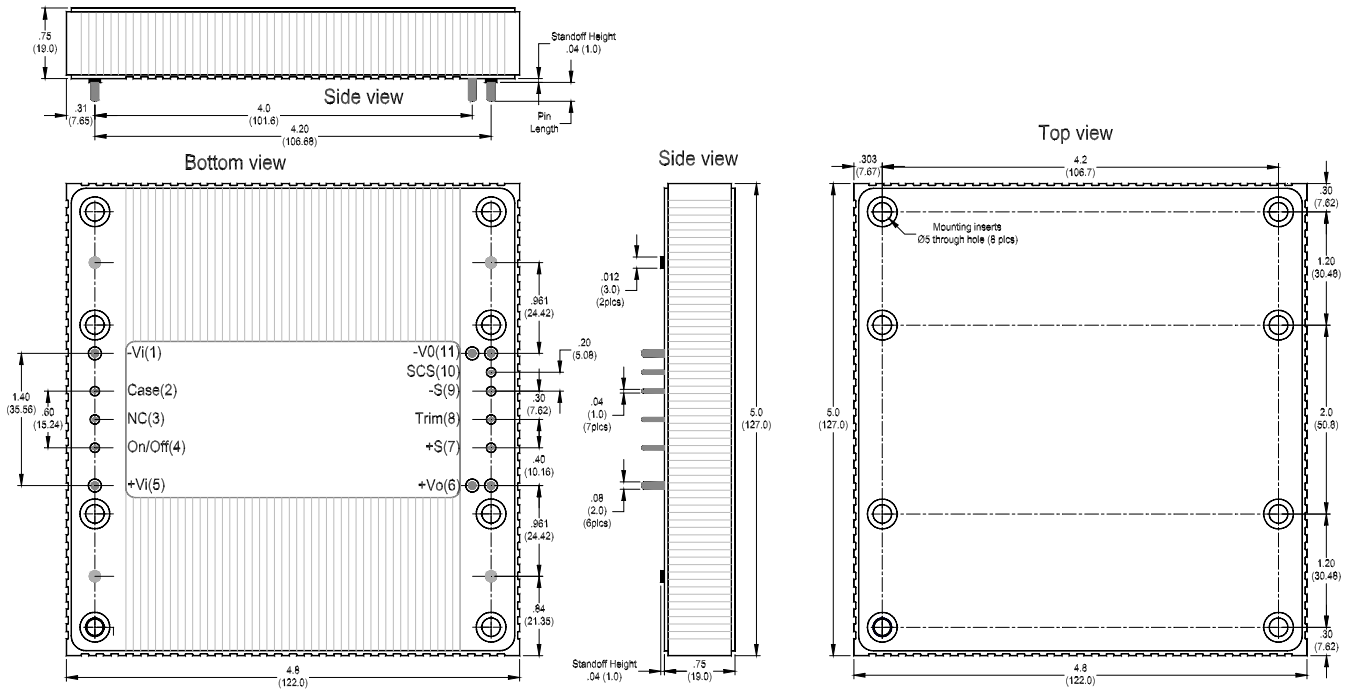
INPUT SPECIFICATIONS		
Operation Voltage Range		+200V to +400Vdc
Reflected Ripple Current	L _{EXT} = 10uH	50mA Max
Power ON Voltage Ranges		+190V to +198Vdc
Power OFF Voltage Ranges		+185V to +194Vdc
Off State Input Current	V _{NOM}	6mA Max
Latch-State Input Current	V _{NOM}	8mA Max
Input Capacitance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

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

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

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

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



Module Mechanical Data

Connection

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

Dimensions: inches (mm)

Tolerances: .xx±0.02 (.x±0.5)
.xxx±0.01 (.x±0.25)

Weight: 800g

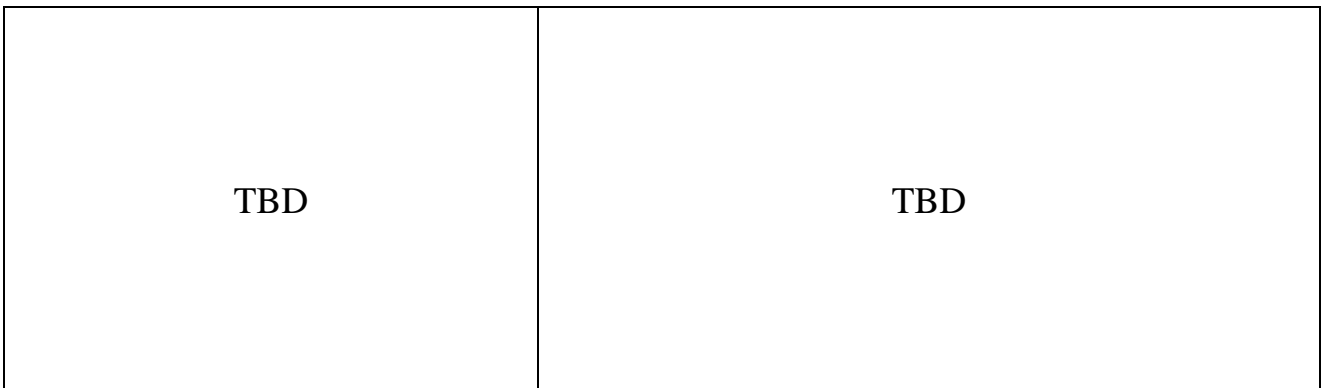
Base plate: Aluminum alloy with anode oxide

Mounting inserts: Iron alloy with Nickel plated

Pin material: Copper alloy or Brass

Pin plating: Golden over Nickel

Referenced EMC Circuit:



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