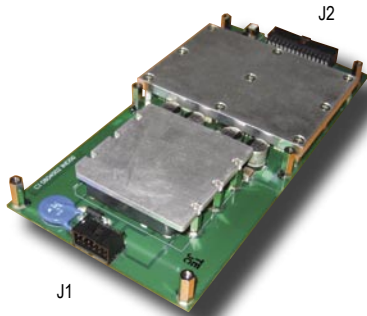


# PST24 Standard product

## Features

- ▶ 24, 28, 48Vdc Input voltage ranges ( 28Vdc for Avionic)
- ▶ 1 to 3 outputs from 2V5 to 48Vdc
- ▶ Up to 240W
- ▶ Extremely low profile 190\*90\*15mm
- ▶ EMI, Surge and transient protection for defense, avionic applications
- ▶ Conduction cooled 100°C baseplate



Safety IEC/EN 60950-1, RoHS lead-free-solder compliant



The PST24 is a family of very compact DC-DC converter in chassis mount format that provides input filtering, input transient protections, very robust mechanical mounting and connection, optional conformal coating, required in most of the severe environment. **The 28Vdc Input version includes MIL-STD-461E filtering, MIL-STD-704A, MIL-STD-1275, DO-160E input protections for avionic and defense applications.**

Based on the VI-CHIP® PRM and VTM concept from Vicor, this converter provides extremely low profile, high reliability, high efficiency, input-to-output isolation, soft start, overtemperature protection. The inputs are protected against reverse polarity, surges and transients, implement over/undervoltage lockout and EMI filtering. The outputs are continuously short-circuit proof. The 100°C baseplate operation allows operation in high temperature environment.

The output can be configured in many different voltages from 3V3 to 48Vdc, others possibilities are even possible as semi-standard versions.

## Electrical Input Data

Input Characteristics	Conditions	24			28			48			Unit
		min	typ	max	min	typ	max	min	typ	max	
Operating input voltage		18	24	36	18	24	50	36	48	75	V
Input surge	50ms									100	V
	100ms									80	V
Undervoltage turn-on			16	17,5		16	17,5		34	35,5	V
Undervoltage turn-off		13,5	14,1		12,2	13,5		30	31,8		V
Overvoltage turn-on		36,5	37,5		50	52,5		75,5	77		V
Overvoltage turn-off			37,8	38,9		53	55		78	82	V
Input current	Vin min		10	10		10	10		7,8	10	A
No-load input power				12			12			12	W
Peak inrush current	Vin nom		35			35					A
Rise time inrush			10			10					µs
Start-up time			200			200					ms

## Connector Pin Allocation

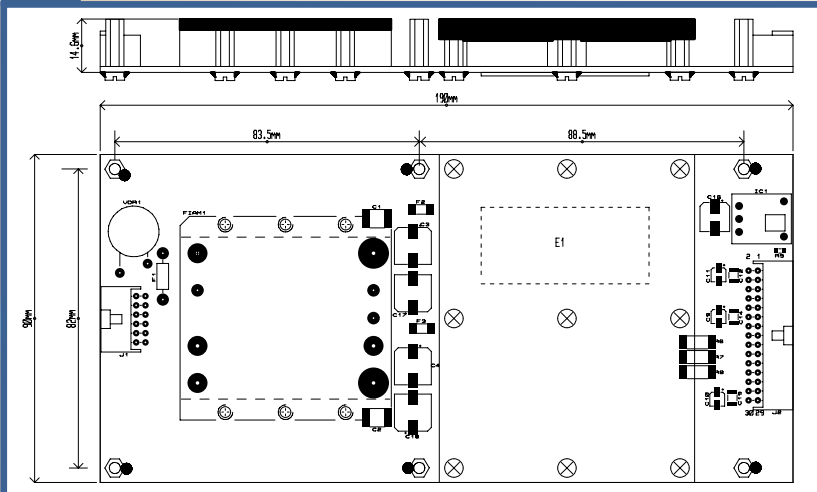
INPUT : Molex 90130-3212 ( 3A / pin )  
OUTPUT : Molex 90130-3230 ( 3A / pin )

PIN	Description
J1: 9 to 12	+IN Positive input voltage
J1: 1 to 4	-IN Negative input voltage
J1: 5 to 8	Earth
J2:1	+V3 Positive Output voltage 3
J2: 2 to 6	OV1 Return Output voltage 1
J2: 7 to 15	+V1 Positive Output voltage 1
J2: 16 to 20	OV1 Return Output voltage 1
J2:21 to 25	+V2 Positive Output voltage 2
J2: 26 to 30	OV2 Return Output voltage 2

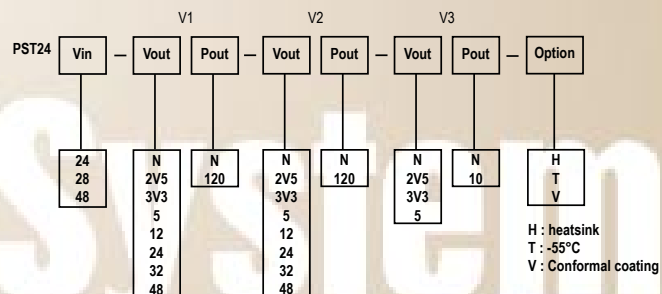
## Electrical Output Data

Output Characteristics	Conditions	2V5			3V3			5V			12V			15V			24V			32V			48V			Unit	
		min	typ	max	min	typ	max	min	typ	max	min	typ	max	min	typ	max	min	typ	max	min	typ	max	min	typ	max		
Output voltage		2V5			3V3			5			12			15			24			32			48			V	
Trim range	Factory Adjustable	1,7	2,8	2,5	3,43	3,25	6,8	6,5	12	13,8	8,7	18,3	13,8	26,5	17,5	36,5	26	55	5	5	0	3,5	3,75	0	2,5	2,5	V
Overvoltage protection			4,5		4,5		6,5		14,9		18,5		29,1		34		58									V	
Nominal output current		0	15	0	15	0	15	0	10	10	0	8	8	0	5	5	0	3,5	3,75	0	2,5	2,5	0	2,5	2,5	A	
Output current limit			82		56		28		21		16		10		8		5		8		5		5		5	A	
Output noise	20MHz		150		150		150		70		180		180		180		180		180		180		180		180	mVpp	
Efficiency			80		80		87		88		88		88		89		90		90		90		90		90	%	
Load Regulation	Vin nom.		4		4		3		2		2		1,5		1,5		1,5		1,5		1,5		1,5		1,5	%	

## Mechanical Data



## Options and configurations



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