



Power Supply Unit for VME (PSV)

EN 50155
EN 45545

MODULE FUNCTIONS

The Trainnet® Power Supply Unit for VME (PSV) is a highly reliable switching mode power supply module. It works only together with the Trainnet® PIU module which takes power from the train batteries and transfers it to the Trainnet® PSV module. The Trainnet® PSV module is specially designed for VMEbus systems.

KEY FEATURES

The Trainnet® PSV has built-in circuitry to detect and control the input current in the event of a power-up. Controlling the in-rush current prevents component damages.

The Trainnet® PSV grace supply function enables the module to continue working for a short period of time when the power is cut off. The PSV module withstands 10 ms input power breaks without disrupting any of the normal operations (Voltage Supply Interruption as per EN50155 Class S2 and Supply change over as per EN50155 Class C1). If the break lasts longer, the power supply is capable of supplying a +5 V DC output during a minimum of 100 ms after the input power is lost, 80 ms for PSV1133C.

TECHNICAL SPECIFICATIONS

Reference	PSV1133C	PSV2513A	PSV3034C	PSV1513A	PSV1018A
Dimensions (W x H x D)	-----	8 TE x 3 U x 160 mm	-----	-----	-----
Weight	500 g	500 g	470 g	500 g	500 g
Temperature Range (operational)	40 °C...+70 °C	40 °C...+70 °C	40 °C...+70 °C	40 °C...+70 °C	40 °C...+70 °C
MTBF (40 °C ambient temperature)	700 000 h	690 000 h	700 000 h	690 000 h	690 000 h
Input Voltage	24 V DC	36 ... 52 V DC	48 ... 110 V DC	72 V DC	110 V DC
Input Voltage Range (V DC)	16.8 ... 30.0	25.2 ... 65.0	33.6 ... 143	50.4 ... 90.0	77 ... 138
Input Fluctuation (1s) (V DC)	14.4 ... 33.6	21.6 ... 72.8	31.2 ... 154	43.2 ... 100.8	66 ... 154
Input Current (<0.1 s/1 s)	5 A max.	4 A max.	3 A max.	3 A max.	2 A max.
Input Power	80 W max.	75 W max.	100 W max.	100 W max.	100 W max.
Supported Supply Interruption (S2)	10 ms	10 ms	10 ms	10 ms	10 ms
Efficiency	----- > 78%	-----	-----	-----	-----
Output Power	60 W	54 W	80 W	80 W	80 W
Output Voltage 5 V DC					
Maximum Output Current	8.5 A	8.5 A *	13 A	12 A	13 A
Minimum Output Current	0.5 A	0.5 A	0.1 A	0.5 A	0.5 A
Ripple/noise p-p	-----	50 mVpp (<20 MHz)	-----	-----	-----
Output Voltage Hold-on at nom. load	100 ms	100 ms	100 ms	100 ms	100 ms
Output Voltage	-----	5.15 V DC ± 2 % (at nominal line, nominal load)	-----	-----	-----
	-----	5.00 V DC min. (at line range, load range)	-----	-----	-----
Output Voltage 12 V DC					
Maximum Output Current	1.25 A	2.0 A *	1.25 A	1.25 A	1.25 A
Ripple/noise p-p	-----	50 mVpp (<20 MHz)	-----	-----	-----
Output Voltage	-----	12.15 V DC ± 2 % (at nominal line, nominal load)	-----	-----	-----
	-----	11.80 V DC min. (at line range, load range)	-----	-----	-----

* Total output loading must not exceed Output power

The ACFAIL and SYSRESET signals are activated to ensure proper shutdown of the systems. This feature allows the system to record sub-system and module states during the

shutdown, thus enabling event diagnostics.

When the input supply voltage is below the set minimum value, Trainnet® PSV minimizes current consumption in order to prevent

the deep discharge of train batteries.

For various versions and specifications, please revert to the table above.