

FEATURES

- 50W-150W; 14-160Vdc Input
- Designed to rail standards EN50155 & EN50121-3-2
- Potted with thermally conductive MIL-spec silicon rubber compound
- Very wide range input 12:1 for 50W converter
- Wide range input 4:1 for 150W converter
- EMC: Meets EN50121-3-2
- Natural convection cooling
- Continuous overload and short circuit protection
- Overvoltage protection
- Optional parallel operation supported by active droop current sharing method external Oring diode required

**SPECIFICATIONS****INPUT**

Input Voltage	50W	14-160Vdc
	60W	43-160Vdc
	100W	66-160Vdc
	150W	43-160Vdc
Input Current	50W	4.6A max at 14Vdc input
	60W	1.6A max at 43Vdc input
	100W	1.7A max at 66Vdc input
	150W	4.0A max at 43Vdc input
No load current	0.01A max	
Input Reverse Voltage Protection	Input Parallel TVS Diode, External input fuse required	

OUTPUT

Output Voltage	See selection table Load= 50% of Full Load
Output Current	See selection table
Output Power	See selection table
Line Regulation	±5%max
Load Regulation	±1% max -CS droop slope, see table
Ripple and Noise	See selection table BW=20MHz
Short Circuit Protection	Continuous, non-latching
Overcurrent Protection	Hiccup overcurrent protection >160% of rated current
Overvoltage Protection	180% voltage typical

ENVIRONMENT

Operating Ambient Temp	-30°C to 85°C with derating
Case Temperature	100°C maximum full load
Cooling	Natural convection.
Humidity	20-80%RH Non condensing

STANDARDS

Safety	EN50155
Isolation	Input/Output: 3000Vdc Input/Case: 2250Vdc Output/Case: 500Vdc
EMC	EN50121-3-2
ESD	EN61000-4-2
Radiated immunity	EN61000-4-3
Fast Transients	EN61000-4-4
Surge	EN61000-4-5
Conducted immunity	EN61000-4-6
Shock and vibration	EN61373
Energy Efficiency	50W 86% typ 60W 90% typ 100W 92% typ 150W 89% typ

MECHANICAL

Dimensions (LxWxH)	69.0 x 244.4 x 22.6 mm -H (Heatsink) 69.0 x 244.4 x 47.6 mm
Weight	530 g - 50W/60W models 770 g - 100W/150W models
DC Input Connector	Dinkle 2EHDRM-03P or equiv
DC Output Connector	Dinkle DT-39-B01W-04 or equiv

PB354 Series

50W - 150W CONVERTER FOR RAILWAY APPLICATIONS

PRODUCT SELECTION

TYPE	OUTPUT VOLTAGE	OUTPUT CURRENT	OUTPUT POWER	OUTPUT VOLTAGE TOLERANCE	OUTPUT RIPPLE AND NOISE *2
PB354-50W12	12V	4.2A	50W	±1%	<150mVp-p
PB354-50W24	24V	2.1A	50W	±1%	<240mVp-p
PB354-150W12-H	12V	12.5A	150W	±1%	<150mVp-p
PB354-150W24-H	24V	6.3A	150W	±1%	<240mVp-p
PB354-50W12-CS	12V	4.4A	50W	11.3V~12.2V w/ droop -0.15V/A	<150mVp-p
PB354-50W24-CS	24V	2.2A	50W	22.9V~24.4V w/ droop -0.50V/A	<240mVp-p
PB354-150W12-H-CS	12V	13.2A	150W	11.3V~12.2V w/ droop -0.055V/A	<150mVp-p
PB354-150W24-H-CS	24V	6.5A	150W	23.0V~24.5V w/ droop -0.18V/A	<240mVp-p
PB354-60W12	12V	5A	60W	±1%	<150mVp-p
PB354-60W24	24V	2.5A	60W	±1%	<240mVp-p
PB354-100W12-H	12V	8.4A	100W	±1%	<150mVp-p
PB354-100W24-H	24V	4.2A	100W	±1%	<240mVp-p
PB354-60W12-CS	12V	5.2A	60W	11.3V~12.2V w/ droop -tbd V/A	<150mVp-p
PB354-60W24-CS	24V	2.6A	60W	22.9V~24.4V w/ droop -tbd V/A	<240mVp-p
PB354-100W12-H-CS	12V	8.8A	100W	11.3V~12.2V w/ droop -tbd V/A	<150mVp-p
PB354-100W24-H-CS	24V	4.4A	100W	23.0V~24.5V w/ droop -tbd V/A	<240mVp-p

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