344DH-13.8

70 Watt, isolated, single output buck converter with internal decoupling diode All parameters defined on Ta=25°C, IoNom = 5.0 ADC and UiNom = 80VDC

ABSOLUTE MAXIMUM RATINGS

parameter	unit	typ
Input peak voltage	VDC	170.00
Worst case output voltage in fault mode	VDC	17

THERMAL CHARACTERISTICS

parameter	min to max	typ
Ambient temperature range	-40°C / +85°C	
Max. case temperature for thermal shut down [°C]		+90°C
Storage temperature (device not in operation)	-10°C / +85°C	
Relative maximum humidity under storage		75% RH
Storage under worst conditions [in days]		25

SPECIALS

COMPLIANCE

parameter	unit	fulfilled	conditions	typ
Switching frequency	kHz			120
Efficiency at light loads	%		0.25loNom	85.00
Efficiency at medium loads	%		0.5loNom	89.00
Efficiency at full loads	%		loNom	90.00
MTTF	h		SN29500 @ 70°	1 600 050
For active loads or parallel connection		\checkmark		
Drives high capacitive loads		\checkmark		
CC/CV battery load characteristic		\checkmark		
Coupling capacitance input to output	nF			transformer winding only
Insulation strength primary to secondary	VDC			2100
Insulation strength primary to case	VDC			2100

parameter	fulfilled	notes	
61000-6-2 (EMC-Immunity standard for industrial environment)	\checkmark		
61000-4-2 (immunity against ESD-electrostatic discharge)	\checkmark		
61000-4-3 (immunity High frequency electromagnetic fields)	\checkmark		
61000-4-4 (immunity against burst – electrical fast transients)	\checkmark		
61000-4-5 (immunity against surge - high energy surges)	\checkmark		
61000-4-6 (immunity against induced, conducted disturbances)	\checkmark		
61000-6-4 (EMC – Emission standard for industrial environment)	\checkmark		
55022 <a< td=""><td>\checkmark</td><td></td><td></td></a<>	\checkmark		

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TECHNICAL DATASHEET

344DH-13.8

70 Watt, isolated, single output buck converter with internal decoupling diode

INPUT					
parameter	unit	conditions	min	typ	max
Input voltage range	VDC	loNom	22	80	160
No load input current	mA	UiNom		16	
Max. input current	А	UiNom		4	
Input start up voltage	VDC	UiNom		20.3	
Undervoltage lockout	VDC	UiNom		17.6	
Input current overshoot during soft start ramp up	%	loNom		50	
Generated AC-ripple on the supply (BW=20MHz)	mVp-p	UiNom/IoNom		330	
Generated HF-noise on the supply (BW=20MHz)	mVp-p	UiNom/IoNom		10	

OUTPUT

parameter	unit	conditions	min typ max
Output voltage	VDC	loNom	13.8
No Load output voltage increase	%	UiNom	3
Minimum required load to obtain the specified output voltage	%	UiNom	4
Generated AC-ripple on the output (BW=20MHz)	mVp-p	UiNom/IoNom	10
Generated HF-noise on the output (BW=20MHz)	mVp-p	UiNom/IoNom	20
Output voltage accuracy	%	loNom	+/-2.00%
Output voltage overshoot at initial switch-on	%	loNom	overdamped
Rated output power	W		70

CONTROL

unit	conditions	min	typ	max
%	loNom/UiMinUiMax	(0.01	
%	loMinloMax/UiNom		0.8	
uF	loNom		infinite	
ms	loNom		50	
ms	loNom		10	
ms	loNom		50	
	% % uF ms ms	%IoNom/UiMinUiMax%IoMinIoMax/UiNomuFIoNommsIoNommsIoNom	%IoNom/UiMinUiMax%IoMinIoMax/UiNomuFIoNommsIoNommsIoNom	%IoNom/UiMinUiMax0.01%IoMinIoMax/UiNom0.8uFIoNominfinitemsIoNom50msIoNom10

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TECHNICAL DATASHEET

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MECHANICAL

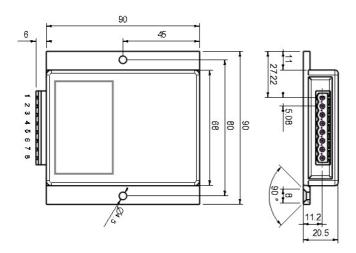
parameter	unit	
Overall dimensions	mm	90x90x21
Weight	g	270

Pin No.	Function	Electrical Determination
1	Vi+	Input voltage positive
2	Vi-	Input voltage negative
3	NC	Not connected
4	NC	Not connected
5	NC	Not connected
6	NC	Not connected
7	Vo-	Output voltage negative
8	Vo+	Output voltage positive

Mechanical dimensions and Pin configuration

All dimensions in mm

Connector type: CCA 2,5/8-G-5,08 P26THR Case: FMC 90x90x21



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