

REV	DESCRIPTION	DATE / APPD
1	RELEASE FOR ENGINEERING USE ONLY	
1A	PRODUCT PRERELEASED PER 22599	5/6/00 GEC
1B	PRERELEASE CHANGE PER 22971	7/27/00 GEC
1C	PRERELEASE CHANGE PER 23047	10/24/00 GEC
1D	PRERELEASE CHANGE PER 23235	1/16/01 GEC
1E	PRERELEASE CHANGE PER 23563	4/20/01 GEC

IMPACT ASSESSMENT

REQUIRED PRIOR TO CHANGE

EXCEL 9.0

DISK: 3.1

FILE: 40173.XLS

DRAWN D. CAMIEL	DATE 3/6/00				
CHECKED E. FEMIAK	DATE 5/9/00				
MARKETING J. COUPAL	DATE 5/22/00				
QA T. BROWN	DATE 5/8/00				
MFG. J. PYPNIOWSKI	DATE 5/9/00	PRODUCT SPECIFICATION USM-3.3/1400-D12			
PROJ. ENG. G. BANGERSKIS	DATE 5/8/00	SIZE A	CODE IDENT. NO. 50721	DWG. NO. 40173	REV 1E
APPD M. ZELFAND	DATE 5/9/00				
		SHEET 1 OF 5			

MODEL: USM-3.3/1400-D12		DC-DC CONVERTER PRODUCT SPECIFICATIONS			
4/20/01					
Device tested at +25C under the following conditions unless otherwise specified:					
Vin typical; Vout nominal load					
With 47uF Tantalum and 22uF ceramic external output capacitors ; No external input capacitors					
INPUT:	MIN.	TYP	MAX.	UNITS	TEST
VOLTAGE RANGE:	9.00	12.00	18.00	Vdc	100%
VOLTAGE TRANSIENT (100ms duration):			25.00	Vdc	GBD
INTERNAL FILTER TYPE:	Pi-TYPE				GBD
BACK RIPPLE CURRENT:		TBD	TBD	mAp-p	GBD
Measured at the input of module using FLT-100V10 Input Filter, 100uF/25V across source, 1uF/25V across DC/DC input pins.					
BACK RIPPLE CURRENT: (no filtering)		TBD	TBD	mAp - p	GBD
MIN LOAD CURRENT (All Outputs @ 0.14A load)		0.86	1.14	mA	100%
INPUT CURRENT		0.53	0.56	A	100%
LOW LINE INPUT CURRENT (Vin @ Min.)		0.70	0.73	A	GBD
External Fuse (Recommended)		1.5 Amp			
Control Pin Current (On/Off) Pos. Logic Model		TBD	TBD	mA/mA	GBD
Control Pin Current (On/Off) Negative Logic Model		NA	NA	mA/mA	GBD
Unit disabled via Control Pin, open collector configuration					
EFFICIENCY :	70.0	73.0		%	100%
EFFICIENCY : @ Vin = Min	70.0	73.0		%	GBD
STARTUP VOLTAGE:	8.0	8.5	9	Vdc	100%
OUTPUT:	MIN.	NOM.	MAX.	UNITS	TEST
TOTAL OUTPUT POWER	0.46	4.62	4.69	W	GBD
VOLTAGE(1):	3.251	3.30	3.350	Vdc	100%
CURRENT RANGE(1):	0.14	1.40	1.40	A	100%
VOLTAGE SETTING ACCURACY:	within	1.5%	of 3.3V	Vdc	100%
LINE REGULATION :			±0.5	%	GBD
Same Measured as Slope			1.0	%	100%
(Vin = min to max, output @ nominal load)					
LOAD REGULATION : (min load to max load)			±0.5	%	GBD
Same Measured as Slope			1.0	%	100%
VOLTAGE ADJUSTMENT RANGE					
Trim Down: Trim (pin 8) to +Vout (pin 5)	+5			%	100%
Trim Up: Trim (pin 8) to Output Return (pin 7)	-5			%	100%
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MODEL: USM-3.3/1400-D12	DC-DC CONVERTER PRODUCT SPECIFICATIONS				
4/20/01					
	MIN.	NOM.	MAX.	UNITS	TEST
TEMPERATURE COEFFICIENT @ All Outputs:		0.02		%/°C	GBD
OVER-VOLTAGE PROTECTION:		NA			
Maximum Output Capacitance		TBD			GBD
RIPPLE/NOISE : (20 MHz BANDWIDTH):		120	150	mV Pk/Pk	100%
CURRENT LIMIT INCEPTION:	1.60	2.00	3.00	A	100%
At 98% of Vout					
SHORT CIRCUIT CURRENT :			3.0	A	GBD
Vo Recovery Test Only. Within 1.5% of Vout Nominal				Vdc	100%
SHORT CIRCUIT DURATION:		TBD			GBD
Output Shorted to Ground					
DYNAMIC LOAD RESPONSE :		500	600	µSec	100%
(Vout load switched from I _{max} / 2 to I _{max} , within 2 x Voltage Setting Accuracy spec)					
GENERAL:	MIN.	TYP.	MAX.	UNITS	TEST
ISOLATION VOLTAGE: (Input to Output)	1500			Vdc	100%
ISOLATION VOLTAGE: (Case to Input)	1500			Vdc	100%
ISOLATION VOLTAGE: (Case to Output)	1500			Vdc	100%
ISOLATION RESISTANCE:		TBD		Mohm	GBD
ISOLATION CAPACITANCE:		TBD		pF	GBD
SWITCHING FREQUENCY:	360	400	440	kHz	GBD
ON/OFF CONTROL PIN: (Pos. Logic, No Suffix)	Unit OFF: On/Off Pin 0V to 1.5V				100%
Designed to be driven with open collector logic	Unit ON: On/Off Pin open or +10V to +V _{in}				100%
Voltages referenced to -Input					
ON/OFF CONTROL PIN: (Neg. Logic, "N" Suffix)		NA			
Designed to be driven with open collector logic					
Voltages referenced to -Input					
SYNC PIN ("S" Suffix)		NA			
Voltages referenced to -Input					
REMOTE SENSE		NA			
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[illegible]

