

MESSRS :

RELIABILITY DATA

CUSTOMER'S PRODUCT NAME:

TDK PRODUCT NAME: DC-DC CONVERTER
CC15 SERIES

TDK-Lambda

TDK Corporation
Power Systems Business Group

DWG.No.	TRSR-0101-5
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Revised 2006/12/01

	Test Condition	Test Result				
		Item	Before test X	After test X	Criteria	Judgment
Vibration - Shock (Group test) CC15-2403SF-E	10~500Hz, amplitude acceleration 10G, 1octave /min.sweep, XYZ each 2.5h 100G(pulse) Duration 6ms 1/2 sine pulse 3times each axis, total 18times N=5 Measuring Condition Ta=25degC Vin=24V Iout=4.5A	Efficiency	88.9%	88.9%	87%~91%	OK
		Output Current	3.344V	3.344V	3.20V~3.40V	OK
		Ripple	32.0mVp-p	27.2mVp-p	<100mVp-p	OK
		Insulated Resistance	>50MΩ	>50MΩ	>50MΩ	OK
		Withstanding voltage	>AC500V	>AC500V	>AC500V	OK
Resistance to solder heat 1 CC15-2405SF-E	380±10degC 3.5sec N=5 Measuring Condition Ta=25degC Vin=24V Iout=3A	Efficiency	88.7%	88.6%	87%~91%	OK
		Output Current	5.060V	5.059V	4.85V~5.15V	OK
		Ripple	39.4mVp-p	39.0mVp-p	<100mVp-p	OK
		Insulated Resistance	>50MΩ	>50MΩ	>50MΩ	OK
		Withstanding voltage	>AC500V	>AC500V	>AC500V	OK
Resistance to solder heat 2 CC15-2405SF-E	265±5degC 10sec N=5 Measuring Condition Ta=25degC Vin=24V Iout=3A	Efficiency	88.5%	88.4%	87%~91%	OK
		Output Current	5.059V	5.059V	4.85V~5.15V	OK
		Ripple	27.4mVp-p	25.2mVp-p	<100mVp-p	OK
		Insulated Resistance	>50MΩ	>50MΩ	>50MΩ	OK
		Withstanding voltage	>AC500V	>AC500V	>AC500V	OK
Mechanical strength of terminal CFT033-09R0 ※1	JIS C 0052 pul,press,bend N=5	Appearance				OK
Solderability CFT033-09R0 ※2	Burn-in under steaming condition 8h 245±3degC N=5	Appearance				OK

No.	MATERIALS NAME	QU	MATERIAL	REMARK
PRODUCT NAME or MODEL, TITLE				
DC-DC CONVERTER CC15 SERIES				
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	Test Condition	Test Result	
		Criteria	Judgment
Static electricity CC15-2403SF-E	1. Human body model Electric discharge resistance : 1.5KΩ capacitance : 100pF Test voltage : 3KV 2. Machine model Electric discharge resistance : 0Ω capacitance : 200pF Test voltage : 1KV Test: 1time Polarity: +,- Measuring Condition Ta=25degC Vin=24V Iout=4.5A N=2	No change after the test	OK
Whisker test	Storage under humidity 60degC·90%R.H. 2000hours N=8 Thermal shock -40degC ~ 85degC Each30min 1500cycle N=8	No whisker shall be allowed	OK

※1 CFT033-09R0 represents all CC15-Series.

※2 CFT033-09R0 represents all CC15-Series.

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TDK CORPORATION

CC15 series MTTF

Single output model

Total failure rates : 1430 fit
MTTF : 0.70 million hour
(80 years)

Calculation Condition

Ta : 50°C
πe : Gb

Vin : Rated voltage
Vout : Rated voltage
Iout : Rated voltage

MIL HDBK 217F

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