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ELECTRONICS

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Jameco Part Number 161729



■ Features :

- 2:1 wide input range
- 4:1 wide input range(optionl)
- 1000VDC I/O isolation
- 3000VDC I/O isolation(option)
- Input Pi network filter
- Protections: Short circuit / Overload
- Cooling by free air convection
- Six-sided shield metal case
- 100% burn-in test
- Low cost / High reliability
- Approvals: FCC / CE
- 1 year warranty

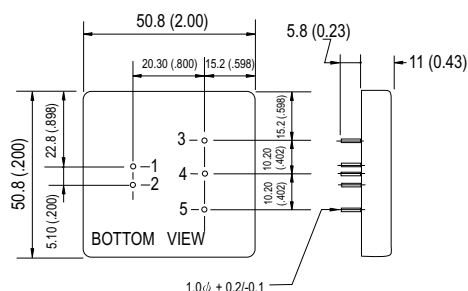


SPECIFICATION

ORDER NO.		DKE15A-05	DKE15B-05	DKE15C-05	DKE15A-12	DKE15B-12	DKE15C-12	DKE15A-15	DKE15B-15	DKE15C-15	DKE15A-24	DKE15B-24	DKE15C-24
OUTPUT	DC VOLTAGE	±5V			±12V			±15V			±24V		
	CURRENT RANGE	±150 ~ ±1500mA			±62.5 ~ ±625mA			±50 ~ ±500mA			±31.3 ~ ±313mA		
	RATED POWER	15W											
	RIPPLE & NOISE (max.) Note.2	50mVp-p			60mVp-p			60mVp-p			80mVp-p		
	LINE REGULATION Note.3	±0.3%											
	LOAD REGULATION Note.4	±0.5%											
	VOLTAGE ACCURACY	±2.0%											
	SWITCHING FREQUENCY	150KHz min.											
INPUT	VOLTAGE RANGE	A: 9 ~ 18VDC B: 18~36VDC C: 36~72VDC											
	EFFICIENCY (Typ.)	81%	83%	79%	82%	83%	82%	82%	83%	82%	82%	84%	85%
	DC CURRENT	Full load	A: 1700mA B: 800mA C: 400mA										
		No load	A: 40mA B: 20mA C: 10mA										
	FILTER	Pi network											
PROTECTION (Note. 5)	OVER CURRENT	160% ~ 250% rated output power											
		Protection type : Hiccup mode, recovers automatically after fault condition is removed											
	SHORT CIRCUIT	All output equipped with short circuit											
		Protection type : Hiccup mode, recovers automatically after fault condition is removed											
ENVIRONMENT	WORKING TEMP.	-25~+71℃ (Refer to output load derating curve)											
	WORKING HUMIDITY	20% ~ 90% RH non-condensing											
	STORAGE TEMP., HUMIDITY	-25 ~ +105℃, 10 ~ 95% RH											
	TEMP. COEFFICIENT	±0.03% / °C (0 ~ 50℃)											
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes											
SAFETY & EMC	WITHSTAND VOLTAGE	I/P-O/P:1KVDC											
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25℃ / 70% RH											
	EMI CONDUCTION & RADIATION	Compliance to EN55022 Class B, FCC part 15 Class B											
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8, light industry level, criteria A											
OTHERS	MTBF	300khrs min. MIL-HDBK-217F (25℃)											
	DIMENSION	50.8*50.8*11.0mm or 2**2**0.43" inch (L*W*H)											
	WEIGHT	65g											

■ Mechanical Specification

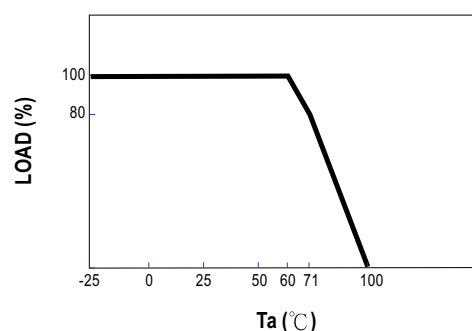
Unit: mm (inch)



■ Pin Configuration

Pin No.	Output
1	+Vin
2	-Vin
3	+Vout
4	COM
5	-Vout

Derating Curve



NOTE

- 1.All parameters are specified at normal input, rated load, 25°C 70% RH ambient.
- 2.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.
- 3.Line regulation is measured from low line to high line at rated load.
- 4.Load regulation is measured from 10% to 100% rated load.
- 5.Please prevent the converter from operating in overload or short circuit condition for more than 30 seconds.

Quality Engineering Test Report

SERIES: DKE15A 15W DC-DC DUAL OUTPUT CONVERTER

SAMPLE: **A:** **DKE15A-05** **V1: +5V / 150~1500mA** **V2: -5V / 150~1500mA**
 B: **DKE15A-12** **V1:+12V / 62.5~625mA** **V2:-12V / 62.5~625mA**
 C: **DKE15A-15** **V1:+15V / 50~500mA** **V2:-15V / 50~500mA**

NO	TEST ITEM	TEST CONDITION / SPECIFICATION	RESULT	VERDICT
1	DC INPUT VOLTAGE RANGE	I/P : TESTING SPEC : 9~18VDC O/P : FULL LOAD	B:8.1~18VDC	P
2	LINE REGULATION	I/P : 9~18VDC SPEC : $\pm 0.3\%$ O/P : FULL LOAD	A: V1: -0% ~ +0% V2: -0% ~ +0% B: V1: 0.1% ~ 0.1% V2: -0.1% ~ 0% C: V1: -0% ~ +0% V2: -0% ~ +0%	P
3	LOAD REGULATION	I/P : 12VDC SPEC : $\pm 0.5\%$ O/P : MIN. TO FULL LOAD	A: V1: -0.1% ~ +0.1% V2: -0% ~ +0.1% B: V1: -0.1% ~ +0% V2: -0% ~ +0.1% C: V1: -0% ~ +0% V2: -0.1% ~ +0%	P
4	OUTPUT VOLTAGE TOLERANCE	I/P : 9~18VDC SPEC : NONE O/P : MIN. TO FULL LOAD	A: V1: -2.4% ~ +2.7% V2: -2.6% ~ +2.6% B: V1: -1.8% ~ +1.6% V2: -1.8% ~ +1.7% C: V1: -1.5% ~ +1.3% V2: -1.4% ~ +1.4%	P
5	RIPPLE & NOISE	I/P : 12VDC SPEC : A:50mV B:60mV O/P : FULL LOAD C:60mV	A: V1: 30mV V2: 40mV B: V1: 20mV V2: 20mV C: V1: 15mV V2: 13mV	P
6	DC INPUT CURRENT	I/P : 12VDC SPEC : 1.7A O/P : FULL LOAD	B:1.54A	P
7	O/P VOLTAGE ACCURACY	I/P : 12VDC SPEC : $\pm 2\%$ O/P : MIN. LOAD	A: V1: -0.4% V2: -0.3% B: V1: +0.4% V2: +0.3% C: V1: -0.6% V2: -0.4%	P
8	EFFICIENCY	I/P : 12VDC SPEC : A:81% TYPICAL B:82% TYPICAL O/P : FULL LOAD C:82% TYPICAL	A: 79.8% B: 81.1% C: 81.3%	P
9	OVER LOAD PROTECTION	I/P : 12VDC SPEC : 160~250% O/P : TESTING AUTO RECOVERY	A: 180% B: 175% C: 184%	P
10	INSULATION RESISTANCE	SPEC : I/P - O/P : 500VDC/100M Ohms MIN.	B: I/P - O/P > 100M Ohms	P

[NEXT](#)

NO	TEST ITEM	TEST CONDITION / SPECIFICATION	RESULT	VERDICT																
11	DIELECTRIC / WITHSTAND VOLTAGE	SPEC : I/P - O/P : 1000VDC/ 1 min (10mA CUT-OFF)	B: I/P - O/P : < 0.02mA	P																
12	BURN-IN TEST	I/P:12VDC TA:22 °C O/P:FULL LOAD BURN-IN DURATION : 4 hrs	A: NO BREAK B: NO BREAK C: NO BREAK	P																
13	TEMPERATURE RISE TEST Trise OF PARTS	I/P : 12VDC O/P : FULL LOAD AFTER 4 hrs BURN-IN TA : 22.0 °C <table><tr><th>POSITION</th><th>SAMPLE</th><th>TEMP</th><th>Trise</th></tr><tr><td>CASE</td><td>DKE15A-05</td><td>44.0°C</td><td>22.0°C</td></tr><tr><td>CASE</td><td>DKE15A-12</td><td>45.0°C</td><td>23.0°C</td></tr><tr><td>CASE</td><td>DKE15A-15</td><td>42.6°C</td><td>20.6°C</td></tr></table>		POSITION	SAMPLE	TEMP	Trise	CASE	DKE15A-05	44.0°C	22.0°C	CASE	DKE15A-12	45.0°C	23.0°C	CASE	DKE15A-15	42.6°C	20.6°C	P
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CASE	DKE15A-05	44.0°C	22.0°C																	
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CASE	DKE15A-15	42.6°C	20.6°C																	
14	CONSTRUCTION INSPECTION (FOR QC INSPECTION REFERENCE ONLY)	1. PACKING : 軌道型塑膠包裝 2. MARKING : MODEL LABELx1 3. MECHANICAL : SIX-SIDE SHIELDED CASE, PIN :1.0Φx8.3mm 4. DIMENSION : 2" * 2" * 0.43"																		
DATE	SAMPLE	TEST RESULT	TEST	APPROVAL																
2002.9.17	DKE15A-05 DKE15A-12 DKE15A-15	PASS	T.K.CHENG	MAX LIN																

[PREVIOUS](#)