

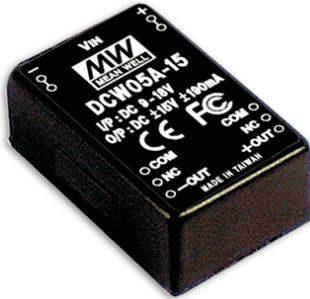
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Jameco Part Number 1953284



Features :

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

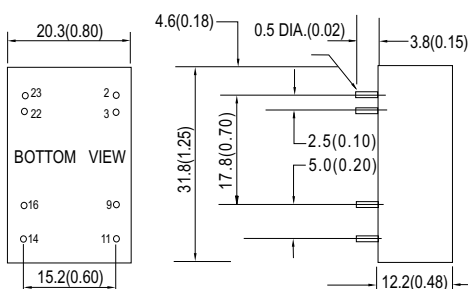


SPECIFICATION

ORDER NO.	DCW05A-05	DCW05B-05	DCW05C-05	DCW05A-12	DCW05B-12	DCW05C-12	DCW05A-15	DCW05B-15	DCW05C-15
OUTPUT	DC VOLTAGE	±5V			±12V			±15V	
	CURRENT RANGE	±50 ~ ±500mA			±23 ~ ±230mA			±19 ~ ±190mA	
	RATED POWER	5W			5.5W			5.7W	
	RIPPLE & NOISE (max.) Note.2	50mVp-p			60mVp-p			60mVp-p	
	LINE REGULATION Note.3	±0.5%							
	LOAD REGULATION Note.4	±0.5%							
	VOLTAGE ACCURACY	±2.0%							
	SWITCHING FREQUENCY	50KHz min.							
INPUT	VOLTAGE RANGE	A: 9 ~ 18VDC B: 18 ~ 36VDC C: 36 ~ 72VDC							
	EFFICIENCY (Typ.)	75%	77%	77%	80%	82%	83%	81%	83%
	DC CURRENT	Full load A: 586mA B: 286mA C: 139mA							
		No load A: 41mA B: 21mA C: 12mA							
PROTECTION	FILTER	Pi network							
	OVERLOAD	150 ~ 250% rated output load							
		Protection type : Shunt down o/p voltage, re-power on to recover							
ENVIRONMENT	SHORT CIRCUIT	All output equipped with over current protection							
		Protection type : Shun down o/p voltage, re-power on to recover							
	WORKING TEMP.	-25 ~ +71°C (refer to output load derating curve)							
SAFETY & EMC (Note. 5)	WORKING HUMIDITY	20% ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-25 ~ +105°C, 10 ~ 95% RH							
	TEMP. COEFFICIENT	±0.03% / °C (0 ~ 50°C)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes							
	WITHSTAND VOLTAGE	I/P-O/P:1KVDC							
OTHERS	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25°C / 70% RH							
	ISOLATION CAPACITANCE	80pF max.							
	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							
	MTBF	900khrs min. MIL-HDBK-217F (25°C)							
	DIMENSION	31.8*20.3*12.2mm (L*W*H) or 1.25**0.80**0.48" inch (L*W*H)							
	PACKING	15g							

Mechanical Specification

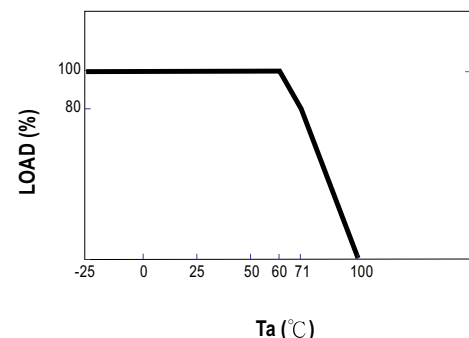
Unit:mm(inch)



Pin Configuration

Pin No.	Output
2 & 3	-Vin
9	COM
11	-Vout
14	+Vout
16	COM
22 & 23	+Vin

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.The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

Model : DCW05C-05 5W DC-DC Dual Output Converter
V1 : +5V / 50~500mA
V2 : -5V / 50~500mA

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OUTPUT VOLTAGE ACCURACY	V1:-2%~+2% (Max) V2:-2%~+2% (Max)	I/P: 48VDC O/P:50% LOAD Ta:25°C	V1:-0.6% V2:-0.5%	P
2	RIPPLE & NOISE	V1:100mVp-p (Max) V2:100mVp-p (Max)	I/P:48VDC O/P:FULL LOAD Ta:25°C	V1:23mVp-p V2:23mVp-p	P
3	LINE REGULATION	V1:-0.2%~+0.2% (Max) V2:-0.2%~+0.2% (Max)	I/P:36VDC ~72VDC O/P:FULL LOAD Ta:25°C	V1: -0%~+0% V2: -0%~+0%	P
4	LOAD REGULATION	V1:-0.2%~+0.2% (Max) V2:-0.2%~+0.2% (Max)	I/P:48VDC O/P:FULL ~MIN LOAD Ta:25°C	V1: -0.1%~+0% V2: -0.14%~+0.04%	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	INPUT VOLTAGE RANGE	36VDC~72VDC (Typ)	I/P:TESTING O/P:FULL LOAD Ta:25°C	28V~72Vdc	P
2	EFFICIENCY	77% (TYP)	I/P:48VDC O/P:FULL LOAD Ta:25°C	77.3%	P
3	INPUT CURRENT	135mA FULL LOAD (Max.) 10mA NO LOAD (Typ.)	I/P:48VDC O/P:TEST Ta:25°C	134mA / FULL LOAD 4.3mA / NO LOAD	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	YES	I/P:48VDC O/P:TESTING Ta:25°C	144% HICCUP MODE AUTO-RECOVER	P
2	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P:72VDC O/P:FULL LOAD Ta:25°C	NO DAMAGE HICCUP MODE AUTO-RECOVER	P

ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT						
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 16HRS I/P:48VDC O/P: FULL LOAD Ta= 28℃ <table><tr><td>Position</td><td>P/N</td><td>TEMP Ta=28℃</td></tr><tr><td>CASE</td><td>CENTER</td><td>49.4℃</td></tr></table>			Position	P/N	TEMP Ta=28℃	CASE	CENTER	49.4℃	P
Position	P/N	TEMP Ta=28℃									
CASE	CENTER	49.4℃									
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 1.5 HOURS	I/P:48VDC O/P: 100% LOAD Ta= -40℃	TEST : OK	P						
3	HIGH TEMPERATURE BURN IN TEST	CONTROL Ta=71℃ NO DAMAGE	I/P:48VDC O/P:FULL LOAD Ta=71℃	TEST : OK	P						

SAFETY TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:1000 VDC/min	I/P-O/P:1000 VDC/min Ta:25℃	I/P-O/P: 0.02mA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P:500 VDC Ta:25℃	I/P-O/P>100MΩ NO DAMAGE	P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2004.4.28	DCW05C-05	PASS	T.K.CHENG	MAX LIN