

## ■ Features

- DIP16 package with industry standard pinout
- 2:1 wide input range
- Operating temperature range -40 ~ +85°C
- No minimum load required
- Comply to EN55032 radiated Class B without additional components
- High efficiency up to 82%
- Protections: Short circuit (Continuous) / Overload / Input under voltage
- 1.5KVDC I/O isolation
- 3 years warranty

## ■ Applications

- Telecom/datacom system
- Wireless network
- Industrial control facility
- Instrument
- Analyzer
- Detector
- Data switch

## ■ Description

SLC03 and DLC03 series are 3W isolated and regulated module type DC-DC converter with DIP16 package. It features international standard pins, a high efficiency up to 82%, wide working temperature range -40~+85°C, 1.5KVDC I/P-O/P isolation voltage, the compliance to EN55032 radiated Class B without additional components, continuous-mode short circuit protection, etc. The models account for different input voltage, 9~18V, 18~36V and 36~75V 2:1 wide input range, and various output voltage, 5V/12V/15V for single output and  $\pm 5V/\pm 12V/\pm 15V$  for dual outputs, which are suitable for all kinds of systems, such as industrial control, telecommunication field, distributed power architecture, and so on.

## ■ Model Encoding

**S L C 0 3 A - 1 2**

Output voltage (5/12/15Vdc ·  $\pm 5/\pm 12/\pm 15$ Vdc)

Input voltage (A: 9~18Vdc · B: 18~36Vdc · C: 36~75Vdc)

Rated wattage

Series name { S: Single output  
D: Dual output

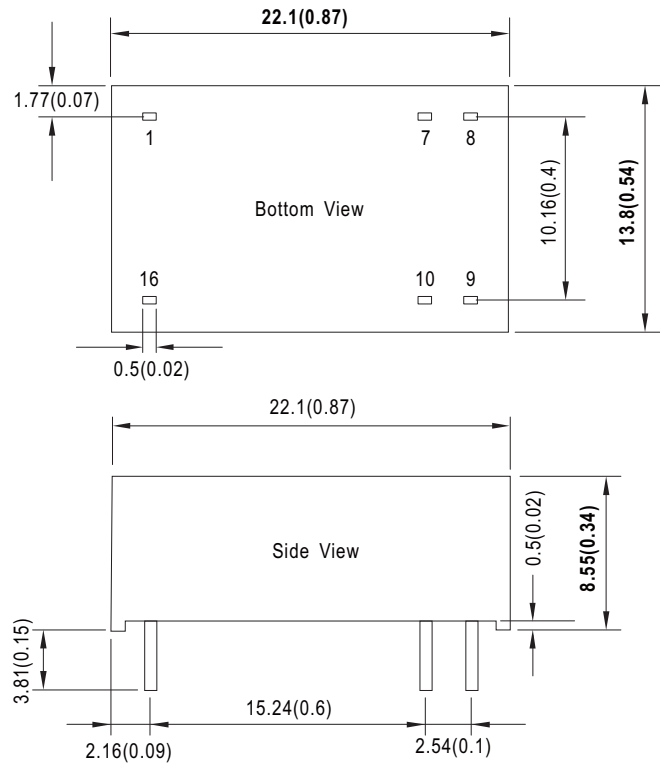
MODEL SELECTION TABLE							
ORDER NO.	INPUT			OUTPUT		EFFICIENCY (TYP.)	CAPACITOR LOAD (MAX.)
	INPUT VOLTAGE (RANGE)	INPUT CURRENT		OUTPUT VOLTAGE	OUTPUT CURRENT		
		NO LOAD	FULL LOAD				
SLC03A-05	12V (9 ~ 18V)	25mA	330mA	5V	600mA	79%	1000μF
SLC03A-12		15mA	320mA	12V	250mA	81%	470μF
SLC03A-15		15mA	309mA	15V	200mA	81%	330μF
DLC03A-05		30mA	325mA	±5V	±0 ~ 300mA	79%	* 220μF
DLC03A-12		32mA	305mA	±12V	±0 ~ 125mA	82%	*220μF
DLC03A-15		32mA	313mA	±15V	±0 ~ 100mA	81%	*220μF
SLC03B-05	24V (18 ~ 36V)	10mA	154mA	5V	600mA	81%	1000μF
SLC03B-12		10mA	154mA	12V	250mA	82%	470μF
SLC03B-15		10mA	153mA	15V	200mA	82%	330μF
DLC03B-05		20mA	158mA	±5V	±0 ~ 300mA	79%	*220μF
DLC03B-12		20mA	156mA	±12V	±0 ~ 125mA	81%	*220μF
DLC03B-15		20mA	156mA	±15V	±0 ~ 100mA	80%	*220μF
SLC03C-05	48V (36 ~ 75V)	7mA	77mA	5V	600mA	81%	1000μF
SLC03C-12		7mA	76mA	12V	250mA	82%	470μF
SLC03C-15		7mA	76mA	15V	200mA	82%	330μF
DLC03C-05		10mA	79mA	±5V	±0 ~ 300mA	80%	*220μF
DLC03C-12		10mA	78mA	±12V	±0 ~ 125mA	80%	*220μF
DLC03C-15		10mA	78mA	±15V	±0 ~ 100mA	80%	*220μF

\* For each output

SPECIFICATION				
INPUT	VOLTAGE RANGE	A: 9~18Vdc , B: 18~36Vdc , C: 18~75Vdc		
	SURGE VOLTAGE (100ms max.)	12Vin models : 25Vdc ; 24Vin models : 50V ; 48Vin models : 100Vdc		
	FILTER	Internal capacitor		
	PROTECTION	Fuse recommended. 12Vin models: 1A Slow-Blow Type, 24Vin models: 0.5A Slow-Blow Type, 48Vin models: 200mA Slow-Blow Type		
	INTERNAL POWER DISSIPATION	1000mW		
OUTPUT	VOLTAGE ACCURACY	±2%		
	RATED POWER	3W		
	RIPPLE & NOISE <small>Note.2</small>	50mVp-p		
	LINE REGULATION <small>Note.3</small>	±0.2%		
	LOAD REGULATION <small>Note.4</small>	±0.5%		
	SWITCHING FREQUENCY (Typ.)	100KHz		
PROTECTION	SHORT CIRCUIT	Protection type : Continuous, automatic recovery		
	OVERLOAD	150 ~ 250% rated output power		
		Protection type : Recovers automatically after fault condition is removed		
	UNDER VOLTAGE LOCKOUT	Start-up voltage	12Vin: 8.8Vdc, 24Vin: 17Vdc, 48Vin: 34Vdc	
Shutdown voltage		12Vin: 7Vdc, 24Vin: 14Vdc, 48Vin: 30Vdc		
ENVIRONMENT	COOLING	Free-air convection		
	WORKING TEMP.	-40 ~ +85°C (Refer to "Derating Curve")		
	CASE TEMPERATURE	+100°C max.		
	WORKING HUMIDITY	20% ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +105°C, 10 ~ 95% RH non-condensing		
	TEMP. COEFFICIENT	0.03% / °C (0 ~ 80°C)		
	SOLDERING TEMPERATURE	1.5mm from case of 3 ~ 5sec./265°C max.		
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes		
SAFETY & EMC <small>(Note.5)</small>	WITHSTAND VOLTAGE	I/P-O/P:1.5KVDC		
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH		
	ISOLATION CAPACITANCE (Typ.)	80pF		
	EMC EMISSION	Parameter	Standard	Test Level / Note( <small>Note.6</small> )
		Conducted	EN55032(CISPR32)	N/A
		Radiated	EN55032(CISPR32)	Class B
	EMC IMMUNITY	Parameter	Standard	Test Level / Note
		ESD	EN61000-4-2	Level 3, ±8KV air ; Level 2, ±4KV contact
		Radiated Susceptibility	EN61000-4-3	Level 2, 3V/m
		EFT/Burest	EN61000-4-4	Level 1, 0.5KV at power ; Level 2, 0.5KV at signal
		Surge	EN61000-4-5	Level 2, 0.5KV Line-Line ; Level 2, 1KV Line-Earth ground
Conducted		EN61000-4-6	Level 2, 3V(e.m.f.)	
Magnetic Field		EN61000-4-8	Level 1, 1A/m	
OTHERS	MTBF	300Khrs min. MIL-HDBK-217F(25°C)		
	DIMENSION (L*W*H)	22.1*13.8*8.55mm (0.87*0.54*0.34 inch)		
	CASE MATERIAL	Non-Conductive black plastic (UL 94V-0 rated)		
	PACKING	4.5g		
NOTE	<p>1.All parameters are specified at normal input(A:12Vdc, B:24Vdc, C:48Vdc), rated load, 25°C 70% RH ambient.  2.Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1µf &amp; 47µf 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 final equipment must be re-confirm that it still meet EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."(as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)  6.An external input filter capacitor is required if the module has to meet EN61000-4-4, EN61000-4-5.  The filter capacitor Power Mate suggest: 220uF/100V.</p>			

### ■ Mechanical Specification

- All dimensions in mm (inch)
- Tolerance:  $x.xx \pm 0.5\text{mm}$  ( $x.xx \pm 0.02''$ )  
 $x.xx \pm 0.25\text{mm}$  ( $x.xxx \pm 0.01''$ )
- Pin size is  $0.50 \times 0.30\text{mm}$  ( $0.02'' \times 0.01''$ )
- Pin is Tolerance:  $x.xx \pm 0.07\text{mm}$  ( $x.xxx \pm 0.03''$ )



### ■ Plug Assignment

Pin-Out		
Pin No.	SLC03 (Single output)	DLC03 (Dual output)
1	-Vin	+Vin
7	N.C.	N.C.
8	N.C.	Common
9	+Vout	+Vout
10	-Vout	-Vout
16	+Vin	+Vin

### ■ Derating Curve

