

■ Features :

- DC/DC step-down converter
- Constant current output: 300mA to 700mA
- Wide input voltage: 9 ~ 36VDC
- Wide output LED string voltage: 2 ~ 32VDC
- High efficiency up to 95%
- Built-in EMI filter, comply with EN55015 and FCC part15 without additional input filter and capacitors
- Built-in PWM dimming and remote ON/OFF control
- Protections: Short circuit / Over temperature
- Cooling by free air convection
- Fully encapsulated with IP67 level for pin and wire style
- Compact size
- Low cost, high reliability
- Suitable for driving illumination LED
- 3 years warranty

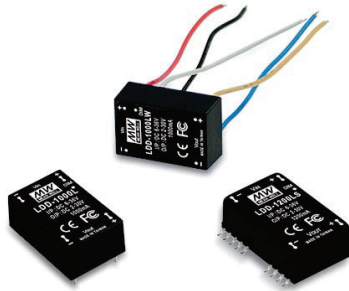


LDD-350L	W	Blank : pin style
	W	: wire style
	S	: SMD style

**SPECIFICATION**

ORDER NO.	LDD-300L	LDD-350L	LDD-500L	LDD-600L	LDD-700L		
OUTPUT	CURRENT RANGE	300mA	350mA	500mA	600mA	700mA	
	VOLTAGE RANGE <small>Note.4</small>	2 ~ 32VDC for LDD-300~700L/LW ; 2~ 28VDC for LDD-300~700LS					
	CURRENT ACCURACY (Typ.)	±5% at 24VDC input					
	RIPPLE & NOISE(max.) <small>Note.2</small>	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	
	SWITCHING FREQUENCY	40KHz ~ 1000KHz					
	EXTERNAL CAPACITANCE LOAD (max.)	2.2uF					
INPUT	VOLTAGE RANGE	9 ~ 36VDC for LDD-300~700L/LW ; 9~ 32VDC for LDD-300~700LS					
	EFFICIENCY (max.)	95% at full load and 24VDC/36VDC input for LDD-300~700L/LW ; 95% at full load and 24VDC input for LDD-300~700LS					
	DC CURRENT	Full load <small>Note.3</small>	300mA	350mA	500mA	600mA	700mA
		No load	5mA				
FILTER	Capacitor						
PWM DIMMING & ON/OFF CONTROL	REMOTE ON/OFF	Leave open if not use Power ON with dimming: DIM ~ -Vin >3.5 ~ 8VDC or open circuit Power OFF : DIM ~ -Vin < 0.5VDC or short					
	PWM FREQUENCY	100 ~ 1KHz					
	QUIESCENT INPUT CURRENT IN SHUTDOWN MODE(max.)	1mA at PWM dimming OFF and 24VDC input					
PROTECTION	SHORT CIRCUIT	Regulated at rated output current Protection type: Can be continued, recovers automatically after fault condition is removed					
	OVER TEMPERATURE	Tj 150°C typically(IC1) detect on main control IC Protection type : Shut down, recovers automatically after temperature goes down					
ENVIRONMENT	WORKING TEMP.	-40 ~ + 85°C (Refer to derating curve)					
	WORKING HUMIDITY	20% ~ 90% RH non-condensing for LDD-300~700L/LW ; 20% ~ 85% RH non-condensing for LDD-300~700LS					
	STORAGE TEMP., HUMIDITY	-55 ~ +125°C , 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03% / °C					
	VIBRATION	10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes					
OPERATING CASE TEMP. (max.)	100°C						
EMC	EMC EMISSION	Compliance to EN55015, FCC part 15 class B					
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,6,8, light industry level, criteria A					
OTHERS	MTBF	2000Khrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	22.6*9.9*8.9mm or 0.89**0.39**0.35" inch (L*W*H) for LDD-300~700L/LW ; 25.4*10.5*9.3mm or 1**0.4135**0.366" inch (L*W*H) for LDD-300~700LS					
	WEIGHT	LDD-300~700L:4g ; LDD-300~700LW:7.3g ; LDD-300~700LS :3.4g					
	POTTING MATERIAL	Epoxy(UL94-V0) for LDD-300~700L/LW ; without potted for LDD-300~700LS					
NOTE	1.All parameters are specified at normal input(24VDC), 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 capacitor. 3.Test condition: 24VDC input. 4.Output voltage will always step down by 3 volts from input DC voltage. 5.The output of LDD-L should not be connected to the input of the same unit or output from other sources.						

Specifications are subject to change without notice. It is responsibility of each customer to thoroughly test each product and part number under their unique parameters and environments to ensure a product will work properly and reliably.



■ Features :

- DC/DC step-down converter
- Constant current output: 1000mA to 1500mA
- Wide input voltage: 6 ~ 36VDC
- Wide output LED string voltage: 2 ~ 30VDC
- High efficiency up to 95%
- Built-in EMI filter, comply with EN55015 and FCC part15 without additional input filter and capacitors
- Built-in PWM +analog dimming and remote ON/OFF control
- Protections: Short circuit
- Cooling by free air convection
- Fully encapsulated with IP67 level for pin and wire style
- Non-potted, optional conformal coating for SMD style (Order No.: LDD-1000LSC)
- Compact size
- Low cost, high reliability
- Suitable for driving illumination LED
- 3 years warranty



LDD-1000L	<input type="checkbox"/> W	Blank : pin style
		W : wire style
		S : SMD style

**SPECIFICATION**

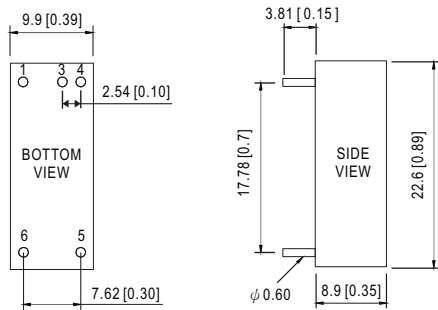
ORDER NO.		LDD-1000L <input type="checkbox"/>	LDD-1200L <input type="checkbox"/>	LDD-1500L <input type="checkbox"/>	
OUTPUT	CURRENT RANGE	1000mA	1200mA	1500mA	
	VOLTAGE RANGE <small>Note.4</small>	2 ~ 30VDC			
	CURRENT ACCURACY (Typ.)	±5% at 24VDC input			
	RIPPLE & NOISE(max.) <small>Note.2</small>	1.5Vp-p	1.5Vp-p	1.5Vp-p	
	SWITCHING FREQUENCY	1000KHz			
EXTERNAL CAPACITANCE LOAD (max.)		2.2uF			
INPUT	VOLTAGE RANGE	6 ~ 36VDC			
	EFFICIENCY (max.)	95% at full load and 24VDC/36VDC input for LDD-1000~1500L/LW			
	DC CURRENT <small>Note.3</small>	Full load	990mA	1160mA	1450mA
		No load	5mA		
FILTER		Capacitor			
PWM DIMMING & ON/OFF CONTROL	REMOTE ON/OFF	Leave open if not use Power ON with dimming: DIM ~ -Vin >2.6 ~ 5.5VDC or open circuit Power OFF : DIM ~ -Vin < 0.4VDC or short			
	PWM FREQUENCY	100 ~ 500Hz			
	QUIESCENT INPUT CURRENT IN SHUTDOWN MODE(max.)	1mA at PWM dimming OFF and 24VDC input			
ANALOG DIMMING & ON/OFF CONTROL	REMOTE ON / OFF	Leave open if not use Power ON with dimming : DIM ~ -Vin>0.5~2.5VDC or open circuit Power OFF : DIM ~ -Vin<0.4VDC or short			
	SHORT CIRCUIT	Regulated at rated output current Protection type: Can be continued, recovers automatically after fault condition is removed			
ENVIRONMENT	WORKING TEMP.	-40 ~ + 71°C (Refer to derating curve)			
	WORKING HUMIDITY	20% ~ 90% RH non-condensing for LDD-1000~1500L/LW ; 20%~85% RH non-condensing for LDD-1000~1500LS			
	STORAGE TEMP., HUMIDITY	-55 ~ +125°C, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03% / °C			
	VIBRATION	10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes			
OPERATING CASE TEMP. (max.)		100°C			
EMC	EMC EMISSION	Compliance to EN55015, FCC part 15 class B			
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,6,8, light industry level, criteria A			
OTHERS	MTBF	2000Khrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	31.8*20.3*12.2mm or 1.25**0.8**0.48" inch (L*W*H) for LDD-1000~1500L/LW ; 31.8*20.3*10.9mm or 1.25**0.8**0.43" inch (L*W*H) for LDD-1000~1500LS			
	WEIGHT	LDD-1000~1500L:15.6g ; LDD-1000~1500LW:18g ; LDD-1000~1500LS:12.8g			
	POTTING MATERIAL	Expoxy(UL94-V0) for LDD-1000~1500L/LW ; without potted for LDD-1000~1500LS			
NOTE	<p>1. All parameters are specified at normal input(24VDC), rated load, 25°C 70% RH ambient.                  2. Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf capacitor.                  3. Test condition: 36VDC input.                  4. Output voltage will always step down by 3 volts from input DC voltage.                  5. The output of LDD-L should not be connected to the input of the same unit or output from other sources.</p>				

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### Mechanical Specification

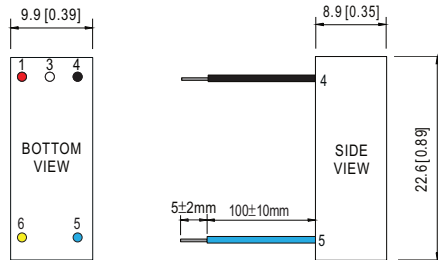
Blank type(LDD-300~700L):

Unit: mm (inch)



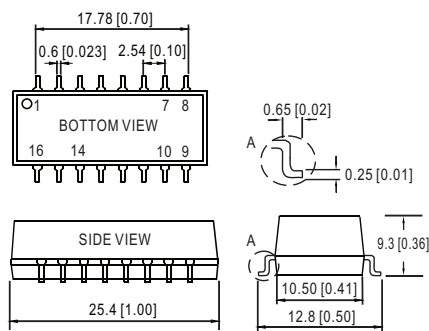
NOTE: Pin tolerance  $\pm 0.05\text{mm}$

W type(LDD-300~700LW):

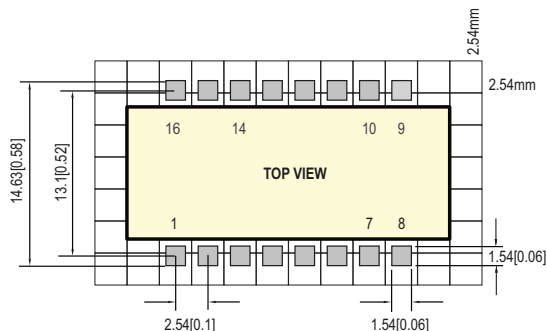


NOTE: All wires UL3385 22AWG

S type(LDD-300~700LS):



### Recommended PCB layout (for LDD-300~700LS)



### Pin Configuration

Pin No.		Comment
1	+Vin	DC Supply
3	PWM DIM	ON/OFF and PWM Dimming (Leave open if not used)
4	-Vin	Don't connect to -Vout
5	-Vout	LED - Connection
6	+Vout	LED + Connection

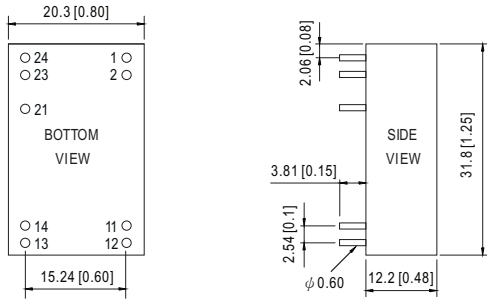
Pin No.		Comment
1	+Vin (Red)	DC Supply
3	PWM DIM (White)	ON/OFF and PWM Dimming (Leave open if not used)
4	-Vin (Black)	Don't connect to -Vout
5	-Vout (Blue)	LED - Connection
6	+Vout (Yellow)	LED + Connection

Pin No.		Comment
1	+Vin	DC Supply
7,8	+Vout	LED + Connection
9,10	-Vout	LED - Connection
14	PWM DIM	ON/OFF and PWM Dimming (Leave open if not used)
16	-Vin	Don't connect to -Vout
others	N.C	LED - Connection

### Mechanical Specification

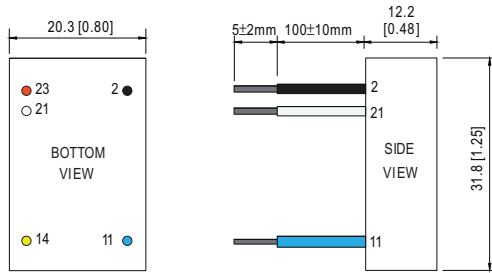
Blank type(LDD- 1000~1500L):

Unit: mm (inch)



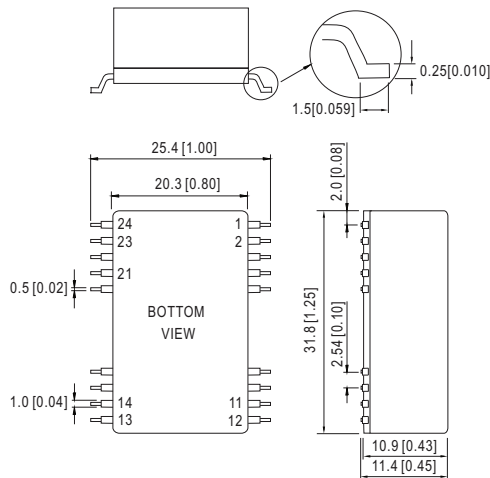
NOTE: Pin tolerance  $\pm 0.05$ mm

W type(LDD - 1000~1500LW):

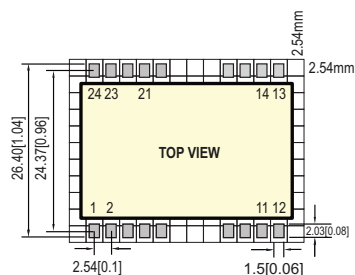


NOTE: All wires UL3385 22AWG

S type(LDD - 1000~1500LS):



### Recommended PCB layout (for LDD-1000~1500LS)



### Pin Configuration

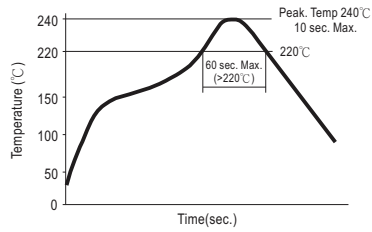
Pin No.		Comment
1,2	-Vin	Don't connect to -Vout
11,12	-Vout	LED - Connection
13,14	+Vout	LED + Connection
21	PWM +analog DIM	ON/OFF and PWM / analog Dimming (Leave open if not used)
23,24	+Vin	DC Supply

Pin No.		Comment
2	-Vin (Black)	Don't connect to -Vout
11	-Vout (Blue)	LED - Connection
14	+Vout (Yellow)	LED + Connection
21	PWM +analog DIM (White)	ON/OFF and PWM / analog Dimming (Leave open if not used)
23	+Vin (Red)	DC Supply

Pin No.		Comment
1,2	-Vin	Don't connect to -Vout
11,12	-Vout	LED - Connection
13,14	+Vout	LED + Connection
21	PWM +analog DIM	ON/OFF and PWM / analog Dimming (Leave open if not used)
23,24	+Vin	DC Supply
others	N.C	No connection

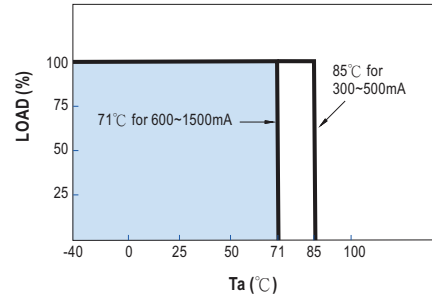
File Name:LDD-L-SPEC 2015-08-24

**Reflow Soldering Curve (for LDD-300~1500LS)**



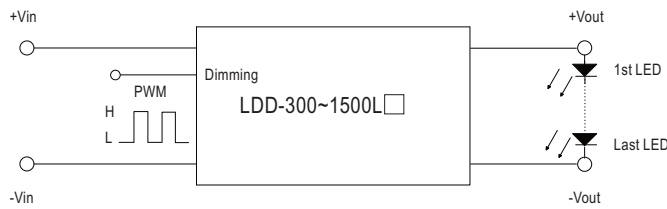
Remark : The curve applies only to the \* Hot Air Reflow Soldering \*

**Derating Curve**



**PWM Dimming Control (for 300~1500mA)**

To Adjustment by PWM signal :

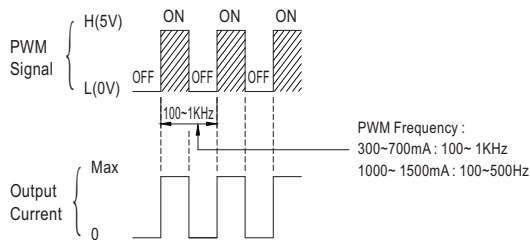


300 ~ 700mA :

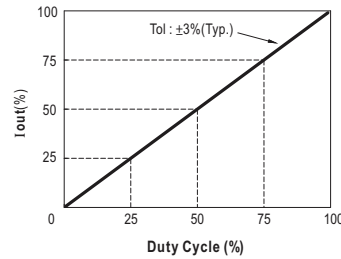
H: > 3.5~8VDC or open circuit  
L: < 0.5VDC or short

1000 ~ 1500mA :

H: > 2.6~5.5VDC or open circuit  
L: < 0.4VDC or short

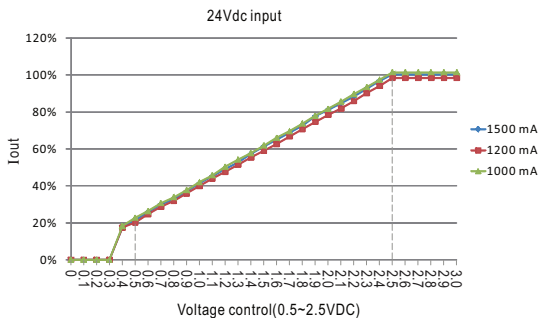
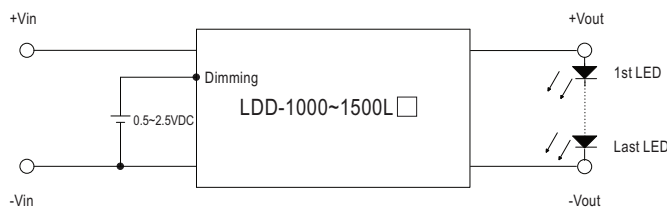


© During PWM dimming operation, the output current will change to PWM style.



**Analog Dimming Control for 1000~ 1500mA only**

To Adjustment by DC voltage :

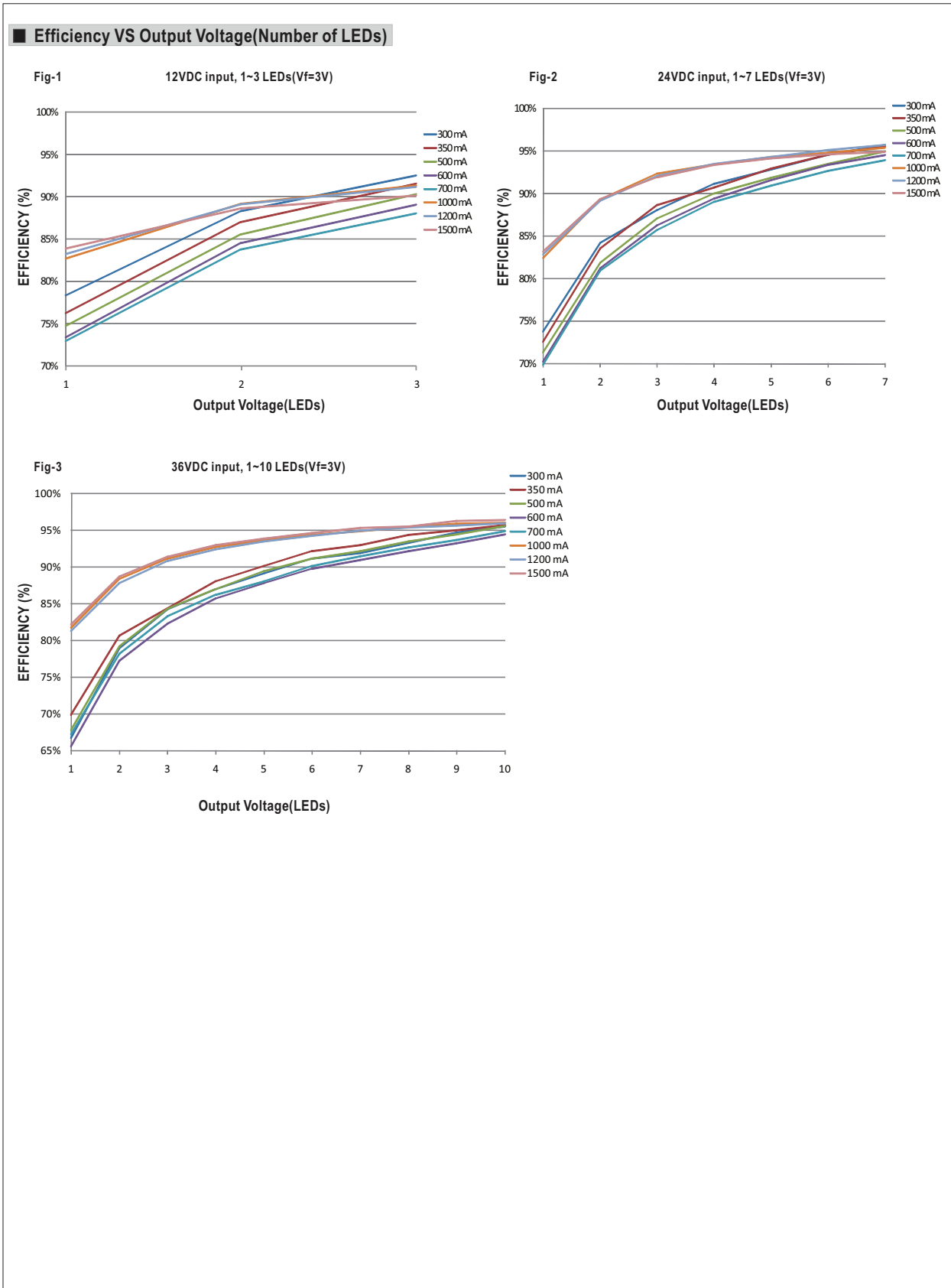


File Name:LDD-L-SPEC 2015-08-24

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Click below for more details, to buy on-line or request volume pricing:  
<http://power.sager.com/mean-well-LDD-L-dc-dc-converter.html>

**(866) 588-1750**  
power@sager.com  
<http://power.sager.com>



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