Product Specification

Product Name:	60W LED driver
Product Model:	MEP-060B043
Product Code:	MS009184-V0
Rev.	A.2

Address:	XiLi Songbai Road 1061, Nanshan District, Shenzhen City, Guangdong Province, P.R.China	Post Code:	518108
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Prepared By	Checked By	Approved By

Product Feature

◆Input Voltage：100～240Vac;

◆Surge immunity：DM-4KV，CM-6KV;

◆Protection：SCP，OVP，OTP;

◆IP65 design for indoor and outdoor applications

Application

◆LED street lighting, industrial lighting and landscape lighting.

DESCRIPTION

The MEP series is a constant-current LED power supply with input voltage range of 100 ~ 240Vac, high power factor and low THD. With input undervoltage protection, lightning protection, output overvoltage protection, short circuit protection, over temperature protection, to ensure the high reliability of products. This series has compact structure and is specially designed for explosion-proof lamp, mine lamp

Models

Model Number	Input voltage range(Vac)	Max Output Power（W）	Output Voltage Range (Vdc)	Output current (A)	Typical Efficiency	Typical THD	Typical PF	
							120Vac	230Vac
MEP-060B043	100-240	60	26-43	1.4	88%	＜15%	0.98	0.96

INPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Input Voltage	90Vac	100-240Vac	264Vac	Please refer to the Derating curve
Input Frequency	47HZ	50/60Hz	63Hz	
Leakage Current	-	-	0.75mA	240V/50Hz
Input AC Current	-	-	1.0A	100-240Vac with Full load
Inrush Current(I^2t)	-	-	$0.1A^2S$	230Vac input，Ta＝25℃（cold start）
Power Factor	0.97	0.98	-	120Vac, 100% Load
	0.95	0.96	-	230Vac, 100% Load
THD	-	10%	15%	120～240Vac, 100% Load

OUTPUT SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-8%Iset	-	8%Iset	Full load
Total Output Current Ripple(pk-pk)	-	150%	200%	Full load & LED Load, ripple is different with difference LED load. 20MHz BW
Startup Overshoot Current	-	-	10%	120~240Vac & Full load, LED Load
No Load Output Voltage	-	-	80V	
Standby power consumption	-	-	5W	
Line Regulation	-	-	±8%	25℃±10℃ ambient temperature, input voltage changes from 120Vac to 240Vac.
Load Regulation	-	-	±8%	25℃±10℃ambient temperature, 230Vac input, load changes from 60% to 100%.
Turn-on Delay Time	-	-	3S	120Vac, 100% Load
	-	1S	2S	230Vac, 100% Load

GENERAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Notes
Efficiency@120Vac	85%	87%	-	Measured at full load and 25℃ambient temperature
Efficiency@230Vac	86%	88%	-	Measured at full load and 25℃ambient temperature
Dielectric Strength input to output	-	3750Vac	-	60s, current is less than 10mA;
Dielectric Strength input to PE	-	1600Vac	-	60s, current is less than 10mA;
Dielectric Strength output to PE	-	1600Vac	-	60s, current is less than 10mA;
Grounding Resistance	-	-	0.1Ω	Under 25℃±10℃ ambient temperature, pass 25A current for 60s,
Insulation Resistance	50MΩ	-	-	Under 25℃±10℃ ambient temperature and less than 70% relative humidity, apply 500V dc voltage to each port of Input to output, input to GND, output to GND and last 60s
MTBF	-	200000Hours	-	25℃,230Vac,80% load (MIL-HDBK-217F)
Lifetime	-	50000Hours	-	230Vac&100% load,70℃case temperature, refer to lifetime VS Tc curve for details
Operating Case Temperature for Safety Tc_s	-40℃	-	+85℃	
Operating Case Temperature for Warranty Tc_w	-40℃	-	+70℃	5 Years Warranty Humidity：10% to 95% RH
Storage Temperature	-40℃	-	+85℃	Humidity：10% to 95% RH
Dimensions (L×W×H)mm	Ø90×38mm			
Net Weight	390±40g/PCS			
Package	L390xW250xH235mm			

Note: All specifications are tested by Cree XLamp XP-G2 and typical measured at 220Vac and 25° C unless otherwise stated. Single stage PFC: Higher Ripple & Noise, Not recommended to use in regions with unstable grid.

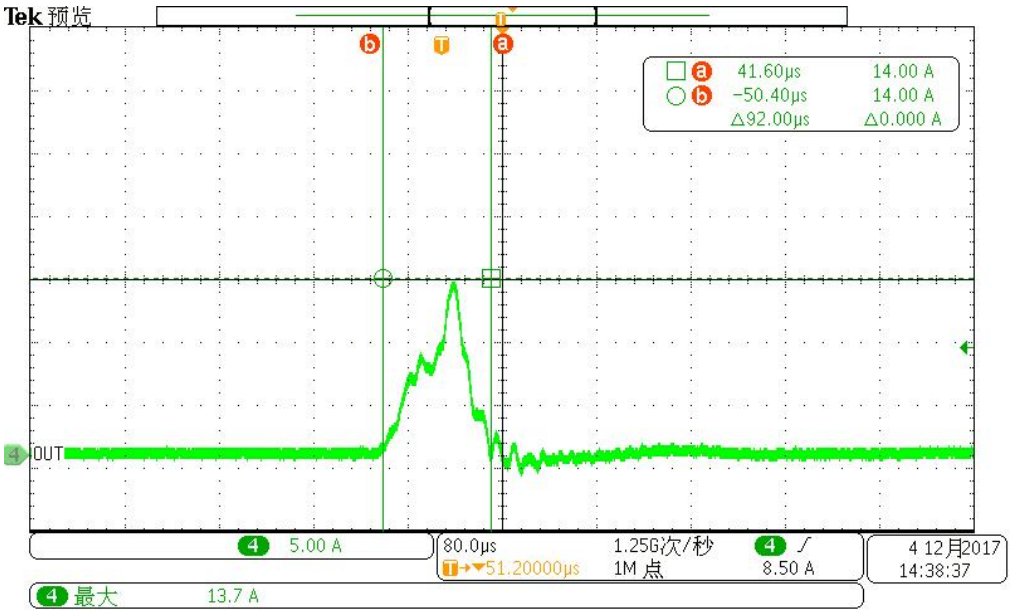
SAFTY STANDARDS

Safety Category	Country / Territory	Standards
CCC	China	GB19510.1, GB19510.14
CE	Europe	EN61347-1, EN61347-2-13
CB	CB Countries	IEC61347-1, IEC61347-2-13
UL	USA	UL 8750, UL 1310(Class 2 Power Units), UL 1012
CUL	Canada	CSA C22.2 No.107.1-01, CSA C22.2 No.223-M91（Power Supplies With Extra-Low-Voltage Class 2 Outputs）
KC	South Korea	K61347-1, K61347-2-13, K62384
PSE	Japan	J61347-1, J61347-2-13
SAA	Australia	AS/NZS IEC 61347-2-13
		AS/NZS 61347.1

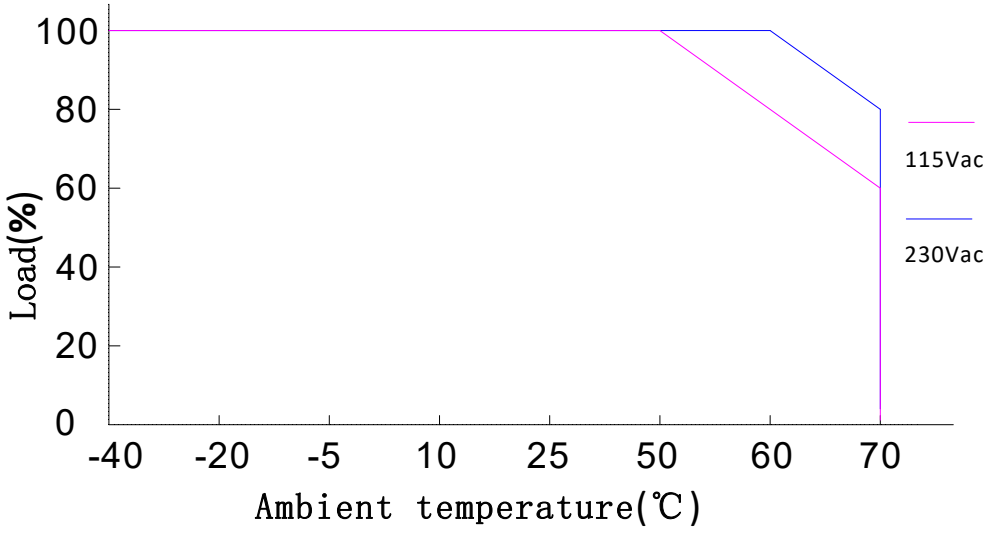
EMC COMPLIANCE

EMC Category	Country / Territory	**Standards**
CCC	China	GB 17743, GB 17625.1
CE	Europe	EN 55015, EN 61000-3-2, EN 61000-3-3
		EN61000-4-2,3,4,5,6,8,11
		IEC 61547
KC	South Korea	K61547
		K00015
PSE	Japan	J55015
FCC	USA	FCC part 15

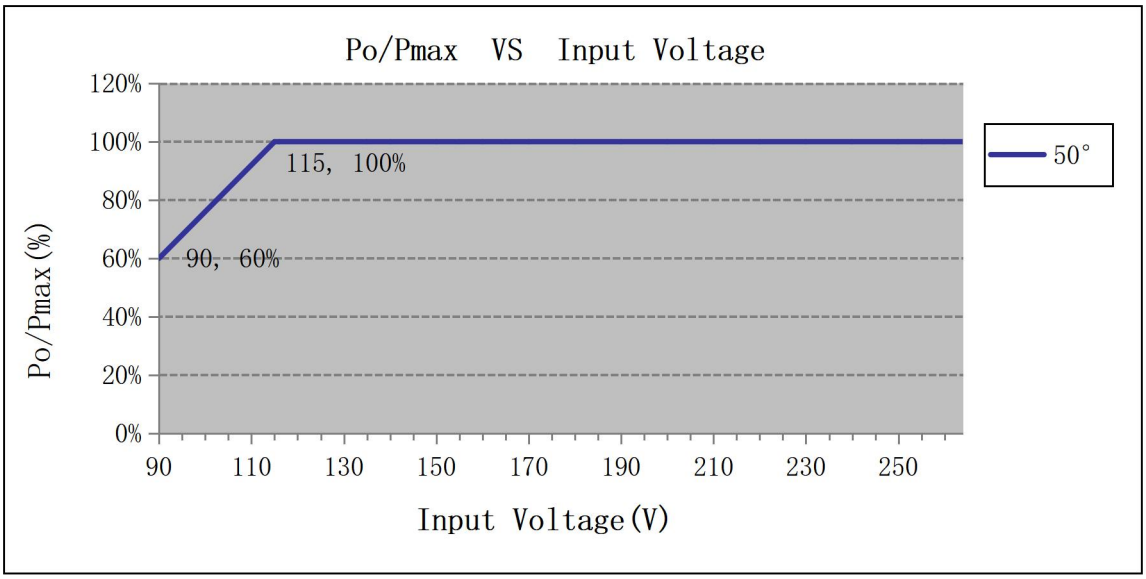
INRUSH CURRENT WAVEFORM



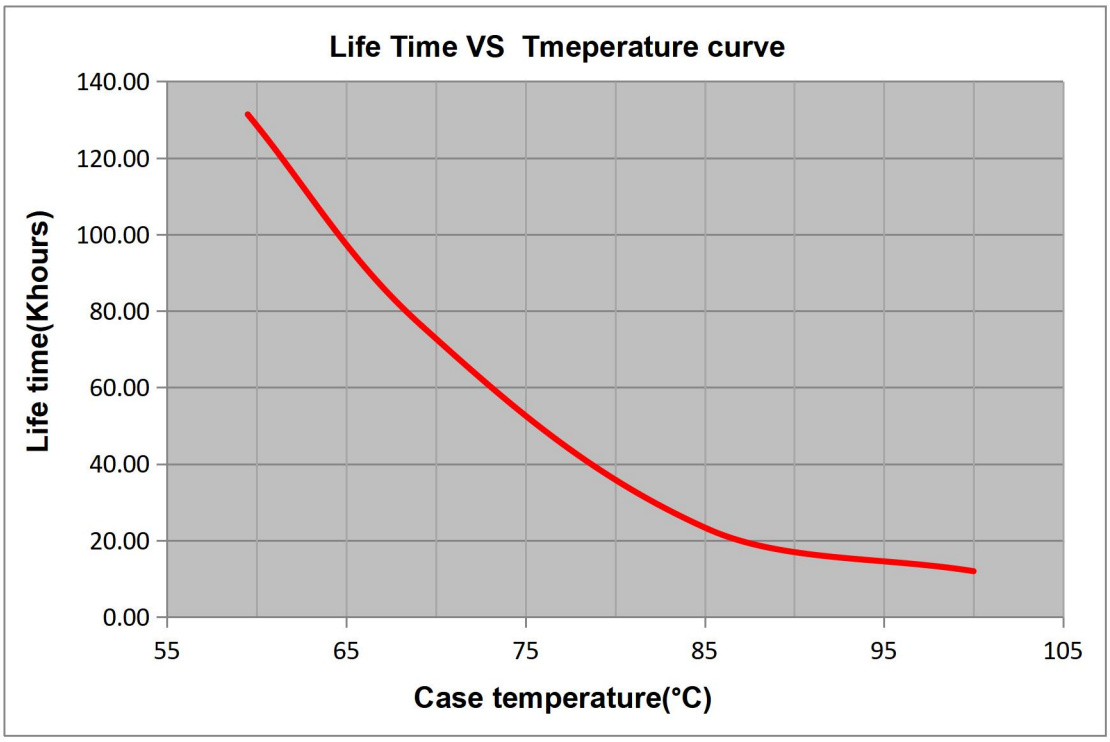
DERATING CURVE



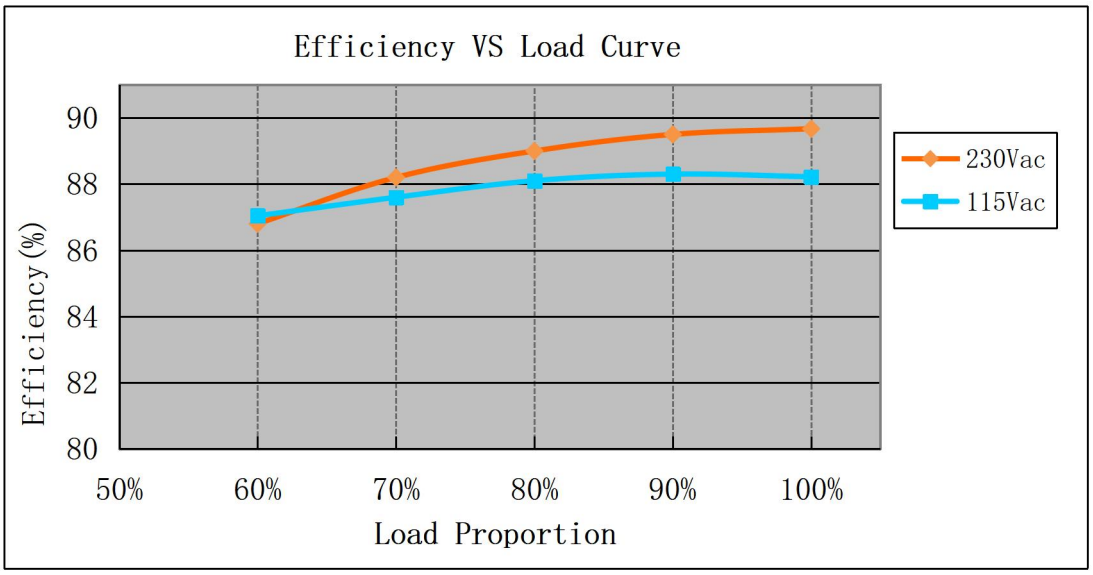
OUTPUT POWER VS INPUT VOLTAGE



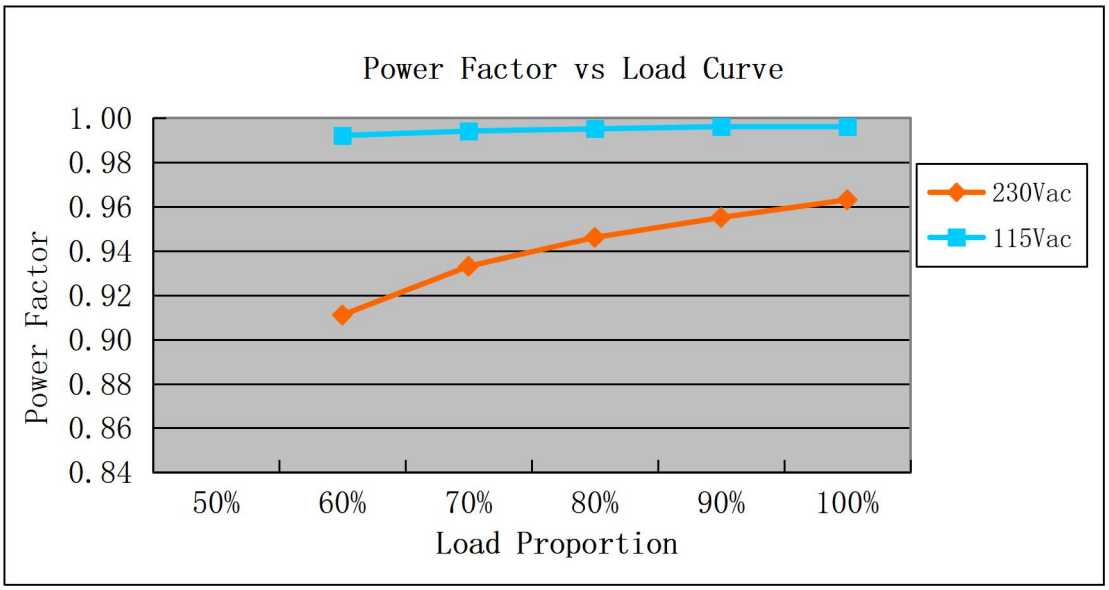
LIFETIME VS CASE TEMPERATURE



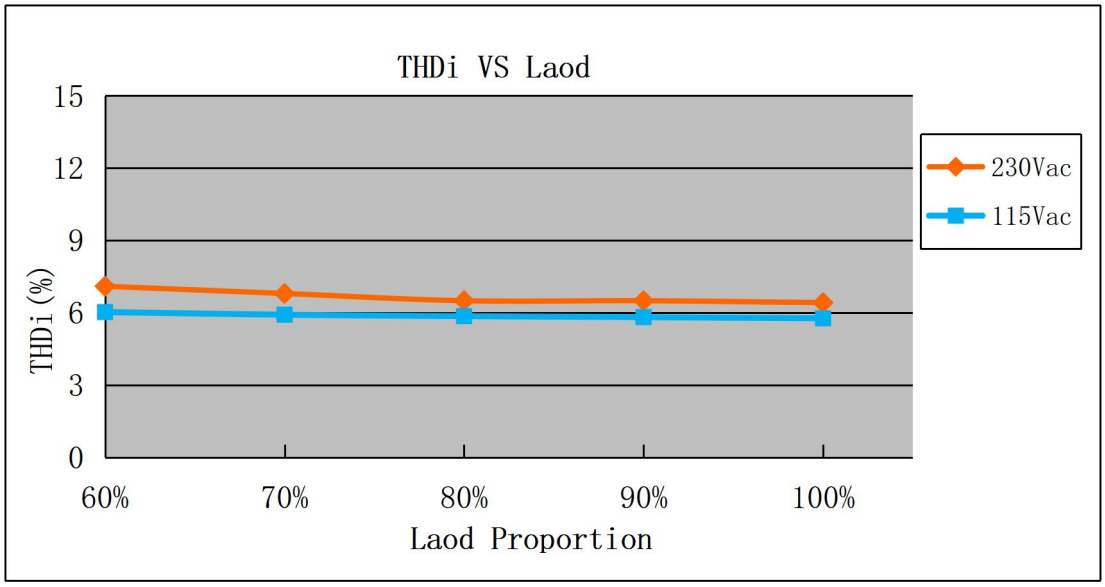
EFFICIENCY VS LOAD



POWER FACTOR VS LOAD



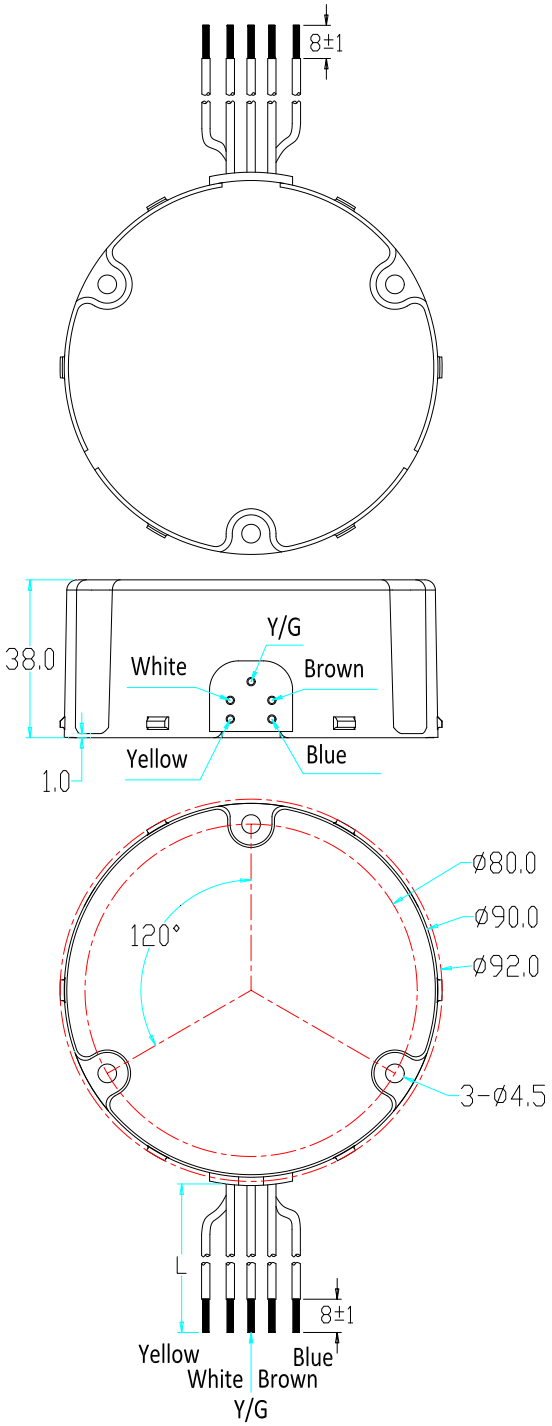
TOTAL HARMONIC DISTORTION



PROTECTIONS

Parameter	Notes
Over Temperature Protection	Decreases output current, returning to normal after over temperature is removed.
Short Circuit Protection	The input power shall decrease when the output rail short, the power supply shall not be damaged.
Over Voltage Protection	Run into protection model when output voltage exceeds limit, and return to normal when the fault

MECHANICAL OUTLINE



Wire	Specification	Note
Input L Brown	UL3398 18AWG L=180±20mm	
Input N Blue	UL3398 18AWG L=180±20mm	
Input Y/G	UL3239 18AWG L=180±20mm	
Output Vo+ White	UL3239 18AWG L=180±20mm	
Output Vo- Yellow	UL3239 18AWG L=180±20mm	

LABEL


50.00 mm
60.00 mm
MOSO® MEP-060B043
Constant current type
Uout(No Load):80V⎓
Input 100-240V~ 50/60Hz, 1.0A Max.
Output 60W Max.,26-43V⎓, 1.4A
Input
L Brown
G Y/G
N Blue
Output
White "+"
Yellow "-"
RoHS
SELV
tc:85℃
SHENZHEN MOSO ELECTRONICS TECHNOLOGY CO.,LTD
No.1061, Songbai Road, Xili Town, Nanshan District,
Shenzhen, CHINA
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REVISION HISTORY

Version	Description of Change		Date	Notes
	Before	Now		
A.2	—	Datasheets Release	2019-7-11	

Specification for Approval

Product Name:	60W LED driver
Product Model:	MEP-060B043
Product Code:	MS009184-V0
Rev.	A.2

CUSTOMER AUTHORIZED SIGNATURE		
Tested By	**Checked By**	**Approved By**
(Company seal)Return one copy to MOSO with approved signature and company seal.		

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