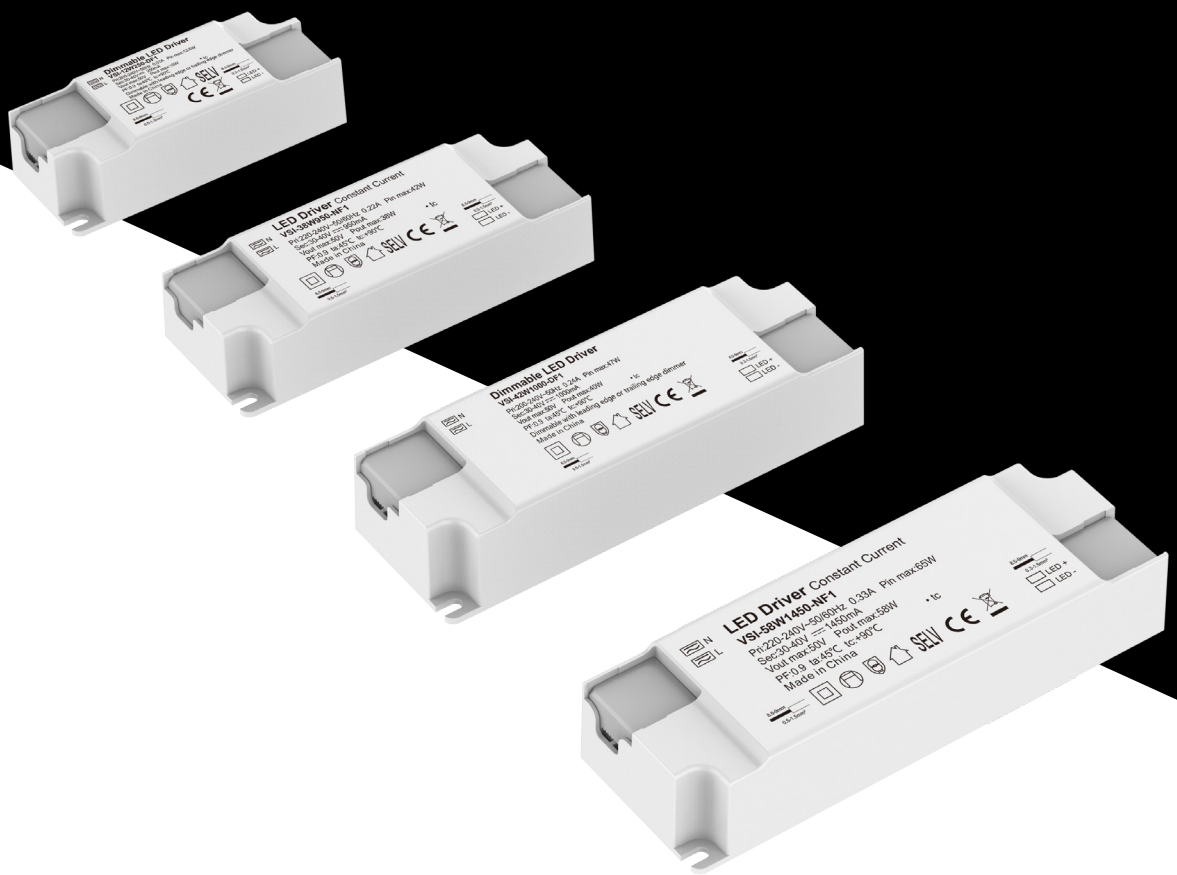
SPECIFICATION

LED Driver

V Series



UPSHINE®

INTRODUCTION

The V series led driver provides the best compromise between an attractive price and qualified performance.
With a focus on application-related functions, the LED Driver range offers good quality and performance that ensures reliable operation of LED module.

Features

- Independent fixed output LED Driver
- Constant current
- Both non-dimmable and triac dimmable optional
- Specific, optimized output current and voltage
- Output current 150-1050mA for dim, 180-1500mA for non-dim
- Output power 8-45W for dim, 8-60W for non-dim
- High efficiency, non-dimmable type efficiency upto 89-90%
- Whole range are featured with flicker free performance
- Idea circuit design overcome luminarie flickering with voltage fluctuation.
- Perfect triac dimming compatibility, applicable for leading & trailing edge dimmer, smooth dimming effect
- Low noise operation, especially for leading edge dimmer
- Nominal life-time up to 50,000 h
- For luminaires of protection class I and protection class II
- Temperature protection as per EN 61347-2-13 C5e
- Small, super compact dimensions

Type Approved Safety Regular Production Surveillance www.tuv.com ID XXXXXXXXX CB SAA SELV RoHS CE

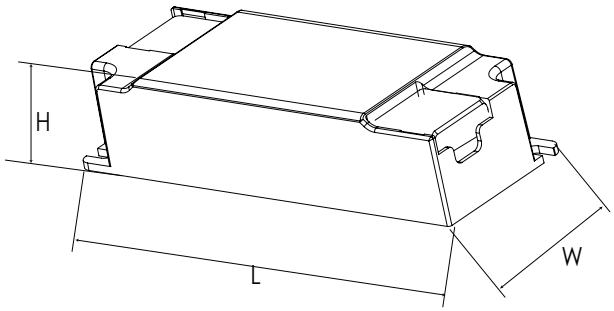
TECHNICAL DATASHEET

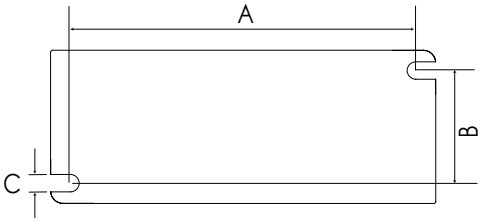
Driver Datasheet (Non-dimmable)					
Code		VSI-XXWXXX-NF1(G)/VSI-XXWXXX-NF1			
Input	Input Power	8-15W	15-25W	25-40W	40-60W
	Input Voltage	200-264V			
	Rated Input Voltage(V)	220-240V			
	Frequency	50/60Hz			
	Input Current	≤0.09A	≤0.13A	≤0.23A	≤0.34A
	Rated Input Current	≤0.08A	≤0.14A	≤0.21A	≤0.31A
	Power Factor (typ)	0.9			
	Total Harmonic Distortion(THD)	<20% @230V			
	Efficiency (typ)	≥86%	≥88%	≥90%	≥90%
	Inrush Current (Typ.)	15.1A/113uS	16A/214uS	24.2A/326uS	31A/410uS
	Max Circuit Breaker	Please refer to" Circuit breaker Specification"			
	Leakage Current	<0.5mA/240V			
	No Load Wattage	<0.5w @230V			
Output	Output Voltage Range	30-40V			
	Rated Output Current	180-350mA	350-600mA	600-1000mA	1000-1500mA
	Line Regulation	±5%			
	Open Circuit Voltage (max)	50V			
	Setup time(note1)	500ms @230V			
	Flickering Index(IEEEStd 1789)	0.5%(NO RISK)	0.8%(NO RISK)	0.5%(NO RISK)	
Protection	Short Circuit Protection	Constant current limiting, recovers automatically after fault condition is removed			
	Over Voltage Protection	Shut down o/p voltage			
	Over Temperature Protection	Shut down o/p voltage, recovers automatically after temperature goes down			
Safety &EMC	Safety Standards	IEC/EN61347-1, IEC/EN61347-2-13, IEC/EN62384 independent,GB19510.14,GB19510.1 approved			
	Withstand Voltage	I/P-O/P:3.75KVac,<5mA 60S			
	Isolation Resistance	I/P-O/P: 500VDC, ≥100M Ω			
	Surge	IEC/EN61000-4-5(L-N:0.5KV)		IEC/EN61000-4-5(L-N:1KV)	
	EMC Emission	IEC/EN55015, IEC/EN61000-3-2			
	EMC Immunity	IEC/EN61000-4-2,3,4,5,6,8,11; IEC/EN61547			
Other	Dimension	93*37*26mm(L*W*H)	93*37*26mm(L*W*H)	118*44*26mm(L*W*H)	138*47*30mm(L*W*H)
	Weight	0.065Kg	0.070Kg	0.095Kg	0.150Kg

TECHNICAL DATASHEET

Driver Datasheet (Triac-dimmable)					
Code		VSI-XXWXXX-DF1/DF2/DF4	VSI-XXWXXX-DF1		
Input	Input Power	8-13W	13-25W	25-35W	35-45W
	Input Voltage	180-264V			
	Rated Input Voltage(V)	200-240V			
	Frequency	50Hz			
	Input Current	≤0.08A	≤0.14A	≤0.2A	≤0.25A
	Rated Input Current	≤0.07A	≤0.13A	≤0.18A	≤0.23 A
	Power Factor (typ)	0.9			
	Total Harmonic Distortion(THD)	<20% @230V			
	Efficiency (typ)	≥80%	≥83%	≥84%	≥84%
	Inrush Current (Typ.)	2.67A/76uS	2.18A/135uS	3.06A/224uS	4.64A/224uS
	Max Circuit Breaker	Please refer to" Circuit breaker Specification"			
	Leakage Current	<0.5mA/240V			
	No Load Wattage	<0.5w @230V			
Output	Output Voltage Range	30-40V			
	Rated Output Current	180-300mA	300-600mA	600-800mA	800-1050mA
	Line Regulation	±5%			
	Open Circuit Voltage (max)	50V			
	Setup time(note1)	500ms @230V			
	Flickering Index(IEEEStd 1789)	5%(LOW RISK)	4%(LOW RISK)	3%(LOW RISK)	
Protection	Short Circuit Protection	Constant current limiting, recovers automatically after fault condition is removed			
	Over Voltage Protection	Shut down o/p voltage			
	Over Temperature Protection	Shut down o/p voltage, recovers automatically after temperature goes down			
Safety &EMC	Safety Standards	IEC/EN61347-1, IEC/EN61347-2-13, IEC/EN62384 independent,GB19510.14,GB19510.1 approved			
	Withstand Voltage	I/P-O/P:3.75KVac,<5mA 60S			
	Isolation Resistance	I/P-O/P: 500VDC, ≥100M Ω			
	Surge	IEC/EN61000-4-5(L-N:0.5KV)		IEC/EN61000-4-5(L-N:1KV)	
	EMC Emission	IEC/EN55015, IEC/EN61000-3-2			
	EMC Immunity	IEC/EN61000-4-2,3,4,5,6,8,11; IEC/EN61547			
Other	Dimension	93*37*26mm(L*W*H)	118*44*26mm(L*W*H)	138*47*26mm(L*W*H)	153*52*30mm(L*W*H)
	Weight	0.105Kg	0.200Kg	0.235Kg	0.340Kg

DIMENSION





Code	Dimension(mm)						Product Weight (Kg)		Package weight (Kg)		Carton Size(cm)	Qty/CTN
	L	W	H	A	B	C	N.W/PC	G.W/PC	N.W/CTN	G.W/CTN		
VSI-13W300-DF1 VSI-13W300-DF2 VSI-13W300-DF4	93	37	26	83.4	27.2	4.2	0.105	0.120	7.200	7.560	46x21.5x22.5	60
VSI-25W600-DF1	118	44	26	108.4	33.2	4.2	0.170	0.185	11.100	11.460	46x21.5x22.5	60
VSI-35W800-DF1	138	47	30	128.4	37.2	4.2	0.235	0.255	7.650	7.950	35.5x19.5x22.5	30
VSI-45W1050-DF1	153	52	30	143.4	42.2	4.2	0.340	0.360	10.800	11.100	35.5x19.5x22.5	30
VSI-15W350-NF1 VSI-15W350-NF1(G)	93	37	26	83.4	27.2	4.2	0.065	0.080	4.800	5.160	46x21.5x22.5	60
VSI-25W600-NF1 VSI-25W600-NF1(G)	93	37	26	83.4	27.2	4.2	0.070	0.085	5.100	5.460	46x21.5x22.5	60
VSI-40W1000-NF1 VSI-40W1000-NF1(G)	118	44	26	108.4	33.2	4.2	0.095	0.110	6.600	6.960	46x21.5x22.5	60
VSI-60W1500-NF1 VSI-60W1500-NF1(G)	138	47	30	128.4	37.2	4.2	0.150	0.170	5.100	5.400	35.5x19.5x22.5	30

CIRCUIT BREAKER SPECIFICATION

Circuit Breaker Specification								
Code	B10	B13	B16	B20	C10	C13	C16	C20
	10	13	16	20	10	13	16	20
VSI-13W300-DF1 VSI-13W300-DF2 VSI-13W300-DF4	83	108	138	167	83	108	183	167
VSI-25W600-DF1	48	62	76	95	48	5	76	95
VSI-35W800-DF1	33	43	53	67	33	43	53	67
VSI-45W1050-DF1	27	35	43	53	27	35	43	53
VSI-15W350-NF1 VSI-15W350-NF1(G)	50	65	79	99	82	108	132	166
VSI-25W600-NF1 VSI-25W600-NF1(G)	23	29	36	45	38	49	60	75
VSI-40W1000-NF1 VSI-40W1000-NF1(G)	10	13	16	20	17	21	26	33
VSI-60W1500-NF1 VSI-60W1500-NF1(G)	5	6	8	10	8	10	13	16

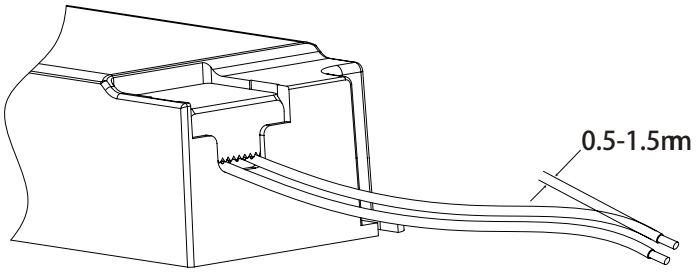
CIRCUIT DIAGRAM

No-load operation

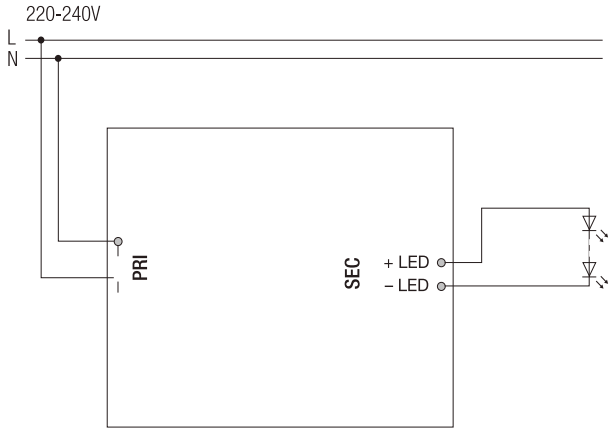
In case of open circuit, protection will be activated, there will be 50V output voltage.

Glow wire test

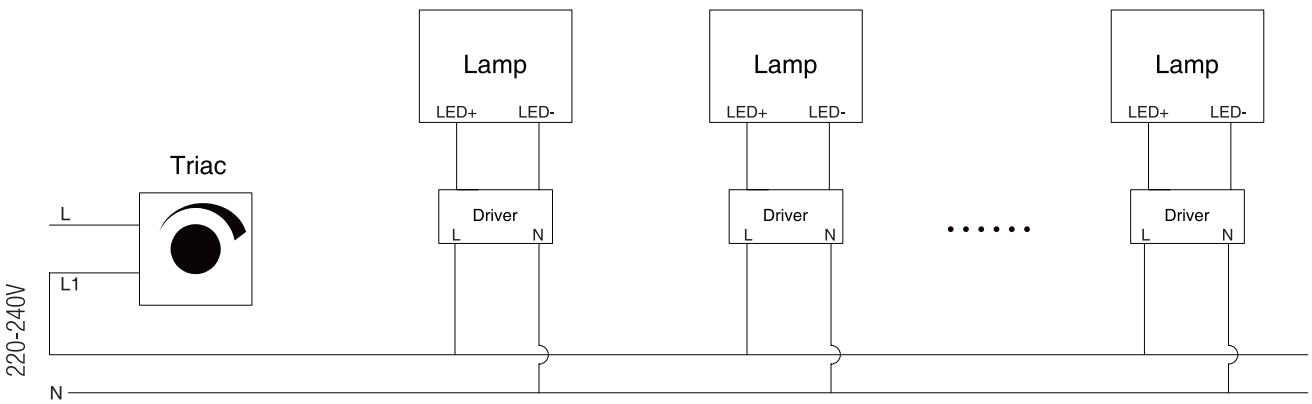
According to EN 61347-1 with increased temperature of 960°C passed.



Non-dimmable Circuit Diagram



Dimmable Circuit Diagram



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Up to Shine, there is life 光之上，是生活