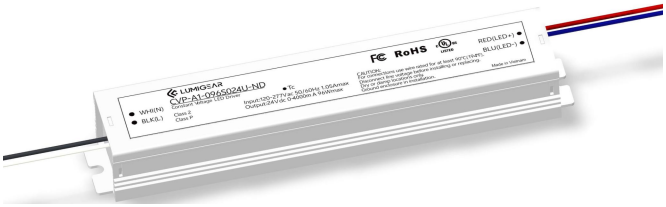
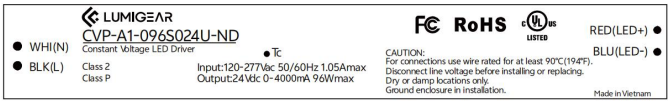
CVP-A1-096SXXXU-ND

96w 24/36/48V Constant Voltage Series





Features & Benefits

- Universal ac input voltage(120-277VAC)
- Compact design
- 94% high efficiency , low temperature rise
- IP20 rated case with silicone-based potting
- All-round protection: SCP, OVP, OPP
- UL Class2 output, Class P
- Operating temperature: -35℃~+50℃
- Comply with IEEE1789, UL8750

Model List

Model Name	Rated Input Voltage	Max Output Power(Total)	Output Current(Total)	Rated Output Voltage	Efficiency	Dimension
CVP-A1-096S024U-ND	120-277VAC	96W max.	0-4000mA	24VDC	94%	150*28.5*20.7 mm/ 5.9*1.1*0.8 in.
CVP-A1-096S036U-ND	120-277VAC	96W max.	0-2667mA	36VDC	94%	150*28.5*20.7 mm/ 5.9*1.1*0.8 in.
CVP-A1-096S048U-ND	120-277VAC	96W max.	0-2000mA	48VDC	94%	150*28.5*20.7 mm/ 5.9*1.1*0.8 in.

Approvals

c UL us LISTED CLASS P

Model name code

CVP-A1	-	096S	024	U	–	ND
①		②	③	④		⑤

①	Series	CVP Series
②	Output power	Maximum output power: 96W
③	Output Voltage(max)	output voltage: 24V
④	Input voltage	120-277VAC
⑤	Dimming Control	Non-dimming

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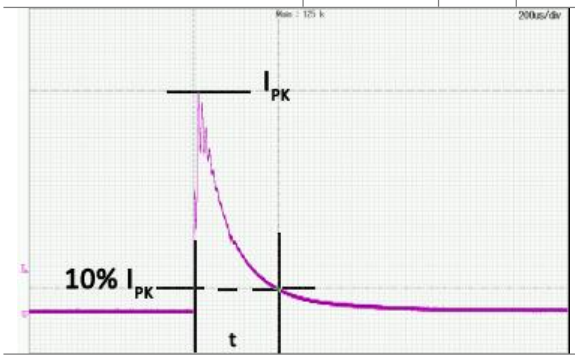
Specification:

Parameters	Symbols	Test Conditions / Comment	Min	Typ	Max	Units
INPUT						
Input Voltage	V_{IN}		108		305	V_{AC}
Rated Input Voltage	$V_{IN\ RATED}$		120		277	V_{AC}
Input Frequency	f_{line}		47	50/60	63	Hz
Input Current	I_{IN}	Full Load, V_{IN} = 120V_{AC}			1.05	A
Inrush Current	I_{INRUSH}	Cold Start, V_{IN} = 277V_{AC}			70	A
Leakage Current	$I_{Leakage}$	V_{IN} = 277V_{AC}, 60Hz			0.75	mA

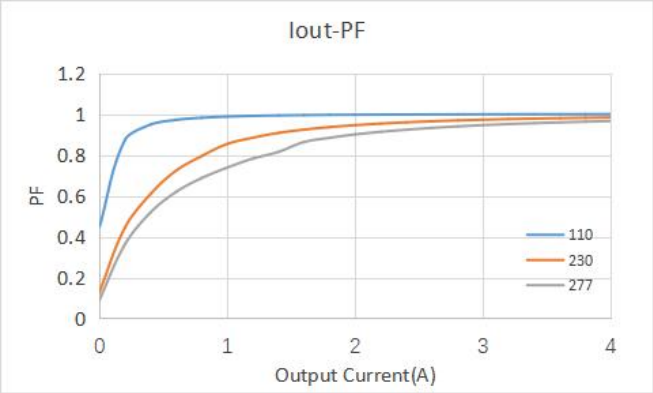
Number of Drivers per MCB(Circuit Breaker)	MCB type	B10	C10	D10	B13	C13	D13	B16	C16	D16	B20	C20	D20
	120V_{AC}	6	7	8	8	10	11	10	12	14	13	15	17
	277V_{AC}	3	6	12	4	8	16	5	9	19	7	12	24

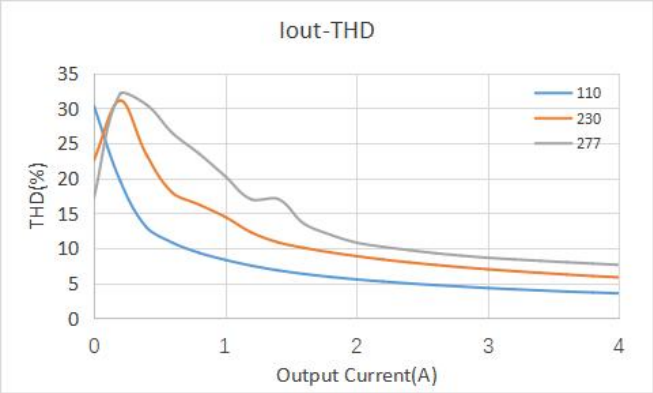


Input Voltage	Inrush Current	t(us)10%-10%
120VAC	28A	158
277VAC	65A	166
347VAC	NA	NA

General Characteristics

Power Factor	PF	20-100% load, V_{IN} = 120V_{AC}	0.9			PF
		60~100% load, V_{IN} = 277V_{AC}	0.9			
Total Harmonic Distortion	THD	20-100% load, V_{IN} = 120V_{AC}			20	%
		60~100% load, V_{IN} = 277V_{AC}			20	
Efficiency	η_{24V}	CVP-A1-096S024U-ND, Full load,V_{IN} =120V_{AC}, Steady state	90	92		%
		CVP-A1-096S024U-ND, Full load,V_{IN} =277V_{AC}, Steady state	92	94		
	η_{36V}	CVP-A1-096S036U-ND, Full load,V_{IN} =120V_{AC}, Steady state	90	92		
		CVP-A1-096S036U-ND, Full load,V_{IN} =277V_{AC}, Steady state	92	94		
	η_{48V}	CVP-A1-096S048U-ND, Full load,V_{IN} =120V_{AC}, Steady state	90	92		
		CVP-A1-096S048U-ND, Full load,V_{IN} =277V_{AC}, Steady state	92	94		
Turn On Delay Time	T_{on_delay}	Cold Start			0.5	S





OUTPUT

Output Voltage Tolerance	t_{OUT}				5	%
No Load Output Voltage Tolerance	$t_{NO\ LOAD}$	No Load,			3	%
Output Current	I_{OUT}	CVP-A1-096S024U-ND	0		4000	mA
		CVP-A1-096S036U-ND	0		2667	mA
		CVP-A1-096S048U-ND	0		2000	mA
Output Power	P_{OUT}				96	W
Line Regulation	$V_{OUT-LINE}$				1	%
Ripple Voltage	$V_{OUT-LINE}$	Full Load, (pk-to-pk)/Average, Without Dimmer			10	%
Output Voltage Overshoot	$V_{OVERSHOOT}$	Turning Power ON			10	%

24V Efficiency Curve TBD

36V Efficiency Curve TBD

48V Efficiency Curve TBD

Protection

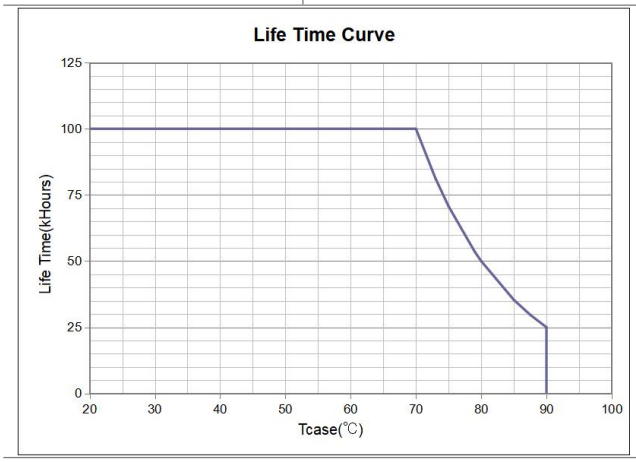
Over Voltage Protection	V_{OVP}	CVP-A1-096S024U-ND, Latch mode.	28		36	V
		CVP-A1-096S036U-ND, Latch mode.	38		44	V
		CVP-A1-096S048U-ND, Latch mode.	50		60	V
Over Current Protection	I_{OCP}	CVP-A1-096S024U-ND, Hiccup mode.	4000		4500	mA
		CVP-A1-096S036U-ND, Hiccup mode.	2667		3000	mA
		CVP-A1-096S048U-ND, Hiccup mode.	2000		2300	mA
Over Power Protection	CC/CV mode.					
Short Circuit Protection	The unit can recover automatically after fault conditions is removed.					

Environment

Storage Temperature	$T_{Storage}$	Humidity: 5% RH to 95% RH	-40	-	+85	℃
Ambient Operating Temperature	T_a		-35	-	+50	℃
Max. Case Temperature	T_c	Hot spot on case			90	℃
Operating Relative Humidity	H_a	Non-Condensing	10		90	%
Acoustic Noise		Measured from 1m away			24	dBA
Cooling	Convection Cooling					
IP Rating	IP20					

Others

Life Time	T_{Life}	Full Load, 80℃ case temperature,	50			kHrs
MTBF	T_{MTBF}	Full Load, 25℃ ambient temperature	200			kHrs
Net Weight	W_{NET}			TBD		g
Warranty	5 Years Warranty at T_c ≤80℃					
Flicker	IEEE 1789, Title 24					



Safety Compliance

CUL/UL	UL8750, CAN/CSA-C22.2 No. 250.13

Electromagnetic Compliance

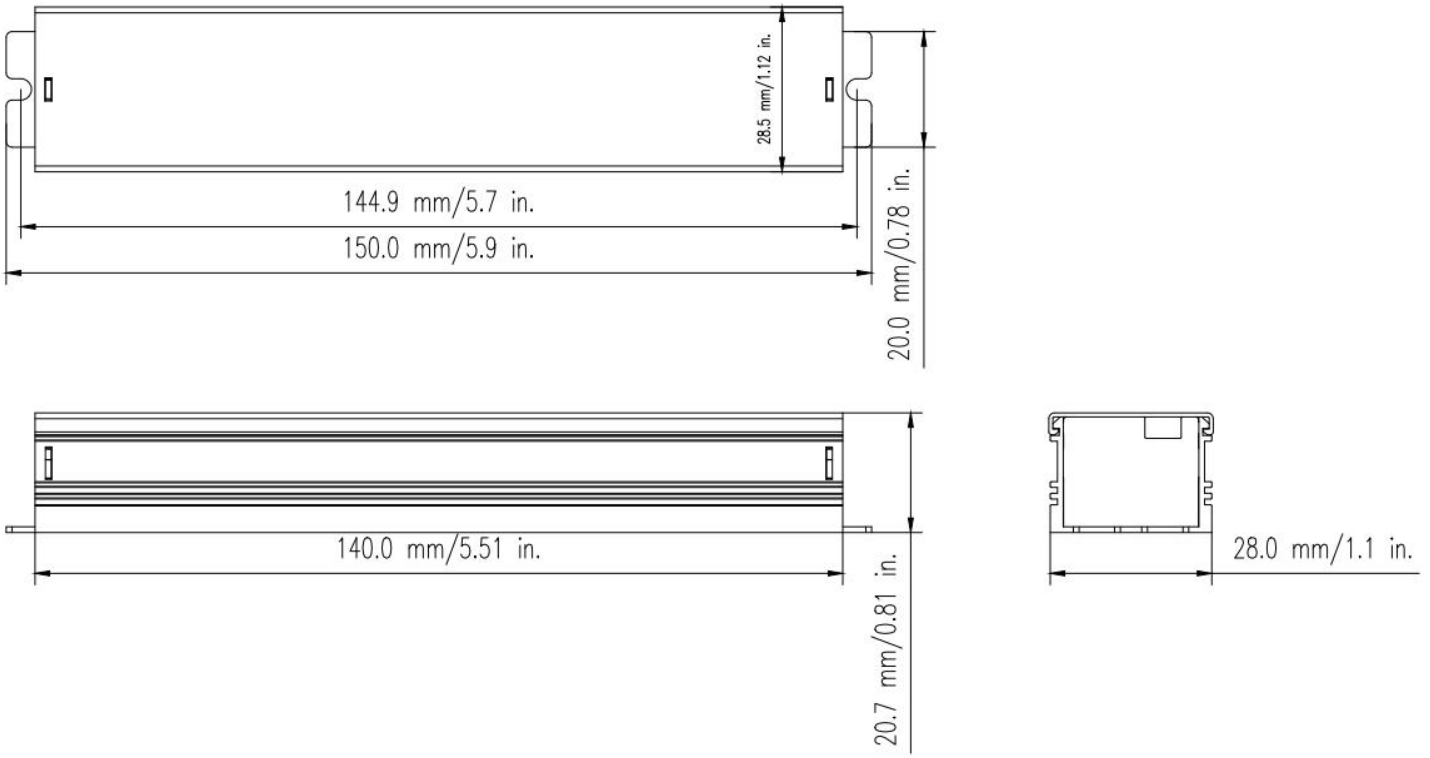
EMC Requirements	Standard	Conditions
EMI Emissions	FCC Title 47 Part 15B	Class B at 120VAC, Class A at 277VAC
Voltage Fluctuations and Flicker	IEC61000-3-3	
Immunity Compliance	IEC 61000-4-2	±8kV air Discharge, ±6kV Contact Discharge
	ANSI/IEEE C62.41.2	2 kV combination wave
	ANSI/IEEE C62.41.1-2002	2.5kV Ring Wave, test at 30Ω 7 Strikes/1 minute interval, Common and Differential mode, 56 total strikes
	IEC 61000-4-11	>95% dip, .5 period; 30% dip, 25 periods; 95% reduction, 250 periods
	IEC 61000-4-4	± 2kV Direct couple to Line input, 5kHz repitition rate, 15mS duration, 300mS period. 7 coupling paths, 1 minute per path (14 total combinations)

Note:
1. Unless otherwise specified, all the above parameters are measured at ambient temperature of 25℃ and rated voltage.
2. Case must be grounded when installation

Packaging

Driver quantity (pcs)	Layer	Weight (kg)	Outer dimensions of Carton L*W*H(mm)
TBD	5	15.0	TBD

Mechanical Drawing:



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