





#### **Features:**

- 120W Single Output Regulated
- Output Range: 12V 48VDC
- Input: 90 264VAC , 47 63Hz
- Low Standby Power
- Fully Isolated Pri Sec 3000Vrms
- 100% Full Burn-in Test
- LED Indicator DC On, DC Low

Part Number	Power Rating Watts	Output Voltage (Vdc)	Output Current (mA)	Ambient Temp. (°C)	Efficiency Typical	Input Range	
VTX-211-120-112	96	12	8000				
VTX-211-120-124	120	24	5000	70	>82%	90 - 264VAC	
VTX-211-120-148	120	48	2500				
Note: Other output voltages are available upon request.							

#### **Application:**

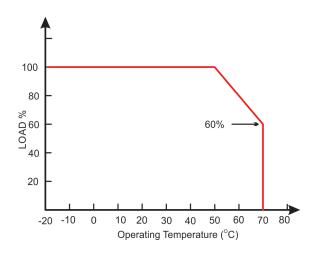
- Process Control
- Factory Automation
- Traffic & Transportation System
- Indusctrial Applications

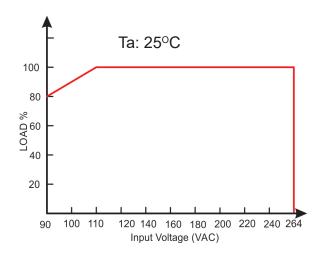


IV	lodel: 120Watt	Specification				
Model		VTX-211-120-112	VTX-211-120-124	VTX-211-120-148		
	Voltage DC	12V	24V	48V		
	Rated Power	96W	120W	120W		
	Rated Current	8.0A	5.0A	2.5A		
	Current Range	0 - 8.0A	0 - 5.0A	0 - 2.5A		
	Voltage Tolerance	2%	2%	2%		
	Voltage Adj. Range	11V - 14V	23V - 28V	47V - 55V		
OUTPUT	Minimum Load	0	0	0		
	Ripple / Noise Typical	100mV	120mV	240mV		
	Line Regulation	2%	2%	2%		
	Load Regulation	3%	3%	3%		
	Rise Time (115VAC)	560mS	560mS	560mS		
	Hold Up Time (115VAC)	20mS	20mS	20mS		
	Note:	The ripple values are measured at 20MHz of bandwidth by using a 12" twisted pairwire terminated with 0.1uF & 47uF parallel capacitor under ambient temperature 25°C at rated input voltage and rated load				
	Voltage Range	90 - 264VAC /	90 - 264VAC	90 - 264VAC		
	Input Frequency	47 - 63Hz	47 - 63Hz	47 - 63Hz		
INDUT	Efficiency	>82%	>85%	>86%		
INPUT	Current	2.6A (115VAC) / 1.30A (230VAC)				
	Inrush Current 30A (115VAC) / 60A (230VAC)					
	Leakage Current <0.25mA					
	No Load Power 4W					
	Over Current	10A	6.6A	3.3A		
	Over Voltage	20V	33V	66V		
Protection	Short Circuit Protection	Hiccup mode, it will recover automatically after fault condition is remov		condition is removed		
	Over Temperature	Over temperature protection value: 100±10°C				
	Surge Voltage (L - N)	2KV				
Dielectric Isolation	Isolation Voltage	I/P-O/P: 3KVac, I/P-FG: 1.5KVac, O/P-FG: 1.5KVac				
	Operating Temperature	-25°C - +70°C (With Derating)				
Enviroment	Operating Relative Humidity	Non Condensing 20 - 95%				
	Storage Temperature	-40°	-40°C - +85°C (Humidity 5 ~ 95% RH)			
	MTBF	>200,000Hrs @ 25°C (MIL-HDBK-217F)				
	Weight	800g				
	Cooling Method	Free Air Convection				
	Mounting	Vertical				
Safety	Compliant Standards		UL/IEC/EN60950-1			
EMC	EMI / EMS	EN 55022:2010+AC:2011 (CISPR 22:2008) ClassB EN 61000-3-2:2014 (IEC 61000-3-2:2014) EN 61000-3-3:2013 (IEC 61000-3-3:2013) EN 55024:2010 (CISPR 24:2010)		14)		

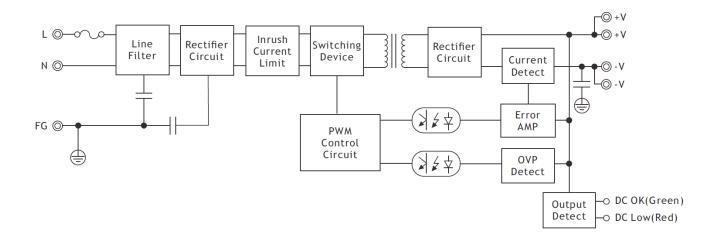


## **Electrical Deating Graphs**





#### **Block Diagram**



#### LED(Green)

DC OK LED light will be ON when the power supply is properly operated

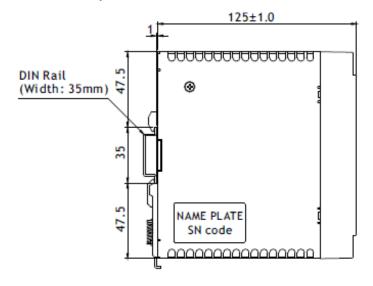
#### LED(Red)

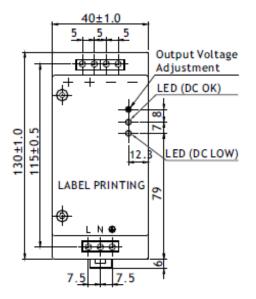
DC Low LED light will be ON:

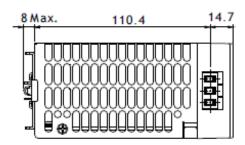
- (1) when output voltage is below 85%(±2.5%) from the rated output voltage;
- (2) when get over voltage, over current, over temperature and short circuit fault



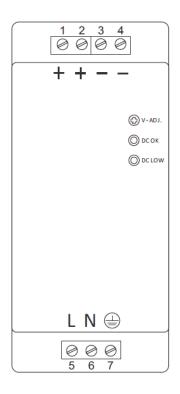
### **Mechanical Layout**







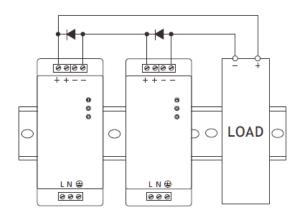
Unit: mm Tolerance: ±1.0

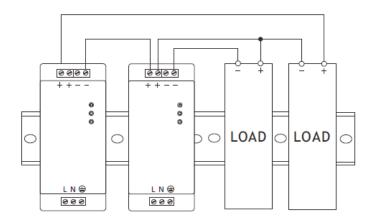


Marking	No.	Assignment	
+	1	- DC(+) Output Terminal	
+	2		
_	3	DC(-) Output Terminal	
_	4		
L	5	AC(L) Input Terminal	
N	6	AC(N) Input Terminal	
	7	AC Grounding Terminal	
V-ADJ.	/	DC Output voltage adjustment trimmer	
DC OK	/	DC Output OK indication LED(Green)	
DC LOW	/	DC Output Low indication LED(Red)	



#### **Application Note: Series Connection**





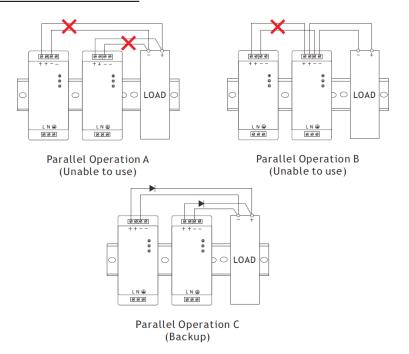
Series Operation A

Series Operation B

#### Note:

- 1. Series operation can be connected as shown in above;
- 2. Load current should be less than the current value of the product with the lowest output current specified at the product specification with the power supply at series connection.

#### **Application Note: Parallel Connection**

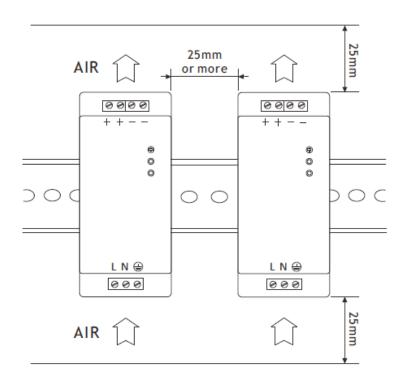


#### Note:

- 1. Parallel operation should be composed with the same products, while the connection should be as shown as "Parallel operation C";
- 2. In parallel operation C, current capacity cannot be increased, while it should be used for backup only. Moreover, diode that is to be added during parallel operation should be selected after considering it's voltage drop, output voltage and current capacity.



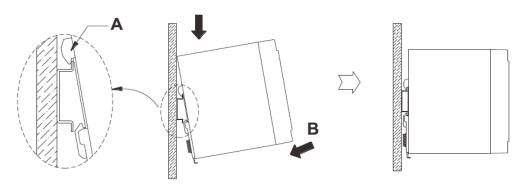
### **Application Note: Mounting**



Mounting method should be considered with airflow. Leave enough space between the units

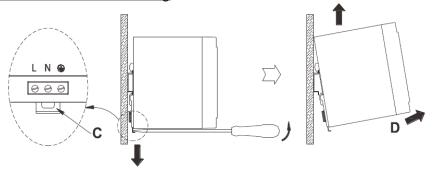
when several units are mounted together. Forced air cooling makes protection against heat better.

## **Application Note: Fitting**



Firstly hang A part on the top of Rail as shown in below, then push the power supply into B direction to fix it.

### Application Note: Removing



Remove the power supply to D direction, pulling C part by using tools, such as a screwdriver, to downward direction.