





### Features:

- 180W Single Output Regulated
- Output Range: 24V 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
- In-built PFC Circuit

Part Number	Power Rating Watts	Output Voltage (Vdc)	Output Current (mA)	Ambient Temp. (°C)	Efficiency Typical	Input Range
VTX-211-180-124	180	24	7500	70	> 000/	00 2641/40
VTX-211-180-148	180	48	3800	70	>90%	90 - 264VAC
Note: Other output voltages are available upon request.						

### **Application:**

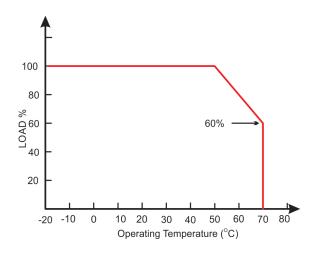
- Process Control
- Factory Automation
- Traffic & Transportation System
- Indusctrial Applications

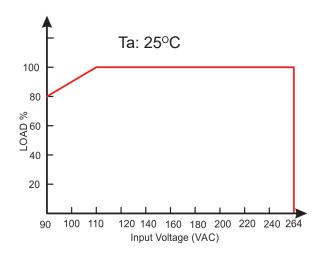


Model: 180Watt		Specification			
Model		VTX-211-180-124	VTX-211-180-148		
	Voltage DC	24V	48V		
	Rated Power	180W	180W		
	Rated Current	7.5A	3.8A		
	Current Range	0 - 7.5A	0 - 3.8A		
	Voltage Tolerance	2%	2%		
	Voltage Adj. Range	21V - 28V	44V - 54V		
OUTPUT	Minimum Load	0	0		
	Ripple / Noise Typical	1%Vo mVp-p	1%Vo mVp-p		
	Line Regulation	1%	1%		
	Load Regulation	1%	1%		
	Rise Time (115VAC)	3600mS	3600mS		
	Hold Up Time (115VAC)	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		
	Input Frequency	47 - 63Hz	47 - 63Hz		
	Efficiency	>90%	>91%		
INPUT	Current	1.8A (115VAC) / 0.90A (230VAC)			
INFOI	Inrush Current	35A (115VAC) / 65A (230VAC)			
	Leakage Current	<0.25mA			
	No Load Power	7W			
	Davier Franker (DF)	Full Load, 115VAC 0.98			
	Power Factor (PF)	Full Load, 230VAC 0.96			
	Over Current	8.3A	4.2A		
Protection	Over Voltage	33V	66V		
	Short Circuit Protection	Hiccup mode, it will recover automat	recover automatically after fault condition is removed		
	Over Temperature	Over temperature protection value: 110±10°C			
	Surge Voltage (L - N)	2KV			
Dielectric Isolation	Isolation Voltage	I/P-O/P: 3KVac, I/P-FG: 1.5KVac, O/P-FG: 0.5KVac			
Enviroment	Operating Temperature	-25°C - +70°C (With Derating)			
	Operating Relative Humidity	Non Condensing 20 - 95%			
	Storage Temperature	-40°C - +85°C (Humidity 5 ~ 95% RH)			
	MTBF	>230,000Hrs @ 25°C (MIL-HDBK-217F)			
	Weight	950g			
	Cooling Method	Free Air Convection			
	Mounting	Vertical			
Safety	Compliant Standards	UL/IEC/E	N60950-1		
ЕМС	EMI / EMS EN 55022:2010+AC:2011 (CISPR 22:2008) ClassB, EN 61000-3-2:2014 (IEC 61000-3- EN 61000-3-3:2013 (IEC 61000-3-3:2013), EN 55024:2010 (CISPR 24:2010)				

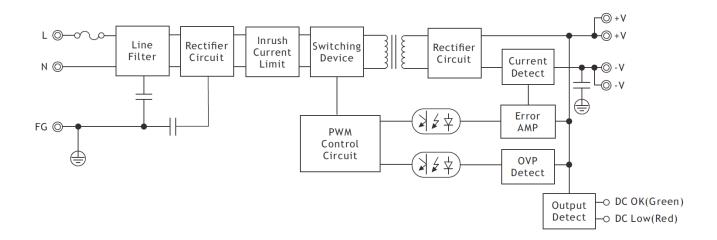


## **Electrical Derating Graphs**





### **Block Diagram**



#### LED(Green)

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

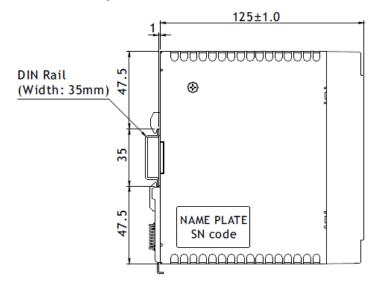
#### LED(Red)

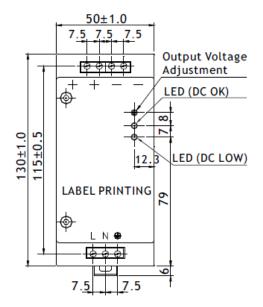
DC Low LED light will be ON:

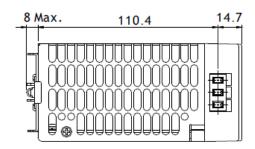
- (1) when output voltage is below 85%(±2.5%) from the rated output voltage;
- (2) when get over voltage, over current, over temperature and short circuit fault



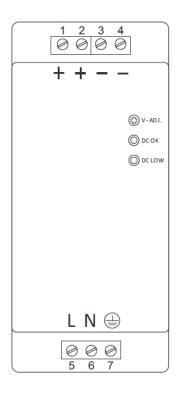
### Mechanical Layout







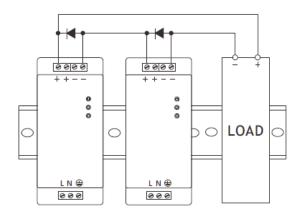
Unit: mm Tolerance: ±1.0

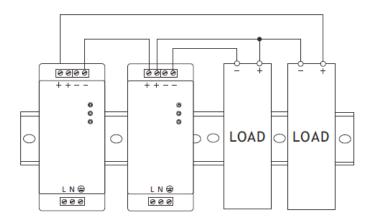


Marking	No.	Assignment	
+	1	DC(+) Output Terminal	
+	2		
_	3	DC(-) Output Terminal	
_	4		
L	5	AC(L) Input Terminal	
N	6	AC(N) Input Terminal	
	7	AC Grounding Terminal	
V-ADJ.	/	DC Output voltage adjustment trimmer	
DC OK	/	DC Output OK indication LED(Green)	
DC LOW	/	DC Output Low indication LED(Red)	



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





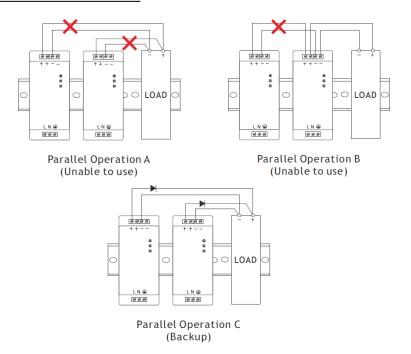
Series Operation A

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**

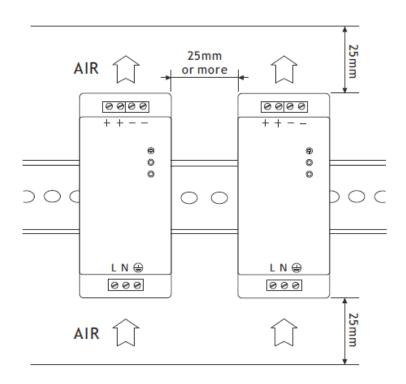


#### Note:

- 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.



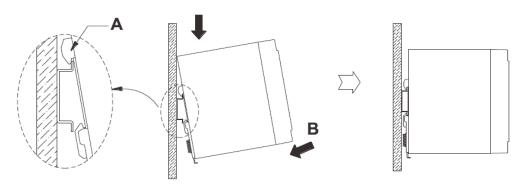
## Application Note: Mounting



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

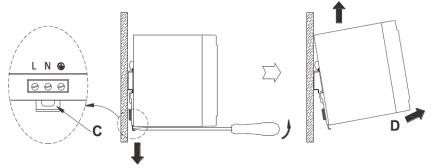
when several units are mounted together. Forced air cooling makes protection against heat better.

## 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.