

# ELMDENE

Protecting People & Property

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## 24Vdc 2A/4A Low Profile SMPSU

### VRS242000-x-y

1 x 2.0A Fused Output  
2 x 1.0A Fused Outputs  
4 x 0.5A Fused Outputs  
8 x 0.25A Fused Outputs

### VRS244000-x-T

2 x 2.0A Fused Outputs  
4 x 1.0A Fused Outputs  
8 x 0.5A Fused Outputs  
16 x 0.25A Fused Outputs

Where 'x' is the number of fused outputs 1, 2, 4, 8 or 16 (model dependent)  
Where 'y' is the enclosure type 'J' or 'P'

- Low profile enclosure
- Universal mains input voltage 90-264Vac
- High efficiency electronics for reduced running costs and lower operating temperatures
- Continuous full rated current to load
- Installer safe design with all high voltage electronics fully shrouded
- Modular construction for ease of maintenance & installation
- Individual channel LED health indication
- Lockable lid - (4A version)
- Available in 1, 2, 4, 8 or 16 channel versions (model dependent)
- Individually Fused Outputs
- Cable access available via 20mm cable gland knockouts or rear panel
- Full electronic short circuit and overload protection on load output
- Mains transient protection circuit
- Green 'Mains Present' & Red 'Fault' LED
- 2A version available in IP68 Enclosure

## FEATURES

The VRS24x000-x-y low profile range consists of high efficiency cost effective power supplies, ideal for use in CCTV applications. They feature regulated 24.0Vdc SMPSU modules, continuously supplying full rated current to load, while their universal mains input voltage enables the power supply to be used across a wide geographical area. The highly efficient switch mode design generates less heat and ensures low operating costs. The modular construction simplifies maintenance and the fused output module allows multiple circuits to be individually protected. Presented in a low profile enclosure with a lockable lid (4A version), while the 2A version is also available in an IP68 plastic enclosure allowing for external use.

## OPERATION

This unit is intended for use by Service Personnel only - There are NO USER SERVICEABLE parts inside. The green Mains LED will be illuminated whilst the mains supply is present. In the event of a fault condition, the red Fault LED will also be illuminated on the module.

## INSTALLATION AND SET-UP

This unit is only suitable for installation as permanently connected equipment. Only the IP68 version is suitable for external installation. *EQUIPMENT MUST BE EARTHED*. Before installation, ensure that external disconnect device is *OFF*. The PSU should be installed according to all relevant safety regulations applicable to the application.

### Mounting

1. Mount securely in correct orientation using the 3 available mounting holes. For the IP68 version the four enclosure mounting screw locations are found within the four lid screw holes.
2. Route mains and low voltage output cables via different knockouts and/or rear cable entry holes.
3. Use bushes and cable glands rated to UL94 HB minimum. To ensure the IP68 rating is kept - cable glands used for cable entry must be of IP68 rating (-P version only).

### Mains Power Up

1. Attach correctly rated mains cable (2A model = minimum 0.5mm<sup>2</sup> [3A], 300/500Vac, 4A model = minimum 0.75mm<sup>2</sup> [6A], 300/500Vac) and fasten using cable ties.
2. Apply mains power. Check for 24.0Vdc on load outputs. Check green Mains LED is illuminated on the module(s).
3. Disconnect mains power.

### Load Output

1. Attach correctly rated load cable and fasten using cable ties. Note polarity.
2. Re-apply mains power. Check green Mains LED is on.
3. Verify load is operating correctly.

## MAINTENANCE

There is no regular maintenance required of this PSU.

If the output of the PSU fails the cause of the failure should be investigated e.g. short circuit load. The fault should be rectified before restoring power to the PSU. The fuse(s) may need to be replaced. Ensure the correct fuse rating and type is used.

## DISPOSAL OF PRODUCT AT END OF LIFE

This product falls within the scope of EU Directives 2002/96/EC Waste Electrical and Electronic Equipment (WEEE). At the end of life, the product must be separated from the domestic waste stream and disposed via an appropriate approved WEEE disposal route in accordance with all national and local regulations.

For more information see: [www.recyclethis.info](http://www.recyclethis.info)

## SPECIFICATION

### Input Specification

	<i>VRS242000-x-y</i>	<i>VRS244000-x-T</i>
Voltage (rated)	100-240Vac	
Voltage (operating)	90-264Vac	
Frequency	50-60Hz	
Mains Input Fuse (Terminal)	T2.0A HRC	T3.15A HRC
Module fuse - Mains	T2.0A HRC	T2.0A HRC (x2)
Max standby Power	0.5W (no load connected)	1.0W (no load connected)
Max Mains Input Current	1.5A	3.0A

### Output Specification (per power module)

Voltage	22.8 – 25.2Vdc (24.0Vdc nominal)	
Max load current (per module)	2A	4A
Ripple	150 mV pk-pk max	
Module Output Fuse	F2.0A	
Load output Fuse	See Model Specification Table below	
Overload	Electronic shutdown until overload or short circuit removed	

### Local Indicators

MAINS LED (Green)	Mains present
FAULT LED (Red)	Fault present: Output fuse fail (requires load to be connected)

### Fused Outputs

Model:	VRS242000-x	VRS244000-x
No. of Fused outputs:	<b>1, 2, 4 &amp; 8</b>	<b>2, 4, 8 &amp; 16</b>
Fuse Value: [as fitted in fused output module(s)]	1 x F2.0A 2 x F1.0A 4 x F0.5A 8 x F250mA	2 x F2.0A 4 x F1.0A 8 x F0.5A 16 x F250mA

### Mechanical

	J - Enclosure	P - Enclosure	T - Enclosure
Enclosure Dimensions <b>h x w x d (mm) [external]</b>	188 x 205 x 60	200 x 200 x 90	310 x 245 x 60
Weight	1.5kg	1.2Kg	2.7kg

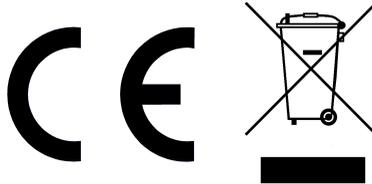
### Environmental

Temperature	-10 to +40°C (operating) 95% RH non-condensing -20 to +80°C (storage)
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## COMPLIANCE

This product meets the essential requirements of the following EU Directives:

Low Voltage:	2014/35/EU
EMC:	2014/30/EU
RoHS2:	2011/65/EU
WEEE:	2012/19/EU



*The packaging supplied with this product may be recycled.  
Please dispose of packaging accordingly.*

### **Explanation of symbols:** *(Not all may apply)*



Fault Indication



Shock Risk - isolate before attempting access



Certification Level



Mains Present



Protective Earth



Do not dispose of in unsorted waste

Specifications subject to change without notice