

# 32000 Series

## Open Frame AC/DC Regulated Linear Power Supplies



### GENERAL SPECIFICATIONS

#### A.C. Input

#### D.C. Output

#### Line Regulation

#### Load Regulation

#### Output Ripple

#### Transient Response

#### Short Circuit and

#### Overload Protection

#### Overvoltage Protection

#### Remote Sensing

#### Stability

#### Temperature Rating

100/120/220/240 V AC +10%, -12%, 47 to 60 Hz  
See Voltage/Current Rating Chart. Adjustment range  
±5% minimum.

±0.05% for a 10% line change.

±0.05% for a 50% load change.

2 V to 15 V units: 5.0 mV PK-PK maximum

20 V to 28 V units: 0.02% PK-PK maximum

50  $\mu$ s for a 50% load change

Automatic current limit/foldback

Built-in on all 5 V outputs. Set at 6.2 V  $\pm$ 0.4 V

Other models use optional overvoltage protection.

See Option 3 overleaf

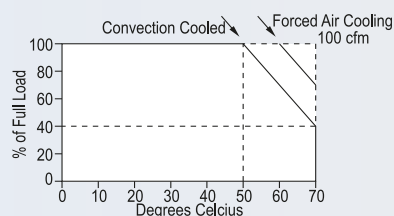
Provided on most models, open sense load  
protection built in.

±0.3% for 24 hour period after 1 hour warm-up

Standard Range: 0°C to +50°C full-rated,  
derated linearly to 40% at 70°C

Extended Range: -40°C to +50°C full-rated,  
derated linearly to 40% at 70°C

#### TEMPERATURE DERATING CURVE



#### Temperature Coefficient

#### Efficiency (typical)

60%

#### Isolation

#### RoHS Compliant

±0.03%/°C maximum

5V unit: 45%; 12 V and 15 V units: 55%; 24 V units:

Input to ground: 3750 V AC min.

Input to output(s): 3750 V AC min.

Output to ground: 500 V AC min.

Leakage current (live to ground): 5  $\mu$ A max.

Yes

These high quality linear regulated power supplies provide outstanding value and are designed for ease of application and long trouble-free life. They will accommodate AC inputs from 100 V to 240 V and provide a wide range of DC outputs with very low ripple.

All 32000 series power supplies are built around industry-standard case sizes to simplify installation and a 3.75 kV isolation safety transformer. For additional safety the transformer primary is protected from thermal overloads by a thermal fuse. This fuse will blow if a transformer temperature of 130°C is exceeded. Every unit incorporates a safety earth tag.

All models are fitted with automatic foldback current limiting. An overvoltage protection (OVP) circuit protects sensitive loads against excessive voltage such as in TTL logic. OVP is a standard feature of all 5 V output units and an option on all other units.

The remote sensing feature, included in almost all 32000 series power supplies, may be used to compensate the voltage drop across the load lines. All dual-output power supplies feature a unique anti-latch circuit to minimise common mode latch up.

## SINGLE OUTPUT MODELS

Model	Output Voltage Volts	Output Current Amps	Case
32005AR	5	3.0	A
32005BR	5	6.0	B
32005CR	5	9.0	C
32005DR	5	12.0	D
32012AR	12 to 15	1.7	A
32012BR	12 to 15	3.4	B
32012CR	12 to 15	5.1	C
32012DR	12 to 15	6.8	D
32012ER	12 to 15	10.2	E
32024AR	24 to 28	1.2	A
32024BR	24 to 28	2.4	B
32024CR	24 to 28	3.6	C
32024DR	24 to 28	4.8	D
32024ER	24 to 28	7.2	E
32024ER/10	24 to 28	10.0	E
32048AR*	48	0.5	A
32150AR	120 to 200	0.150**	A

\* No remote sensing

\*\* Output current from 180 to 200V falls linearly from 150mA to 125mA

## OVP SELECTION CHART

	Case	OVP Model Required
Single Output	A/B/C/D	32901AR
	E	32901BR
Dual Output	AA/BB/CC	32901AR, protects both outputs
	E	32901BR, protects both outputs
Triple Output	AA/AAA/D	32901AR, protects dual outputs
	BBB/131	OVP built-in on 5 V outputs

## DUAL OUTPUT MODELS

Model	Output 1		Output 2		Case
	Voltage Volts	Current Amps	Voltage Volt	Current Amps	
32212AR	12 to 15	1.0	-12 to -15	1.0	AA
32212BR	12 to 15	1.7	-12 to -15	1.7	BB
32212CR	12 to 15	3.4	-12 to -15	3.4	CC

## TRIPLE OUTPUT MODELS

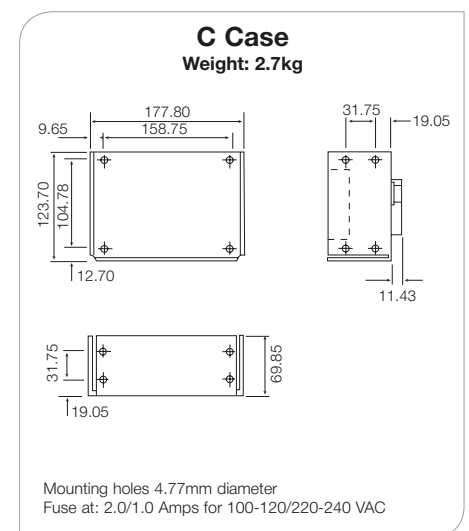
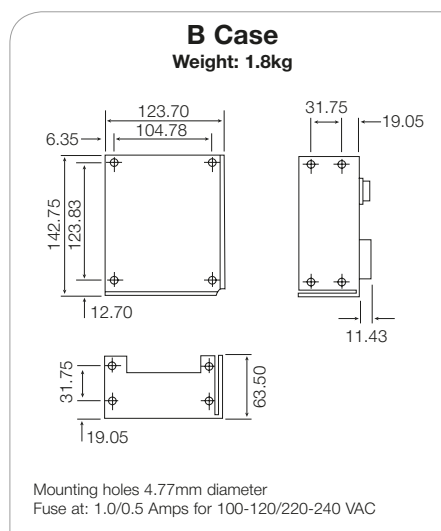
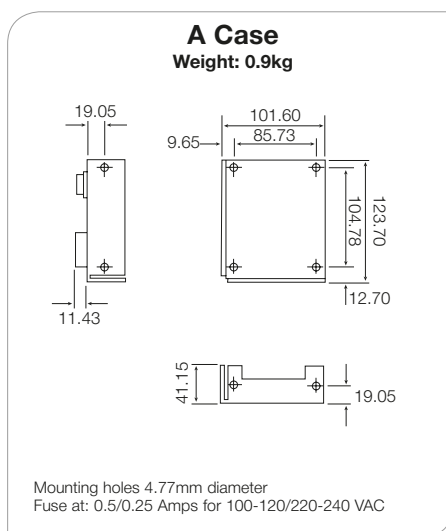
Model	Output 1		Output 2		Output 3		Case
	Voltage Volts	Current Amps	Voltage Volts	Current Amps	Voltage Volts	Current Amps	
32305AR	5*	2.0	9 to 15*	0.4	-9 to -15*	0.4	AA
32305BR	5	3.0	12 to 15	1.0	-12 to -15	1.0	AAA
32305DR	5	6.0	12 to 15	1.7	-12 to -15	1.7	BBB
32305ER	5	8.0	12 to 15	1.7	-12 to -15	1.7	BBB
32305FR	5	12.0	12 to 15	1.7	-12 to -15	1.7	DBB

## OPTIONS

- 1 Tropicalisation – suffix code 'T'
- 2 Low temperature operation -40°C to +50°C – suffix code 'LT'
- 3 Overvoltage Protection Modules – These optional Overvoltage Protection Modules are available for use with any power supply NOT supplied with built-in OVP. Each is adjustable from 6.4V to 34V and should be used when maximum load protection is of prime importance. Response time is 1 ms. Mounting holes are provided on the chassis for these modules, which mount within the specified outline dimensions of each power supply.

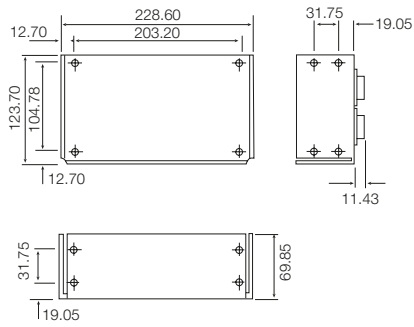
## 32000 SERIES - GENERAL DIMENSIONS

All dimensions are in mm



### D Case

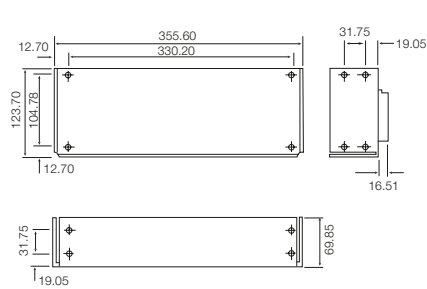
Weight: 3.4kg



Mounting holes 4.77mm diameter  
Fuse at: 2.0/1.0 Amps for 100-120/220-240 VAC

### E Case

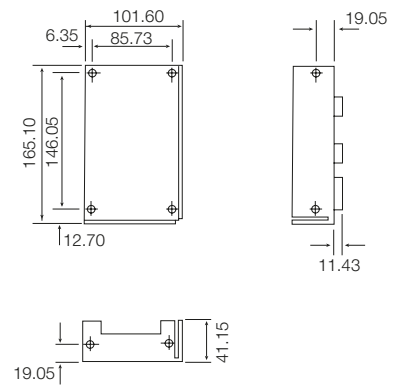
Weight: 4.5kg



Mounting holes 4.77mm diameter  
Fuse at: 3.0/1.5 Amps for 100-120/220-240 VAC

### AA Case

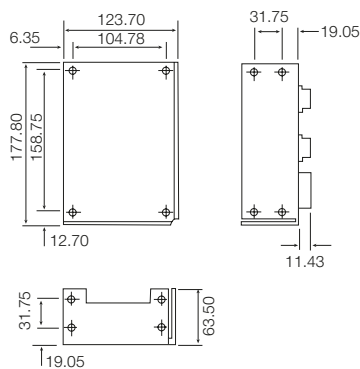
Weight: 0.9kg



Mounting holes 4.77mm diameter  
Fuse at: 0.5/0.25 Amps for 100-120/220-240 VAC

### BB Case

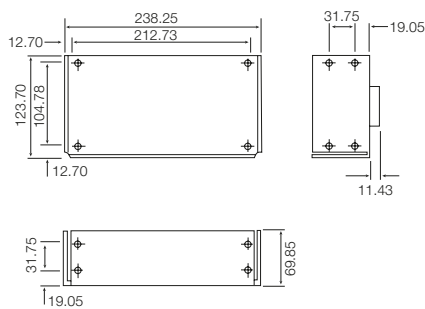
Weight: 1.8kg



Mounting holes 4.77mm diameter  
Fuse at: 2.0/1.0 Amps for 100-120/220-240 VAC

### CC Case

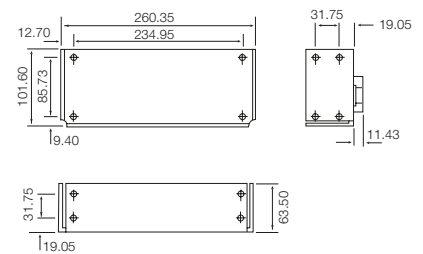
Weight: 3.2kg



Mounting holes 4.77mm diameter  
Fuse at: 2.0/1.0 Amps for 100-120/220-240 VAC

### AAA Case

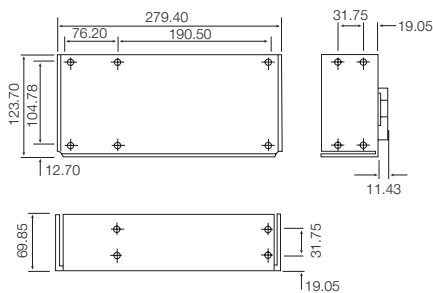
Weight: 2.3kg



Mounting holes 4.77mm diameter  
Fuse at: 1.0/0.5 Amps for 100-120/220-240 VAC

### BBB Case

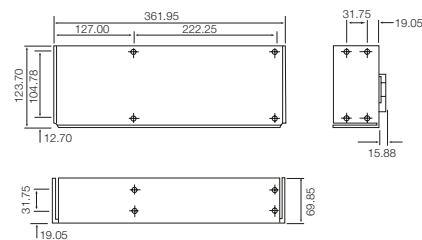
Weight: 3.6kg



Mounting holes 4.77mm diameter  
Fuse at: 2.0/1.0 Amps for 100-120/220-240 VAC

### DBB Case

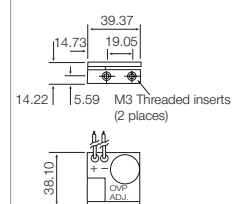
Weight: 5.0kg



Mounting holes 4.77mm diameter  
Fuse at: 3.0/1.5 Amps for 100-120/220-240 VAC

### Overvoltage Protection Modules

#### OVP-12 32901A



#### OVP-24 32901B

