

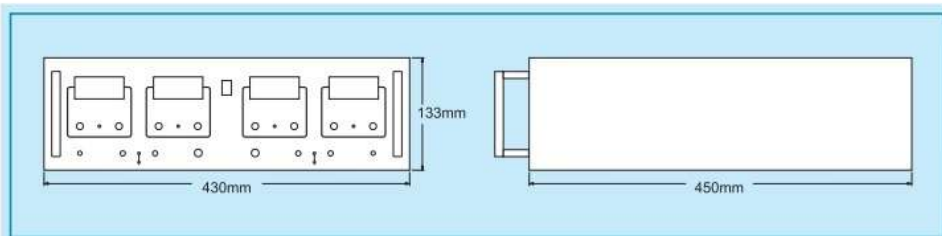
# PROGRAMMABLE LINEAR DC POWER SUPPLY CBVS 30/6/5/5



- Phase controlled pre-regulation plus linear post regulation
- High stability and close regulation
- 3 Digit digital display for V&I or HMI / TFD LCD DISPLAY
- V - A Switch provided
- Front panel potentiometer to set V&I
- High current density.
- LAN Interface ,USB ,RS485,RS232

## Special features

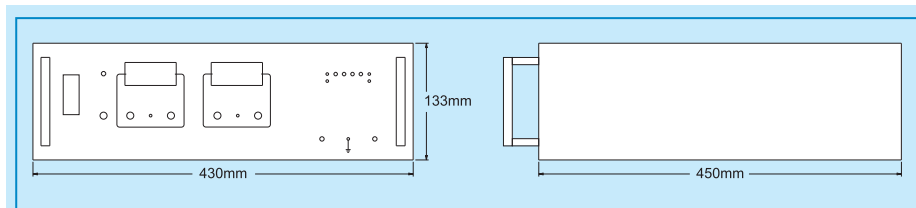
- 19" rack mounting
- Light Weight



MODEL	CBVS 30/6/55			
Input Voltage	230V AC, ±10%, 50Hz, 1phase			
Output Voltage	Ch1 - 0-30V	Ch2 - 0-30V	Ch3 - 0-6V	Ch4 - 5V    * ( USB output)
Output Current	0-5A	0-5A	0-3A	2A
Output Power	328 W			
Line Regulation CV *	< 0.01% + 10 mV			
Load Regulation CV !	< 0.01% + 10 mV			
Line Regulation CC *	< 0.01% + 5mA			
Load Regulation CC !!	< 0.01% + 5mA			
Ripple & noise	ultra low ripple	noise <1mV p-p		
Sequence function	ramp, step, sine, square			
Ethernet Interface	LAN Provided			
Arbitrary Parameter	Voltage ,Current ,Time			
Current acc. with prog.	0.3% of I <sub>max</sub>			
Operating Temp./ Humid.	0 to 50°C   /   ≤80%Rh			
Protection	OL,SC,OVP,OP, over temperature, output ON/OFF ,Panel Lock			
Indications (LED)	CV & CC			
Display	* V & I (LED Display)	or 4.3-inch TFT LCD	or HMI Display	* optional display
Meter parameter	voltage, current, power, presetting/protection limit, for all channels simultaneously			
Meter Resolution	voltage : 0.1mV		current : 0.1mA	
Programming Accuracy	voltage : <0.3% + 20mV		current : <0.2% +5mA	
Programming Resolution	voltage: 10mV		current : 1mA	
Input On/Off	M.C.B.			
Single Turn Pots	V Set & I Set			
Dimensions appr.** W × H × D	440mm × 133 mm (3U) × 600 mm			

\* CE Certified  
\*\* RoHS Compliant

# Multi-output Regulated DC Power Supply CBVS5/25/25



## SPECIFICATIONS:

**Metering** : 4 digit DPMs for voltage and current measurement.

**Meter Accuracy** :  $\pm 3$  counts.

**Constant Voltage Mode** :

**REGULATION** :

Line :  $\leq 0.02\% \pm 4\text{mV}$  for  $\pm 10\%$  change in line voltage.

Load :  $\leq 0.02\% \pm 4\text{mV}$  for load change from zero to full load.

**RIPPLE AND NOISE** : 1mV rms max. 20Hz to 20MHz.

**Constant Current Mode** :

**REGULATION** :

Line :  $\pm 0.1\% \pm 250\mu\text{A}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.1\% \pm 250\mu\text{A}$  for change in output voltage from 0 volts to maximum output voltage.

**Ripple & Noise(20Hz to Mhz):**

$< 350\mu\text{Vrms}$

**Mode Indication** : LED indication for constant voltage / constant current operation mode.

**Output Polarity** : Floating w.r.t. ground.

**Protection** : OCP, OVP

**Programming Resolution** :

100mV / 10mA

**Transient Response** : 100 micro sec within 10mV of set output voltage for load change from 10% to 90%.

**Stability** : Total drift within 8 hours, after 30 minutes warm-up under constant line, load and temperature.

$< \pm 0.2\% \pm 10\text{mV}$  in CV mode.

$< \pm 0.5\% \pm 10\text{mA}$  in current mode.

**Operating Temperature** :

0 to  $50^\circ\text{C}$ .

**Temp. Coefficient** :  $\pm 0.05\% \pm 5\text{mV}$  per OC after initial warm-up of 30 minutes, in voltage mode.

**Line Voltage** : 230V AC  $\pm 10\%$ , single phase 50Hz.

**Output Voltage & Current** :

**Output voltage** : Ch1: 0 TO 5V

Ch2: 0 TO 25V

Ch3: 0 TO 25V

**Output current** : Ch1: 0 TO 3A

Ch2: 0 TO 2A

Ch3: 0 TO 2A

**Dimensions** : 430 x 133 x 450

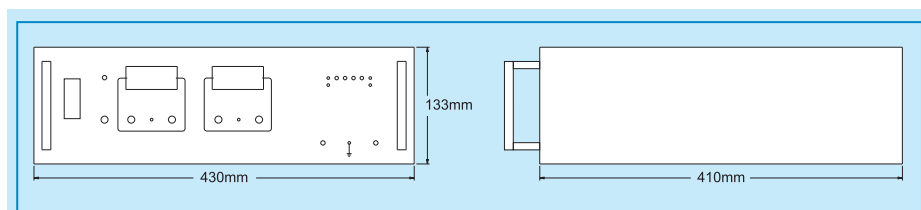
**Weight** : 25 kg approx.

- Phase Controlled Pre- Regulation Plus Linear Post- Regulation
- One Digital Meters - 4 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- USB Interface
- Remote Sensing
- High Stability and Close Regulation  $\pm 0.01\%$

## Special feature at Extra Cost

- Presetting Facility
- Over Voltage / Current Protection
- 19" Rack Mounting
- Analog programming & monitoring for Voltage & Current.

# Multi-output Regulated DC Power Supply CBVS6/25/5/1



## SPECIFICATIONS:

**Metering** : 3 digit DPMs for voltage and current measurement.

**Meter Accuracy** :  $\pm 3$  counts.

**Constant Voltage Mode :**

**REGULATION :**

Line :  $\pm 0.01\% \pm 2\text{mV}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 2\text{mV}$  for load change from zero to full load.

**RIPPLE AND NOISE** : 1mV rms max. 20Hz to 20MHz.

**Constant Current Mode :**

**REGULATION :**

Line :  $\pm 0.01\% \pm 250\mu\text{A}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 250\mu\text{A}$  for change in output voltage from 0 volts to maximum output voltage.

**Ripple & Noise(20Hz to Mhz):**

$< 350\mu\text{Vrms}$

**Mode Indication** : LED indication for constant voltage / constant current operation mode.

**Output Polarity** : Floating w.r.t. ground.

**Overload Protection** : Constant current type.

**Transient Response** : 100 micro sec within 10mV of set output voltage for load change from 10% to 90%.

**Stability** : Total drift within 8 hours, after 30 minutes warm-up under constant line, load and temperature.

$< \pm 0.2\% \pm 10\text{mV}$  in CV mode.

$< \pm 0.5\% \pm 10\text{mA}$  in current mode.

**Operating Temperature :**

0 to 50°C.

**Temp. Coefficient** :  $\pm 0.05\% \pm 5\text{mV}$  per OC after initial warm-up of 30 minutes, in voltage mode.

**Line Voltage** : 230V AC  $\pm 10\%$ , single phase 50Hz.

**Output Voltage & Current :**

**Output voltage** : Ch1: 0 TO 6V

Ch2: 0 TO +25V

Ch3: 0 TO -25V

**Output current** : Ch1: 0 TO 5A

Ch2: 0 TO 1A

Ch3: 0 TO 1A

**Dimensions** : 430 x 133 x 450

- Phase Controlled Pre- Regulation Plus Linear Post- Regulation
- One Digital Meters - 3 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- 19" Rack Adaptable
- Remote Sensing
- High Stability and Close Regulation  $\pm 0.01\%$

## Special feature at Extra Cost

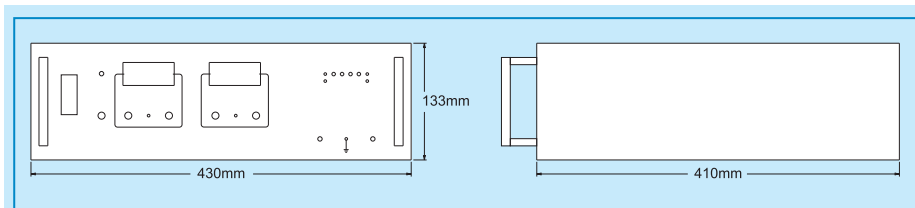
- Presetting Facility
- Over Voltage / Current Protection
- 19" Rack Mounting
- Analog programming & monitoring for Voltage & Current.
- USB Interface



# Programmable Regulated DC Power Supply CBVS10/30/60/1



\*\*for reference only



## SPECIFICATIONS:

**Metering** : 4 digit DPMs for voltage and current measurement.

**Meter Accuracy** :  $\pm 3$  counts.

**Constant Voltage Mode** :

**REGULATION** :

Line :  $\pm 0.01\% \pm 2\text{mV}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 2\text{mV}$  for load change from zero to full load.

Ripple & noise : 1mV rms max. 20Hz to 20MHz.

**Constant Current Mode** :

**REGULATION** :

Line :  $\pm 0.1\% \pm 2\text{mA}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.1\% \pm 2\text{mA}$  for change in output voltage from 0 volts to maximum output voltage.

Ripple & Noise(20Hz to Mhz):  
<4mArms

**Mode Indication** : LED indication for constant voltage / constant current operation mode.

**Output Polarity** : Floating w.r.t. ground.

**Protection** : Overload and short circuit protection

**Transient Response** : 100 micro sec within 10mV of set output voltage for load change from 10% to 90%.

**Stability** : Total drift within 8 hours, after 30 minutes warm-up under constant line, load and temperature.

<  $\pm 0.2\% \pm 10\text{mV}$  in CV mode.

<  $\pm 0.5\% \pm 10\text{mA}$  in current mode.

**Operating Temperature** :

0 to 50°C.

**Temp. Coefficient** :  $\pm 0.05\% \pm 5\text{mV}$  per OC after initial warm-up of 30 minutes, in voltage mode.

**Line Voltage** : 230V AC  $\pm 10\%$ , single phase 50Hz.

**Output Voltage & Current** :

**Output voltage** : Ch1: 0 TO 10V

Ch2: 0 TO 30V

Ch3: 0 TO 60V

**Output current** : Ch1: 0 TO 1A

Ch2: 0 TO 1A

Ch3: 0 TO 1A

**Dimensions** : 430 x 133 x 450

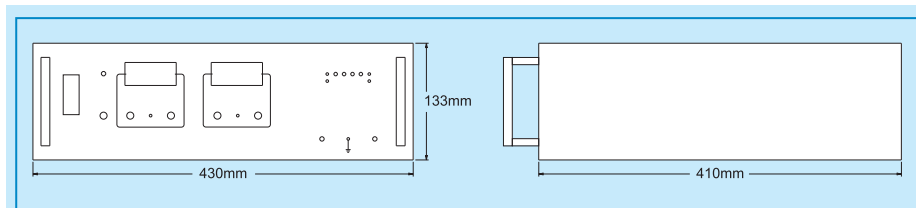
- Phase Controlled Pre- Regulation Plus Linear Post- Regulation
- One Digital Meters - 4 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- 19" Rack Adaptable
- USB interface
- High Stability and Close Regulation  $\pm 0.01\%$

## Special features at Extra Cost

- Presetting Facility
- Over Voltage / Current Protection
- 19" Rack Mounting



# Multi-output Regulated DC Power Supply CBVS30/5/3



## SPECIFICATIONS:

**Metering** : 3 digit DPMs for voltage and current measurement.

**Meter Accuracy** :  $\pm 3$  counts.

**Constant Voltage Mode :**

**REGULATION :**

Line :  $\pm 0.01\% \pm 2\text{mV}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 2\text{mV}$  for load change from zero to full load.

**RIPPLE AND NOISE** : 1mV rms max. 20Hz to 20MHz.

**Constant Current Mode :**

**REGULATION :**

Line :  $\pm 0.1\% \pm 250\mu\text{A}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.1\% \pm 250\mu\text{A}$  for change in output voltage from 0 volts to maximum output voltage.

**Ripple & Noise(20Hz to Mhz):**

$< 350\mu\text{Vrms}$

**Mode Indication** : LED indication for constant voltage / constant current operation mode.

**Output Polarity** : Floating w.r.t. ground.

**Overload Protection** : Constant current type.

**Transient Response** : 100 micro sec within 10mV of set output voltage for load change from 10% to 90%.

**Stability** : Total drift within 8 hours, after 30 minutes warm-up under constant line, load and temperature.

$< \pm 0.2\% \pm 10\text{mV}$  in CV mode.

$< \pm 0.5\% \pm 10\text{mA}$  in current mode.

**Operating Temperature :**

0 to 50°C.

**Temp. Coefficient** :  $\pm 0.05\% \pm 5\text{mV}$  per OC after initial warm-up of 30 minutes, in voltage mode.

**Line Voltage** : 230V AC  $\pm 10\%$ , single phase 50Hz.

**Output Voltage & Current :**

**Output voltage** : Ch1: 0 TO 30V

Ch2: 0 TO 30V

Ch3: 0 TO 5V

**Output current** : Ch1: 0 TO 3A

Ch2: 0 TO 3A

Ch3: 0 TO 3A

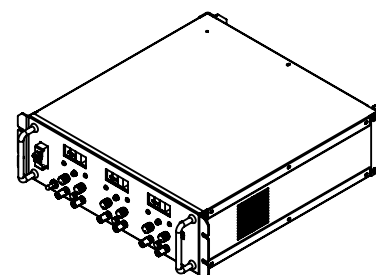
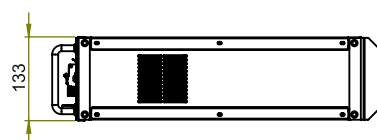
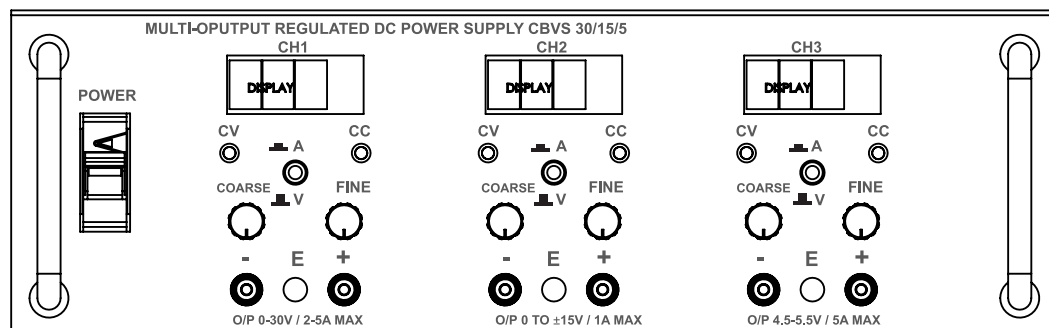
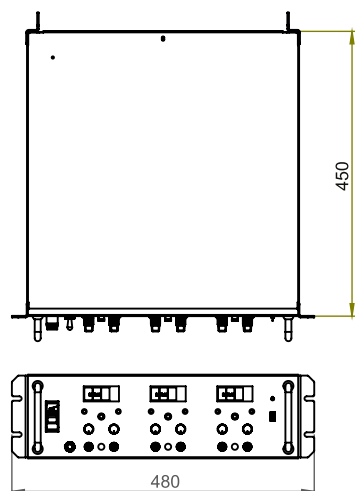
**Dimensions** : 430 x 133 x 450

- Phase Controlled Pre- Regulation Plus Linear Post- Regulation
- One Digital Meters - 3 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- USB Interface
- Remote Sensing
- High Stability and Close Regulation  $\pm 0.01\%$

## Special feature at Extra Cost

- Presetting Facility
- Over Voltage / Current Protection
- 19" Rack Mounting
- Analog programming & monitoring for Voltage & Current.

# Multi-output Regulated DC Power Supply CBVS30/15/5



## SPECIFICATIONS:

**Metering** : 3 digit seven segment LED DPMs for voltage and current measurement.

### Meter Accuracy :

V:  $\pm(1\%+1 \text{ digit})$   
I:  $\pm(1\%+3 \text{ digit})$

### Constant Voltage Mode :

#### REGULATION :

Line :  $\pm 0.05\% \pm 10\text{mV}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.05\% \pm 10\text{mV}$  for load change from zero to full load.

**Ripple & Noise** : 1mV rms max. 20Hz to 20MHz./  $< 5\text{mVp-p}$

### Constant Current Mode :

#### REGULATION :

Line :  $\pm 0.1\% \pm 3\text{mA}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.1\% \pm 3\text{mA}$  for change in output voltage from 0 volts to maximum output voltage.

### Ripple & Noise(20Hz to Mhz):

$< 6\text{mArms}$

### Setting Resolution:

voltage : 10mV  
current : 5mA

**Protection** : Overload protection (CC type), over voltage protection

**Transient Response** : 100 micro sec within 10mV of set output voltage for load change from 10% to 90%.

**Internal resistance Stability** :  $\leq 10\text{m}\Omega$  , 2.5mV at full load

### Current limit adjustment:

100mA to max, CC & CV

### Operating Temperature :

0 to 50°C.

**Temp. Coefficient** :  $\pm 0.05\% \pm 5\text{mV}$  per OC after initial warm-up of 30 minutes, in voltage mode.

**Line Voltage** : 230V AC  $\pm 10\%$ , single phase 50Hz.

### Output Voltage & Current :

**Output voltage** : Ch1: 0 TO 30V  
Ch2: 0 TO  $\pm 15\text{V}$   
Ch3: 4.5 TO 5.5V

**Output current** : Ch1: 2 TO 5A  
Ch2: 0 TO 1A  
Ch3: 0 TO 5A

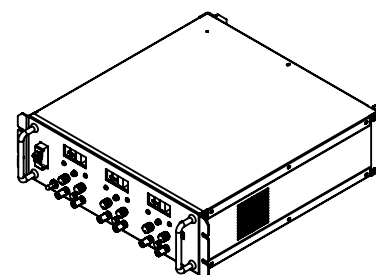
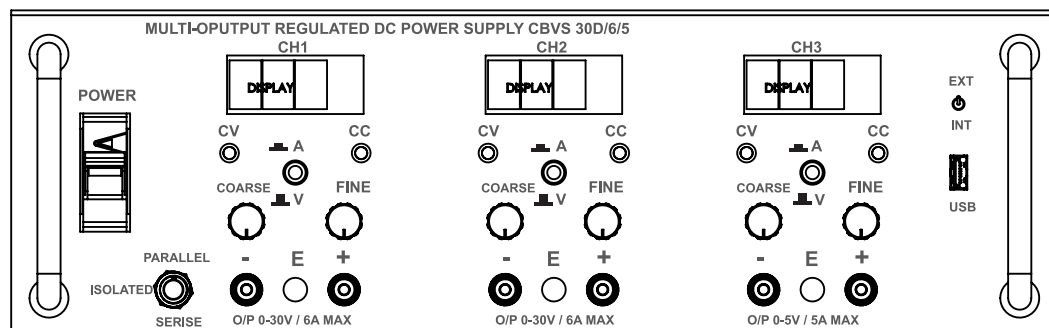
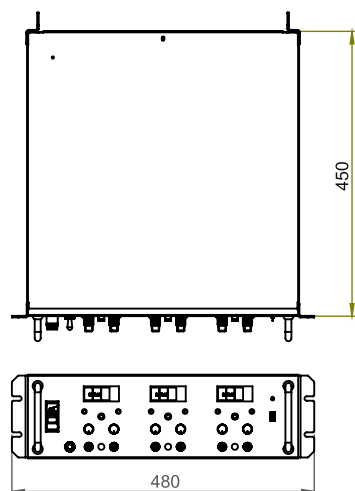
**Dimensions** : 430 x 133 x 450

- Phase Controlled Pre- Regulation Plus Linear Post- Regulation
- One Digital Meters - 3 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- Over Temperature protection

## Special feature at Extra Cost

- a) 19" Rack Mounting

# Multi-output Regulated DC Power Supply CBVS30D/6/5



## SPECIFICATIONS:

**Metering** : 4 digit DPMs for voltage and current measurement.

**Meter Accuracy** :  $\pm 3$  counts.

**Constant Voltage Mode** :

**REGULATION** :

Line :  $\pm 0.01\% \pm 3\text{mV}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 3\text{mV}$  for load change from zero to full load.

**Ripple & Noise** : 1mV rms max. 20Hz to 20MHz./  $< 3\text{mVp-p}$

**Constant Current Mode** :

**REGULATION** :

Line :  $\pm 0.1\% \pm 1\text{mA}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.1\% \pm 1\text{mA}$  for change in output voltage from 0 volts to maximum output voltage.

**Ripple & Noise(20Hz to Mhz):**

$< 6\text{mArms}$

**Setting/Read back Resolution**

**Accuracy** :

voltage : 10mV,  $< 0.06\% \pm 20\text{mV}$

current : 1mA,  $< 0.2\% \pm 10\text{mA}$

**Operation modes** :

v1+v2 series ; I1+I2 parallel

**Overload Protection** : Constant current type.

**Transient Response** : 100 micro sec within 10mV of set output voltage for load change from 10% to 90%.

**Stability** : Total drift within 8 hours, after 30 minutes warm-up under constant line, load and temperature.

$< \pm 0.2\% \pm 10\text{mV}$  in CV mode.

$< \pm 0.5\% \pm 10\text{mA}$  in current mode.

**Operating Temperature** :

0 to 50°C.

**Temp. Coefficient** :  $\pm 0.05\% \pm 5\text{mV}$  per OC after initial warm-up of 30 minutes, in voltage mode.

**Line Voltage** : 230V AC  $\pm 10\%$ , single phase 50Hz.

**Output Voltage & Current** :

**Output voltage** : Ch1: 0 TO 30V

Ch2: 0 TO 30V

Ch3: 0 TO 5V

**Output current** : Ch1: 0 TO 6A

Ch2: 0 TO 6A

Ch3: 0 TO 5A

**minimum Power** : 180 watt

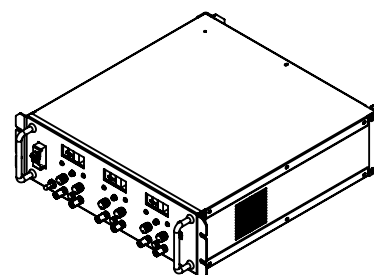
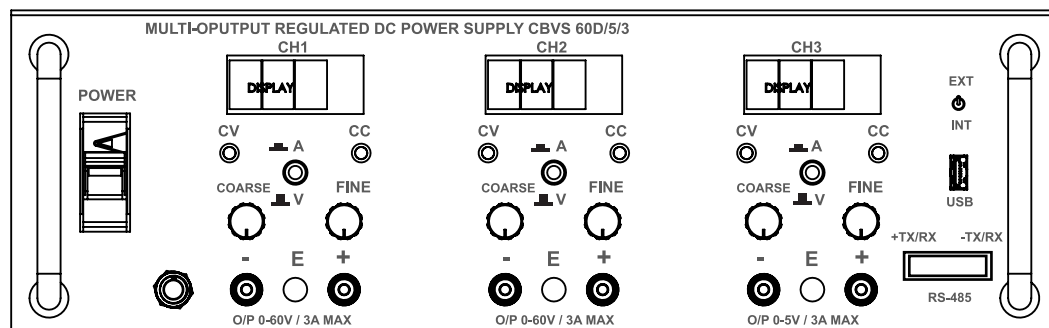
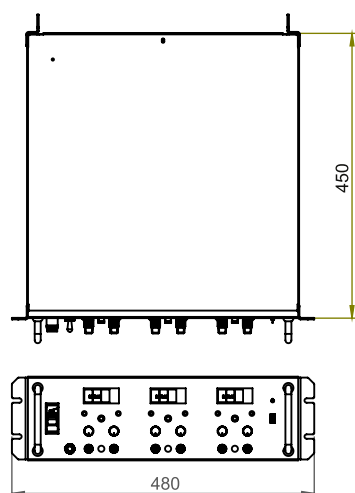
**Dimensions** : 430 x 133 x 450

- Phase Controlled Pre- Regulation Plus Linear Post- Regulation
- One Digital Meters - 4 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- USB, LAN, RS-485 Interface
- Over Temperature protection

**Connectivity & Software** : USB, LAN, RS-485 connections to control & monitor the power supply using PC based HMI software



# Multi-output Regulated DC Power Supply CBVS60D/5/3



## SPECIFICATIONS:

**Metering** : 4 digit DPMs for voltage and current measurement.

**Meter Accuracy** :  $\pm 3$  counts.

**Constant Voltage Mode :**

**REGULATION :**

Line :  $\pm 0.01\% \pm 3\text{mV}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 3\text{mV}$  for load change from zero to full load.

**Ripple & Noise** : 1mV rms max. 20Hz to 20MHz./  $< 4\text{mVp-p}$

**Constant Current Mode :**

**REGULATION :**

Line :  $\pm 0.01\% \pm 3\text{mA}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 3\text{mA}$  for change in output voltage from 0 volts to maximum output voltage.

**Ripple & Noise(20Hz to Mhz):**  
 $< 5\text{mArms}$

**Setting Resolution :**

voltage : 10mV

current : 1mA

**Setting & measurement Accuracy**

voltage :  $< 0.05\% \pm 10\text{mV}$

current :  $< 0.1\% \pm 5\text{mA}$

**Protection** : internal protection circuit on set voltage/current

**Floating voltage** : up to 0-400V (DC+peak AC) between protective earth and any output terminal.

**Stability** : Total drift within 8 hours, after 30 minutes warm-up under constant line, load and temperature.

$< \pm 0.2\% \pm 10\text{mV}$  in CV mode.

$< \pm 0.5\% \pm 10\text{mA}$  in current mode.

**Operating Temperature :**

0 to 40°C.

**Storage Temperature:**

-20°C to 70°C

**Line Voltage** : 230V AC  $\pm 10\%$ , single phase 50Hz.

**Output Voltage & Current :**

**Output voltage** : Ch1: 0 TO 60V

Ch2: 0 TO 60V

Ch3: 0 TO 5V

**Output current** : Ch1: 0 TO 3A

Ch2: 0 TO 3A

Ch3: 0 TO 3A

**minimum Power** : 375 watt

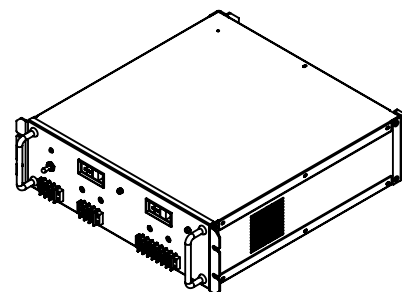
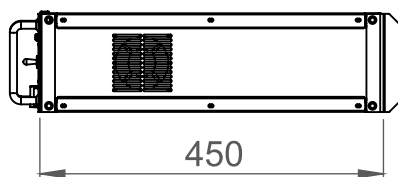
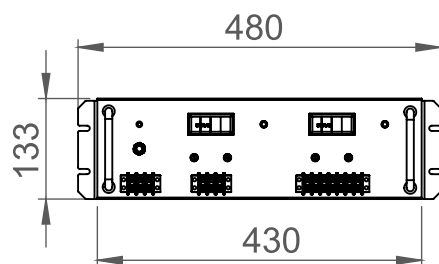
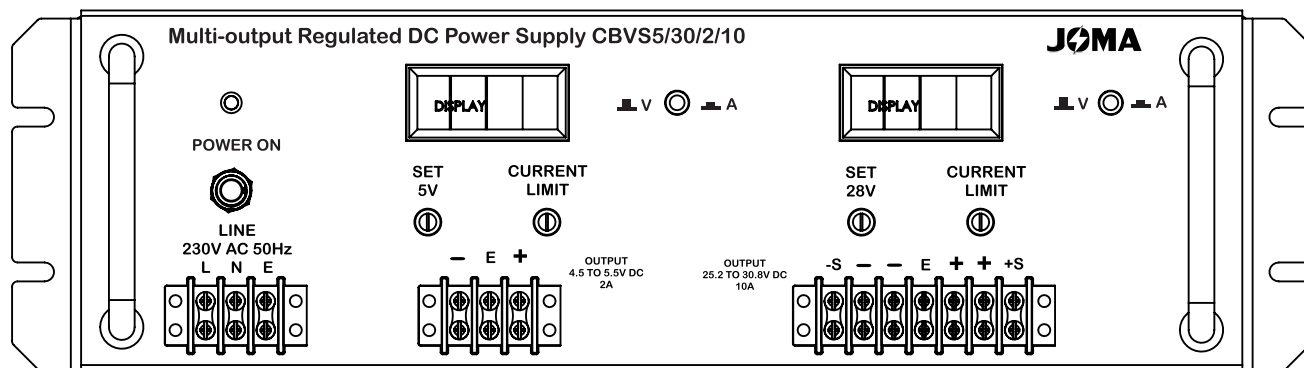
**Dimensions** : 430 x 133 x 450mm

**Weight:**  $\leq 25\text{kg}$

- Phase Controlled Pre- Regulation Plus Linear Post- Regulation
- One Digital Meters - 4 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- USB & RS-485 Interface
- 3 independently programmable & isolated channels
- Over Temperature protection
- 10 turn potentiometer for v-set & i-set

**Connectivity & Software** : USB connections to control & programme the power supply using PC based software & with complete control over all the channels to operate simultaneously.  
via USB interface with HMI

# Multi-output Regulated DC Power Supply CBVS5/30/2/10



## SPECIFICATIONS:

**Metering** : 3 digit DPMs for voltage and current measurement.

**Meter Accuracy** :  $\pm 3$  counts.

**Constant Voltage Mode** :

**REGULATION** :

Line :  $\pm 0.01\% \pm 2\text{mV}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 2\text{mV}$  for load change from zero to full load.

**Ripple & Noise** : 1mV rms max. 20Hz to 20MHz.

**Constant Current Mode** :

**REGULATION** :

Line :  $\pm 0.05\% \pm 250\mu\text{A}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.05\% \pm 250\mu\text{A}$  for change in output voltage from 0 volts to maximum output voltage.

**Ripple & Noise(20Hz to Mhz)** :  $< 350\mu\text{Vrms}$

**Mode Indication** : LED indication for constant voltage / constant current operation mode.

**Output Polarity** : Floating w.r.t. ground.

**Overload Protection** : Constant current type.

**Transient Response** : 100 micro sec within 10mV of set output voltage for load change from 10% to 90%.

**Stability** : Total drift within 8 hours, after 30 minutes warm-up under constant line, load and temperature.

$< \pm 0.2\% \pm 10\text{mV}$  in CV mode.

$< \pm 0.5\% \pm 10\text{mA}$  in current mode.

**Operating Temperature** :

0 to 50°C.

**Temp. Coefficient** :  $\pm 0.05\% \pm 5\text{mV}$  per OC after initial warm-up of 30 minutes, in voltage mode.

**Line Voltage** : 230V AC  $\pm 10\%$ , single phase 50Hz.

**Output Voltage & Current** :

**Output voltage** :

Ch1: 4.5 TO 5.5V

Ch2: 25.2 TO 30.8V

**Output current** :

Ch1: 0 TO 2A

Ch2: 0 TO 10A

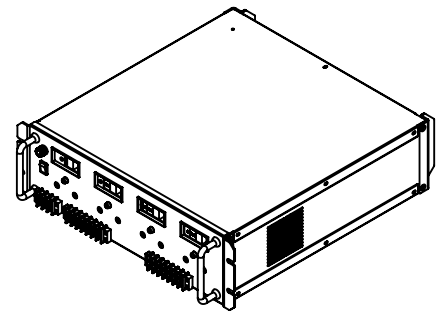
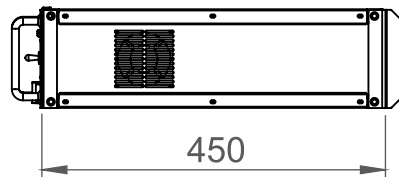
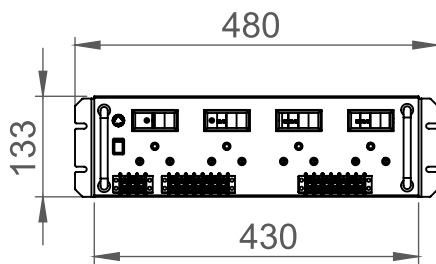
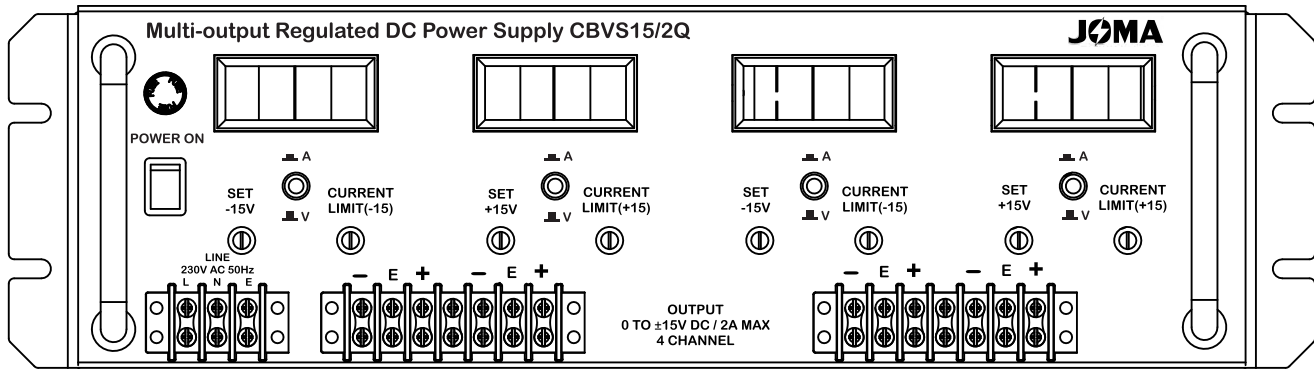
**Dimensions** : 430 x 133 x 450

- Phase Controlled Pre- Regulation Plus Linear Post- Regulation
- One Digital Meters - 3 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- 19" Rack Adaptable
- Remote Sensing
- High Stability and Close Regulation  $\pm 0.01\%$

## Special feature at Extra Cost

- Presetting Facility
- Over Voltage / Current Protection
- 19" Rack Mounting
- Analog programming & monitoring for Voltage & Current.

# Multi-output Regulated DC Power Supply CBVS15/2Q



## SPECIFICATIONS:

**Metering** : 3 digit DPMs for voltage and current measurement.

**Meter Accuracy** :  $\pm 3$  counts.

**Constant Voltage Mode** :

**REGULATION** :

Line :  $\pm 0.01\% \pm 2\text{mV}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 2\text{mV}$  for load change from zero to full load.

**Ripple & Noise** : 1mV rms max. 20Hz to 20MHz.

**Constant Current Mode** :

**REGULATION** :

Line :  $\pm 0.05\% \pm 250\mu\text{A}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.05\% \pm 250\mu\text{A}$  for change in output voltage from 0 volts to maximum output voltage.

**Ripple & Noise(20Hz to Mhz):**

$< 350\mu\text{Vrms}$

**Mode Indication** : LED indication for constant voltage / constant current operation mode.

**Output Polarity** : Floating w.r.t. ground.

**Overload Protection** : Constant current type.

**Transient Response** : 100 micro sec within 10mV of set output voltage for load change from 10% to 90%.

**Stability** : Total drift within 8 hours, after 30 minutes warm-up under constant line, load and temperature.

$< \pm 0.2\% \pm 10\text{mV}$  in CV mode.

$< \pm 0.5\% \pm 10\text{mA}$  in current mode.

**Operating Temperature** :

0 to  $50^\circ\text{C}$ .

**Temp. Coefficient** :  $\pm 0.05\% \pm 5\text{mV}$  per OC after initial warm-up of 30 minutes, in voltage mode.

**Line Voltage** : 230V AC  $\pm 10\%$ , single phase 50Hz.

**Output Voltage & Current** :

**Output voltage** :

Ch1: -15V TO 0

Ch2: 0 TO +15V

Ch3: -15V TO 0

Ch4: 0 TO +15V

**Output current** :

Ch1: 0 TO 2A

Ch2: 0 TO 2A

Ch3: 0 TO 2A

Ch4: 0 TO 2A

**Dimensions** : 430 x 133 x 450

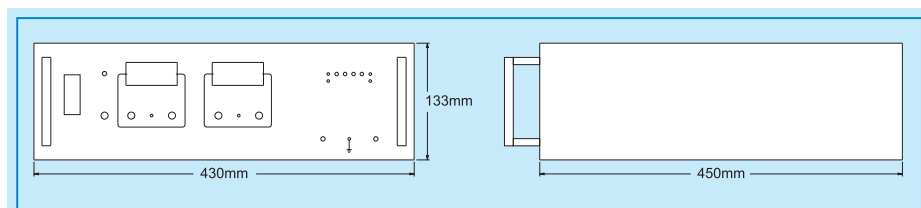
- Phase Controlled Pre- Regulation Plus Linear Post- Regulation
- One Digital Meters - 3 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- 19" Rack Adaptable
- Remote Sensing
- High Stability and Close Regulation  $\pm 0.01\%$

## Special feature at Extra Cost

- Presetting Facility
- Over Voltage / Current Protection
- 19" Rack Mounting
- Analog programming & monitoring for Voltage & Current.



# Multi-output Regulated DC Power Supply CBVS30/3T



- All 3 Channels are identical ; specifications for one are given below

## SPECIFICATIONS

**Metering** : 3 digit DPMs for voltage and current measurement.

**Meter Accuracy** :  $\pm 3$  counts

**Display Resolution**: 10mV , 10mA

### Constant Voltage Mode :

#### REGULATION :

Line :  $\pm 0.01\% \pm 2\text{mV}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 2\text{mV}$  for load change from zero to full load.

**Ripple & Noise** : 1mV rms max. 20Hz to 20MHz.

### Constant Current Mode :

#### REGULATION :

Line :  $\pm 0.01\% \pm 10\text{mA}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 10\text{mA}$  for change in output voltage from 0 volts to maximum output voltage.

**Ripple & Noise** : 0.05% rms

**Mode Indication** : LED indication for constant voltage / constant current operation mode.

**Output Polarity** : Floating w.r.t. ground.

**Overload Protection** : Constant current type.

**Transient Response** : 100 micro sec within 10mV of set output voltage for load change from 10% to 90%.

**Stability** : Total drift within 8 hours, after 30 minutes warm-up under constant line, load and temperature.

$< \pm 0.2\% \pm 10\text{mV}$  in CV mode.

$< \pm 0.5\% \pm 10\text{mA}$  in current mode.

### Operating Temperature :

0 to 50°C.

**Temp. Coefficient** :  $\pm 0.05\% \pm 5\text{mV}$  per OC after initial warm-up of 30 minutes, in voltage mode.

**Line Voltage** : 230V AC  $\pm 10\%$ , single phase 50Hz.

### Output Voltage & Current :

Output voltage : 0-30V

Output current : 0-3A

**Max Output Power(per channel)**:  $\geq 90\text{W}$

**Total Output Power**:  $\geq 270\text{W}(\text{Min})$

**Type of Interface**: USB/LAN

- Phase Controlled Pre- Regulation Plus Linear Post- Regulation
- One Digital Meters - 3 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- Interface - USB/LAN
- Remote Sensing Facility
- High Stability and Close Regulation  $\pm 0.01\%$

### Special feature at Extra Cost

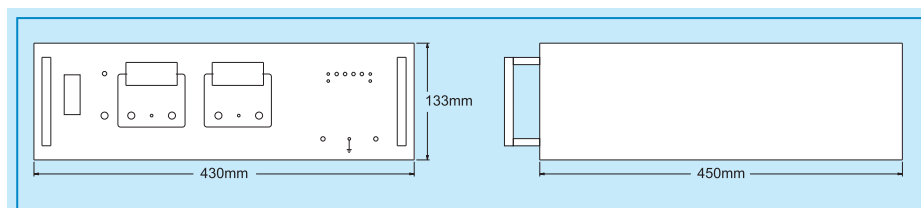
- Presetting Facility
- Over Voltage Protection
- 19" Rack Mounting
- Analog programming & monitoring for Voltage & Current.

**Programming Resolution**: upto 10mV , 10mA

**Programming Accuracy**:  $\leq 0.3\% \pm 20\text{mV}$

	PV	PI	DIMENSIONS	MODEL	WEIGHT
30V	0-30V	0-3A	430 x 133 x 450	CBVS30/3T	21.5

# Multi-output Regulated DC Power Supply CBVS60/3T



- All 3 Channels are identical ; specifications for one are given below

## SPECIFICATIONS

**Metering** : 3 digit DPMs for voltage and current measurement.

**Meter Accuracy** :  $\pm 3$  counts

**Display Resolution**: 10mV , 10mA

### Constant Voltage Mode :

#### REGULATION :

Line :  $\pm 0.01\% \pm 2\text{mV}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.01\% \pm 2\text{mV}$  for load change from zero to full load.

**Ripple & Noise** : 1mV rms max. 20Hz to 20MHz. 4mV p-p

### Constant Current Mode :

#### REGULATION :

Line :  $\pm 0.05\% \pm 3\text{mA}$  for  $\pm 10\%$  change in line voltage.

Load :  $\pm 0.05\% \pm 3\text{mA}$  for change in output voltage from 0 volts to maximum output voltage.

**Ripple & Noise** : 4mA rms

**Mode Indication** : LED indication for constant voltage / constant current operation mode.

**Output Polarity** : Floating w.r.t. ground.

**Overload Protection** : Constant current type.

**Transient Response** : 100 micro sec within 10mV of set output voltage for load change from 10% to 90%.

**Stability** : Total drift within 8 hours, after 30 minutes warm-up under constant line, load and temperature.

<  $\pm 0.2\% \pm 10\text{mV}$  in CV mode.

<  $\pm 0.5\% \pm 10\text{mA}$  in current mode.

### Operating Temperature :

0 to 50°C.

**Temp. Coefficient** :  $\pm 0.02\% \pm 1\text{mV}$  per OC after initial warm-up of 30 minutes, in voltage mode.

**Line Voltage** : 230V AC  $\pm 10\%$ , single phase 50Hz.

### Output Voltage & Current :

Output voltage : 0-60V

Output current : 0-3A

### Max Output Power(per channel):

$\geq 180\text{W}$

### Total Output Power:

$\geq 540\text{W}(\text{Max})$

- Phase Controlled Pre- Regulation Plus Linear Post- Regulation
- One Digital Meters - 3 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- Remote Sensing Facility
- High Stability and Close Regulation  $\pm 0.01\%$

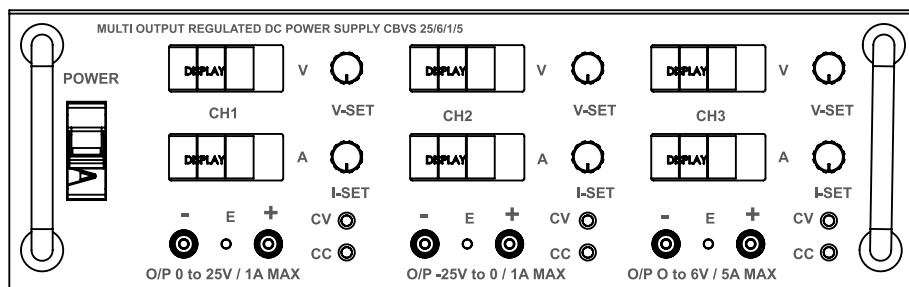
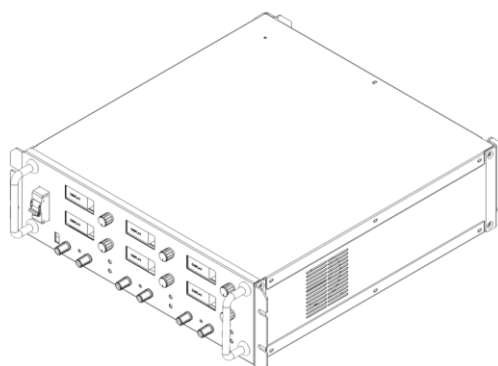
### Special feature at Extra Cost

- Presetting Facility
- Over Voltage Protection
- 19" Rack Mounting
- Analog programming & monitoring for Voltage & Current.

	PV	PI	DIMENSIONS	MODEL	WEIGHT
60V	0-60V	0-3A	430 x 133 x 450	CBVS60/3T	21.5

# Multi-output DC Power Supply

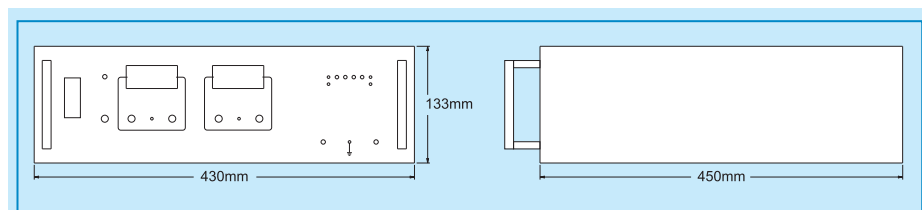
## CBVS 25/6/1/5



- Phase controlled pre-regulation plus linear post regulation
- High stability and close regulation
- 4 Digit digital display for V&I
- Remote sensing
- USB Interface
- Front panel potentiometer to set V&I
- High current density.

### Special feature (Optional)

- Over voltage protection
- 19" rack mounting
- Analogue programming and monitoring for V&I



MODEL	CBVS 25/6/1/5		
Input Voltage	230V AC, $\pm 10\%$ , 50Hz, 1phase		
Output Voltage	Ch1: 0 to 25V	Ch2: -25V to 0	Ch3: 0 to 6V
Output Current	0 to 1A	0 to 1A	0 to 5A
No. Output	3		
Line Regulation CV *	$\pm 0.01\% \pm 2\text{mV}$		
Load Regulation CV !	$\pm 0.01\% \pm 2\text{mV}$		
Line Regulation CC *	$\pm 0.01\% \pm 1\text{mA}$		
Load Regulation CC !!	$\pm 0.01\% \pm 1\text{mA}$		
Output Ripple CV (max)	2mV rms		
Output Ripple CC (max)	2mA rms		
Setting Resolution	10mV & 10mA		
Operating Temp.	0 to 40°C		
Protection	OV/OC/OT (constant current type)		
Indications (LED)	CV & CC		
3 Digit DPM	V & I		
Meter Accuracy	$\pm 3$ counts		
Input On/Off	M.C.B.		
Single Turn Pots	V Set & I Set (Coarse & Fine)		
Dimensions appr.** W x H x D	430mm x 133 mm (3U) x 450 mm		

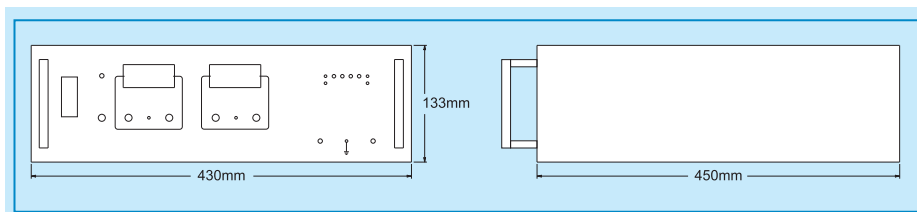


# Multi-output DC Power Supply

## CBVS 30/5/3



- Phase controlled pre-regulation plus linear post regulation
- High stability and close regulation
- 3 Digit digital display for V&I
- Remote sensing
- Front panel potentiometer to set V&I
- High current density.



### Special feature (Optional)

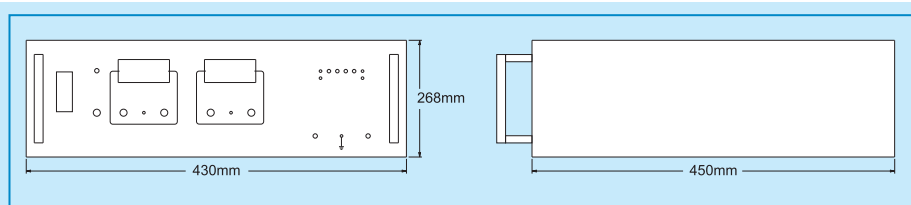
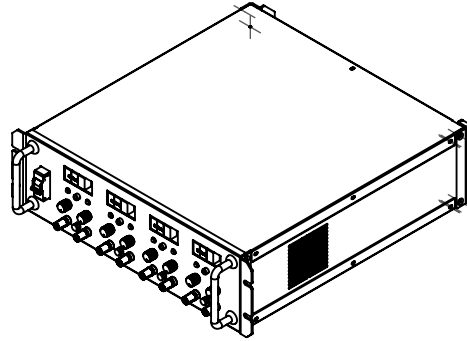
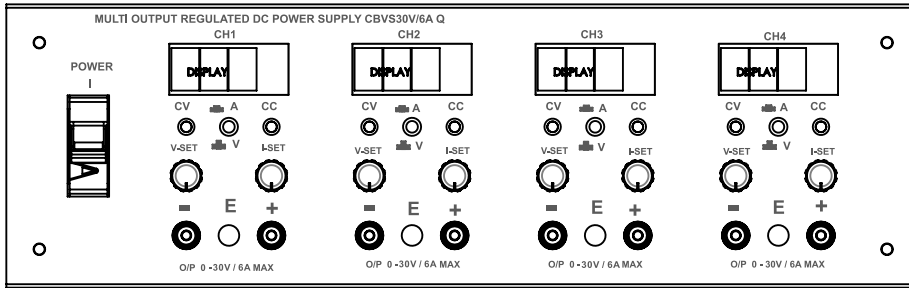
- Over voltage protection
- 19" rack mounting
- Analogue programming and monitoring for V&I

**Note:** During series mode CH-1 meter will read combined voltage

MODEL	CBVS 30/5/3		
<b>Input Voltage</b>	230V AC, $\pm 10\%$ , 50Hz, 1phase		
<b>Output Voltage</b>	Ch1 - 0 to 30V	Ch2 - 0 to 30V	Ch3 - 0 to 5V
<b>Output Current</b>	0 to 3A	0 to 3A	0 to 3A
<b>Maximum Power</b>	<220W		
<b>Line Regulation CV *</b>	$\leq 0.02\% \pm 4\text{mV}$		
<b>Load Regulation CV !</b>	$\leq 0.02\% \pm 4\text{mV}$		
<b>Line Regulation CC *</b>	$\leq 0.2\% \pm 3\text{mA}$		
<b>Load Regulation CC !!</b>	$\leq 0.2\% \pm 3\text{mA}$		
<b>Output Ripple CV (max)</b>	$\leq 1\text{mV rms} / 5\text{mVp-p}$		
<b>Output Ripple CC (max)</b>	$\leq 6\text{mA rms}$		
<b>Setting Resolution &amp; Accuracy</b>	voltage: 10mV, $\leq 0.06\% \pm 20\text{mv}$ current: 1mA, $\leq 0.2\% \pm 10\text{mA}$		
<b>Operating mode</b>	series & parallel toggle for V & I combinations		
<b>Operating Temp.</b>	0 to 50°C		
<b>Protection</b>	OL/SC (constant current type)		
<b>Indications (LED)</b>	CV & CC		
<b>3 Digit DPM</b>	V & I (LED Display)		
<b>Meter Accuracy</b>	$\pm 3$ counts		
<b>Input On/Off</b>	M.C.B.		
<b>Single Turn Pots</b>	V Set & I Set (Coarse & Fine)		
<b>Dimensions appr.**</b> W x H x D	430mm x 133 mm (3U) x 450 mm		

# Multi-output DC Power Supply

## CBVS 30V/6A Q



- Bench Top type power supply
- Phase controlled pre-regulation plus linear post regulation
- High stability and close regulation
- 3 Digit digital display for V&I
- V - A Switch provided
- Front panel potentiometer to set V&I
- High current density.
- Optional 4 digit DPM as per requirement.

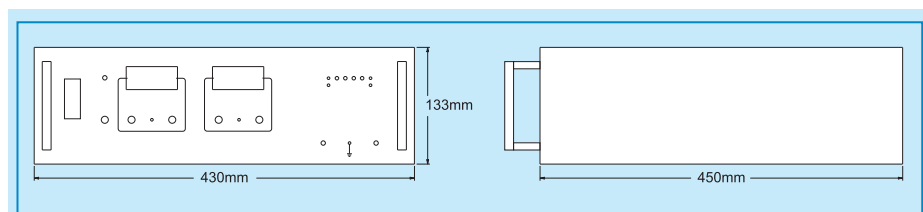
MODEL	CBVS 30V/6A Q			
Input Voltage	230V AC, ±10%, 50Hz, 1phase			
Output Voltage	Ch1 - 0 to 30V	Ch2 - 0 to 30V	Ch3 - 0 to 30V	Ch4 - 0 to 30V
Output Current	0 to 6A	0 to 6A	0 to 6A	0 to 6A
Output Power	180W per channel			
Line Regulation CV *	≤0.05% ±5mV			
Load Regulation CV !	≤0.05% ±5mV			
Line Regulation CC *	≤0.2% ±5mA			
Load Regulation CC !!	≤0.2% ±5mA			
Output Ripple CV (max)	≤1mV rms			
Output Ripple CC (max)	≤2mA rms			
Output	All 4 channels are isolated from each other			
Interface	USB			
Single Turn Pots	V set & I set			
Operating Temp./ Humid.	0 to 50°C / ≤80%Rh			
Protection	OL/SC (constant current type), OVP, OCP			
Indications (LED)	CV & CC			
3 Digit DPM	Voltmeter & Ammeter			
Meter Accuracy	±3 counts			
Resolution	voltage : 15mV		current : 1mA	
Setting Accuracy	voltage : ≤0.3% ± 20mV		current : ≤0.3% ± 20mA	
Readback Accuracy	voltage : ≤0.3% ± 20mV		current : ≤0.3% ± 20mA	
Input On/Off	M.C.B.			
Dimensions appr.** W × H× D	430mm × 268 mm (6U) × 450 mm			
Weight appr.** (kgs)	45 kg			

# Multi-output DC Power Supply

## CBVS 30/12/5/3



- Phase controlled pre-regulation plus linear post regulation
- High stability and close regulation
- 4 Digit digital display for V&I
- Remote sensing
- Front panel potentiometer to set V&I
- High current density.



### Special feature (Optional)

- Over voltage protection
- 19" rack mounting
- Analogue programming and monitoring for V&I

MODEL	CBVS 30/12/5/3		
Input Voltage	230V AC, $\pm 10\%$ , 50Hz, 1phase		
Output Voltage	Ch1 - 0 to 30V	Ch2 - 0 to 12V	Ch3 - 0 to 5V
Output Current	0 to 3A	0 to 3A	0 to 3A
Line Regulation CV *	$\pm 0.01\% \pm 2mV$		
Load Regulation CV !	$\pm 0.01\% \pm 2mV$		
Line Regulation CC *	$\pm 0.05\% \pm 2mA$		
Load Regulation CC !!	$\pm 0.05\% \pm 2mA$		
Output Ripple CV (max)	1mV rms		
Output Ripple CC (max)	0.05% rms		
Setting Resolution	10mV & 1mA		
Remote Sense	Provided		
Operating Temp.	0 to 50°C		
Protection	OL/SC (constant current type)		
Indications (LED)	CV & CC		
4 Digit DPM	V & I		
Meter Accuracy	$\pm 3$ counts		
Input On/Off	M.C.B.		
Single Turn Pots	V Set & I Set (Coarse & Fine)		
Dimensions appr.** W x H x D	430mm x 133 mm (3U) x 450 mm		



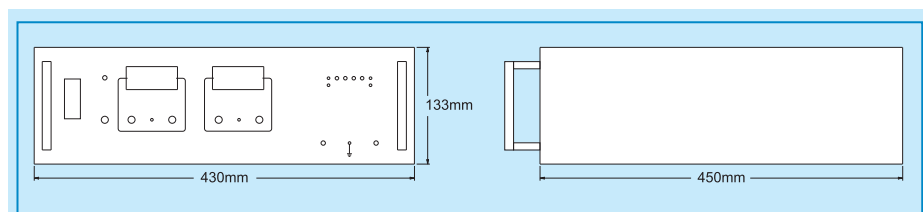
# Multi-output DC Power Supply

## CBVS 32D/5/3



\*\*for reference only

- Phase controlled pre-regulation plus linear post regulation
- High stability and close regulation
- Digital Meters - 4 Digit DPMs with V/A Selector Switch
- Remote sensing
- Front panel potentiometer to set V&I
- High current density.
- Over voltage protection
- PC interface software
- Mains cord provided internally



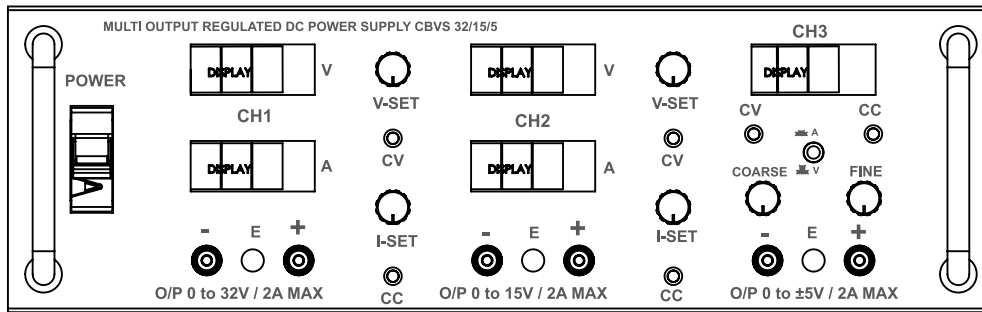
### Special feature (Optional)

- 19" rack mounting
- Analogue programming and monitoring for V&I

MODEL	CBVS 32D/5/3 (3 CHANNELS )		
Input Voltage	230V AC, $\pm 10\%$ , 50Hz, 1phase		
Output Voltage	Ch1 - 0 to +32V	Ch2 - 0 to -32V	Ch3 - 5V (fixed)
Output Current	0 to +3A	0 to -3A	3A (fixed)
Maximum Power	200W		
PC Interface Software	<b>Memory Function:</b> 50 sets memory function to store/recall data		
	<b>Auto Step Running:</b> auto step running with timer setting of 1 sec - 99min & resolution 1 sec		
	<b>Interface:</b> RS-485		
Line Regulation CV *	$\pm 0.01\% \pm 3mV$		
Load Regulation CV !	$\pm 0.01\% \pm 3mV$		
Line Regulation CC *	$\pm 0.1\% \pm 250\mu A$		
Load Regulation CC !!	$\pm 0.1\% \pm 250\mu A$		
Output Ripple CV (max)	1mV rms		
Output Ripple CC (max)	0.04% rms		
Display Resolution	10mV & 1mA		
Tracking fuction(series)	Auto series tracking error $\leq 0.1\% \pm 50mV$		
Operating Temp.	0 to 40°C / $\leq 80\%RH$		
Protection	OVP (0 to +33V, 0 to -33V), OL/SC (constant current type), OC		
Indications (LED)	CV & CC, OVP (CH1,CH2)		
4 Digit DPM	V & I		
Prog. & Readback Accuracy	voltage: $\leq 0.05\% \pm 25mV$		current: $\leq 2\% \pm 10mA$
Input On/Off	M.C.B.		
Multi Turn Pots	V Set & I Set, OVP set(CH1, CH2)		
Weight kgs**.	22.5kg		
Dimensions appr**. ** W x H x D	430mm x 133 mm (3U) x 450 mm		
Accessories	test leads, user manual		

# Multi-output DC Power Supply

## CBVS 32/15/5

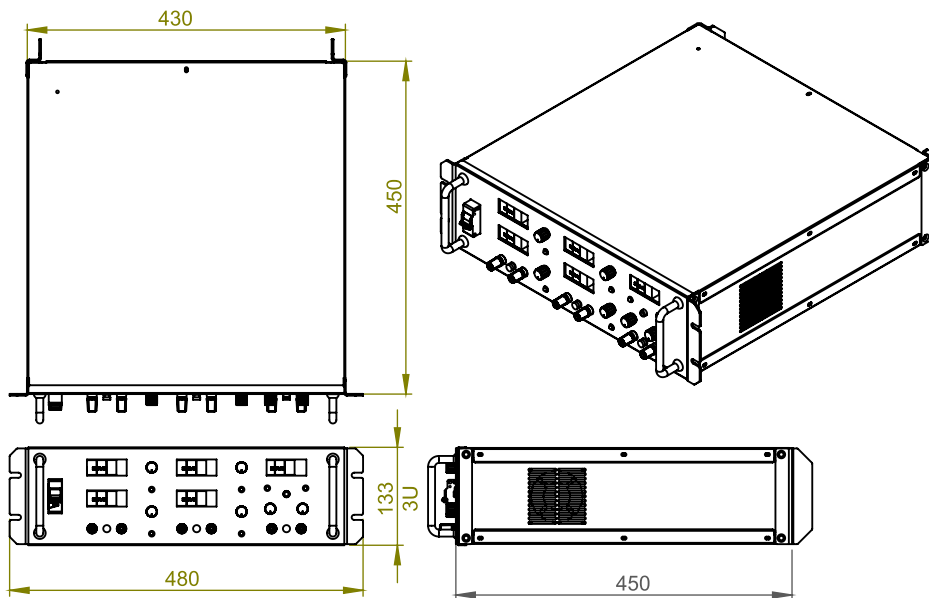


- Phase controlled pre-regulation plus linear post regulation

- High stability and close regulation
- One Digital Meters - 3 Digit DPMs with V/A Selector Switch
- 3 Digit digital display for V&I for CH1 & CH2
- Front panel potentiometer to set V&I
- High current density.

### Special feature (Optional)

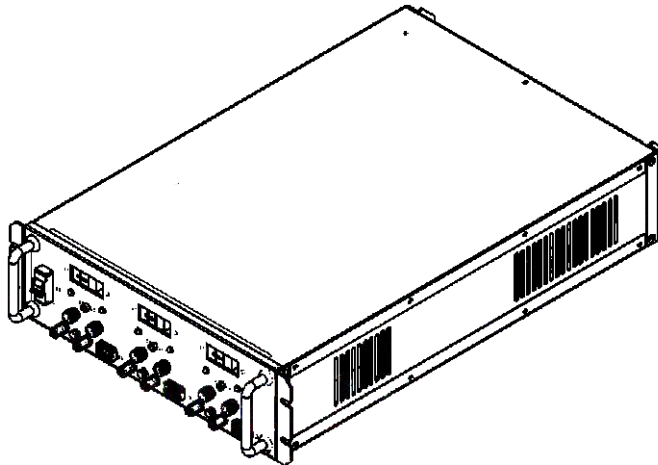
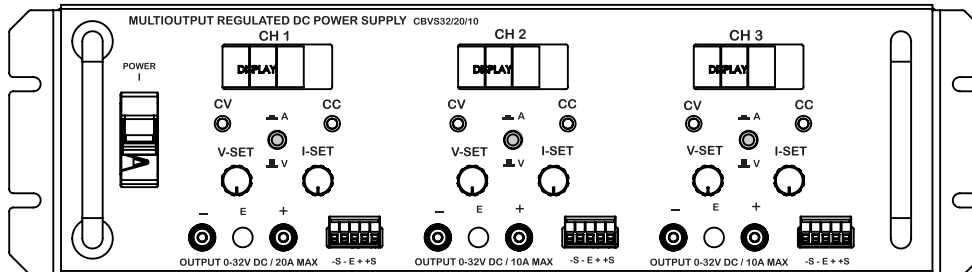
- Over voltage protection
- 19" rack mounting
- Analogue programming and monitoring for V&I



MODEL	CBVS 32/15/5		
Input Voltage	230V AC, $\pm 10\%$ , 50Hz, 1phase		
Output Voltage	Ch1 : 0 to 32V	Ch2 : 0 to 15V	Ch3 : 0 to $\pm 5V$
Output Current	0 to 2A	0 to 2A	0 to 2A
Line Regulation CV *	$\pm 0.01\% \pm 2mV$		
Load Regulation CV !	$\pm 0.01\% \pm 2mV$		
Line Regulation CC *	$\pm 0.1\% \pm 2mA$		
Load Regulation CC !!	$\pm 0.1\% \pm 2mA$		
Output Ripple CV (max)	1mV rms		
Output Ripple CC (max)	0.05% rms		
Setting Resolution	10mV & 1mA		
Operating Temp.	0 to 50°C		
Protection	OL/SC (constant current type)		
Indications (LED)	CV & CC		
4 Digit DPM	V & I		
Meter Accuracy	$\pm 3$ counts		
Input On/Off	M.C.B.		
Single Turn Pots	V Set & I Set (Coarse & Fine)		
Dimensions appr.** W x H x D	430mm x 133 mm (3U) x 450 mm		

# Multi-output DC Power Supply

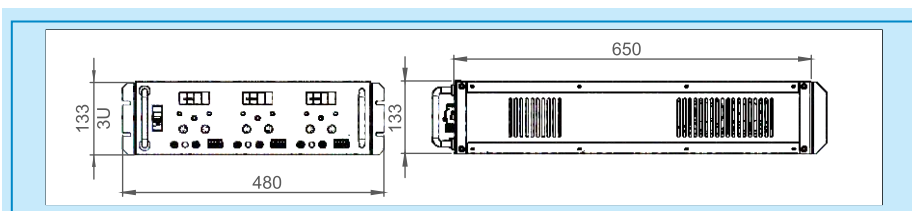
## CBVS 32/20/10



- Phase controlled pre-regulation plus linear post regulation
- High stability and close regulation
- One Digital Meter per channel  
3 Digit DPMs with V/A Selector Switch
- Constant Voltage / Constant Current Operation
- Remote sensing
- USB /RS232 Interface
- Front panel potentiometer to set V&I
- High current density.

### Special feature (Optional)

- Over voltage protection
- 19" rack mounting
- Analogue programming and monitoring for V&I



MODEL	CBVS 32/20/10		
Input Voltage	230V AC, $\pm 10\%$ , 50Hz, 1phase		
Output Voltage	Ch1 - 0 to 32V	Ch2 - 0 to 32V	Ch3 - 0 to 32V
Output Current	0 to 20A	0 to 10A	0 to 10A
Maximum Power	640W		
Line Regulation CV *	$\pm 0.01\% \pm 2mV$		
Load Regulation CV !	$\pm 0.01\% \pm 2mV$		
Line Regulation CC *	$\pm 0.01\% \pm 2mA$		
Load Regulation CC !!	$\pm 0.01\% \pm 2mA$		
Output Ripple CV (max)	$\leq 1mV$ rms / $4mVp-p$		
Output Ripple CC (max)	$\leq 5mA$ rms		
Setting Resolution	1mV & 1mA		
Remote Sense	provided		
Operating Temp.	0 to 50°C		
Protection	OL/SC (constant current type)		
Indications (LED)	CV & CC		
3 Digit DPM	V & I (LED Display)		
Meter Accuracy	$\pm 3$ counts		
Input On/Off	M.C.B.		
Single Turn Pots	V Set & I Set (Coarse & Fine)		
Dimensions appr.** W x H x D	430mm x 133 mm (3U) x 650 mm		