# CyberView™

**ECLIPSE RACKMOUNT**
INDUSTRIAL RACKMOUNT PROFESSIONALS

# User Manual

## SMD Series (20")
### 1U Sun-Specific LCD Drawer

**Options Available:**
- DC Power

FC  CE

Designed/Manufactured by Austin Hughes and Distributed by Eclipse Rackmount, Inc.

## Legal Information
First English printing, October 2002

Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

## Safety Instructions
**Please read all of these instructions carefully before you use the device. Save this manual for future reference.**

- Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.
- Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40º Celsius (104º Fahrenheit).
- When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
- When the equipment is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
- Arrange the equipment's power cord in such a way that others won't trip or fall over it.
- If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labeled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
- Observe all precautions and warnings attached to the equipment.
- If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
- Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, f re or electrical shock.
- Only qualif ed service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate its warranty.
- If any part of the equipment becomes damaged or stops functioning, have it checked by qualif ed service personnel.

## What the warranty does not cover
- Any product, on which the serial number has been defaced, modif ed or removed.
- Damage, deterioration or malfunction resulting from:
  - ☐ Accident, misuse, neglect, f re, water, lightning, or other acts of nature, unauthorized product modif cation, or failure to follow instructions supplied with the product.
  - ☐ Repair or attempted repair by anyone not authorized by us.
  - ☐ Any damage of the product due to shipment.
  - ☐ Removal or installation of the product.
  - ☐ Causes external to the product, such as electric power f uctuation or failure.
  - ☐ Use of supplies or parts not meeting our specif cations.
  - ☐ Normal wear and tear.
  - ☐ Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

## Regulatory Notices Federal Communications Commission (FCC)
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Any changes or modif cations made to this equipment may void the user's authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-position or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

# Contents

## Before Installation

■ It is very important to mount the equipment in a suitable cabinet or on a stable surface.

■ Make sure the place has a good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.

## Unpacking

The equipment comes with the standard parts shown in package content. Check and make sure they are included and in good condition. If anything is missing, or damaged, contact the supplier immediately.

## How To Clean Your LCD Monitor

### ⚠ Caution :

■ To avoid the risk of electric shock, make sure your hands are dry before unplugging your monitor from or plugging your monitor into an electrical outlet.

■ When you clean your monitor, do not press down on the LCD screen. Pressing down on the screen can scratch or damage your display. Pressure damage is not covered under warranty.

■ Use only cleansers made specif cally for cleaning monitors and monitor screens. Cleansers not made to clean monitors and monitor screens can scratch the LCD display or strip off the f nish.

■ Do not spray any kind of liquid directly onto the screen or case of your monitor. Spraying liquids directly onto the screen or case can cause damage which is not covered under warranty.

■ Do not use paper towels or abrasive pads to clean your monitor. Using an abrasive pad or any wood based paper product such as paper towels can scratch your LCD screen.

## Cleaning Your Monitor

To clean your LCD safely, please follow these steps :

① Disconnect the power cord.

② Gently wipe the surface using a clean, dry microf ber cloth. Use as little pressure as possible.

## Cleaning Tough Marks and Smudges

To remove tough marks and smudges, please follow these steps :

① Disconnect the power cord.

② Spray a small amount of non-abrasive cleanser on a microf ber cloth.

⚠ **Caution : Do not spray or apply any liquids directly onto the monitor. Always apply the solution to your microf ber cloth f rst, not directly on the parts you are cleaning.**

③ Gently wipe the surface. Use as little pressure as possible.

④ Wait until your monitor is completely dry before plugging it in and powering it up.
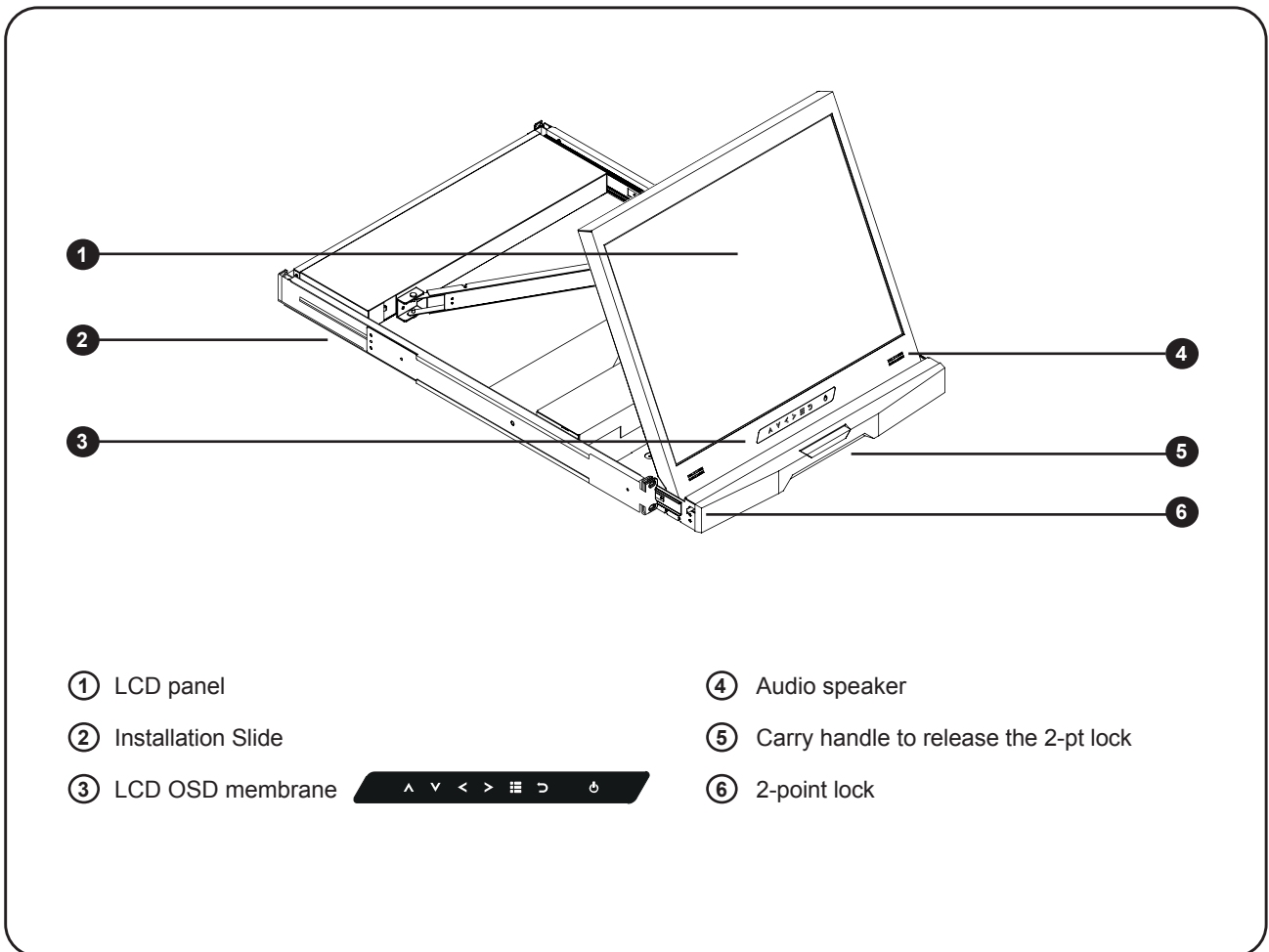
## < 1.1 > Package Contents

**SMD-20 unit  X 1**

- 6ft VGA cable  X 1
- Power cord  X 1
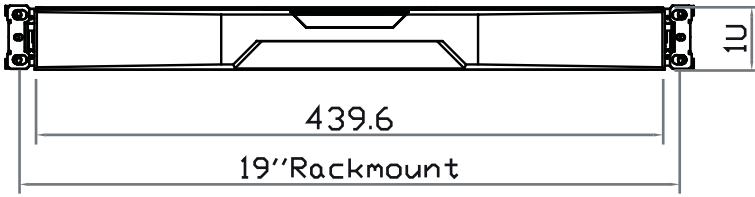- M6 screw, cage nut & cup washer  X 8

⚠ **The above package content is only for the base model ( VGA and DVI-D only ). It varies with options such as DC power.**
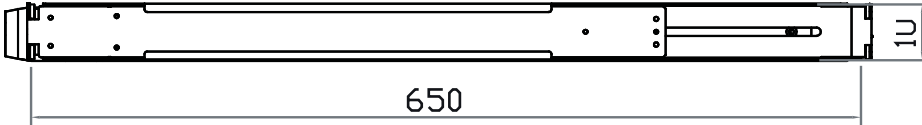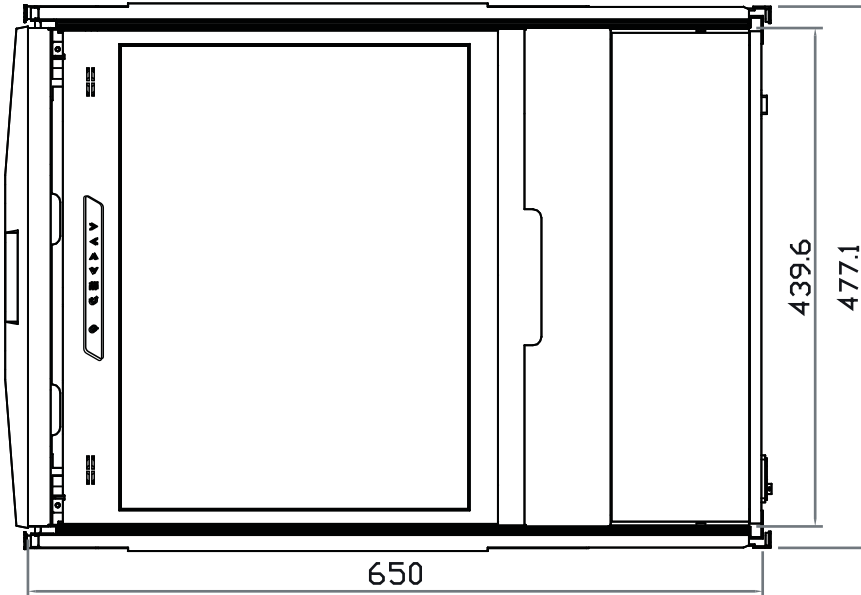
## < 1.2 > Structure Diagram

| ① | LCD panel | ④ | Audio speaker |
|---|-----------|---|---------------|
| ② | Installation Slide | ⑤ | Carry handle to release the 2-pt lock |
| ③ | LCD OSD membrane | ⑥ | 2-point lock |

## < 1.2 > Dimensions

**Front View**



439.6

19"Rackmount

UNIT : mm
1mm = 0.03937 inch

**Side View**



650

1U

**Top View**



439.6

477.1

650

| Model | Product Dimension (W x D x H) | Packing Dimension (W x D x H) | Net Weight | Gross Weight |
|--------|-------------------------------|-------------------------------|------------|--------------|
| SMD-20 | 439.6 x 650 x 44 mm<br>17.3 x 25.6 x 1.73" | 595 x 860 x 140 mm<br>23.4 x 33.9 x 5.5" | 13.5 kg<br>30 lb | 17.5 kg<br>39 lb |

⚠️ **The weight is only for the base models. It varies with accessories & options such as DC power.**

**Step** ❶
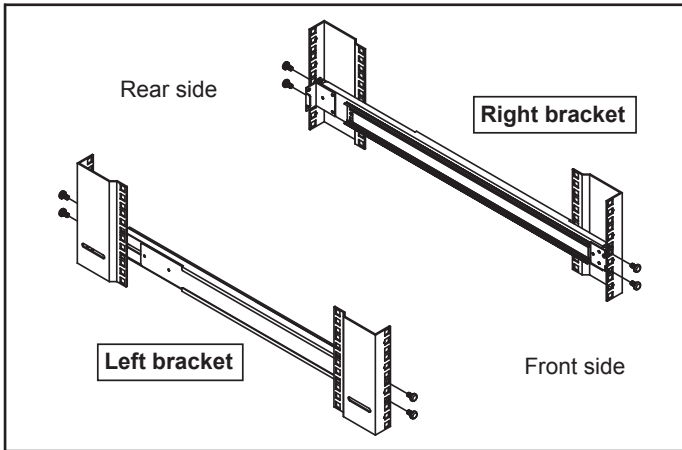
- ■ Attach the | left and right mounting bracket | to rack 19" mounting rails.

- ■ Adjust the mounting bracket to f t your rack.

- ■ M6 screw x 8 pcs included.

⚠ **Leave all M6 screws slightly loose, until you complete the installation in step** ❸

Rear side

**Right bracket**

**Left bracket**

Front side

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**Step** ❷
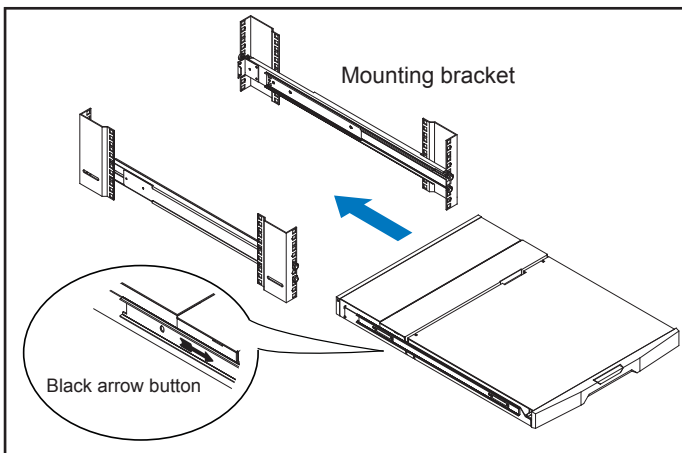
- ■ Pick up the LCD tray.

- ■ Insert the LCD tray into the mounting bracket.

- ■ Pull and hold the left & right black arrow buttons on the rails.

- ■ Return the LCD tray to park position.

Mounting bracket

Black arrow button

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**Step** ❸
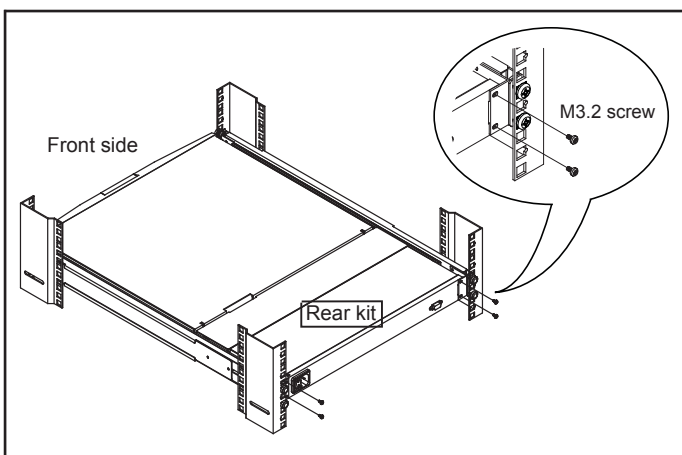
- ■ Fix the | rear kit | to the mounting bracket with M3.2 screw x 4 pcs included.

⚠ **This step is necessary. Failure to complete this will cause damage.**

Front side

M3.2 screw

Rear kit

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**Step** ❹
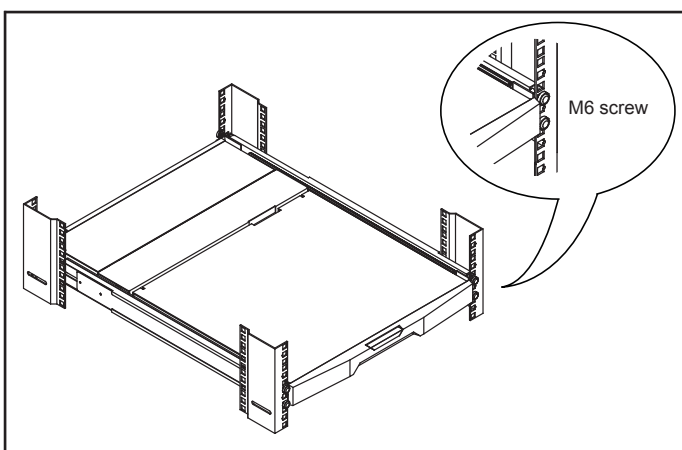
**Complete the installation**

- ■ Tighten all 8 pcs of M6 screw to complete the installation.

M6 screw

# < Part 2 >

## < 2.1 > Product Specifications

| LCD Panel | Manufacturer | | LG |
|---|---|---|---|
| | Panel Size ( diagonal ) | | 20-inch TFT color LCD |
| | Display pixel ( dots x lines ) | | 1152 x 900 ( Direct ) |
| | | | 1600 x 1200 ( Native ) |
| | Brightness ( typ. ) | | 300 |
| | Contrast Ratio ( typ. ) | | 800:1 |
| | Color | | 16.7 M |
| | Viewing Angle ( L/R/U/D ) | | 89/89/89/89 |
| | Response Time ( ms ) | | 16 |
| | Dot pitch ( mm ) | | 0.255 |
| | Display Area ( mm ) | | 408.00H x 306.00V |
| | Surface treatment | | Anti-glare, Hard-coating |
| | Surface hardness | | 3H |
| | Backlight Type | | CCFL |
| | MTBF ( hrs ) | | 45,000 |

| Video Connectivity | Digital | DVI | DVI-D, TMDS single link |
|---|---|---|---|
| | Analog | VGA | Analog 0.7Vp-p |
| | Plug & Play | DVI / VGA | VESA EDID structure 1.3 |
| | Synchronization | VGA | Separate, Composite & SOG |

| Audio Connectivity | Audio Input | Connector | 3.5mm stereo jack |
|---|---|---|---|
| | | Impedance / Power level | 30kΩ / 750mV |
| | Audio Output | Connector | 3.5mm stereo jack |
| | | Resistance / Power level | 30kΩ / 2.8V |
| | Speaker Output | Power | 2 x 2W |

*When the audio output is connected, speaker output is OFF

| Power | Power Supply | Range | Auto-sensing 100 to 240VAC, 50 / 60Hz |
|---|---|---|---|
| | Power Consumption | Screen display ON | 48W or less |
| | | Power saving mode | 4W or less |
| | | Power button OFF | 1W or less |

| Regulatory | Safety Approval | FCC & CE |
|---|---|---|

| Environmental Conditions | Operating | Temperature | 0 to 50°C degree |
| --- | --- | --- | --- |
| | | Humidity | 20~90%, non-condensing |
| | Storage | Temperature | -5 to 60°C degree |
| | | Humidity | 5~90%, non-condensing |
| | | Shock | 10G acceleration (11ms duration) |
| | | Vibration | 5~500Hz 1G RMS random |

| Physical Specification | Product ( W x D x H ) | 439.6 x 650 x 44 mm |
| --- | --- | --- |
| | | 17.3 x 25.6 x 1.73 inch |
| | Packing ( W x D x H ) | 595 x 860 x 140 mm |
| | | 23.4 x 33.9 x 5.5 inch |
| | Net Weight | 13.5 kgs / 30 lbs |
| | Gross Weight | 17.5 kgs / 39 lbs |

| Applicable Format | DVI-D / VGA Input | PC Signal | 1152 x 900 x 66Hz |
| --- | --- | --- | --- |
| | | | 1600 x 1200 x 60Hz |
| | | | 1400 x 1050 x 60Hz |
| | | | 1440 x 900 x 60Hz |
| | | | 1360 x 768 x 60Hz |
| | | | 1280 x 1024 x 60 / 75Hz |
| | | | 1280 x 960 x 60Hz |
| | | | 1280 x 760 x 60 / 75Hz |
| | | | 1152 x 864 x 75Hz |
| | | | 1024 x 768 x 60 / 70 / 75Hz |
| | | | 848 x 480 x 60Hz |
| | | | 800 x 600 x 60 / 72 / 75Hz |
| | | | 720 x 400 x 70Hz |
| | | | 640 x 480 x 60 / 72 / 75Hz |
| | | | 640 x 400 x 70Hz |
| | | | 640 x 350 x 70Hz |
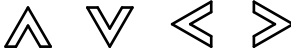
# < 2.2 > On-Screen Display Operation ( OSD )

| Membrane Switch | Function |
|---|---|
| ⏻ | Turn the monitor on or off |
| ☰ | Display the OSD menu<br>Act as an Enter key to select screen setting options |
| ∧ ∨ ≪ ≫ | Scroll through menu options and adjust the displayed control |
| ↰ | Exit the OSD screen<br>Go back to the previous on-screen sub-menu or main menu |

Remark : All LED touch buttons in **WHITE** light.
The LED of **Power** ⏻ touch button will f ash continuously when there is no signal input.

① All the LED touch buttons will automatically turn off after 10 minutes of idle status ( except the **Power** ⏻ ).

② Light up all membrane buttons, please press any button for 1 - 2 seconds ( except the **Power** ⏻ ).

| Ver: G56SN20SSTD701 | | 1024 x 768  59.8Hz |
|---|---|---|

**Image**

| Brightness | ██████████░░░░░ | 50 |
|---|---|---|
| Contrast | ██████████░░░░░ | 50 |
| Color Temp | User | |
| Red | ███████████████ | 255 |
| Green | ███████████████ | 255 |
| Blue | ███████████████ | 255 |

Adjust: ← →          Select: ↑ ↓          Set: ◉/▣          Exit: ↺
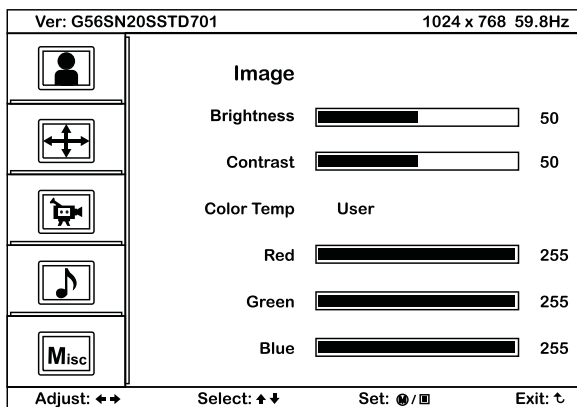
## OSD Conf guration Page

**Image:**
for the brightness, contrast, color temp, red, green, and blue
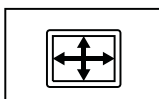
**Geometry:**
for the auto adjust, H position, V position, phase and clock

**Video:**
for the colour, tint, sharpness, noise reduction, DCDi and TV Setup

**Audio:**
for volume, bass, treble, balance, AVL and mute

**Misc:**
for the language, OSD position, graphic mode, ratio, reset and timer

# < 3.3 > Options : DC Power

| Model | 12V | 24V | 48V |
|---|---|---|---|
| **Input rating** | | | |
| Input voltage: | 12-Volt | 24-Volt | 48-Volt |
| Input range: | 9 ~ 18V | 18 ~ 36V | 36 ~ 75V |
| Input current | | | |
| - No load | 50 mA | 50 mA | 50 mA |
| - Full load | 4950 mA | 2450 mA | 1220 mA |
| **Output rating** | | | |
| Output voltage: | 12-Volt | 12-Volt | 12-Volt |
| Output current: | 4.16A | 4.16A | 4.16A |
| **Efficiency** | 84% | 85% | 85% |

## DC power

**\*\*\***
**Option excludes 1 x power cord and 1 x AC power adapter**