

# User Manual 17" FHD 1080p LCD



Designed and manufactured by Austin Hughes

#### Legal Information

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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 40° Celsius (104° 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, fire or electrical shock.
- Only qualified 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 qualified service personnel.

#### What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
  - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - $\hfill\square$  Repair or attempted repair by anyone not authorized by us.
  - □ Any damage of the product due to shipment.
  - □ Removal or installation of the product.
  - $\hfill\square$  Causes external to the product, such as electric power fluctuation or failure.
  - $\hfill\square$  Use of supplies or parts not meeting our specifications.
  - $\Box$  Normal wear and tear.
  - $\Box$  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 modifications 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

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## **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

## A 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 specifically for cleaning monitors and monitor screens. Cleansers not made to clean monitors and monitor screens can scratch the LCD display or strip off the finish.
- 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 microfiber 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 microfiber cloth.

Caution : Do not spray or apply any liquids directly onto the monitor. Always apply the solution to your microfiber cloth first, 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.

## < Part 1 > < 1.1 > Package Content



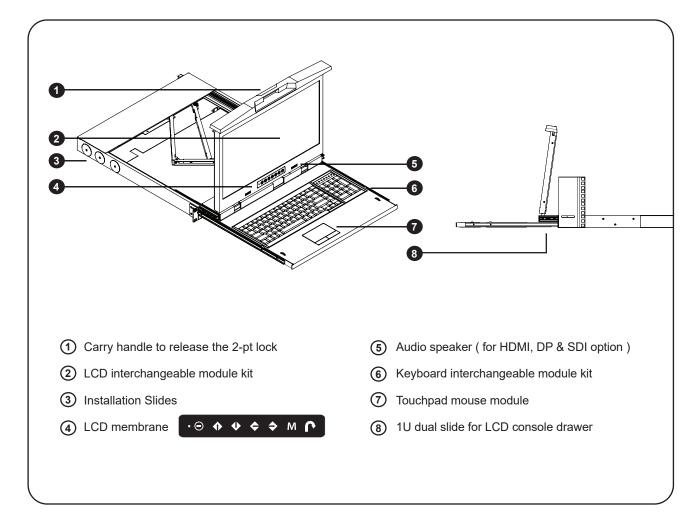
#### DF1417 unit X 1

- 6ft HDMI cable X 1
- 6ft USB cable X 2
- 4A power adapter & Power cord X 1
- M6 screw, cage nut & cup washer X8



The above package content is only for the single console models. It varies with DC power option.

## < 1.2 > Structure Diagram

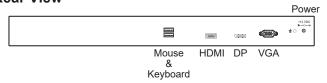


## < 1.2 > Dimension

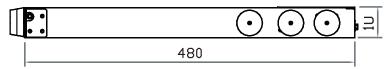
#### **Front View**



#### **Rear View**

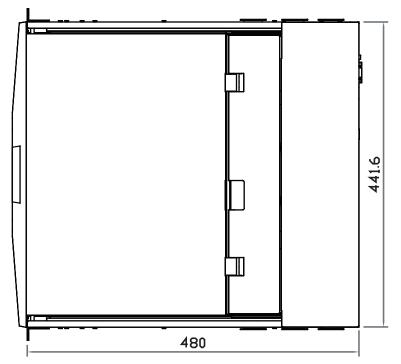


#### Side View

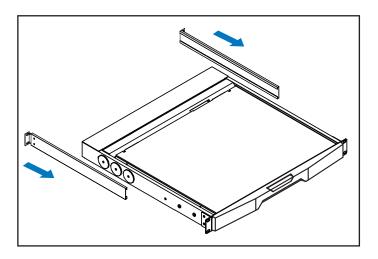




## Top View

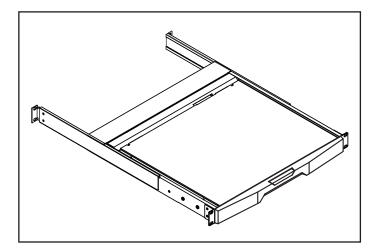


Model Product Dimension		Packing Dimension	Net Weight	Gross
(W x D x H)		(W x D x H)		Weight
DF1417	441.6 x 480 x 44.5 mm	590 x 622 x 140 mm	10.6 kg	15.6 kg
	17.4 x 18.9 x 1.75 inch	23.2 x 24.5 x 5.5 inch	23.4 lb	34.4 lb



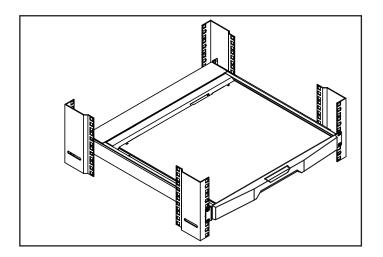


Insert the left and right rear mounting brackets into the LCD console drawer.





- Measure the depth of the front and rear mounting rails.
- Align each rear mounting bracket to a suitable length.





#### Complete the installation

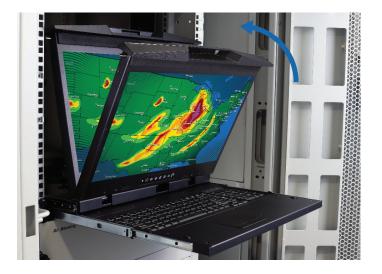
■ Fix the LCD console drawer into the rack.

M6 screw, cage nut & cup washer x 8 are provided.

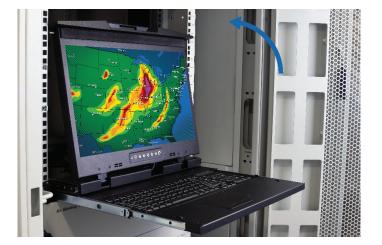
## < 1.3 > Installation - How to Use the Dual Slides



Press the handle button and gently slide out the drawer.



■ Flip up the LCD to a suitable angle.



Operate the LCD console drawer.

## < 1.3 > Installation - How to Use the Dual Slides

DF1417



Flip down the front panel.

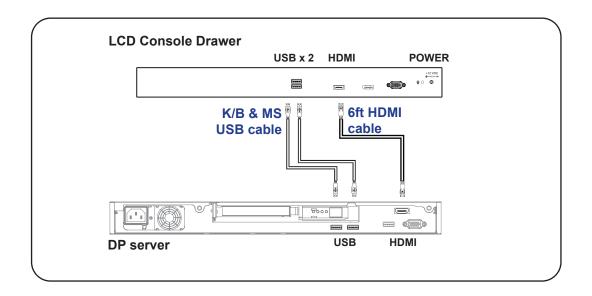


Press the handle button and gently push back the drawer into the rack.

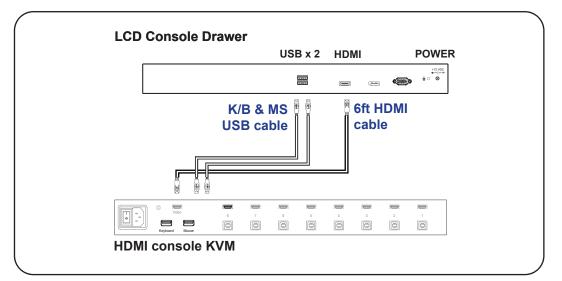


Return the LCD console drawer to park position.

## < 1.4 > Connection to HDMI Server



< 1.4 > Connection to external KVM



**Caution :** The LCD console drawer is hot-pluggable, but components of connected devices, such as the servers and KVM switch, may not be hot-pluggable. Plugging and unplugging cables while servers and KVM are powered on may cause irreversible damage to the servers, KVM and LCD console drawer. Before attempting to connect anything to the LCD console drawer, we suggest turning off the power to all devices. Apply power to connected devices again only after the LCD console drawer is receiving power. The company is not responsible for damage caused in this way.

# Intentionally Left Blank

## < Part 2 >

## < 2.1 > Product Specifications

LCD	Panel Size ( diagonal )	17.3-inch Widescreen TFT color LCD
Panel	Display pixel(dots x lines)	1920 x 1080
	Brightness ( typ. )	300
	Contrast Ratio ( typ. )	1000:1
	Color	16.7 M, 8-bit
	Viewing Angle(L/R/U/D)	85/85/85
	Response Time ( ms )	25
Dot pitch ( mm ) Display Area ( mm )		0.1989
		381.888H x 214.812V
	Surface treatment	Anti-glare, Hard-coating
	Surface hardness	3H
	Backlight Type	LED
	MTBF ( hrs )	15,000

Video	Digital	HDMI	HDMI 1.4, HDCP 1.4
Connectivity		DVI	DVI-D, TMDS single link
		Display Port	DP 1.2 / HDCP 1.3
	Analog	VGA	Analog 0.7Vp-p
	Plug & Play	DVI / VGA	VESA EDID structure 1.3
	Synchronization	VGA	Separate, Composite & SOG

Power	Power Supply	Range	Auto-sensing 100 to 240VAC, 50 / 60Hz
	Power Consumption for Single Console Power Consumption	Screen ON	Max. 14W
		Power saving mode	Max. 2W
		Power button OFF	Max. 1W
		Screen ON	Max. 45W
	with KVM integration	Power saving mode	Max. 34W

\* For details, please refer to our KVM rear kit user manuals

Compliance	EMC	FCC & CE
	Safety	CE / LVD & UKCA
	Environmental	RoHS3 & REACH / WEEE

Environmental	1 9	Temperature	0 to 55°C degree
Conditions		Humidity	10~90%, non-condensing
		Altitude	16,000 ft
		Temperature	-20 to 60°C degree
		Humidity	5~90%, non-condensing
		Altitude	40,000 ft
		Shock	10G acceleration (11ms duration)
		Vibration	10~300Hz 0.5G RMS random

Physical Specification	Product (W x D x H)	441.6 x 480 x 44.5 mm
Specification		17.4 x 18.9 x 1.75 inch
	Packing (W x D x H )	590 x 622 x 140 mm
		23.2 x 24.5 x 5.5 inch
	Net Weight	10.6 kg / 23.4 lb
	Gross Weight	15.6 kg / 34.4 lb

\* All dimensions stated are subject to change if options are selected / integrated to base model part codes

Applicable	VGA Input	PC Signal	1920 x 1080 x 60Hz
Format			1680 x 1050 x 60Hz
			1440 x 900 x 60Hz
			1360 x 768 x 60Hz
			1280 x 1024 x 60Hz
			1280 x 768 x 60Hz
			1280 x 720 x 60Hz
			1152 x 864 x 60Hz
			1024 x 768 x 60Hz
			800 x 600 x 60Hz
			640 x 480 x 60Hz
	HDMI Input	PC Signal	Same as VGA
		HDMI 1.4	1920 x 1080 x 50 / 60Hz ( 1080p )
	Display port Input		1920 x 1080 x 25 / 30Hz ( 1080i )
			1280 x 720 x 50 / 60Hz ( 720p )
			720 x 480 x 50 / 60Hz ( 576p / 480p )
		Audio Signal	2ch Linear PCM
		PC Signal	1920 x 1080 x 60Hz
			1680 x 1050 x 60Hz
			1440 x 900 x 60Hz
			1360 x 768 x 60Hz
			1280 x 1024 x 60Hz
			1280 x 768 x 60Hz
			1280 x 720 x 60Hz
			1152 x 864 x 60Hz
			1024 x 768 x 60Hz
			800 x 600 x 60Hz
			640 x 480 x 60Hz
		Audio Signal	2ch Linear PCM

## < 2.2 > Keyboard / Mouse Specifications



Ge G keyboard integrated with touchpad

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Key force	55 ± 5g	
Travelling distance	3 ± 0.3mm	
Switch life	> 10 million life cycle time	
OS support	Windows / Linux / Unix / Mac OS	

#### Supporting layouts

America	United States					
EMEA	United Kingdom	Germany	France	Russia	Spain	Italy
Asia	Japan	<b>Korea</b>				

## < 2.2 > SUN Keyboard / Mouse Options



S keyboard integrated with touchpad

a r 7 8 9 0 − = + + + + + + + + + + + + + + + + + +	En Help
	Stop Again Props
JKLL Rotuned Rota	Undo Find Open
N M <	Copy Cut Paste
	Front Del

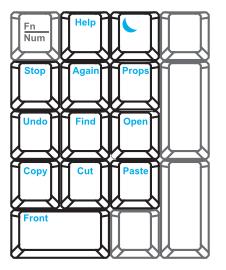


#### S keyboard integrated with touchpad / trackball



- Incorporates SUN keys, including Stop, Cut, Paste, Compose, Copy and Help
- 104 key notepad keyboard with full numerical pad and SUN function
- USB interface
- US layout only

#### How to Use "S" Keyboard

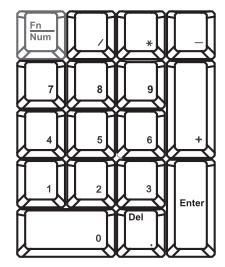


Num LED in Off mode Key pad behaves as a SUN Solar system administration command mode

Audio / Display Keys



**F9** Audio : Mute Display : Degauss



Num LED in Green mode Key pad behaves as a normal key pad mode

#### \* Please ask your supplier for full details



**F11** Audio : Decrease volume Display : Decrease contrast



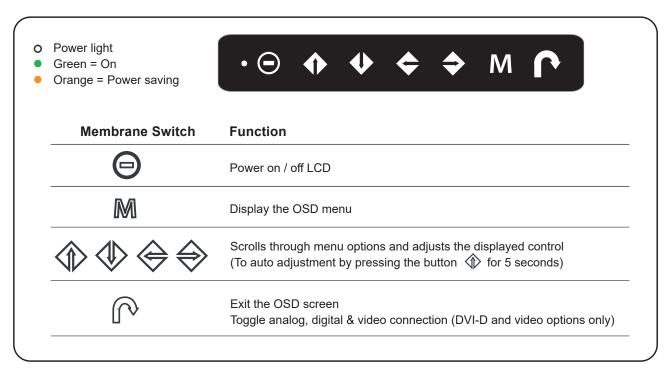
**F12** Audio : Increase volume Display : Increase contrast

## < 2.3 > Video connectivity



- HDMI LED will be ON after power ON (Default video input = HDMI)
- Select VGA or DP video input by pressing the desired video selection button
- LED light will be Green if the video signal is selected ; others will be OFF
- LED light will be Red if no video signal input
- To auto adjust under VGA mode, by pressing the VGA button 3 ~ 5 seconds to confirm

## < 2.4 > On-screen Display Operation ( OSD )



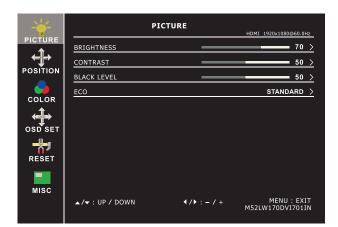
Select another video input (only available for models with multiple video input) :

- ( a ) Press the button first violation violation (a) violation violation (b) violation (c) violati
- ( b ) Use up/down arrow  $\langle i \rangle \langle i \rangle$  to the select the video input
- (c) Press the button M to confirm the selection

#### 1 Picture

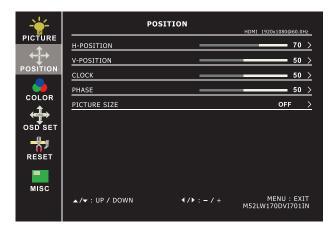
Brightness : Adjust the screen brightness

- Contrast : Adjust the difference between the image background ( black level ) and the foreground ( white level )
- Black level : Adjust background black level of the screen
- Eco : Screen in power saving mode



#### 2 Position

H-Position	: To adjust the horizontal position of the video
V-Position	: To adjust the vertical position of the video
Clock	: To auto adjust H. Size of the screen
Phase	: To fine tune the screen.
Picture size	: FULL SCREEEN / 4:3 / 5:4 / 16:10



## **On-screen Display Operation (OSD)**

#### 3 Color

Color temperature	e: User / Warm / Cool / 5400k mode and Red / Green / Blue color balance
Sharpness	: Adjust the image from weak to sharp
Hue	: Adjust the screen hue value
Saturation	: Adjust the saturation of the image color
Dynamic	
luminous control	: Control the dynamic brightness

	COLO	R	HDMI 1920x1080@60.0Hz
PICTURE	COLOR TEMPERATURE		WARM >
←	SHARPNESS		<b>48</b> >
POSITION	HUE		<b>50</b> >
<b></b>	SATURATION		50 >
COLOR	DYNAMIC LUMINOUS CONTRO	L	OFF >
RESET			
RESET			
MISC	▲/ <del>▼</del> :UP/DOWN	<b>∢/</b> ▶ : - / +	MENU : EXIT
			M52LW170DVI701IN

#### (4) OSD Set

Language	: Select the language in which the OSD menu is displayed - English
OSD H-Position	: Align the screen image left or right
OSD V-Position	: Align the screen image up or down
OSD time out	: Adjust the screen timeout
OSD transparency	: Adjust the screen transparency
OSD rotation	: Rotate the screen - 90° / 180° / 270°

	OSD :	SET	HDMI 1920x1080@60.0Hz
	LANGUAGE		
←	OSD H-POSITION		50 >
POSITION	OSD V-POSITION		<b>50</b> >
COLOR	OSD TIME OUT		100 >
<b>.</b>	OSD TRANSPARENCY		<u> </u>
	OSD ROTATION		OFF >
RESET			
MISC			
	▲/▼ : UP / DOWN	<b>∢/</b> ▶ : <b>-</b> / +	MENU : EXIT M52LW170DVI701IN

#### 5 Reset

Reset : Return the adjustment back to factory setting

		RESET	HDMI 1920x1080@60.0Hz
PICTURE	IMAGE AUTO ADJUST		
←	COLOR AUTO ADJUST		
POSITION	RESET		
COLOR			
<b>←</b> →			
OSD SET			
RESET			
-			
місс			
	▲/ <del>▼</del> : UP / DOWN	<b>∢ /                                   </b>	MENU : EXIT M52LW170DVI701IN

#### 6 MISC

Signal source : Select the signal source - DP / HDMI1 / HDMI2		
Mute	: Turn off the surrounding sound	
Audio in	: Auto / Line in / DP	
Volume	: Adjust the volume of sound	
Sleep mode	: Set the off time - 10 min / 20 min / 30 min / 50 min / 60 min / 120 min / 240 min	

-**-		MISC	HDMI 1920x1080@60.0	Hz
	SIGNAL SOURCE		HDMI	>
←	MUTE		OFF	>
POSITION	AUDIO IN		AUTO	>
COLOR	VOLUME		70	>
	SLEEP MODE		OFF	<u>&gt;</u>
OSD SET				
RESET				
MISC				
	▲/ <del>▼</del> : UP / DOWN	<b>∢/</b> ▶ : <b>-</b> / +	MENU : EX M52LW170DVI701	

## < Part 3 > < 3.1 > Options : 3G / HD / SD-SDI input

DF1417



Austin Hughes' SDI input is an ideal solution for the broadcastgrade video and high resolution CCTV market.

Designed for use with CyberView displays, a SDI input module can support up to 1080p @60Hz resolution without using additional space or power and it comes standard with a 2-year warranty.



INPUT	3G-SDI IN	BNC x 1 / 0.8Vp-p ( 75 ohm )
	3G-SDI OUT	BNC x 1 / Active through, equalized & relocked

Standard Compliance	Video	SMPTE 425M / 274M / 296M / 125M ITU-R BT.656
	Audio	SMPTE 299M / 272M-C

Compatible Video Format	3G-SDI	1080p 1080p 1080i 720p	@60 / 50Hz, 4:2:2 @30 / 25 / 24Hz, 4:4:4 @60 / 50Hz, 4:4:4 @60 / 50Hz, 4:4:4
	HD-SDI	1080p 1080i 720p	@30 / 25 / 24Hz, 4:2:2 @60 / 50Hz, 4:2:2 @60 / 50Hz, 4:2:2
	SD-SDI	480i	@60Hz, 4:2:2
	ITU-R BT.656	576i	@50Hz, 4:2:2

Compatible Audio Format	3G-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized Video
	HD-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized Video
	SD-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized / Asynchronized Video

Max. Transmission Distance 75 ohm coaxial cable	3G-SDI	150m at 2.97Gb/s	
	HD-SDI	250m at 1.485Gb/s	
	SD-SDI	480m at 270Mb/s	

## < 3.2 > Options : DC Power



Model	12V	24V	48V	125V	250V
Input rating					
Input voltage:	12-Volt	24-Volt	48-Volt	110-Volt	300-Volt
Input range:	9 ~ 18V	18 ~ 36V	36 ~ 75V	66 ~ 160V	180 ~ 425V
Input current					
- No load	50 mA	50 mA	50 mA	35 mA	10 mA
- Full load	4950 mA	2450 mA	1220 mA	749 mA	600 mA
Output rating					
Output voltage:	12-Volt	12-Volt	12-Volt	12-Volt	12-Volt
Output current:	4.16A	4.16A	4.16A	6.25A	12.5A
Efficiency	84%	85%	85%	91%	86%

#### **DC** power



#### **\*\*\*** For DC power option :

(1) If the unit with LCD, earthing may be required

(2) DC option excludes AC power adapter and power cord.

The company reserves the right to modify product specifications without prior notice and assumes no responsibility for any error which may appear in this publication.

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