



## Rack Solutions

- Power
- Security
- Airflow
- Sensor
- Screen
- KVM

## IT Solutions

- Web Power Reboot
- Professional LCD

## Leading Edge Solutions

### Design. Manufacturing. Global Services.

Founded in 1995, Austin Hughes is a design and manufacturing group that offers a broad range of solutions based around 19 inch rack mount and IT technologies. Providing world class expertise, quality products and unrivalled service to our clients globally.

We support a worldwide customer base through global locations in the Americas, EMEA, APAC and ASEAN which is complimented by an extensive authorized channel partner network in all regions. Our experienced teams are committed to providing a truly harmonised support structure. Our expertly trained sales and technical teams fully cater for customer specific requirements on all our solutions with exemplary pre and post sale services.

At Austin Hughes we are committed to sustainable manufacturing and continually assessing our processes to reduce our energy consumption and the use of hazardous materials across our global facilities. We provide rack mount solutions that help manage power capacity, reduce downtime and energy costs and improve energy efficiency for our clients, enabling them to make informed capacity planning decisions and improve operational efficiency. Our solutions are Reach, RoHS and PFOC compliant, and are manufactured in accordance with the strictest BSI ISO 14001 quality achievement.



## InfraPower®

### Rack Power Management

- >> Intelligent, Metered & Basic PDUs
- >> Intelligent & Metered ATS
- >> In-Line Meter
- >> Lockable IEC Outlets & Color Power Cords

## InfraCool®

### Rack Airflow Control

- >> Door Mount Fan Panel, Intelligent or Basic
- >> 1U Rack Mount Fan Tray, Intelligent or Basic
- >> Raised Floor Mount Fan Panel, Intelligent or Basic



## InfraGuard

### Rack Sensor System

- >> Temperature + Humidity
- >> Temperature
- >> Smoke
- >> Shock
- >> Water Leakage
- >> Door Open/ Close
- >> Alarm Beacon
- >> LED Light Bar

## InfraSolution®

### Rack Access Control

- >> S700 Standalone SmartCard & NumPad Access
- >> S800 Standalone SmartCard Access
- >> X800 Networked SmartCard Access



## CyberView™

### Rack KVM & Screen

- >> KVM Switch
- >> LCD Console Drawer
- >> LCD Display Panel & Drawer
- >> Multiple LCD Display Drawer

## UltraView

### Professional LCD

- >> 4K - 55", 43", 32", 28", 23", 17", 15" & 13"
- >> FHD - 55", 43", 32", 28", 23", 21", 17", 15" & 13"
- >> FHD 144Hz - 27" & 17"
- >> WUXGA - 24" & 16.2"
- >> Regular - 20", W19", 19", 17", 15", 12" & 10"



## MiniBoot

### Web Power Reboot

- >> C13 - Single / Dual Power Input
- >> NEMA - Single / Dual Power Input
- >> UK BS1363 - Single Power Input
- >> German Schuko - Single Power Input
- >> French - Single Power Input



Austin Hughes produces affordable, quality InfraPower PDU while providing you with superior service. Whether it is enhancing customer care or implementing new technologies, Austin Hughes promotes innovation, quality and satisfaction in all aspects of business.

PDU series	Basic	Metered		Monitored		Switched	
		MD	MK	W	Wi	WS	WSi
1-Phase : 230V / 208V / 110V	✓	✓		✓	✓	✓	✓
3-Phase : 400V / 208V	✓		✓	✓	✓	✓	✓
Outlet Level Measurement Over IP					✓		✓
Outlet ON / OFF Switching Over IP						✓	✓
Latching Relay						✓	✓
Field Replaceable DC Module				✓	✓	✓	✓
Amp & kWh Measurement			✓	✓	✓	✓	✓
Hot-Swappable Meter			✓	✓	✓	✓	✓
Billing Grade Meter Accuracy Within +/- 1%			✓	✓	✓	✓	✓
1.8" Color LCD Meter			✓				
2.8" Color Touch LCD Meter				✓	✓	✓	✓
32 Daisy Chained PDUs Supported on 1 IP				✓	✓	✓	✓
Free Management Software				✓	✓	✓	✓
SNMP Capability V1 / V2 / V3				✓	✓	✓	✓
Phase Balance % for 3-Phase PDUs			✓	✓	✓	✓	✓
Local Meter		✓	✓	✓	✓	✓	✓
Resettable Fuse / Hydraulic MCB	✓	✓	✓	✓	✓	✓	✓
Options : ELCR / Surge Protector / EMI Filter	✓	✓	✓	✓	✓	✓	✓
RCM (Residual Current Monitoring Module)				✓	✓	✓	✓
Temp., Humidity, Smoke & Door Sensors				✓	✓	✓	✓
Door Mount PDU Panel w/ 4.3" Color LCD				✓	✓	✓	✓
WiFi Kit (Supports Max. 32 Daisy Chained PDUs)				✓	✓	✓	✓
Tool-less Mounting for Vertical PDU	✓	✓	✓	✓	✓	✓	✓
0U / 1U / 2U Form Factors	✓	✓	✓	✓	✓	✓	✓
Operating Temperature -5 to 60°C	✓	✓	✓	✓	✓	✓	✓
Outlet : US NEMA / C13 / C19 / UK / SCH / FR	✓	✓	✓	✓	✓	✓	✓
Lockable IEC	✓	✓	✓	✓	✓	✓	✓
Fused IEC	✓	✓	✓	✓	✓	✓	✓
Dual Feed PDU model	✓	✓	✓	✓	✓	✓	✓
Custom PDUs on Request	✓	✓	✓	✓	✓	✓	✓





## 1 Phase

### 230V 16A / 20A / 32A

Outlet			PDU Chassis	
UK	C13	C19	Vertical	Rackmount
24			✓	
20			✓	
16			✓	
12			✓	
10			✓	
8			✓	✓
7			✓	✓
6			✓	✓
8	16	4	✓	
8	8	4		✓
8	8	2		✓
8	6	4		✓
4	20	4	✓	
4	20	4	✓	
4	16	4	✓	
4	12	4	✓	
4	8	4	✓	

Outlet			PDU Chassis	
SCH / FR	C13	C19	Vertical	Rackmount
20			✓	
16			✓	
12			✓	
8			✓	✓
7				✓
6				✓
4	20	6	✓	
4	20	4	✓	
4	16	4	✓	
4	12	4	✓	
4	8	4	✓	
8	8	4		✓
8	8	2		✓
8	6	4		✓

### 230V 16A / 20A / 32A

Outlet		PDU Chassis	
C13	C19	Vertical	Rackmount
36	6	✓	
30	6	✓	
28	6	✓	
28	4	✓	
24	6	✓	
24	4	✓	
21	3	✓	
20	6	✓	
20	4	✓	✓
20	2	✓	
16	4	✓	✓
16	2	✓	
12	12	✓	
12	4	✓	✓
12	2	✓	
8	4	✓	
8	2	✓	✓
6	2		✓
4	4		✓
36		✓	
32		✓	
28		✓	
24		✓	✓
20		✓	✓
16		✓	✓
12		✓	✓
10		✓	✓
8		✓	✓
6			✓
4			✓
	12		✓
	10		✓
	8		✓
	6		✓
	4		✓

### 208V 20A / 30A

### 110V 15A / 20A / 30A

Outlet		PDU Chassis	
US NEMA		Vertical	Rackmount
36		✓	
32		✓	
28		✓	
24		✓	✓
20		✓	✓
16		✓	✓
12		✓	✓
10		✓	✓
8		✓	✓

### Inlet & Cordset

Inlet ( 1-PH 230V )		Amp	Cordset	
			mm²	length
60309		32A	4	3 M
Open end		20A	2.5	3 M
60309		16A	1.5	3 M
C20		16A	1.5	3 M
Schuko		16A	1.5	3 M
BS1363 UK		13A	1.5	3 M
C14		10A	1.5	3 M

Inlet ( 1-PH 208V )		Amp	Cordset	
			AWG	length
L6-30P		30A	10	10 FT
L6-20P		20A	12	10 FT

Inlet ( 1-PH 110V )		Amp	Cordset	
			AWG	length
L5-30P		30A	10	10 FT
5-30P		30A	10	10 FT
L5-20P		20A	12	10 FT
5-20P		20A	12	10 FT
5-15P		15A	14	10 FT

Inlet ( 3-PH 400V )		Amp	Cordset	
			mm²	length
60309		63A	10	2 M
60309		32A	4	2 M
60309		16A	1.5	2 M

Inlet ( 3-PH 208V )		Amp	Cordset	
			AWG	length
60309		60A	6	6.6 FT
CS8365C		50A	6	6.6 FT
L15-30P		30A	10	6.6 FT
L21-30P		30A	10	6.6 FT
L15-20P		20A	12	6.6 FT
L21-20P		20A	12	6.6 FT

## 3 Phase

### 400V 16A / 32A

Outlet		PDU Chassis	
UK		Vertical	Rackmount
24		✓	
21		✓	
18		✓	

Outlet		PDU Chassis	
SCH / FR		Vertical	Rackmount
24		✓	
21		✓	
18		✓	

### 400V 16A / 32A / 63A

### 208V 20A / 30A / 50A / 60A

Outlet		PDU Chassis	
C13	C19	Vertical	Rackmount
36	12	✓	
36	6	✓	
30	12	✓	
30	6	✓	
24	12	✓	
24	6	✓	
21	3	✓	
18	6	✓	✓
12	12	✓	
12	6	✓	✓
6	3		✓
48		✓	
42		✓	
36		✓	
30		✓	
24		✓	✓
18		✓	✓
12		✓	✓
	24	✓	
	18	✓	
	12	✓	✓
	9		✓
	6		✓

\* Rackmount PDU chassis available for 400V 16A/32A & 208V 20A/30A standard configurations

↓ PDU drawings available for download : [www.austin-hughes.com/resources/rack-pdu-selector](http://www.austin-hughes.com/resources/rack-pdu-selector)

⚙ Custom configurations available on request

InfraPower intelligent PDUs are supplied with a sophisticated meter with 2.8" color LCD display and touchscreen functionality. The iMeter provides not only local metering, but also daisy chain connection ports to connect up to 32 PDUs and 2 optional external sensors.



## iMeter

### Cascade port

Up to 32 PDU Levels

### Sensor port x 2

- Door Mounted PDU Panel
- Temperature & Humidity Sensor
- Temperature Sensor
- Smoke Sensor
- Door Sensor

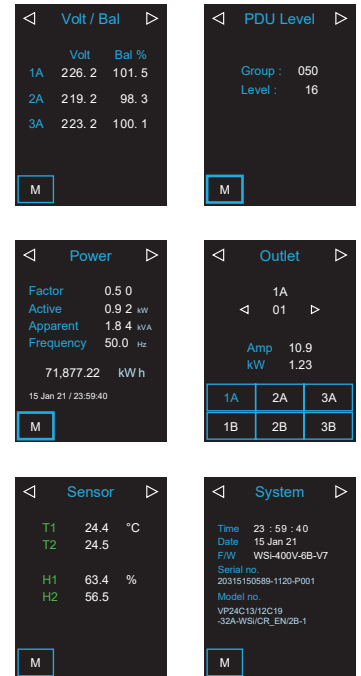
### 2.8" color LCD

with Touchscreen

### Reset button

To re-power the meter if necessary but won't cause any change on settings and memories

## Meter Reading & Setting



## Billing Grade Meter Accuracy Within +/- 1%

The sharp and highly visible display of color LCD provides local data of:

- Energy Consumption (kWh)
- Power (KW)
- Power Factor
- Current (Amp)
- Voltage (V)
- Temperature & Humidity

The power data has a billing grade meter accuracy to within +/- 1%.

Outlet level measurement available for WSi & Wi models.

Phase balance % available for 3-Phase models.

**± 1%**

## Field Replaceable Meter

A field replaceable RMS meter with 2.8" color LCD display with touchscreen functionality. The hot swappable design helps eliminate maintenance downtime by simply replacing a possible defective meter without a service interruption.

## Field Replaceable DC Module

Given the mission critical nature of the environment the intelligent rack PDU is designed, built and manufactured to provide extremely high levels of resiliency. In addition to the hot swappable digital local touchscreen display, field replaceable DC power modules are used within the intelligent PDU models to avoid unnecessary downtime.



With any rack mount device or in-cabinet PDU, one of the largest challenges is to integrate the device into the data center environment without building up additional connectivity, cable run, patch panel, or network related costs.

Patented PDU IP Dongle provides IP remote access to the PDUs by a true network IP address chain. Only one PDU IP Dongle allows access to all PDUs in a single daisy chain – which is a highly efficient application for saving not only the IP remote accessories cost, but also the true IP addresses required on the PDU management.

Hot-Pluggable design facilitates the IP Dongle installation. Simply integrate the PDU IP Dongle to the first PDU, then the entire daisy chain group can be remote over IP. Two RJ-45 connection ports are provided by an IP Dongle. Up to 32 PDU can be cascaded, subject to the dongle model.

The new stylish Dual Lan PDU IP Dongle provides standard 10/100 & Gigabit Ethernet ports. The PDUs in daisy chain can be accessed via two separate networks and hence the PDU connection can be secured by dual LAN network.

For enterprise software management, Dual LAN PDU IP Dongle supports DCIM integration via **SNMP V2 / V3** or **REST API**.



**IPD-H03-S**  
Dual LAN IP Dongle - Horizontal  
- For 1U iPDU  
- Up to 32 levels in daisy chain

US & Worldwide Patents



**IPD-03-S**  
Dual LAN IP Dongle - Vertical  
- For 0U / 2U iPDU  
- Up to 32 levels in daisy chain



### Dual LAN Network Failure

- ▶ Auto failover to a 2nd Ethernet-connection in the event of network interruption
- ▶ Ensuring 100% iPDU uptime reporting



### Connectivity

- ▶ Access your iPDU on two independent networks or VLANs
- ▶ Auto-negotiable 10/100 BaseT Ethernet & 1000 BaseT Gigabit Ethernet ports
- ▶ Redundant network access to connected iPDUs via IP



### USB WIFI Port

- ▶ Optionally connect via a Wifi kit (IPD-WIFI) complying with 802.11 g/n/ac



### Remote Management

- ▶ Significantly reduce the number of Ethernet ports used in deployment by cascading a single network connection across multiple iPDUs (up to 32).
- ▶ Simultaneous access via free management software IPM-04, web GUI, DCIM integration via SNMP V2 / V3 or REST API.
- ▶ Remote level & ID setting for cascaded iPDU's.
- ▶ Protocols : HTTP(S); SSH Command Line Interface; Telnet; SMTP; IPv6/IPv4.



### Enterprise Level IP Authentication

- ▶ Active Directory (AD), Lightweight Directory Access Protocol (LDAPv3 / LDAPS), Remote Access Dial-In User Service (RADIUS) protocol, or local credential database.
- ▶ Strong passwords and granular user/ user group permissions.



### Alerts / Alarms

- ▶ Receive alerts via SNMP, email (SMTP), and syslog when predefined thresholds are exceeded for both iPDU and environmental sensor events.
- ▶ Common SNMP MIBs (Management Information Base) across all iPDU families.

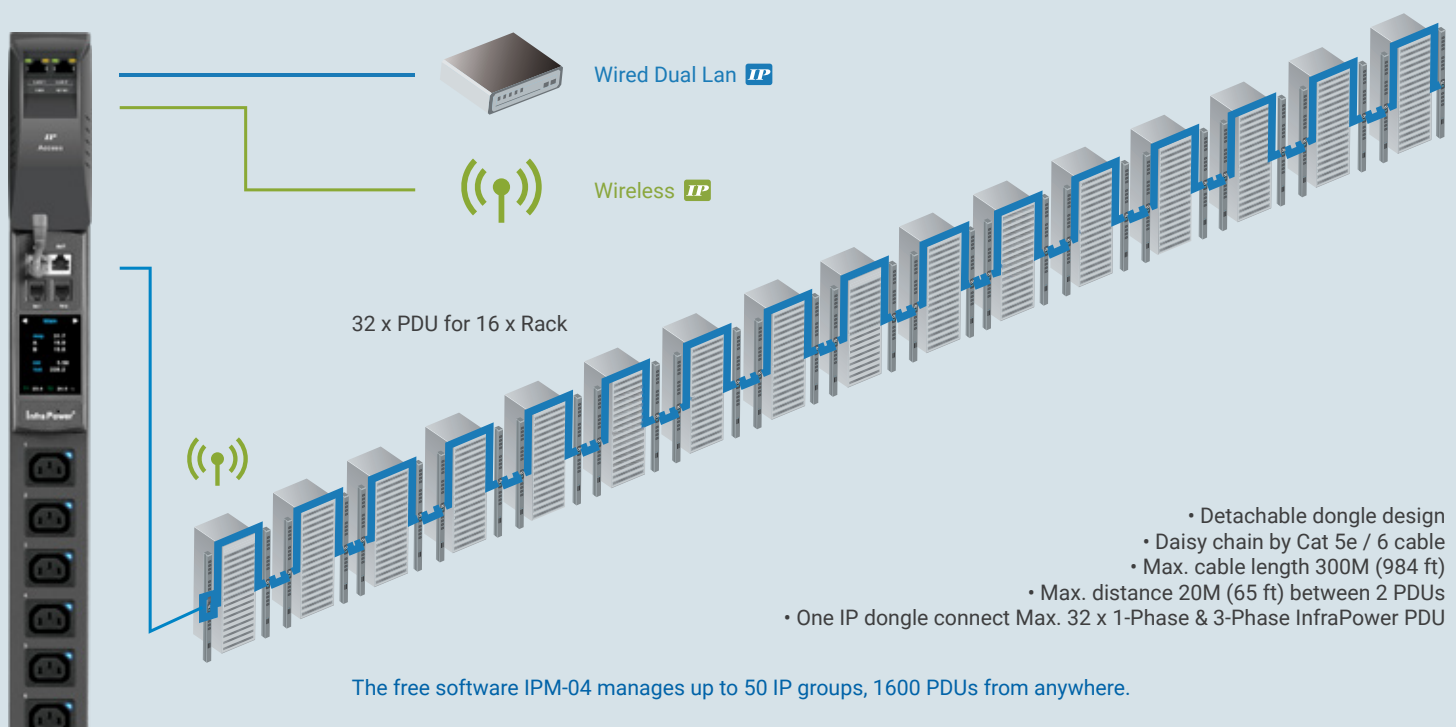


InfraPower rack intelligent PDUs provide connection ports for PDU daisy chain. To daisy chain units, each PDU can simply be connected in series to the next by Cat5/6 cables. With the Dual Lan PDU IP Dongle ( IPD-03-S / IPD-H03-S ), up to 32 daisy chain levels can be achieved. Single & Three Phase PDUs can be inter-cascaded in a single daisy chain.



### High Efficiency PDU Remote Management

Patented PDU IP Dongle provides IP remote software access to the PDUs by a true network IP address chain. Only one network IP is required for maximum 32 PDUs in a single daisy chain. The free but comprehensive IPM-04 supports up to 50 IP groups. Hence, max 1600 PDUs can be remotely managed from anywhere.



## Remote Management Over IP

PDU remote management helps reducing manpower and hence improving uptime and productivity. It also benefits users with capacity planning and increasing the overall efficiency of the data center. InfraPower intelligent PDU offers 3 kinds of remote management solutions for users' selection.



Free Download



Built-in



via SNMP



## Free Management Software IPM-04

InfraPower Manager IPM-04 is the free, powerful and user friendly PDU management software provided with W Series PDUs. The Administrator can remotely manage the PDUs and the temperature / humidity sensors via the web browser. The Windows based software consolidates management of max. 1600 single & three phase PDUs via 50 IP dongles. 5 concurrent user access licences are part of the IPM-04 bundle, for achieving the demand of multi-user requirements in data center operations. IPM-04 provides complete PDU monitoring / control and reporting functions for your data center.

## Web-based GUI

A web-based GUI is integrated with our intelligent PDU. It is ideal for users who simply require the power monitoring and input switching over IP.

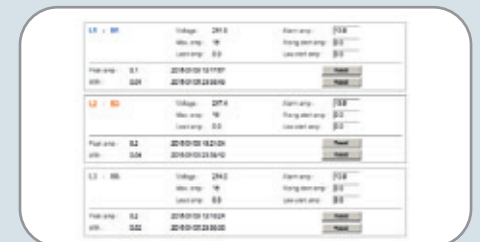
## 3rd Party DCIM via SNMP V2/V3 or REST API

Many data centers apply the DCIM ( Data Center Infrastructure Management ) in order to centralize the management for monitoring power, cooling and environmental factors across facilities and IT systems. InfraPower intelligent PDU supports SNMP V2/V3 or REST API integration and hence user can remotely manage the PDU via their DCIM.

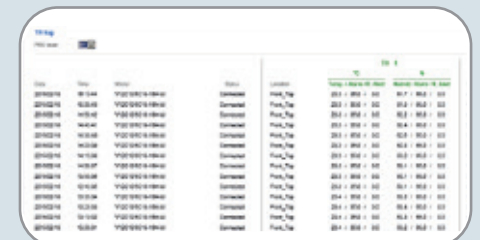
### IPM-04 Managment Software

Capacity	IP Dongle Group ( Just 1 for 32 PDU levels )	50
	PDU Number	1600
	Concurrent Users	5
Features	Outlet Level kWh & Amp Measurement	✓
	Circuit Level kWh & Amp Monitoring	✓
	Apparent Power ( kVA ) Monitoring	✓
	Power Factor Measurement	✓
	Circuit Breaker ( MCB ) Monitoring	✓
	Temp-Humid Monitoring	✓
	Individual Outlet Switch ON / OFF	✓
	Outlet Scheduling	✓
	Alarm Threshold Setting	✓
	Rising Alert Threshold	✓
	Remote Access via Web	✓
	Graphic User Interface	✓
	Reporting	✓
Circuit breaker monitoring	1-Phase / 3-Phase W - Monitored PDU	✓
	1-Phase / 3-Phase Wi - Monitored PDU ( Outlet Measurement )	✓
	1-Phase / 3-Phase WS - Switched PDU	✓
	1-Phase / 3-Phase WSi - Switched PDU ( Outlet Measurement )	✓

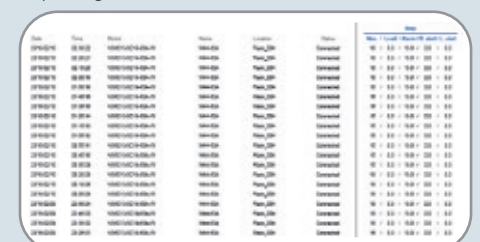
### PDU Monitoring



### Temp. & Humid. Monitoring

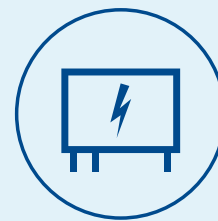


### Reporting



### Outlet ON/OFF Switching & Latching Relay

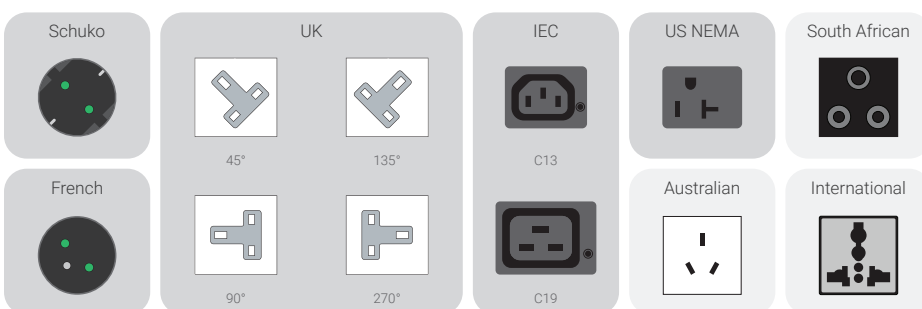
Outlet LEDs are built-in for WS & WSi PDU models with outlet switching functionality. Outlet switching is controlled via latching relays. Ensuring an 'always on' operational performance and outlet status returning to a pre-power outage after a planned or unplanned shutdown. Power consumption during normal/ standard operation is low and therefore assists to reduce energy usage of the overall PDU.



### Broadest Outlet Selection for Rack PDU

Standard InfraPower PDU configurations cover the most popular outlets in rack PDU market : IEC, US NEMA, UK BS1363, German Schuko & French outlets.

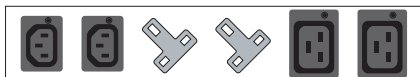
For project based custom requirements, specific outlets (e.g. Australian, South African or International) are also available.



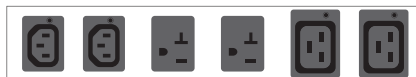
### Multiple Outlet Configurations

Multiple outlets provide flexibility on variety of power connection to different devices.

UK + IEC



US NEMA + IEC



Schuko + IEC



French + IEC



### Lockable IEC Outlet

- Lockable IEC outlet PDU models are available to secure plugs and prevent accidental disconnection
- Supports standard or switched outlets
- Compatible with InfraPower lockable IEC power cords for outlet locking features

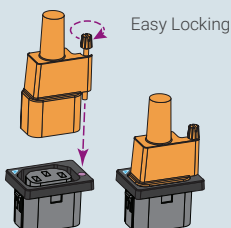
C13



Switched Outlet  
Built in LED



Regular Outlet  
No LED



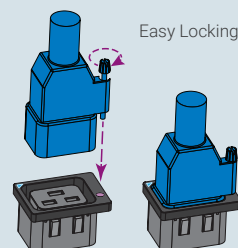
C19



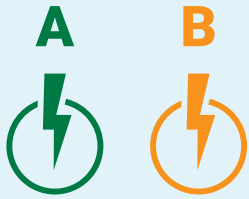
Switched Outlet  
Built in LED



Regular Outlet  
No LED







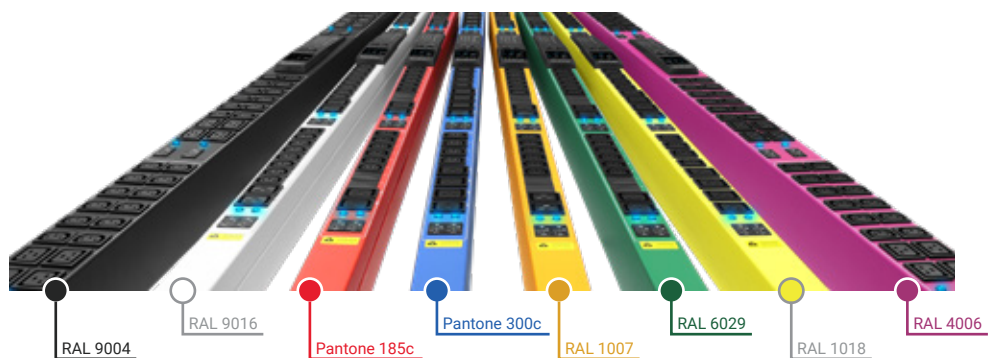
### Colored PDU Power Feed Differentiation

The use of colors at rack PDU and cord levels has become a huge market trend with most organizations favouring different colors in the rack for the A & B primary and redundant feeds into equipment. Colored PDU chassis & power cords are available to achieve such power source visualization & cable management requirement.

### Colored PDU Chassis

Colored PDU chassis allow easy identification of power paths and simplifies management of power sources.  
Standard color : Black

Optional color : White, Red, Blue, Green, Orange, Yellow, Purple



### Colored UK Power Cord

- Enhance cable management and visualize power sources
- Selection : Blue / Red
- UK - C13 (0.75 mm²): 3ft / 6ft



### Colored Lockable IEC Power Cord

- Connect to InfraPower lockable IEC outlets to secure plugs and prevent accidental disconnection
- Selection : Black / Grey / Red / Blue / Orange / Green

C13 - C14 ( 0.75mm² )  
0.5M / 1M / 2M



C19 - C20 ( 1.5mm² )  
1M / 2M



W series PDU meter includes a pair of connection ports for sensors & peripherals. It provides a simple and affordable solution for customers to monitor the environmental status of racks. Dual LAN PDU dongle supports optional WiFi kit with standards 802.11 g/n/ac. It meet the wireless network requirements and reduce capital expenditure cost as well as Ethernet installation & maintenance.

## IP-ED-01



### 4.3" Door Mount Display Panel

- Connect to iPDU meter TH2 port
- 1 smart display panel support 2 iPDUs ( 1-Phase & 3-Phase )
- Displays power, temperature, humidity, smoke or door status
- Alarm
- Viewable while doors in closed position

- Resistive touchscreen
- Resolution 480 x 272
- No cut-out / damage required to doors
- Upgrade racks to smart and stylish look
- Plug & Play

## IPD-WIFI



### WiFi Kit

- Connect to IPD-03-S / IPD-H03-S IP Dongle
- 802.11 g/n/ac WiFi
- Low-profile design wireless athena
- Magnetic base design for tool-less affix 1M cord w/ USB port

## IG-TH01-2M/4M



IG-T01-2M/4M

### Temperature & Humidity Sensor Temperature Sensor

- Plug & play
- External sensor with 2M or 4M cord
- Low profile design with magnetic base for easy affixing to the rack

## IP-S01-1M/3M



### Smoke Sensor

- Smoke Sensor with 1M or 3M cord
- When smoke alarm is triggered the sensor activates the red LED light and audible alarm sounds continuously

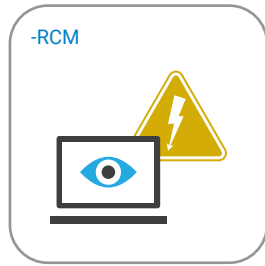
## IP-DSW-2M/4M



### Door Sensor

- Mechanical door sensor with 2M or 4M cord
- Cost efficient integration into rack

The operating parameters for PDUs should take into account temperature rise within the rack due to the exhaust air from server/ network equipment. InfraPower PDU supports operation temperature -5 to 60°C for reliable operation in high density rackmount equipment environment. A range of safety devices are offered not only to protect the equipment from overcurrent but also the users from harm when working on racks.



### Residual Current Monitor (RCM)

- Residual current monitoring
- Alerts users to current leaking from IT devices
- Reduces the danger for both the user and IT system



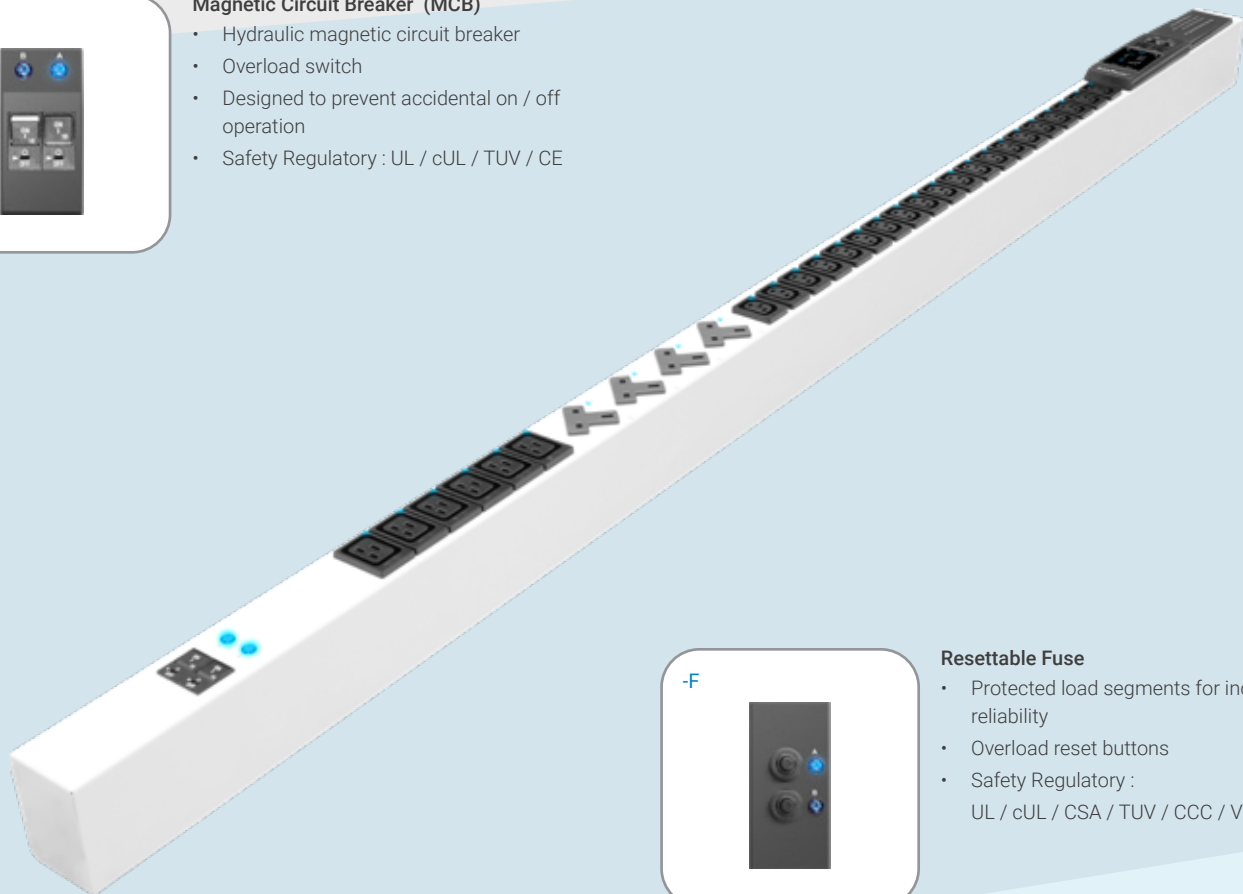
### Earth-leakage Circuit Breaker

- Earth-leakage circuit breaker
- Safety component with high Earth impedance to prevent shock
- Interrupting the circuit if a dangerous voltage is detected



### Magnetic Circuit Breaker (MCB)

- Hydraulic magnetic circuit breaker
- Overload switch
- Designed to prevent accidental on / off operation
- Safety Regulatory : UL / cUL / TUV / CE



### Resettable Fuse

- Protected load segments for increased reliability
- Overload reset buttons
- Safety Regulatory :  
UL / cUL / CSA / TUV / CCC / VDE



### Surge Protector

- Enhances the device protection
- Grounds unwanted voltages above the safe threshold
- Surge suppression: 2,700 Joules
- Max surge current: 75,000 Amps
- Max voltage: 6,000 Volts
- Response Time: 1 nanosecond



### EMI Filter

- Maintains power stability
- Suppresses conducted interference on a signal/power line
- Line frequency : 50 / 60 Hz
- Attenuation : Up to 50 dB





← 60mm → | ← 54mm →



### Vertical 0U - Slim Design

For efficient rack mounting, InfraPower vertical PDU steel chassis for single outlet row is designed with a slim profile  
 > 54mm for IEC / US NEMA Outlet PDUs  
 > 60mm for UK / Schuko Outlet PDUs

### Bottom/ Top Power Feed

When selecting a rack PDU it is important to consider the power input feed route through the rack enclosure.

As standard InfraPower PDUs are supplied as bottom fed. For installations where the power feed is positioned at the top of the rack, the option of top feed PDUs is available.

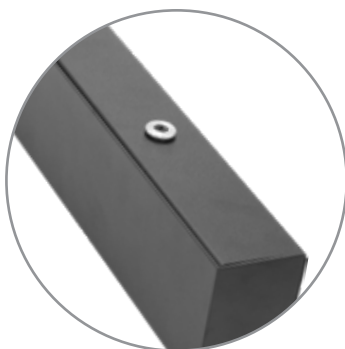


### Horizontal 1U/ 2U

PDUs are available to be mounted either vertically (0U) or horizontally (1U/2U) inside the rack. Most PDU manufacturers focus on 0U PDUs, with limited options for horizontal PDUs. Austin Hughes offers a wide range of InfraPower 1U/2U rackmount PDUs including custom configurations to meet client needs.

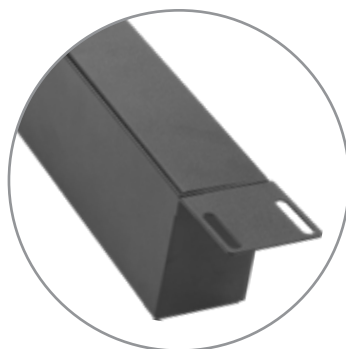
### Vertical Button Mounting Kit

Quick and tool-less integration. Designed for global branded racks with key hole type mounting holes. Included with vertical PDU.



### Vertical Bracket Mounting Kit

Universal mounting kit supports all IT rack models. Easy integration by mounting the PDU to the rack cable tray. Included with vertical PDU.



### Horizontal Rackmount Kit

Design for 19" Rackmount. Included with 1U/2U PDU.

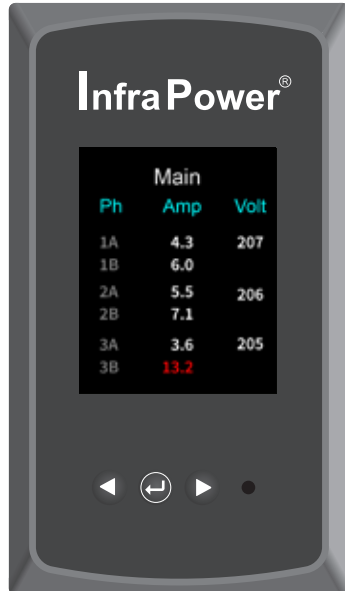


InfraPower Basic PDUs are designed for cost efficient and reliable power distribution in data center.

Metered PDUs ( 1-Phase MD & 3-Phase MK ) allow local power monitoring. User can prevent circuit overloads during equipment installation and plan the capacity based on actual power consumption.

User can meet end to end equipment and management requirements using InfraPower PDUs whilst meeting budget and application demands.

### 3 Phase MK Metered PDU



#### MK Meter

..... Hot-Swappable Meter

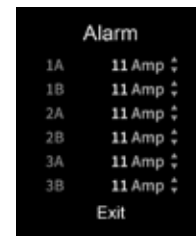
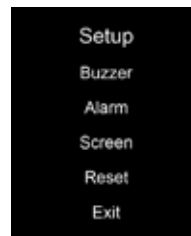
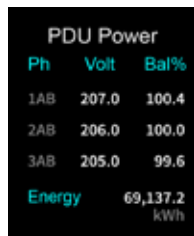
..... 1.8" Color LCD Display

- 3 Phase Local Metering
- Circuit / Phase Amp, Volt & kWh
- Billing Grade Meter Accuracy Within +/- 1%

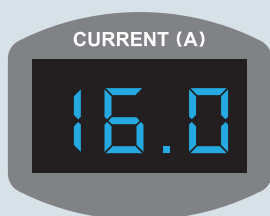
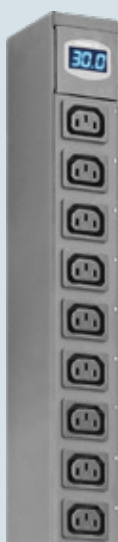
..... Display Selection Buttons

\* 1-Phase MK meter available on request

#### Meter Reading & Setting



### 1 Phase MD Metered PDU



#### MD Meter

- 1 Phase Local Metering
- True RMS ammeter
- Circuit Amp Measurement
- Blue light LED

### 1 Phase / 3 Phase Basic PDU



#### Basic

- Cost efficient and reliable rack power
- Multiple outlet configurations available
- Colored PDU casings and cord options
- Horizontal or Vertical form factors
- Basic PDUs available in Single Phase or Three Phase

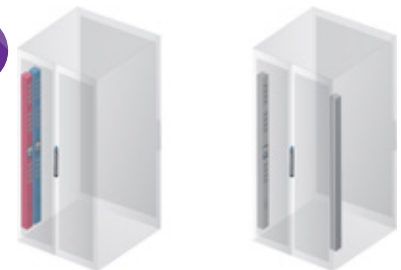
### Dual Feed Rack PDUs

- > Two PDUs in one single chassis
- > Simplify dual PDU setup & save the valuable rack spaces
- > Colored PDU layout distinguishes between primary & secondary power feeds
- > Achieve one side orientation for power cabling
- > Facilitate rack cabling and management efficiency



### Two PDU's in One Chassis

Traditionally, data center racks are equipped with two PDUs positioned in the rear left and right side respectively. InfraPower dual feed PDU is designed to house two PDUs in a single chassis which only requires one side installation. Hence, this facilitates PDU setup and saves valuable rack space. Red + Blue colored PDU layout enables differentiation of the primary and redundant (A&B) power feeds.



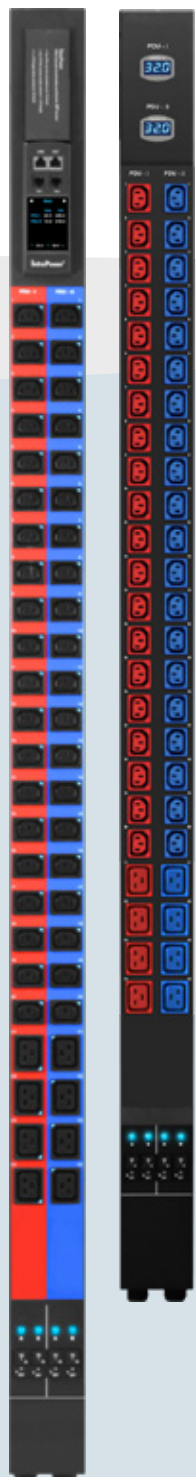
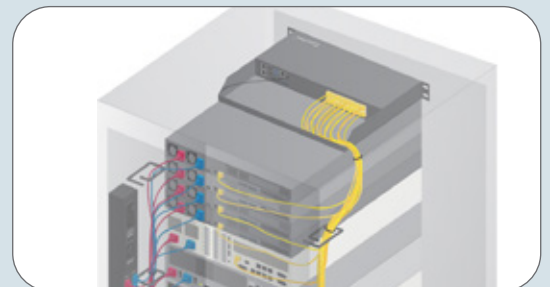
### Save Network IP Cost

For intelligent PDU, Austin Hughes develops 1 Meter 2 PDUs solution. The sophisticated LCD touchscreen meter is integrated in a single chassis but for both primary and secondary PDUs. The meter not only allows local monitoring for 2 PDUs, but also supports up to 32 cascade levels. By the patent IP dongle and dual PDU design, only one IP is required to access up to 64 PDUs in a single cascade group.



### Facilitate Cable Management

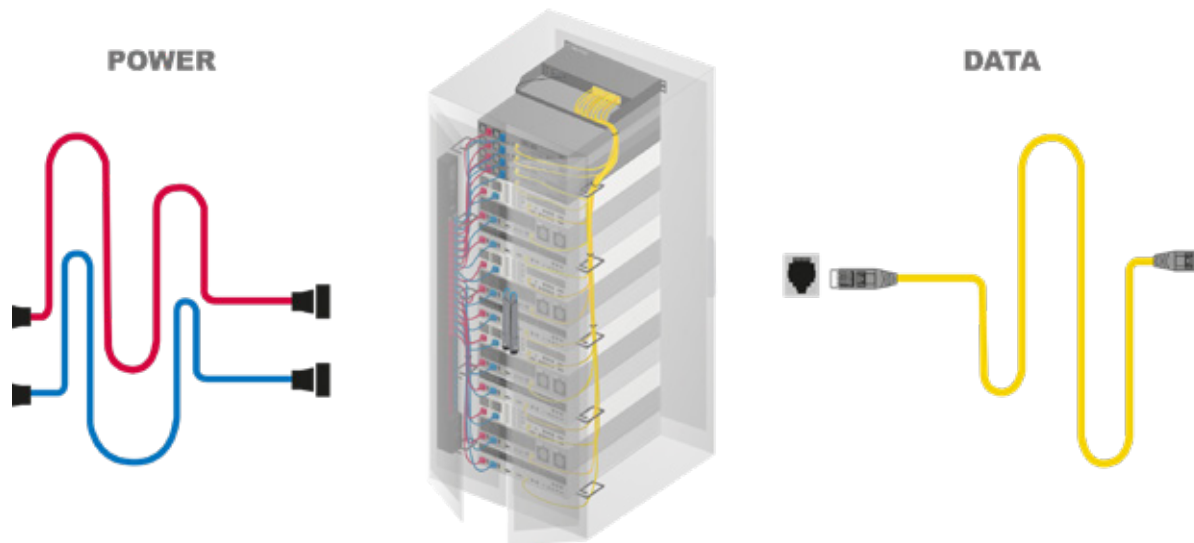
Separating power and data cables inside a rack minimizes erratic data transfer as well as EMI and assists in distinguishing between power and data cabling. By InfraPower Dual Feed PDU, power & data cable separation is easily achieved. In addition, space-saving design and Red + Blue distinguishable layout contribute to a well-organized rack cabling.





## One Side Orientation for Power Cabling

Power and data cables should be kept apart in order to avoid interference. It is a typical practice to isolate power cabling to one side of the rack, whether it is for primary or secondary power connection. InfraPower Dual Feed PDU series offers an efficient, convenient & space saving solution - Primary & Secondary PDUs are integrated to one unit with dual power feed.



## 1 Phase

### 110V 15A / 20A / 30A

Outlet nos		PDU Chassis	
US NEMA		Vertical	Rackmount
24	x 2	✓	
20	x 2	✓	
16	x 2	✓	
12	x 2		✓
10	x 2		✓
8	x 2		✓

### 230V 16A / 20A / 32A

Outlet nos			PDU Chassis	
C13	C19		Vertical	Rackmount
20	4	x 2	✓	
18	6	x 2	✓	
16	4	x 2	✓	
8	2	x 2		✓
24		x 2	✓	
20		x 2	✓	
16		x 2	✓	
12		x 2		✓
10		x 2		✓
8		x 2		✓

### 208V 20A / 30A

## 3 Phase

### 400V 16A / 32A

Outlet nos			PDU Chassis	
C13	C19		Vertical	Rackmount
30	6	x 2	✓	
24	12	x 2	✓	
21	3	x 2	✓	
18	6	x 2	✓	
12	12	x 2	✓	
36		x 2	✓	
32		x 2	✓	
24		x 2	✓	

### 208V 20A / 30A

Inlet ( 1-PH 110V )		Amp	Cordset	
			AWG	length
L5-30P		30A	10	10 FT
5-30P				
L5-20P		20A	12	10 FT
5-20P				
5-15P		15A	14	10 FT

Inlet ( 1-PH 230V )		Amp	Cordset	
			mm²	length
60309		32A	4	3 M
Open end		20A	2.5	3 M
60309		16A	1.5	3 M
C20				

Inlet ( 1-PH 208V )		Amp	Cordset	
			AWG	length
L6-30P		30A	10	10 FT
L6-20P		20A	12	10 FT

Inlet ( 3-PH 400V )		Amp	Cordset	
			mm²	length
60309		63A	10	2 M
60309		32A	4	2 M
60309		16A	1.5	2 M

Inlet ( 3-PH 208V )		Amp	Cordset	
			AWG	length
60309		60A	6	6.6 FT
CS8365C		50A	6	6.6 FT
L15-30P		30A	10	6.6 FT
L21-30P				
L15-20P		20A	12	6.6 FT
L21-20P				



PDU drawings available for download :  
[www.austin-hughes.com/resources/rack-pdu-selector](http://www.austin-hughes.com/resources/rack-pdu-selector)



Custom configurations available on request



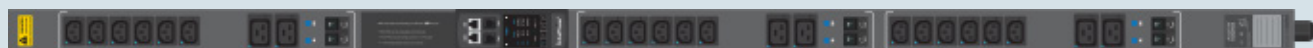
cUL & TUV available for selective configurations

PDU Part Code = 0 1 2 3a 3b / 4a 4b / 5a 5b - 6 - 7 / 8 - 9 / 10 11 - 12 - 13

0	Single or Dual Feed		No Code Required for Single Feed PDU / D = Dual Feed PDU	
1	Chassis		V = Vertical 0U / H = Horizontal Rackmount 1U or 2U	
2	Power Phase		No Code Required for Single Phase / P = Three Phase	
3a	US NEMA / UK / Schuko / FR Outlet	Qty	Refer to Configuration Tables ( P.5 for Single Feed PDU ; P.17 for Dual Feed PDU )	No Code Required for Nothing
3b		Type	US = US NEMA ; UK45/135/90/270 = UK ; SCH = German Schuko CEE 7/3 ; FR = French CEE 7/5	
4a	IEC C13 Outlet (if any)	Qty	Refer to Configuration Tables ( P.5 for Single Feed PDU ; P.17 for Dual Feed PDU )	No Code Required for Nothing
4b		Type	C13 = IEC C13	
5a	IEC C19 Outlet (if any)	Qty	Refer to Configuration Tables ( P.5 for Single Feed PDU ; P.17 for Dual Feed PDU )	No Code Required for Nothing
5b		Type	C19 = IEC C19	
6	Amp Rating		Single Phase 230V : 10A / 13A / 16A / 20A / 32A ; 208V : 20A / 30A ; 110V : 15A / 20A / 30A	
			Three Phase 400V : 16A / 32A / 63A ; 208V : 20A / 30A / 50A / 60A	
7	Model		Basic (No Code Required) / MD / MK / W / Wi / WS / WSi	
8	Safety Device		CR = MCB / F = Resettable Fuse / ELCB = Earth-leakage Circuit Breaker / No Code Required for Nothing	
9	Inlet		Single Phase : EN = 60309 / 6mmEN = 60309 with 6mm² cordset / OE = Open-end / C20 = C20 / UK = UK / SCH = Schuko L630 = L6-30P / L620 = L-620P / L530 = L5-30P / 530 = 5-30P / L520 = L5-20P / 520 = 5-20P / 515 = 5-15P	
			Three Phase : EN = 60309 / CS8365C = CS8365C / L2130 = L21-30P / L2120 = L21-20P / L1530 = L15-30P / L1520 = L15-20P	
10	Cordset Length		3 = 3M (Standard for Single Phase PDU) / 2 = 2M (Standard for Three Phase PDU) / Custom Length on Request	
11	Power Feed Position		B = Bottom Feed (Standard) / T = Top Feed	
12	Color		Single Feed PDU : 1 = Black (Standard) / 2 = White / 3 = Red / 4 = Blue / 5 = Green / 6 = Orange / 7 = Yellow / 8 = Purple	
			Dual Feed PDU : 1 = Red Layout for PDU-I + Blue Layout for PDU-II (Standard)	
13	Extra Options		SPT = Surge Protector / EMI = EMI Filter / RCM = Residual Current Monitor / No Code Required for Nothing	

## Example 1:

Part Code : VP18C13/6C19-32A-WSi/CR\_EN/2B-1  
 Model : WSi iPDU with Circuit Monitoring + Outlet Monitoring + Outlet Switching  
 Configuration : Single Feed, Vertical, Three Phase, C13 x 18 + C19 x 6, 32A, MCB, 60309 Inlet, 2M Cordset, Bottom Feed, Black Chassis



## Example 2:

Part Code : DV40C13/8C19-32A-W/CR\_OE/3T-1  
 Model : W iPDU with Circuit Monitoring  
 Configuration : Dual Feed, Vertical, Single Phase, ( C13x20 + C19x4 ) x 2, 32A, MCB, Open-end, 3M Cordset, Top Feed, Standard Dual Feed PDU Chassis Colors ( Red Layout for PDU-I + Blue Layout for PDU-II )



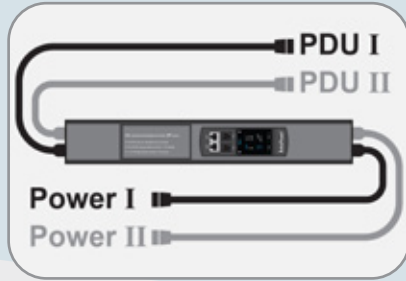
## Example 3:

Part Code : H8UK90-32A-MD/F\_EN/3B-2  
 Model : MD Metered PDU  
 Configuration : Single Feed, Horizontal Rackmount, Single Phase, UK (90°) x 8, 32A, Fuse, 60309 Inlet, 3M Cordset, White Chassis

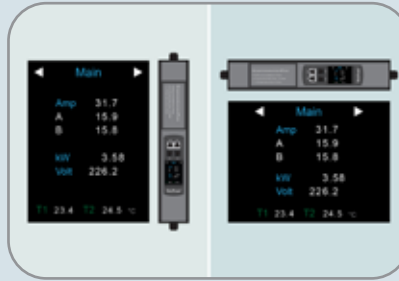


For legacy sites where basic rack PDUs have been previously installed, Inline Meters provide an ideal upgrade solution to enable real-time power monitoring. InfraPower Inline Meter is the most effective PDU enhancement approach which can be retrofitted to basic PDUs to enable local monitoring plus remote management.

## Power Feed - Single or Dual



## Display & Mounting - Vertical or Horizontal



## Save IP Cost - Max 32 Cascade Levels



## Single Phase

### Dual Feed Inline Meter

230V Model	Amp	Inlet ( Male )	Outlet ( Female )
DEW-16A_EN	16A → 16A	16A EN x 2	16A EN x 2
DEW-32A_EN	32A → 32A	32A EN x 2	32A EN x 2

208V Model	Amp	Inlet ( Male )	Outlet ( Female )
DEW-20A_L620	20A → 20A	L6-20P x 2	L6-20C x 2
DEW-30A_L630	30A → 30A	L6-30P x 2	L6-30C x 2

110V Model	Amp	Inlet ( Male )	Outlet ( Female )
DEW-15A_515	15A → 15A	15A 5-15P x 2	15A 5-15R x 2
DEW-20A_520	20A → 20A	20A 5-20P x 2	20A 5-20R x 2
DEW-20A_L520	20A → 20A	20A L5-20P x 2	20A L5-20R x 2
DEW-30A_530	30A → 30A	30A 5-30P x 2	30A 5-30R x 2
DEW-30A_L530	30A → 30A	30A L5-30P x 2	30A L5-30R x 2

\* 1.5m cordset standard for inlet & outlet. Specific cordset length available.

\*\* Bundled Inline Meter mounting kit supports rackmount or vertical mount.

### Single Feed Inline Meter

230V Model	Amp	Inlet ( Male )	Outlet ( Female )
EW-16A_EN	16A → 16A	16A EN	16A EN
EW-32A_EN	32A → 32A	32A EN	32A EN

208V Model	Amp	Inlet ( Male )	Outlet ( Female )
EW-20A_L620	20A → 20A	L6-20P	L6-20C
EW-30A_L630	30A → 30A	L6-30P	L6-30C

110V Model	Amp	Inlet ( Male )	Outlet ( Female )
EW-15A_515	15A → 15A	15A 5-15P	15A 5-15R
EW-20A_520	20A → 20A	20A 5-20P	20A 5-20R
EW-20A_L520	20A → 20A	20A L5-20P	20A L5-20R
EW-30A_530	30A → 30A	30A 5-30P	30A 5-30R
EW-30A_L530	30A → 30A	30A L5-30P	30A L5-30R

## Three Phase

### Dual Feed Inline Meter

400V Model	Amp	Inlet ( Male )	Outlet ( Female )
DPW-16A_EN	16A → 16A	16A EN x 2	16A EN x 2
DPW-32A_EN	32A → 32A	32A EN x 2	32A EN x 2
DPW-63A_EN	63A → 63A	63A EN x 2	63A EN x 2

208V Model	Amp	Inlet ( Male )	Outlet ( Female )
DPW-20A_L1520	20A → 20A	20A L15-20P x 2	20A L15-20C x 2
DPW-20A_L2120	20A → 20A	20A L21-20P x 2	20A L21-20C x 2
DPW-30A_L1530	30A → 30A	30A L15-30P x 2	30A L15-30C x 2
DPW-30A_L2130	30A → 30A	30A L21-30P x 2	30A L21-30C x 2
DPW-50A_CS8365C	50A → 50A	50A CS8365 x 2	50A CS8364 x 2
DPW-60A_EN	60A → 60A	60A EN x 2	60A EN x 2

\* 1.5m cordset standard for inlet & outlet. Specific cordset length available.

\*\* Bundled Inline Meter mounting kit supports rackmount or vertical mount.

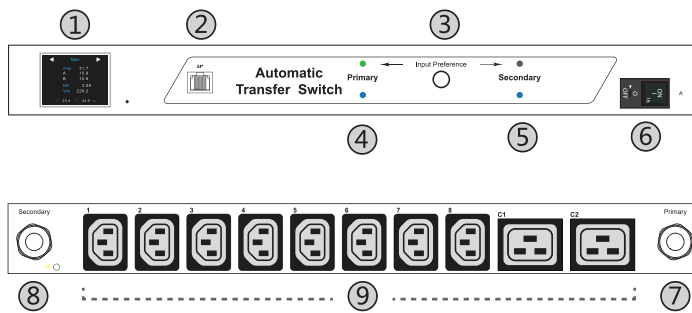
### Single Feed Inline Meter

400V Model	Amp	Inlet ( Male )	Outlet ( Female )
PW-16A_EN	16A → 16A	16A EN	16A EN
PW-32A_EN	32A → 32A	32A EN	32A EN

208V Model	Amp	Inlet ( Male )	Outlet ( Female )
PW-20A_L1520	20A → 20A	L15-20P	L15-20C
PW-20A_L2120	20A → 20A	L21-20P	L21-20C
PW-30A_L1530	30A → 30A	L15-30P	L15-30C
PW-30A_L2130	30A → 30A	L21-30P	L21-30C
PW-50A_CS8365C	50A → 50A	CS8365	CS8364
PW-60A_EN	60A → 60A	60A EN	60A EN

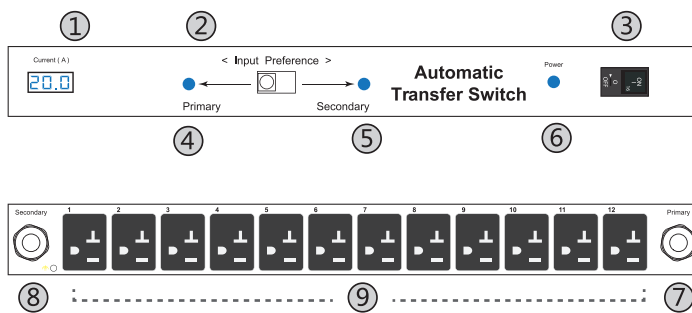
Most data centers provide power source redundancy in order to ensure critical devices have no power related downtime. Many rackmount IT devices, however, are not designed to take advantage of power redundancy. For single-corded devices, the InfraPower Automatic Transfer Switch (ATS) is a perfect fit to provide power failover. It includes dual power inlets for connection to both a primary power source and a redundant, secondary power source.

### Intelligent ATS Over IP



- ① 2.0" color LCD
- ② IP Port
- ③ Input Preference Switch
- ④ Power LED - primary input
- ⑤ Power LED - secondary input
- ⑥ Circuit Breaker
- ⑦ Primary Input attached with 3M cord & inlet plug
- ⑧ Secondary Input attached with 3M cord & inlet plug
- ⑨ Outlets

### Metered ATS



- ① Local Current Meter
- ② Input Preference Switch
- ③ Circuit Breaker
- ④ Power LED - primary input
- ⑤ Power LED - secondary input
- ⑥ Power LED - outlets
- ⑦ Primary Input attached with 3M cord & inlet plug
- ⑧ Secondary Input attached with 3M cord & inlet plug
- ⑨ Outlets

ATS Series	Metered MD	Monitored W	Switched	
			WS	WSi
Outlet Level Measurement Over IP				✓
Outlet ON / OFF Switch Over IP			✓	✓
Input & Circuit Monitoring Over IP		✓	✓	✓
Input Switching Over IP		✓	✓	✓
Input Switching Locally	✓	✓	✓	✓
Local Meter Monitoring	✓	✓	✓	✓
Transfer Time	10 - 16ms	10ms	10ms	10ms
Power Source Switching Notification		✓	✓	✓
Alarm Alert		✓	✓	✓
Reporting & Logs		✓	✓	✓
Free Management Software		✓	✓	✓
Web Based GUI		✓	✓	✓
SNMP Capability V1 / V2 / V3		✓	✓	✓
Single Circuit & Dual Circuit Models	✓	✓	✓	✓
Hydraulic-magnetic Miniature Circuit Breaker (MCB)	✓	✓	✓	✓
Mounting Bracket w/ Cord Retention Tray Included	✓	✓	✓	✓
1-Phase : 230V / 208V / 110V	✓	✓	✓	✓
3-Phase : 400V (16A, 32A) / 208V (20A, 30A)	✓	✓	✓	✓
Outlet Type : US NEMA / C13 / C19 / UK / SCH / FR	✓	✓	✓	✓
IEC309 16A / 32A	✓	✓	✓	✓
L620R / L630R	✓	✓	✓	✓
Outlet # 1 - 24	✓	✓	✓	✓
Custom ATS on Request	✓	✓	✓	✓



## Remote Management Over IP

ATS remote management helps reducing manpower and hence improving uptime and productivity. It also benefits users with capacity planning and increasing the overall efficiency of the data center. InfraPower intelligent ATS offers 3 kinds of remote management solutions for users' selection.



Free Download



Built-in



via SNMP



## Free Management Software IPM-04

IPM-04 is the free, powerful and user friendly management software provided with intelligent ATS. The Administrator can remotely manage the ATS via the web browser. It provides power input switching, ATS monitoring, alarm and reporting functions. The Windows based software consolidates management of max. 50 ATS. Up to 5 concurrent user access is bundled in order to achieve the demand of multi-user requirements in data center operations.

## Single Circuit ATS : Monitoring & Input Switching



## Dual Circuit ATS : Monitoring & Input Switching



## Reporting / Log



## Web-based GUI

A web-based GUI is integrated with our intelligent ATS. It is ideal for some users who simply require the power monitoring and input switching over IP.

## 3rd Party DCIM via SNMP V2 / V3

ATS supports SNMP V2 / V3 integration for clients requiring remote management of the ATS using their existing DCIM ( Data Center Infrastructure Management ) in order to centralize the management for monitoring power, cooling and environmental factors across facilities and IT systems.

Functions & Features	IPM-04	GUI
No. of ATS support	50	1
Concurrent users	5	1
Input switching over IP	✓	✓
Power source switching notification	✓	✓
Input sources detection	✓	✓
Individual outlet switch on / off ( WS & WSi )	✓	✓
Outlet level measurement ( WSi )	✓	✓
Energy consumption ( kWh ) monitoring	✓	✓
Apparent power ( kVA ) monitoring	✓	✓
Power factor measurement	✓	✓
Voltage ( Volt ) monitoring	✓	✓
Aggregate current ( Amp ) monitoring	✓	✓
Circuit breaker monitoring	✓	✓
Alarm alert	✓	✓
Reporting & logs	✓	
SNMP V1 / V2 / V3		✓

## 1U ATS - Single Circuit



MD ATS



W iATS



WS / WSi iATS

## 2U ATS - Single Circuit



MD ATS



W iATS



WS / WSi iATS

## 2U ATS - Dual Circuit



MD ATS



W iATS



WS / WSi iATS

Specifications	MD	W / WS / WSi
Nominal input voltage	110V / 208V / 230V	
Acceptable input voltage	±10% nominal	
Input frequency	50 / 60Hz	
Inlet	L5-30P / L5-20P / 5-15P / L6-30P / L6-20P / C14 / C20 / 60309 / UK / Open-end	
Outlet	Nema / L620R / L630R / C13 / C19 / 60309 / UK / Schuko / French	
Local meter	3-digital LED current meter	Field replaceable color LCD
Overload protection	Hydraulic-magnetic Miniature Circuit Breaker ( MCB )	
Transfer time	10 - 16ms typical	10ms typical
Electrical endurance	1 x 10 <sup>5</sup> operations	
Temperature	Operating : -5 to 60°C degree ( 23 to 140°F degree ) / Storage : -25 to 65°C degree ( 13 to 149°F degree )	
Humidity	Operating : 0~95%, non-condensing / Storage : 0~95%, non-condensing	

1U ATS - Single Circuit					Amp		
Outlets	MD ATS	W iATS	WS iATS	WSi iATS	110V	208V	230V
NEMA x 10 NEMA x 12	ATS-H10US ATS-H12US	ATS-H10US-W ATS-H12US-W	ATS-H10US-WS ATS-H12US-WS	ATS-H10US-WSi ATS-H12US-WSi	15 / 20A		
C13 x 8 C13 x 10 C13 x 12 C19 x 6 C19 x 8 C13 x 8 + C19 x 1 C13 x 8 + C19 x 2	ATS-H8C13 ATS-H10C13 ATS-H12C13 ATS-H6C19 ATS-H8C19 ATS-H8C13 / 1C19 ATS-H8C13 / 2C19	ATS-H8C13-W ATS-H10C13-W ATS-H12C13-W ATS-H6C19-W ATS-H8C19-W ATS-H8C13 / 1C19-W ATS-H8C13 / 2C19-W	ATS-H8C13-WS ATS-H10C13-WS ATS-H12C13-WS ATS-H6C19-WS ATS-H8C19-WS ATS-H8C13 / 1C19-WS ATS-H8C13 / 2C19-WS	ATS-H8C13-WSi ATS-H10C13-WSi ATS-H12C13-WSi ATS-H6C19-WSi ATS-H8C19-WSi ATS-H8C13 / 1C19-WSi ATS-H8C13 / 2C19-WSi		20A	10 / 16 / 20A
IEC309 16A x 1 L620R x 1	ATS-H1EN16A ATS-H1L620R	ATS-H1EN16A-W ATS-H1L620R-W	ATS-H1EN16A-WS ATS-H1L620R-WS	ATS-H1EN16A-WSi ATS-H1L620R-WSi		20A	16A
UK x 8	ATS-H8UK	ATS-H8UK-W	ATS-H8UK-WS	ATS-H8UK-WSi			10 / 13 / 16 / 20A

2U ATS - Single Circuit					Amp		
Outlets	MD ATS	W iATS	WS iATS	WSi iATS	110V	208V	230V
NEMA x 16 NEMA x 20 NEMA x 24	ATS-H16US ATS-H20US ATS-H24US	ATS-H16US-W ATS-H20US-W ATS-H24US-W	ATS-H16US-WS ATS-H20US-WS ATS-H24US-WS	ATS-H16US-WSi ATS-H20US-WSi ATS-H24US-WSi	15 / 20A		
C13 x 16 C13 x 20 C13 x 24 C19 x 10 C19 x 12 C13 x 16 + C19 x 2 C13 x 16 + C19 x 4	ATS-H16C13 ATS-H20C13 ATS-H24C13 ATS-H10C19 ATS-H12C19 ATS-H16C13 / 2C19 ATS-H16C13 / 4C19	ATS-H16C13-W ATS-H20C13-W ATS-H24C13-W ATS-H10C19-W ATS-H12C19-W ATS-H16C13 / 2C19-W ATS-H16C13 / 4C19-W	ATS-H16C13-WS ATS-H20C13-WS ATS-H24C13-WS ATS-H10C19-WS ATS-H12C19-WS ATS-H16C13 / 2C19-WS ATS-H16C13 / 4C19-WS	ATS-H16C13-WSi ATS-H20C13-WSi ATS-H24C13-WSi ATS-H10C19-WSi ATS-H12C19-WSi ATS-H16C13 / 2C19-WSi ATS-H16C13 / 4C19-WSi		20A	10 / 16 / 20A
Schuko x 8 French x 8	ATS-H8SCH ATS-H8FR	ATS-H8SCH-W ATS-H8FR-W	ATS-H8SCH-WS ATS-H8FR-WS	ATS-H8SCH-WSi ATS-H8FR-WSi			10 / 16 / 20A

2U ATS - Dual Circuit					Amp		
Outlets	MD ATS	W iATS	WS iATS	WSi iATS	110V	208V	230V
NEMA x 16 NEMA x 20 NEMA x 24	ATS-H16US ATS-H20US ATS-H24US	ATS-H16US-W ATS-H20US-W ATS-H24US-W	ATS-H16US-WS ATS-H20US-WS ATS-H24US-WS	ATS-H16US-WSi ATS-H20US-WSi ATS-H24US-WSi	30A		
C13 x 16 C13 x 20 C13 x 24 C19 x 8 C19 x 10 C19 x 12 C13 x 16 + C19 x 2 C13 x 16 + C19 x 4	ATS-H16C13 ATS-H20C13 ATS-H24C13 ATS-H8C19 ATS-H10C19 ATS-H12C19 ATS-H16C13 / 2C19 ATS-H16C13 / 4C19	ATS-H16C13-W ATS-H20C13-W ATS-H24C13-W ATS-H8C19-W ATS-H10C19-W ATS-H12C19-W ATS-H16C13 / 2C19-W ATS-H16C13 / 4C19-W	ATS-H16C13-WS ATS-H20C13-WS ATS-H24C13-WS ATS-H8C19-WS ATS-H10C19-WS ATS-H12C19-WS ATS-H16C13 / 2C19-WS ATS-H16C13 / 4C19-WS	ATS-H16C13-WSi ATS-H20C13-WSi ATS-H24C13-WSi ATS-H8C19-WSi ATS-H10C19-WSi ATS-H12C19-WSi ATS-H16C13 / 2C19-WSi ATS-H16C13 / 4C19-WSi		30A	32A
L630R x 1	ATS-H1L630R	ATS-H1L630R-W	ATS-H1L630R-WS	ATS-H1L630R-WSi		30A	
IEC309-16A x 2 IEC309-32A x 1	ATS-H2EN16A ATS-H1EN32A	ATS-H2EN16A-W ATS-H1EN32A-W	ATS-H2EN16A-WS ATS-H1EN32A-WS	ATS-H2EN16A-WSi ATS-H1EN32A-WSi			32A

## 230V ATS

Inlet	Amp	Cordset	
		mm <sup>2</sup>	length
60309	32A	4	3 M
Open end	20A	2.5	3 M
C20	16A	1.5	3 M
BS1363 UK	13A	1.5	3 M
C14	10A	1.5	3 M

## 208V ATS

Inlet	Amp	Cordset	
		AWG	length
L6-30P	30A	10	10 FT
L6-20P	20A	12	10 FT

## 110V ATS

Inlet	Amp	Cordset	
		AWG	length
L5-30P  5-30P	30A	10	10 FT
L5-20P  5-20P	20A	12	10 FT
5-15P	15A	14	10 FT

\*\* Customization available on request

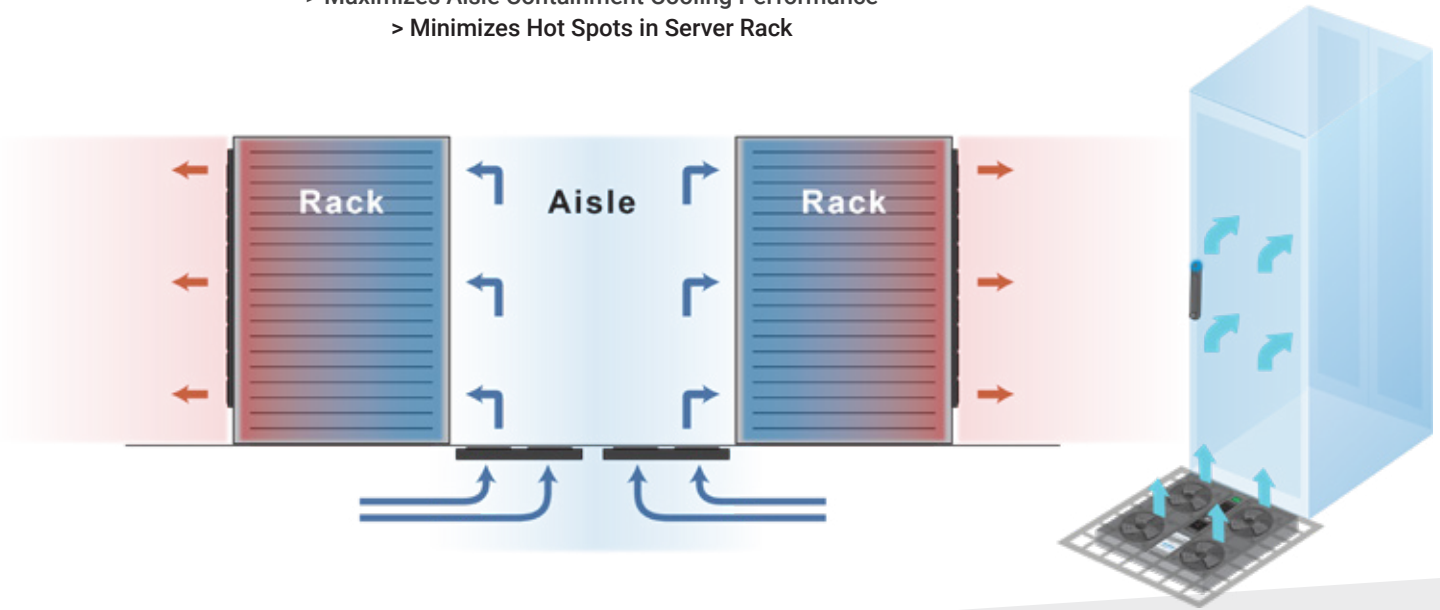
Thermal management presents big challenges for today's data centers, chief among which is cooling equipment in enclosed racks. InfraCool intelligent cooling solutions provide appropriate airflow, while helping minimize operational costs associated with data center energy consumption. Make InfraCool an integral part of your rack cooling strategy today.



Fan Series	Door Mount Fan Panel	1U Fan Tray			Raised Floor Mount Fan
Intelligent Master	MRF-33.9	✕	MRF-1.6	MRF-1.9	WF-66.4
Intelligent Expansion	RF-33.9	✕	RF-1.6	RF-1.9	
Basic	F-33.9	F-1.3	F-1.6	F-1.9	F-66.4
Fan Number	9	3	6	9	4 (EC Fan)
Total CFM	972	324	648	972	2172
Airflow	<div><div>Front Door Cool Air In</div><div>Rear Door Hot Air Out</div></div>		<div><div>Top Exhaust hot air out</div><div>Equipment Cooling</div><div>Bottom Cool air in</div></div>		<div>Front Door Cool Air In</div> 
Temp. Port	1	1			2
Temp. Sensor	1	1			2
Intelligent Fan Features:					
16 Daisy Chain Levels	✓	✓			✕
Auto Fan Speed Control	✓	✓			✕
2.8" Touchscreen	✕	✕			✓
Control Panel	✓	✓			✕
Individual Fan On/Off	✓	✓			✓
Alarm Temp. Setting	✓	✓			✓
Unit CFM Setting	✓	✓			✕
Temperature Monitoring	✓	✓			✓
Fan Status Monitoring	✓	✓			✓
CFM Status Monitoring	✓	✓			✕



- > Maximizes Aisle Containment Cooling Performance
- > Minimizes Hot Spots in Server Rack



## Intelligent Model WF-66.4



### Benefits

- ▶ Allows remote access over IP
- ▶ Remote fan On / Off and status monitoring
- ▶ Support SNMP V2 / V3 centralized management platforms
- ▶ Free WF-04-S software for remote fan management
- ▶ 2.8" touchscreen color LCD
- ▶ Fan status & alarm alert
- ▶ Quad EC ( Electronically Communicated ) fans
- ▶ Fan CFM : 543 CFM
- ▶ Unit CFM : 2172 CFM
- ▶ Bundled with 2 x temperature sensor with 4M wire
- ▶ Bundled with raised floor mounting kit

### Connection Ports ( at Side of Fan Unit )



### Temperature Sensor ( Pair )

- Bundled with Intelligent Fan
- Magnetic base
- Plug & Play
- 4M wire



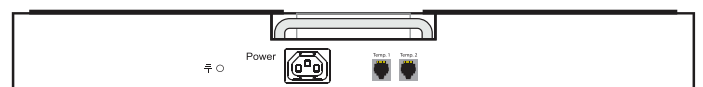
## Basic Model F-66.4



### Benefits

- ▶ Quad EC ( Electronically Communicated ) fans
- ▶ Fan CFM : 543 CFM
- ▶ Unit CFM : 2172 CFM
- ▶ Adjustable CFM levels
- ▶ Unit or individual fan on / off
- ▶ 2 x front temperature LED
- ▶ Bundled with 2 x temperature sensor with 4M wire
- ▶ Bundled with raised floor mounting kit

### Connection Ports ( at Side of Fan Unit )



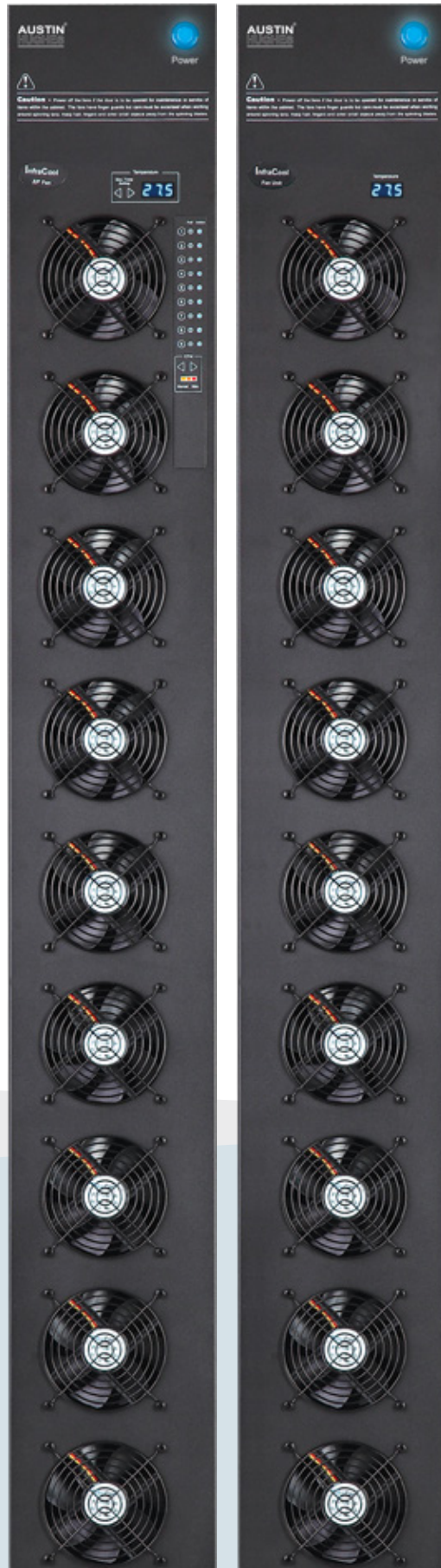
### Temperature Sensor ( Pair )

- Bundled with Basic Fan
- Plug & Play
- 4M wire



**Intelligent Model:**  
Master IP MRF-33.9  
Expansion RF-33.9

**Basic Model:**  
F-33.9

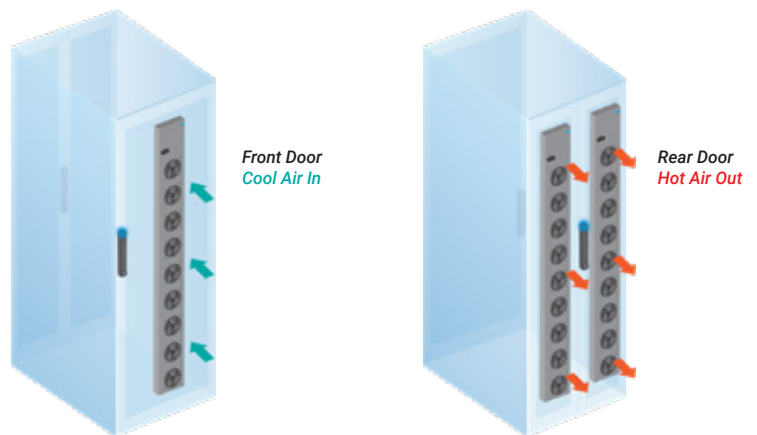


## Benefits

- ▶ 33U door mount without occupying rack space
- ▶ Easy installation with common tools
- ▶ Designed for low noise & high airflow performance
- ▶ Thin & light weight design only 5 kgs / 11 lbs
- ▶ Improves extraction of heat from high density rack
- ▶ No. of Fans: 9
- ▶ Individual Fan CFM: 108 CFM
- ▶ Unit CFM (approx.): 972 CFM
- ▶ Bundle 1 x temperature sensor with 2M wire
- ▶ Front temperature LED
- ▶ 48V, 24V or 12VDC power option

## Extra Benefits by Intelligent Fan Models

- ▶ Cascade ports for daisy chain up to 16 levels via Cat6 cable
- ▶ 1 x intelligent master fan unit allows access to 16 fan unit levels over internet
- ▶ Free ICM-02 management software remote access up to 480 fan units
- ▶ Auto & manual CFM setting reduces power consumption
- ▶ Temperature sensing technology adjusts the fan speeds accordingly
- ▶ Unit or individual fan on / off ( remote or local )



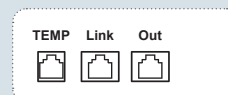
Model	Installation	Airflow	Purpose
MRF-33.9A RF-33.9A F-33.9A	Rear door outside	Extract airflow	Exhaust air out from rack
	Front door inside	Intake airflow	Cool air in from aisle
MRF-33.9B RF-33.9B F-33.9B	Rear door inside	Extract airflow	Exhaust air out from rack
	Front door outside	Intake airflow	Cool air in from aisle

\* Package includes the material of clear polycarbonate plastic to block off the remaining open perforated area of the door to eliminate bypass air.

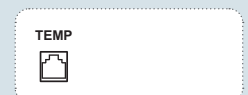
## Connection Ports ( at Top of Fan Panel )



MRF-33.9



RF-33.9



F-33.9

## Temperature Sensor ( Pair )

### Bundled with Intelligent Fan

- Magnetic base
- Plug & Play
- 2M wire



### Bundled with Basic Fan

- Plug & Play
- 2M wire

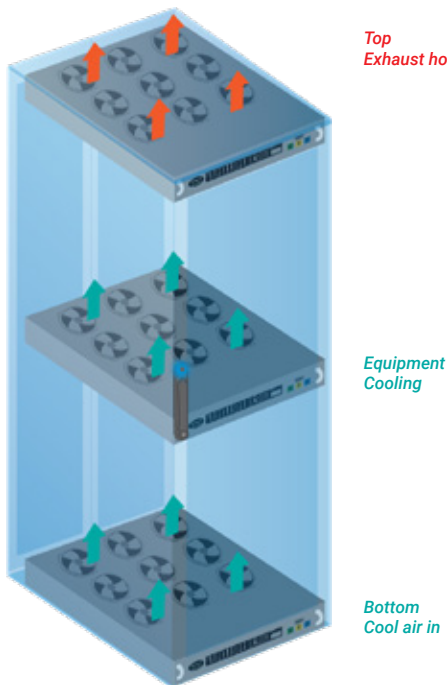


## Benefits

- ▶ 1U rackmount
- ▶ Designed for low noise & high airflow performance
- ▶ Individual Fan CFM: 108 CFM
- ▶ Basic models : 3, 6 or 9 fans / 324, 648 or 972 CFM
- ▶ Intelligent models : 6 or 9 fans / 648 or 972 CFM
- ▶ Bundle 1 x temperature sensor with 2M wire
- ▶ Front temperature LED
- ▶ 48V, 24V or 12VDC power option

## Extra Benefits by Intelligent Fan Models

- ▶ Cascade ports for daisy chain up to 16 levels via Cat6 cable
- ▶ 1 x intelligent Master IP fan unit allows access to 16 fan unit levels over internet
- ▶ Free ICM-02 management software remote access up to 480 fan units
- ▶ Auto & manual CFM setting reduces power consumption
- ▶ Temperature sensing technology adjusts the fan speeds accordingly
- ▶ Unit or individual fan on / off ( remote or local )



## Intelligent Model : Master IP MRF-1.9 / 1.6



Available with 9 or 6 Fans

## Intelligent Model : Expansion RF-1.9 / 1.6



Available with 9 or 6 Fans

## Basic Model : F-1.9 / 1.6 / 1.3



Available with 9, 6 or 3 Fans

## Connection Ports ( at Front of Fan Unit )

<p>TEMP Link IP</p> <p>MRF-1.9 / MRF-1.6</p>	<p>TEMP Link Out</p> <p>RF-1.9 / RF-1.6</p>	<p>TEMP</p> <p>F-1.9 / F-1.6 / F-1.3</p>
--	---	--

## Temperature Sensor ( Pair )

### Bundled with Intelligent Fan

- Magnetic base
- Plug & Play
- 2M wire



### Bundled with Basic Fan

- Plug & Play
- 2M wire



To maintain optimum operational conditions in data centers, getting instant notification of environmental fluctuations is vital. InfraGuard offers a wide range of sensors for complete environmental monitoring of IT racks.

**EC-300M - Master Control Box**  
(1st Level)



**EC-300 - Expansion Control Box**  
(2nd - 16th Level)



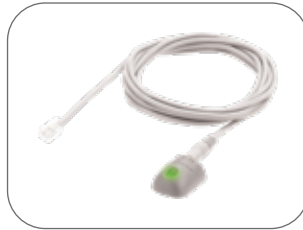
## Temp. + Humid. Sensor



- One sensor for temperature & humidity
- Low profile and light weight design with a magnetic base for easy affixing to rack

Part no. :  
IG-TH01-2M with 2M cord  
IG-TH01-4M with 4M cord

## Temp. Sensor



- Detection for temperature
- Low profile and light weight design with a magnetic base for easy affixing to rack

Part no. :  
IG-T01-2M with 2M cord  
IG-T01-4M with 4M cord

## Water Sensor



- Fluid leakage detection
- 5M rope round the rack bottom to detect any fluid flowing to the rack area
- IP65 cable joint connectors provided

Part no. :  
IG-W01-3M with 3M cord

## Smoke Sensor



- Safely operated smoke detection

Part no. :  
IG-S01-1M with 1M cord  
IG-S01-3M with 3M cord

## Shock Sensor



- Alert the physical vibration on the rack

Part no. :  
IG-V01-1M with 1M cord  
IG-V01-3M with 3M cord

## LED Beacon



- Highly visible for alerting user to alarm status

Part no. :  
IG-FB03-1M with 1M cord  
IG-FB03-3M with 3M cord

## Inductive Door Sensor



- Light weight, mini size & adhesive
- No custom cutting required on doors
- Easy for existing rack retrofit or integration to new rack

Part no. :  
IG-DSI-2M with 2M cord  
IG-DSI-4M with 4M cord

## Mechanical Door Sensor



- Low cost
- Precise
- Cost efficient integration to new rack
- Custom cutting required on door

Part no. :  
IG-DSW-2M with 2M cord  
IG-DSW-4M with 4M cord

## LED Light Bar

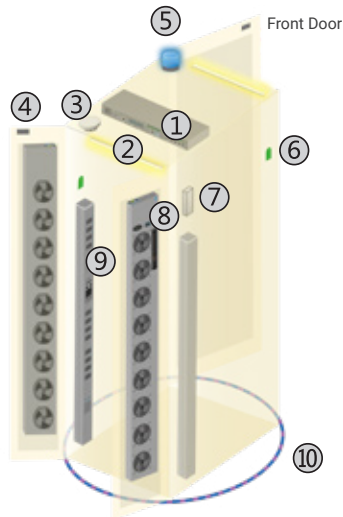


- Auto ON / OFF by door sensor detection
- Manual ON / OFF by software remote
- Magnetic base for easy affixing to rack
- Dimension ( W x D x H ) : 20 x 300 x 12 mm

Part no. :  
CLB-IX-002 with 2M cord  
CLB-IX-003 with 3M cord

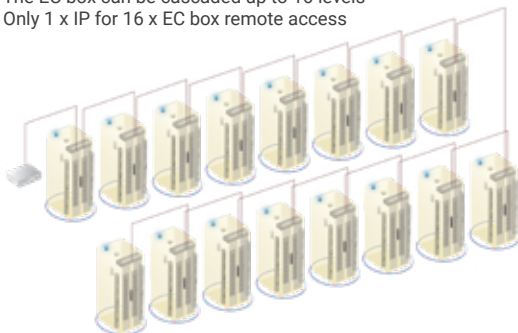


## One Box One Rack



Item	Rack
1 EC Box	1
2 LED Light Bar	2
3 Smoke Sensor	1
4 Door Sensor	2
5 Flashing LED Beacon	1
6 Temp. & Humid. Sensor	2
7 Shock Sensor	1
8 Fan Unit	2
9 PDU	2
10 Water Sensor	1

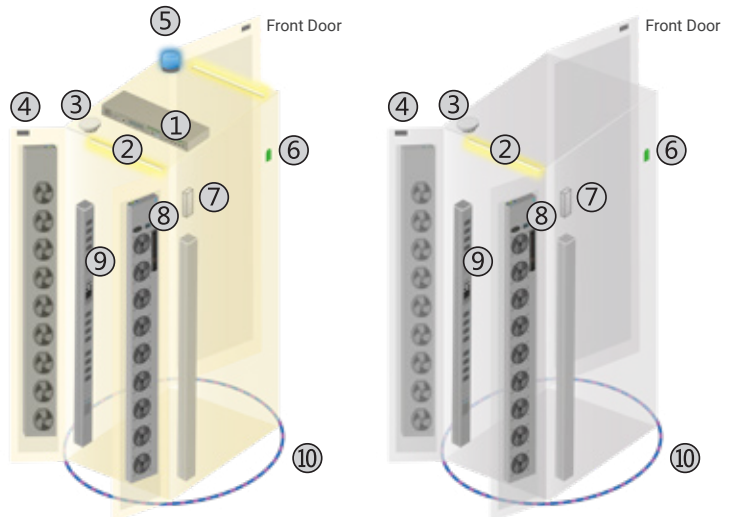
- EC 300M as the 1st level Master IP EC box
- The EC box can be cascaded up to 16 levels
- Only 1 x IP for 16 x EC box remote access



### Free Software IGM-03

- Supports 30 IP addresses
- 480 EC boxes & 480 IT server racks
- Thousands of rack sensors & 1920 iPDUs & iFans

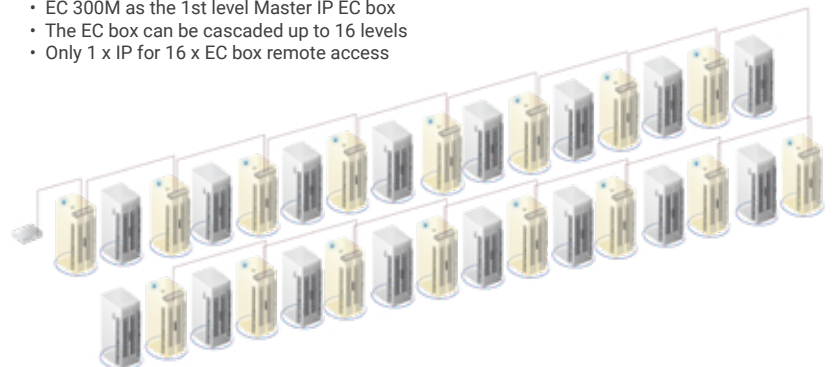
## One Box Two Rack



Item	Rack 1	Rack 2
1 EC Box	1	-
2 LED Light Bar	1	1
3 Smoke Sensor	1 *	1 *
4 Door Sensor	2	2
5 Flashing LED Beacon	1	-
6 Temp. & Humid. Sensor	1	1
7 Shock Sensor	1 *	1 *
8 Fan Unit	2	2
9 PDU	2	2
10 Water Sensor	1	1

\* either smoke sensor or shock sensor

- EC 300M as the 1st level Master IP EC box
- The EC box can be cascaded up to 16 levels
- Only 1 x IP for 16 x EC box remote access



### Free Software IGM-03

- Supports 30 IP addresses
- 480 EC boxes & 960 IT server racks
- Thousands of rack sensors & 1920 iPDUs & iFans

## Rack Environmental Management Over IP

Remote management helps reducing manpower and hence improving uptime and productivity. InfraGuard offers two remote environmental management solutions for users' selection.



via SNMP




Free Download



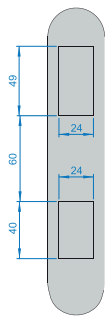
To satisfy high level data center security requirements, Austin Hughes has launched a standalone rack access solution with alloy swing handles & 2.8" touchscreen control panel. The InfraSolution S-700 series provides an innovative yet affordable solution for secure rack access in 21st century data centers.



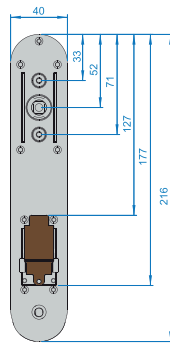
S-700P	Features	S-700M
	✓ Standalone, patented design	✓
	✓ Dual security: SmartCard + NumPad	✓
	✓ Rugged alloy swing handle	✓
	✓ Sophisticated control panel w/ touchscreen	✓
	✓ Proximity 26-bit SmartCard compatible	✗
	✗ MiFARE 26-bit SmartCard compatible	✓
	✓ Dual locking system ( electronic and mechanical lock )	✓
	✓ Electronic lock released by SmartCard & NumPad	✓
	✓ Rack access status and alarm indication by LED	✓
	✓ Individually keyed lock options available	✓
	✓ Left side opening standard ( optional right side open )	✓

### Universal Mounting Cut-out

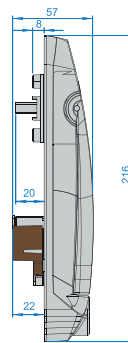
Cut-out



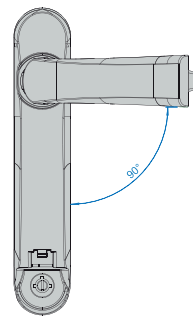
Back View



Side View



Front View



Unit : mm

### Handle LED



Door Closed



Silver white LED

Door Open



Red LED

Alarm for Unauthorized Access

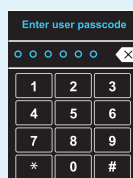
- Red LED flashing
- Alarm "beep" sound

### Two-factor Authentication - Dual Security

Step 1: SmartCard Touch



Step 2: Passcode Input



Open



## Control Panel

### Touchscreen Color LCD

- Resistive touch
- Sophisticated & stylish
- User friendly



### Display & Monitoring via 2.8" LCD

- Rack information
- Door status
- Alarm notifications
- Temp. / humid. values
- PDU Amp. values



### NumPad

- Passcode assignment
- Passcode authentication
- Add / delete user cards

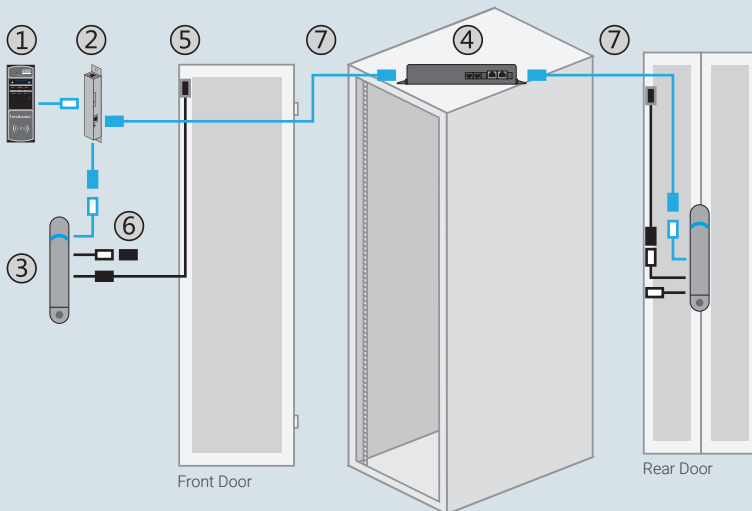


### SmartCard Sensor

- Proximity 26-bit
- MIFARE 26-bit :
  - Classic
  - DESFire EV1 / EV2
  - Plus S / Plus X
  - Plus EV1



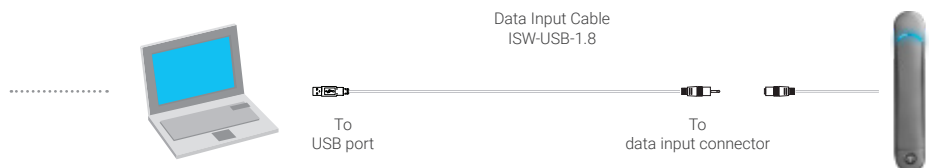
## Installation Diagram



- 1 Control panel
- 2 Connector box  
- for data input / configuration
- 3 S-700 SmartCard handle  
- Proximity or MIFARE
- 4 Junction box  
- data communication with control panels & handles  
- provides connectors for light bar & W3 PDU integration  
- built-in power adapter
- 5 Door sensor with 2m cable  
- for front & rear doors
- 6 Temp. / TH sensor connector
- 7 Cat5 cable  
- For connection between junction box & handle / control panel  
- Cable length can be customized subject to rack size  
- NOT provided

## Software



Via the **Free** utility ( ISU-01 ), administrators can change admin / user passcodes and assign smartcards. A maximum of 50 user card credentials can be managed per control panel. Setup is easy via the optional data input cable ( ISW-USB-1.8 ).



The patented S-800 SmartCard handle is designed for total rack access control and management.

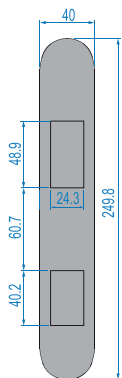
For 100% accurate detection of exactly which door opened, InfraSolution S-800 is equipped with high quality, durable, precision door sensors for both doors.



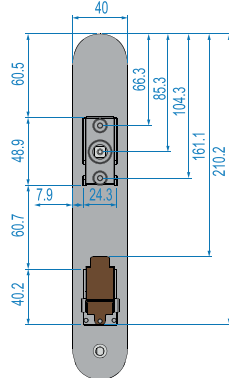
S-800P	Features		S-800M
	✓	Standalone, patented design	✓
	✓	Proximity 26-bit SmartCard compatible	✗
	✗	MiFARE 26-bit SmartCard compatible	✓
	✓	Dual locking system ( electronic and mechanical lock )	✓
	✓	Electronic lock released by SmartCard	✓
	✓	Rack access status and alarm indication by LED	✓
	✓	Individually keyed lock options available	✓
	✓	Left side opening standard ( optional right side open )	✓
			

## Universal Mounting Cut-out

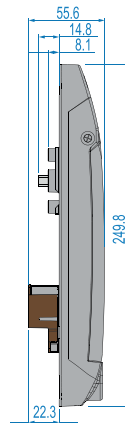
Cut-out



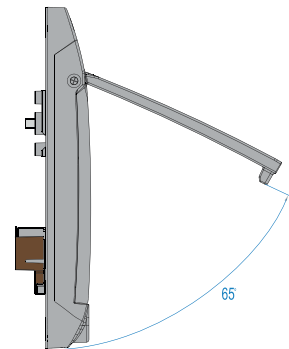
Back View



Side View - Close



Side View - Open



Unit : mm

## Handle LED



MiFARE Proximity

Door Closed



Silver white LED

Door Open



Red LED

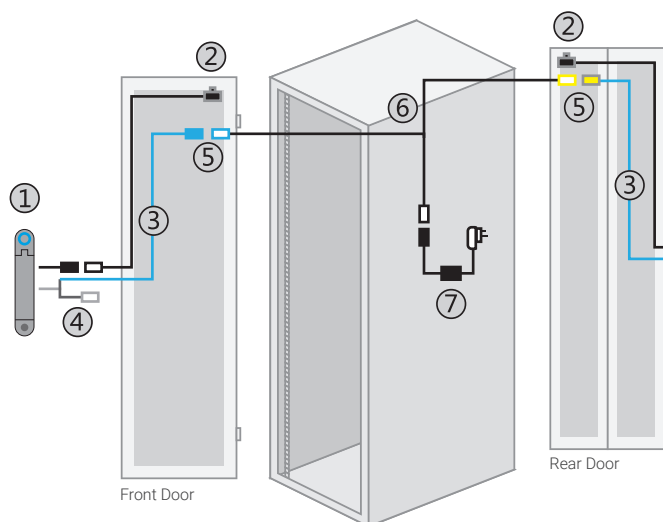
Alarm for Unauthorized Open

- Red LED flashing
- Alarm "beep" sound

\* Only available while handles equipped with door sensors



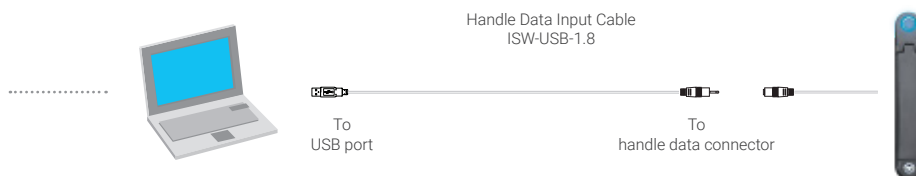
## Installation Diagram



- ① S-800P Proximity or S-800M MiFARE smartcard handle :  
2pcs for front & rear door, with cables to connect ②, ③, ④
- ② Optional door sensor with cable :  
2pcs for front & rear door ( 6.5ft )
- ③ Power cable ( door section ) :  
2pcs for front & rear door ( 6.5ft )
- ④ Data input connector  
( for handle activation / data input / configuration )
- ⑤ Joint connector of ③ & ⑥
- ⑥ Y-Power cable ( rack section )
- ⑦ Universal Auto switching 2.5A power adapter & 6' power cord

## Software

Via the **Free** utility ( ISU-01 ), administrators can change admin / user passcodes and assign smartcards. A maximum of 50 user card credentials can be managed per control panel. Setup is easy via the optional data input cable ( ISW-USB-1.8 ).



## Door Sensor for S-700 & S-800

### IR Door Sensor (Pair)

Part no. : S-DIR



- No custom cutting required on doors
- Light weight
- Magnetic base for easy setup
- Mini size ( 33 x 19 x 7 mm )
- Reflective label x 2 bundled
- With 2m cord

### Inductive Door Sensor (Pair)

Part no. : S-DSI



- No custom cutting required on doors
- Light weight / adhesive
- Easy for existing rack retrofit
- Mounting bracket bundled
- Mini size ( 32.5 x 12.2 x 9.2 mm )
- With 2m cord

### Mechanical Door Sensor (Pair)

Part no. : S-DSW





- Custom cutting required on doors
- Low cost / precise
- Cost efficient integration to new rack
- Size ( 52 x 22.5 x 30.75 mm )
- With 2m cord

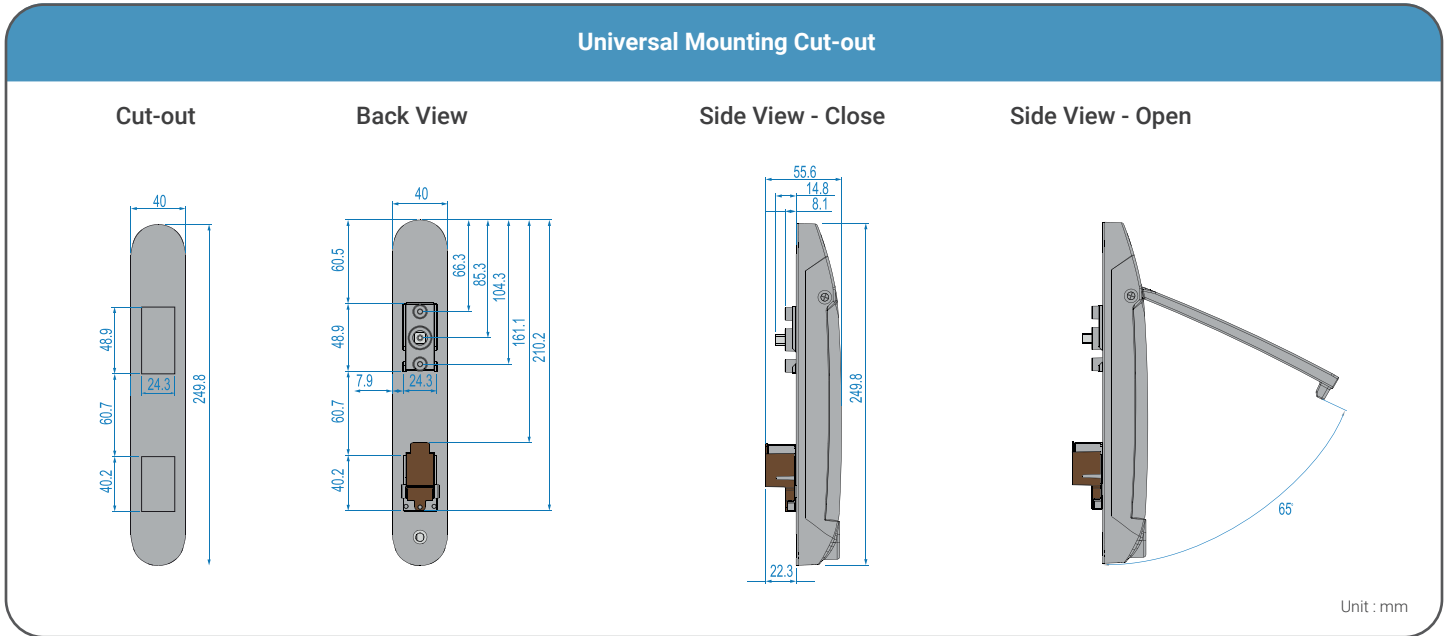
The patented X-800 SmartCard handle is designed for total rack access control and management.

The X-2000 control box, designed for rack SmartCard Access + PDU/Fan/Environmental Management, consolidates the smartcard access components and management of other integrated rack devices such as smart PDUs, cooling fans and environmental sensors in a single rack appliance. To facilitate centralized management, all control boxes can be connected via wired networks.

For 100% accurate detection of exactly which door opened, InfraSolution X-800 is equipped with high quality, durable, precision door sensors for both doors.



X-800P	Features		X-800M
 <div>PROXIMITY SMARTCARD</div>	✓	Networked, patented design	✓
	✓	Proximity 26-bit SmartCard compatible	✗
	✗	MiFARE 26-bit SmartCard compatible	✓
	✓	Dual locking system ( electronic and mechanical lock )	✓
	✓	Electronic lock released by SmartCard	✓
	✓	Rack access status and alarm indication by LED	✓
	✓	Individually keyed lock options available	✓
	✓	Left side opening standard ( optional right side open )	✓
			 <div>MiFARE SMARTCARD</div>






Handle Unlocking

The InfraSolution X-800 handle offers three ways to release the lock - Software Remote, SmartCard or Mechanical Key.

By Software Remotely


By SmartCard

By Mechanical Key



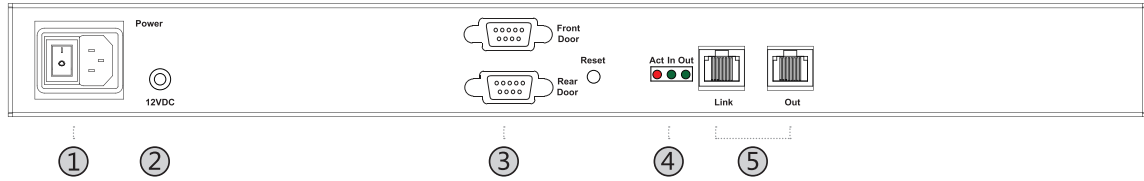
PROXIMITY  
SMARTCARD

MiFARE  
SMARTCARD

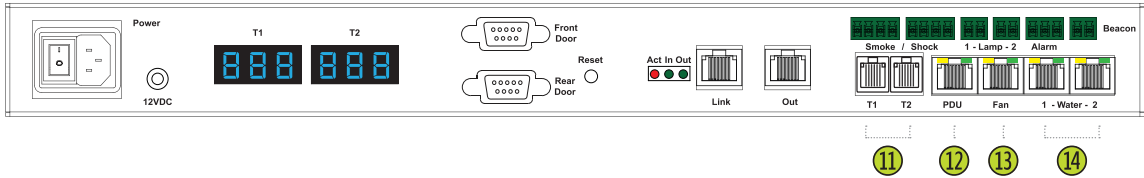


## Control Box

X-1000

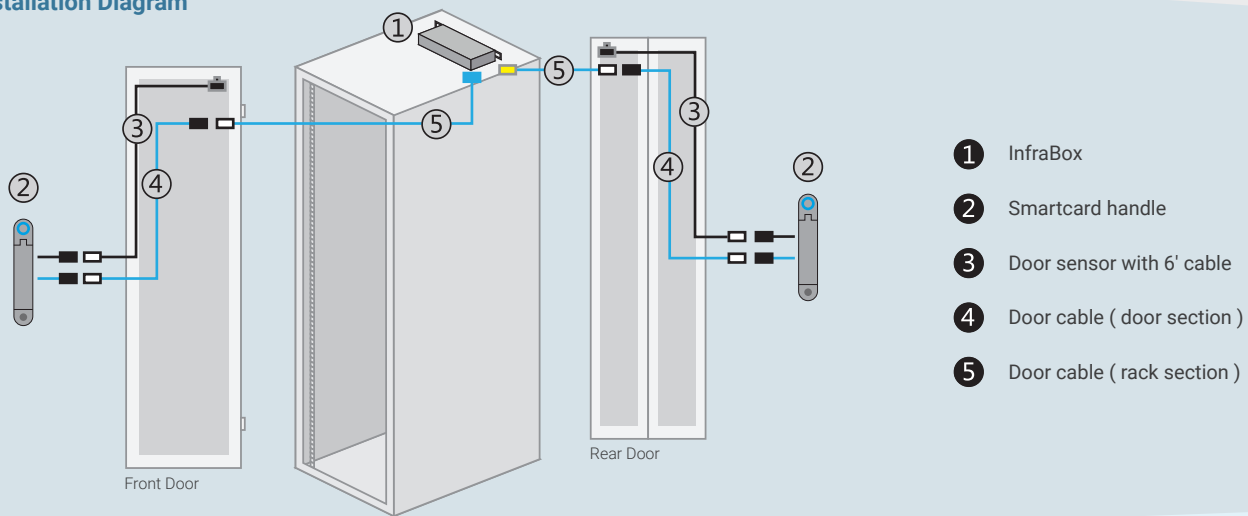


X-2000



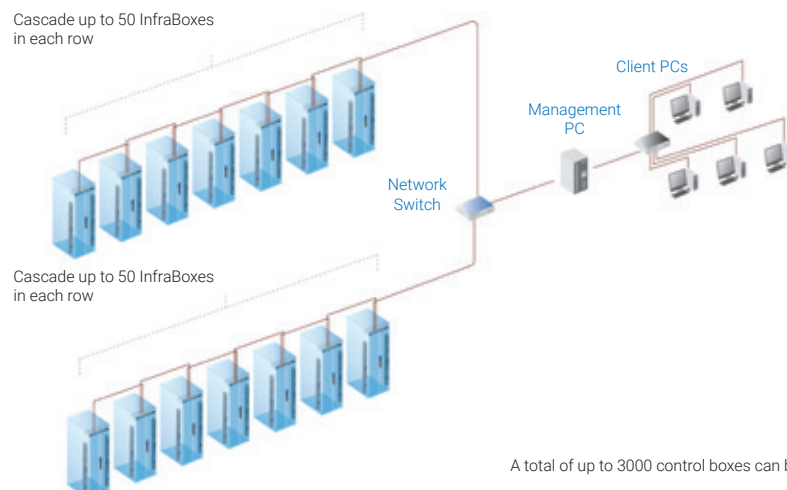
- |   |                                      |  |
|---|--------------------------------------|--|
| ① Power input   | ⑥ Temp. LED display x 2              | ⑪ Temp. & Humid. sensor port x 2                             |
| ② Dual power input ( option )   | ⑦ Smoke / Shock sensor port x 2      | ⑫ PDU port x 1 ( RJ-45, Daisy Chain up to 4 PDU's )          |
| ③ Door cable DB-9 connector x 2<br>Connect to the front and rear handle | ⑧ LED Light Bar port x 2             | ⑬ Fan unit port x 1 ( RJ-45, Daisy chain up to 2 fan units ) |
| ④ "Act in Out" LED  | ⑨ Port for 3rd party alarm board x 1 | ⑭ Water sensor port x 2                                      |
| ⑤ Daisy chain RJ45 port x 2 ( Link & Out )                              | ⑩ LED beacon port x 1                |  |

## Installation Diagram



- |                               |
|-------------------------------|
| ① InfraBox                    |
| ② Smartcard handle            |
| ③ Door sensor with 6' cable   |
| ④ Door cable ( door section ) |
| ⑤ Door cable ( rack section ) |

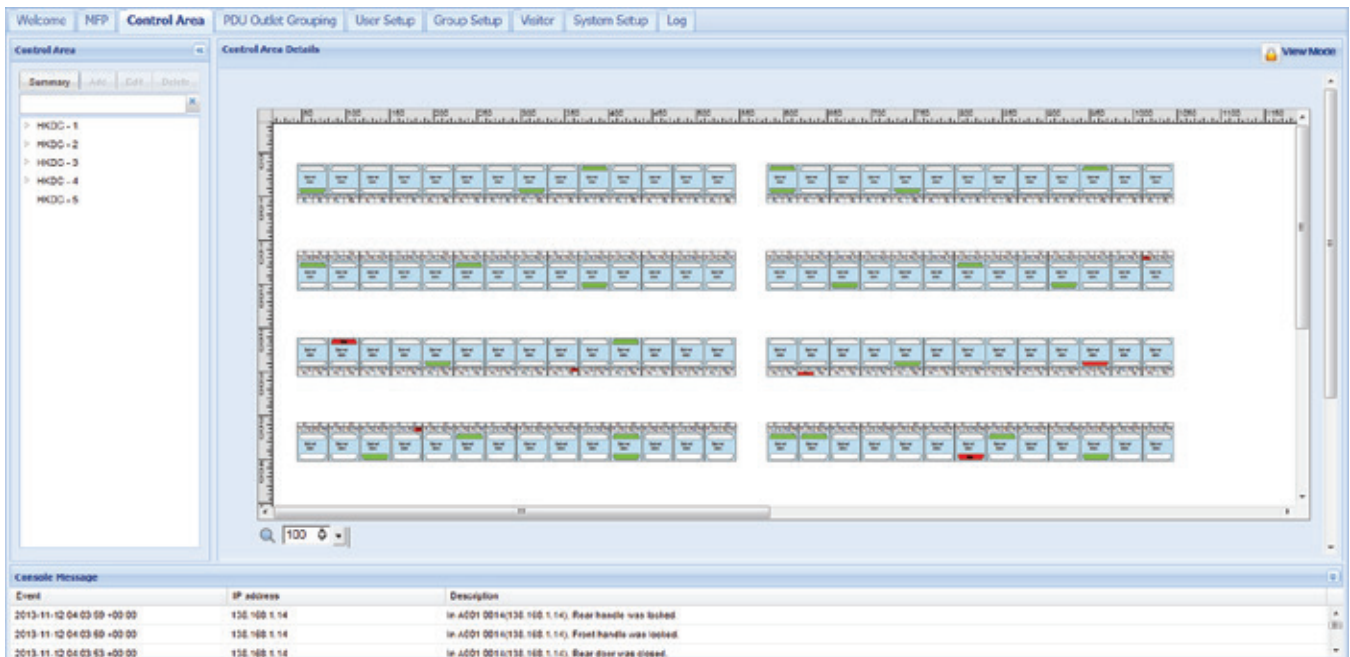
## InfraBox Connection Diagram



A total of up to 3000 control boxes can be managed on the network

InfraSolution X Manager X-ISM is a LICENSED rack management software to monitor up to 3000 racks remotely.

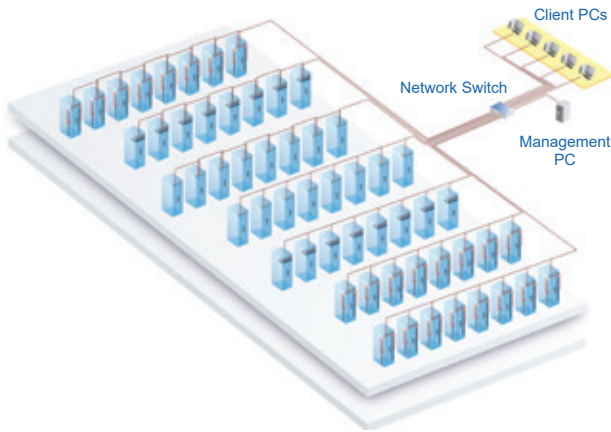
Each InfraBox connects a pair of Smartcard handles for secure rack access control and a variety of sensors to provide an integrated environmental monitoring solution. To enhance the functionality, up to 1920 PDUs and 960 Fan Units can be monitored through InfraSolution X Manager. To meet the requirements of today's multi-user, multi-tasking data center operations, up to 100 concurrent users can access the management software remotely.



Features		X-ISM
Capacity	InfraBox	3000
	Concurrent Users	100
System Setup	Backup/Restore Options	✓
	Time Rules	✓
	Alarm Mail Server Settings	✓
	Audio and Visual Alarm Output Setting	✓
Cabinet Overview Door	Door Status, PDUs, Sensor & Fan Units	✓
	Remotely Open Door	✓
	Last Door Open & Closed Record	✓
Sensor/Peripheral	Status Monitoring	✓
	Temp-Humid Alarm Threshold Settings	✓
PDU	Energy Consumption kWh/Amp Monitoring	✓
	Outlet Level Measurement	✓
	PDU Outlet Scheduling	✓
	Outlet ON/OFF Switching	✓
	Amp Alarm Threshold Settings	✓
	Amperage High/Low Alert Threshold Settings	✓
	Temp-Humid Monitoring	✓
Fan Unit	CFM & Temp. Monitoring	✓
	Unit CFM ( Fan Speed ) Settings	✓
	Auto CFM Control Settings	✓
	Individual Fan Kit ON/OFF	✓
	Fan Unit ON/OFF	✓
Chart/Event/Reporting	System & Device Event Reporting	✓
	Temp-Humid Historical Trending Charts	✓

## Application 1 - Data Center

Via cascading (up to 50 per group) through a network switch, InfraSolution X-800 can be scalable up to 3000 racks. Numerous InfraBoxes can coexist in the same network. Users can manage and remotely access all racks under a centralized and user-friendly GUI.

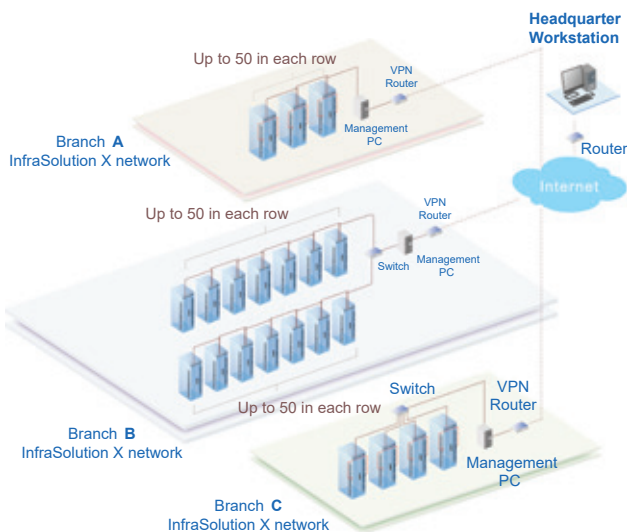


- Connect the 1st InfraBox in each daisy chain to the network switch
- Connect the management PC and client PCs via the network switch
- Up to 3000 Infraboxes/Racks

## Application 3 - Branches

For a global or expanding company, it is vital to be able to remotely access and monitor the network of their nationwide or worldwide branches. InfraSolution X provides an ideal solution to keep an eye on rack access security and environmental conditions in remote or branch locations from a central headquarters.

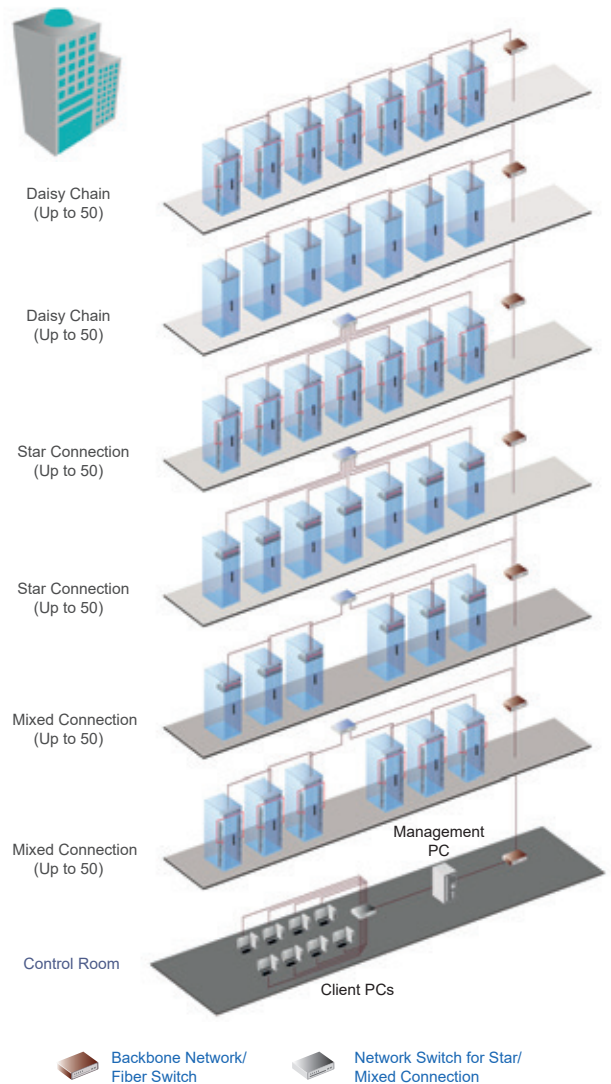
An InfraSolution X software license is required for each remote site/management PC



## Application 2 - Intelligent Building

It is essential for multi-storey, intelligent smart buildings to use centralized management for control of mechanical and electrical systems such as security, power, ventilation, and lighting.

The InfraSolution X system allows equipment to be distributed throughout a building by simply deploying over an Ethernet network. To keep capital costs down, InfraSolution X can also be cascaded between boxes - up to 100m over a Cat5/6 cable. Signal weakness issues, over longer distances between InfraBoxes, can be solved by inserting network hubs with repeater functionality.



### Setup Scenario integrated with the Intelligent Building

- Connect the InfraSolution X network on each floor via the network ethernet / fiber switch
- Up to 3000 Infraboxes/Racks





### 4K 60Hz KVM

- 4K KVM with 8 ports in 1U
- KVM cables support DP & HDMI video input
- USB hub ports share peripheral devices among computers
- Local console & KVM ports support 4K, 2K and 1080p resolutions
- Port switching via front button & keyboard hotkeys
- Multi platform, hot pluggable, no software or drivers required



### 2K KVM

- 2K KVM with 8 ports in 1U
- KVM cables support DVI-D & HDMI video input
- Local console & KVM ports support 2K and 1080p resolutions
- Port switching via front button & keyboard hotkeys
- Multi platform, hot pluggable, no software or drivers required



### DVI-D KVM

- DVI-D KVM with 12 ports in 1U
- Port switching via front button & keyboard hotkeys
- Multi platform, hot pluggable, no software or drivers required



### Combo Cat6 KVM

- Cat6 KVM with 8, 16 or 32 ports in 1U
- Cat6 dongles available for USB-C, DP, HDMI, DVI-D or VGA video input
- IP / Remote console options
- Port switching via OSD, front button, keyboard hotkeys
- Multi lingual OSD menu
- Multi platform, hot pluggable, no software or drivers required
- Cascade up to 8 KVM switches to control as many as 256 servers



### Matrix Cat6 KVM

- Cat6 KVM with 16 or 32 ports in 1U
- Simultaneous & independent access for up to 4 consoles
- Cat6 dongles available for USB Type-C, DP, HDMI, DVI-D or VGA video input
- IP / Remote console options
- Port switching via OSD, front button, keyboard hotkeys
- Multi lingual OSD menu
- Multi platform, hot pluggable, no software or drivers required
- Cascade up to 8 KVM switches to control as many as 256 servers



### Combo DB-15 KVM

- DB-15 KVM with 8 or 16 ports in 1U
- IP / Remote console options
- Port switching via OSD, front button, keyboard hotkeys
- Multi lingual OSD menu
- Multi platform, hot pluggable, no software or drivers required
- Cascade up to 8 KVM switches to control as many as 128 servers



### USB Hub DB-15 KVM

- DB-15 KVM with 8 or 16 ports in 1U
- IP / Remote console options
- USB hub ports share peripheral devices among computers
- Port switching via OSD, front button, keyboard hotkeys
- Multi lingual OSD menu
- Multi platform, hot pluggable, no software or drivers required

KVM Series	4K 60Hz	2K	DVI-D	Combo Cat6	Matrix Cat6	Combo DB-15	USB Hub DB-15
KVM Port	HDMI + USB	HDMI + USB	DVI-D + USB	RJ-45	RJ-45	DB-15	DB-15
Server-side Video	DP / HDMI	DVI-D / HDMI	DVI-D	USB-C DP / HDMI DVI-D / VGA	USB-C DP / HDMI DVI-D / VGA	VGA	VGA
Server-side KB / MS	USB	USB	USB	USB	USB	USB / PS2	USB
Number of Ports	8	8	12	32 / 16 / 8	32 / 16	16 / 8	16 / 8
Max. Resolution - 16 : 9 16 : 10 4 : 3	3840 x 2160 1920 x 1200 1600 x 1200	2560 x 1440 1920 x 1200 1600 x 1200	1920 x 1080 1920 x 1200 1600 x 1200	1920 x 1080 1920 x 1200 1600 x 1200	1920 x 1080 1920 x 1200 1600 x 1200	1920 x 1080 1920 x 1200 1600 x 1200	1920 x 1080 1920 x 1200 1600 x 1200
Server-side Audio	Digital (DP / HDMI)	Digital (HDMI)	Stereo				
USB Device Port	2 x USB 2.0						2 x USB 2.0
Max. Distance (to Server)	2M	2M	4.5M	40M	40M	4.5M	4.5M
Cascade Levels				8	8	8	
Simultaneous Users (max. 4)					✓		
On-Screen Menu				✓	✓	✓	✓
IP Access Option				✓	✓	✓	✓
DC Power Option: 12V / 24V / 48V / 125V	✓	✓	✓	✓	✓	✓	✓
Multi Lingual OSD Menu				✓	✓	✓	✓
1U Standalone KVM	✓	✓	✓	✓	✓	✓	✓
KVM integration to LCD Console Drawer	✓	✓	✓	✓	✓	✓	✓

### KVM Cable

#### 4K 60Hz KVM

CK-6P



DP KVM cable  
6 ft

CK-6H



HDMI KVM cable  
6 ft

#### 2K KVM

CH-6D



DVI-D KVM cable  
6 ft

CH-6H



HDMI KVM cable  
6 ft

#### DVI-D KVM

CI - 6 / 15



DVI-D KVM cable  
6 / 15 ft

#### DB-15 KVM

CB - 6 / 10 / 15



VGA KVM cable  
6 / 10 / 15 ft

### Cat6 KVM Dongle

DG-100C



USB-C dongle

DG-100P



DP-USB dongle

DG-100H



HDMI-USB dongle

DG-100SD



DVI-USB dongle

DG-100S



VGA-USB dongle


**RKP117 / 119**
**1U 17" / 19" LCD Console Drawer**
**Benefits**

- ▶ 1U 17" / 19" LCD console drawer
- ▶ 1280 x 1024 native resolution
- ▶ 16.7M colors
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Short depth design of 470mm and 510mm respectively
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

**Options**

- DVI-D / HDMI 1.2 video input
- 3G / HD / SD-SDI Broadcast-grade input
- S-Video + Composite (BNC)
- Audio input & output
- DC power: 12V / 24V / 48V / 125V
- Touchscreen: Capacitive 1-pt / Resistive 1-pt
- MAC or SUN Micro keyboard options


**N117 / 119**
**1U 17" / 19" LCD Console Drawer**
**Benefits**

- ▶ 1U 17" / 19" LCD console drawer
- ▶ 1280 x 1024 native resolution
- ▶ 16.7M colors
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Short depth design of 500mm
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

**Options**

- DVI-D / HDMI 1.2 video input
- S-Video + Composite (BNC)
- DC power: 12V / 24V / 48V / 125V
- MAC or SUN Micro keyboard options


**D117 / 119**
**1U Dual Slide 17" / 19" LCD Console Drawer**
**Benefits**

- ▶ 1U 17" / 19" LCD console drawer
- ▶ Dual slide - LCD and keyboard slide independently
- ▶ 1280 x 1024 native resolution
- ▶ 16.7M colors
- ▶ 104-key keyboard with touchpad
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

**Options**

- DVI-D / HDMI 1.2 video input
- S-Video + Composite (BNC)
- Audio input & output
- DC power: 12V / 24V / 48V / 125V
- MAC or SUN Micro keyboard options

**KVM Kit Options**

- **2K KVM**  
8 ports  
(Resolution related to LCD specification)
- **DVI-D KVM**  
12 ports

- **Combo Cat6 KVM**  
8 / 16 / 32 ports  
IP & Remote options
- **Matrix Cat6 KVM**  
16 / 32 ports  
IP & Remote options

- **Combo DB-15 KVM**  
8 / 16 ports  
IP & Remote options
- **USB-Hub DB-15 KVM**  
8 / 16 ports  
IP & Remote options



### RP-717 / 819 / 920

### 7U / 8U / 9U Display Panel

#### Benefits

- ▶ 7U 17" / 8U 19" / 9U 20" LCD display panel
- ▶ 1280 x 1024 native resolution (RP-717 / 819)
- ▶ 1600 x 1200 native resolution (RP-920)
- ▶ 16.7M colors
- ▶ DVI-D + VGA video input

#### Options

- HDMI 1.2 video input
- 3G / HD / SD-SDI Broadcast-grade input
- S-Video + Composite (BNC)
- Audio input & output
- DC power: 12V / 24V / 48V / 125V
- MCS Multi display OSD controller
- MIL-type or lockable connector
- Touchscreen: Capacitive 1-pt (RP-717 / 819)  
Resistive 1-pt
- 17", 19" Sunlight readable panel



### RP-W819QD

### 8U 19" Widescreen Quad Display Panel

#### Benefits

- ▶ 8U 19" widescreen LCD Quad display panel
- ▶ 1440 x 900 native resolution
- ▶ 16.7M colors
- ▶ VGA + Quad Display ( Composite BNC x 4 ) video input

#### Options

- DC power : 12V / 24V / 48V / 125V



### RP-117 / 119

### 1U 17" / 19" Display Drawer

#### Benefits

- ▶ 1U 17" / 19" LCD display drawer
- ▶ 1280 x 1024 native resolution
- ▶ 16.7M colors
- ▶ DVI-D + VGA video input
- ▶ Short depth design of 500mm
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

#### Options

- HDMI 1.2 video input
- S-Video + Composite (BNC)
- Audio input & output
- DC power: 12V / 24V / 48V / 125V
- Touchscreen: Capacitive 1-pt / Resistive 1-pt
- 17", 19" Sunlight readable panel



### RP-120

### 1U 20" Display Drawer

#### Benefits

- ▶ 1U 20" LCD display drawer
- ▶ 1600 x 1200 native resolution
- ▶ 16.7M colors
- ▶ DVI-D + VGA video input
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

#### Options

- HDMI 1.2 video input
- S-Video + Composite (BNC)
- Audio input & output
- DC power: 12V / 24V / 48V / 125V


**F117**
**1U 17" FHD LCD Console Drawer**
**Benefits**

- ▶ 1U 17" LCD console drawer
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors (8-bit)
- ▶ DVI-D + VGA video input / USB KB / MS
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Short depth design of 460mm
- ▶ One man installation design
- ▶ New enhanced aesthetics with molded front handle

**Options**

- Front USB hub port for device access
- HDMI 1.4 video input
- 3G / HD / SD-SDI Broadcast-grade input
- Audio input & output
- DC power: 12V / 24V / 48V / 125V
- MAC or SUN Micro keyboard options
- 2-post rack mounting brackets (ORB-2.1)
- Touchscreen: Resistive 1-pt
- 17" Sunlight readable panel


**F1417**
**1U 17" Ultra Short Depth FHD LCD Console Drawer**
**Benefits**

- ▶ 1U 17" LCD console drawer
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors (8-bit)
- ▶ DVI-D + VGA video input / USB KB / MS
- ▶ Ideal for open rack / short depth rack
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Ultra Short depth design of 400mm
- ▶ One Man installation design
- ▶ Modern, molded front handle with two point lock

**Options**

- Front USB hub port for device access
- HDMI 1.4 / DP 1.0 video input
- 3G / HD / SD-SDI Broadcast-grade input
- Composite (BNC)
- DC power : 12V / 24V / 48V / 125V
- MAC or SUN Micro keyboard options
- Touchscreen : Resistive 1-pt


**F121**
**1U 21" FHD Large LCD Console Drawer**
**Benefits**

- ▶ 1U 21" LCD console drawer
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors
- ▶ DVI-D + VGA video input / USB KB / MS
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

**Options**

- Front USB hub port for device access
- HDMI 1.3 video input
- 3G / HD / SD-SDI Broadcast-grade input
- Audio input & output
- DC power: 12V / 24V / 48V / 125V
- MAC or SUN Micro keyboard options

Model ( left side open )	Model ( right side open )
<b>F121</b>	<b>F121R</b>

**KVM Kit Options**

- **2K KVM**  
8 ports  
(Resolution related to LCD specification)

- **DVI-D KVM**  
12 ports

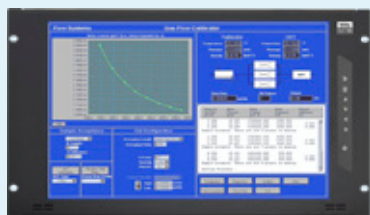
- **Combo Cat6 KVM**  
8 / 16 / 32 ports  
IP & Remote options

- **Matrix Cat6 KVM**  
16 / 32 ports  
IP & Remote options

- **Combo DB-15 KVM**  
8 / 16 ports  
IP & Remote options

- **USB-Hub DB-15 KVM**  
8 / 16 ports  
IP & Remote options





### RP-F617

### 6U 17" FHD Display Panel

#### Benefits

- ▶ 6U 17" LCD display panel
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors (8-bit)
- ▶ DVI-D + VGA video input

#### Options

- HDMI 1.3 video input
- 3G / HD / SD-SDI Broadcast-grade input
- Audio input & output
- DC power: 12V / 24V / 48V / 125V
- MCS Multi display OSD controller
- MIL-type or lockable connector
- Touchscreen: Resistive 1-pt
- 17" Sunlight readable panel



### RP-F821

### 8U 21" FHD Display Panel

#### Benefits

- ▶ 8U 21" LCD display panel
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors
- ▶ DVI-D + VGA video input
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency

#### Options

- HDMI 1.3 video input
- 3G / HD / SD-SDI Broadcast-grade input
- S-Video + Composite (BNC)
- Audio input & output
- DC power: 12V / 24V / 48V / 125V
- MCS Multi display OSD controller
- MIL-type or lockable connector
- Touchscreen: Capacitive 1-pt / Resistive 1-pt
- 21" Sunlight readable panel



### RP-F117

### 1U 17" FHD Display Drawer

#### Benefits

- ▶ 1U 17" LCD display drawer
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors (8-bit)
- ▶ DVI-D + VGA video input
- ▶ Short depth design of 480mm
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

#### Options

- HDMI 1.3 video input
- 3G / HD / SD-SDI Broadcast-grade input
- Audio input & output
- DC power: 12V / 24V / 48V / 125V
- Touchscreen: Resistive 1-pt
- 17" Sunlight readable panel



### RP-HF117

### 1U 17" FHD Sunlight Readable Display Drawer

#### Benefits

- ▶ 1U 17" LCD display drawer
- ▶ 1920 x 1080 native resolution
- ▶ 16.7M colors (8-bit)
- ▶ 1000 cd/m² brightness
- ▶ DVI-D + VGA video input
- ▶ Short depth design of 480mm
- ▶ One Man installation design
- ▶ Modern, molded front handle with two point lock

#### Options

- HDMI 1.3 / DP 1.0 video input
- 3G / HD / SD-SDI Broadcast-grade input
- Composite (BNC)
- Audio input & output
- DC power : 12V / 24V / 48V / 125V
- Touchscreen : Resistive 1-pt



### X117

### 1U 16.2" WUXGA LCD Console Drawer

#### Benefits

- ▶ 1U 16.2" LCD console drawer
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors ( 8-bit )
- ▶ HDMI 1.4 + DVI-D + VGA video input / USB KB / MS
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Short depth design of 480mm
- ▶ One Man installation design
- ▶ New enhanced aesthetics with molded front handle

#### Options

- Front USB hub port for device access
- 3G / HD / SD-SDI Broadcast-grade input
- Audio input & output
- 2-post rack mounting brackets ( ORB-2.1 )
- DC power : 12V / 24V / 48V / 125V
- MAC or SUN Micro keyboard options



### DX117

### 1U Dual Slide 16.2" WUXGA LCD Console Drawer

#### Benefits

- ▶ 1U 16.2" LCD console drawer
- ▶ Dual slide - LCD and keyboard slide independently
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors ( 8-bit )
- ▶ DVI-D + VGA video input / USB KB / MS
- ▶ 104-key keyboard with touchpad
- ▶ One Man installation design
- ▶ Modern, molded front handle with two point lock

#### Options

- HDMI 1.4 video input
- 3G / HD / SD-SDI Broadcast-grade input
- Audio input & output
- DC power : 12V / 24V / 48V / 125V
- MAC or SUN Micro keyboard options



### X124

### 1U 24" WUXGA Large LCD Console Drawer

#### Benefits

- ▶ 1U 24" LCD console drawer
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors
- ▶ DVI-D + VGA video input / USB KB / MS
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ One Man installation design
- ▶ Modern, molded front handle with two point lock

#### Options

- Front USB hub port for device access
- HDMI 1.3 video input
- 3G / HD / SD-SDI Broadcast-grade input
- Audio input & output
- DC power : 12V / 24V / 48V / 125V
- MAC or SUN Micro keyboard options

Model ( left side open )	Model ( right side open )
<b>F121</b>	<b>F121R</b>

#### KVM Kit Options

- **2K KVM**  
8 ports  
(Resolution related to LCD specification)
- **DVI-D KVM**  
12 ports

- **Combo Cat6 KVM**  
8 / 16 / 32 ports  
IP & Remote options
- **Matrix Cat6 KVM**  
16 / 32 ports  
IP & Remote options

- **Combo DB-15 KVM**  
8 / 16 ports  
IP & Remote options
- **USB-Hub DB-15 KVM**  
8 / 16 ports  
IP & Remote options



### RP-X617

### 6U 16.2" WUXGA Display Panel

#### Benefits

- ▶ 6U 16.2" LCD display panel
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors ( 8-bit )
- ▶ HDMI 1.4 + DVI-D + VGA video input
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Built-in dual stereo speakers

#### Options

- 3G / HD / SD-SDI Broadcast-grade input
- DC power : 12V / 24V / 48V / 125V
- MCS Multi display OSD controller
- MIL-type or lockable connector
- Touchscreen : Resistive 1-pt



### RP-X924

### 9U 24" WUXGA Display Panel

#### Benefits

- ▶ 9U 24" LCD display panel
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors
- ▶ HDMI 1.3 + DVI-D + VGA video input
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency

#### Options

- 3G / HD / SD-SDI Broadcast-grade input
- Audio input & output
- DC power : 12V / 24V / 48V / 125V
- MCS Multi display OSD controller
- MIL-type or lockable connector
- Touchscreen : Resistive 1-pt



### RP-X117

### 1U 16.2" WUXGA Display Drawer

#### Benefits

- ▶ 1U 16.2" LCD display drawer
- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors ( 8-bit )
- ▶ DVI-D + VGA video input
- ▶ Short depth design of 480mm
- ▶ One Man installation design
- ▶ Modern, molded front handle with two point lock

#### Options

- HDMI 1.4 video input
- 3G / HD / SD-SDI Broadcast-grade input
- DC power : 12V / 24V / 48V / 125V
- Touchscreen : Resistive 1-pt


**K117**
**1U 17" 4K LCD Console Drawer**
**Benefits**

- ▶ 1U 17" 4K LCD console drawer
- ▶ 3840 x 2160 native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolutions support
- ▶ 16.7M colors (8-bit)
- ▶ Display port 1.2 video input / USB KB / MS
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Built-in dual stereo speakers
- ▶ Short depth design of 480mm
- ▶ One man installation design
- ▶ New enhanced aesthetics with molded front handle

**Options**

- Front USB hub port for device access
- HDMI 2.0 video input
- 3G / HD / SD-SDI Broadcast-grade input
- DC power: 12V / 24V / 48V / 125V
- MAC or SUN Micro keyboard options
- Touchscreen: Resistive 1-pt


**K1417**
**1U 17" Ultra Short Depth 4K LCD Console Drawer**
**Benefits**

- ▶ 1U 17" 4K LCD console drawer
- ▶ 3840 x 2160@60Hz native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ 16.7M colors (8-bit)
- ▶ Display port 1.2 video input / USB KB/MS
- ▶ Ideal for open rack / short depth rack
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Ultra Short depth design of 400mm
- ▶ Built-in dual stereo speakers
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

**Options**

- HDMI 2.0 video input
- 3G / HD / SD-SDI Broadcast-grade input
- DC power : 12V / 24V / 48V / 125V
- MAC or SUN Micro keyboard options
- Touchscreen : Resistive 1-pt


**K123**
**1U 23" 4K Large LCD Console Drawer**
**Benefits**

- ▶ 1U 23" 4K LCD console drawer
- ▶ 3840 x 2160 native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolutions support
- ▶ 1.07B colors (10-bit)
- ▶ Display port 1.2 video input / USB KB / MS
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Built-in dual stereo speakers
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

**Options**

- Front USB hub port for device access
- HDMI 2.0 video input
- 3G / HD / SD-SDI Broadcast-grade input
- DC power: 12V / 24V / 48V / 125V
- MAC or SUN Micro keyboard options

Model ( left side open )	Model ( right side open )
<b>K123</b>	<b>K123R</b>

**KVM Kit Options**

- **4K 60Hz KVM**  
8 ports


**RP-K617**
**6U 17" 4K Display Panel**
**Benefits**

- ▶ 6U 17" 4K LCD display panel
- ▶ 3840 x 2160 native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ 16.7M colors (8-bit)
- ▶ Display port 1.2 + HDMI 1.4 + HDMI 2.0 video input
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Built-in dual stereo speakers

**Options**

- 3G / HD / SD-SDI Broadcast-grade input
- DC power: 12V / 24V / 48V / 125V
- MCS Multi display OSD controller
- MIL-type or lockable connector
- Touchscreen: Projected Capacitive 10-pt  
Resistive 1-pt


**RP-K923**
**9U 23" 4K Display Panel**
**Benefits**

- ▶ 9U 23" 4K LCD display panel
- ▶ 3840 x 2160 native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ 1.07B colors (10-bit)
- ▶ Display port 1.2 + HDMI 1.4 + HDMI 2.0 video input
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Built-in dual stereo speakers

**Options**

- 3G / HD / SD-SDI Broadcast-grade input
- DC power: 12V / 24V / 48V / 125V
- MCS Multi display OSD controller
- MIL-type or lockable connector
- Touchscreen: Projected Capacitive 10-pt  
Infrared 6-pt  
Resistive 1-pt


**RP-K117**
**1U 17" 4K Display Drawer**
**Benefits**

- ▶ 1U 17" 4K LCD display drawer
- ▶ 3840 x 2160 native resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ 16.7M colors (8-bit)
- ▶ Display port 1.2 video input
- ▶ Built-in dual stereo speakers
- ▶ Short depth design of 480mm
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

**Options**

- HDMI 2.0 video input
- 3G / HD / SD-SDI Broadcast-grade input
- DC power: 12V / 24V / 48V / 125V
- Touchscreen: Resistive 1-pt



MRK

## 2U Multi-display Console Drawer



### Benefits

- ▶ 2U 22" short depth design
- ▶ Light weight only 46.2 lbs / 21 kgs
- ▶ Rugged construction for mobility & durability
- ▶ Built-in solid bearing slide rails
- ▶ Built-in dual stereo speaker (per display)
- ▶ Five LED backlit display selections ( 4K, WUXGA, FHD 60Hz, FHD 144Hz, 4:3 )
- ▶ DVI-D + VGA video input for WUXGA, FHD & 4:3 (per display)
- ▶ Display port 1.2 video input for 4K (per display)
- ▶ 104-key keyboard with either touchpad or trackball (PS2 / USB)
- ▶ Fits 24" ~ 36" rack via adjustable mounting brackets

### Options

- DC power: 12V / 24V / 48V / 125V
- 3G / HD / SD-SDI Broadcast-grade input
- Touchscreen for 17" 4K, 16.2" WUXGA, 17" FHD & 19" 4:3
- MAC or SUN Micro keyboard options available
- Front USB hub port for device access
- HDMI video input
- Add-on USB Selector

## Models

LH mounted



RH mounted



17" **4K** UHD

MRK-K17-2L

MRK-K17-3

MRK-K17-2R

17" **1080p** **60 Hz**

MRK-F17-2L

MRK-F17-3

MRK-F17-2R

17" **1080p** **144 Hz**

MRK-MF17-2L

MRK-MF17-3

MRK-MF17-2R

16.2" **1920** **1200**

MRK-X17-2L

MRK-X17-3

MRK-X17-2R

19" **1280** **1024**

MRK-19-2L

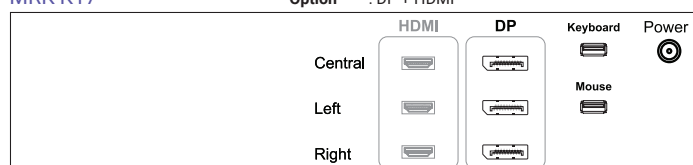
MRK-19-3

MRK-19-2R

### Rear View

MRK-K17

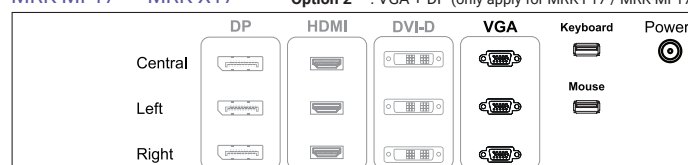
Standard : DP  
Option : DP + HDMI



MRK-F17  
MRK-MF17

MRK-19  
MRK-X17

Standard : VGA + DVI-D  
Option 1 : VGA + HDMI  
Option 2 : VGA + DP (only apply for MRK-F17 / MRK-MF17)



## MRP

## 2U Multi-display Drawer



## Benefits

- ▶ 2U 22" short depth design
- ▶ Light weight only 42.7 lbs / 19.4 kgs
- ▶ Rugged construction for mobility & durability
- ▶ Built-in solid bearing slide rails
- ▶ Built-in dual stereo speaker (per display)
- ▶ Five LED backlit display selections ( 4K, WUXGA, FHD 60Hz, FHD 144Hz, 4:3 )
- ▶ DVI-D + VGA video input for WUXGA, FHD & 4:3 (per display)
- ▶ Display port 1.2 video input for 4K (per display)
- ▶ Fits 24" ~ 36" rack via adjustable mounting brackets

## Options

- DC power: 12V / 24V / 48V / 125V
- 3G / HD / SD-SDI Broadcast-grade input
- Touchscreen for 17" 4K, 17" FHD & 19" 4:3
- HDMI video input

## Models

LH mounted



RH mounted

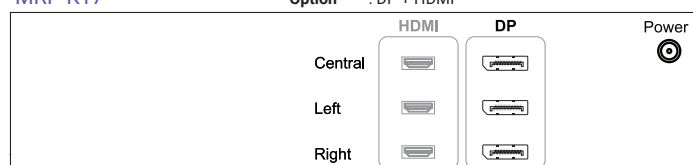


17"	<b>4K</b> UHD	MRP-K17-2L	MRP-K17-3	MRP-K17-2R
17"	<b>1080p</b> 60 Hz	MRP-F17-2L	MRP-F17-3	MRP-F17-2R
17"	<b>1080p</b> 144 Hz	MRP-MF17-2L	MRP-MF17-3	MRP-MF17-2R
16.2"	<b>1920</b> 1200	MRP-X17-2L	MRP-X17-3	MRP-X17-2R
19"	<b>1280</b> 1024	MRP-19-2L	MRP-19-3	MRP-19-2R

## Rear View

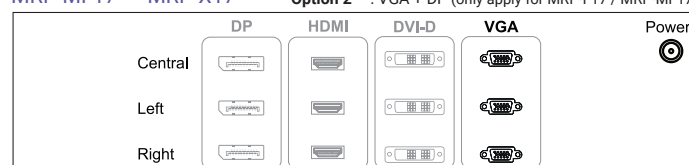
## MRP-K17

Standard : DP  
Option : DP + HDMI


MRP-F17  
MRP-MF17

MRP-19  
MRP-X17

Standard : VGA + DVI-D  
Option 1 : VGA + HDMI  
Option 2 : VGA + DP (only apply for MRP-F17 / MRP-MF17)





cUL for selective models

RoHS3  
COMPLIANCE

REACH

Rack Console Drawer Series	Model	Video Input	LCD Panel			Chassis Design	KVM Rear Kit					
			Categories	Size	Resolution		4K	2K	DVI-D	Cat 6 Combo	Martix	DB-15 Combo USB Hub
1U LCD Console Drawer	K117	DP 1.2 ( attached 6ft cable )	4K	17"	3840 x 2160	1U, Short Depth design of 480mm	✓					
	F117	DVI-D + VGA	FHD	17"	1920 x 1080	1U, Short Depth design of 460mm		✓	✓	✓	✓	✓
	F119	DVI-D + VGA	FHD	19"	1920 x 1080	1U, Short Depth design of 460mm		✓	✓	✓	✓	✓
	X117	HDMI 1.4 + DVI-D + VGA	WUXGA	16.2"	1920 x 1200	1U, Short Depth design of 480mm		✓	✓	✓	✓	✓
	L120	VGA	Regular	20"	1600 x 1200	1U		✓	✓	✓	✓	✓
	W119	DVI-D + VGA	Regular	19" Wide LCD	1440 x 900	1U, Short Depth design of 460mm		✓	✓	✓	✓	✓
	RKP117	VGA	Regular	17"	1280 x 1024	1U, Short Depth design of 470mm		✓	✓	✓	✓	✓
	RKP119	VGA	Regular	19"	1280 x 1024	1U, Short Depth design of 510mm		✓	✓	✓	✓	✓
	N117	VGA	Regular	17"	1280 x 1024	1U, Short Depth design of 500mm		✓	✓	✓	✓	✓
	N119	VGA	Regular	19"	1280 x 1024	1U, Short Depth design of 500mm		✓	✓	✓	✓	✓
	RKP7/9	VGA	Regular	17" / 19"	1280 x 1024	1U		✓	✓	✓	✓	✓
	K123	DP 1.2 ( attached 6ft cable )	4K	23"	3840 x 2160	1U, Left open model or Right open model	✓					
Large LCD	F121	DVI-D + VGA	FHD	21"	1920 x 1080	1U, Left open model or Right open model		✓	✓	✓	✓	✓
	X124	DVI-D + VGA	WUXGA	24"	1920 x 1200	1U, Left open model or Right open model		✓	✓	✓		✓
Dual Slide	DK117	DP 1.2 ( attached 6ft cable )	4K	17"	3840 x 2160	1U, Dual Slide	✓					
	DF117	DVI-D + VGA	FHD	17"	1920 x 1080	1U, Dual Slide		✓	✓	✓	✓	✓
	DX117	DVI-D + VGA	WUXGA	16.2"	1920 x 1200	1U, Dual Slide		✓	✓	✓		✓
	D117	VGA	Regular	17"	1280 x 1024	1U, Dual Slide		✓	✓	✓	✓	✓
	D119	VGA	Regular	19"	1280 x 1024	1U, Dual Slide		✓	✓	✓	✓	✓
	RKP2417K	DP 1.2 ( attached 6ft cable )	4K	17"	3840 x 2160	2U, Dual Slide, Short depth 480mm	✓					
	RKP2417F	DVI-D + VGA	FHD	17"	1920 x 1080	2U, Dual Slide, Short depth 480mm		✓	✓	✓	✓	✓
	RKP2417	VGA	Regular	17"	1280 x 1024	2U, Dual Slide, Short depth 480mm		✓	✓	✓	✓	✓
	RKP2419	VGA	Regular	19"	1280 x 1024	2U, Dual Slide, Short depth 480mm		✓	✓	✓	✓	✓
Ultra Short Depth	K1417	DP 1.2 ( attached 6ft cable )	4K	17"	3840 x 2160	1U, Ultra Short Depth design of 400mm	✓					
	F1417	DVI-D + VGA	FHD	17"	1920 x 1080	1U, Ultra Short Depth design of 400mm		✓	✓	✓	✓	✓
High Brightness LCD	HF117	DVI-D + VGA	FHD	17"	1920 x 1080	1U, Short Depth design of 480mm		✓	✓	✓	✓	✓
	H117	VGA	Regular	17"	1280 x 1024	1U, Short Depth design of 480mm		✓	✓	✓	✓	✓
	H119	VGA	Regular	19"	1280 x 1024	1U, Short Depth design of 520mm		✓	✓	✓	✓	✓
SUN LCD Solution	S117	DVI-D + VGA	SUN	17"	1152 x 900	1U, Short Depth design of 460mm		✓	✓	✓	✓	✓
	S119	DVI-D + VGA	SUN	19"	1152 x 900	1U, Short Depth design of 500mm		✓	✓	✓	✓	✓
	NS117	DVI-D + VGA	SUN	17"	1152 x 900	1U, Short Depth design of 500mm		✓	✓	✓	✓	✓
	NS119	DVI-D + VGA	SUN	19"	1152 x 900	1U, Short Depth design of 500mm		✓	✓	✓	✓	✓
Multi-Display	MRK-K17	DP 1.2 / HDCP 1.3	4K	17"	3840 x 2160	2U, Triple / Dual ( LH or RH mount ) LCD						
	MRK-F17	DVI-D + VGA	FHD	17"	1920 x 1080	2U, Triple / Dual ( LH or RH mount ) LCD						
	MRK-MF17	DVI-D + VGA	FHD 144Hz	17"	1920 x 1080	2U, Triple / Dual ( LH or RH mount ) LCD						
	MRK-X17	DVI-D + VGA	WUXGA	16.2"	1920 x 1200	2U, Triple / Dual ( LH or RH mount ) LCD						
	MRK-19	DVI-D + VGA	Regular	19"	1280 x 1024	2U, Triple / Dual ( LH or RH mount ) LCD						

\* For more detailed specification, please refer to the product sheets :

www.austin-hughes.com/resource\_cat/product-resources/rack-console-drawer-resources

Rack Display Panel / Drawer Series		Model	Video Input	LCD Panel			Chassis Design	Options		
				Categories	Size	Resolution		Touch Screen	3G / HD SD-SDI	DC Power
Display Panel	Regular	RP-K617	Display port 1.2 + HDMI 1.4 + HDMI 2.0	4K	17"	3840 x 2160	6U Rackmount	✓	✓	✓
		RP-F617	DVI-D + VGA	FHD	17"	1920 x 1080	6U Rackmount	✓	✓	✓
		RP-X617	HDMI 1.4 + DVI-D + VGA	WUXGA	16.2"	1920 x 1200	6U Rackmount	✓	✓	✓
		RP-717	DVI-D + VGA	Regular	17"	1280 x 1024	7U Rackmount	✓	✓	✓
		RP-819	DVI-D + VGA	Regular	19"	1280 x 1024	8U Rackmount	✓	✓	✓
		RP-920	DVI-D + VGA	Regular	20"	1600 x 1200	9U Rackmount	✓	✓	✓
		RP-W719	DVI-D + VGA	Regular	19" Wide LCD	1440 x 900	7U Rackmount	✓	✓	✓
	Large LCD	RP-K923	Display port 1.2 + HDMI 1.4 + HDMI 2.0	4K	23"	3840 x 2160	9U Rackmount ; VESA Mount Ready	✓	✓	✓
		RP-F821	DVI-D + VGA	FHD	21"	1920 x 1080	8U Rackmount ; VESA Mount Ready	✓	✓	✓
		RP-X924	HDMI 1.3 + DVI-D + VGA	WUXGA	24"	1920 x 1200	9U Rackmount ; VESA Mount Ready	✓	✓	✓
		RP-HF617	DVI-D + VGA	FHD	17"	1920 x 1080	6U Rackmount	✓	✓	✓
	High Brightness	RP-HF821	DVI-D + VGA	FHD	21"	1920 x 1080	8U Rackmount ; VESA Mount Ready	✓	✓	✓
		RP-H717	DVI-D + VGA	Regular	17"	1280 x 1024	7U Rackmount	✓	✓	✓
		RP-H819	DVI-D + VGA	Regular	19"	1280 x 1024	8U Rackmount	✓	✓	✓
		RP-HW719	DVI-D + VGA	Regular	19" Wide LCD	1440 x 900	7U Rackmount	✓	✓	✓
	Sun LCD Solution	SP-717	DVI-D + VGA	SUN	17"	1152 x 900	7U Rackmount			✓
		SP-819	DVI-D + VGA	SUN	19"	1152 x 900	8U Rackmount			✓
		SP-920	DVI-D + VGA	SUN	20"	1152 x 900	9U Rackmount			✓
	Split Quad	RP-F921QD-1080	QD ( HDMI 1.3 x 4 ) + DVI-D + VGA	FHD	21"	1920 x 1080	9U Rackmount ; VESA Mount Ready			✓
		RP-919QD	QD ( Composite BNC x 4 ) + VGA	Regular	19"	1280 x 1024	9U Rackmount			✓
		RP-W819QD	QD ( Composite BNC x 4 ) + VGA	Regular	19" Wide LCD	1440 x 900	8U Rackmount			✓
Display Drawer	Regular	RP-K117	Display port 1.2 ( attached 6ft DP cable )	4K	17"	3840 x 2160	1U, Short Depth design of 480mm	✓	✓	✓
		RP-F117	DVI-D + VGA	FHD	17"	1920 x 1080	1U, Short Depth design of 480mm	✓	✓	✓
		RP-X117	DVI-D + VGA	WUXGA	16.2"	1920 x 1200	1U, Short Depth design of 480mm	✓	✓	✓
		RP-117	DVI-D + VGA	Regular	17"	1280 x 1024	1U, Short Depth design of 500mm	✓		✓
		RP-119	DVI-D + VGA	Regular	19"	1280 x 1024	1U, Short Depth design of 500mm	✓		✓
		RP-W119	DVI-D + VGA	Regular	19" Wide LCD	1440 x 900	1U, Short Depth design of 460mm		✓	✓
		RP-120	DVI-D + VGA	Regular	20"	1600 x 1200	1U			✓
	Ultra Short Depth	RP-K1417	Display port 1.2 ( attached 6ft DP cable )	4K	17"	3840 x 2160	1U, Ultra Short Depth design of 400mm	✓	✓	✓
		RP-F1417	DVI-D + VGA	FHD	17"	1920 x 1080	1U, Ultra Short Depth design of 400mm	✓	✓	✓
	High Brightness	RP-HF117	DVI-D + VGA	FHD	17"	1920 x 1080	1U, Short Depth design of 480mm	✓		✓
		RP-HW119	DVI-D + VGA	Regular	19"	1440 x 900	1U, Short Depth design of 460mm		✓	✓
		RP-H117	DVI-D + VGA	Regular	17"	1280 x 1024	1U, Short Depth design of 500mm	✓		✓
		RP-H119	DVI-D + VGA	Regular	19"	1280 x 1024	1U, Short Depth design of 500mm	✓		✓
	Sun LCD Solution	SP-117	DVI-D + VGA	SUN	17"	1152 x 900	1U, Short Depth design of 500mm			✓
		SP-119	DVI-D + VGA	SUN	19"	1152 x 900	1U, Short Depth design of 500mm			✓
		SP-120	DVI-D + VGA	SUN	20"	1152 x 900	1U			✓
	Split Quad	RP-119QD	QD ( Composite BNC x 4 ) + VGA	FHD	19"	1280 x 1024	1U			✓
		RP-W119QD	QD ( Composite BNC x 4 ) + VGA	Regular	19" Wide LCD	1440 x 900	1U			✓
	Multi-Display	MRP-K17	DP 1.2 / HDCP 1.3	4K	17"	3840 x 2160	2U, Triple / Dual ( LH or RH mount ) LCD	✓	✓	✓
		MRP-F17	DVI-D + VGA	FHD	17"	1920 x 1080	2U, Triple / Dual ( LH or RH mount ) LCD	✓	✓	✓
		MRP-MF17	DVI-D + VGA	FHD 144Hz	17"	1920 x 1080	2U, Triple / Dual ( LH or RH mount ) LCD	✓	✓	✓
		MRP-X17	HDMI 1.4 + DVI-D + VGA	WUXGA	16.2"	1920 x 1200	2U, Triple / Dual ( LH or RH mount ) LCD	✓	✓	✓
		MRP-19	DVI-D + VGA	Regular	19"	1280 x 1024	2U, Triple / Dual ( LH or RH mount ) LCD	✓	✓	✓

\* For more detailed specification, please refer to the product sheets :

www.austin-hughes.com/resource\_cat/product-resources/rack-display-resources/

## Keyboard Drawer



### RK-2e / RK-2b

### 1U Short Depth Keyboard Drawer

#### Benefits

- ▶ 1U keyboard drawer
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Short depth design of 400mm
- ▶ Modern, molded front handle with two point lock

#### Options

- MAC or SUN Micro keyboard options



### RK-1e / RK-1b

### 1U Keyboard Drawer with KVM Options

#### Benefits

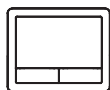
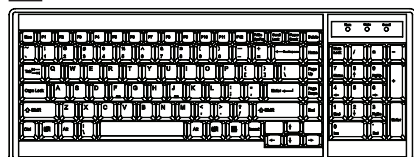
- ▶ 1U keyboard drawer
- ▶ 104-key keyboard with either touchpad or trackball
- ▶ Keyboard drawer depth 600mm
- ▶ One man installation design
- ▶ Modern, molded front handle with two point lock

#### Options

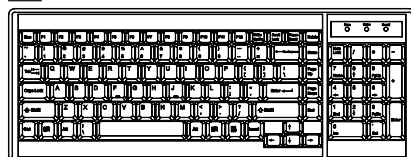
- MAC or SUN Micro keyboard options
- KVM rear kit: 2K
  - DVI-D
  - Combo Cat6
  - Matrix Cat6
  - Combo DB-15
  - USB Hub DB-15

## Standard Keyboard









**Ge** G keyboard integrated with touchpad



**Gb** G keyboard integrated with trackball



#### Supported Layouts

America					
	United States				
EMEA					
	United Kingdom	Germany	France	Spain	Italy
Asia					
	Japan	Korea			

## KVM Extender



### CV-S101

### Combo KVM Extender

#### Benefits

- ▶ Remote console up to 150M
- ▶ Dual user access at remote site
- ▶ Pure hardware solution makes network independent
- ▶ No software required



### IP-S101

### IP Combo KVM Extender

#### Benefits

- ▶ IP Remote access from any location via web browser
- ▶ Compatible with all branded KVM switches
- ▶ Maintaining servers across the world up to BIOS level

K55" ~ K28"

K55"



K43"



K32"



K28"



### Highlights

#### Key Benefits

- ▶ 3840 x 2160@60Hz native UHD resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ 1.07B colors ( 10-bit )
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Display port 1.2 + HDMI 1.4 + HDMI 2.0 video input
- ▶ Video decoding capability up to 1080p ( option )
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection ( NAP series )
- ▶ Professional-use durability & around-the-clock operation

#### Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

#### Options

- DC power : 24V / 48V / 125V
- Touchscreen ( for K55", K43" & K32" ) \*
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- High brightness panel ( for K55" & K43" )
- HDMI decoder & extender
- HDMI quad display module 1080p
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- 12G / 4K60 / SD-SDI input module
- Portrait mode module
- Auto dimming
- Manual dimming

\* Refer to the following link for details of touchscreen models.  
[www.austin-hughes.com/CA-UV-4K-L.pdf](http://www.austin-hughes.com/CA-UV-4K-L.pdf)

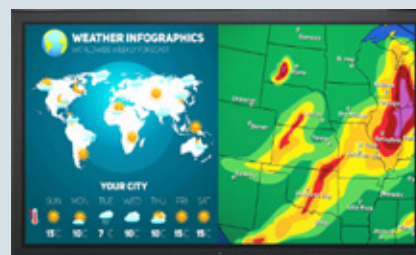
### Standard Brightness / 700 cd/m<sup>2</sup> High Brightness

8mm/6mm aluminum front bezel



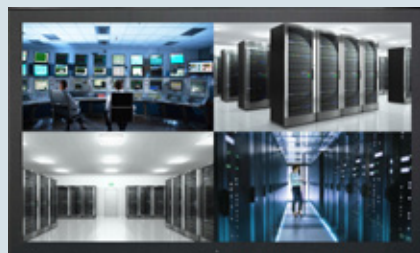
AP-K55 HAP-K55  
 AP-K43 HAP-K43  
 AP-K32  
 AP-K28

NEMA 4 / IP65 front protection  
 8mm/6mm aluminum front bezel



NAP-K55 NHAP-K55  
 NAP-K43 NHAP-K43  
 NAP-K32  
 NAP-K28

Aluminum front cover



DP-K55 HDP-K55  
 DP-K43 HDP-K43  
 DP-K32  
 DP-K28

Universal open frame



OP-K55 HOP-K55  
 OP-K43 HOP-K43  
 OP-K32  
 OP-K28

### Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel



K23" ~ K13"

K23"



K17"



K15"



K13"



## Highlights

### Key Benefits

- ▶ 3840 x 2160@60Hz native UHD resolution
- ▶ 1920 x 1080 & 1920 x 1200 resolution support
- ▶ K23": 1.07B colors ( 10-bit )
- ▶ K17", K15" & K13": 16.7M colors ( 8-bit )
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Display port 1.2 + HDMI 1.4 + HDMI 2.0 video input
- ▶ Video decoding capability up to 1080p ( option )
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection ( NAP series )
- ▶ Professional-use durability & around-the-clock operation

### Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

### Options

- DC power : 12V / 24V / 48V / 125V
- Touchscreen \*
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- HDMI decoder & extender
- HDMI quad display 1080p ( for K23" )
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- 12G / 4K60 / SD-SDI input module
- Auto dimming
- Manual dimming

\* Refer to the following link for details of touchscreen models.  
[www.austin-hughes.com/CA-UV-4K-S.pdf](http://www.austin-hughes.com/CA-UV-4K-S.pdf)

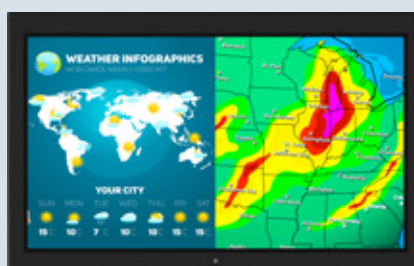
## Standard Brightness

6mm aluminum front bezel



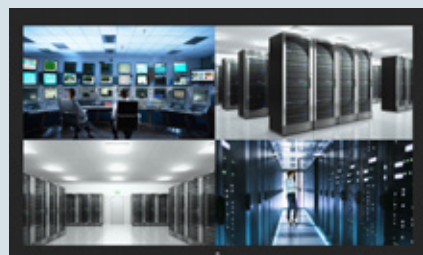
AP-K23  
AP-K17  
AP-K15  
AP-K13

NEMA 4 / IP65 front protection  
6mm aluminum front bezel



NAP-K23  
NAP-K17  
NAP-K15  
NAP-K13

Aluminum front cover



DP-K23  
DP-K17  
DP-K15  
DP-K13

Universal open frame



OP-K23  
OP-K17  
OP-K15  
OP-K13

## Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

F55" ~ F28"

F55"



F43"



F32"



F28"



## Highlights

### Key Benefits

- ▶ 1920 x 1080 native FHD resolution
- ▶ 1.07B colors ( 10-bit )
- ▶ DVI-D / VGA video input
- ▶ DP / HDMI video input ( option )
- ▶ Video decoding capability up to 1080p ( option )
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection ( NAP series )
- ▶ Professional-use durability & around-the-clock operation

### Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

### Options

- DC power : 24V / 48V / 125V
- Touchscreen ( for F55", F43" & F32" ) \*
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- Sunlight readable panel ( for F55", F43" & F32" )
- HDMI decoder & extender
- HDMI quad display 1080p
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- Portrait mode module
- Auto dimming
- Manual dimming

\* Refer to the following link for details of touchscreen models.  
[www.austin-hughes.com/CA-UV-FHD-L.pdf](http://www.austin-hughes.com/CA-UV-FHD-L.pdf)

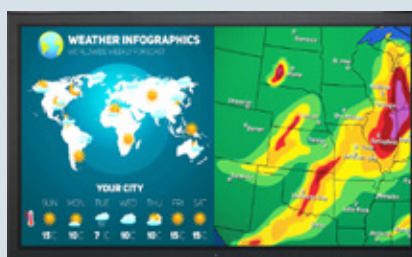
Standard Brightness / 1500 cd/m<sup>2</sup> Sunlight Readable Brightness

8mm/6mm aluminum front bezel

NEMA 4 / IP65 front protection  
 8mm/6mm aluminum front bezel

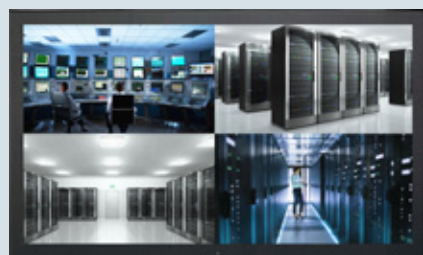


AP-F55 HAP-F55  
 AP-F43 HAP-F43  
 AP-F32 HAP-F32  
 AP-F28



NAP-F55 NHAP-F55  
 NAP-F43 NHAP-F43  
 NAP-F32 NHAP-F32  
 NAP-F28

Aluminum front cover



DP-F55 HDP-F55  
 DP-F43 HDP-F43  
 DP-F32 HDP-F32  
 DP-F28

Universal open frame



OP-F55 HOP-F55  
 OP-F43 HOP-F43  
 OP-F32 HOP-F32  
 OP-F28

## Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

F23" ~ F13"

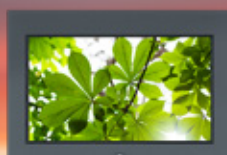
F23"



F21"



F17"



F15"



F13"



## Highlights

### Key Benefits

- ▶ 1920 x 1080 native FHD resolution
  - ▶ F23": 1.07B colors ( 10-bit )
  - ▶ F21": 16.7M colors
  - ▶ F17", F15" & F13": 16.7M colors ( 8-bit )
  - ▶ DVI-D / VGA video input
  - ▶ DP / HDMI video input ( option )
  - ▶ Video decoding capability up to 1080p ( option )
  - ▶ Rugged structure ensures high mobility
  - ▶ IP65 front protection ( NAP series )
- Professional-use durability & around-the-clock operation

### Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

### Options

- DC power : 12V / 24V / 48V / 125V
- Touchscreen \*
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- Sunlight readable panel ( for F21", F17" & F15" )
- HDMI decoder & extender
- HDMI quad display 1080p ( for F23" & F21" )
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- Portrait mode module ( for F23" )
- Auto dimming
- Manual dimming

\* Refer to the following link for details of touchscreen models.  
[www.austin-hughes.com/CA-UV-FHD-S.pdf](http://www.austin-hughes.com/CA-UV-FHD-S.pdf)

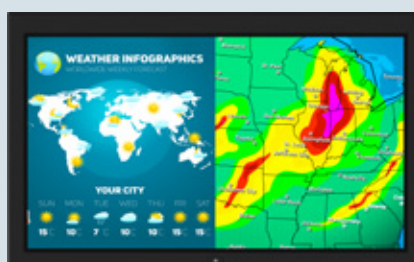
## Standard Brightness / 1000 cd/m<sup>2</sup> Sunlight Readable Brightness

6mm aluminum front bezel



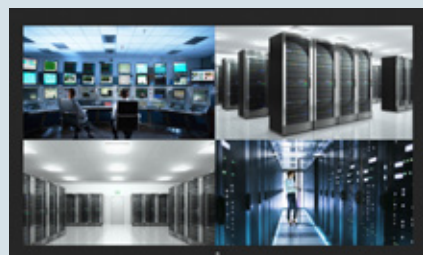
AP-F23  
 AP-F21 **HAP-F21**  
 AP-F17 **HAP-F17**  
 AP-F15 **HAP-F15**  
 AP-F13

NEMA 4 / IP65 front protection  
 6mm aluminum front bezel



NAP-F23  
 NAP-F21 **NHAP-F21**  
 NAP-F17 **NHAP-F17**  
 NAP-F15 **NHAP-F15**  
 NAP-F13

Aluminum front cover



DP-F23  
 DP-F21 **HDP-F21**  
 DP-F17 **HDP-F17**  
 DP-F15 **HDP-F15**  
 DP-F13

Universal open frame



OP-F23  
 OP-F21 **HOP-F21**  
 OP-F17 **HOP-F17**  
 OP-F15 **HOP-F15**  
 OP-F13

## Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

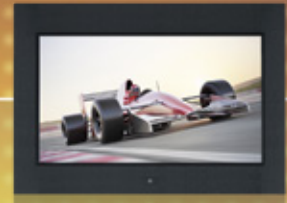


### MF27" & MF17"

MF27"



MF17"



### Highlights

#### Key Benefits

- ▶ 144 Hz high frequency refresh rate
- ▶ 1920 x 1080 native FHD resolution
- ▶ 16.7M colors
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ VGA + DVI-D + HDMI-1.4 video input for MF27"
- ▶ VGA + DVI-D video input for MF17"
- ▶ Video decoding capability up to 1080p ( option )
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection ( NAP series )
- ▶ Professional-use durability & around-the-clock operation

#### Applications

- Military / Defense
- eSport
- Gaming
- Video Editing
- Broadcasting / Advertising
- Traffic control / Command center
- Surveillance system
- Vehicle mount display

#### Options

- DC power : 12V / 24V / 48V / 125V
- Touchscreen \*
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- HDMI decoder & extender
- HDMI quad display 1080p ( for MF27" )
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- Portrait mode module ( for MF27" )
- Auto dimming
- Manual dimming

\* Refer to the following link for details of touchscreen models.  
[www.austin-hughes.com/CA-UV-MF.pdf](http://www.austin-hughes.com/CA-UV-MF.pdf)

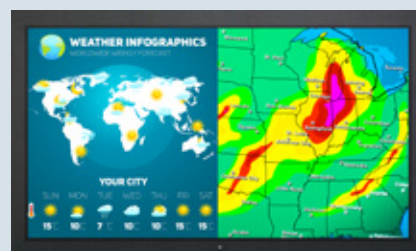
### Standard Brightness

6mm aluminum front bezel



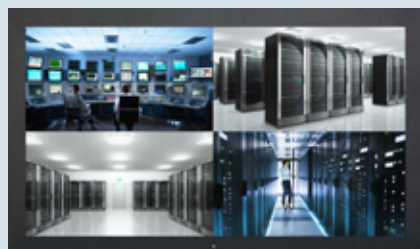
AP-MF27  
AP-MF17

NEMA 4 / IP65 front protection  
6mm aluminum front bezel



NAP-MF27  
NAP-MF17

Aluminum front cover



DP-MF27  
DP-MF17

Universal open frame



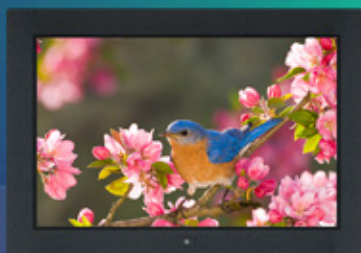
OP-MF27  
OP-MF17

### Chassis customization

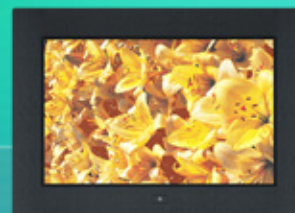
- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

## X24" & X17

X24"



X17



## Highlights

### Key Benefits

- ▶ 1920 x 1200 WUXGA native resolution
- ▶ 16.7M colors ( 8-bit for X17 16.2" LED )
- ▶ X24": HDMI 1.3 + DVI-D + S-Video + BNC + VGA
- ▶ X17 : HDMI 1.4 + DVI-D + VGA
- ▶ PIP Sub-screen & PBP Dual-screen viewing efficiency
- ▶ Video decoding capability up to 1080p ( option )
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection ( NAP series )
- ▶ Professional-use durability & around-the-clock operation

### Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

### Options

- DC power : 12V / 24V / 48V / 125V
- Touchscreen \*
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- Auto dimming
- Manual dimming

\* Refer to the following link for details of touchscreen models.  
[www.austin-hughes.com/CA-UV-WUXGA.pdf](http://www.austin-hughes.com/CA-UV-WUXGA.pdf)

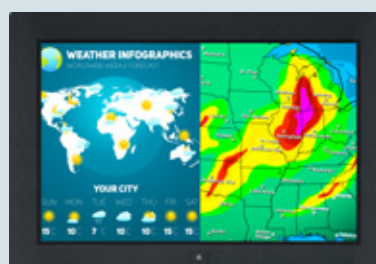
## Standard Brightness

6mm aluminum front bezel



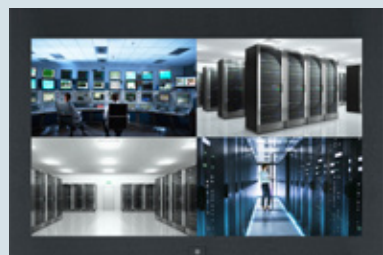
AP-X24  
AP-X17

NEMA 4 / IP65 front protection  
6mm aluminum front bezel



NAP-X24  
NAP-X17

Aluminum front cover



DP-X24  
DP-X17

Universal open frame



OP-X24  
OP-X17

## Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

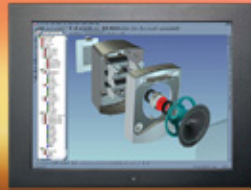


20" ~ 17"

W19"



20"



19"



17"



## Highlights

### Key Benefits

- ▶ 1440 x 900 / 1600 x 1200 / 1280 x 1024 native resolution
- ▶ 16.7M colors
- ▶ DVI-D + VGA video input
- ▶ Video decoding capability up to 1080p ( option )
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection ( NAP series )
- ▶ Professional-use durability & around-the-clock operation

### Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

### Options

- DC power : 12V / 24V / 48V / 125V
- Touchscreen \*
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- Sunlight readable panel ( W19", 19" & 17" )
- HDMI decoder & extender ( for W19" )
- HDMI quad display 1080p ( for W19" )
- Multi monitor OSD control module
- 3G / HD / SD-SDI input module
- Auto dimming
- Manual dimming

\* Refer to the following link for details of touchscreen models.  
[www.austin-hughes.com/CA-UV-Regular-L.pdf](http://www.austin-hughes.com/CA-UV-Regular-L.pdf)

## Standard Brightness / 1000 cd/m<sup>2</sup> Sunlight Readable Brightness

6mm aluminum front bezel



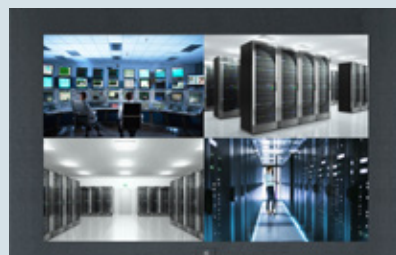
AP-W19 HAP-W19  
AP-20  
AP-19 HAP-19  
AP-17 HAP-17

NEMA 4 / IP65 front protection  
6mm aluminum front bezel



NAP-W19 NHAP-W19  
NAP-20  
NAP-19 NHAP-19  
NAP-17 NHAP-17

Aluminum front cover



DP-W19 HDP-W19  
DP-20  
DP-19 HDP-19  
DP-17 HDP-17

Universal open frame



OP-W19 HOP-W19  
OP-20  
OP-19 HOP-19  
OP-17 HOP-17

## Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

15" ~ 10"

15"



12"



10"



### Highlights

#### Key Benefits

- ▶ 1024 x 768 / 800 x 600 / 640 x 480 native resolution
- ▶ 15": 16.2M colors
- ▶ 12" & 10": 262K colors
- ▶ VGA video input
- ▶ Video decoding capability up to 1080p ( option )
- ▶ Rugged structure ensures high mobility
- ▶ IP65 front protection ( NAP series )
- ▶ Professional-use durability & around-the-clock operation

#### Applications

- Broadcasting / Advertising
- Traffic control / Command center
- Directory / Ticket kiosk
- Surveillance system
- Vehicle mount display
- Bathroom TV

#### Options

- DC power : 12V / 24V / 48V / 125V
- Touchscreen \*
- Anti-reflective glass or Vandal proof glass
- IP65 front protection
- Custom chassis & mounting
- Multi monitor OSD control module
- Auto dimming
- Manual dimming

\* Refer to the following link for details of touchscreen models.  
[www.austin-hughes.com/CA-UV-Regular-S.pdf](http://www.austin-hughes.com/CA-UV-Regular-S.pdf)

### Standard Brightness

6mm aluminum front bezel



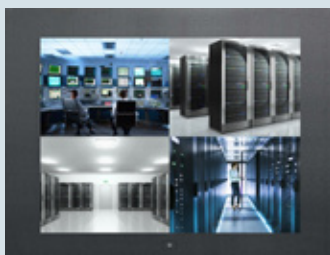
AP-15  
AP-12  
AP-10

NEMA 4 / IP65 front protection  
6mm aluminum front bezel



NAP-15  
NAP-12  
NAP-10

Aluminum front cover



DP-15  
DP-12  
DP-10

Universal open frame



OP-15  
OP-12  
OP-10

### Chassis customization

- ▶ Dimension
- ▶ Color & Treatment
- ▶ Screen Printing
- ▶ Stainless Steel Bezel

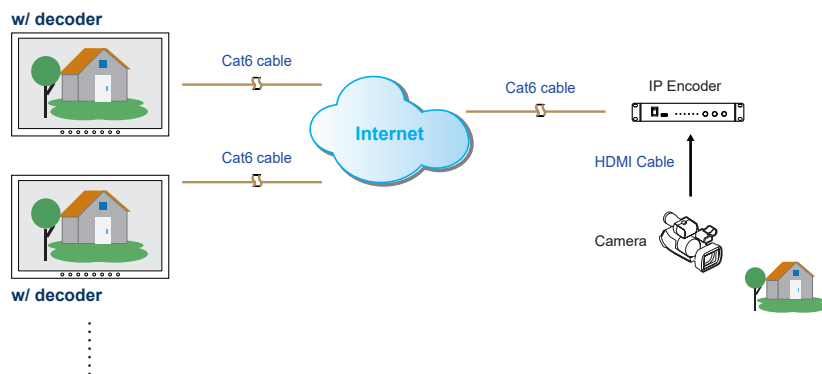
## Embedded HDMI Decoder Module 1080p over IP

- Decodes RTSP, RTMP, UDP, HTTP, HLS protocols
- Supports video resolutions up to 1080p / 60Hz
- Unicast and multicast support
- Operates on standard 1000Mb Ethernet networks
- Built-in Web UI for configuration and control
- Excellent image quality with very low delay

### Part no. :

Embedded HDMI Decoder Module : [UV-DE100F](#)

Standalone HDMI Encoder : [UV-EN100F](#)



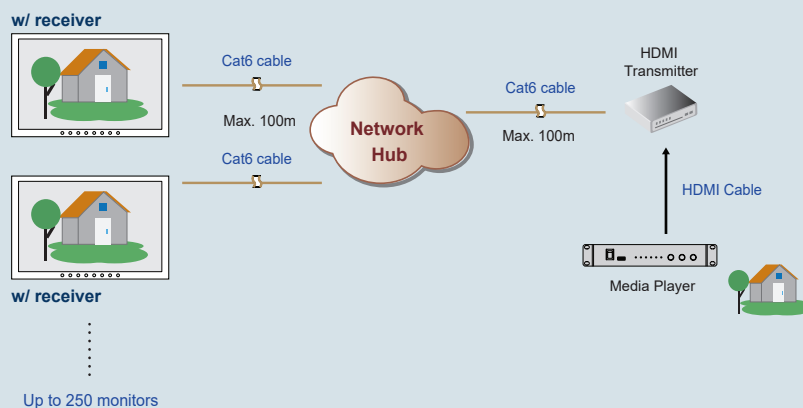
## Embedded HDMI Receiver Module 1080p

- Extends the HDMI signal over a single Cat5/6 cable
- Supports video resolutions up to 1080p / 60Hz
- One to one just via Cat5/6 cable
- One to multi via network hub and Cat5/6 cable
- 100m maximum Cat5/6 cable distance
- Supports bi-directional IR communication
- High Speed HDMI 1.4 and HDCP 1.4 compliant
- No software or drivers required

### Part no. :

Embedded HDMI Receiver Module : [UV-R100F](#)

Standalone HDMI Transmitter : [UV-T100F](#)



Up to 250 monitors

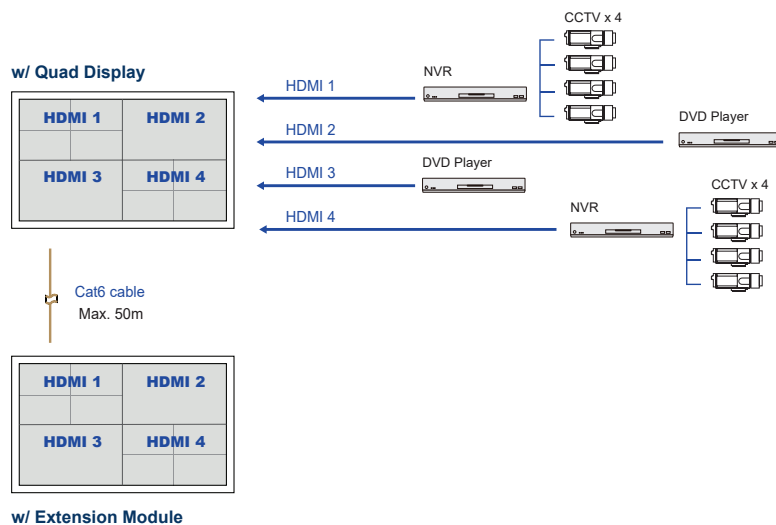
## Embedded HDMI Quad Display Module 1080p

- Allows 4 x HDMI inputs to be monitored simultaneously
- Quad split, panel left and full screen monitoring modes
- High speed HDMI 1.4 and HDCP 1.4 compliant
- Supports video resolutions up to 1080p / 60Hz
- Supports Scaler Up and Down function
- Control via local front panel and IR remote

### Part no. :

Embedded HDMI Quad Display Module : [QD-1080](#)

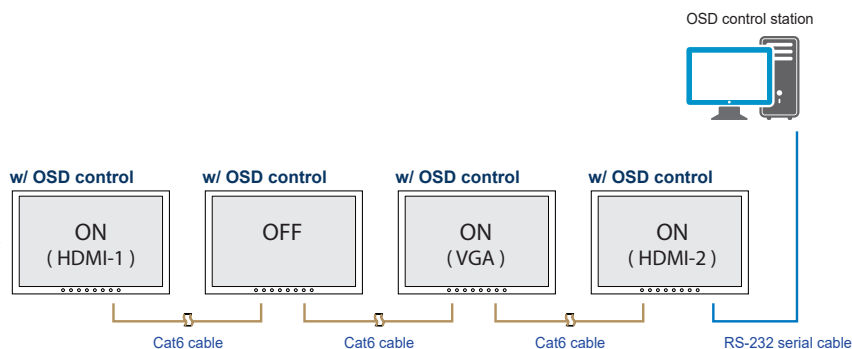
Embedded Quad Display Extension Module : [QD-E1080](#)



## Embedded Multi Monitor OSD Control Module over serial

- Remote control the monitor OSD via RS-232C serial interface
- Daisy chain up to 64 monitors via Cat5/6 cable
- Individual ID for individual monitor OSD settings
- Power ON or OFF monitor
- Adjust brightness & audio
- Switch video sources

Up to 64 monitors  
Up to 1,000m distance



Part no. :

Embedded Multi Monitor OSD Control Module : **MCS**

## Embedded 3G / HD / SD-SDI Input Module

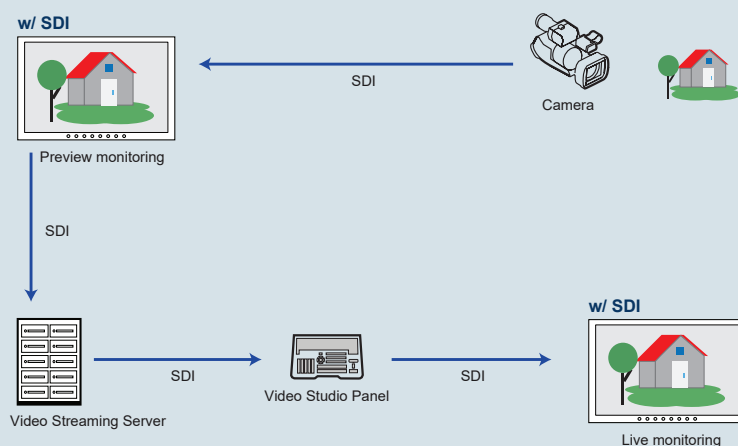
### Embedded 12G / 4K60 / SD-SDI Input Module

- Intelligent SDI monitoring with broadcast quality scopes
- Supports multi-rate 3G / HD & 12G / 4K60 / SD-SDI format
- Provides input to output loop-through capability
- Auto format sensing & selection

Part no. :

Embedded 3G / HD / SD-SDI Input Module : **SDI**

Embedded 12G / 4K60 / SD-SDI Input Module : **12G-SDI**



## Embedded Portrait Mode Module

- Provides users with a rotation feature ( 0, 90, 180 & 270 orientation ) without frame delay via OSD
- Allows distortion-free display of content in various orientations
- Creates new application opportunities

Part no. :

Embedded Portrait Mode Module : **AD4.0-P**



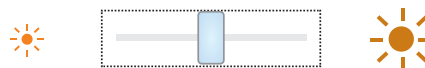
w/ Portrait mode module

## Embedded Auto Brightness Dimming Module

- Brightness changes according to its ambient brightness
- Its brightness change causes 10% increase or decrease

Part no. :

Embedded Brightness Auto Dimming Module : **DA-01**



## Embedded Manual Brightness Dimming Knob

- Easy-to-use IP54 dimming knob on the front panel
- One click causes 2% brightness increase or decrease
- Brightness adjustment from 0% to 100%

Part no. :

Brightness Dimming Knob : **DS-01**



### Remote Reboot to Recover Your Device

- When a complete restart is required MiniBoot provides a simple and easy way to reboot a hardware device
- In addition to manual on/off, MiniBoot provides 3 kinds of auto outlet control :
  - IP-Ping automatically detects a failed system for timely reboot
  - Outlet on/off by sensor condition
  - Outlet on/off scheduling



### Diversified Outlets & Inlets

- Variety of outlets & inlets available for different regional power requirements
- Outlet : US NEMA, IEC C13, UK BS1363, German Schuko CEE 7/3 or French CEE 7/5
- Inlet : C20 for different regional power cords (Custom inlet available on request.)



### Enterprise Level IP Authentication

- Active Directory (AD), Lightweight Directory Access Protocol (LDAPv3 / LDAPS).
- Remote Access Dial-In User Service (RADIUS) protocol, or local credential database.
- Strong passwords and granular user/user group permissions.
- Support high-speed network IP via Gigabit IP LAN port



### Save Manpower & Travel Costs

- Restart the problem device by remotely power on & off, MiniBoot allow user to recover the equipment via network IP.
- Reduce manpower and travel costs by negating the need for staff to actually be at the equipment location, improving uptime and productivity.



### Power Monitoring via Network & Local Meter

- Allows remote monitoring via the free Graphic User Interface (GUI).
- Provides local current monitoring via MiniBoot blue LED ammeter.
- Allows user to establish the remaining capacity prior to adding a new device to the MiniBoot, plus displays the current being drawn and receives threshold alerts remotely.



### Remote Management

- Simultaneous access via free management web GUI.
- SNMP V2 / V3 integration to DCIM.
- Remote management protocols: HTTP(S); SSH Command Line Interface; Telnet; SMTP; IPv6/IPv4.



### Alerts / Alarms

- Receive alerts via SNMP, email (SMTP), and syslog when predefined thresholds are exceeded for both MiniBoot and environmental sensor events.
- Common SNMP MIBs (Management Information Base) for all MiniBoot models.



### Sensors & WiFi

- Variety of optional sensors : Temperature & Humidity, Temperature, Smoke, Door.
- Option to connect via a WiFi kit (IPD-WIFI) complying with 802.11 g/n/ac.



Remote power reboot and monitoring functions are essential for hardware systems. MiniBoot offers a cost-efficient power solution for any environment with electronic devices or systems. Users can try to recover the crashed device by remote reboot, reducing the need to send engineers to site (less personnel and travel costs by negating the need for staff to be at the equipment location) therefore improving uptime and productivity.

Unlike a rack power strip which is mounted inside an IT server rack enclosure, MiniBoot can be applied in diversified applications. MiniBoot is designed for a variety of industries - Transportation (Air, Land and Sea), Broadcasting, Entertainment, Advertising, Manufacturing, Mining, Satellite, Defense, Education, Telecommunication, Finance & Banking, Commercial, etc.

## Applications



- Commercial Offices
- Telecommunication Offices
- Satellite Stations
- Digital Signage
- Video Walls
- Service Centers



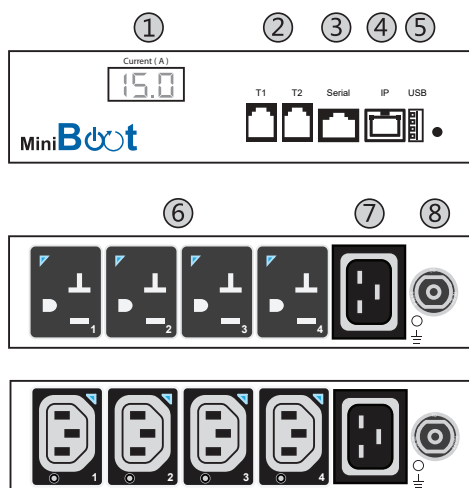
- Airport Check-in Kiosks
- Shopping Mall Kiosks
- ATM Machines
- Ticketing System
- Vending Machines
- Information Desks



- Factory Automation Systems
- Production Plants
- Assembly Line
- Quality & Control Line



- Universities
- Education Institutes
- Lecture Theatres
- Tutorial Classes
- Training Rooms



- ① RMS current meter x 1
- ② Sensor port x 2
- ③ Serial port x 1
- ④ Gigabit IP LAN port x 1
- ⑤ USB Wifi port x 1
- ⑥ Switched outlets ( US NEMA, C13, UK, Schuko or French )
- ⑦ C20 Inlet x 1
- ⑧ Resettable fuse x 1

MiniBoot - Single Feed			Amp		
Outlet	Inlet	Model	110V	208V	230V
NEMA x 2 NEMA x 4 NEMA x 8	C20 x 1	MiniBoot-2US MiniBoot-4US MiniBoot-8US	15A		
C13 x 2 C13 x 4 C13 x 8	C20 x 1	MiniBoot-2C13 MiniBoot-4C13 MiniBoot-8C13		16A	10A / 13A / 16A
UK x 4	C20 x 1	MiniBoot-4UK			10A / 13A / 16A
Schuko x 4	C20 x 1	MiniBoot-4SCH			10A / 16A
French x 4	C20 x 1	MiniBoot-4FR			10A / 16A

\* Custom configuration available on request

\*\* Input cordset excluded



## Hardware Specifications

Electrical	
Nominal input voltage	110V / 208V / 230V
Acceptable input voltage	±10% nominal
Input frequency	50 / 60Hz
Inlet	C20
Outlet	US NEMA, C13, UK BS1363, Schuko or French
Local meter	3-digit RMS current meter
Overload protection	Resettable fuse
Electrical endurance	1 x 10 <sup>5</sup> operations

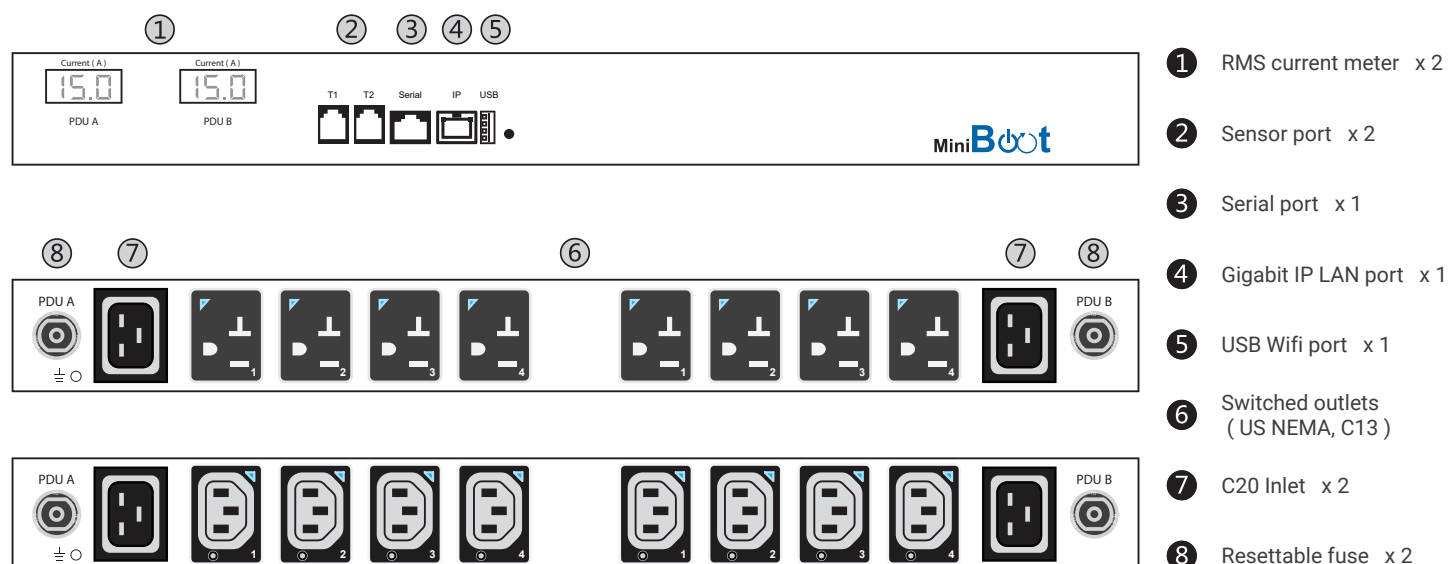
Chassis	
Color	White
Material	Steel

Compliance	
Operating temperature	-5 to 60°C degree ( 23 to 140°F )
Storage temperature	-25 to 65°C degree ( 13 to 149°F )
Operating humidity	0~95%, non-condensing
Storage humidity	0~95%, non-condensing

Physical ( NEMA or C13 )	2 x outlet / 4 x outlet	8 x outlet
Product ( W x D x H )	180 x 140 x 44.45 mm	325 x 140 x 44.45 mm
Packing ( W x D x H )	300 x 196 x 81 mm	525 x 230 x 80 mm
Net weight	0.9 kg / 2.0 lb	1.6 kg / 3.5 lb
Gross weight	1.2 kg / 2.7 lb	2.54 kg / 5.6 lb

Physical ( UK, SCH or FR )	4 x outlet
Product ( W x D x H )	220 x 150 x 55 mm
Packing ( W x D x H )	300 x 196 x 81 mm
Net weight	1.23 kg / 2.7 lb
Gross weight	1.53 kg / 3.4 lb

Compliance	
EMC	FCC, CE/EMC
Safety	UL 62368-1:2014, CE/LVD
Environment	RoHS3, Reach & WEEE
ISO	9001 / 14001



MiniBoot - Single Feed			Amp		
Outlet	Inlet	Model	110V	208V	230V
NEMA x 8	C20 x 2	MiniBoot-D8US	15A		10A / 13A / 16A
C13 x 8	C20 x 2	MiniBoot-D8C13		16A	10A / 16A

\* Custom configuration available on request  
 \*\* Input cordset excluded



Dual Feed



## Hardware Specifications

Electrical	
Nominal input voltage	110V / 208V / 230V
Acceptable input voltage	±10% nominal
Input frequency	50 / 60Hz
Inlet	C20 x 2
Outlet	US NEMA, C13
Local meter	3-digit RMS current meter x 2
Overload protection	Resettable fuse x 2
Electrical endurance	1 x 10 <sup>5</sup> operations

Physical ( NEMA or C13 )		8 x outlet
Product ( W x D x H )		437.5 x 140 x 44.45 mm
Packing ( W x D x H )		525 x 230 x 80 mm
Net weight		1.8 kg / 4.0 lb
Gross weight		2.8 kg / 6.2 lb

Chassis	
Color	White
Material	Steel

Compliance		Chassis	
Operating temperature	-5 to 60°C degree ( 23 to 140°F )	Color	White
Storage temperature	-25 to 65°C degree ( 13 to 149°F )	Material	Steel
Operating humidity	0~95%, non-condensing		
Storage humidity	0~95%, non-condensing		

## Remote Reboot & Amp Monitoring Over IP

Remote management helps reducing manpower and hence improving uptime and productivity. It also benefits users with capacity planning and increasing the overall efficiency of the power management. MiniBoot offers two remote power management solutions for users' selection.



Built-in



via SNMP V2 / V3



## Built-in MiniBoot GUI

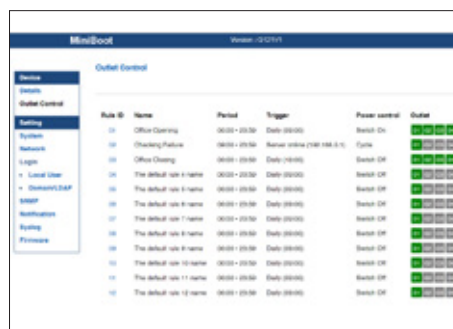
User-friendly GUI is included with MiniBoot. The Administrator can remotely manage the MiniBoot via the web browser.

It provides individual outlet switching On/Off, current monitoring and alarm alert functions. With enterprise level IP authentication, the administrator can manage the MiniBoot remotely with high security.

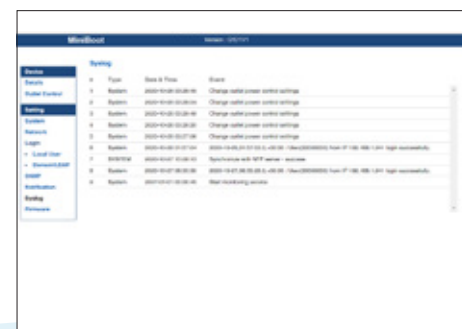
## Circuit Monitoring & Outlet Switching



## Outlet Control



## System Audit Trail



## 3rd Party DCIM via SNMP V2 / V3

MiniBoot supports SNMP V2 / V3 integration for clients requiring remote management of the MiniBoot using their existing DCIM ( Data Center Infrastructure Management ) in order to centralize the management for monitoring power, cooling and environmental factors across facilities and IT systems.

## MiniBoot Software

FREE MiniBoot Web Power Reboot GUI	
Functions	<ul style="list-style-type: none"> <li>Manual outlet on / off by GUI / SNMP</li> <li>Automatic outlet on / off by scheduling , IP Ping and sensor condition</li> <li>Aggregate current ( Amp ) monitoring</li> <li>Alarm alert</li> </ul>
Enterprise Level IP Authentication	<ul style="list-style-type: none"> <li>Active Directory (AD), Lightweight Directory Access Protocol (LDAPv3 / LDAPS)</li> <li>Remote Access Dial-In User Service (RADIUS) protocol, or local credential database</li> </ul>
Remote Management	<ul style="list-style-type: none"> <li>Protocols: HTTP(S); SSH Command Line Interface; Telnet; SMTP; IPv6/IPv4</li> </ul>
Alarms / Alerts	<ul style="list-style-type: none"> <li>Receive alerts via SNMP, email (SMTP), and syslog when predefined thresholds are exceeded for both MiniBoot and environmental sensor events</li> <li>Common SNMP MIBs (Management Information Base) for all MiniBoot models</li> </ul>
SNMP	<ul style="list-style-type: none"> <li>SNMPv1/v2 &amp; SNMPv3 for integration to DCIM</li> </ul>

## Free Mounting Kit

### Side Mount Kit

- Included with all MiniBoot models
- Enables easy installation into existing kiosks, walls, work panels and furniture



### Rack Mount Kit

- Included with 8-port MiniBoot models
- 19" horizontal rack mount version



## Sensors & Peripherals

### WiFi Kit

- 802.11 g/n/ac WiFi
- Low-profile design wireless athena
- Magnetic base design for tool-less installation
- 3.3ft cord with USB port



### Temperature & Humidity Sensor Temperature Sensor

- Plug & play
- External sensor with 2M or 4M cord
- Low profile design with magnetic base for easily affix to the rack



### Smoke Sensor

- Smoke Sensor with 1M or 3M cord
- When smoke alarm triggers the red LED light is visible on the sensor with continuous audio alert



### Door Sensor

- Mechanical door sensor with 2M or 4M cord
- Cost efficient integration into rack



## Lockable IEC



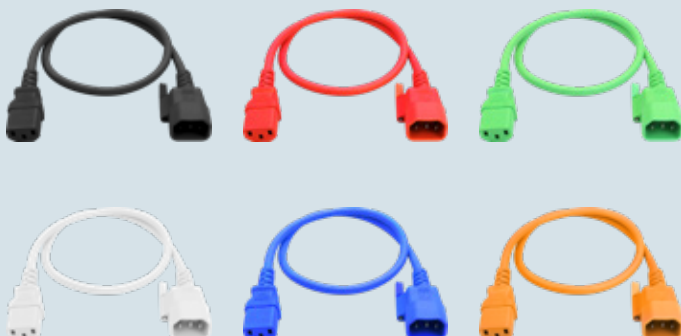
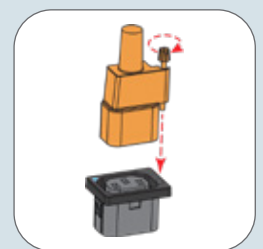
### Lockable C13 Outlet

- Lockable C13 outlet MiniBoot models are available to secure plugs and prevent accidental disconnection
- Supports standard or switched outlets
- Compatible with lockable C13 power cords for outlet locking features



### Lockable Color C14-C13 Cord

- Connect to lockable C13 outlets to secure plugs and prevent accidental disconnection
- Selection:  
Black / Grey / Red / Blue / Orange / Green  
C14 - C13: 0.5M / 1M / 2M





Founded in 1995, **Austin Hughes** is a design and manufacturing group that offers a broad range of solutions based around 19 inch rack mount technology: the UltraRack IT server rack series, InfraRack intelligent rack solutions, InfraPower intelligent remote management power solutions, InfraCool intelligent remote cooling systems, InfraGuard environmental sensors and peripherals, InfraSolution remote locking and access control & CyberView LCD KVM switches. We also offer industrial & commercial IT products: UltraView professional displays & MiniBoot web power reboot.

**Austin Hughes** has ISO14001 and ISO9001 approved design, manufacturing, assembly and test facilities. We support a worldwide customer base through our global locations in the Americas, EMEA, APAC and ASEAN and through an extensive authorized channel partner network.



Rack Power Expert



Professional Distribution Partner



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