Austin Hughes - Leading Edge Solutions

Rack Solutions

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

IT Solutions

- Web Power Reboot
- Professional LCD

AUSTIN®
HUGHES

AUSTIN HUGHES®

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				✔	✔	✔	✔
DCIM Support : SNMP V2/V3 & REST API				✔	✔	✔	✔
Phase Balance % for 3-Phase PDUs			✔	✔	✔	✔	✔
3-digit RMS Current Meter		✔					
Ammeter Accuracy ± (3% of the reading + 5 last digits)		✔					
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	✔	✔	✔	✔	✔	✔	✔
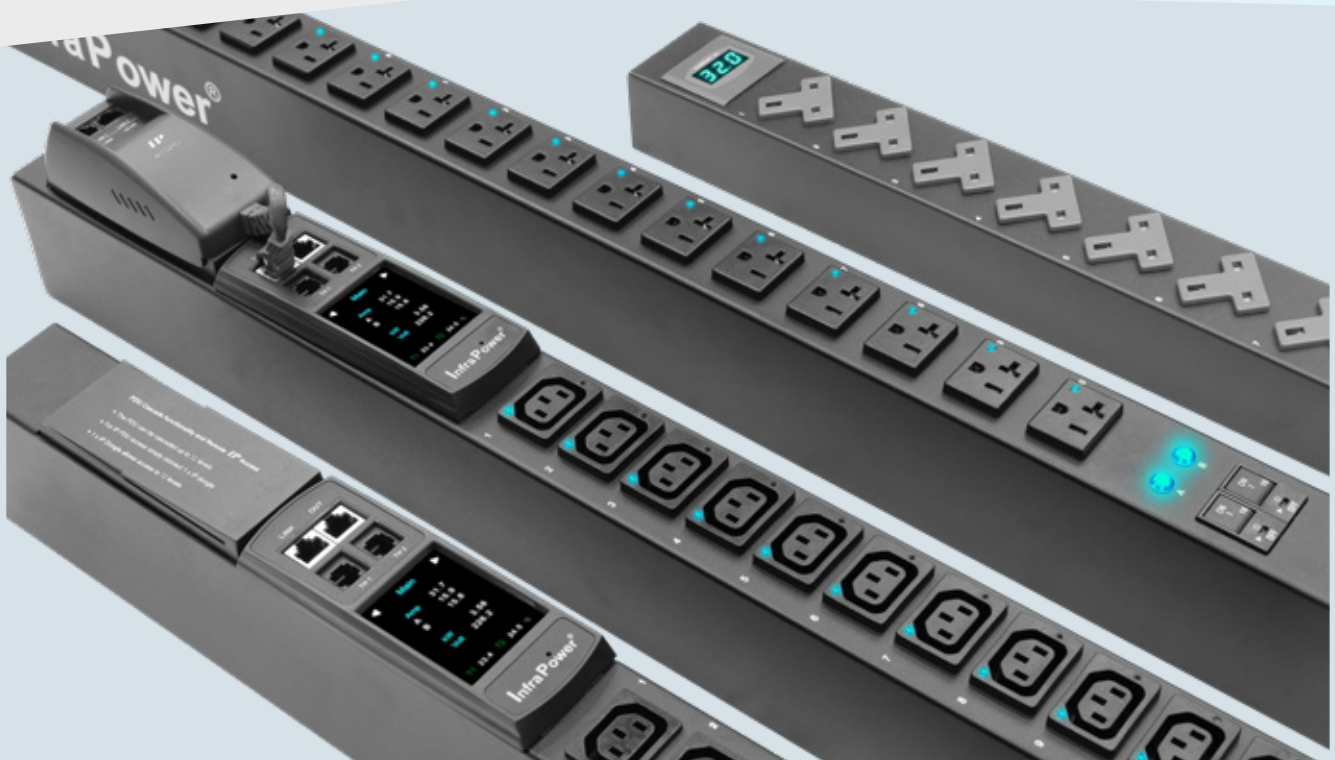
1 Phase

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   208V 20A / 30A

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		✔

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	Cordset length
60309	32A	4	3 M
Open end	20A	2.5	3 M
60309 / C20 / 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	Cordset length
L6-30P	30A	10	10 FT
L6-20P	20A	12	10 FT

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

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

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

RoHS3 COMPLIANCE   REACH   CE   FC   cULus   TÜV

cUL & TUV available for selective configurations

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		✔

PDU drawings available for download :
www.austin-hughes.com/resources/rack-pdu-selector

Custom configurations available on request

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

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
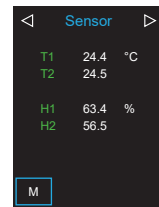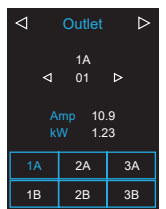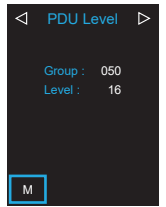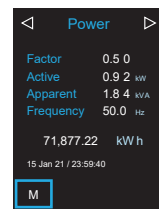- Temperature Sensor
- Smoke Sensor
- Door Sensor

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

◁ Volt / Bal ▷	
	Volt	Bal %
1A	226. 2	101. 5
2A	219. 2	98. 3
3A	223. 2	100. 1
M	

◁ PDU Level ▷
Group : 050
Level : 16
M

◁ Power ▷	
Factor	0.5 0
Active	0.9 2 kW
Apparent	1.8 4 kVA
Frequency	50.0 Hz
71,877.22 kW h	
15 Jan 21 / 23:59:40	
M	

◁ Outlet ▷
1A
◁ 01 ▷
Amp 10.9
kW 1.23
1A 2A 3A
1B 2B 3B

◁ Sensor ▷	
T1	24.4 °C
T2	24.5
H1	63.4 %
H2	56.5
M	

◁ System ▷
Time 23 : 59 : 40
Date 15 Jan 21
F/W WSi-400V-6B-V7
Serial no. 20315150589-1120-P001
Model no. VP24C13/12C19 -32A-WSi/CR_EN/2B-1
M

Main

	Amp	Volt
1A-B	22.5	226. 2
2A-B	13.8	219. 2
3A-B	8.2	223. 2

1A-B | 2A-B | 3A-B

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**.

US & Worldwide Patents

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

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-based 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.
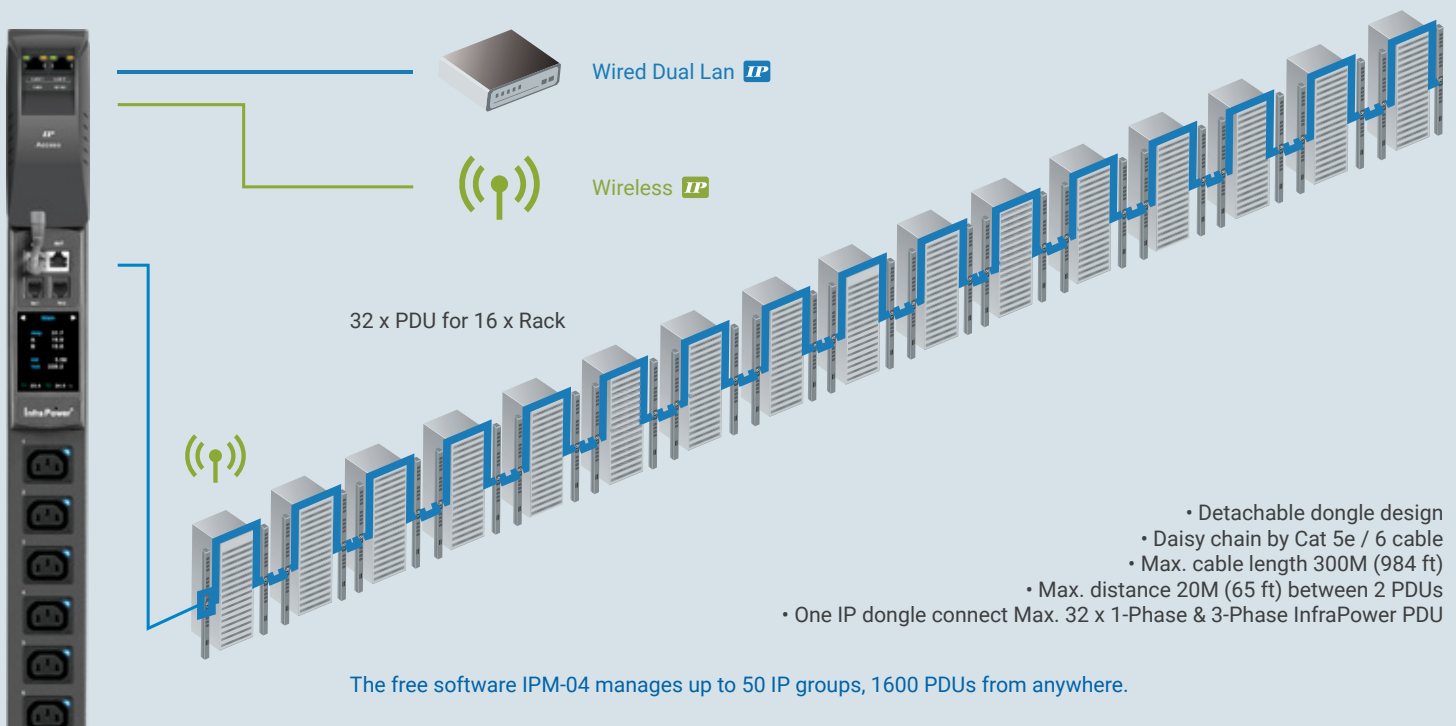▸ Strong passwords and granular user/ user group permissions.

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.

Wired Dual Lan **IP**

Wireless **IP**

32 x PDU for 16 x Rack

• Detachable dongle design
• Daisy chain by Cat 5e / 6 cable
• Max. cable length 300M (984 ft)
• Max. distance 20M (65 ft) between 2 PDUs
• One IP dongle connect Max. 32 x 1-Phase & 3-Phase InfraPower PDU

The free software IPM-04 manages up to 50 IP groups, 1600 PDUs 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.

InfraPower IPM-04	InfraPower GUI	3rd Party DCIM
Free Download	Built-in	via SNMP / API

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
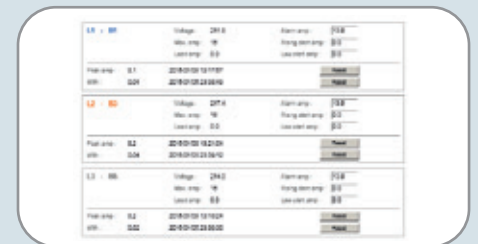
Temp. & Humid. Monitoring
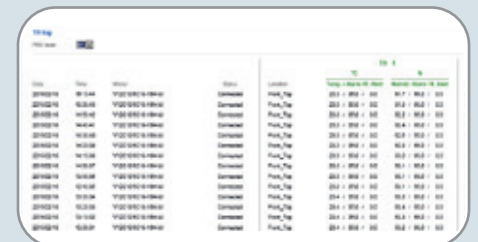
Reporting
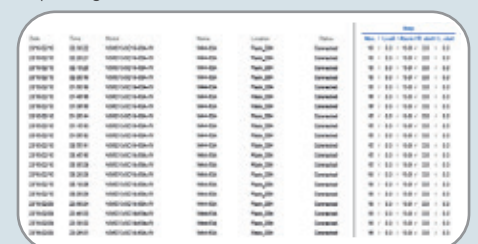
## Outlet ON/OFF Switching & Latching Relay

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.
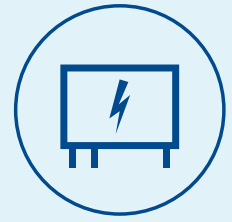
Broadest Outlet Selection for Rack PDU

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.

Schuko	UK		IEC	US NEMA	South African
	45°	135°	C13		
French	90°	270°	C19	Australian	International
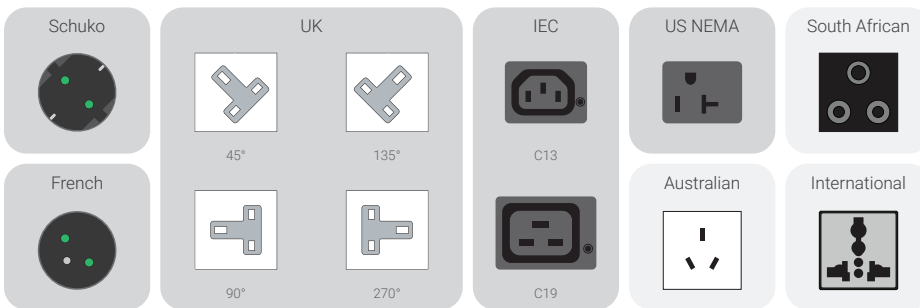
Multiple Outlet Configurations

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

UK + IEC

US NEMA + IEC

Schuko + IEC

French + IEC
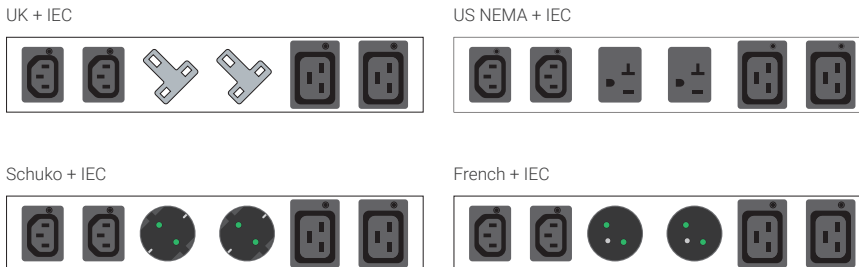
Lockable IEC Outlet

- 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

Easy Locking

Regular Outlet No LED

C19

Switched Outlet Built in LED

Easy Locking

Regular Outlet No LED

A **B**
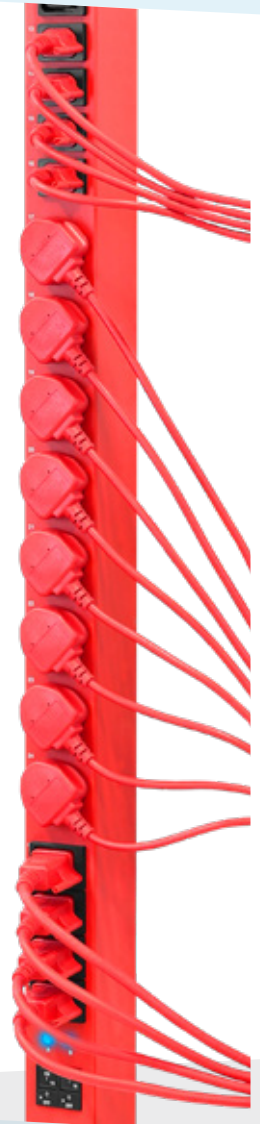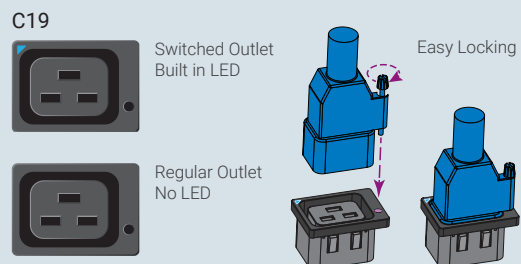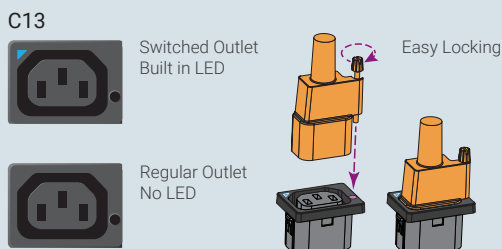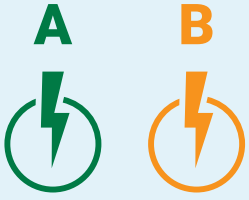
Colored PDU Power Feed Differentiation

The use of colors at rack PDU and cord levels has become a huge market trend with most orgainzations 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

RAL 9004   RAL 9016   Pantone 185c   Pantone 300c   RAL 1007   RAL 6029   RAL 1018   RAL 4006
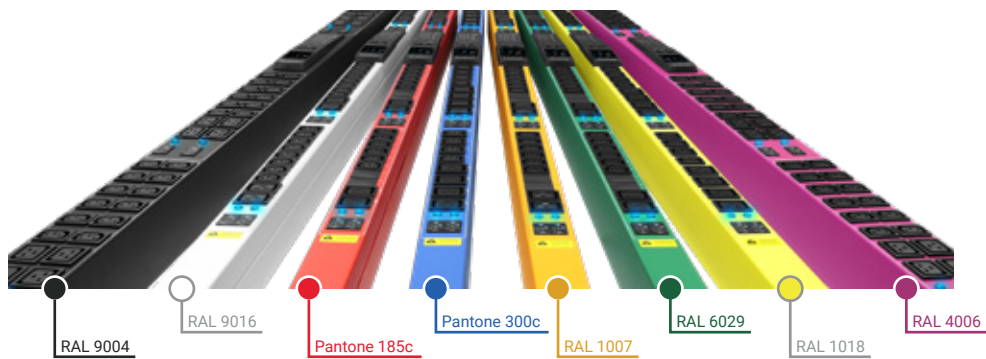
Colored UK Power Cord

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

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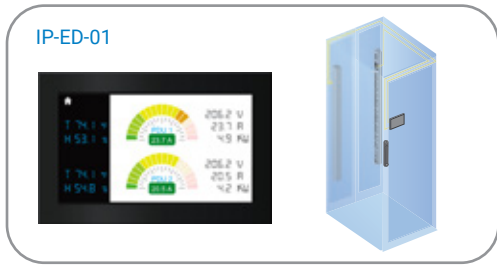
4.3" Door Mount Display Panel
- Connect to iPDU meter TH2 port
- 1 smart display panel support 2 iPDUs (1-Phase & 3-Phase)
- Displays power, temperature, humidity, smoke or door status
- Alarm
- Viewable while doors in closed position

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

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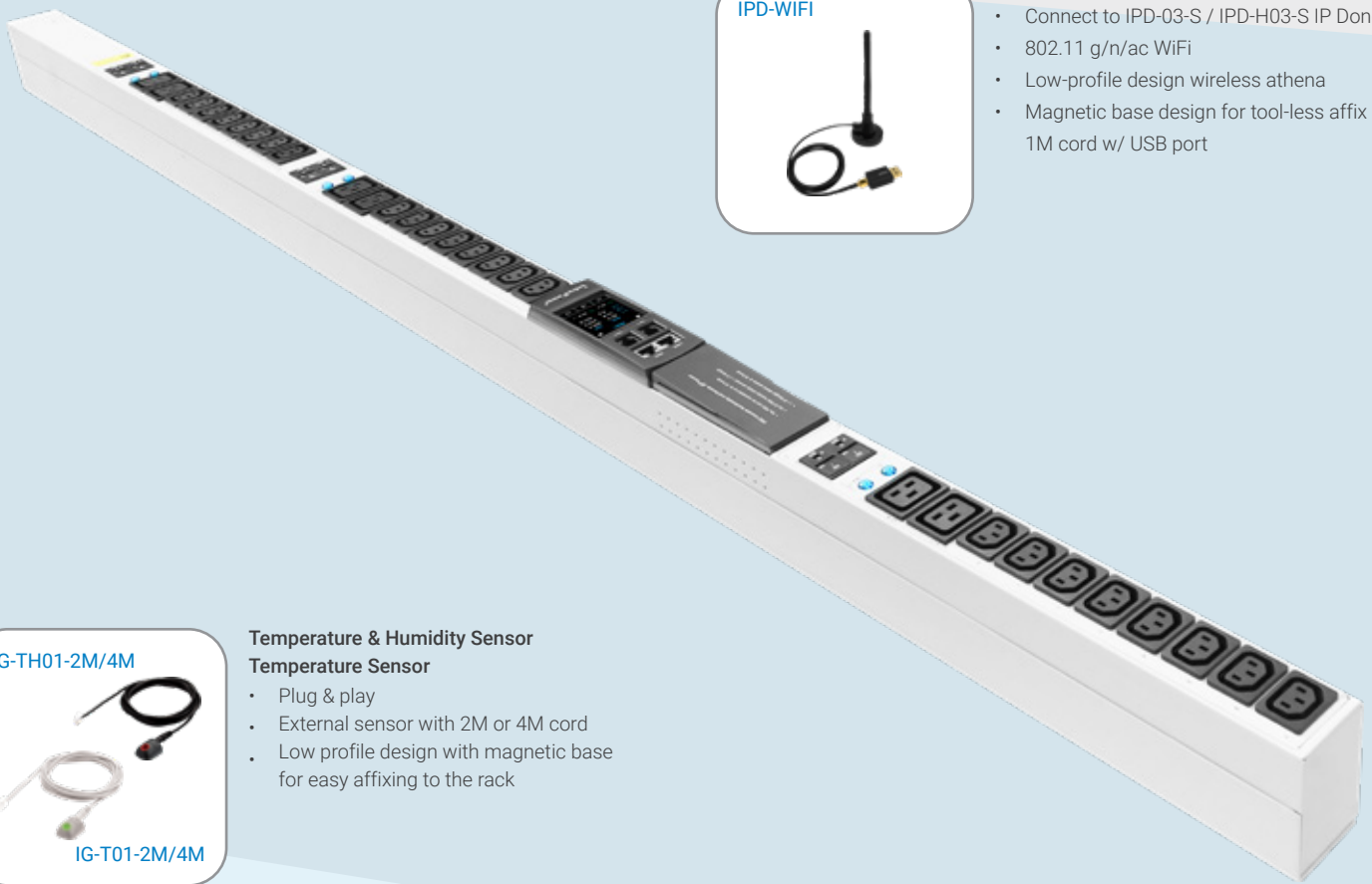
WiFi Kit
- Connect to IPD-03-S / IPD-H03-S IP Dongle
- 802.11 g/n/ac WiFi
- Low-profile design wireless athena
- Magnetic base design for tool-less affix 1M cord w/ USB port

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.

-RCM
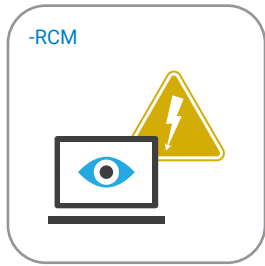
Residual Current Monitor (RCM)
- Residual current monitoring
- Alerts users to current leaking from IT devices
- Reduces the danger for both the user and IT system

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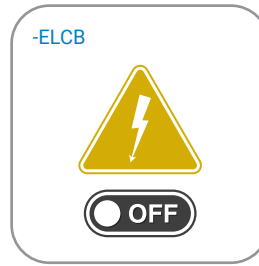
Earth-leakage Circuit Breaker
- Earth-leakage circuit breaker
- Safety component with high Earth impedance to prevent shock
- Interrupting the circuit if a dangerous voltage is detected

-CR

Magnetic Circuit Breaker (MCB)
- Hydraulic magnetic circuit breaker
- Overload switch
- Designed to prevent accidental on / off operation
- Safety Regulatory : UL / cUL / TUV / CE

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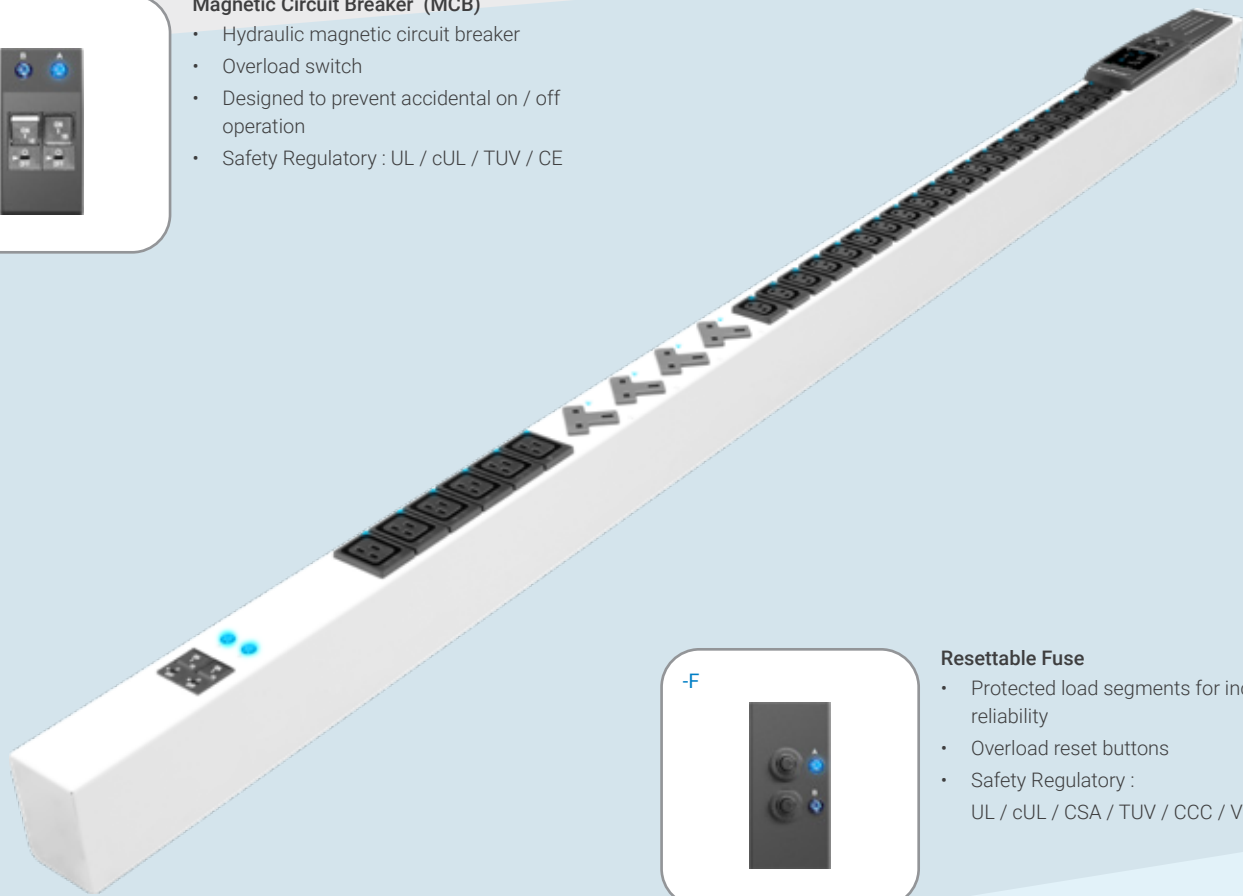
Resettable Fuse
- Protected load segments for increased reliability
- Overload reset buttons
- Safety Regulatory :
  UL / cUL / CSA / TUV / CCC / VDE

-SPT

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

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 →

CURRENT (A)
32.0
1

CURRENT (A)
32.0
1

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.

B O T T O M   F E E D

T O P   F E E D

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.
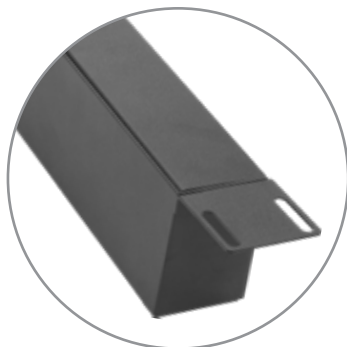
Vertical Button Mounting Kit

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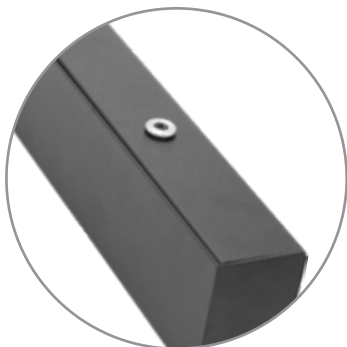
Vertical Bracket Mounting Kit

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.
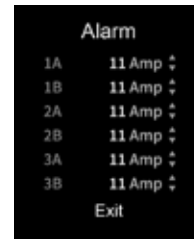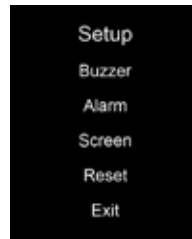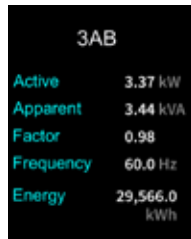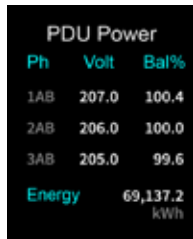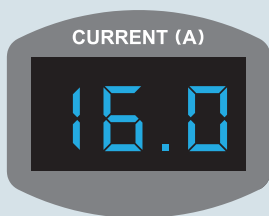
3 Phase MK Metered PDU
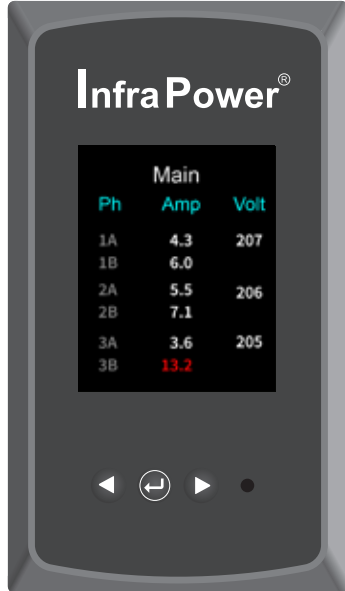
MK Meter

Hot-Swappable Meter

1.8" Color LCD Display

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

InfraPower®

Main		
Ph	Amp	Volt
1A	4.3	207
1B	6.0	
2A	5.5	206
2B	7.1	
3A	3.6	205
3B	13.2	

Display Selction Buttons

* 1-Phase MK PDU available on request

Meter Reading & Setting

PDU Power		
Ph	Volt	Bal%
1AB	207.0	100.4
2AB	206.0	100.0
3AB	205.0	99.6
Energy		69,137.2 kWh

3AB	
Active	3.37 kW
Apparent	3.44 kVA
Factor	0.98
Frequency	60.0 Hz
Energy	29,566.0 kWh

Setup
Buzzer
Alarm
Screen
Reset
Exit

Alarm	
1A	11 Amp
1B	11 Amp
2A	11 Amp
2B	11 Amp
3A	11 Amp
3B	11 Amp
	Exit

1 Phase MD Metered PDU

CURRENT (A)

16.0

MD Meter

- 1 Phase local metering
- 3-digit ture RMS ammeter
- Circuit Amp measurement
- Accuracy :
   ± (3% of the reading + 5 last digits)
- 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
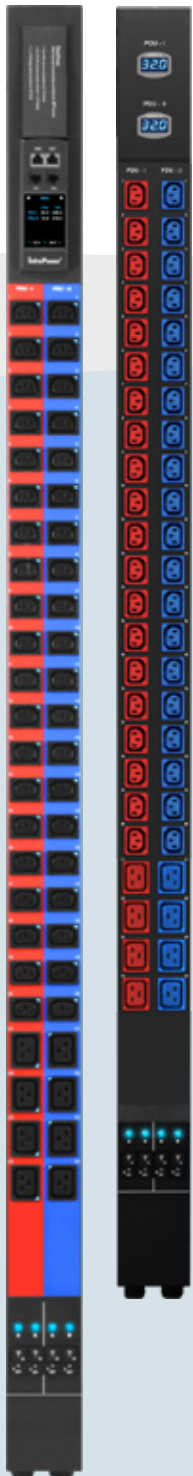
Two PDU's in One Chassis

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.
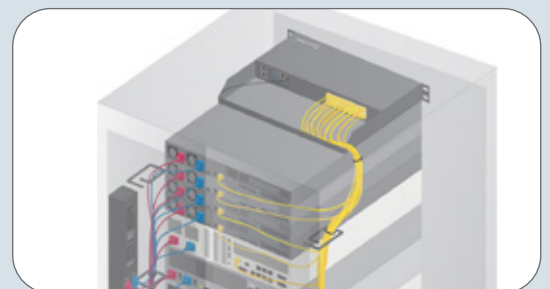
One Side Orientation for Power Cabling

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.

POWER   DATA
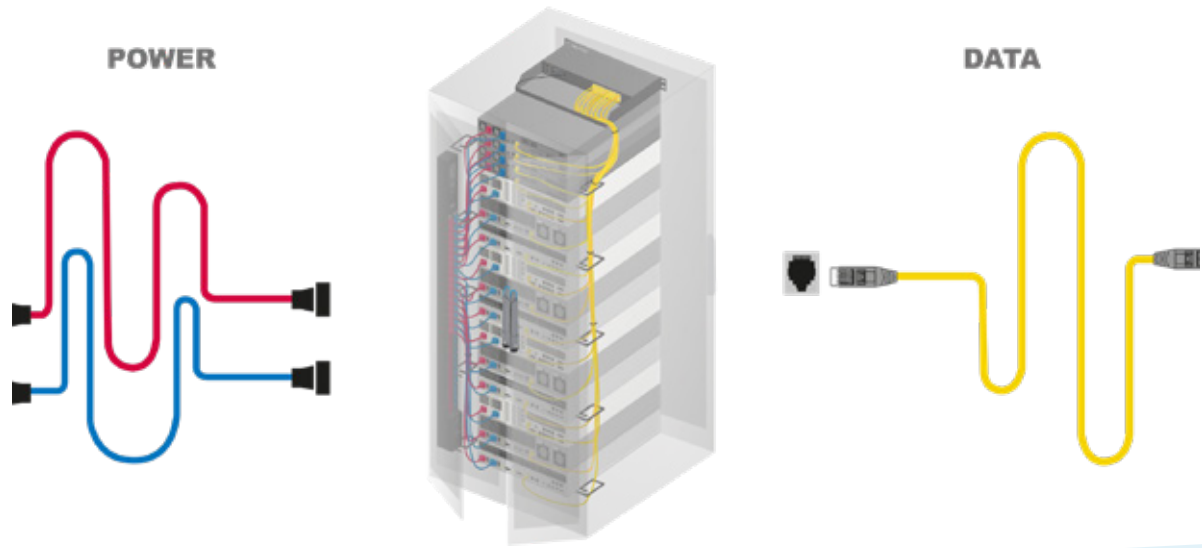
1 Phase

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   208V 20A / 30A

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		✔

3 Phase

400V 16A / 32A   208V 20A / 30A

Outlet nos			PDU Chassis	
C13	C19		Vetical	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	✔	

Inlet (1-PH 110V)	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

Inlet (1-PH 230V)	Amp	Cordset	
		mm²	length
60309	32A	4	3 M
Open end	20A	2.5	3 M
60309 / C20	16A	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 (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 / L21-30P	30A	10	6.6 FT
L15-20P / L21-20P	20A	12	6.6 FT

PDU drawings available for download :
www.austin-hughes.com/resources/rack-pdu-selector

Custom configurations available on request

cUL & TUV available for selective configurations

REACH   RoHS3 COMPLIANCE

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 * 1M = 3.28 FT	
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
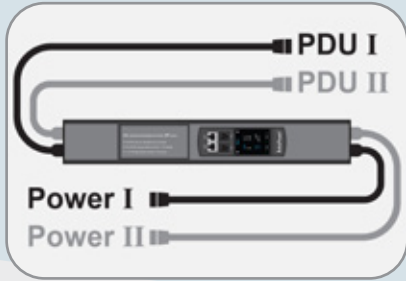
Display & Mounting - Vertical or Horizontal
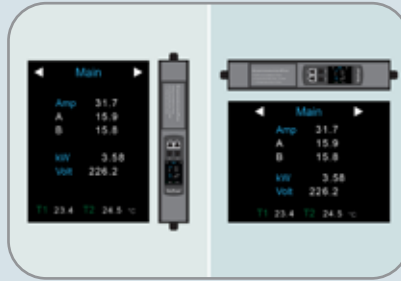
Save IP Cost - Max 32 Cascade Levels

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

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

* 1.5m cordset standard for inlet & outlet. Specific cordset length available.
** Bundled Inline Meter mounting kit supports rackmount or vertical mount.

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

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

* 1.5m cordset standard for inlet & outlet. Specific cordset length available.
** Bundled Inline Meter mounting kit supports rackmount or vertical mount.

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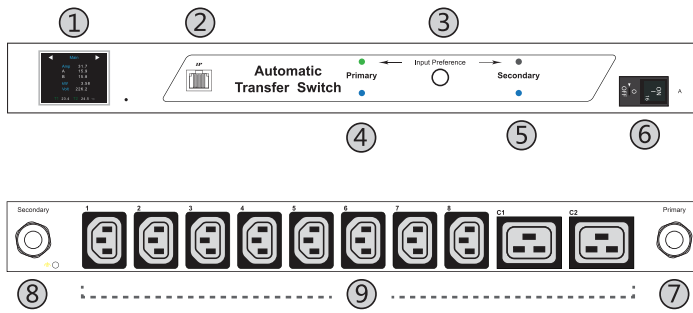
1. 2.0" color LCD
2. IP Port
3. Input Preference Switch
4. Power LED - primary input
5. Power LED - secondary input
6. Circuit Breaker
7. Primary Input attached with 3M cord & inlet plug
8. Secondary Input attached with 3M cord & inlet plug
9. Outlets

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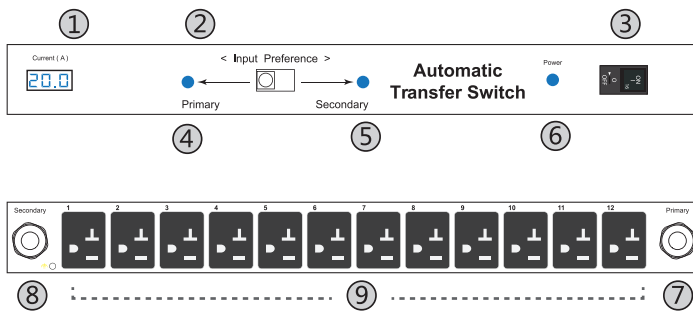
1. Local Current Meter
2. Input Preference Switch
3. Circuit Breaker
4. Power LED - primary input
5. Power LED - secondary input
6. Power LED - outlets
7. Primary Input attached with 3M cord & inlet plug
8. Secondary Input attached with 3M cord & inlet plug
9. Outlets

ATS Series	Metered	Monitored	Switched	
	MD	W	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.

InfraPower® IPM-04 — Free Download

InfraPower® GUI — Built-in

3rd Party DCIM — 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	
Accuracy	± (3% of the reading + 5 last digits) RMS	Billing grade meter accuracy within ± 1%	
Overload protection	Hydraulic-magnetic Miniature Circuit Breaker (MCB)		
Transfer time	10 - 16ms typical	10ms typical	
Electrical endurance	1 x 10^5 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

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

2U ATS - Single Circuit

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

2U ATS - Dual Circuit

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

230V ATS

Inlet	Amp	Cordset mm²	Cordset length
60309	32A	4	3 M
Open end	20A	2.5	3 M
60309 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	Cordset length
L6-30P	30A	10	10 FT
L6-20P	20A	12	10 FT

110V ATS

| Inlet	Amp	Cordset AWG	Cordset 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.

FC CE RoHS REACH

Door Mount Fan Panel   1U Fan Tray   Raised Floor Mount Fan

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	Front Door *Cool Air In* Rear Door *Hot Air Out*	Top *Exhaust hot air out* Equipment *Cooling* Bottom *Cool air in*			Front Door *Cool Air In*
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
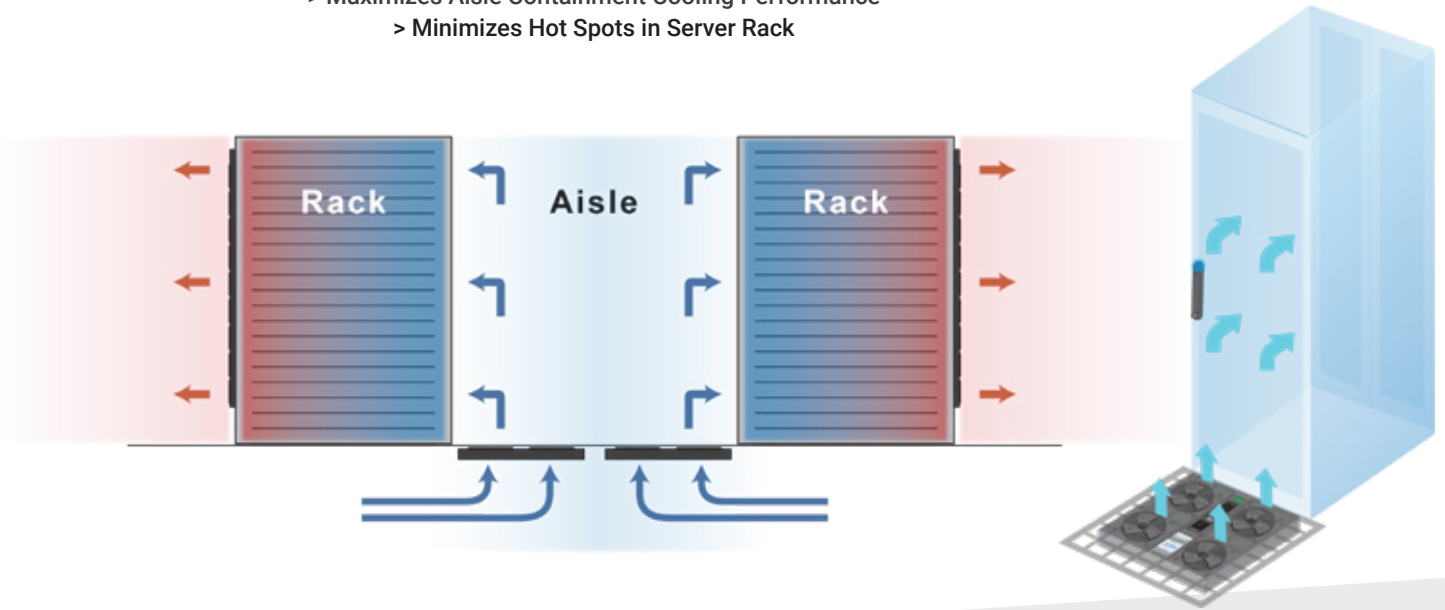
Intelligent Model WF-66.4

Connection Ports (at Side of Fan Unit)

Power   T1   T2

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

Temperature Sensor (Pair)

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

Basic Model F-66.4

Connection Ports (at Side of Fan Unit)

Power   Temp. 1   Temp. 2

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
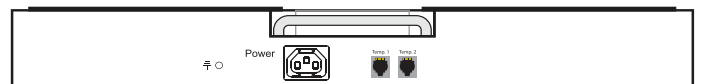
Temperature Sensor (Pair)

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

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

Basic Model:
F-33.9
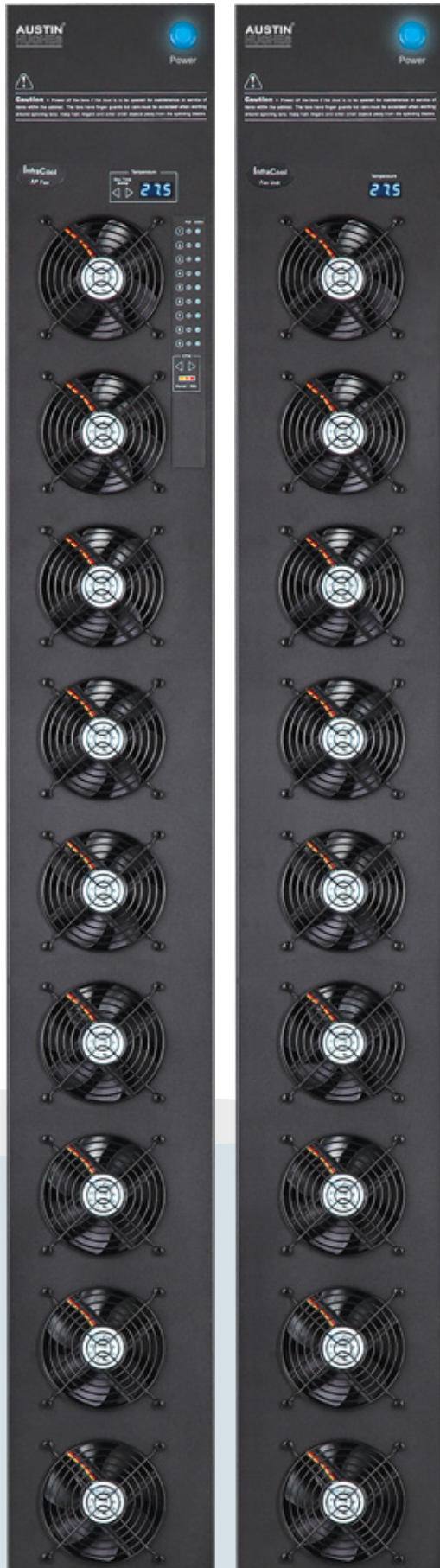
Benefits

- 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)
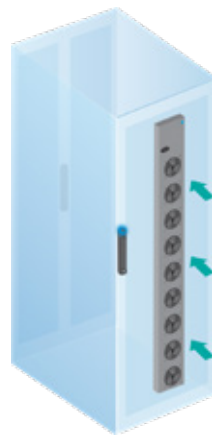
Front Door
Cool Air In

Rear Door
Hot Air Out

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)

TEMP	Link		IP

MRF-33.9

TEMP	Link	Out
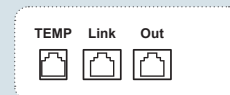
RF-33.9
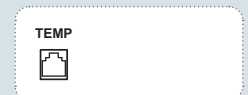
TEMP

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)

*Top
Exhaust hot air out*

*Equipment
Cooling*

*Bottom
Cool air in*
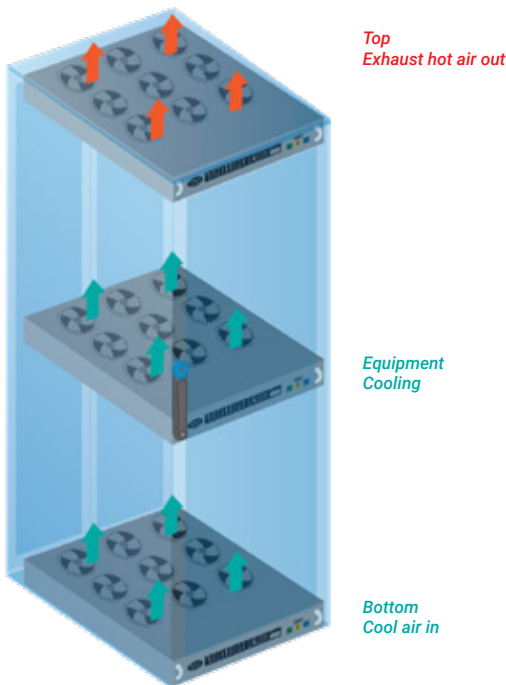
Intelligent Model :
Master IP MRF-1.9 / 1.6

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)
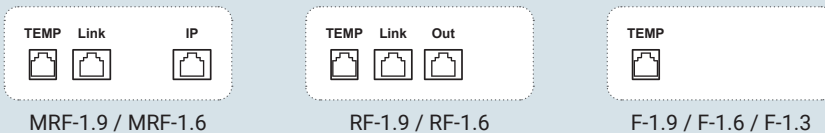
TEMP	Link		IP

MRF-1.9 / MRF-1.6

TEMP	Link	Out

RF-1.9 / RF-1.6

TEMP

F-1.9 / F-1.6 / F-1.3

Temperature Sensor (Pair)

Bundled with Intelligent Fan

• Magnetic base
• Plug & Play
• 2M wire

Bundled with Basic Fan

• Plug & Play
• 2M wire

InfraGuard

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)

Dual Power	LAN Port	Temp. LED	Out Port Daisy Chain	Sensor / Peripheral / PDU / Fan
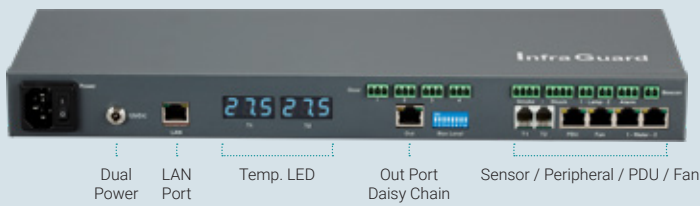
EC-300 - Expansion Control Box
(2nd - 16th Level)

Link / Out
Daisy Chain Port

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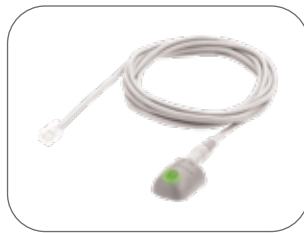
- Detection for temperature
- Low profile and light weight design with a magnetic base for easy affixing to rack

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
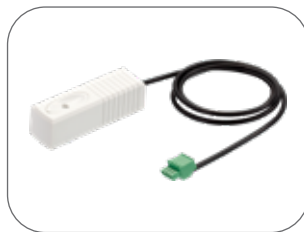
- Alert the physical vibration on the rack

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
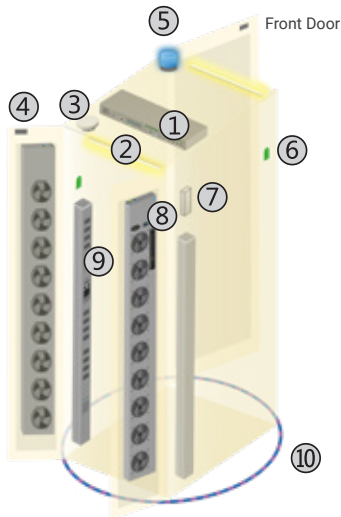
Front Door

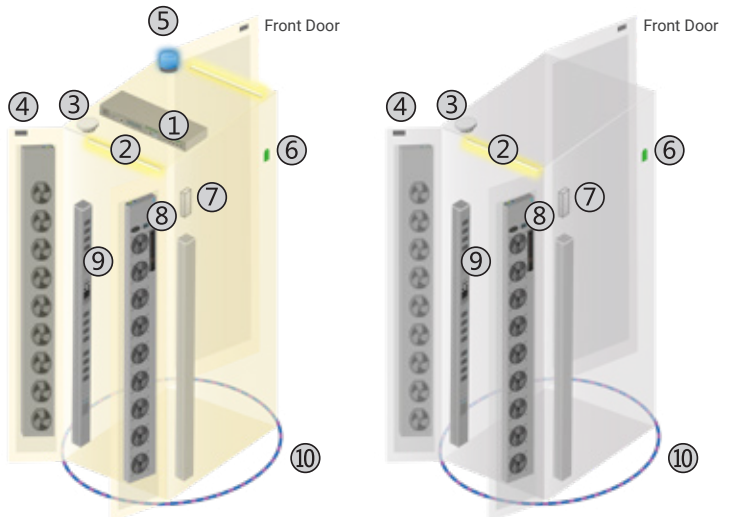| Item	Rack
❶ EC Box	1
❷ LED Light Bar	2
❸ Smoke Sensor	1
❹ Door Sensor	2
❺ Flashing LED Beacon	1
❻ Temp. & Humid. Sensor	2
❼ Shock Sensor	1
❽ Fan Unit	2
❾ PDU	2
❿ Water Sensor	1

- 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
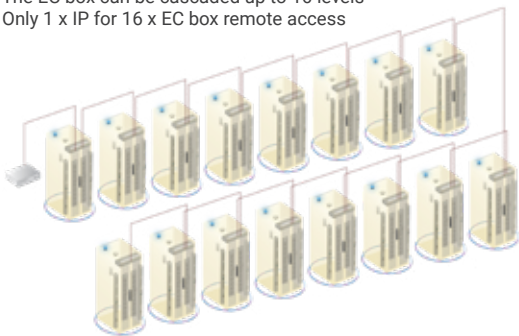
Free Software IGM-03

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

One Box Two Rack

Front Door   Front Door

Item	Rack 1	Rack 2
❶ EC Box	1	-
❷ LED Light Bar	1	1
❸ Smoke Sensor	1 *	1 *
❹ Door Sensor	2	2
❺ Flashing LED Beacon	1	-
❻ Temp. & Humid. Sensor	1	1
❼ Shock Sensor	1 *	1 *
❽ Fan Unit	2	2
❾ PDU	2	2
❿ 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
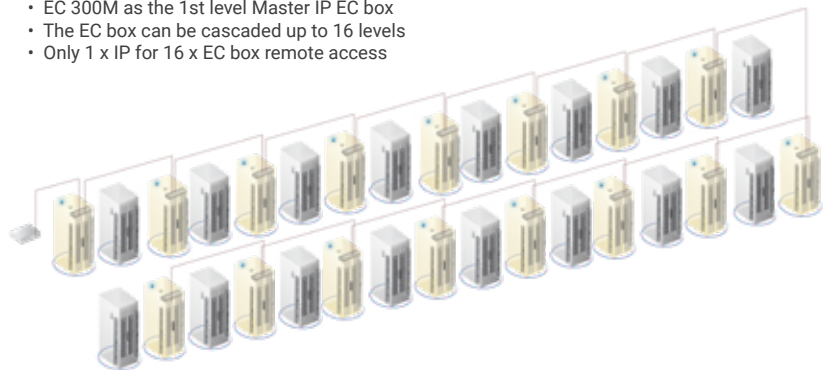
Free Software IGM-03

- 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.

3rd Party DCIM — via SNMP
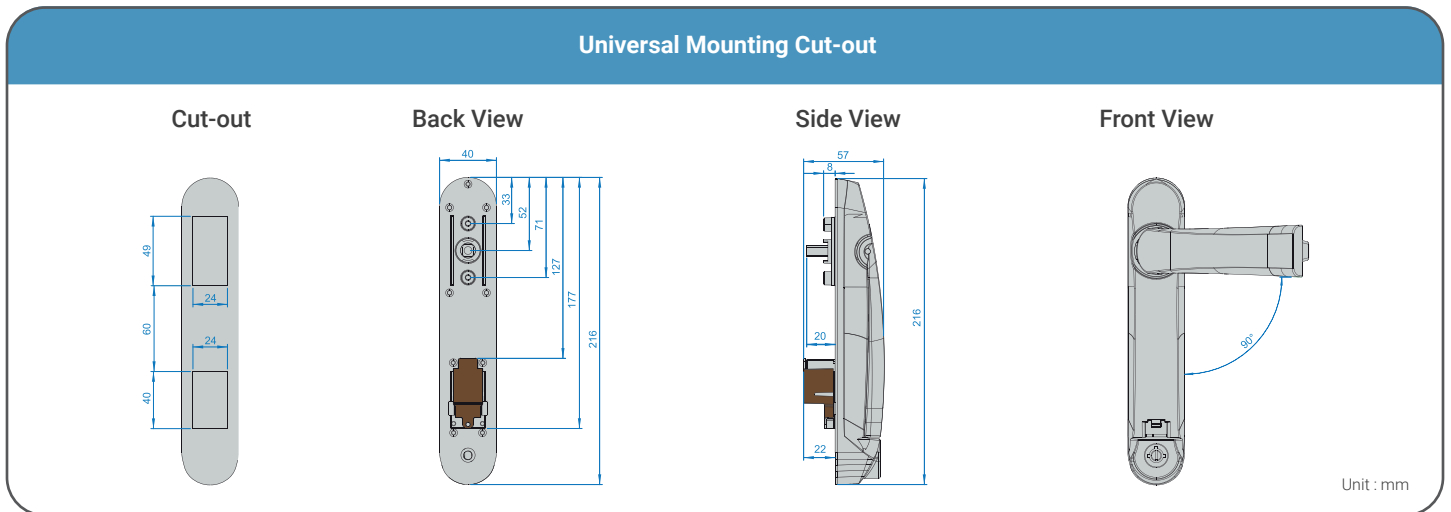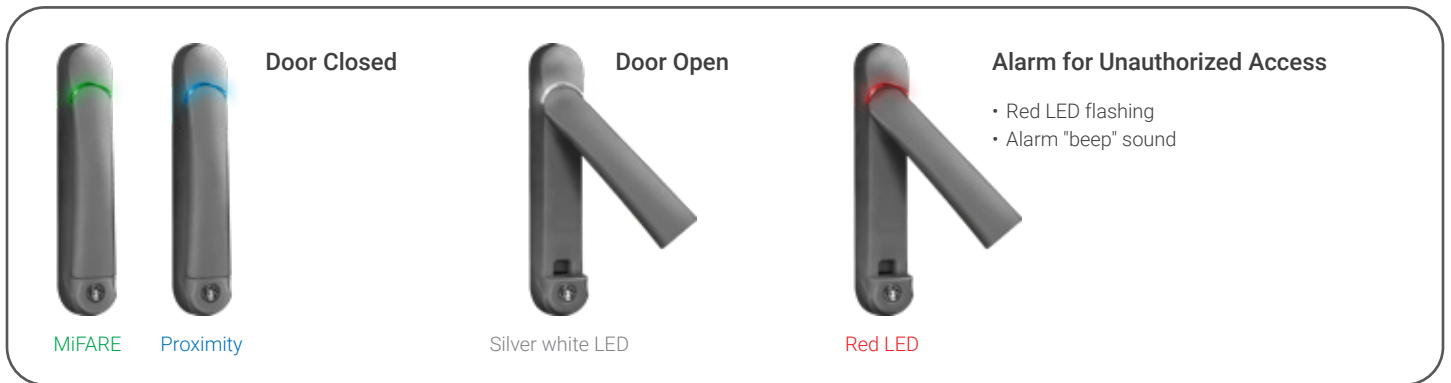
InfraGuard IGM-03 — Free Download
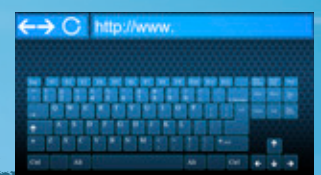
To satisfy high level data center security requirements, Austin Hughes has launched a standalone rack access solution with alloy swing handles & 2.8" touchscreen control panel. The InfraSolution S-700 series provides an innovative yet affordable solution for secure rack access in 21st century data centers.
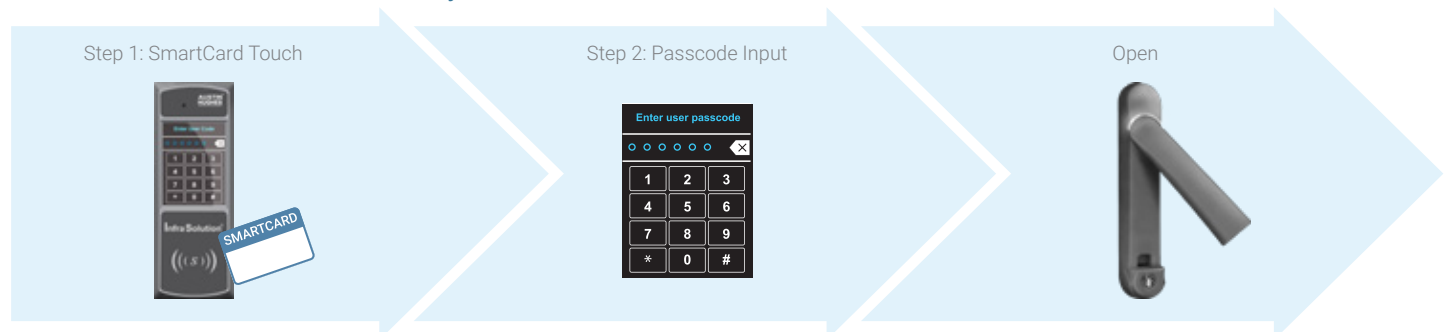
S-700P		Features		S-700M
	✔	Standalone, patented design	✔	
	✔	Dual security: SmartCard + NumPad	✔	
	✔	Rugged alloy swing handle	✔	
	✔	Sophisticated control panel w/ touchscreen	✔	
	✔	Proximity 26-bit SmartCard compatible	✘	
	✘	MiFARE 26-bit SmartCard compatible	✔	
	✔	Dual locking system (electronic and 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	Door Open	Alarm for Unauthorized Access
MiFARE Proximity		Silver white LED	Red LED

Alarm for Unauthorized Access
· Red LED flashing
· Alarm "beep" sound

Two-factor Authentication - Dual Security

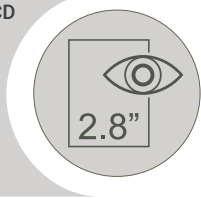| Step 1: SmartCard Touch	Step 2: Passcode Input	Open

Enter user passcode

Control Panel

Touchscreen Color LCD
- Resistive touch
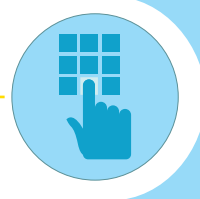- Sophisticated & stylish
- User friendly

Display & Monitoring via 2.8" LCD
- Rack information
- Door status
- Alarm notifications
- Temp. / humid. values
- PDU Amp. values

2.8"

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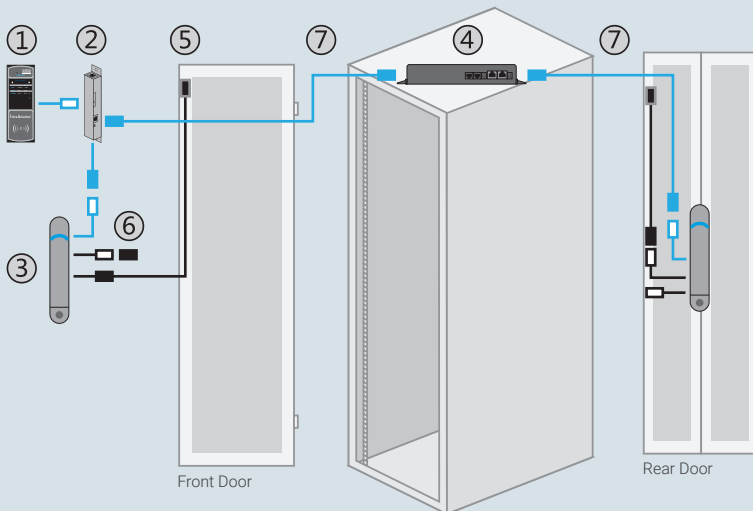- Passcode assignment
- Passcode authentication
- Add / delete user cards

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

Front Door

Rear Door

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).

Data Input Cable
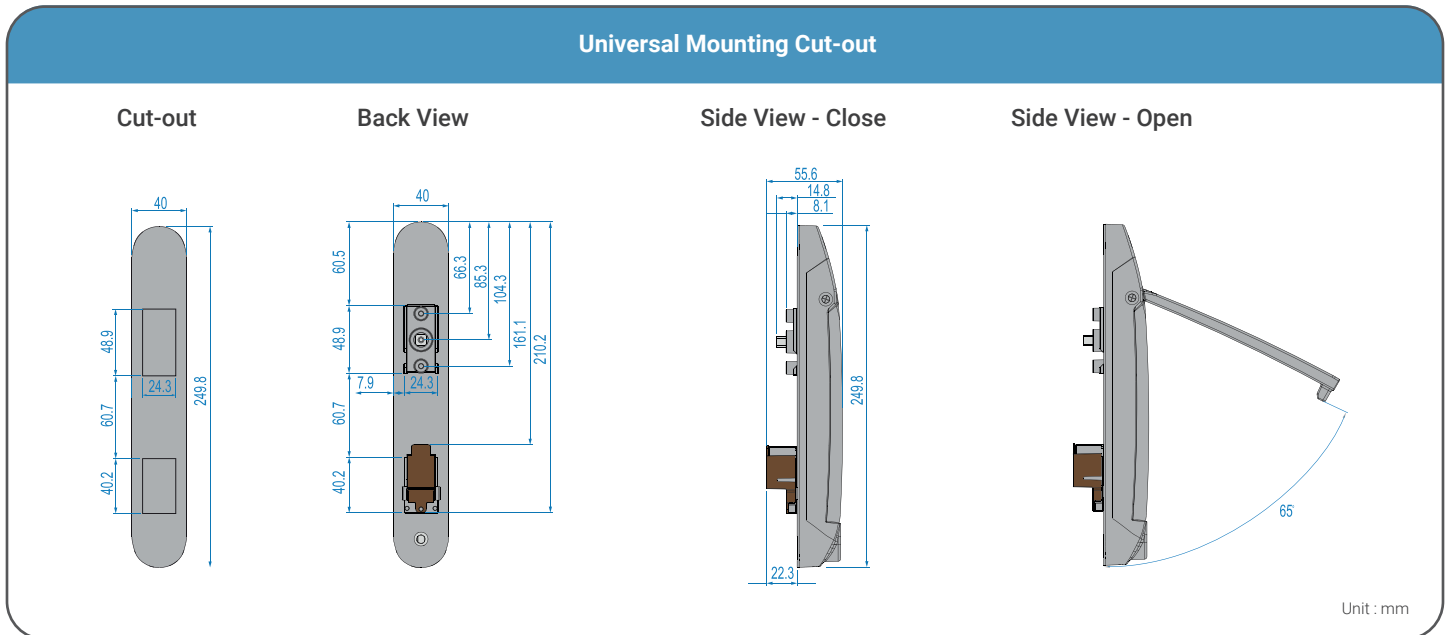ISW-USB-1.8

To
USB port

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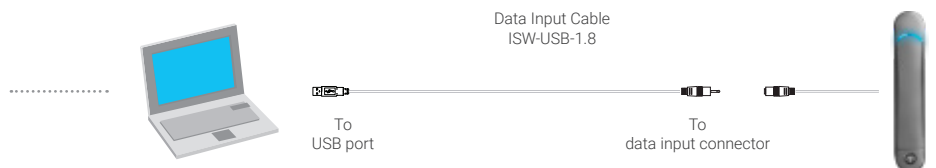
The patented S-800 SmartCard handle is designed for total rack access control and management.

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)	✔	

PROXIMITY SMARTCARD

MiFARE SMARTCARD

Universal Mounting Cut-out

Cut-out **Back View** **Side View - Close** **Side View - Open**

Unit : mm

Handle LED

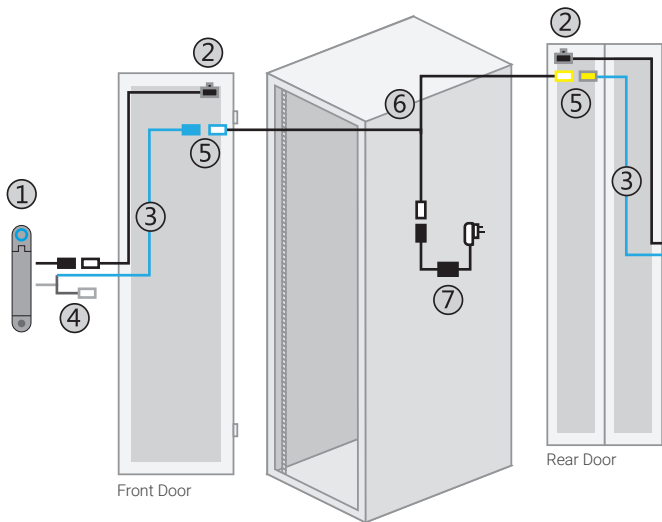**Door Closed** **Door Open** **Alarm for Unauthorized Open**

- Red LED flashing
- Alarm "beep" sound

* Only available while handles equipped with door sensors

MiFARE Proximity

Silver white LED

Red LED

Infra Solution® $\mathcal{S}$ Standalone Access Control

Installation Diagram

Front Door

Rear Door

❶ S-800P Proximity or S-800M MiFARE smartcard handle :
2pcs for front & rear door, with cables to connect ❷,❸,❹

❷ Optional door sensor with cable :
2pcs for front & rear door (6 ft)

❸ Power cable (door section) :
2pcs for front & rear door (6 ft)

❹ Data input connector
(for handle activation / data input / configuration)

❺ Joint connector of ❸ & ❻

❻ Y-Power cable (rack section)

❼ Universal Auto switching 2.5A power adapter & 6 ft 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).

Handle Data Input Cable
ISW-USB-1.8

To
USB port

To
handle data connector
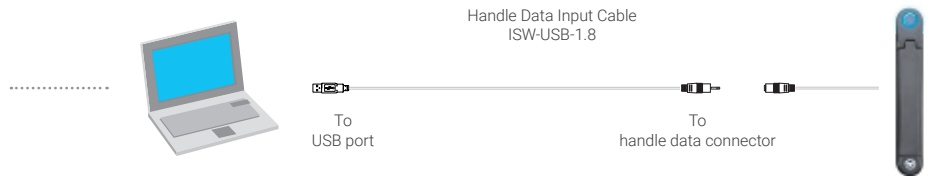
Door Sensors for InfraSolution

IR Door Sensor (Pair)
Part no. : S-DIR

- Light weight
- Magnetic base for easy rack retrofit
- No custom cutting required on doors
- Mini size (33 x 19 x 7 mm)
- Reflective labels bundled
- With 2m cord
- Support InfraSolution S / X

Inductive Door Sensor (Pair)
Part no. : S-DSI

- Light weight
- Adhesive for easy rack retrofit
- No custom cutting required on doors
- Mini size (32.5 x 12.2 x 9.2 mm)
- Mounting brackets bundled
- With 2m cord
- Support InfraSolution S / X

Mechanical Door Sensor (Pair)
Part no. : S-DSW

- Precise
- Low cost
- Cost efficient integration to new rack
- Size (52 x 22.5 x 30.75 mm)
- Mounting brackets bundled
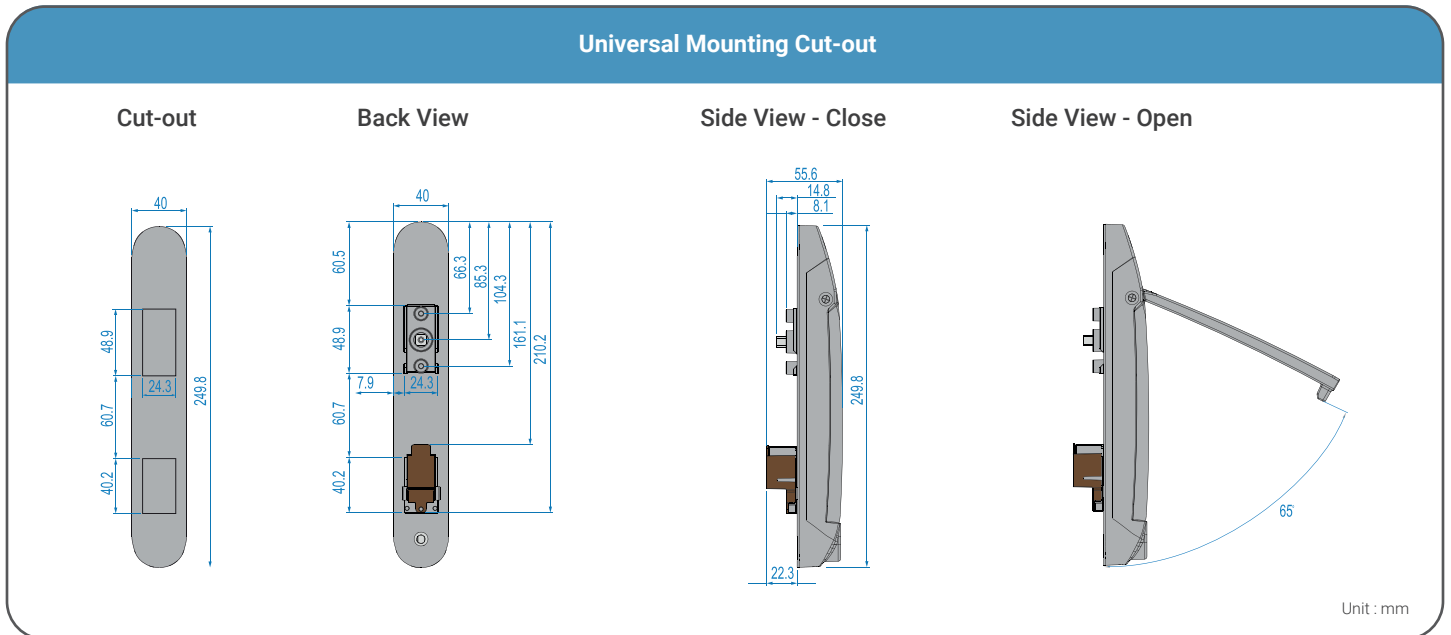- With 2m cord
- Support InfraSolution S / X

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
PROXIMITY SMARTCARD			MiFARE SMARTCARD
✔	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)	✔	

Universal Mounting Cut-out

Cut-out	Back View	Side View - Close	Side View - Open

Unit : mm

Handle Unlocking

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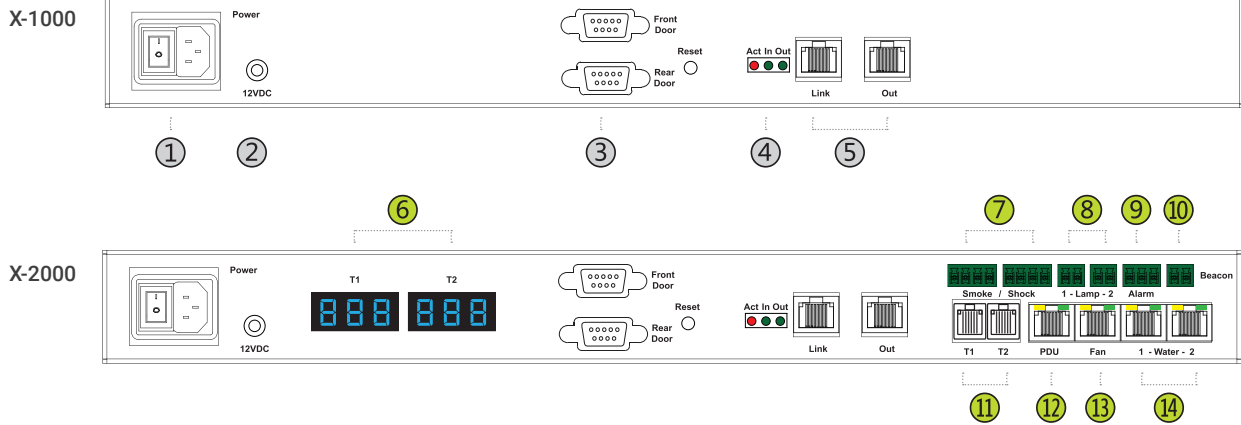
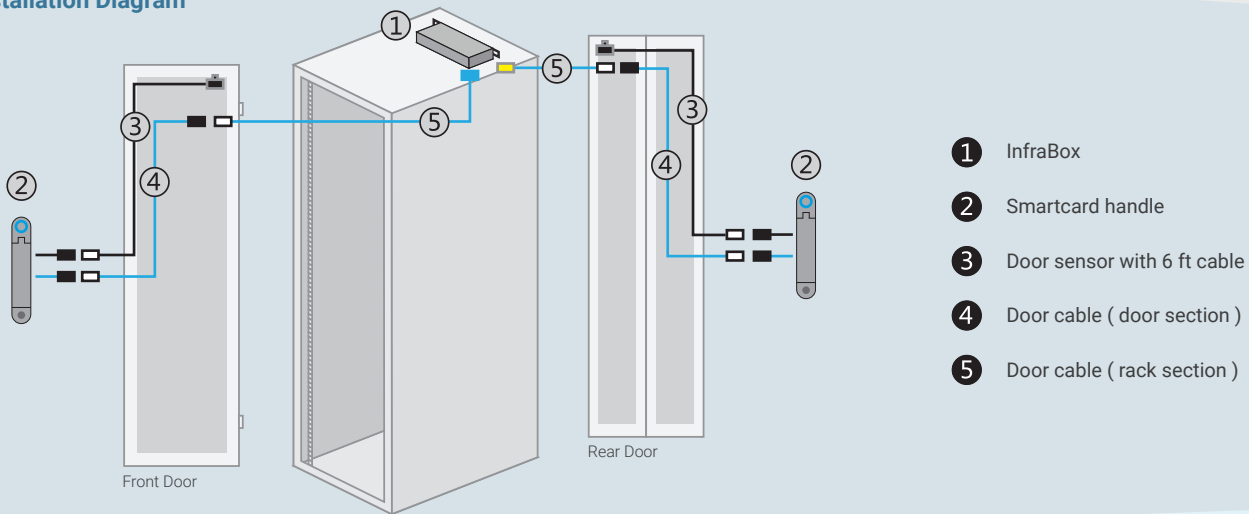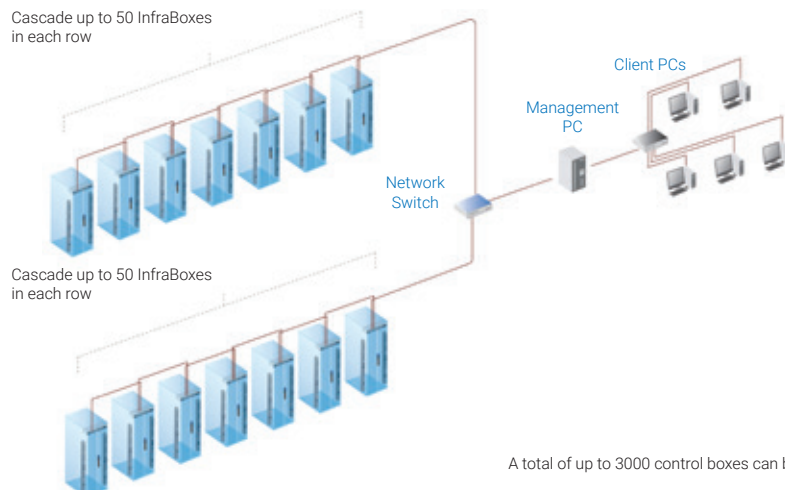By Software Remotely   By SmartCard   By Mechanical Key

Control Box

X-1000

| Power | Front Door | Reset | Act In Out | Link | Out |

① ② ③ ④ ⑤

⑥   ⑦ ⑧ ⑨ ⑩

X-2000

Power T1 T2 Front Door Reset Act In Out Link Out Smoke / Shock 1 - Lamp - 2 Alarm Beacon 12VDC T1 T2 PDU Fan 1 - Water - 2

⑪ ⑫ ⑬ ⑭

① Power input
② Dual power input (option)
③ Door cable DB-9 connector x 2
   Connect to the front and rear handle
④ "Act in Out" LED
⑤ Daisy chain RJ45 port x 2 (Link & Out)

⑥ Temp. LED display x 2
⑦ Smoke / Shock sensor port x 2
⑧ LED Light Bar port x 2
⑨ Port for 3rd party alarm board x 1
⑩ LED beacon port x 1

⑪ Temp. & Humid. sensor port x 2
⑫ PDU port x 1   (RJ-45, Daisy Chain up to 4 PDUs)
⑬ Fan unit port x 1 (RJ-45, Daisy chain up to 2 fan units)
⑭ Water sensor port x 2

Installation Diagram

Front Door

Rear Door

❶ InfraBox
❷ Smartcard handle
❸ Door sensor with 6 ft cable
❹ Door cable (door section)
❺ Door cable (rack section)

InfraBox Connection Diagram

Cascade up to 50 InfraBoxes in each row

Cascade up to 50 InfraBoxes in each row

Network Switch

Management PC

Client PCs

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.
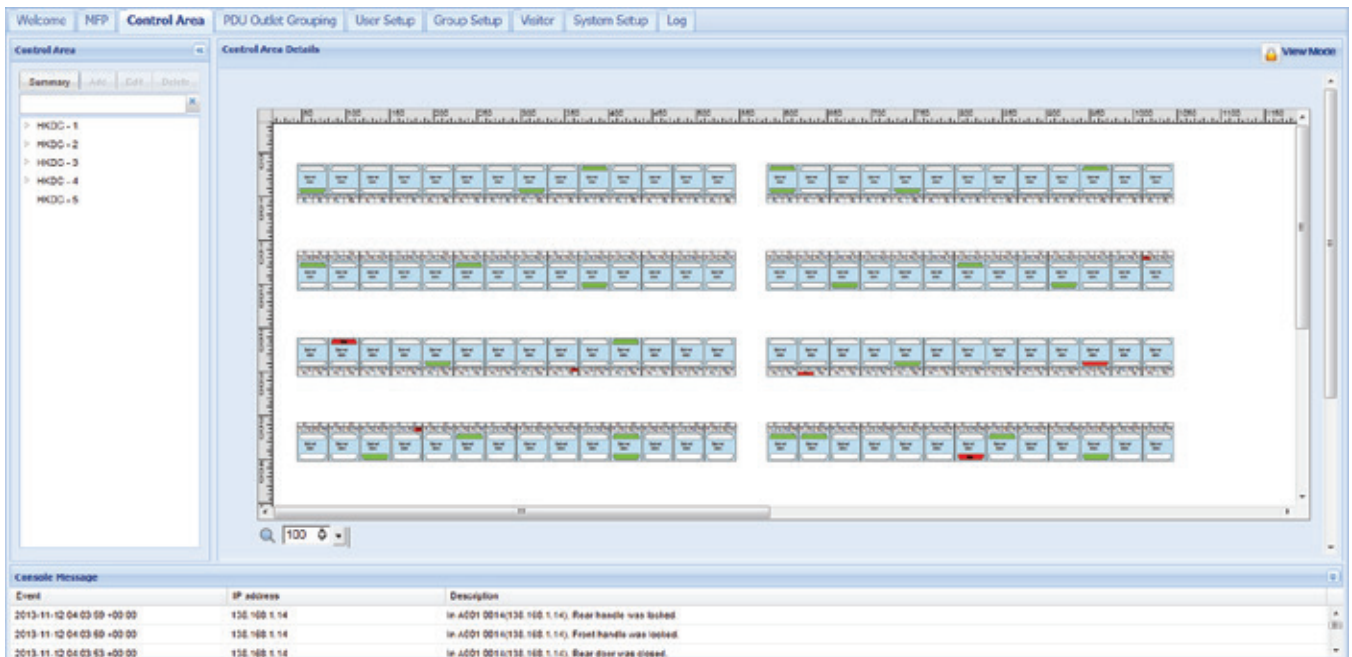
Features		X-ISM
Capacity	InfraBox	3000
	Concurrent Users	100
System Setup	Backup/Restore Options	✔
	Time Rules	✔
	Alarm Mail Server Settings	✔
	Audio and Visual Alarm Output Setting	✔
Cabinet Overview Door	Door Status, PDUs, Sensor & Fan Units	✔
	Remotely Open Door	✔
	Last Door Open & Closed Record	✔
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.
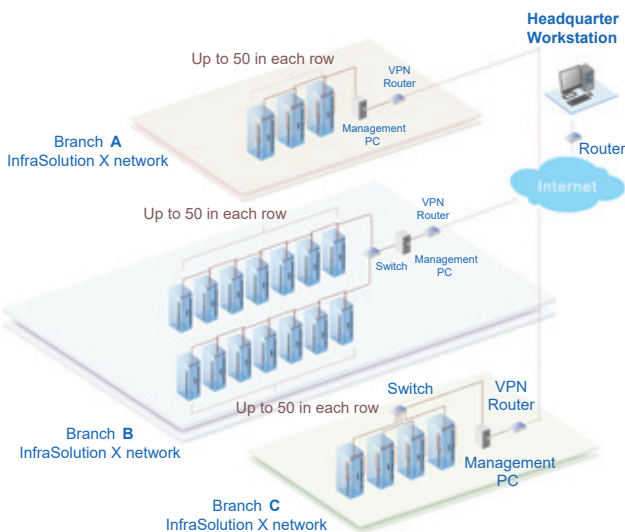
Client PCs

Network Switch
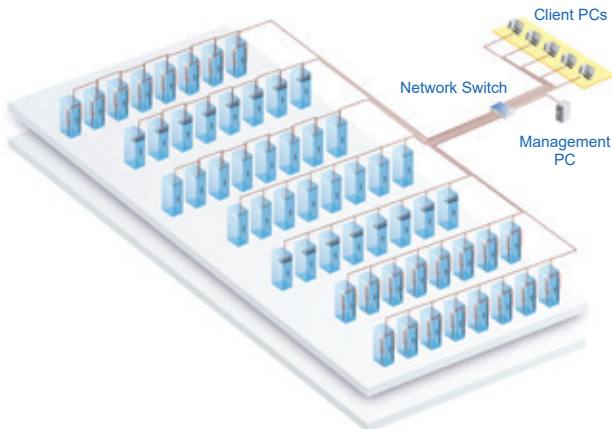
Management PC

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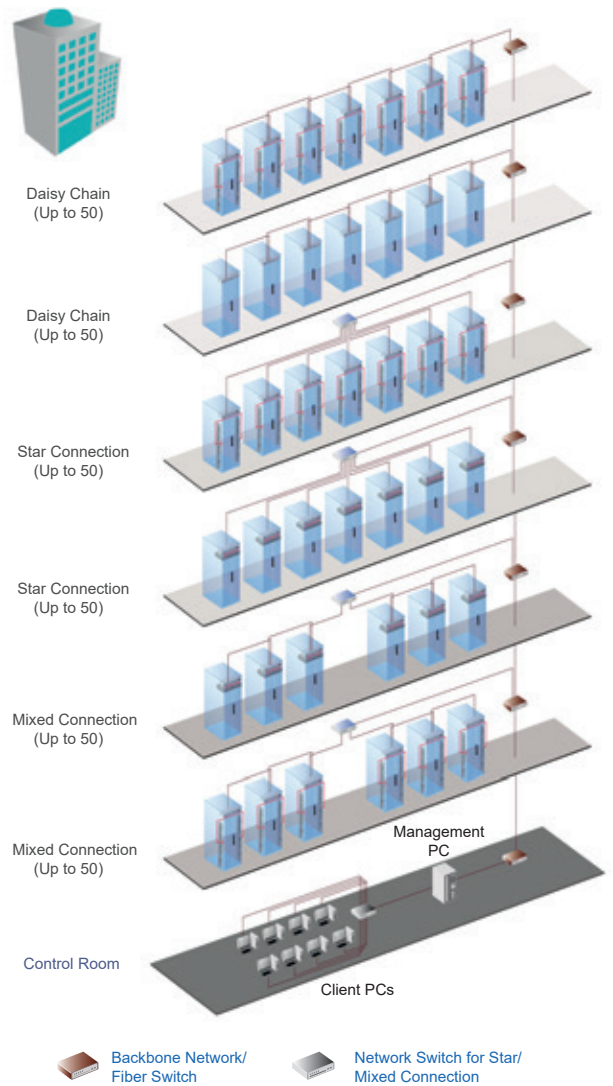
An InfraSolution X software license is required for each remote site/management PC

Headquarter Workstation

Up to 50 in each row

VPN Router

Management PC

Branch A
InfraSolution X network

Router

Up to 50 in each row

VPN Router

Switch

Management PC

Internet

Branch B
InfraSolution X network

Switch

VPN Router

Up to 50 in each row

Management PC

Branch C
InfraSolution X network

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.

Daisy Chain
(Up to 50)

Daisy Chain
(Up to 50)

Star Connection
(Up to 50)

Star Connection
(Up to 50)

Mixed Connection
(Up to 50)

Mixed Connection
(Up to 50)

Management PC

Control Room

Client PCs

Backbone Network/
Fiber Switch

Network Switch for Star/
Mixed Connection

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

CyberView™

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)
F121	F121R

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)
F121	F121R

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)
K123	K123R

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

CyberView™

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

	HDMI	DP	Keyboard	Power
Central				
Left			Mouse	
Right				
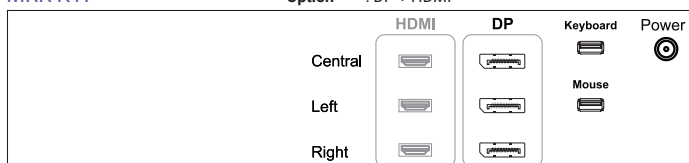
MRK-F17 / MRK-MF17 / MRK-19 / MRK-X17 — Standard : VGA + DVI-D / Option 1 : VGA + HDMI / Option 2 : VGA + DP (only apply for MRK-F17 / MRK-MF17)

	DP	HDMI	DVI-D	VGA	Keyboard	Power
Central						
Left					Mouse	
Right						
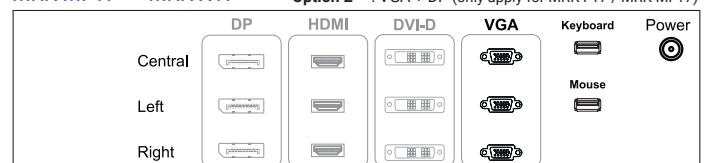
MRP	**2U Multi-display Drawer**

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
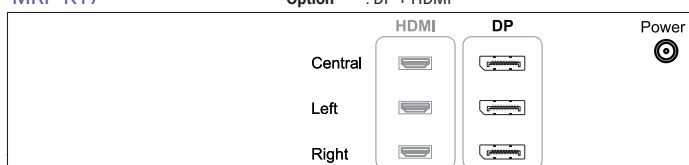• HDMI video input

Models

	LH mounted		RH mounted
17" **4K UHD**	MRP-K17-2L	MRP-K17-3	MRP-K17-2R
17" 1080p 60 Hz	MRP-F17-2L	MRP-F17-3	MRP-F17-2R
17" 1080p 144 Hz	MRP-MF17-2L	MRP-MF17-3	MRP-MF17-2R
16.2" 1920 1200	MRP-X17-2L	MRP-X17-3	MRP-X17-2R
19" 1280 1024	MRP-19-2L	MRP-19-3	MRP-19-2R

Rear View

MRP-K17

Standard	: DP
Option	: DP + HDMI

	HDMI	DP	Power
Central	▭	▭	◉
Left	▭	▭	
Right	▭	▭	

MRP-F17   MRP-19
MRP-MF17   MRP-X17

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

	DP	HDMI	DVI-D	VGA	Power
Central	▭	▭	▭	▭	◉
Left	▭	▭	▭	▭	
Right	▭	▭	▭	▭	

cUL for selective models

RoHS3 COMPLIANCE · REACH
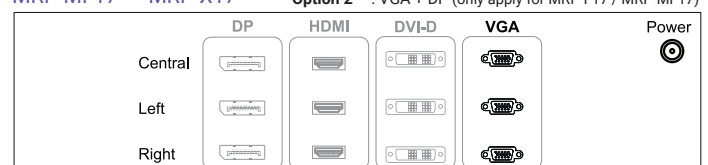
Rack Console Drawer Series	Model	Video Input	LCD Panel			Chassis Design	KVM Rear Kit						
			Categories	Size	Resolution		4K	2K	DVI-D	Cat 6 Combo	Cat 6 Martix	DB-15 Combo	DB-15 USB Hub
1U LCD Console Drawer	K117	DP 1.2 (attached 6ft cable)	4K	17"	3840 x 2160	1U, Short Depth design of 480mm	✔						
	F117	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 x1024	1U, Short Depth design of 470mm		✔	✔	✔	✔	✔	✔
	RKP119	VGA	Regular	19"	1280 x1024	1U, Short Depth design of 510mm		✔	✔	✔	✔	✔	✔
	N117	VGA	Regular	17"	1280 x1024	1U, Short Depth design of 500mm		✔	✔	✔	✔	✔	
	N119	VGA	Regular	19'"	1280 x1024	1U, Short Depth design of 500mm		✔	✔	✔	✔	✔	
	RKP7/9	VGA	Regular	17" / 19"	1280 x1024	1U		✔	✔	✔	✔	✔	
Large LCD	K123	DP 1.2 (attached 6ft cable)	4K	23"	3840 x 2160	1U, Left open model or Right open model	✔						
	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 x1024	1U, Dual Slide		✔	✔	✔	✔	✔	✔
	D119	VGA	Regular	19"	1280 x1024	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 x1024	2U, Dual Slide, Short depth 480mm		✔	✔	✔	✔	✔	
	RKP2419	VGA	Regular	19"	1280 x1024	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 x1024	1U, Short Depth design of 480mm		✔	✔	✔	✔	✔	✔
	H119	VGA	Regular	19"	1280 x1024	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	✔	✔	✔
	High Brightness	RP-HF617	DVI-D + VGA	FHD	17"	1920 x 1080	6U Rackmount	✔	✔	✔
		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
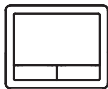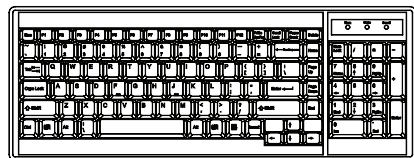
Gb G keyboard integrated with trackball
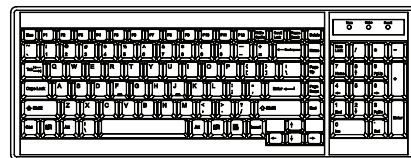
Supported Layouts

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

KVM Extender

CV-S101 — Combo KVM Extenter

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

Standard Brightness / 700 cd/m² 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"

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*

Standard Brightness

6mm aluminum front bezel

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

NEMA 4 / IP65 front protection
6mm aluminum front bezel
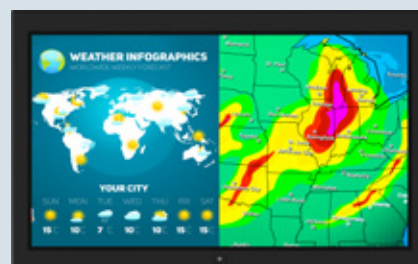
NAP-K23
NAP-K17
NAP-K15
NAP-K13

Aluminum front cover
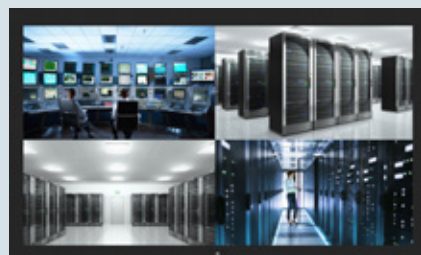
DP-K23
DP-K17
DP-K15
DP-K13

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

## Standard Brightness / 1500 cd/m² Sunlight Readable Brightness

8mm/6mm aluminum front bezel

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

NEMA 4 / IP65 front protection
8mm/6mm aluminum front bezel
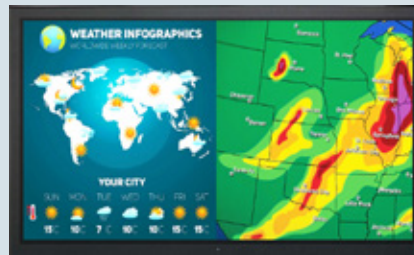
NAP-F55	NHAP-F55
NAP-F43	NHAP-F43
NAP-F32	NHAP-F32
NAP-F28	

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

UltraView
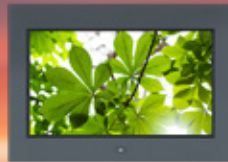
F23" ~ F13"

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

Standard Brightness / 1000 cd/m² 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
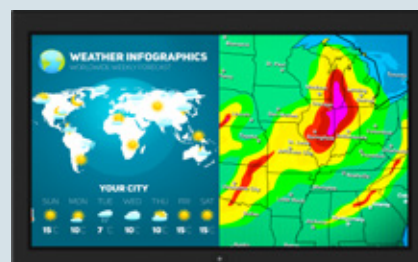
NAP-F23
NAP-F21   NHAP-F21
NAP-F17   NHAP-F17
NAP-F15   NHAP-F15
NAP-F13

Aluminum front cover
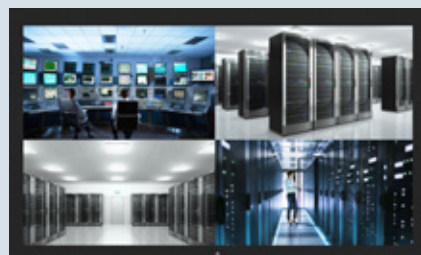
DP-F23
DP-F21   HDP-F21
DP-F17   HDP-F17
DP-F15   HDP-F15
DP-F13

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

UltraView

FHD 144Hz Professional and Versatile LED Monitor

FHD 144 Hz

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

Standard Brightness

6mm aluminum front bezel

AP-MF27
AP-MF17

**NEMA 4 / IP65 front protection
6mm aluminum front bezel**
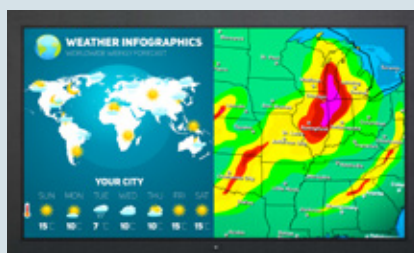
NAP-MF27
NAP-MF17

Aluminum front cover
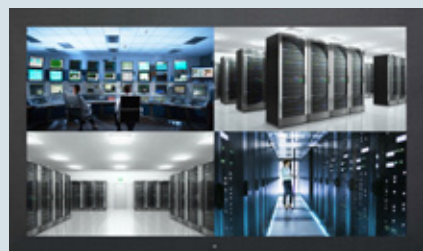
DP-MF27
DP-MF17

Universal open frame
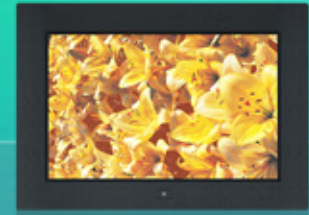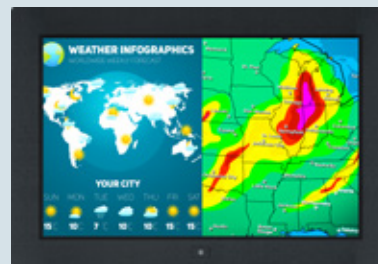
OP-MF27
OP-MF17

Chassis customization

▸ Dimension   ▸ Color & Treatment   ▸ Screen Printing   ▸ Stainless Steel Bezel

UltraView

WUXGA Professional and Versatile LED Monitor

WU XGA

X24" & X17

X24"
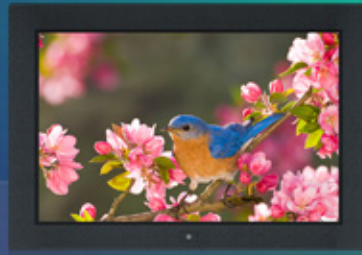
X17

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

Standard Brightness
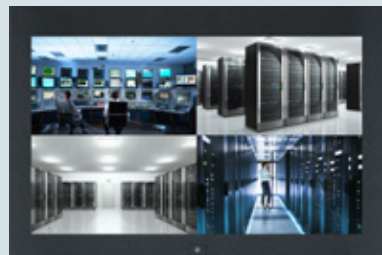
6mm aluminum front bezel

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
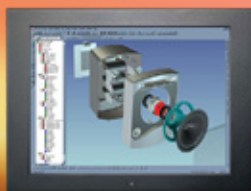

OP-X24
OP-X17

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

Standard Brightness / 1000 cd/m² Sunlight Readable Brightness
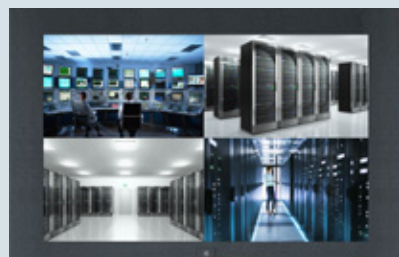
6mm aluminum front bezel

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

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
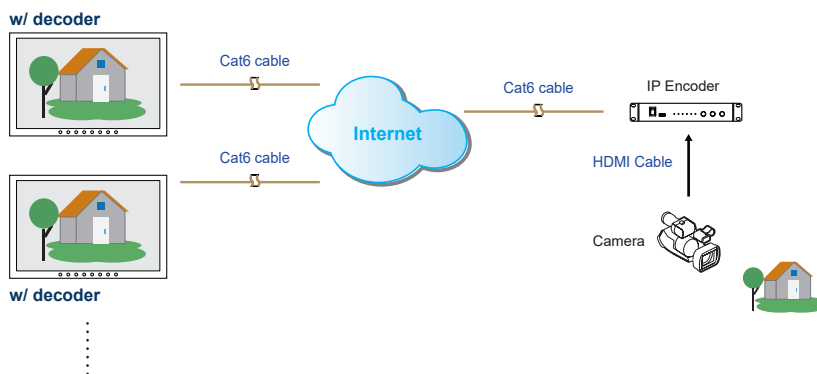- Screen Printing
- Stainless Steel Bezel

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. :
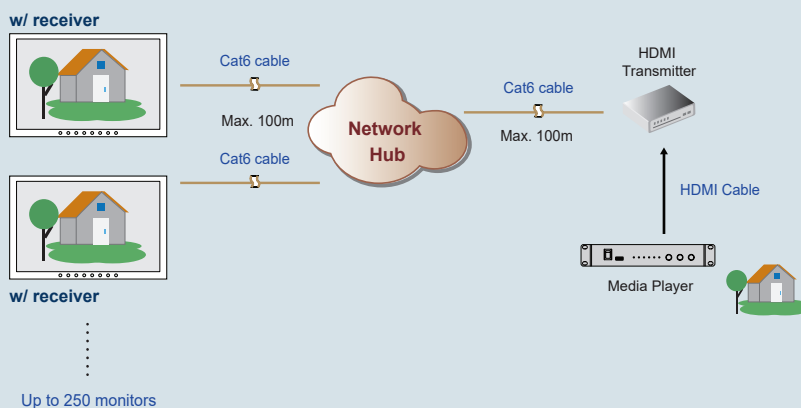Embedded HDMI Decoder Module : UV-DE100F
Standalone HDMI Encoder : UV-EN100F

w/ decoder

Cat6 cable

Internet

Cat6 cable

IP Encoder

HDMI Cable

Cat6 cable

Camera

w/ decoder

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

w/ receiver

Cat6 cable

Max. 100m

Network Hub

Cat6 cable
Max. 100m

HDMI Transmitter

HDMI Cable

Cat6 cable

Media Player

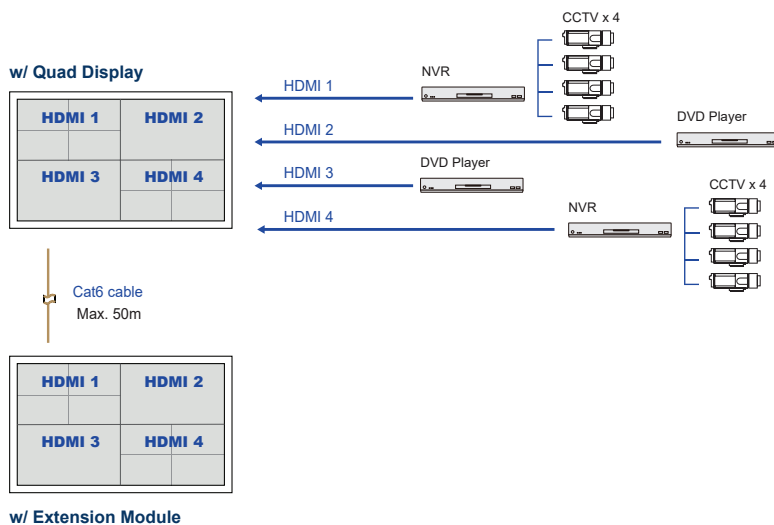**w/ receiver**

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
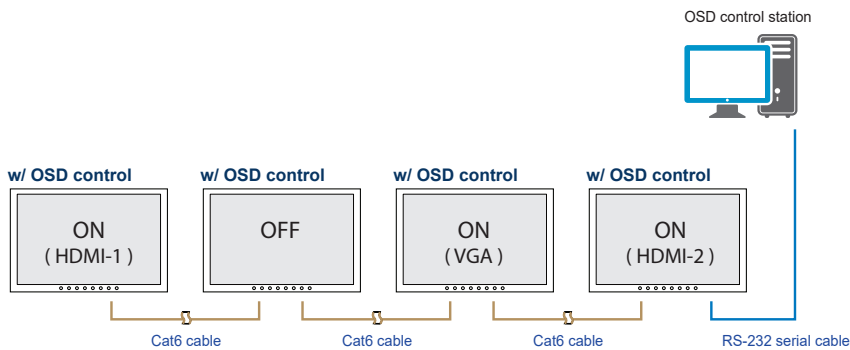
Part no. :
Embedded HDMI Quad Display Module : QD-1080
Embedded Quad Display Extension Module : QD-E1080

w/ Quad Display

| HDMI 1 | HDMI 2 |
| HDMI 3 | HDMI 4 |

HDMI 1 — NVR — CCTV x 4
HDMI 2 — DVD Player
HDMI 3 — DVD Player
HDMI 4 — NVR — CCTV x 4

Cat6 cable
Max. 50m

| HDMI 1 | HDMI 2 |
| HDMI 3 | HDMI 4 |

w/ Extension Module

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

Part no. :
Embedded Multi Monitor OSD Control Module : MCS

OSD control station

Up to 64 monitors
Up to 1,000m distance

w/ OSD control — ON (HDMI-1)
w/ OSD control — OFF
w/ OSD control — ON (VGA)
w/ OSD control — ON (HDMI-2)

Cat6 cable — Cat6 cable — Cat6 cable — RS-232 serial cable

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

w/ SDI — Preview monitoring
SDI — Camera
SDI
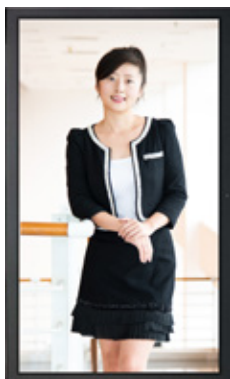Video Streaming Server — SDI — Video Studio Panel — SDI — w/ SDI — Live monitoring
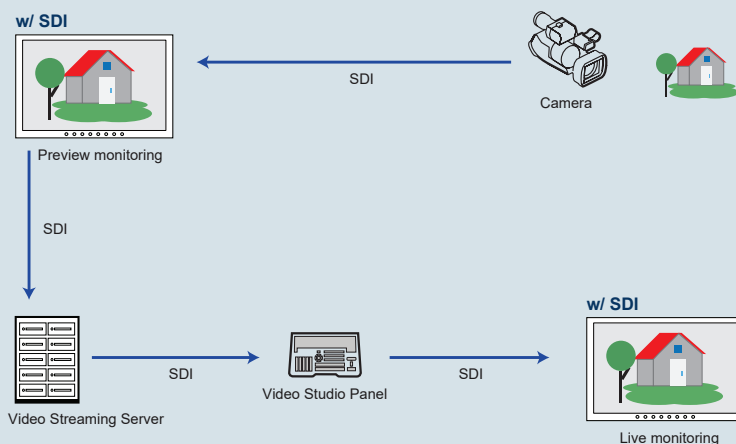
Embedded Portrait Mode Module

- 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
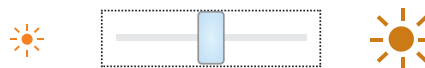
Part no. :
Embedded Portrait Mode Module : AD4.0-P

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.

MiniBoot

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**
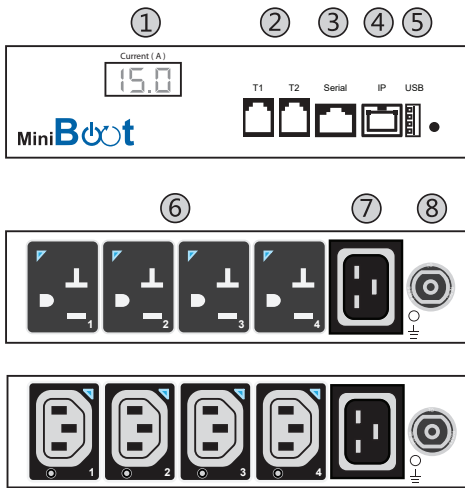- **Information Desks**

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

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

Mini Boot

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
Accuracy	± (3% of the reading + 5 last digits) RMS
Overload protection	Resettable fuse
Electrical endurance	1×10^5 operations

Chassis	
Color	White
Material	Steel

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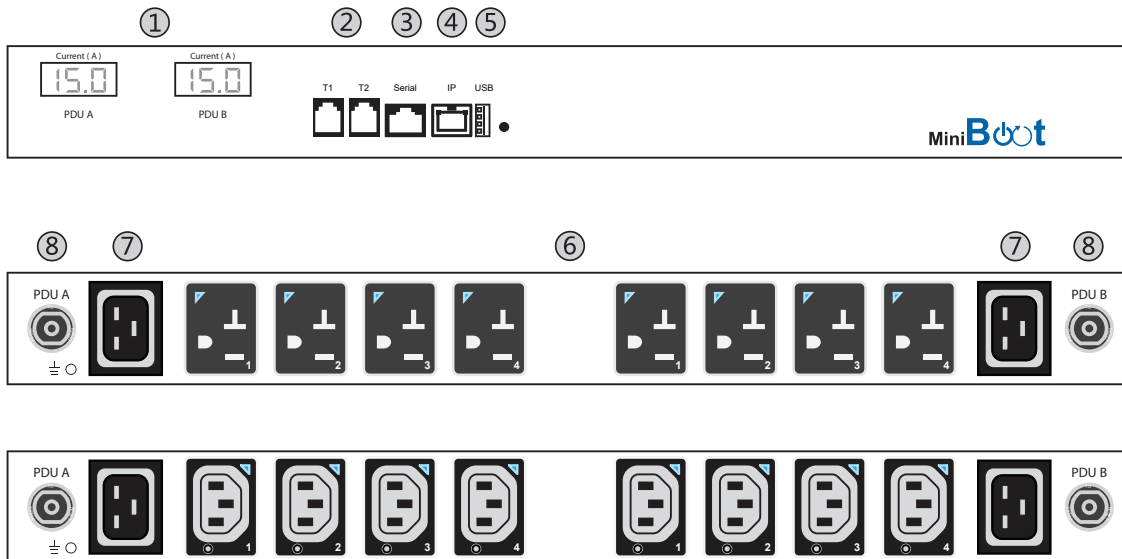
1	RMS current meter x 2
2	Sensor port x 2
3	Serial port x 1
4	Gigabit IP LAN port x 1
5	USB Wifi port x 1
6	Switched outlets (US NEMA, C13)
7	C20 Inlet x 2
8	Resettable fuse x 2

| MiniBoot - Dual Feed | | | Amp | | |
Outlet	Inlet	Model	110V	208V	230V
NEMA x 8	C20 x 2	MiniBoot-D8US	15A		
C13 x 8	C20 x 2	MiniBoot-D8C13		16A	10A / 13A / 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
Accuracy	± (3% of the reading + 5 last digits) RMS
Overload protection	Resettable fuse x 2
Electrical endurance	1 x 10^5 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

Environmental	
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

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

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.

MiniBoot GUI — Built-in
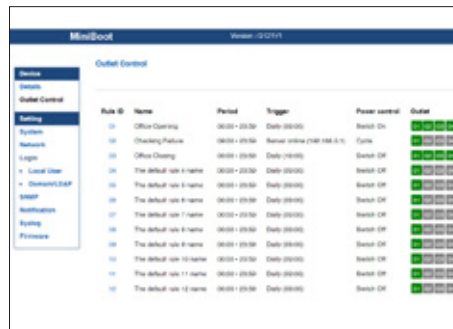
3rd Party DCIM — via SNMP V2 / V3

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
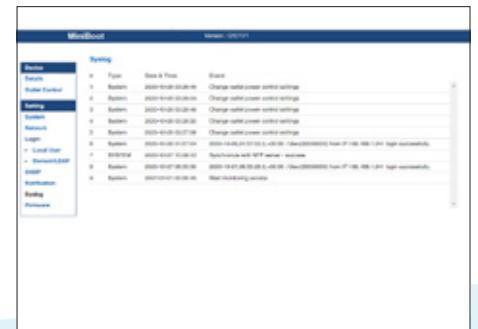
3rd Party DCIM via SNMP V2 / V3

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	• Manual outlet on / off by GUI / SNMP • Automatic outlet on / off by scheduling , IP Ping and sensor condition • Aggregate current (Amp) monitoring • Alarm alert
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
Remote Management	• Protocols: HTTP(S); SSH Command Line Interface; Telnet; SMTP; IPv6/IPv4
Alarms / Alerts	• Receive alerts via SNMP, email (SMTP), and syslog when predefi ned thresholds are exceeded for both MiniBoot and environmental sensor events • Common SNMP MIBs (Management Information Base) for all MiniBoot models
SNMP	• SNMPv1/v2 & SNMPv3 for integration to DCIM

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
- 1M cord with USB port

IPD-WIFI

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

IG-TH01-2M/4M

IG-T01-2M/4M

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

IP-S01-1M / 3M

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

IP-DSW-2M/4M

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
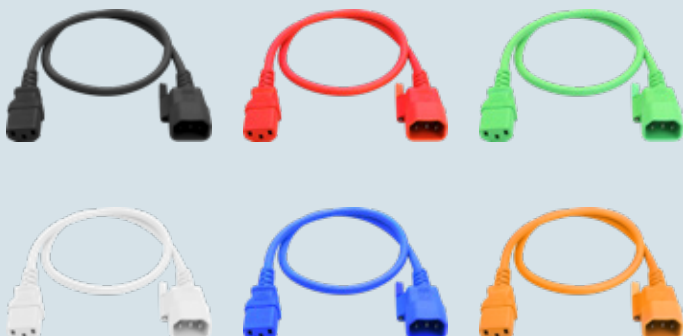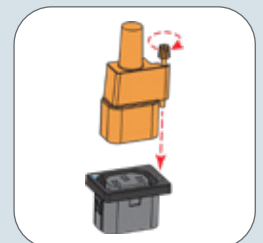
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