# Intro

Open frame/RelayRack offers highly cost-effective and easy assembly solutions for numerous applications in the field of network technology and electronics.



# **GENERAL CHARACTERISTICS**

- Designed to house 19" standard mounting devices
- 300 kg load carrying capacity
- Wide range of sizes;
- 16U/22U/26U/36U/42U/48U
- 🔳 Width: 536 mm
- Single frame for just 19'' frontal assembly
- Single frame depth is 640 mm
- Double frame with 180 mm extention unit, Depth= 820 mm
- Double frame with 300 mm extention unit, Depth=940 mm
- Standard colors:

RAL 9005 Black & RAL 7035 Light Grey

Uprights are punched in full-length with square holes to use standard accessory cable ring for cable management

- Levelling feet as standard
- Provides quick access to equipment
- Available as flatpack





# Smart Design Options

Smart design features to be used as single frame or double frame.

Single frame unit, provides housing for just 19" frontal assembly installations, compatible with all standard 19" frontal assembly accessorries

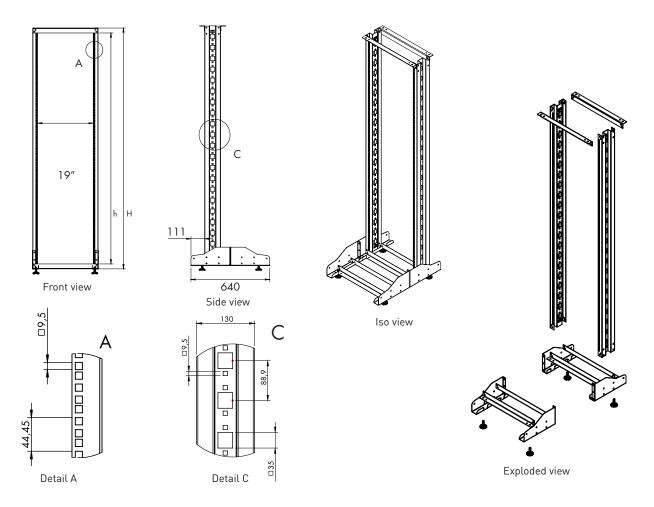
■ Double frame units, with extention unit in between the base structure of the Relayrack / Open Frames D=180mm, frame units will provide 4 point assembly possibility to house all D=800mm range accessories. where the frame base depth becomes 820 mm

Double frame units, with extention unit in between the base structure of the Relayrack / Open Frames, D=300 mm frame units will provide 4 point assembly possibility to house all suitable range accessories, where the frame base depth becomes 940 mm, the application field is called servering; the Relayrack / Open Frames with this structure becomes server Relayrack



# SINGLE FRAME

# PRODUCT REFERENCE D=640 MM CABINET DIMENSIONS (MM)



H= Enclosure height

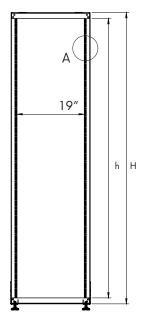
PRODUCT REFERENCE	DESCRIPTION	DIMENSIONS WxDxH (mm)	INSIDE HEIGHT (mm)
MLRCK16S_01M50	16U 19'' D=640 single frame	536x640x826	714,4
MLRCK22S_01M50	22U 19'' D=640 single frame	536x640x1092	981,1
MLRCK26S_01M50	26U 19'' D=640 single frame	536x640x1270	1158,9
MLRCK36S_01M50	36U 19'' D=640 single frame	536x640x1715	1603,4
MLRCK42S_01M50	42U 19'' D=640 single frame	536x640x1981	1870,1
MLRCK48S_01M50	48U 19'' D=640 single frame	536x640x2248	2136,8

Note: Color code "M50" is RAL 9005 black, "M2" RAL 7035 light grey option is available

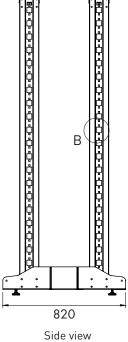


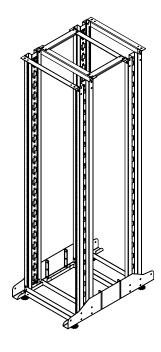
# **DOUBLE FRAME**

# PRODUCT REFERENCE D=820 MM CABINET DIMENSIONS (MM)

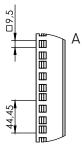


Front view

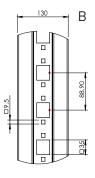




lso view



Detail A

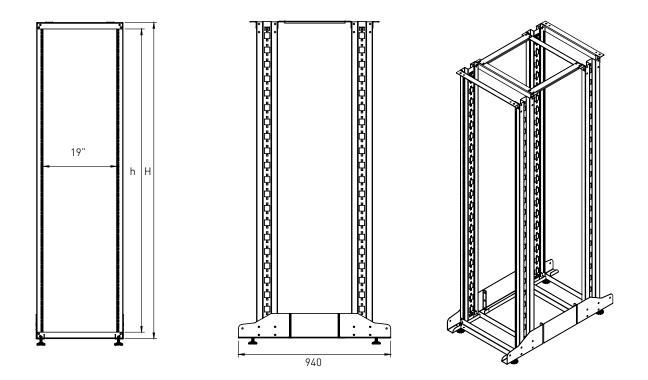


Detail B

PRODUCT REFERENCE	DESCRIPTION	DIMENSIONS WxDxH (mm)	INSIDE HEIGHT (mm)
MLRCK16D_01M50	16U 19'' D= 820 double frame	536x820x826	714,4
MLRCK22D_01M50	22U 19'' D= 820 double frame	536x820x1092	981,1
MLRCK26D_01M50	26U 19'' D= 820 double frame	536x820x1270	1158,9
MLRCK36D_01M50	36U 19'' D= 820 double frame	536x820x1715	1603,4
MLRCK42D_01M50	42U 19'' D= 820 double frame	536x820x1981	1870,1
MLRCK48D_01M50	48U 19'' D= 820 double frame	536x820x2248	2136,8
TOPCOVER66_01M50	Top cover	Width= 530 mm - Depth= 530 mm	-
TOPCOVER88_01M50	Top cover	Width= 530 mm - Depth= 730 mm	-

# **DOUBLE FRAME**

# PRODUCT REFERENCE D=940 MM CABINET DIMENSIONS (MM)



PRODUCT REFERENCE	DEFINITION	DIMENSIONS WxDxH (mm)	INSIDE HEIGHT (mm)
MLRCK26UD100_01M50	26U 19'' D= 940 double frame	536x940x1270	1158,9
MLRCK36UD100_01M50	36U 19'' D= 940 double frame	536x940x1715	1603,4
MLRCK42UD100_01M50	42U 19'' D= 940 double frame	536x940x1981	1870,1
MLRCK48UD100_01M50	48U 19'' D= 940 double frame	536x940x2248	2136,8
TOPCOVER100_01M50	Top cover	Width= 530 mm - Depth= 850 mm	-
TOPCOVER88_01M50	Top cover	Width= 530 mm - Depth= 730 mm	-





# **DOUBLE FRAME**

## SINGLE FRAME

# **NETWORK APPLICATIONS**



### AVAILABLE WITH HARD TOP

D=180 mm extension kit provides 820 mm depth, D=300 mm extention kit provides 940 mm depth.

# VERTICAL CABLE MANAGEMENT PANEL WITH COVER

Used for hiding and protecting networking cable bundles. Can be easily fixed to 4 post or 2 post racks, left and/or right sides.

It is vertical along the rack and has holes for cable entries and pass.

Please define your colour with your order (RAL 7035 light grey and RAL 9005 black). Unless noted otherwise it is delivered as RAL 9005 black.

## SERVER STORAGE AND SHELVING

Designed for server/PC storage and shelving. Managing all devices and servers in professional style, it is functional to access all the way of racks.

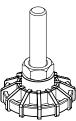
It is easy to maintain. All 4 post racks can be bayed side by side.

Can also be used as a device console or device storage rack.



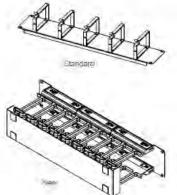
# **RelayRack Accessories**

#### CASTER AND LEVELLING FEET



PRODUCT REFERENCE	DESCRIPTION
M22DRTGR	Castor group, 2ea. Front: lockable, rotatable, 2ea. Rear: rotatable Castor Group, 1point fixing, 1set=4ea Load capacity=25kg./castor
M11PNY02	Levelling feet, PVC (1set=4ea), adjustable
M11PNY35	Heavy duty type levelling feet, metal, inner filled with rubber (1set=4ea), height=35mm., adjustable
M11PNY99	Heavy duty type levelling feet, metal, inner filled with rubber (1set=4ea), height=90mm., adjustable

#### HORIZONTAL CABLE MANAGER



$\rightarrow$			
PRODUCT REFERENCE	DESCRIPTION	DIMENSIONS WxHxD (mm)	
E440RG1U_01M50	1U 19" cable management panels with 5 metal rings	483x44x80	
E440RG1UPLST_01M50	1U 19" cable management panels with 4 plastic rings	483x44x80	
E440RG1UN_01M50	1U 19" cable management panel, channel type and with removable cover	483x44x71	
E440RG2F_01M50	1U 19" cable management panels with front patch cord access holes, L shaped, rear tray for cable support	483x44x124	
E440RG2F_01M50BN	1U 19" cable management panels with front patch cord access holes, basic blank panel shaped	483x44x10	
E440RG2U_01M50	2U 19" cable management panels with 5 rings	483x88x76	
E440RG1F_01M50	1/2U 19" cable management panels with front patch cord access holes	483x22x100	
E440RG2UFT_01M50	2U 19", Cable Management Panels with 5 Metal Rings - Finger Type	483x88x166	

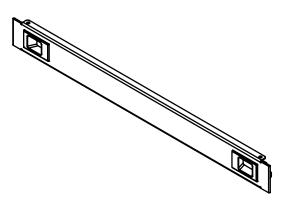
#### HxWxD **PRODUCT REFERENCE** DESCRIPTION (mm) 26U Vertical cable management panel 1ea. W=135 mm M440RG26RLY\_01M50 135x250x1292 36U Vertical cable M440RG36RLY\_01M50 management panel 1ea. 135x250x1736 W=135 mm 42U Vertical cable management panel 1ea. W=135 mm M440RG42RLY\_01M50 135x250x2003 48U Vertical cable M440RG48RLY\_01M50 management panel 1ea. W=135 mm 135x250x2270 26U Vertical cable management panel 1ea. W=260 mm 260x250x1292 M440RG26RLYG\_01M50 36U Vertical cable M440RG36RLYG 01M50 management panel 1ea. W=260 mm 260x250x1736 42U Vertical cable management panel 1ea. W=260 mm M440RG42RLYG\_01M50 260x250x2003 48U Vertical cable M440RG48RLYG 01M50 260x250x2270 management panel 1ea. W=260 mm

Note: Color code "M50" is RAL 9005 black, "M2" RAL 7035 light grey option is available

### VERTICAL CABLE MANAGER

# RelayRack Accessories

### **BLANK PANELS**



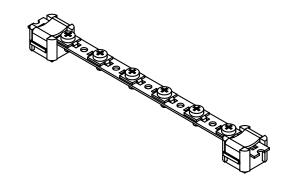
## FIXINGS



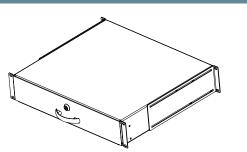
PRODUCT REFERENCE	DESCRIPTION	DIMENSIONS WxHxD (mm)
E44BPN01_0150M	1U 19" Blank panel	483x44x12
E44BPN02_0150M	2U 19" Blank panel	483x88x12
E44BPN03_0150M	3U 19" Blank panel	483x133x12
E44BPN04_0150M	4U 19" Blank panel	483x177x12
E44BPN05_0150M	5U 19" Blank panel	483x222x12
E44BPN06_0150M	6U 19" Blank panel	483x266x12
P44BPN06_01M50	6U 19'' Modular plastic blank panel (ABS)	483x266x12

PRODUCT REFERENCE	DESCRIPTION
KFS6X15_20	M6 caged nut, screw, washer (1set=20ea)
KFS6X15_50	M6 caged nut, screw, washer (1set=50ea)

### **GROUNDING KIT**



## 19" KEYBOARD DRAWER



PRODUCT REFERENCE	DESCRIPTION	DIMENSIONS WxHxD (mm)
M44CEK2U_01M50	2U 19" drawer, lockable suitable up to depth=800mm. Cabinets, for D=1000 mm cabinet usage extra brackets available in package, sheet steel material and load carrying capacity is 25 kg.	483x88x400
M44CEK3U_01M50	3U 19" drawer, lockable suitable up to depth=800mm. Cabinets, for D=1000 mm cabinet usage extra brackets available in package, sheet steel material and load carrying capacity is 25 kg.	483x133x400

PRODUCT REFERENCE	DESCRIPTION
M44PEB01	Grounding kit, 6 each earthing leads + copper busbar
M44PEB19_01	Grounding kit, 13 each earthing leads + copper busbar



#### **TECHNICAL CHARACTERICS**

STANDARD COLOUR

Black: RAL 9005, Gray: RAL 7035 FRAMEWORK TOP AND BOTTOM BASE UNITS Solid metal 2,5 mm HORIZONTAL SUPPORT ON BASE AND TOP Solid metal 2,5 mm EXTENSION UNITS (D=180 MM D=300 MM) Solid metal 2,5 mm UPRIGHTS - FRAME Solid metal, 1,5 mm UPRIGHTS CONSTRUCTION

Tightly fixed into top brackets and bottom base units 6 times folded, total 7 bend surfaces

#### **KEY FEATURES**

Main framework is of a structure which increase the mechanical resistance with maximal performance, manufactured Omega style profile system, connected to top bracket units and bottom base units with heavy duty fixing hardware ensuring framework stability. Manufactured and tested to provide axial (x, y, z) resistance that meets

EN 61587-1 / 5.2.1 and 5.2.2, external impact resistance that meets EN 61587-1 / 5.3.3.

With optional top covers, the system can give the appearance of a closet, as well as offering resistance against falling dust on to installed equipment.

Designed for use a minimally dusty, climatized, and security controlled environment, the system provides a very cost efficient solution.

The system is shipped in flat pack with a superior transport cost scheme.

■ Levelling feet are standard for stability. The cabinet shall meet standards EN 61587-1, IEC 60917, IEC 60297 and RoHS compliant, shall be EAC and TSE certified.

#### PURCHASED PRODUCT CERTIFICATION

#### SHEET STEEL

EN 10346: 20015 DX51D+Z, EN 10130: 2006 DC01 ELECTROSTATIC POWDER COATING IS06860, IS02409, IS01520, IS02815, IS06272, IS07253, IS06270-1, IS02812 IS0 9001, RoHS GLASS TS EN 12150-1, TS EN 1863-1 LOCK IEC 62474, REACH, RoHS CASTORS IS0 9001, TS EN 12532, RoHS FAN IEC 60335-2-80:2002, IEC 60335-1:2010

#### **TESTS AND COMPLIED STANDARDS**

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 ISO 9001:2015 Quality Management System
ISO 14001:2015 Environmental Management System
ISO 27001:2013 Information Security Management System
ISO 45001:2018 Occupational Health and Safety Management System

5) 19" device mounting uprights IEC 297-1

6) EN 61587-1 Mechanical structures for electronic equipment. 7) All cabinet sizes complies with IEC 297-2.

RESISTANCE TO ENVIRONMENTAL CONDITIONS AND CORROSION;

STABILITY, MECHANICAL SAFETY, RESISTANCE TO STATIC, DYNAMIC AND MECHANICAL LOADS;

RESISTANCE TO VIBRATION, MECHANICAL SHOCK AND IMPACT;

DEGREES OF MECHANICAL PROTECTION PROVIDED BY THE ENCLOSURE (IP20);

### ELECTRICAL GROUNDING CONTINUITY;

#### FIRE AND FLAME RESISTANCE;

Have been tested according to the standard "EN 61587-1" with the normative standards: IEC 60917, IEC 60297, IEC 60068-1, IEC 60068-2, IEC 60695-11-10, IEC 60950-1, contained and certified by the notified organizations::

#### **TSE CERTIFICATE NO**

003788-TSE-08/02

EAC CERTIFICATE NO

0443637, 0776963, 0345864, 0401678, 0776653

#### CORROSION

ISO 9227 Standard complied by the test report METALTEK AB-0547-T / 0157-1

#### TRANSPORT

ETS 300 019-1-2 Class 2.3 Comply with internal testing **STORAGE** 

ETS 300 019-1-1 Class 1.2 Comply with internal testing **SURFACE FINISH** 

Electrostatic powder coated c/with surface treatment , 80 +/ - 5 micron paint thickness