

■ Enclosures
For *Business-Critical Continuity™*

Knurr® Rack Solutions

F-Series Rack



Knürr F-Series Racks

Innovative Rack Solution

Your mission-critical networks are carrying an ever increasing amount of voice, data and video. Looming on the horizon is a critical mass of VoIP, high speed access, wireless applications, increasing demand for blade server adoption, and pressure for rapid blade deployment. Data centers and network closets will be required to deliver reliable 24 / 7 operation of critical network communications and operations throughout the entire enterprise. These challenges require an innovation in your data center to fully address these growing needs.

The Knürr F-Series is an innovative enclosure system that integrates your computing hardware, power management technologies and peripherals in your data center. It gives superior design and flexibility, allowing optimal data center performance and easy installation.

■ Excellent Rack Cooling Efficiency

- With 75% door perforation rate that enhances heat management
- Front and rear doors are perforated for cooling efficiency
- With additional blanking panel to separate cold and hot spots in the rack

■ Enhanced Rack Installation Space

Efficiency

- Combined integrated steel frame design
- With rack static load capacity of up to 1,300 KG

■ Enhanced Rack System Applicability In Data Center

- Accessories available for cabling and air flow management
- Customized features for specific requirements in data center

■ Increased Convenience In Installation And Maintenance

- Modular rack design for easy assembly and disassembly
- Tool-less design of accessories for flexible and quick installation

■ Enables Rack Adaptability And Expansibility

- Integral part of the total data center solution of Emerson Network Power
- Highly adaptable and flexible to integrate power, cooling and monitoring equipment

Standard Configuration

Static Load Capacity	Up to 1,300KG
Door Perforation Rate	75%
Protection Category	IP20
Material and Coating	Steel framework Powder coating for rack surface
Standard Compliance	(19") rack mount equipment EIA-310-D Environmental Compliance: RoHS
Color	RAL 7021, Black
Packing	Flat packed in carton or bulk packed

Knürr F-Series IT Rack Models

Part Number	U	Height mm	Width mm	Overall Depth mm	Frame Depth mm	Side Panel
RES61042BFSCR	42	1968	600	1090	1000	Yes
RES81042BFSCR	42	1968	800	1090	1000	Yes
RES61142BFSCR	42	1968	600	1190	1100	Yes
RES61242BFSCR	42	1968	600	1290	1200	Yes
RES81242BFSCR	42	1968	800	1290	1200	Yes
RES61047BFSCR	47	2190	600	1090	1000	Yes
RES81047BFSCR	47	2190	800	1090	1000	Yes
RES61147BFSCR	47	2190	600	1190	1100	Yes
RES61247BFSCR	47	2190	600	1290	1200	Yes
RES81247BFSCR	47	2190	800	1290	1200	Yes

Features



Roof Top Ready for Cabling

Knürr Rack has a removable opening for cable entry, making it ready for front/rear/side cabling



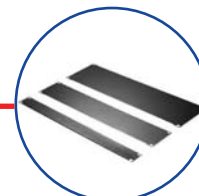
75% Perforation Rate on Doors

Optimal door perforation allows greater airflow through the cabinet, reducing heat buildup



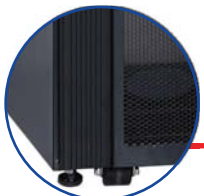
Tool-less Cable Management

Applicable on 19" vertical mounting rail and vertical cable tray; cable management is as easy as just inserting and twisting



Tool-less Air Flow Management

Optional 19" horizontal tool-less blanking panel that allows exceptional air flow and heat management



Height of 42U Rack With Low Caster < 2M

Knürr Rack's 42U rack height and low caster enables it to easily pass through a standard doorway



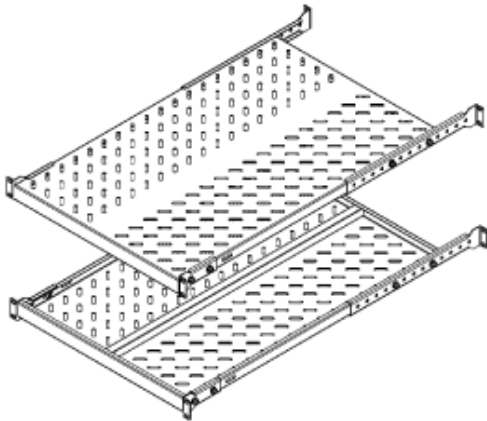
Inclusions:

- 1 single arch mesh front door
- 1 double flat mesh door
- 1 roof top with cable entry plates
 - 4 entries for roof top with 600mm width
 - 5 entries for roof top with 800mm width
- 2 pairs of split side panels
- 4 x (19") vertical mounting rails
- 4 leveling feet
- 2 x 42U (or 47U) vertical cable tray
- 1 user manual
- 1 hardware bag
- Baying kit, 4 pcs
- All rack panels are inherently grounded
- Open bottom area

Special Features For 1290mm Depth Rack

- Suitable for equipment with extended depth
- Enhanced cable management and organization
- Allows dual vertical PDU per side (4 PDU per rack)

Standard Fixed Shelf



19" Fixed Mounted Shelf

Knurr F-Series 19" adjustable vented shelves provides added versatility and accessibility with load rating of 50kg.

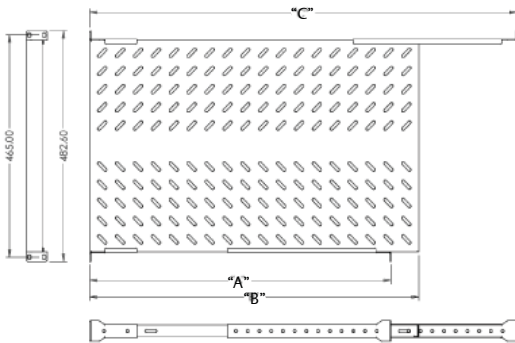
Features

- Adjustable Depth for installation
- 450, 550, 650 and 700mm depth
- RoHS compliant
- Conforms to ASTM D610-01 and ASTM B117 (500 hours salt spray test)

Materials / Finish

- High grade cold rolled steel 2.00mm thickness
- Powder coat finish preceded by 5 stage iron phosphate pretreatment
- Standard color is low gloss black.

Dimensions



Part Code	Description	Min "A"	Min "B"	Min "C"
SVF700NBLK	19" Shelf Vented Fixed 700 Deep Black	641	700	909
SVF800NBLK	19" Shelf Vented Fixed 800 Deep Black	741	800	1009
SFV650NBLK	19" Shelf Vented Fixed 650 Deep Black	591	650	850
SFV550NBLK	19" Shelf Vented Fixed 550 Deep Black	491	550	750

Telescopic Shelf



Telescopic Shelves

A high quality bearing slide mechanism provides smooth and convenient action for our shelves. The mounting kits are installed to the inside flange of the 19" rails. Depths range from 450mm to 800mm.

Part Number	Model
CS70028NBLK	19" Telescopic Slide Shelf 700 Deep Black

Heavy Duty Telescopic Shelves

Using our heavy duty shelves and higher load rated slide mechanisms, these shelves will increase the carrying capacity to 75kg. Available in depths from 450mm to 700mm.

Part Number	Model
CSDH70028NBLK	19" Heavy duty Telescopic Slide Shelf 700 Deep Black

Chassis Runner



Chassis Runner / Support Rails

When additional support is needed for heavy loads, our support rails provide a suitable option. Available in four depths, the rails mount into the 19" rail side flanges and can support loads up to 50kg.

Part Number	Model	Rated Load
SRL 450	Support Rail 450 Deep	50 kg
SRL 550	Support Rail 550 Deep	50 kg
SRL 650	Support Rail 650 Deep	50 kg
SRL 700	Support Rail 700 Deep	50 kg

Cable Management

Horizontal Cable Management



1U Horizontal Cable Routing Panel With Brush

- The panel may be used in 19" mounting rails
- Color: RAL7021, Black
- Material: steel, spray finished
- Inclusions: panel, assembly parts and user manual

Part Number	Model
010251288	1U Horizontal Cable Routing Panel w/ Brush

Cable Management Panel



19" rack mounted cable management panels provide the solution to those loose cables in the front of your rack. Panels are available in 1U and 2U heights, with pass through access cutting into the panels. Numerous slots are provided as cable tie off points.

Features

- EIA-310E 19" Standard
- Front and side openings for cable routing points
- Multiple cable tie off points provide convenient locations to tie-down your cables
- Cable capacity: 46 CAT 5e cables
- RoHS compliant

Part Number	Model
CMP1UPBLK	1U Cable Management Panel Pass Through Black
CMP2UPBLK	2U Cable Management Panel Pass Through Black

Cable Management

Cable Hoops



Cable Hoops

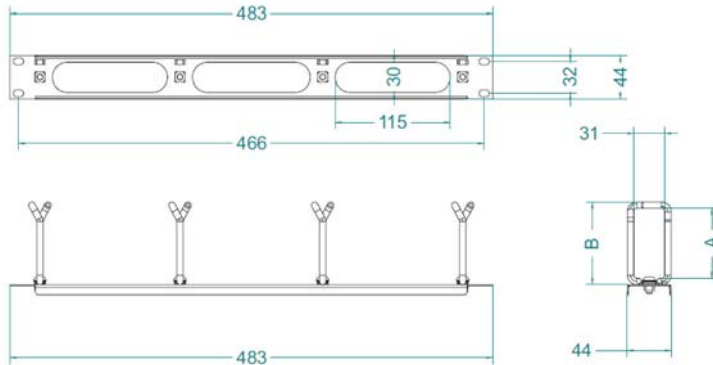
Sturdy, heavy-grade steel hoops which can easily be installed in a variety of locations offer a flexible and cost effective cable management system. Available in 5 sizes, these hoops will help you get your wiring under control

Part Number	Model	'H'	'L'
CH1U225BLK	1U 2.25 Cable Hoop BLK	31	44
CH2U225BLK	2U 2.25 Cable Hoop BLK	74	44
CH1U325BLK	1U 3.25 Cable Hoop BLK	31	70
CH2U325BLK	2U 3.25 Cable Hoop BLK	74	70

1U and 2U cable management panels screwed on cable hoops are ideal to manage cables running between equipment at the front of the rack

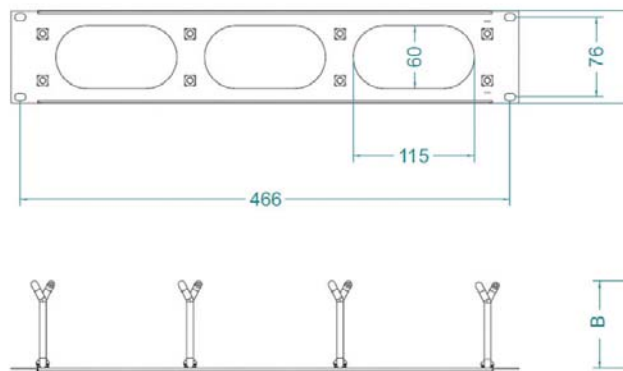
Part Number	Part Name	A	B	Cable Capacity **
CMP2251UPBLK	1U Cable Management Panel 2.25" Screw on Hoop Pass Through Black	44	57	54
CMP2251UPBLK	1U Cable Management Panel 3.25" Screw on Hoop Pass Through Black	70	83	84

* Dimensions are in millimeter
 ** Based on standard CAT 5e cable



Part Number	Part Name	A	B	Cable Capacity **
CMP2252PBLK	2U Cable Management Panel 2.25" Screw on Hoop Pass Through Black	44	57	135
CMP2252PBLK	2U Cable Management Panel 3.25" Screw on Hoop Pass Through Black	70	83	210

* Dimensions are in millimeter
 ** Based on standard CAT 5e cable





Vertical Cable Tray (Capable of one Emerson PDU vertical mounting)

- The tray may be used in front or rear side of the rack for cabling and PDU mounting
- Material: steel, spray finished
- Width: 117mm
- Inclusions: 1 cable tray, assembly parts and user manual
- Color: RAL7021, Black

Part Number	Model
EVPDU11942	Vertical PDU/ Cable Management Rail 42U 119MM
EVPDU11947	Vertical PDU/ Cable Management Rail 47U 119MM

Vertical Cable Tray (Capable of two Emerson PDUs vertical mounting)

- The tray may be used in front or rear side of the rack for cabling and PDU mounting
- Color: RAL7021, Black
- Material: steel, spray finished
- Width: 142mm
- Inclusions: 1 cable tray, assembly parts and user manual

Part Number	Model
EVPDU14242	Vertical PDU/ Cable Management Rail 42U 142MM
EVPDU14247	Vertical PDU/ Cable Management Rail 47U 142MM

Vertical Cable Tray for Cabling

- The tray may be used in the rack for cabling
- Color: RAL7021, Black
- Material: steel, spray finished
- Width: 300mm
- Inclusions: 1 cable tray, assembly parts and user manual

Part Number	Model
EVPDU30042	Vertical PDU/ Cable Management Rail 42U 300MM
EVPDU30047	Vertical PDU/ Cable Management Rail 47U 300MM

Air Flow Management

Blank Panel

A frequently overlooked component in air flow management, blank or filter panels allow you to close unused U space. This forces incoming cool air to pass through active components with pull fans already installed in your cabinet. Available in 1U through 5U.



1U

Part Name	Part Code
Blank Panel Steel 1U	PBL51UBLK
Blank Panel Steel 2U	PBL52UBLK
Blank Panel Steel 3U	PBL53UBLK
Blank Panel Steel 5U	PBL55UBLK



2U



3U

Screw Bag

Hardware Bag

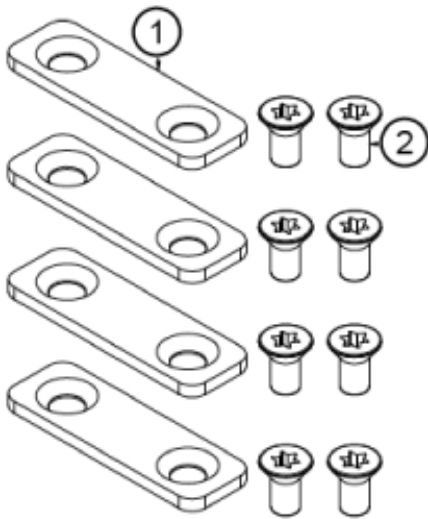
Useful set of 50 M6 caged nuts, plastic cup washers with matching screw and handy caged nut installation/removal tool.



Part Name	Part Code
Hardware Bag (50 sets nut/screw/cup)	HDWB50

Baying Kit

Use Baying kit to join two or more F-Series Racks.



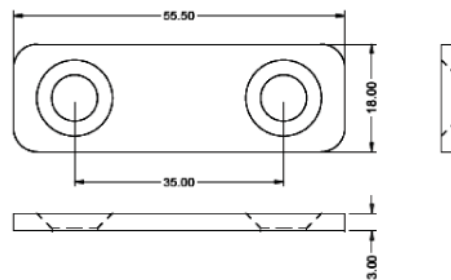
Features

- Bays two or more racks together
- Bays at front and rear frame
- Lines up at the rack
- Improves rack stability
- Uses RoHS compliant material
- Conforms to ASTM D610-01 and ASTM B117 (500 hours salt spray test)

Materials / Finish

- High grade cold rolled steel 2.0mm thickness
- Powder coat finish preceded by 5 stage iron phosphate pretreatment
- Standard color is low gloss black.

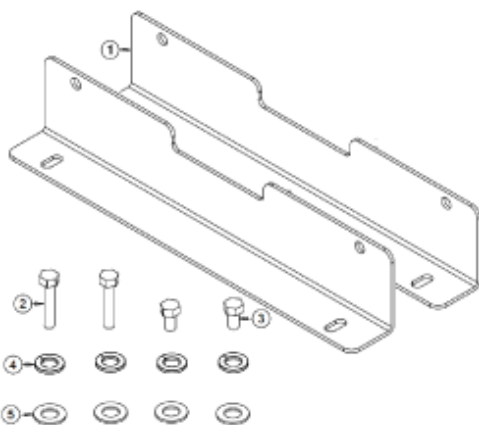
Dimensions



Part Code	Description
BAYKITBLK	Arion Baying Kit (set of 4) Black

Bolt Down Kit

Bolt down kit is an optional part which is used to prevent racks from tipping over during installation or maintenance of equipment. It also secures an assembled rack during transport.



Features

- Anti tip over
- Installs on any floor
- RoHS compliant
- Conforms to ASTM D610-01 and ASTM B117 (500 hours salt spray test)

Materials / Finish

- High grade cold rolled steel 2.0mm thickness
- Powder coat finish preceded by 5 stage iron phosphate pretreatment
- Standard color is low gloss black.

Part Code	Description
ABLTDNBLK	Bolt Down Kit (set of 1) Black

Cable Management

Tool-less Cable Ring



Tool-less Lobster Claw

- The lobster claw may be used in 19" mounting rails (rack with 800mm width) and vertical cable tray, ready just by "insert" and "twist"
- Dimension: 69mm (w) * 108mm (h) * 32mm (d)
- Color: RAL7021, Black
- Material: Plastic PC+GF
- Inclusions: 10 pieces of rings in one package

Part Number	Model
010251218	Cable Management Lobster Claw, Qty 10



Tool-less Velcro Strip

- The velcro strip may be used in 19" mounting rails and vertical cable tray, ready just by "insert" and "twist"
- Strip dimension: 200mm(l) * 20mm(w)
- Color: RAL7021, Black
- Material: Plastic PC+GF
- Inclusions: 10 pieces of velcro strip in one package

Part Number	Model
010251239	Cable Management Velcro Strip Qty, 10



Velcro Strip 22.8m Long

- The Velcro strip may be used to tie up the cable in the rack by cutting out into the appropriate length

Part Number	Model
010251399	Velcro strip 22.8m long

Applications



Lobster claw on vertical mounting rail

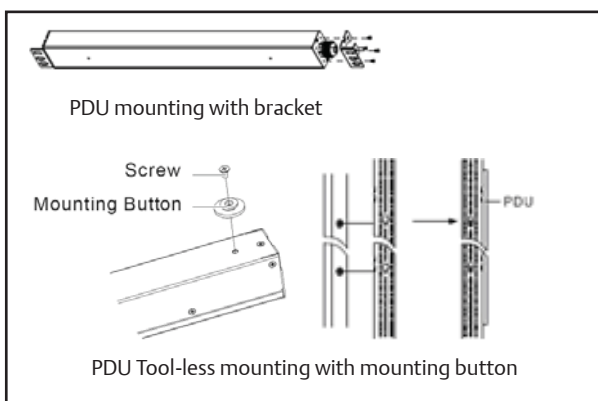


Velcro strip kit on vertical mounting rail



Lobster claw and velcro strip kit on on vertical cable tray

Rack PDU



Part Number	Model
010253019	Rack basic PDU: 10A C14, 16 way C13, Black
010253219	Rack basic PDU: 16A C20, 20 way C13 + 4 way C19, Black
010253319	Rack basic PDU: 16A C20, 20 way C13 + 4 way C19, Meter, Black
010253419	Rack basic PDU: 32A Fixed, 20 way C13 + 4 way C19, Black
010253519	Rack basic PDU: 32A Fixed, 20 way C13 + 4 way C19, Meter, Black

Inclusions: 1 unit PDU, assembly parts and user manual
Installation: tool-less installed or installed by mounting bracket on the vertical cable tray

Specifications

Item	010253019	010253219	010253319	010253419	010253429	010253519	010253529
Dimension (L*W*H mm)	880/ 820 x 44.4 x 62	1321/ 1261 x 44.4 x 62	1453/ 1393 x 44.4 x 62	1321/ 1261 x 44.4 x 62	1321/ 1261 x 44.4 x 62	1453/ 1393 x 44.4 x 62	1453/ 1393 x 44.4 x 62
Mounting length mm	856/624	1297/936	1429/936	1297/936	1297/936	1429/936	1429/936
Installation	Vertical Mounting						
Color	Black						
Compliance	CE, RoHS						
Input voltage/frequency	250V~ 50 / 60Hz						
Cable Input	3 x 1.5mm ² x 3M	3 x 1.5mm ² x 3M	3 x 1.5mm ² x 3M	3 x 6mm ² x 3M	3 x 6mm ² x 3M	3 x 6mm ² x 3M	3 x 6mm ² x 3M
Input Plug	10A IEC320 C14	16A IEC320 C20	16A IEC320 C20	Without Plug	IEC309	Without Plug	IEC309
Output voltage/frequency	250V~ 50 / 60Hz						
Socket type	16way/IEC320 C13 with anti-fall	20way/IEC320 C13 with anti-fall & 4way IEC320 C19	20way IEC320 C13 with anti-fall & 4way IEC320 C19	20way IEC320 C13 with anti-fall & 4way IEC320 C19	20way IEC320 C13 with anti-fall & 4way IEC320 C19	20way IEC320 C13 with anti-fall & 4way IEC320 C19	20way IEC320 C13 with anti-fall & 4way IEC320 C19
CR32 AC Ammeter	No	No	Display 16A at max	No	No	Display 32A at max	Display 32A at max
Rating Current	10A	16A	16A	32A	32A	32A	32A
Overloads Protection	10A 250V	2way 8A 250V	2way 8A 250V	2way 16A 250V	2way 16A 250V	2way 16A 250V	2way 16A 250V
	(with indicator)	(with indicator)	(with indicator)	(with indicator)	(with indicator)	(with indicator)	(with indicator)
Max. Current	10A	16A	16A	32A	32A	32A	32A
Max. Power	2500W	4000W	4000W	8000W	8000W	8000W	8000W
Max. Power	2500W	4000W	4000W	8000W	8000W	8000W	8000W

Note:
 Dimension (L*W*H mm): a / bx44.4x62, a refers to the PDU length with bracket; b refers the PDU length without bracket
 Mounting length mm: a / b, a refers to the length between two mounting holes of two brackets; b refers the length between two mounting buttons (for tool-less mounting)

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