Pre-Configured Industrial Distribution Frame (IDF)

specifications

Rack mount Ethernet switches shall be deployed and protected with an industrial distribution frame (IDF) enclosure which meets UL 508A, UL Type 4/12 or 4/4X/12 and IP66. The IDF shall be thermally and spatially validated for use in environments up to 50°C. There shall be a wall mount option with secure front and rear switch access. The IDF shall accommodate two distribution layer switches and up to three access layer switches with UPS for commonly used copper and fibre based deployments. Ground bar, infrastructure ground cables, and ESD ports shall be included. A standardized, pre-configured equipment and accessory layout shall be included.

technical information

Standards:	UL 508A Standard for Industrial Control Panels, cUL Listed per CSA, UL Type 4/12 or 4/4X/12 and IP66 Rated
Dimensions:	Mild steel: 1233mm H x 600mm W x 761mm D 316 stainless steel: 1233mm H x 600mm W x767mm D
Mounting:	Wall mount
Capacity:	26 Rack Units , (5) 1U switches and (1) 2U UPS, 96 incoming copper cables (expandable to 144), 72 strands fibre or 36 fibre duplex ports (expandable to 72-ports) Maximum load rating of 158.8kg
Color and material:	Mild steel enclosure with RAL7035 light-gray polyester powder paint 316 stainless steel enclosure with #4 stainless finish
Thermal analysis:	Validated to 50°C with recommended AC unit
Included with IDF:	Pre-Installed: (1) Square hole front and rear rack angles, (1) FRME1U fibre enclosure, (2) CPPL48WBLY 48-port patch panel, (2) CMPHF1 cable management, (1) RGRB19CN grounding bar, (3) equipment ground whips, (1) 254mm DIN Rail, (2) fibre spools, (2) back panels, (2) ESD ports, 762mm length of duct, cage nuts, labeling for cable routing, strain relief bars
	Included Accessories: (1) ESD wrist strap, (1) HLS-15R0 hook and loop, (1) RGCBNJ660P22 #6 AWG grounding cable, mounting hardware, conduit schedule and ingress template, installation guide

key features and benefits

Pre-Configuration:	Reduces time required for planning, designing, procurement, and installation resulting in 25% faster implementation
Defined equipment locations and cable routings:	Incorporate Panduit developed best practices in connectivity, cable management, wiring, and grounding to ensure network reliability
Detailed installation guide:	Provides easy, repeatable design instructions assuring consistency and saving time on the job-site
Thermally validated:	Panduit Laboratories tested the thermal performance with recommended AC unit and verified the ambient limitations to 50°C with the specified network equipment; additional back end space allows for 3X the cooling capacity over typical deployments for increased reliability
Key-locking handle for mild steel enclosure:	Limits access to authorized personnel for a secure network

Pre-Configured IDF

Mild Steel Enclosure:	ZDF48-EA
316 Stainless Steel Enclosure:	ZDF48-6EA

Panduit Products, Ordered Separately

Small Diameter Patch Cords (order qty. 96)^:	UTP28SP8INBU
Mini-Com® Modules, Cat 6, RJ45 (order qty. 96)^:	CJ688TGBU
Cat 6 UTP Copper Cable, LSZH:	PUL6004WH-EY
LC Opticom® OM3/OM4 FAP:	FAP12WAQDLCZ
Opti-Core® Fibre Optic Patch Cords, LC to LC MM, duplex+:	FX2ELLNLNSNM001 FX2ELLNLNSNM002
Opti-Core® OM3 Fibre Optic Distribution Cable, MM, LSZH:	FQDLX24
LC OptiCam® OM3/OM4 Duplex Fibre Optic Connectors:	FLCDMCXAQY

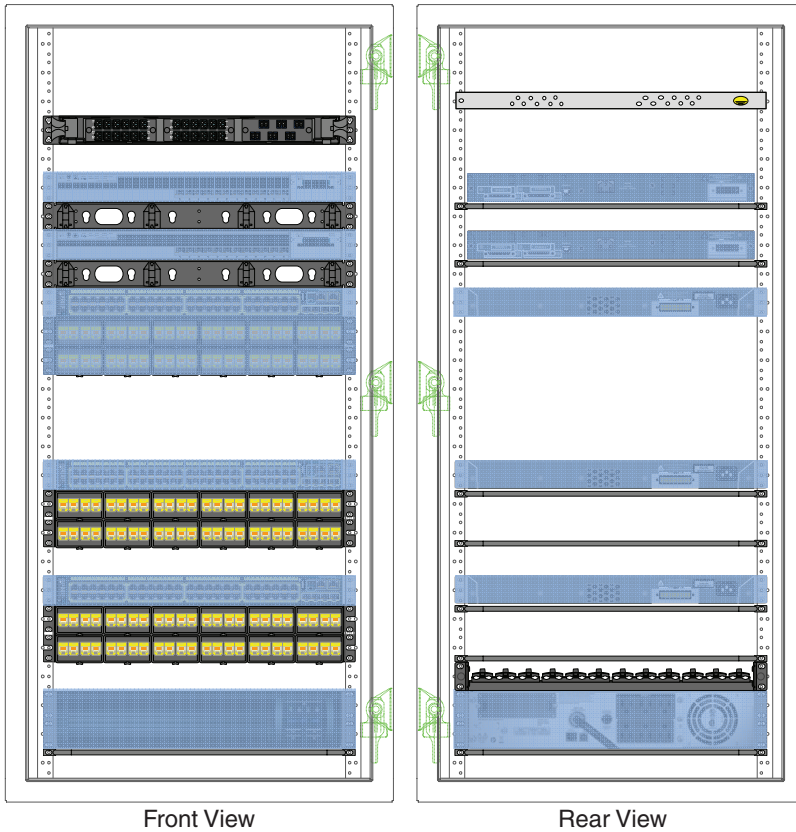## Panduit Products for 3rd Cisco* 2960S Switch, Ordered Separately

Mini-Com® Modular Patch Panel Strain Relief Bar 48-port, 2 RU:	CPPL48WBLY
Strain Relief Bar 178mm Multi-Depth:	SRB19MDBL
Strain Relief Bar Extended 50mm:	SRB19BLY
Strain Relief Bar Straight:	SRBS19BL-XY
Vertical Cable Manager 50mm Wide, Short (order qty. 2):	CMVDR2S
StructuredGround™ Bonding Cage Nuts and Screws Green, #12-24:	CNB4K
Cage Nut and Screws #12-24:	CNWS1224-C

Other Equipment, Ordered Separately

Pentair AC Unit:	N280426G050
Cisco* Switches (order qty. 2):	3850
Cisco* Switches (order qty. 2-3):	2960S
2U UPS up to 1500W	

applications

The Panduit Pre-Configured IDF is engineered to deploy and protect 19" rack mount switches on the factory floor in an industrial network. Consistent design and equipment placement is offered to reduce engineering and deployment time.

The IDF wall mount enclosure protects switches, both physically and thermally in harsh industrial environments. It is designed around the use of popular fibre based Cisco* 3850 and copper based Cisco* 2960S switch deployments.

*Cisco is a registered trademark of Cisco Technology Inc.
^Quantities given for (2) 2960S switches. A 3rd switch may require more connectivity.
+For RUs 1-14 order 2M patch cord FX2ELLNLNSNM002 and for RUs 15-26 order 1M patch cord FX2ELLNLNSNM001.

www.panduit.com/idf

Pre-Configured Industrial Distribution Frame (IDF)

IDF elevation recommendation

Front View

Rear View

RU 25-26	Open
RU 24	Panduit RGRB19CN Ground Bar
RU 23	Panduit FRME1U Fibre Enclosure
RU 22	Open (Additional FRME1U If Required)
RU 21	Customer Switch with 12-Fibre LS NICs – "B"
RU 20	Panduit CMPHF1 Horizontal Cable Manager
RU 19	Customer Switch with 12-Fibre LS NICs– "A"
RU 18	Panduit CMPHF1 Horizontal Cable Manager
RU 17	Optional Customer Switch – "C"
RU 15-16	Optional Panduit CPP48WBLY 48-Port Copper Patch Panel
RU 12-14	Open
RU 11	Customer Switch – "B"
RU 9-10	Panduit CPP48WBLY 48-Port Copper Patch Panel
RU 8	Open
RU 7	Customer Switch – "A"
RU 5-6	Panduit CPP48WBLY 48-Port Copper Patch Panel
RU 4	Panduit SRBBRWC-KIT Strain Relief Bar
RU 2-3	Customer UPS
RU 1	Open

IDF operating range with air conditioner

Recommended Air Conditioning depending on Factory Floor Ambient Temperature and Electronic/Heat Load of Network Equipment:

Impact of N280426G050* Air Conditioner on Maximum Allowable Ambient Temperature in Factory

No Air Conditioner		
	Rating (C°)	
Layout	UPS	No UPS
(2) 3850 and (3) 2960S	20	25
(2) 3850 and (2) 2960S	25	30
(2) 3850 and (1) 2960S	25	30
(2) 3850	30	35
(1) 3850 and (1) 2960S	30	35
(1) 3850	35	40

N28* Air Conditioner Installed		
	Rating (C°)	
Layout	UPS	No UPS
(2) 3850 and (3) 2960S	50	52
(2) 3850 and (2) 2960S	50	52
(2) 3850 and (1) 2960S	52	52
(2) 3850	52	52
(1) 3850 and (1) 2960S	52	52
(1) 3850	52	52

*Purchased separately from Pentair.

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