

204.0060 35058.0030 36069.0010 40587.0100 35165.0010 35204.0060 35058.0030 36069.0010

LT-LU
Robust-Functionality





EFEN the Brand

EFEN is an expert for NH Fuse and fuse related Power-Distribution-Components.

EFEN Products provide undisturbed power supply from the generator to the end user. They also provide full safety for people and guard the equipment from effects of short circuit and over current.



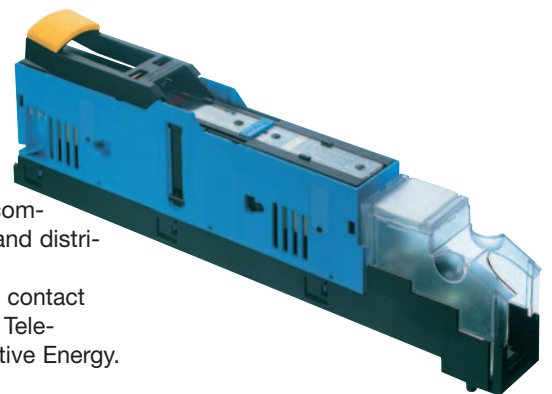
Consumer and partners of the power industry and telecommunication benefit from the fast reaction of EFEN. This is based on the consolidated set up of research and development, but also production and sales: EFEN, an expert for application-oriented products.



The basis for innovative ideas by EFEN is based on long terms experience in the area of Energy Business - stating at utility companies to transformer stations and distribution cabinets.

This all makes EFEN a qualified contact especially in the market area of Telecommunications and Regenerative Energy.

The certification of quality and control (environmental management system) in accordance to the DIN ISO 14001 standards is proof of the high quality of EFEN products. This also states the evidence of responsible association with environmental resources.



N-NH-Fuse-Links



NU-NH-Fuse-Bases



D-Sicherungssysteme



NT-IN-NH-Fuse-Switches NT-IN – horizontal design



NT-SILAS-NH- Fuse-Switches NT-SILAS–horizontal design



NSL-NL-NH-Fuse-Switches–vertical design



NZ-NH Accessories



NW-Low Voltage Current Transformers



NA-Low Voltage Surge Arrestors



HH-High Voltage Fuse-Links

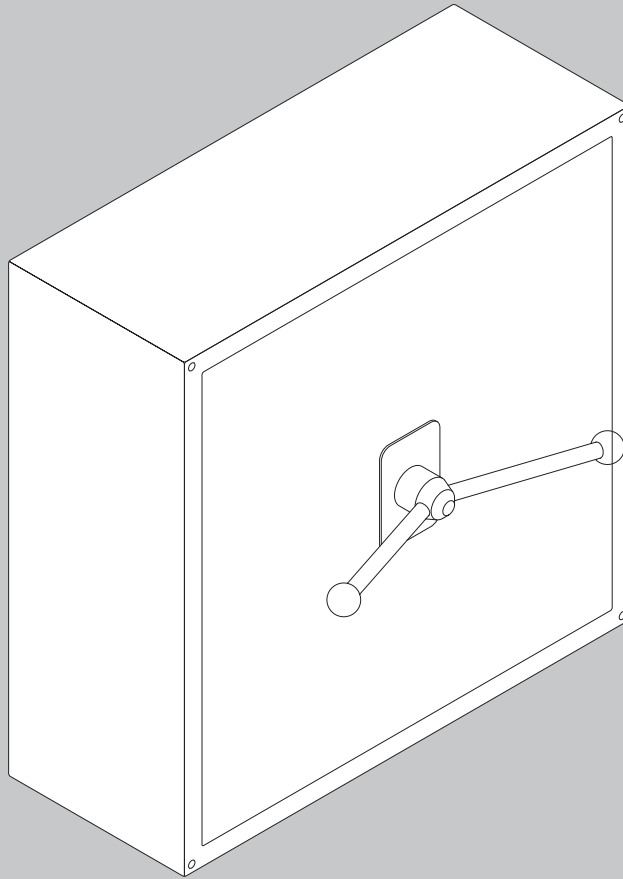


DC-NH Fuse-Switches for DC Applications Battery-Switches and -Fuses



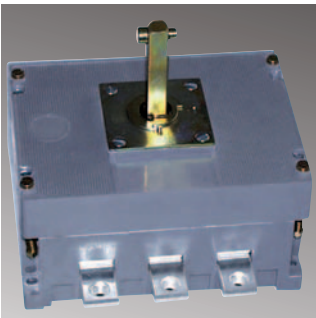
E³-NH Fuse-Switch – vertical design



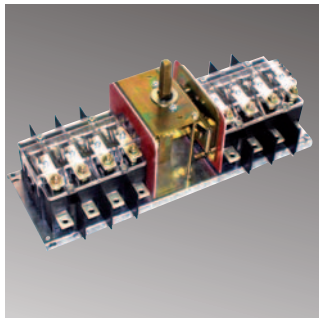


Robust Functionality

Load Break Switch Typ FWA
e.g. to insert power
consumed distribution



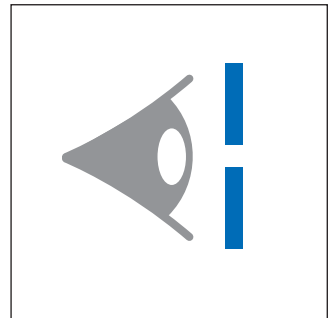
Load Changeover Switch Typ FMU
with visible disconnection



Load Break Switch Typ FAM
with double disconnection



Visible disconnection
Load Changeover Switches FMU
Bypass Switches FMU BY 1



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Technical data	see page 20

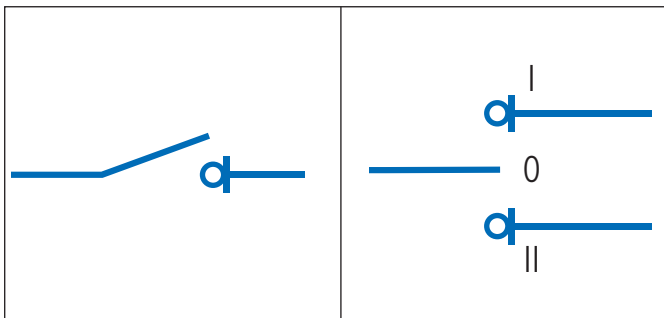
System

The EFEN Load Break Switches / Changeover Switches are sturdy and versatile devices. 3- and 4-pole versions are available in the portfolio as well as bypass versions with dual switch mechanisms, i.e. 6- or 8 -poles that are switched simultaneously. The LU/LT Switches are available in DIN and BS standard.

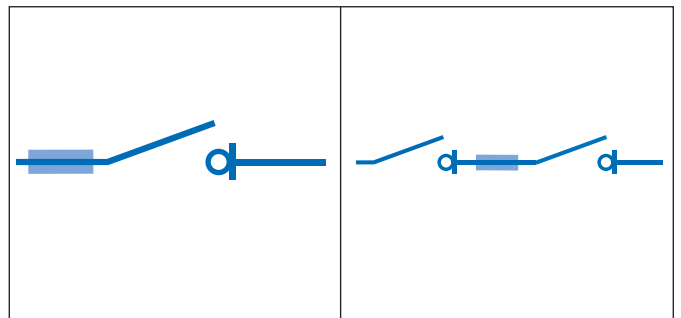
Features

The robust and compact design of the Load Break Switches allows them to frequently be used for construction site power distribution, grid and back-up feed systems, railroad systems, utility applications and telecommunication.

Load Break Switches without Fuse-Links / Changeover-Switches



Load Break Switches with Fuse-Links



Changeover Switches / Load Break Switches / Switch-Fuses

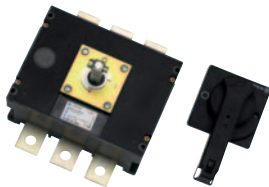

Application:

- Switchboards, Panels
- Motor Control Centres

Design Features:

- High ratings and performance
- Strong knife-contact system
- Double break
- Visible contacts in Off-position.

More information on request.

 For more information
see page **20**


29100.1500

Load Break Switches, 3- and 4-poles, 63 - 630 A, Type FWA

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Load Break Switch	3	63	29100.0401	1	0,003	0,010
Load Break Switch	4	63	29104.0401	1	0,002	0,010
Load Break Switch	3	80	29100.0501	1	0,003	0,010
Load Break Switch	4	80	29104.0501	1	0,004	0,015
Load Break Switch	3	100	29100.0601	1	0,003	0,010
Load Break Switch	4	100	29104.0601	1	0,004	0,015
Load Break Switch	3	125	29100.0700	1	0,010	0,028
Load Break Switch	4	125	29104.0700	1	0,012	0,038
Load Break Switch	3	160	29100.0800	1	0,010	0,028
Load Break Switch	4	160	29104.0800	1	0,012	0,038
Load Break Switch	3	200	29100.0900	1	0,012	0,038
Load Break Switch	4	200	29104.0900	1	0,014	0,050
Load Break Switch	3	250	29100.1000	1	0,028	0,074
Load Break Switch	4	250	29104.1000	1	0,014	0,050
Load Break Switch	3	315	29100.1200	1	0,012	0,038
Load Break Switch	4	315	29104.1200	1	0,014	0,050
Load Break Switch	3	400	29100.1300	1	0,029	0,085
Load Break Switch	4	400	29104.1300	1	0,042	0,129
Load Break Switch	3	500	29100.1400	1		
Load Break Switch	4	500	29104.1400	1	0,016	0,048
Load Break Switch	4	630	29100.1500	1	0,016	0,048
Load Break Switch	4	630	29104.1500	1	0,022	0,066

 Combination for accesories see page **19**
Accessories for Load Break Switches, 3- and 4-poles, 63 - 630 A, Type FWA

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Door coupling + interlock shaft extension		63-100	36541.0010	1		
Door coupling + interlock shaft extension		125-200	36509.0010	1		
Door coupling + interlock shaft extension		250-630	36680.0010	1		
Incoming terminal cover	3	63-100	31828.0200	1		
Incoming terminal cover	4	63-100	31828.0100	1		
Incoming terminal cover	3 + 4	125-200	36573.0010	1		
Incoming terminal cover	3 + 4	250-630	36658.0010	1		

Changeover Switches / Load Break Switches / Switch-Fuses

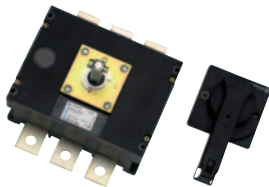

Application:

- Switchboards, Panels
- Motor Control Centres

Design Features:

- High ratings and performance
- Strong knife-contact system
- Double break
- Visible contacts in Off- position.

More information on request.

 For more information
see page **21**


29110.1500

Load Break Switches, 3- and 4-poles, 250 - 1250 A, Type FWA-HLD

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Load Break Switch	3	250	29110.1000	1	0,021	0,065
Load Break Switch	4	250	29114.1000	1	0,003	0,010
Load Break Switch	3	300	29110.1200	1	0,028	0,085
Load Break Switch	4	300	29114.1200	1		
Load Break Switch	3	400	29110.1300	1		
Load Break Switch	4	400	29114.1300	1	0,004	0,120
Load Break Switch	3	500	29110.1400	1		
Load Break Switch	4	500	29114.1400	1	0,005	0,014
Load Break Switch	3	630	29110.1500	1	0,037	0,135
Load Break Switch	4	630	29114.1500	1	0,006	0,016
Load Break Switch	3	800	29110.1600	1		
Load Break Switch	4	800	29114.1600	1	0,018	0,056
Load Break Switch	3	1000	29110.1700	1	0,041	0,140
Load Break Switch	4	1000	29114.1700	1	0,020	0,060
Load Break Switch	3	1250	29110.1800	1	0,060	0,164
Load Break Switch	4	1250	29114.1800	1	0,020	0,064

 Combination for accessories see page **19**
Accessories for Load Break Switches, 3- and 4-poles, 250 - 1250 A, Type FWA-HLD

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Incoming terminal cover	3 + 4	250-630	36658.0010	1		
Door coupling + interlock shaft extension		250-630	36680.0010	1		
Incoming terminal cover		250-630	36899.0010	1		
Incoming terminal cover		800-1250	36857.0010	1		
Aux contact 1NC 1NO in Pos. 1	3 + 4	250-630	36516.0010	1		
Door coupling + interlock shaft extension	3 + 4	800-1250	36505.0010	1		
Aux contact 1NC 1NO in Pos. 1	3 + 4	800-1250	36504.0010	1		
Incoming terminal cover	3	800-1250	36586.0010	1		
Incoming terminal cover	4	800-1250	36587.0010	1		

Changeover Switches / Load Break Switches / Switch-Fuses

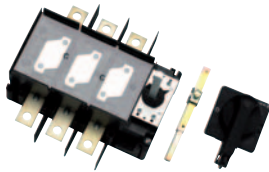

Application:

- Switchboards, Panels
- Motor Control Centres

Design Features:

- High ratings and performance
- Strong knife-contact system
- Double break
- Visible contacts in Off- position.

More information on request.

 For more information
see page **21**


29250.1100

Load Break Switches 3- and 4-poles, 63 - 300 A, Type FAM

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Load Break Switch	3	63	29250.0401	1	0,006	0,027
Load Break Switch	3	80	29250.0501	1	0,006	0,027
Load Break Switch	3	100	29250.0600	1	0,008	0,027
Load Break Switch	3	125	29250.0700	1	0,008	0,027
Load Break Switch	3	160	29250.0800	1	0,008	0,027
Load Break Switch	3	200	29250.0900	1	0,019	0,082
Load Break Switch	3	250	29250.1000	1	0,019	0,082
Load Break Switch	3	300	29250.1100	1	0,019	0,082

 Combination for accesories see page **21**
Accessories for Load Break Switches, 3- and 4-poles, 63 - 300 A, Type FAM

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Door coupling + interlock shaft extension	3	63-160	36593.0010	1		
Aux contact 1NC 1NO in Pos. 1		200-300	36596.0010	1		
Neutral pole (3 + N), with lug	*	63-125	36907.0010	1		
Neutral pole (3 + N), with box terminal	*	63-125	36908.0010	1		
Neutral pole (3 + N), with insertet screw	*	100-160	36906.0010	1		
Incoming terminal shroud	3 + 4	200-300	36506.0010	1		
Incoming terminal cover	3	100-160	36501.0010	1		

* for additional 4-pole

Changeover Switches / Load Break Switches / Switch-Fuses


Application

- Switchboards, controlboards
- Panelboards
- Distribution boards

Design Features

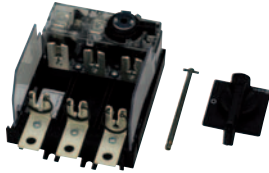
- Small contact system
- High electrical performance
- Forced closing and opening of switch contacts
- Full isolation of fuse in "Off"-Position

Delivery includes

Switches are delivered complete with door coupling, interlock, shaft extension, padlockable handle and escutcheon plate.

More information (dimensions, technical data) on request.

For more information see page **20**


Switch Fuses (DIN-Type) 3-poles and 3-poles+N, 63 - 125 A, Type SILA – NH 00

Description	Size	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Switch Fuse	000/00	3	63	29400.0400	1	0,014	0,039
Load Break Switch	00	3	125	29400.0700	1	0,017	0,057

Combination for accessories see page **21**

Accessories for Switch Fuses (DIN-Type) 3-poles and 3-poles+N, 63 - 125 A, Type SILA – NH 00

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Neutral pole (3 + N), with clamp			36909.0010	1		
Neutral pole (3 + N), with lug, 185 mm length			36910.0010	1		
Neutral pole (3 + N), with insertet screw			36911.0010	1		
Incoming terminal shroud	3	63-125	36507.0010	1		
Door coupling + interlock shaft extension	3	63-160	36593.0010	1		

29400.0700

Changeover Switches / Load Break Switches / Switch-Fuses


Application

- Switchboards, controlboards
- Panelboards
- Distribution boards

Design Features

- Small contact system
- High electrical performance
- Forced closing and opening of switch contacts
- Full isolation of fuse in "Off"-Position

Delivery includes

Switches are delivered complete with door coupling, interlock, shaft extension, padlockable handle and escutcheon plate.

More information (dimensions, technical data) on request.

For more information see page 20



29410.0700

Switch Fuses (DIN-Type) 3-poles and 3-poles+N, 63 - 125 A, Type SILAD – NH 00

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Load Break Switch	3	63	29410.0400	1	0,017	0,057
Load Break Switch	3	125	29410.0700	1	0,017	0,057
Load Break Switch	3	250	29400.1000	1	0,029	0,101
Load Break Switch	3 + N	250	29403.1000	1	0,032	0,112
Load Break Switch	3	400	29420.1300	1	0,013	0,035
Load Break Switch	3 + N	400	29423.1300	1	0,013	0,035
Load Break Switch	3	630	29420.1500	1	0,014	0,038
Load Break Switch	3 + N	630	29423.1500	1	0,014	0,038

Accessories for Switch Fuses (DIN-Type) 3-poles and 3-poles+N, 63 - 125 A, Type SILAD – NH 00

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Neutral pole (3 + N), with lug	*	63-125	36907.0010	1		
Neutral pole (3 + N), with box terminal	*	63-125	36908.0010	1		
Neutral pole (3 + N), with insertet screw	*	100-160	36906.0010	1		
Incoming terminal cover	3	100-160	36501.0010	1		
Incoming terminal shroud	3 + 4	200-300	36506.0010	1		
Incoming terminal cover	3	400	36589.0010	1		
Incoming terminal cover	3	630	36591.0010	1		

* for additional 4-pole

Changeover Switches / Load Break Switches / Switch-Fuses


Application

- Switchboards, controlboards
- Panelboards
- Distribution boards

Design Features

- Small contact system
- High electrical performance
- Forced closing and opening of switch contacts
- Full isolation of fuse in "Off"-Position

Delivery includes

Switches are delivered complete with door coupling, interlock, shaft extension, padlockable handle and escutcheon plate.

More information (dimensions, technical data) on request.

For more information see page 20



29430.0101 + 36908.0010

Switch fuses (BS88-Type), 3-poles and 3-poles+N, 25 - 125 A, Type SILA BS

Description	Size acc. to BS88	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Switch fuses (BS88-Type)	F1	3	25	29430.0101	1	0,011	0,029
Switch fuses (BS88-Type)	F1	3	32	29430.0201	1	0,011	0,029
Switch fuses (BS88-Type)	A3	3	63	29430.0400	1	0,008	0,027
Switch fuses (BS88-Type)	A3	3	100	29430.0600	1	0,008	0,027
Switch fuses (BS88-Type)	A4	3	125	29430.0700	1	0,013	0,036

Combination for accesories see page 25

Accessories for Switch fuses (BS88-Type), 3-poles and 3-poles+N, 25 - 125 A, Type SILA BS

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Neutral pole (3 + N), with lug	*	63-125	36907.0010	1		
Neutral pole (3 + N), with box terminal	*	63-125	36908.0010	1		
Incoming terminal cover	3	100-160	36501.0010	1		
Neutral pole (3 + N), with insertet screw	*	100-160	36906.0010	1		

* for additional 4-pole

Changeover Switches / Load Break Switches / Switch-Fuses



Application

- Switchboards, controlboards
- Panelboards
- Distribution boards

Design Features

- Small contact system
- High electrical performance
- Forced closing and opening of switch contacts
- Full isolation of fuse in "Off"-Position

Delivery includes

Switches are delivered complete with door coupling, interlock, shaft extension, padlockable handle and escutcheon plate.

More information (dimensions, technical data) on request.

For more information see page 20



29440.0101 + 36908.0010

Switch fuses (BS88-Type), 3-poles and 3-poles+N, 25 - 125 A, Type SILAD BS

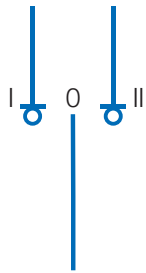
Description	Size acc. to BS 88	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Switch fuses (BS88-Type)	A1	3	25	29440.0101	1	0,008	0,035
Switch fuses (BS88-Type)	A1	3	32	29440.0201	1	0,008	0,035
Switch fuses (BS88-Type)	A3	3	63	29440.0400	1	0,015	0,049
Switch fuses (BS88-Type)	A3	3	100	29440.0600	1	0,015	0,043
Switch fuses (BS88-Type)	B2	3	125	29440.0700	1	0,015	0,043
Switch fuses (BS88-Type)	B2	3	160	29440.0800	1	0,015	0,049
Switch fuses (BS88-Type)	B2	3	200	29440.0900	1	0,029	0,096
Switch fuses (BS88-Type)	B3	3	250	29440.1000	1	0,029	0,096
Switch fuses (BS88-Type)	B3	3	300	29440.1100	1	0,029	0,096

Combination for accessories see page 25

Accessories for Switch fuses (BS88-Type), 3-poles and 3-poles+N, 25 - 125 A, Type SILAD BS

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Neutral pole (3 + N), with lug	*	63-125	36907.0010	1		
Neutral pole (3 + N), with box terminal	*	63-125	36908.0010	1		
Incoming terminal shroud	3	63-125	36702.0100	1		
Neutral pole (3 + N), with insertet screw	*	100-160	36906.0010	1		
Incoming terminal shroud	3 + 4	200-300	36506.0010	1		

Changeover Switches / Load Break Switches / Switch-Fuses

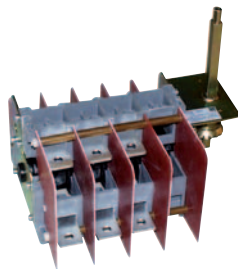

Application:

- Main generator switchboards
- Power supplies for airports, hospitals, broadcasting
- Switchboards at telecommunication systems

Design Features:

- Unique switching arrangement
- Unique L-shape moving contact
- High safety and performance
- Visible, strong knife contact system

More information on request.

 For more information see page **20**


29300.0400

Load Changeover Switches 3- and 4-poles, 63 - 800 A Type, FMU (FMUN)

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Load Changeover Switch	3	63	29300.0400	1	0,013	0,048
Load Changeover Switch	4	63	29304.0400	1	0,017	0,064
Load Changeover Switch	3	80	29300.0500	1	0,013	0,048
Load Changeover Switch	4	80	29304.0500	1	0,017	0,064
Load Changeover Switch	3	100	29300.0600	1	0,013	0,048
Load Changeover Switch	4	100	29304.0600	1	0,017	0,064
Load Changeover Switch	3	125	29300.0700	1	0,013	0,048
Load Changeover Switch	4	125	29304.0700	1	0,017	0,064
Load Changeover Switch	3	160	29300.0800	1	0,016	0,041
Load Changeover Switch	4	160	29304.0800	1	0,022	0,054
Load Changeover Switch	3	200	29320.0900	1	0,023	0,081
Load Changeover Switch	4	200	29324.0900	1	0,031	0,108
Load Changeover Switch	3	250	29320.1000	1	0,023	0,081
Load Changeover Switch	4	250	29324.1000	1	0,031	0,108
Load Changeover Switch	3	300	29320.1100	1	0,052	0,126
Load Changeover Switch	4	300	29324.1100	1	0,066	0,168
Load Changeover Switch	3	400	29320.1300	1	0,050	0,126
Load Changeover Switch	4	400	29324.1300	1	0,066	0,168
Load Changeover Switch	3	500	29320.1400	1	0,050	0,126
Load Changeover Switch	4	500	29324.1400	1	0,066	0,168
Load Changeover Switch	3	630	29300.1500	1	0,016	0,052
Load Changeover Switch	4	630	29304.1500	1	0,010	0,042
Load Changeover Switch	3	800	29300.1600	1	0,089	0,327
Load Changeover Switch	4	800	29304.1600	1	0,018	0,056
Load Changeover Switch	3	1000	29300.1700	1	0,019	0,060
Load Changeover Switch	4	1000	29304.1700	1	0,018	0,060
Load Changeover Switch	3	1250	29300.1800	1	0,020	0,064
Load Changeover Switch	4	1250	29304.1800	1	0,020	0,064
Load Changeover Switch	3	1600	29300.1900	1	0,170	0,966
Load Changeover Switch	4	1600	29304.1900	1	0,025	0,088
Load Changeover Switch	3	2000	29300.2000	1	0,030	0,100
Load Changeover Switch	4	2000	29304.2000	1	0,030	0,100

 Combination for accessories see page **25**
Accessories for Load Changeover Switches 3- and 4-poles, 63 - 800 A Type, FMU (FMUN)

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Door coupling + interlock shaft extension		63-250	36509.0010	1		
Door coupling + interlock shaft extension	3 + 4	300-500	36505.0010	1		
Door coupling + interlock shaft extension	3 + 4	630-1250	36515.0010	1		
Door coupling + interlock shaft extension	3 + 4	1600-2000	36612.0010	1		
Clamp cover for 2 sides, DKLAD	3 + 4	63-160	36503.0010	1		
Clamp cover for 2 sides, DKLAD	3 + 4	200-250	36645.0010	1		
Clamp cover for 2 sides, DKLAD	3 + 4	300-500	36588.0010	1		
Clamp cover for 2 sides, DKLAD	4	630-1250	36651.0010	1		
Clamp cover for 2 sides, DKLAD	3	630-1250	36703.0010	1		
Clamp cover for 2 sides, DKLAD	3	1600-2000	36694.0010	1		
Clamp cover for 2 sides, DKLAD	4	1600-2000	45149.0200	1		

Changeover Switches / Load Break Switches / Switch-Fuses

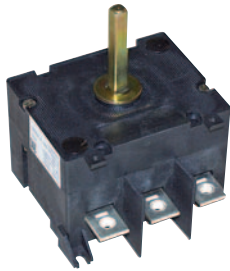

Application:

- Machine tools, injection moulding machines
- Main switch boards
- Control boards

Design Features:

- Modular, compact design
- High electrical performance AC 23
- Various optional accessories

More information on request.

 For more information see page **20**


29160.1000

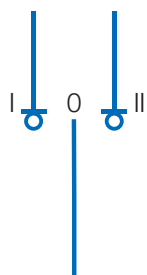
Main Switches, 3- and 4-poles, 250 - 1250 A, Type HSWA

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Main Switches	3	250	29160.1000	1	0,012	0,038
Main Switches	4	250	29164.1000	1	0,014	0,050
Main Switches	3	315	29160.1200	1	0,012	0,038
Main Switches	4	315	29164.1200	1	0,019	0,065
Main Switches	3	400	29160.1300	1	0,016	0,045
Main Switches	4	400	29164.1300	1	0,024	0,136
Main Switches	3	500	29160.1400	1	0,018	0,100
Main Switches	4	500	29164.1400	1	0,024	0,136
Main Switches	3	630	29160.1500	1	0,018	0,100
Main Switches	4	630	29164.1500	1	0,024	0,136
Main Switches	3	800	29160.1600	1	0,018	0,100
Main Switches	4	800	29164.1600	1	0,024	0,136
Main Switches	3	1000	29160.1700	1	0,018	0,100
Main Switches	4	1000	29164.1700	1	0,024	0,136
Main Switches	3	1250	29160.1800	1	0,020	0,120
Main Switches	4	1250	29164.1800	1	0,024	0,136

 Combination for accessories see page **27**
Accessories for Main Switches, 3- and 4-poles, 250 - 1250 A, Type HSWA

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Incoming terminal cover	3	63-100	31828.0200	1		
Incoming terminal cover	4	63-100	31828.0100	1		
Incoming terminal cover	3 + 4	125-200	36573.0010	1		
Incoming terminal cover	3 + 4	250-630	36658.0010	1		
Aux contact 1NC 1NO in Pos. 1	3 + 4	250-630	36516.0010	1		
Aux contact 1NC 1NO in Pos. 1	3 + 4	800-1250	36504.0010	1		

Changeover Switches / Load Break Switches / Switch-Fuses


Application:

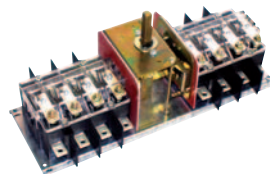
- Main generator switchboards
- Power supplies for airports, hospitals, broadcasting
- Switchboards at telecommunication systems

Design Features:

- Unique switching arrangement
- Unique L-shape moving contact
- High safety and performance
- Visible, strong knife contact system

More information on request.

For more information see page 20



29360.0400

Bypass Switches 3- and 4-poles, 63 - 800 A, Type FMU BY 1 (FMUN BY1)

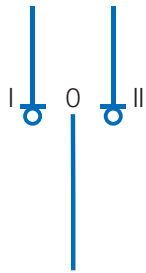
Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Bypass Switch	3	63	29360.0400		0,026	0,096
Bypass Switch	4	63	29364.0400		0,035	0,128
Bypass Switch	3	80	29360.0500		0,007	0,026
Bypass Switch	4	80	29364.0500		0,035	0,128
Bypass Switch	3	100	29360.0600		0,026	0,096
Bypass Switch	4	100	29364.0600		0,035	0,128
Bypass Switch	3	125	29360.0700		0,007	0,026
Bypass Switch	4	125	29364.0700		0,035	0,128
Bypass Switch	3	160	29360.0800		0,033	0,082
Bypass Switch	4	160	29364.0800		0,044	0,109
Bypass Switch	3	200	29360.0900		0,010	0,027
Bypass Switch	4	200	29364.0900		0,062	0,217
Bypass Switch	3	250	29360.1000		0,047	0,163
Bypass Switch	4	250	29364.1000		0,062	0,217
Bypass Switch	3	300	29360.1100		0,100	0,252
Bypass Switch	4	300	29364.1100		0,133	0,336
Bypass Switch	3	400	29360.1300		0,100	0,252
Bypass Switch	4	400	29364.1300		0,133	0,336
Bypass Switch	3	500	29360.1400		0,100	0,252
Bypass Switch	4	500	29364.1400		0,133	0,336
Bypass Switch	3	630	29360.1500		0,012	0,052
Bypass Switch	4	630	29364.1500		0,015	0,065
Bypass Switch	3	800	29360.1600		0,016	0,056
Bypass Switch	4	800	29364.1600		0,016	0,075

Combination for accessories see page 25

Accessories for Bypass Switches 3- and 4-poles, 63 - 800 A, Type FMU BY 1 (FMUN BY1)

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Door coupling + interlock shaft extension		63-250	36509.0010	1		
Door coupling + interlock shaft extension	3 + 4	300-500	36505.0010	1		
Door coupling + interlock shaft extension	3 + 4	1600-2000	36612.0010	1		
Door coupling + interlock shaft extension	3 + 4	630-1250	36515.0010	1		
Incoming terminal shroud	3 + 4	63-160	36503.0010	1		
Incoming terminal shroud	3 + 4	200-250	36645.0010	1		
Incoming terminal shroud	3 + 4	300-500	36588.0010	1		
Incoming terminal shroud	4	630-1250	36651.0010	1		
Incoming terminal shroud	3	630-1250	36703.0010	1		
Incoming terminal cover only DKLAD	3	1600-2000	36694.0010	1		
Incoming terminal cover only DKLAD	4	1600-2000	45149.0200	1		

Changeover Switches / Load Break Switches / Switch-Fuses



Application:

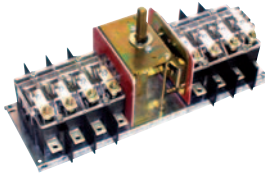
- Main generator switchboards
- Power supplies for airports, hospitals, broadcasting
- Switchboards at telecommunication systems

Design Features:

- Unique switching arrangement
- Unique L-shape moving contact
- High safety and performance
- Visible, strong knife contact system

More information on request.

For more information see page 20



29360.1700

Bypass Switches 3- and 4-poles, 1000 - 2000 A, Type FMU BY1

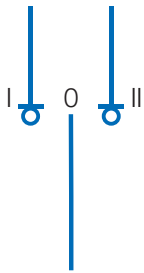
Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Bypass Switch	3	1000	29360.1700	1	0,018	0,060
Bypass Switch	4	1000	29364.1700	1	0,016	0,075
Bypass Switch	3	1250	29360.1800	1	0,020	0,065
Bypass Switch	4	1250	29364.1800	1	0,017	0,080
Bypass Switch	3	1600	29360.1900	1	0,025	0,088
Bypass Switch	4	1600	29364.1900	1	0,017	0,088
Bypass Switch	3	2000	29360.2000	1	0,030	0,100
Bypass Switch	4	2000	29364.2000	1	0,025	0,100

Combination for accesories see page 25

Accessories for Bypass Switches 3- and 4-poles, 1000 - 2000 A, Type FMU BY1

Description	Pole	Amps	Order-No.	PU	Sur. Ag	Sur. Cu
Door coupling + interlock shaft extension	3 + 4	630-1250	36515.0010	1		
Door coupling + interlock shaft extension	3 + 4	1600-2000	36612.0010	1		
Incoming terminal shroud	4	630-1250	36651.0010	1		
Incoming terminal shroud	3	630-1250	36703.0010	1		

Load Changeover Switches in ST-Enclosure 3- and 4 pole, 63 - 2000 A Type FMU



The Load Changeover Switches - Typ FMU - in a steel enclosure have some specials for the typical application - switching to alternative power supply

- Connection of on load with two energysources
- Switch functions 1-0-2
- Breaker function, thus visible isolating distance

For more information see page 20



ST-FMU 6-16

Enclosure ST-FMU 6-16

- Enclosure size: 300 x 300 x 120 mm
- Terminal opening: 134 x 44 mm
- Protection: IP66
- Rated operational current: I_e AC 21B 415V

Description	Pole	Amps	Order-No	PU	PG	Sur. AG	Sur. CU	Price €/pc.
ST-FMU 6/3 with Screw terminal M6	3	63	29300.0410	1	on demand	on demand	on demand	on demand
ST-FMU 6/4 with Screw terminal M6	4	63	29304.0410	1	on demand	on demand	on demand	on demand
ST-FMU 8/3 with Screw terminal M6	3	80	29300.0510	1	on demand	on demand	on demand	on demand
ST-FMU 8/4 with Screw terminal M6	4	80	29304.0510	1	on demand	on demand	on demand	on demand
ST-FMU 10/3 with Screw terminal M6	3	100	29300.0610	1	on demand	on demand	on demand	on demand
ST-FMU 10/4 with Screw terminal M6	4	100	29304.0610	1	on demand	on demand	on demand	on demand
ST-FMU 12/3 with Screw terminal M6	3	125	29300.0710	1	on demand	on demand	on demand	on demand
ST-FMU 12/4 with Screw terminal M6	4	125	29304.0710	1	on demand	on demand	on demand	on demand
ST-FMU 16/3 with Screw terminal M8	3	160	29300.0810	1	on demand	on demand	on demand	on demand
ST-FMU 16/4 with Screw terminal M8	4	160	29304.0810	1	on demand	on demand	on demand	on demand



ST-FMUN 20-25

Enclosure ST-FMUN 20-25

- Enclosure size: 300 x 400 x 210 mm
- Terminal opening: 234 x 48 mm
- Protection: IP66
- Rated operational current: I_e AC 21B 415V

Description	Pole	Amps	Order-No	PU	PG	Sur. AG	Sur. CU	Price €/pc.
ST-FMUN 20/3 with srew terminal M10	3	200	29320.0910	1	on demand	on demand	on demand	on demand
ST-FMUN 20/4 with srew terminal M10	4	200	29324.0910	1	on demand	on demand	on demand	on demand
ST-FMUN 25/3 with srew terminal M10	3	250	29320.1010	1	on demand	on demand	on demand	on demand
ST-FMUN 25/4 with srew terminal M10	4	250	29324.1010	1	on demand	on demand	on demand	on demand



ST-FMUN 30-50

Enclosure ST-FMUN 30-50

- Enclosure size: 380 x 600 x 210 mm
- Terminal opening: 303 x 65 mm
- Protection: IP66
- Rated operational current: I_e AC 21B 415V

Description	Pole	Amps	Order-No	PU	PG	Sur. AG	Sur. CU	Price €/pc.
ST-FMUN 30/3 with srew terminal M10	3	300	29320.1110	1	on demand	on demand	on demand	on demand
ST-FMUN 30/4 with srew terminal M10	4	300	29324.1110	1	on demand	on demand	on demand	on demand
ST-FMUN 40/3 with srew terminal M10	3	400	29320.1310	1	on demand	on demand	on demand	on demand
ST-FMUN 40/4 with srew terminal M10	4	400	29324.1310	1	on demand	on demand	on demand	on demand
ST-FMUN 50/3 with srew terminal M10	3	500	29320.1410	1	on demand	on demand	on demand	on demand
ST-FMUN 50/4 with srew terminal M10	4	500	29324.1410	1	on demand	on demand	on demand	on demand

Load Changeover Switches in ST-Enclosure 3- and 4 pole, 63 - 2000 A Type FMU



ST-FMU 63-125

Enclosure ST-FMUN 63-125

- Enclosure size: 500 x 700 x 250 mm
- Terminal opening: 303 x 114 mm
- Protection: IP56
- Rated operational current: I_e AC 21B 415V

Description	Pole	Amps	Order-No	PU	PG	Sur. AG	Sur. CU	Price €/pc.
ST-FMU 63/3 with Screw terminal M12	3	630	29300.1510	1	on demand	on demand	on demand	on demand
ST-FMU 63/4 with Screw terminal M12	4	630	29304.1510	1	on demand	on demand	on demand	on demand
ST-FMU 80/3 with Screw terminal M12	3	800	29300.1610	1	on demand	on demand	on demand	on demand
ST-FMU 80/4 with Screw terminal M12	4	800	29304.1610	1	on demand	on demand	on demand	on demand
ST-FMU 100/3 with Screw terminal M12	3	1000	29300.1710	1	on demand	on demand	on demand	on demand
ST-FMU 100/4 with Screw terminal M12	4	1000	29304.1710	1	on demand	on demand	on demand	on demand
ST-FMU 125/3 with Screw terminal M12	3	1250	29300.1810	1	on demand	on demand	on demand	on demand
ST-FMU 125/4 with Screw terminal M12	4	1250	29304.1810	1	on demand	on demand	on demand	on demand



ST-FMU 160-200

Enclosure ST-FMUN 160-200

- Enclosure size: 760 x 760 x 300 mm
- Terminal opening: 303 x 114 mm
- Protection: IP56
- Rated operational current: I_e AC 21B 415V

Description	Pole	Amps	Order-No	PU	PG	Sur. AG	Sur. CU	Price €/pc.
ST-FMU 160/3 with Screw terminal M12	3	1600	29300.1910	1	on demand	on demand	on demand	on demand
ST-FMU 160/4 with Screw terminal M12	4	1600	29304.1910	1	on demand	on demand	on demand	on demand
ST-FMU 200/3 with Screw terminal M12	3	2000	29300.2010	1	on demand	on demand	on demand	on demand
ST-FMU 200/4 with Screw terminal M12	4	2000	29304.2010	1	on demand	on demand	on demand	on demand

Accessories

For more information
see page **20**

Accessories

Description	Size	Pole	Amps	Order-No.	PU	PG	Sur. Ag	Sur. Cu	Price €/pc.
Incoming terminal cover		4	800-1250	36587.0010	1	on dem.	on dem.	on dem.	on dem.
Position indicating in switch position 1 and 2			1600-2000	36625.0010	1	on dem.	on dem.	on dem.	on dem.
Position indicating in switch position 1 and 2			63-250	36659.0010	1	on dem.	on dem.	on dem.	on dem.
Position indicating in switch position 1 and 2			300-1250	36665.0010	1	on dem.	on dem.	on dem.	on dem.
Incoming terminal cover	on dem.	3 + 4	63-160	36503.0010	1	on dem.	on dem.	on dem.	on dem.
Incoming terminal cover	on dem.	3 + 4	300-500	36588.0010	1	on dem.	on dem.	on dem.	on dem.
Incoming terminal cover	on dem.	3 + 4	200-250	36645.0010	1	on dem.	on dem.	on dem.	on dem.
Incoming terminal cover	on dem.	4	630-1250	36651.0010	1	on dem.	on dem.	on dem.	on dem.
Incoming terminal cover	on dem.	3	1600-2000	36694.0010	1	on dem.	on dem.	on dem.	on dem.

Changeover Switches /
 Load Break Switches / Switch-Fuses

Technical data

Typee FWA: 63 - 630A / AC22B 415V

Order no.	Type	Overall dimensions W x H x D	Order No. TKV- WV; door cou- pling, interlock, shaft extension	Order No. KLAD; inco- ming ter- minal shroud	Rated uninter- rupted current I _n	Rated oper. current I _e AC22B 415V	Rated oper. current I _e AC23B 415V	No. of Poles	Maximum conductor cross section
29100.0401	FWA 6/3K	72x104x 71	36541.0010	31828.0200	63A	63A		3	35 mm ²
29104.0401	FWA 6/4K	72x 82x 71	36541.0010	31828.0100	63A	on demand		4	35 mm ²
29100.0501	FWA 8/3K	72x104x 71	36541.0010	31828.0200	80A	80A		3	35 mm ²
29104.0501	FWA 8/4K	72x 82x 71	36541.0010	31828.0100	80A	on demand		4	35 mm ²
29100.0601	FWA 10/3K	72x104x 71	36541.0010	31828.0200	100A	100A		3	35 mm ²
29104.0601	FWA 10/4K	72x 82x 71	36541.0010	31828.0100	100A	on demand		4	35 mm ²
29100.0700	FWA 12/3K	122x132x 86	36509.0010	36573.0010	125A	125A		3	50 mm ²
29104.0700	FWA 12/4K	121x145x 84	36509.0010	36573.0010	125A	on demand		4	50 mm ²
29100.0800	FWA 16/3K	122x132x 86	36509.0010	36573.0010	160A	160A		3	70 mm ²
29104.0800	FWA 16/4K	121x145x 84	36509.0010	36573.0010	160A	on demand		4	70 mm ²
29100.0900	FWA 20/3K	122x132x 86	36509.0010	36573.0010	200A	200A		3	150 mm ²
29104.0900	FWA 20/4K	121x145x 84	36509.0010	36573.0010	200A	on demand		4	150 mm ²
29100.1000	FWA 25/3K	200x210x118	36680.0010	36658.0010	250A	250A		3	185 mm ²
29104.1000	FWA 25/4K	208x210x118	36680.0010	36658.0010	250A	on demand		4	185 mm ²
29100.1200	FWA 30/3K	200x210x118	36680.0010	36658.0010	315A	315A		3	195 mm ²
29104.1200	FWA 30/4K	208x210x118	36680.0010	36658.0010	315A	on demand		4	195 mm ²
29100.1300	FWA 40/3K	200x210x118	36680.0010	36658.0010	400A	400A		3	240 mm ²
29104.1300	FWA 40/4K	208x210x118	36680.0010	36658.0010	400A	on demand		4	240 mm ²
29100.1400	FWA 50/3	200x210x118	36680.0010	36658.0010	500A	on demand		3	240 mm ²
29104.1400	FWA 50/3	208x225x118	36680.0010	36658.0010	500A	on demand		4	240 mm ²
29100.1500	FWA 63/3K	200x225x118	36680.0010	36658.0010	630A	630A		3	240 mm ²
29104.1500	FWA 63/4K	200x232x118	36680.0010	36658.0010	630A	on demand		4	240 mm ²

Type FWA-HLD: 250 - 1250A / AC22B 415V / AC23B 415V

Order no.	Type	Overall dimensions W x H x D	Order No. TKV- WV; door cou- pling, interlock, shaft extension	Order No. KLAD; inco- ming ter- minal shroud	Rated uninter- rupted current I _n	Rated oper. current I _e AC22B 415V	Rated oper. current I _e AC23B 415V	No. of Poles	Maximum conductor cross section
29110.1000	FWA-HLD 25/3K	200x210x118	36680.0010	36658.0010	250A	250A	250A	3	185 mm ²
29114.1000	FWA-HLD 25/4K	208x210x118	36680.0010	36658.0010	250A	250A	250A	4	185 mm ²
29110.1200	FWA-HLD 30/3K	200x210x118	36680.0010	36658.0010	300A	300A	250A	3	195 mm ²
29114.1200	FWA-HLD 30/4K	208x210x118	36680.0010	36658.0010	300A	300A	250A	4	195 mm ²
29110.1300	FWA-HLD 40/3K	200x210x118	36680.0010	36658.0010	400A	400A	250A	3	240 mm ²
29114.1300	FWA-HLD 40/4K	208x210x118	36680.0010	36658.0010	400A	400A	250A	4	240 mm ²
29110.1400	FWA-HLD 50/3K	200x225x118	36680.0010	36658.0010	500A	500A	400A	3	2x150 mm ²
29114.1400	FWA-HLD 50/4K	208x232x118	36680.0010	36658.0010	500A	500A	400A	4	2x150 mm ²
29110.1500	FWA-HLD 63/3K	200x225x118	36680.0010	36658.0010	630A	630A	400A	3	2x185 mm ²
29114.1500	FWA-HLD 63/4K	208x232x118	36680.0010	36658.0010	630A	630A	400A	4	2x185 mm ²
29110.1600	FWA-HLD 80/3	280x260x160	36505.0010	36658.0010	800A	800A	500A	3	2x185 mm ²
29114.1600	FWA-HLD 80/4	360x260x160	36505.0010	36658.0010	800A	800A	500A	4	2x185 mm ²
29110.1700	FWA-HLD 100/3	280x260x160	36505.0010	36658.0010	1000A	1000A	500A	3	2x240 mm ²
29114.1700	FWA-HLD 100/4	360x260x160	36505.0010	36658.0010	1000A	1000A	500A	4	2x240 mm ²
29110.1800	FWA-HLD 125/3	280x260x160	36505.0010	36658.0010	1250A	1250A	500A	3	2x300 mm ²
29114.1800	FWA-HLD 125/4	360x260x160	36505.0010	36658.0010	1250A	1250A	500A	4	2x300 mm ²

Changeover Switches /
 Load Break Switches / Switch-Fuses

Technical data

Type FAM: 63 - 300A / AC21B 690V / AC22B 415V

Order no.	Type	Overall dimensions W x H x D	Order No. H1S10; aux contact 1NC 1NO in Pos. 1	Order No. KLAD; incoming ter- minal shroud	Rated uninter- rupted current I _n	Rated oper. current I _e AC21B 690V	Rated oper. current I _e AC22B 415V	No. of Poles	Maximum conductor cross section
29250.0401	FAM 6/3	114x 95x72	36593.0010 *	integrated	63A	63A	63A	3	25 mm ²
29250.0501	FAM 8/3	114x 95x72	36593.0010 *	integrated	80A	80A	80A	3	25 mm ²
29250.0600	FAM 10/3	114x110x72	36593.0010 *	36702.0010	100A	100A	80A	3	70 mm ²
29250.0700	FAM 12/3	114x110x 72	36593.0010 *	36702.0010	125A	125A	80A	3	70 mm ²
29250.0800	FAM 16/3	114x110x 72	36593.0010 *	36702.0010	160A	160A	100A	3	70 mm ²
29250.0900	FAM 20/3	208x210x 94	36596.0010	36506.0010	200A	200A	200A	3	150 mm ²
29250.1000	FAM 25/3	208x210x 94	36596.0010	36506.0010	250A	250A	200A	3	150 mm ²
29250.1100	FAM 30/3	208x210x 94	36596.0010	36506.0010	300A	300A	250A	3	240 mm ²

* Remark: auxiliary contact 1c/o

Order no.	Type	Accessories
36906.0010	box terminal	Neutral for 3 pole +N
36907.0010	lug terminal	Neutral for 3 pole +N
36908.0010	multiple use terminal	Neutral for 3 pole +N

Type SILA: 63 - 125A / AC22B 415V

Order no.	Type	Overall dimensions W x H x D	Order No. H1S10; aux contact 1NC 1NO in Pos. 1	Order No. KLAD; incoming ter- minal shroud	Rated uninter- rupted current I _n	Rated oper. current I _e AC22B 415V	Fuse size acc. to DIN	No. of Poles	Maximum conductor cross section
29400.0400	SILA-NH 00-6/3-SE	114x183x72	36593.0010 *	36501.0010	63A	63A	000/00	3	16-70 mm ²
29400.0700	SILA 00-12/3-SE	114x183x72	36593.0010 *	36501.0010	125A	125A	00	3	16-70 mm ²

* Notice: Contact assembly = 1 two-way contact

Order no.	Type	Accessories
36909.0010	box terminal	Neutral for 3 pole +N
36910.0010	lug terminal	Neutral for 3 pole +N
36911.0010	multiple use terminal	Neutral for 3 pole +N

Changeover Switches /
 Load Break Switches / Switch-Fuses

Technical data

Type SILAD-NH: 63 - 630A / AC22B 415V

Order no.	Type	Overall dimensions W x H x D	Order No. H1S10; aux contact 1NC 1NO in Pos. 1	Order No. H1S10; aux contact 1NC 1NO in Pos. 1	Rated uninter- rupted current I _n	Rated oper. current I _e AC22B 415V	Fuse size acc. to DIN	No. of Poles	Maximum conductor cross section
29410.0400	SILAD 00-6/3-SE	120x140x140	on demand	36507.0010	63A	63A	000/00	3	16- 70 mm ²
29410.0700	SILAD 00-12/3-SE	120x140x140	on demand	36507.0010	125A	125A	00	3	16- 70 mm ²
29400.1000	SILAD 1-25/3-SE	208x210x145	on demand	36506.0010	250A	250A	1	3	50-150 mm ²
29403.1000	SILAD 1-25/3+N-SE	208x210x145	on demand	36506.0010	250A	250A	1	3+N	50-150 mm ²
29420.1300	SILAD 2-40/3-SE	256x160x195	on demand	36589.0010	400A	400A	2	3	95-240 mm ²
29423.1300	SILAD 2-40/3+N-SE	256x160x195	on demand	36589.0010	400A	400A	2	3+N	95-240 mm ²
29420.1500	SILAD 3-63/3-SE	324x238x230	on demand	36591.0010	630A	630A	3	3	120-300 mm ²
29423.1500	SILAD 3-63/3+N-	324x238x230	on demand	36591.0010	630A	630A	3	3+N	120-300 mm ²

Order no.	Type	Accessories
36906.0010	box terminal	Neutral for 3 pole +N
36907.0010	lug terminal	Neutral for 3 pole +N
36908.0010	multiple use terminal	Neutral for 3 pole +N

Type SILA: 25 - 125A / AC22B 415V

Order no.	Type	Overall dimensions W x H x D	Order No. H1S10; aux contact 1NC 1NO in Pos. 1	Order No. H1S10; aux contact 1NC 1NO in Pos. 1	Rated uninter- rupted current I _n	Rated oper. current I _e AC22B 415V	Fuse size acc. to BS88	No. of Poles	Maximum conductor cross section
29430.0101	SILA-BS 2/3	100x134x77	-	box terminal	25A	25A	F1	3	2,5-25 mm ²
29430.0201	SILA-BS 3/3	100x134x77	-	box terminal	32A	32A	F1	3	2,5-25 mm ²
29430.0400	SILA-BS 6/3	114x202x72	on demand	36501.0010	63A	63A	A3	3	6 -50 mm ²
29430.0600	SILA-BS 10/3	114x202x72	on demand	36501.0010	100A	100A	A3	3	16 -70 mm ²
29430.0700	SILA-BS 12/3	114x202x72	on demand	36501.0010	125A	125A	A4	3	16 -70 mm ²

Order no.	Type	Accessories
36906.0010	box terminal	Neutral for 3 pole +N
36907.0010	lug terminal	Neutral for 3 pole +N
36908.0010	multiple use terminal	Neutral for 3 pole +N

Changeover Switches /
 Load Break Switches / Switch-Fuses

Technical data

Type SILAD-BS: 25 - 300A / AC22B 415V

Order No.	Type	Overall dimensions W x H x D	Order No. H1S10; aux contact 1NC 1NO in Pos. 1	Order No. KLAD; incoming ter- minal shroud	Rated uninter- rupted current I _n	Rated oper. current I _e AC22B 415V	Fuse size acc. to BS88	No. of Poles	Maximum conductor cross section
29440.0101	SILAD-BS 2/3	114x 95x 98	-	box terminal	25A	25A	A1	3	6- 25 mm ²
29440.0201	SILAD-BS 3/3	114x 95x 98	-	box terminal	32A	32A	A1	3	6- 25 mm ²
29440.0400	SILAD-BS 6/3	114x 95x 98	on demand	36507.0010	63A	63A	A3	3	6- 25 mm ²
29440.0600	SILAD-BS 10/3	114x 95x 98	on demand	36507.0010	100A	100A	A3	3	16- 70 mm ²
29440.0700	SILAD-BS 12/3	114x 95x 98	on demand	36507.0010	125A	125A	B2	3	25- 70 mm ²
29440.0800	SILAD-BS 16/3	208x210x125	36596.0010	36506.0010	160A	160A	B2	3	25- 70 mm ²
29440.0900	SILAD-BS 20/3	208x210x125	36596.0010	36506.0010	200A	200A	B2	3	35- 95 mm ²
29440.1000	SILAD-BS 25/3	208x210x125	36596.0010	36506.0010	250A	250A	B3	3	50-150 mm ²
29440.1100	SILAD-BS 30/3	208x210x125	36596.0010	36506.0010	300A	300A	B3	3	70-185 mm ²

Order no.	Type	Accessories
36906.0010	box terminal	Neutral for 3 pole +N
36907.0010	lug terminal	Neutral for 3 pole +N
36908.0010	multiple use terminal	Neutral for 3 pole +N

Changeover Switches / Load Break Switches / Switch-Fuses

Technical data

Type FMU (FMUN): 63 - 800A / AC21B 415V

Order No.	Type	Overall dimensions W x H x D	Order No. TKV- WV; door cou- pling, interlock, shaft extension	Order No. KLAD; overall termi- nal shroud	Rated uninter- rupted current I _n	Rated oper. current I _e AC21B 415V	No. of Poles	Maximum conductor cross section
29300.0400	FMU 6/3	189x150x 98	36509.0010	36503.0010	63A	63A	3	25 mm ²
29304.0400	FMU 6/4	189x150x 98	36509.0010	36503.0010	63A	63A	4	25 mm ²
29300.0500	FMU 8/3	189x150x 98	36509.0010	36503.0010	80A	80A	3	25 mm ²
29304.0500	FMU 8/4	189x150x 98	36509.0010	36503.0010	80A	80A	4	25 mm ²
29300.0600	FMU 10/3	189x150x 98	36509.0010	36503.0010	100A	100A	3	25 mm ²
29304.0600	FMU 10/4	189x150x 98	36509.0010	36503.0010	100A	100A	4	25 mm ²
29300.0700	FMU 12/3	189x150x 98	36509.0010	36503.0010	125A	125A	3	35 mm ²
29304.0700	FMU 12/4	189x150x 98	36509.0010	36503.0010	125A	125A	4	35 mm ²
29300.0800	FMU 16/3	189x150x 98	36509.0010	36503.0010	160A	160A	3	70 mm ²
29304.0800	FMU 16/4	189x150x 98	36509.0010	36503.0010	160A	160A	4	70 mm ²
29320.0900	FMUN 20/3	245x181x 95	36509.0010	36645.0010	200A	200A	3	120 mm ²
29324.0900	FMUN 20/4	245x181x 95	36509.0010	36645.0010	200A	200A	4	120 mm ²
29320.1000	FMUN 25/3	245x181x 95	36509.0010	36645.0010	250A	250A	3	150 mm ²
29324.1000	FMUN 25/4	245x181x 95	36509.0010	36645.0010	250A	250A	4	150 mm ²
29320.1100	FMUN 30/3	286x285x143	36505.0010	36588.0010	300A	300A	3	185 mm ²
29324.1100	FMUN 30/4	286x285x143	36505.0010	36588.0010	300A	300A	4	185 mm ²
29320.1300	FMUN 40/3	286x285x143	36505.0010	36588.0010	400A	400A	3	240 mm ²
29324.1300	FMUN 40/4	286x285x143	36505.0010	36588.0010	400A	400A	4	240 mm ²
29320.1400	FMUN 50/3	286x285x143	36505.0010	36588.0010	500A	500A	3	300 mm ²
29324.1400	FMUN 50/4	286x285x143	36505.0010	36588.0010	500A	500A	4	300 mm ²
29300.1500	FMU 63/3	390x245x180	36515.0010	36703.0010	630A	630A	3	2x185 mm ²
29304.1500	FMU 63/4	475x245x180	36515.0010	36651.0010	630A	630A	4	2x185 mm ²
29300.1600	FMU 80/3	390x253x180	36515.0010	36703.0010	800A	800A	3	2x185 mm ²
29304.1600	FMU 80/4	475x253x180	36515.0010	36651.0010	800A	800A	4	2x185 mm ²

Changeover Switches /
 Load Break Switches / Switch-Fuses

Technical data

Type HSWA: 205 - 630A / AC22B 415V / AC23B 415V

Order No.	Type	Overall dimensions W x H x D	Order No. H1S10; aux contact 1NC 1NO in Pos. 1	Order No. DKLAD; incoming ter- minal shroud	Rated uninter- rupted current I _n	Rated oper. current I _e AC22B 415V	Rated oper. current I _e AC23B 415V	No. of Poles	Maximum conductor cross section
29160.1000	HSWA 25/3K	200x210x118	36516.0010	36538.0010	250A	250A	250A	3	185 mm ²
29164.1000	HSWA 25/4K	208x210x118	36516.0010	36538.0010	250A	on demand	on demand	4	185 mm ²
29160.1200	HSWA 30/3K	200x210x118	36516.0010	36538.0010	315A	315A	250A	3	195 mm ²
29164.1200	HSWA 30/4K	208x210x118	36516.0010	36538.0010	315A	on demand	on demand	4	195 mm ²
29160.1300	HSWA 40/3K	200x210x118	36516.0010	36538.0010	400A	400A	250A	3	240 mm ²
29164.1300	HSWA 40/4K	208x210x118	36516.0010	36538.0010	400A	on demand	on demand	4	240 mm ²
29160.1400	HSWA 50/3K	200x225x118	36516.0010	36538.0010	500A	500A	400A	3	2x150 mm ²
29164.1400	HSWA 50/4K	208x232x118	36516.0010	36538.0010	500A	on demand	on demand	4	2x150 mm ²
29160.1500	HSWA 63/3K	208x225x118	36516.0010	36538.0010	630A	630A	400A	3	2x185 mm ²
29164.1500	HSWA 63/4K	208x232x118	36516.0010	36538.0010	630A	on demand	on demand	4	2x185 mm ²

Changeover Switches / Load Break Switches / Switch-Fuses

Technical data

Type FMU BY1 (FMUN BY1): 63 - 800A / AC21B 415V

Order No.	Type	Overall dimensions W x H x D	Order No. TKV- WV; door cou- pling, interlock, shaft extension	Order No. KLAD; overall terminal shroud	Rated uninter- rupted current I _n	Rated oper. current I _e AC21B 415V	No. of Poles	Maximum conductor cross section
29360.0400	FMU BY1-6/3	352x150x110	36540.0010	2x36503.0010	63A	63A	3	25 mm ²
29364.0400	FMU BY1-6/4	352x150x110	36540.0010	2x36503.0010	63A	63A	4	25 mm ²
29360.0500	FMU BY1-8/3	352x150x110	36540.0010	2x36503.0010	80A	80A	3	25 mm ²
29364.0500	FMU BY1-8/4	352x150x110	36540.0010	2x36503.0010	80A	80A	4	25 mm ²
29360.0600	FMU BY1-10/3	352x150x110	36540.0010	2x36503.0010	100A	100A	3	25 mm ²
29364.0600	FMU BY1-10/4	352x150x110	36540.0010	2x36503.0010	100A	100A	4	25 mm ²
29360.0700	FMU BY1-12/3	352x150x110	36540.0010	2x36503.0010	125A	125A	3	35 mm ²
29364.0700	FMU BY1-12/4	352x150x110	36540.0010	2x36503.0010	125A	125A	4	35 mm ²
29360.0800	FMU BY1-16/3	352x218x110	36540.0010	2x36503.0010	160A	160A	3	70 mm ²
29364.0800	FMU BY1-16/4	352x218x110	36540.0010	2x36503.0010	160A	160A	4	70 mm ²
29360.0900	FMUN BY1-20/3	474x181x110	36540.0010	2x36645.0010	200A	200A	3	120 mm ²
29364.0900	FMUN BY1-20/4	474x181x110	36540.0010	2x36645.0010	200A	200A	4	120 mm ²
29360.1000	FMUN BY1-25/3	474x181x110	36540.0010	2x36645.0010	250A	250A	3	150 mm ²
29364.1000	FMUN BY1-25/4	474x181x110	36540.0010	2x36645.0010	250A	250A	4	150 mm ²
29360.1100	FMUN BY1-30/3	570x285x159	36515.0010	2x36588.0010	300A	300A	3	185 mm ²
29364.1100	FMUN BY1-30/4	570x285x159	36515.0010	2x36588.0010	300A	300A	4	185 mm ²
29360.1300	FMUN BY1-40/3	570x285x159	36515.0010	2x36588.0010	400A	400A	3	240 mm ²
29364.1300	FMUN BY1-40/4	570x285x159	36515.0010	2x36588.0010	400A	400A	4	240 mm ²
29360.1400	FMUN BY1-50/3	570x285x159	36515.0010	2x36588.0010	500A	500A	3	300 mm ²
29364.1400	FMUN BY1-50/4	570x285x159	36515.0010	2x36588.0010	500A	500A	4	300 mm ²
29360.1500	FMU BY1-63/3	775x245x200	36515.0010	on demand	630A	on demand	3	2x185 mm ²
29364.1500	FMU BY1-63/4	945x245x200	36515.0010	2x36651.0010	630A	on demand	4	2x185 mm ²
29360.1600	FMU BY1-80/3	775x253x200	36515.0010	on demand	800A	on demand	3	2x185 mm ²
29364.1600	FMU BY1-80/4	945x253x200	36515.0010	2x36651.0010	800A	on demand	4	2x185 mm ²

Changeover Switches /
 Load Break Switches / Switch-Fuses

Technical data

Type FMU BY1: 1000 - 2000A / AC21B 415V

Order No.	Type	Overall dimensions W x H x D	Order No. TKV- WV; door cou- pling, interlock, shaft extension	Order No. KLAD; overall terminal shroud	Rated uninter- rupted current I _n	Rated oper. current I _e AC21B 415V	No. of Poles	Maximum conductor cross section
29360.1700	FMU BY1-100/3	775x253x200	36515.0010	on demand	1000A	on demand	3	2x240 mm ²
29364.1700	FMU BY1-100/4	945x253x200	36515.0010	2x36651.0010	1000A	on demand	4	2x240 mm ²
29360.1800	FMU BY1-125/3	775x253x200	36515.0010	on demand	1250A	on demand	3	2x40x5 mm
29364.1800	FMU BY1-125/4	945x253x200	36515.0010	2x36651.0010	1250A	on demand	4	2x40x5 mm
29360.1900	FMU BY1-160/3	925x410x255	36612.0010	36694.0010	1600A	on demand	3	2x60x5 mm
29364.1900	FMU BY1-160/4	1125x410x255	36612.0010	36587.0010	1600A	on demand	4	2x60x5 mm
29360.2000	FMU BY1-200/3	925x410x255	36612.0010	36694.0010	2000A	on demand	3	2x80x5 mm
29364.2000	FMU BY1-200/4	1125x410x255	36612.0010	36587.0010	2000A	on demand	4	2x80x5 mm

Standards

Norm	Type
EN 60947-1	FWA
EN 60947-3	FWA-HLD
IEC 60947-3	HSWA
VDE 0660-T107	FAM
	FMU (FMUN)
	FMU BY1 (FMUN BY1)
	SILA-NH
	SILAD-NH
EN 60947-1	SILA-BS
EN 60947-3	SILAD-BS
IEC 60947-3	
VDE 0660-T107	
BS 88	

EFEN Customer Information: One pole drawing for secure bypass function with ATN

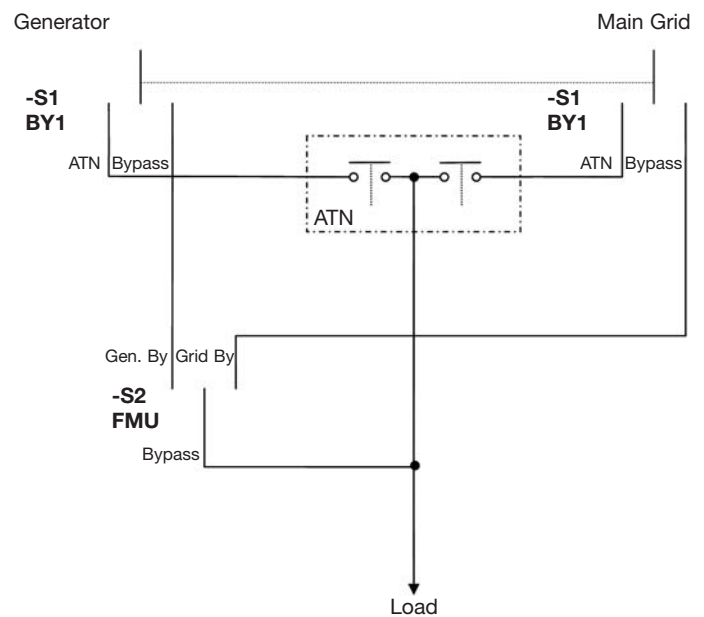
One FMU Bypass switch and one FMU switch needed:

- short circuit secure switching in all positions
- high operational availability
- not complete potential free ATN bypassed for maintenance*

This one pole drawing should be applied on 4 pole application.

Description:

- Normal ATN function is realised by Switch –S1 in ATN position
- ATN has still potential in Bypass state on outgoing*
- No short circuit could happen by any switching position
- For bypass function select at first bypass feeding source with FMU –S2 then switch –S1 to bypass position



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