

MATS PC Dual Source Automatic Transfer Switch MATSN Series



EATON

Powering Business Worldwide



Energizing a world that demands more.

We deliver:

- **Electrical solutions** that use less energy, improve power reliability and make the places we live and work safer and more comfortable
- **Hydraulic and electrical solutions** that enable machines to deliver more productivity without wasting power
- **Aerospace solutions** that make aircraft lighter, safer and less costly to operate, and help airports operate more efficiently
- **Vehicle drivetrain and powertrain solutions** that deliver more power to cars, trucks and buses, while reducing fuel consumption and emissions

Discover today's Eaton.



Powering Business Worldwide

MATSN Series Dual Source Automatic Transfer Switches



Contents

Description	Page
General Features	4
Product Selection	5
Technical Data.....	7
Overview of controller functionality.....	8
Electrical Wirings.....	10
Type H Separate Controller.....	11
Mounting Dimensions.....	13
Overview of controller functionality (Type H).....	14
Description of the function of the control panel.....	15
Electrical Wirings.....	16
Mounting Dimensions.....	17
Selection Guide.....	19

MATSN Series Dual Source Automatic Transfer Switches

General Features

General features



MATSN Series Dual source automatic transfer switches

Standards

- GB 14048.1 General
- GB/T 14048.11 Transfer Switching Equipment
- IEC 60947-1 General
- IEC 60947-6-1 Transfer Switching Equipment

Certifications

- CE certification
- CB certification
- CCC certification

Equipment class

- PC class dedicated transferring switch equipment, excitation drive

Operating Conditions

- -20 to 55°C for operation
- ≤95% for relative humidity of the air when the maximum temperature is +55°C
- -20 to 65°C for storage
- ≤2000m for altitude height

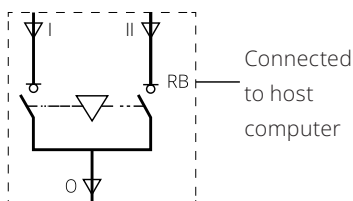
Pollution Level

- Operate in Pollution Level III environments

(1) For CB certification related information, please contact Eaton's marketing department.

(2) For products requiring special working conditions, please contact Eaton's Marketing Department.

Design Legends



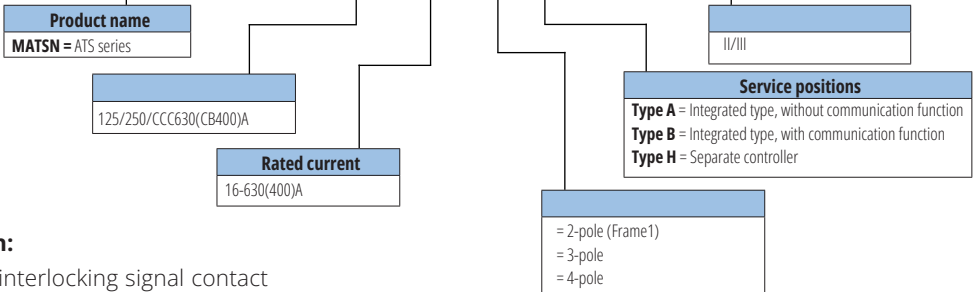
"I": Source I input end
"II": Source II input end
"O": Power source output end
"RB": RS485 communication interface

MATSN series



MATSN Frame size 1, 2 and 3, 16 A to 630 A, Type A, B and H Controller

MATSN-125 / □ / □ / □ / □



Controller Types

Type A Controllers

Fire work interlocking function:

- In the event that the fire work interlocking signal contact is closed, both power sources will enter into the Open states, and the dual-source Open state output contacts will be closed. If the fire work interlocking signal contact is opened, both sources can be switched back from the Open state by re-powering on, or performing an Automatic-Manual-Automatic transfer operation.
- The fire work interlocking signal is a passive contact signal.

The fire work interlocking function is not available for II-position products.

Generator start/stop function:

- By default, Line 1 is Source 1 (S1); the self-generated power is connected to II, which is identified as Source II (SII) by default. Connect the generator starting power (DC24V) to the corresponding terminal of the terminal block on the side, and connect the generator starting terminal on the dual source device to the generator starting device. In case of SI source faults, the dual source device sends a signal to start the generator, and automatically transfer back to the self-generated power when it's normal. The device will automatically transfer back to the S1 source when it recovers.
- Passive digital signal outputs, with the terminal capacity of AC 220V and 1A.

Position feedback:

- The device is equipped with Source I position, Source II position and dual-source Open position feedback contacts, to provide passive digital signal output indication when the switch is in different positions.

Dual-source Open position feedback function is not available for II position products.

Operating mode selection function:

- Supports on-site selection of the operating modes including automatically transfer and restore operation, automatically transfer and nonautomatically restore operation, mutual-backup operation, and utility-generator modes.

Type B Controllers

Equipped with all the functions offered by Type A controllers, and additional communication function:

- RS485 interface, with Modbus communication protocol.
- Enables remote communication, remote measurement, remote adjustment, and remote control.

Type H Controllers

Separate mounting, equipped with all the functions offered by Type B controllers, and added functions, including:

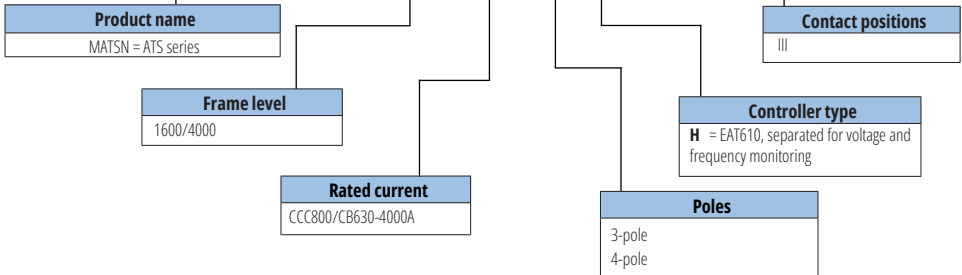
- Fault alarm.
- In the event of dual-source faults, the system outputs a set of alarm signals (passive NO contact outputs, with contact capacity of AC220V and 1A).
- Load shredding.
- Support non-standard customization per user request.
- The split controller cable is configured with 1.5 meters as standard.

MATSN Series



MATSN Frame size 4 and 5, 800 A to 4000 A, EAT610 Type H Controller

MATSN - 1600 / □ / □ / □ / □



MATSN Series Dual Source Automatic Transfer Switches

Product Selection

Product selection

Controller type	Integrated on device	Communication function	Monitoring	Pole	Frame size 1 16 A to 80 A	Frame size 2 100 A to 160 A	Frame size 2 200 A to 400 A	Frame size 4 630 A to 1250 A	Frame size 5 1600 A to 4000 A
Type A	Yes	No	Voltage	2,3,4	■	■	■	-	-
Type B	Yes	Yes	Voltage	2,3,4	■	■	■	-	-
Type H	No	Yes	Voltage	2,3,4	■	■	■	-	-
Type H -EAT610	No	Yes	Voltage and frequency	3,4	-	-	-	■	■

Frame No.	Frame1	Frame2	Frame3	Frame4	Frame5
4000A					
3200A					
2500A					
2000A					
1600A					
1250A					
1000A					
800A					
630A					
500A					
400A					
320A					
250A					
200A					
160A					
125A					
100A					
80A					
63A					
50A					
40A					
32A					
25A					
16A					

CCC certified

CB and CE certified

MATSN Series Dual Source Automatic Transfer Switches

Technical Data

Technical data

Type and Specifications	CCC CB	MATSN-125 MATSN-125	MATSN-250 MATSN-250	MATSN-630 MATSN-400	MATSN-1600 MATSN-1600	MATSN-4000 ¹ MATSN-4000 ¹
Frame size		1	2	3	4	5
No. of poles		2,3,4	3,4	3,4	3,4	3,4
No. of positions		II, III	II, III	II, III	III	III
Controller						
Controller type		A/B/H	A/B/H	A/B/H	H	H
Rated current (A)	CCC	16/25/32/40/50/63/80/100/125	100/125/160/200/250	200/250/320/400/500/630	630/800/1000/1250/1600	2000/2500/3200/4000
	CE	16/25/32/40/50/63/80	100/125/160	200/250/320/400	630/800/1000/1250	1600/2000/2500/3200/4000
	CB	16/25/32/40/50/63/80	100/125/160	200/250/320/400	630/800/1000/1250	1600/2000/2500/3200/4000
Rated insulation voltage (V)	Ui	800	800	1000	1000	1000
Rated impulse withstand voltage (kV)	Uimp	8	8	12	12	12
Rated operating voltage (V)	Ue AC50/60Hz	220(2P) 400(3P,4P)	400	400	400	400
Rated short time withstand current (kA)	Icw	5kA/60ms	10kA/60ms	12.6kA/60ms	32.6kA/60ms	65kA/1s
Rated short time making capacity (kA)	Icm	7.65	17.24	25.55	70	143
Rated limited short circuit current (kA)	Iq Fuse	80(2P) 100(3P,4P)	100	120	120	-
	Circuit breaker	36(2P) 70(3P,4P)	70	90	90	-
Utilization category		AC-33iB(16--125A) AC-33B(16--80A) AC-33iA(16--63A)	AC-33iB(16--250A) AC-33B(100--160A) AC-33iA(80--125A)	AC-33iB(320--630A) AC-33B(200--400A) AC-33iA(160--320A)	AC-33iB(630--1600A) AC-33B(630--1250A)	AC-33B(1600-4000A)
Contact transfer time (ms)		< 100	< 100	< 100	< 75	< 75
Mechanical life ¹		10000	10000	10000	8000	20000
Electrical life ¹		6000	6000	6000	5000	8000
Pollution level				III		
Mounting and wiring						
Wiring		front panel	front panel	front panel	back panel	back panel

Notes: 1.With maintenance included.

MATSN Series Dual Source Automatic Transfer Switches

Technical Data

Controller functions for frame sizes 1/2/3

Controller	Type A	Type B	Type H
Mounting method	Integrated type	Integrated type	Separate type
Frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
II service positions			
Source 1 (S1) closed	■	■	■
Source II (SII) closed	■	■	■
III service positions			
Source 1 closed	■	■	■
Source II closed	■	■	■
Dual-source open	■	■	■
Operating mode			
Automatic operation	■	■	■
Manual operation	■	■	■
Communication remote control		■	■
Automatic operation			
Monitoring S1 under voltage	■	■	■
Monitoring S1 over voltage	■	■	■
Monitoring S1 voltage loss	■	■	■
Monitoring S1 phase failure	■	■	■
Monitoring SII under voltage	■	■	■
Monitoring SII over voltage	■	■	■
Monitoring SII voltage loss	■	■	■
Monitoring SII phase failure	■	■	■
Generator start/stop control	■	■	■
Fire signal to cut off non-fire source	■	■	■
Operating mode selection			
Automatically transfer and restore operation/ Automatically transfer and nonautomatically restore operation/Mutual-backup operation/Utility-generator	■	■	■

Controller	Type A	Type B	Type H
Display			
S1 source operating indication	■	■	■
SII source operating indication	■	■	■
S1 source fault indication	■	■	■
SII source fault indication	■	■	■
Fire work interlocking indication	■	■	■
Power source indication	■	■	■
Operating mode	■	■	■
Delay time selection	■	■	■
Display method	LED	LED	LCD
Parameter setting			
Delay time setting	0,2,4,6,10,15,20,30s	0,2,4,6,10,15,20,30s	0-255s
Operating mode setting	■	■	■
Under voltage action range (±5) (V)	170	145 ~ 200 (continuously adjustable)	145 ~ 200 (continuously adjustable)
Under voltage recovery range (±5) (V)	190	160 ~ 220 (continuously adjustable)	160 ~ 220 (continuously adjustable)
Over voltage action range (±5) (V)	270	240 ~ 300 (continuously adjustable)	240 ~ 300 (continuously adjustable)
Over voltage recovery range (±5) (V)	250	220 ~ 285 (continuously adjustable)	220 ~ 285 (continuously adjustable)
Other functions			
Fire work interlocking input	■	■	■
Position feedback output	■	■	■
Communication function	-	■	■
Automatic / manual transfer	■	■	■
Test function	■	■	■
Load shredding	-	-	■
Support non-standard customization	-	-	■

• The difference between the under voltage recovery value and under voltage action value, and the difference between the over voltage action value and over voltage recovery value must both exceed 15V, otherwise the setting is invalid. Both over voltage and under voltage ranges are adjustable for Type B controllers via communication only, and Type H via both local operations and communication.

Controller Display Functions



- 1 Manual Operation Section**, including an operating handle, to perform a manual closing operation of Line I/II sources according to user selections.
- Note: Remove the operating handle after completing the manual closing operation, and put it back to its original place.

2 Manual Opening Button (Only position III)

- 3 Position selection toggle:** Three levels are available for selection, corresponding to Automatic operation, Manual SI and Manual SII. After the manual position is selected, the manual closing operation can be performed through subsequent operations in the Manual Operation Section.
- 4**

5 Power Source Status Feedback Indication

Function Setting Section

Includes test function, reset function, operating mode setting, delay time setting, and communication setting (from left to right).

Test function:

The Test function can be used to check whether the product can be switched normally after powered up. Make sure to put the switch in the automatic operating status and Source I in closed position, under the condition that Source I is normal.

Press the Test button, and the switch will complete an Ion-O-Ion-O-Ion operation cycle.

Reset function:

Reset button: Press the Reset button, and the controller will reset the restart procedure. After trouble shooting, press the Reset button to enter into a new round of signal detection and judgement.



OFF	OFF	Automatically transfer and restore operation	OFF	OFF	OFF	0
ON	OFF	Automatically transfer and nonautomatically restore operation	ON	OFF	OFF	2
OFF	ON	Utility-generator mode ¹	OFF	ON	OFF	4
ON	ON	Mutual backup operation	ON	ON	OFF	6
			OFF	OFF	ON	10
			ON	OFF	ON	15
			OFF	ON	ON	20
			ON	ON	ON	30

Notes: (1) In the utility-generator mode, the system defaults to Automatically transfer and restore operation.



Address	Dial switch setting	Address	Dial switch setting
001	1 0	004	1 0
002	1 0		
003	1 0	247	1 0

6 Product QR Code: Links to corresponding product leaflet.

7 LED Indicator section: Indicator status:

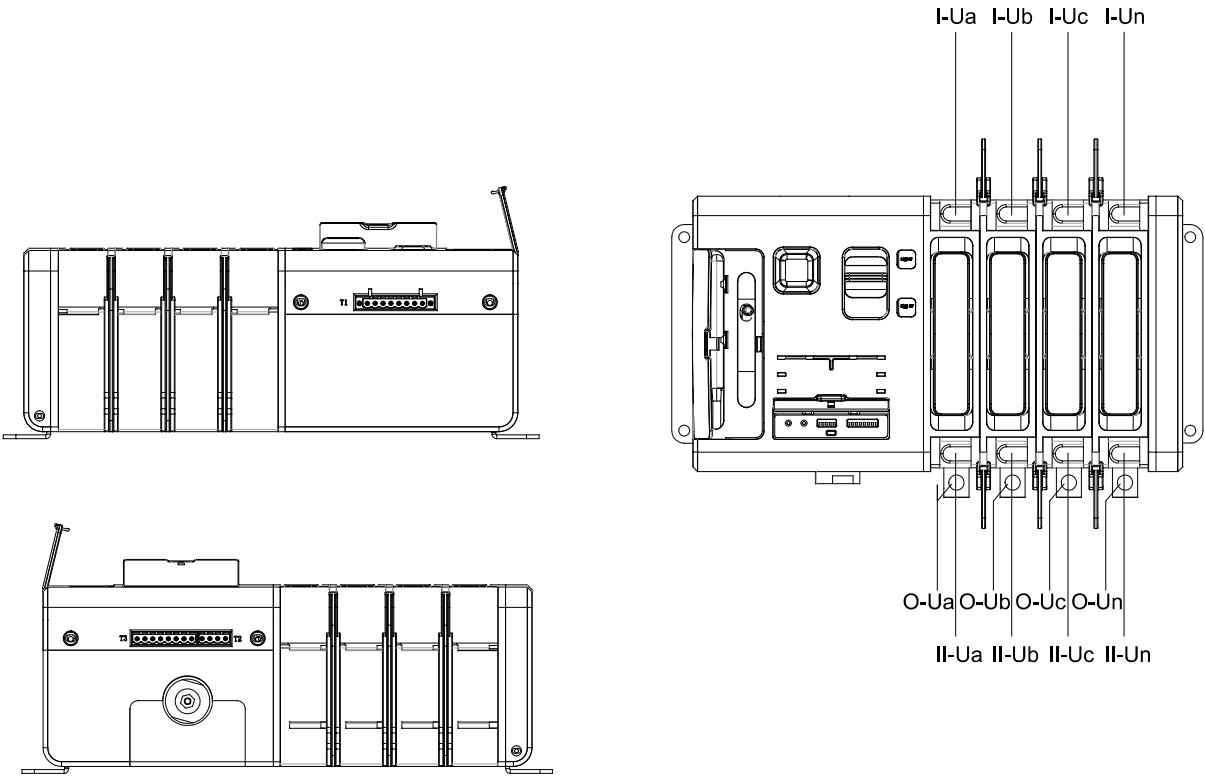
Indicator	Status	Message
S1 source status	Remain lit on Flashing Not lit on	S I normal S I over voltage S I phase loss or under voltage
S2 source status	Remain lit on Flashing Not lit on	SII normal SII over voltage SII phase loss or under voltage
S1 closing status	Remain lit on Not lit on	SI closed SI open
S2 closing status	Remain lit on Not lit on	SI closed SI open
Communication	Remain lit on Not lit on	Communication normal No communication
Fire work interlock	Remain lit on Not lit on	Fire work signal received Fire work signal not received
Alarm	Remain lit on Not lit on	Internal fault detected No fault
Automatic	Remain lit on Not lit on Flashing	Automatic mode Manual mode Remote manual mode

8 Interphase section

9 Main wiring section

MATSN Series Dual Source Automatic Transfer Switches

Electrical Wirings



III - position products - T1 Terminals

N1	S1	S2	S3	S4	Nc	Nc	Nc
Ground (3P)	S1 position feedback (passive)	S2 position feedback (passive)	Reserved				

III - position products - T2 Terminals

N1	S1	X3	X4
Dual-source open position feedback (passive)	Fire work interlock (passive)		

III - position products - T3 Terminals

DC24+	DC24-	Q1	Q2	DC5V	GND	A	B
Utility - generator mode DC24V source		Utility - generator mode Generator starting signal		Separate controller source ¹		485 communication interface	

II - position products - T1 Terminals

N1	S1	S2	S3	S4	Nc	Nc	Nc
Ground (3P)	S1 position feedback (passive)	S2 position feedback (passive)	Reserved				

II - position products - T2 Terminals

Na	Na	Na	Na
Reserved		Reserved	

II - position products - T3 Terminals

1	2	3	4	5	6	7	8
DC24+	DC24-	Q1	Q2	DC5V	GND	A	B
Utility - generator mode DC24V source		Utility - generator mode Generator starting signal		Separate controller source ¹		485 communication interface	

Notes: (1) The split controller cable is configured with 1.5 meters as standard.



Type H Separate controller

Key operation description

Key functions

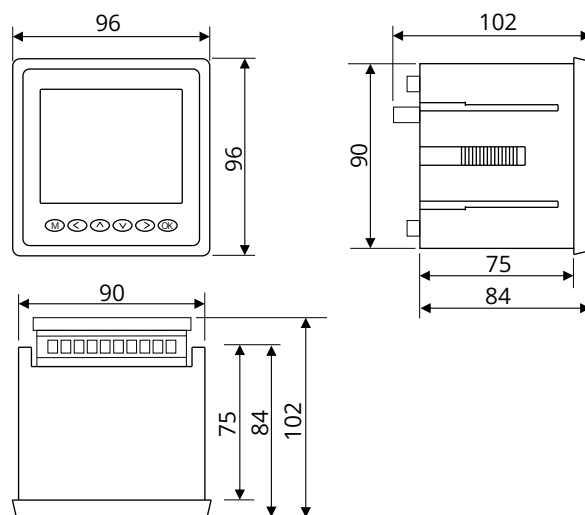
- Ⓜ Menu key: Enter or exit from the Setup Interface. On the Menu Interface, press it to return to the previous menu.
- ⏪ Left key: Select the previous data bit or move the cursor left
- ⬆ Up key: Increase the data at the cursor bit by one or move the cursor up
- ⬇ Down key: Decrease the data at the cursor bit by one or move the cursor down
- ⏩ Right key: Select the next data bit or move the cursor right
- Ⓚ OK key: Confirm and enter the interface, or save and enter the next interface

Key combinations and functions

Menu item selection operation: Press ⬆ and ⬇ to select menu items. Then press Ⓚ to enter the corresponding menu item interface.

Parameter editing operation: Press ⏪ and ⏩ to select the digit you want to edit. Then, press ⬆ and ⬇ to modify the numeric data of the selected digit bit. Press Ⓚ to save the data, and enter the next menu. If the Ⓜ key is pressed, discard changes and return to the previous menu.

Outline dimensions and mounting

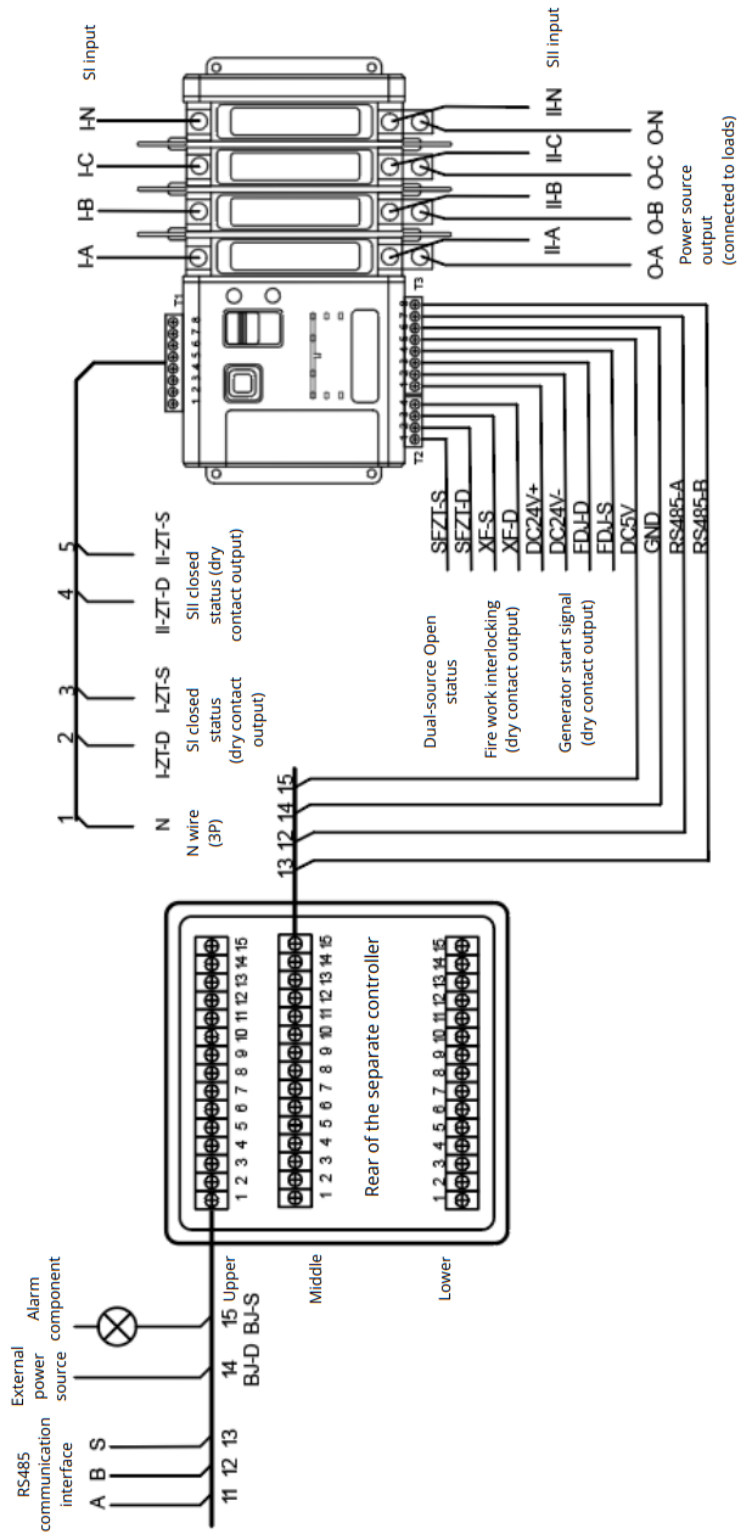


Cut out a square hole of 92x92mm on the mounting panel, and put the Type H controller in from the front. Then, fasten it from the back of the panel with a locking slider, which requires no additional fixing structures and fasteners.

MATSN Series Dual Source Automatic Transfer Switches

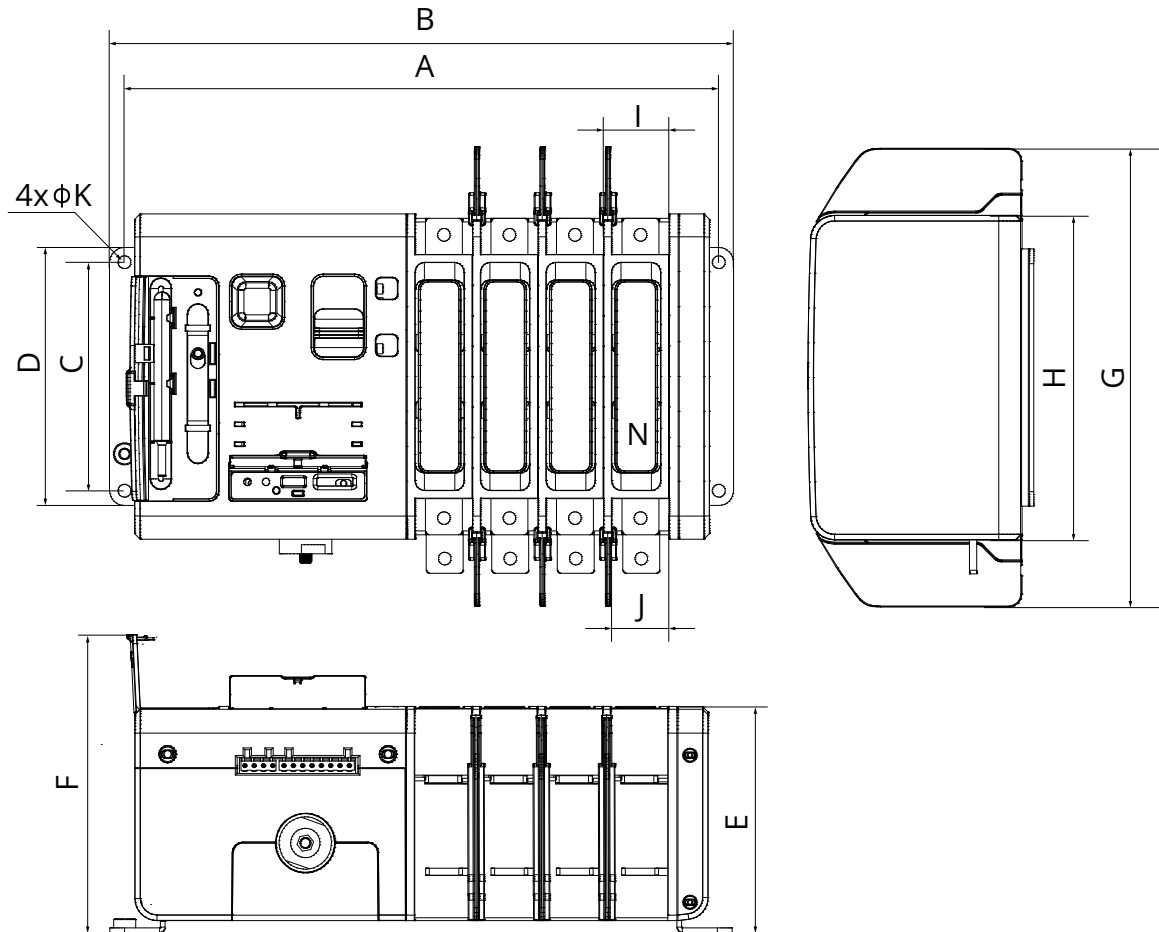
Type H Separate Controller

Type H Electrical wiring



Mounting Dimensions

Unit: mm



Outline and mounting dimensions (mm)

Type and specifications		A	B	C	D	E	F	G	H	I	J	K
MATSN-125	2P	241.5	258	124	140	123	163	250	177	30.5	26	7
MATSN-125	3P	272	288	124	140	123	163	250	177	30.5	26	7
MATSN-125	4P	302.5	319	124	140	123	163	250	177	30.5	26	7
MATSN-250	3P	287	303	124	140	123	163	250	177	35.5	31	7
MATSN-250	4P	322.5	339	124	140	123	163	250	177	35.5	31	7
MATSN-630	3P	416	436	159	179	141	180	430	221	62	48	11
MATSN-630	4P	478	498	159	179	141	180	430	221	62	48	11

MATSN Series Dual Source Automatic Transfer Switches

Technical Data

Overview of controller functionality (Type H, with Frame 4/5)

EAT610 2A-III dual power ATS controller integrates configurable function, automatic measurement, LCD display, and digital communication. It combines digital, intelligent and networking functions together, realizes automatic measurement and control, which reduces human operation errors, so that it is the ideal option for dual-power switchover.

EAT610 2A-III dual power ATS controller consists of microprocessor as the core, which can precisely measure the voltages (2-way 3-phase) and make accurate judgement for abnormal voltages (overvoltage, undervoltage, over frequency, under frequency, loss of phase, reverse phase sequence), and output passive coil. It has compact structure, advanced circuits, simple wiring and high reliability, and can be widely used in electrical automatic control system of electric power, telecommunications, petroleum, coal, metallurgy, railways, municipal administration, intelligent building, etc.

Performance and Features

- Gen-Gen;
- 4.3-inch large LCD display screen of single color, 240x128 pixel with white backlight, multiple language display (Simplified Chinese, English, and Others), default language for Others is English, and touch-button for operation;
- Collect and display 2-way 3-phase voltages, frequency and phase sequence;
- Display of accumulated close times, accumulated automatic transfer times, and mains outage transfer times for S1/S2;
- Display of current continuous power supply time, accumulated power supply time and accumulated automatic transfer running time for S1/S2;
- Measure the THD and odd harmonic component percentage (3-21 times) of S1/S2 phase voltage;
- For energy-storage type breaker, it can control the close after PF signal (ready to close) is active;
- Detection functions of over voltage, under voltage, over frequency, under frequency, loss of phase, and reverse phase sequence;
- Operation modes of Auto/Local/Manual mode, and breaker close/open can be controlled manually in manual mode;
- Controller panel parameter setting is only active in local mode, the controller only displays data parameters in local mode and the switch transfer can only be operated manually;
- Commissioning can be done on site manually to do start/stop operation of genset;
- Function of breaker re-close;
- Close output can be set as pulse or continuous output;
- 2-way N wire isolated design;
- Real time clock display, event log function with recording 200 data cyclically;
- With black box function, which can record 5 groups of events cyclically when ATS automatic transfer, each event recording 60 pieces of detailed data (50s before and 10s after the event);
- Scheduled work/not work function for genset; it can be set to run for once, monthly, or weekly, and run with loading or not;
- It can control two gensets, realizing cycle running, master running, and balanced time running;
- Wide range of DC power supply, which can bear max. 80V DC input transiently;
- AC power supply supports phase voltage (L-N), or line voltage (L-L) with range of (90~576)V;
- Large space between AC input connection terminals, which can bear 625V voltage input;
- USB port enables on-site commissioning and software upgrade;
- One RS485 isolated communication port to realize remote control, remote communication, and remote measurement and remote adjustment functions by Modbus-RTU communication protocol, including remote genset start/stop, and remote breaker close/open;
- Suitable for various AC systems (3-phase 4-wire, 3-phase 3-wire, 1-phase 2-wire, 2-phase 3-wire);
- Modular structure design, flame retardant ABS enclosure, pluggable connection terminals, and embedded installation method, with compact structure and convenient installation.

Description of the function of the control panel



1	Auto Mode Indicator	Light on when it is Auto Mode.
	Warning Alarm Indicator	Flash when there is warning alarm.
	Fault Alarm Indicator	Flash when there is fault alarm.
2	S1 Power Status Indicator	It lights off when S1 power outage occurs, always lights on when S1 power is normal, and flashes when S1 power is abnormal.
	Q1 Closed Indicator	Light ON: Q1 closed, the load is powered by S1; Light OFF: Q1 open.
	Q2 Closed Indicator	Light ON: Q2 closed, the load is powered by S2; Light OFF: Q2 open.
	S2 Power Status Indicator	It lights off when S2 power outage occurs, always lights on when S2 power is normal, and flashes when S2 power is abnormal.
3	Q1 Close Key	It is active in Manual mode; Press it to close the Q1, and the load is powered by S1.
	Q2 Close Key	It is active in Manual mode; Press it to close the Q2, and the load is powered by S2.
	Open Key	It is active in Manual mode; Press it to disconnect the load;
4	Manual Mode Indicator	Light on when it is Manual Mode.
	Local Mode Indicator	Light on when it is Local Mode.
5	Manual/Auto Key	Manual/Auto mode switching key. In manual mode, open/close can be performed by the keys of right panel.
	Local Key	Switch to Local mode; Parameters can be set in this mode.
6	Up	Screen scroll up; Move the selected item up; Increase the value above the cursor position.
	Down	Screen scroll down; Move selected item down; Increase the value above the cursor position.
	HOME	Press it to return to the home interface.
	Confirm	In the home interface, press it to enter the menu interface; Confirm the setting after entering the menu interface.
	Return	Return to previous interface.
	Set	Common parameter quick setting key. Press it to enter the common parameter view/set interface.

NOTE: Manual/Auto mode can not be switched when it is in the parameters setting interface.

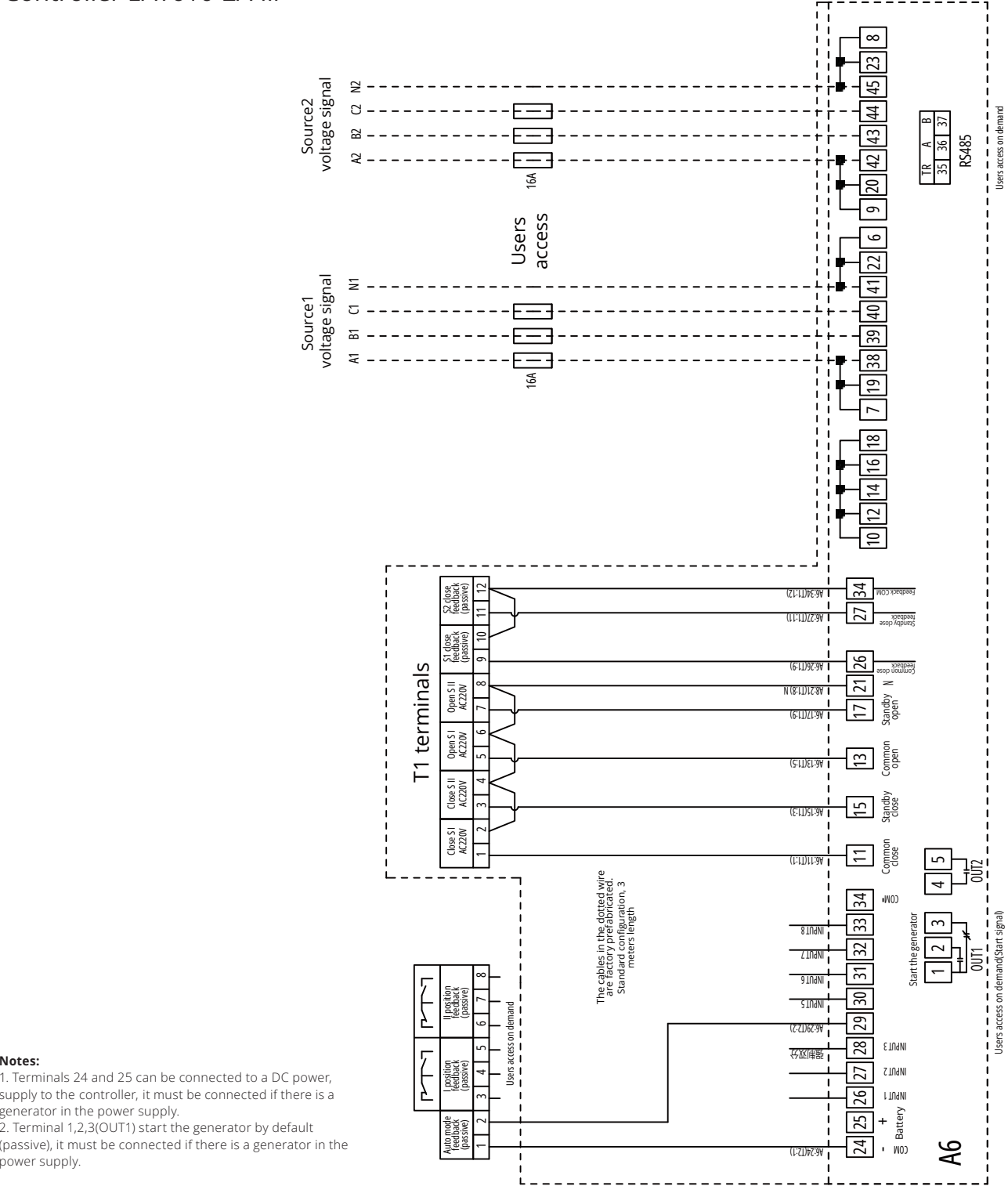
MATSN Series Dual Source Automatic Transfer Switches

Technical Data

Electrical Wirings

1600A electrical wirings (with controller type H)

Controller EAT610-2A-III



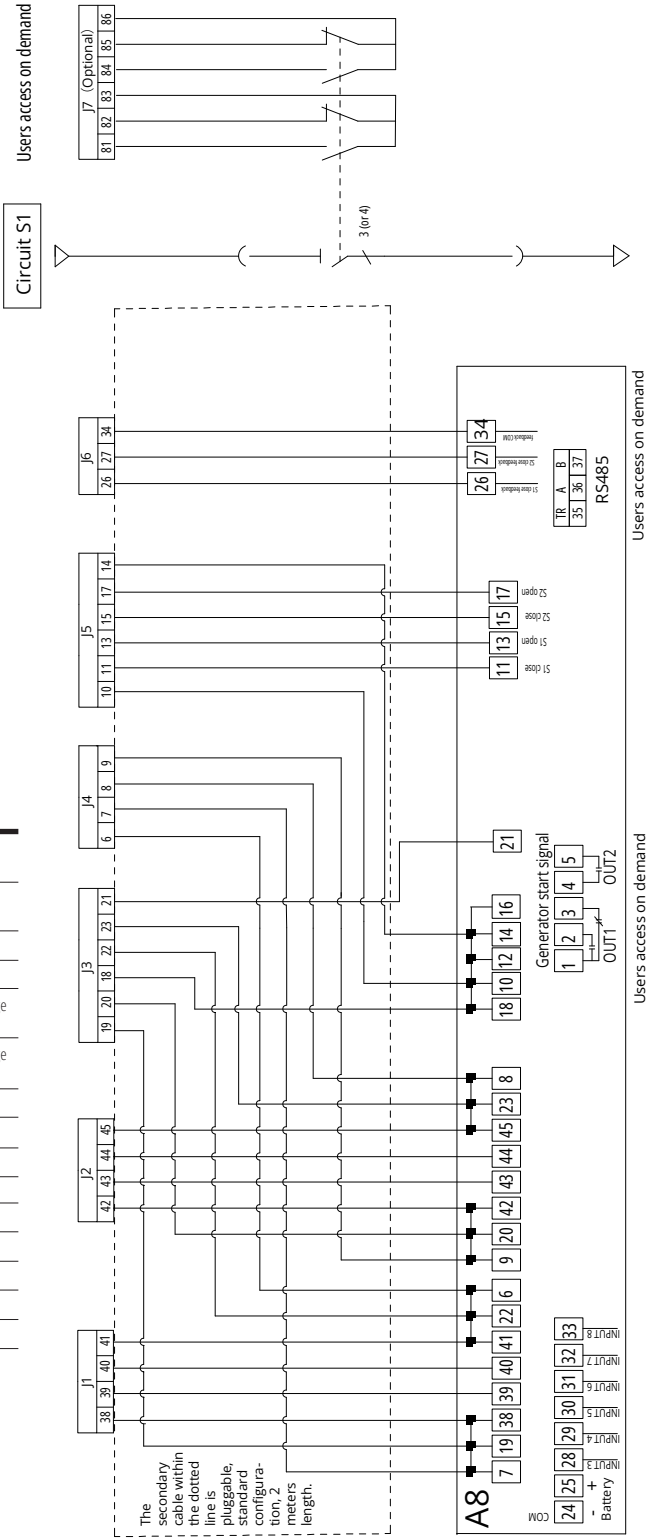
4000A electrical wirings (with controller type H)

Controller EAT610-2A-III

Terminal Number Description

Basic device terminal	Controller terminal	Function description	Note
J1	38,39,40,41	Source I main circuit voltage input (3-phase 4-wire)	For single-phase input, only connect A1 and N1
J2	42,43,44,45	Source II main circuit voltage input (3-phase 4-wire)	For single-phase input, only connect A2 and N2
J3	19,20,18	Programmable output 7	Passive relay NO/NC output, with capacity of 12A at 250VAC
J3	22,23,21	Programmable output 8	Passive relay NO/NC output, with capacity of 12A at 250VAC
J4	6,7	Source I AC power supply input	Can be phase voltage or line voltage, with power supply range of AC 90 to 576V
J4	8,9	Source II AC power supply input	Can be phase voltage or line voltage, with power supply range of AC 90 to 576V
J5	10	Common terminal	Common terminal for Programmable Outputs 3 and 4
J5	11	Programmable output 3	Passive relay NO output, with capacity of 16A at 250VAC
J5	13	Programmable output 4	Passive relay NO output, with capacity of 16A at 250VAC
J5	15	Programmable output 5	Passive relay NO output, with capacity of 16A at 250VAC
J5	17	Programmable output 6	Passive relay NO output, with capacity of 16A at 250VAC
J5	14	Common terminal	Common terminal for Programmable Outputs 5 and 6
J6	26	Programmable input 1	Passive contact input, active when grounded
J6	27	Programmable input 2	Passive contact input, active when grounded
J6	34	DC power supply negative pole	Module ground terminal

- For generator power supply, it needs to supply DC power to the controller, terminal numbers 30 and 31, 8-35V.
- For generator power supply, it needs to connect to the controller OUT12, provide a start-up signal, passive output.
- The relevant voltage sampling line in the controller has been pre-connected at the factory, and there is no need for additional wiring by the user.

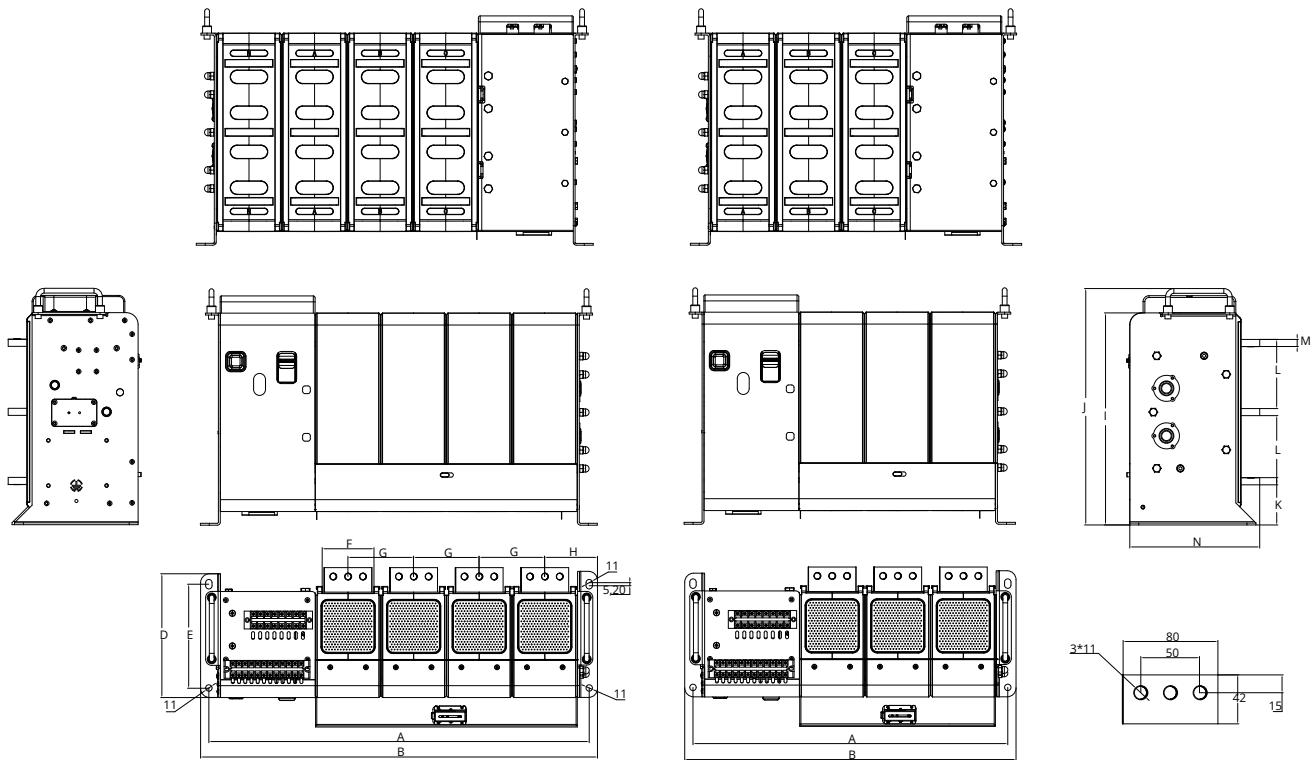


MATSN Series Dual Source Automatic Transfer Switches

Mounting Dimensions

1600 A Product dimension drawing

Unit: mm



Product frame		Outline and mounting dimensions (mm)												
		A	B	C	D	E	F	G	H	I	J	K	L	N
MATSN-1600	3P	530	557.8	530	208	175	87	110	89	357	398	79.5	116.5	219
	4P	640	668.2	530	208	175	87	110	89	357	398	79.5	116.5	219

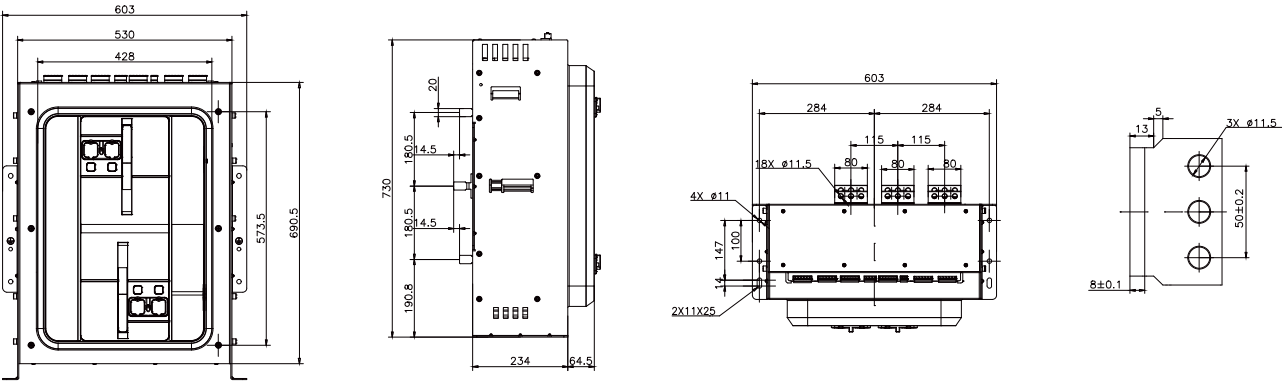
MATSN Series Dual Source Automatic Transfer Switches

Mounting Dimensions

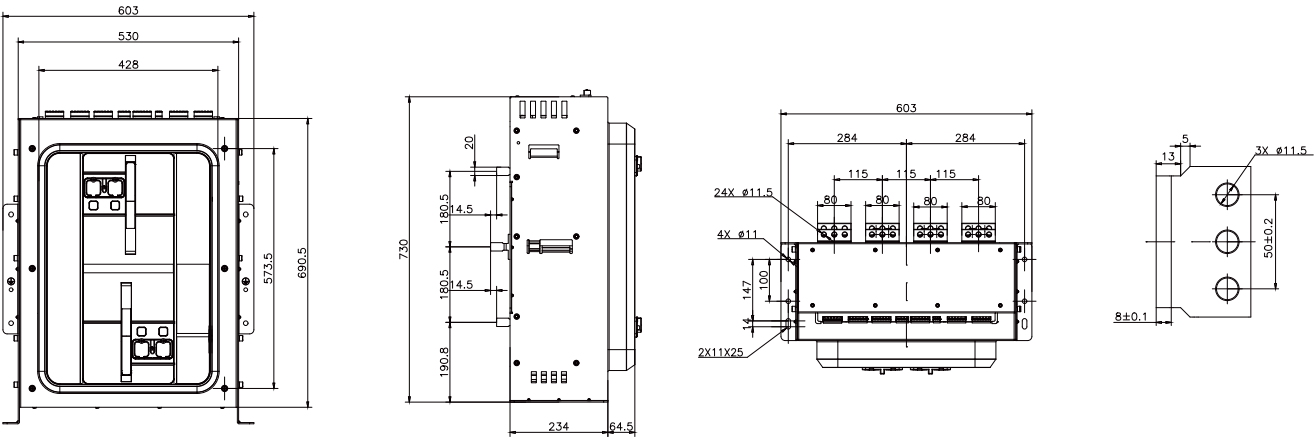
4000 A Product dimension drawing

Unit: mm

2000-2500A, 3P



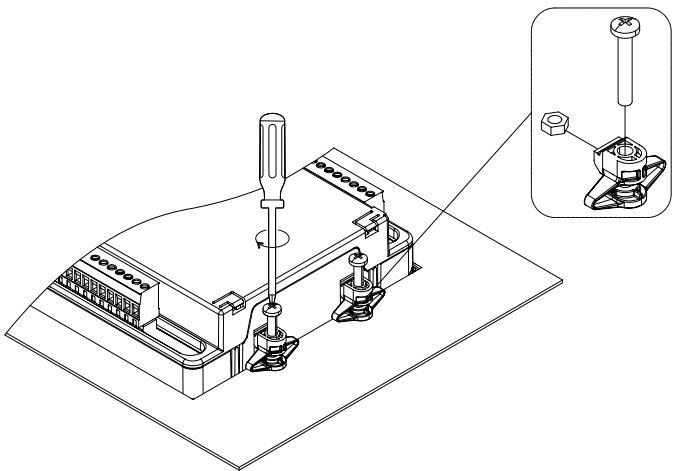
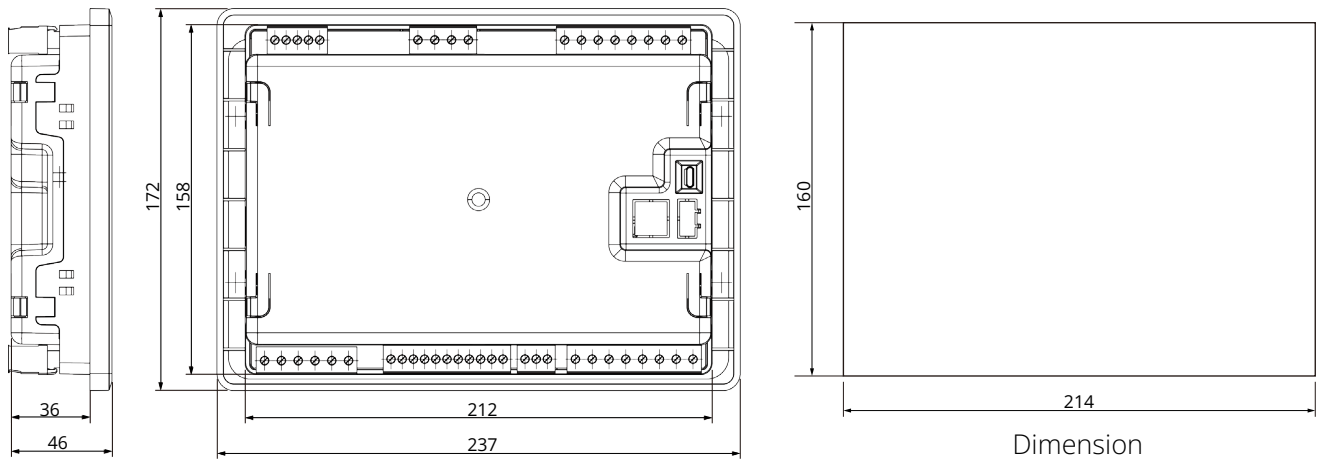
2000-2500A, 4P



MATSN Series Dual Source Automatic Transfer Switches

Mounting Dimensions

Type H controller mounting dimension Unit: mm



MATSN Series Dual Source Automatic Transfer Switches

Selection Guide

Controller type	Position	Frame size	Rated current (CE/CB)	Number of poles	Article number	Model code
Controller A Integrated on device Voltage monitoring Without communication function	Position II	1	16 A	2-pole	CSM01669	MATSN-125/16/2AII -EN
			20 A	2-pole	CSM01670	MATSN-125/20/2AII -EN
			25 A	2-pole	CSM01671	MATSN-125/25/2AII -EN
			32 A	2-pole	CSM01672	MATSN-125/32/2AII -EN
			40 A	2-pole	CSM01673	MATSN-125/40/2AII -EN
			50 A	2-pole	CSM01674	MATSN-125/50/2AII -EN
			63 A	2-pole	CSM01675	MATSN-125/63/2AII -EN
			80 A	2-pole	CSM01676	MATSN-125/80/2AII -EN
			16 A	3-pole	CSM01677	MATSN-125/16/3AII -EN
			20 A	3-pole	CSM01678	MATSN-125/20/3AII -EN
			25 A	3-pole	CSM01679	MATSN-125/25/3AII -EN
			32 A	3-pole	CSM01680	MATSN-125/32/3AII -EN
			40 A	3-pole	CSM01681	MATSN-125/40/3AII -EN
			50 A	3-pole	CSM01682	MATSN-125/50/3AII -EN
			63 A	3-pole	CSM01683	MATSN-125/63/3AII -EN
			80 A	3-pole	CSM01684	MATSN-125/80/3AII -EN
		2	100 A	3-pole	CSM01685	MATSN-250/100/3AII -EN
			125 A	3-pole	CSM01686	MATSN-250/125/3AII -EN
			160 A	3-pole	CSM01687	MATSN-250/160/3AII -EN
		3	200 A	3-pole	CSM01688	MATSN-400/200/3AII -EN
			250 A	3-pole	CSM01689	MATSN-400/250/3AII -EN
			320 A	3-pole	CSM01690	MATSN-400/320/3AII -EN
			400 A	3-pole	CSM01691	MATSN-400/400/3AII -EN
		1	16 A	4-pole	CSM01692	MATSN-125/16/4AII -EN
			20 A	4-pole	CSM01693	MATSN-125/20/4AII -EN
			25 A	4-pole	CSM01694	MATSN-125/25/4AII -EN
			32 A	4-pole	CSM01695	MATSN-125/32/4AII -EN
			40 A	4-pole	CSM01696	MATSN-125/40/4AII -EN
			50 A	4-pole	CSM01697	MATSN-125/50/4AII -EN
			63 A	4-pole	CSM01698	MATSN-125/63/4AII -EN
			80 A	4-pole	CSM01699	MATSN-125/80/4AII -EN
		2	100 A	4-pole	CSM01700	MATSN-250/100/4AII -EN
			125 A	4-pole	CSM01701	MATSN-250/125/4AII -EN
			160 A	4-pole	CSM01702	MATSN-250/160/4AII -EN
		3	200 A	4-pole	CSM01703	MATSN-400/200/4AII -EN
			250 A	4-pole	CSM01704	MATSN-400/250/4AII -EN
			320 A	4-pole	CSM01705	MATSN-400/320/4AII -EN
			400 A	4-pole	CSM01706	MATSN-400/400/4AII -EN
Controller B Integrated on device Voltage monitoring With communication function	Position II	1	16 A	2-pole	CSM01707	MATSN-125/16/2BII -EN
			20 A	2-pole	CSM01708	MATSN-125/20/2BII -EN
			25 A	2-pole	CSM01709	MATSN-125/25/2BII -EN
			32 A	2-pole	CSM01710	MATSN-125/32/2BII -EN
			40 A	2-pole	CSM01711	MATSN-125/40/2BII -EN
			50 A	2-pole	CSM01712	MATSN-125/50/2BII -EN
			63 A	2-pole	CSM01713	MATSN-125/63/2BII -EN
			80 A	2-pole	CSM01714	MATSN-125/80/2BII -EN
			16 A	3-pole	CSM01715	MATSN-125/16/3BII -EN
			20 A	3-pole	CSM01716	MATSN-125/20/3BII -EN
			25 A	3-pole	CSM01717	MATSN-125/25/3BII -EN
			32 A	3-pole	CSM01718	MATSN-125/32/3BII -EN
			40 A	3-pole	CSM01719	MATSN-125/40/3BII -EN
			50 A	3-pole	CSM01720	MATSN-125/50/3BII -EN
			63 A	3-pole	CSM01721	MATSN-125/63/3BII -EN
			80 A	3-pole	CSM01722	MATSN-125/80/3BII -EN
		2	100 A	3-pole	CSM01723	MATSN-250/100/3BII -EN
			125 A	3-pole	CSM01724	MATSN-250/125/3BII -EN
			160 A	3-pole	CSM01725	MATSN-250/160/3BII -EN
		3	200 A	3-pole	CSM01726	MATSN-400/200/3BII -EN
			250 A	3-pole	CSM01727	MATSN-400/250/3BII -EN
			320 A	3-pole	CSM01728	MATSN-400/320/3BII -EN
			400 A	3-pole	CSM01729	MATSN-400/400/3BII -EN

MATSN Series Dual Source Automatic Transfer Switches

Selection Guide

Controller type	Position	Frame size	Rated current (CE/CB)	Number of poles	Article number	Model code	
Controller B Integrated on device Voltage monitoring With communication function	Position II	1	16 A	4-pole	CSM01730	MATSN-125/16/4BII -EN	
			20 A	4-pole	CSM01731	MATSN-125/20/4BII -EN	
			25 A	4-pole	CSM01732	MATSN-125/25/4BII -EN	
			32 A	4-pole	CSM01733	MATSN-125/32/4BII -EN	
			40 A	4-pole	CSM01734	MATSN-125/40/4BII -EN	
			50 A	4-pole	CSM01735	MATSN-125/50/4BII -EN	
			63 A	4-pole	CSM01736	MATSN-125/63/4BII -EN	
			80 A	4-pole	CSM01737	MATSN-125/80/4BII -EN	
		2	100 A	4-pole	CSM01738	MATSN-250/100/4BII -EN	
			125 A	4-pole	CSM01739	MATSN-250/125/4BII -EN	
			160 A	4-pole	CSM01740	MATSN-250/160/4BII -EN	
		3	200 A	4-pole	CSM01741	MATSN-400/200/4BII -EN	
			250 A	4-pole	CSM01742	MATSN-400/250/4BII -EN	
320 A	4-pole		CSM01743	MATSN-400/320/4BII -EN			
400 A	4-pole		CSM01744	MATSN-400/400/4BII -EN			
Controller H Separate controller Voltage monitoring With communication function	Position II	1	16 A	2-pole	CSM01745	MATSN-125/16/2HII -EN	
			20 A	2-pole	CSM01746	MATSN-125/20/2HII -EN	
			25 A	2-pole	CSM01747	MATSN-125/25/2HII -EN	
			32 A	2-pole	CSM01748	MATSN-125/32/2HII -EN	
			40 A	2-pole	CSM01749	MATSN-125/40/2HII -EN	
			50 A	2-pole	CSM01750	MATSN-125/50/2HII -EN	
			63 A	2-pole	CSM01751	MATSN-125/63/2HII -EN	
			80 A	3-pole	CSM01752	MATSN-125/80/2HII -EN	
			16 A	3-pole	CSM01753	MATSN-125/16/3HII -EN	
			20 A	3-pole	CSM01754	MATSN-125/20/3HII -EN	
			25 A	3-pole	CSM01755	MATSN-125/25/3HII -EN	
			32 A	3-pole	CSM01756	MATSN-125/32/3HII -EN	
			40 A	3-pole	CSM01757	MATSN-125/40/3HII -EN	
			50 A	3-pole	CSM01758	MATSN-125/50/3HII -EN	
			63 A	3-pole	CSM01759	MATSN-125/63/3HII -EN	
			80 A	3-pole	CSM01760	MATSN-125/80/3HII -EN	
		2	100 A	3-pole	CSM01761	MATSN-250/100/3HII -EN	
			125 A	3-pole	CSM01762	MATSN-250/125/3HII -EN	
			160 A	3-pole	CSM01763	MATSN-250/160/3HII -EN	
			200 A	3-pole	CSM01764	MATSN-400/200/3HII -EN	
		3	250 A	3-pole	CSM01765	MATSN-400/250/3HII -EN	
			320 A	3-pole	CSM01766	MATSN-400/320/3HII -EN	
			400 A	3-pole	CSM01767	MATSN-400/400/3HII -EN	
			1	16 A	4-pole	CSM01768	MATSN-125/16/4HII -EN
		20 A		4-pole	CSM01769	MATSN-125/20/4HII -EN	
		25 A		4-pole	CSM01770	MATSN-125/25/4HII -EN	
		32 A		4-pole	CSM01771	MATSN-125/32/4HII -EN	
		40 A		4-pole	CSM01772	MATSN-125/40/4HII -EN	
		50 A		4-pole	CSM01773	MATSN-125/50/4HII -EN	
		63 A		4-pole	CSM01774	MATSN-125/63/4HII -EN	
		80 A		4-pole	CSM01775	MATSN-125/80/4HII -EN	
		2		100 A	4-pole	CSM01776	MATSN-250/100/4HII -EN
				125 A	4-pole	CSM01777	MATSN-250/125/4HII -EN
				160 A	4-pole	CSM01778	MATSN-250/160/4HII -EN
		3		200 A	4-pole	CSM01779	MATSN-400/200/4HII -EN
			250 A	4-pole	CSM01780	MATSN-400/250/4HII -EN	
			320 A	4-pole	CSM01781	MATSN-400/320/4HII -EN	
			400 A	4-pole	CSM01782	MATSN-400/400/4HII -EN	
Controller A Integrated on device Voltage monitoring Without communication function	Position III	1	16 A	2-pole	CSM01783	MATSN-125/16/2AIII -EN	
			20 A	2-pole	CSM01784	MATSN-125/20/2AIII -EN	
			25 A	2-pole	CSM01785	MATSN-125/25/2AIII -EN	
			32 A	2-pole	CSM01786	MATSN-125/32/2AIII -EN	
			40 A	2-pole	CSM01787	MATSN-125/40/2AIII -EN	
			50 A	2-pole	CSM01788	MATSN-125/50/2AIII -EN	
			63 A	2-pole	CSM01789	MATSN-125/63/2AIII -EN	
			80 A	2-pole	CSM01790	MATSN-125/80/2AIII -EN	

MATSN Series Dual Source Automatic Transfer Switches

Selection Guide

Controller type	Position	Frame size	Rated current (CE/CB)	Number of poles	Article Number	Model code
Controller A Integrated on device Voltage monitoring Without communication function	Position III	1	16 A	3-pole	CSM01791	MATSN-125/16/3AIII -EN
			20 A	3-pole	CSM01792	MATSN-125/20/3AIII -EN
			25 A	3-pole	CSM01793	MATSN-125/25/3AIII -EN
			32 A	3-pole	CSM01794	MATSN-125/32/3AIII -EN
			40 A	3-pole	CSM01795	MATSN-125/40/3AIII -EN
			50 A	3-pole	CSM01796	MATSN-125/50/3AIII -EN
			63 A	3-pole	CSM01797	MATSN-125/63/3AIII -EN
			80 A	3-pole	CSM01798	MATSN-125/80/3AIII -EN
		2	100 A	3-pole	CSM01799	MATSN-250/100/3AIII -EN
			125 A	3-pole	CSM01800	MATSN-250/125/3AIII -EN
			160 A	3-pole	CSM01801	MATSN-250/160/3AIII -EN
		3	200 A	3-pole	CSM01802	MATSN-400/200/3AIII -EN
			250 A	3-pole	CSM01803	MATSN-400/250/3AIII -EN
			320 A	3-pole	CSM01804	MATSN-400/320/3AIII -EN
			400 A	3-pole	CSM01805	MATSN-400/400/3AIII -EN
		1	16 A	4-pole	CSM01806	MATSN-125/16/4AIII -EN
			20 A	4-pole	CSM01807	MATSN-125/20/4AIII -EN
			25 A	4-pole	CSM01808	MATSN-125/25/4AIII -EN
			32 A	4-pole	CSM01809	MATSN-125/32/4AIII -EN
			40 A	4-pole	CSM01810	MATSN-125/40/4AIII -EN
			50 A	4-pole	CSM01811	MATSN-125/50/4AIII -EN
			63 A	4-pole	CSM01812	MATSN-125/63/4AIII -EN
			80 A	4-pole	CSM01813	MATSN-125/80/4AIII -EN
		2	100 A	4-pole	CSM01814	MATSN-250/100/4AIII -EN
			125 A	4-pole	CSM01815	MATSN-250/125/4AIII -EN
			160 A	4-pole	CSM01816	MATSN-250/160/4AIII -EN
		3	200 A	4-pole	CSM01817	MATSN-400/200/4AIII -EN
			250 A	4-pole	CSM01818	MATSN-400/250/4AIII -EN
			320 A	4-pole	CSM01819	MATSN-400/320/4AIII -EN
			400 A	4-pole	CSM01820	MATSN-400/400/4AIII -EN
Controller B Integrated on device Voltage monitoring With communication function	Position III	1	16 A	2-pole	CSM01821	MATSN-125/16/2BIII -EN
			20 A	2-pole	CSM01822	MATSN-125/20/2BIII -EN
			25 A	2-pole	CSM01823	MATSN-125/25/2BIII -EN
			32 A	2-pole	CSM01824	MATSN-125/32/2BIII -EN
			40 A	2-pole	CSM01825	MATSN-125/40/2BIII -EN
			50 A	2-pole	CSM01826	MATSN-125/50/2BIII -EN
			63 A	2-pole	CSM01827	MATSN-125/63/2BIII -EN
			80 A	2-pole	CSM01828	MATSN-125/80/2BIII -EN
			16 A	3-pole	CSM01829	MATSN-125/16/3BIII -EN
			20 A	3-pole	CSM01830	MATSN-125/20/3BIII -EN
			25 A	3-pole	CSM01831	MATSN-125/25/3BIII -EN
			32 A	3-pole	CSM01832	MATSN-125/32/3BIII -EN
			40 A	3-pole	CSM01833	MATSN-125/40/3BIII -EN
			50 A	3-pole	CSM01834	MATSN-125/50/3BIII -EN
			63 A	3-pole	CSM01835	MATSN-125/63/3BIII -EN
			80 A	3-pole	CSM01836	MATSN-125/80/3BIII -EN
		2	100 A	3-pole	CSM01837	MATSN-250/100/3BIII -EN
			125 A	3-pole	CSM01838	MATSN-250/125/3BIII -EN
			160 A	3-pole	CSM01839	MATSN-250/160/3BIII -EN
		3	200 A	3-pole	CSM01840	MATSN-400/200/3BIII -EN
			250 A	3-pole	CSM01841	MATSN-400/250/3BIII -EN
			320 A	3-pole	CSM01842	MATSN-400/320/3BIII -EN
			400 A	3-pole	CSM01843	MATSN-400/400/3BIII -EN
		1	16 A	4-pole	CSM01844	MATSN-125/16/4BIII -EN
			20 A	4-pole	CSM01845	MATSN-125/20/4BIII -EN
			25 A	4-pole	CSM01846	MATSN-125/25/4BIII -EN
			32 A	4-pole	CSM01847	MATSN-125/32/4BIII -EN
			40 A	4-pole	CSM01848	MATSN-125/40/4BIII -EN
			50 A	4-pole	CSM01849	MATSN-125/50/4BIII -EN
			63 A	4-pole	CSM01850	MATSN-125/63/4BIII -EN
			80 A	4-pole	CSM01851	MATSN-125/80/4BIII -EN

MATSN Series Dual Source Automatic Transfer Switches

Selection Guide

Controller type	Position	Frame size	Rated current (CE/CB)	Number of poles	Article Number	Model code
Controller B Integrated on device Voltage monitoring With communication function	Position III	2	100 A	4-pole	CSM01852	MATSN-250/100/4BIII -EN
			125 A	4-pole	CSM01853	MATSN-250/125/4BIII -EN
			160 A	4-pole	CSM01854	MATSN-250/160/4BIII -EN
		3	200 A	4-pole	CSM01855	MATSN-400/200/4BIII -EN
			250 A	4-pole	CSM01856	MATSN-400/250/4BIII -EN
			320 A	4-pole	CSM01857	MATSN-400/320/4BIII -EN
			400 A	4-pole	CSM01858	MATSN-400/400/4BIII -EN
Controller H Separate controller Voltage monitoring With communication function	Position III	1	16 A	2-pole	CSM01859	MATSN-125/16/2HIII -EN
			20 A	2-pole	CSM01860	MATSN-125/20/2HIII -EN
			25 A	2-pole	CSM01861	MATSN-125/25/2HIII -EN
			32 A	2-pole	CSM01862	MATSN-125/32/2HIII -EN
			40 A	2-pole	CSM01863	MATSN-125/40/2HIII -EN
			50 A	2-pole	CSM01864	MATSN-125/50/2HIII -EN
			63 A	2-pole	CSM01865	MATSN-125/63/2HIII -EN
			80 A	2-pole	CSM01866	MATSN-125/80/2HIII -EN
			16 A	3-pole	CSM01867	MATSN-125/16/3HIII -EN
			20 A	3-pole	CSM01868	MATSN-125/20/3HIII -EN
			25 A	3-pole	CSM01869	MATSN-125/25/3HIII -EN
			32 A	3-pole	CSM01870	MATSN-125/32/3HIII -EN
			40 A	3-pole	CSM01871	MATSN-125/40/3HIII -EN
			50 A	3-pole	CSM01872	MATSN-125/50/3HIII -EN
			63 A	3-pole	CSM01873	MATSN-125/63/3HIII -EN
			80 A	3-pole	CSM01874	MATSN-125/80/3HIII -EN
		2	100 A	3-pole	CSM01875	MATSN-250/100/3HIII -EN
			125 A	3-pole	CSM01876	MATSN-250/125/3HIII -EN
			160 A	3-pole	CSM01877	MATSN-250/160/3HIII -EN
		3	200 A	3-pole	CSM01878	MATSN-400/200/3HIII -EN
			250 A	3-pole	CSM01879	MATSN-400/250/3HIII -EN
			320 A	3-pole	CSM01880	MATSN-400/320/3HIII -EN
			400 A	3-pole	CSM01881	MATSN-400/400/3HIII -EN
		1	16 A	4-pole	CSM01882	MATSN-125/16/4HIII -EN
			20 A	4-pole	CSM01883	MATSN-125/20/4HIII -EN
			25 A	4-pole	CSM01884	MATSN-125/25/4HIII -EN
			32 A	4-pole	CSM01885	MATSN-125/32/4HIII -EN
			40 A	4-pole	CSM01886	MATSN-125/40/4HIII -EN
			50 A	4-pole	CSM01887	MATSN-125/50/4HIII -EN
			63 A	4-pole	CSM01888	MATSN-125/63/4HIII -EN
			80 A	4-pole	CSM01889	MATSN-125/80/4HIII -EN
		2	100 A	4-pole	CSM01890	MATSN-250/100/4HIII -EN
			125 A	4-pole	CSM01891	MATSN-250/125/4HIII -EN
			160 A	4-pole	CSM01892	MATSN-250/160/4HIII -EN
		3	200 A	4-pole	CSM01893	MATSN-400/200/4HIII -EN
			250 A	4-pole	CSM01894	MATSN-400/250/4HIII -EN
			320 A	4-pole	CSM01895	MATSN-400/320/4HIII -EN
			400 A	4-pole	CSM01896	MATSN-400/400/4HIII -EN
Controller H - EAT610 Separate controller Voltage and frequency monitoring With communication function	Position III	4	630 A	3-pole	CSM02478	MATSN-1600/630/3HIII-EN
			800 A	3-pole	CSM02322	MATSN-1600/800/3HIII-EN
			1000 A	3-pole	CSM02323	MATSN-1600/1000/3HIII-EN
			1250 A	3-pole	CSM02324	MATSN-1600/1250/3HIII-EN
			630 A	4-pole	CSM02479	MATSN-1600/630/4HIII-EN
			800 A	4-pole	CSM02325	MATSN-1600/800/4HIII-EN
			1000 A	4-pole	CSM02326	MATSN-1600/1000/4HIII-EN
			1250 A	4-pole	CSM02327	MATSN-1600/1250/4HIII-EN
		5	1600 A	3-pole	CSM02482	MATSN-4000/1600/3HIII-EN
			2000 A	3-pole	CSM02124	MATSN-4000/2000/3HIII-EN
			2500 A	3-pole	CSM02125	MATSN-4000/2500/3HIII-EN
			3200 A	3-pole	CSM02126	MATSN-4000/3200/3HIII-EN
			4000 A	3-pole	CSM02127	MATSN-4000/4000/3HIII-EN
			1600 A	4-pole	CSM02483	MATSN-4000/1600/4HIII-EN
			2000 A	4-pole	CSM02128	MATSN-4000/2000/4HIII-EN
			2500 A	4-pole	CSM02129	MATSN-4000/2500/4HIII-EN
			3200 A	4-pole	CSM02130	MATSN-4000/3200/4HIII-EN
			4000 A	4-pole	CSM02131	MATSN-4000/4000/4HIII-EN

Eaton is an intelligent power management company dedicated to protecting the environment and improving the quality of life for people everywhere. We make products for the data center, utility, industrial, commercial, machine building, residential, aerospace and mobility markets. We are guided by our commitment to do business right, to operate sustainably and to help our customers manage power - today and well into the future. By capitalizing on the global growth trends of electrification and digitalization, we're helping to solve the world's most urgent power management challenges and building a more sustainable society for people today and generations to come.

Founded in 1911, Eaton has continuously evolved to meet the changing and expanding needs of our stakeholders. With revenues of nearly \$25 billion in 2024, the company serves customers in more than 160 countries.

For more information, visit eaton.com.

Follow us on [LinkedIn](#).



EMEA Headquarters
Route de la Longeraie 7
1110 Morges, Switzerland
[Eaton.com](https://eaton.com)

Eaton Industries GmbH
Hein-Moeller-Str. 7-11
53115 Bonn / Germany

© 2026 Eaton
All Rights Reserved
Publication No. CA008019EN
February 2026

Changes to the products, to the information contained in this document, and to prices are reserved; so are errors and omissions. Only order confirmations and technical documentation by Eaton is binding. Photos and pictures also do not warrant a specific layout or functionality. Their use in whatever form is subject to prior approval by Eaton. The same applies to Trademarks (especially Eaton, Moeller, and Cutler-Hammer). The Terms and Conditions of Eaton apply, as referenced on Eaton Internet pages and Eaton order confirmations.

Eaton is a registered trademark.

All other trademarks are property of their respective owners.