EME5 | MAIN AND EMERGENCY ON/OFF SWITCHES

Mounting and operating instructions

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SAFETY AND PRECAUTIONS

Read all the information in this manual, in the datasheet and in the Modbus Register Map before working with the product. For personal and equipment safety and for optimum product performance, make sure you fully understand the content before installing, using or servicing this product.

For safety and licensing (CE) reasons, unauthorised conversions and / or modifications of the product are inadmissible.

The product should not be exposed to abnormal conditions, such as extreme temperatures, direct sunlight or vibrations. Long-term exposure to chemical vapours in high concentration can affect the product performance. Make sure the work environment is as dry as possible and avoid condensation.

All installations must comply with local health and safety regulations and local electrical standards and approved codes. This product should only be installed by an engineer or a technician with expert knowledge of the product and safety precautions.

Avoid contact with energised electrical parts. Always disconnect the power supply before connecting, servicing or repairing the product.

Always check that you are connecting the correct power supply to the product and use wires of the correct characteristics and cross-section. Make sure all screws and nuts are properly tightened and fuses (if any) are in place.

Consideration should be given to recycling the equipment and packaging. These should be disposed of in accordance with local and national laws and regulations.

If there are questions that are not answered, contact your technical support or consult a professional.

PRODUCT DESCRIPTION

The EME5 series consists of high-quality, surface-mountable rotary isolator switches specifically designed to meet the demands of commercial and industrial applications, particularly in HVAC systems. These switches provide reliable performance and safety in various environments.

- Key features
  - Application: Ideal for roof fans, box fans and air handling units.
  - Durable enclosure: Moulded housing with IP65 rating for complete dust protection and resistance to rain and direct water jets.
  - Efficient operation: 90º switching angle for easy use.
  - Safety features:
    - Padlockable OFF position (3x padlockable).
    - Forced open contacts for additional security.
  - High performance: Meets load break requirements of up to 690 VAC.
  - Flexible configurations: Available with NO and NC auxiliary contact options.
  - Easy installation: M20/25 knockouts for convenient cable entry.

With its robust design, safety features and ease of installation, the EME5 series is a reliable solution, which ensures secure and efficient power isolation in demanding commercial and industrial environments.

ARTICLE CODES

					Article codes	
Article code	**Switching diagram**	**Operational current AC21A***	**Operational power 400 VAC/AC3***	**Poles**	**NO contact**	**NC contact**
EME5-20-2100	61192	20 A	2,2 kW	2	-	-
EME5-20-4100	61194	20 A	3,7 kW	4	-	-
EME5-20-2111	41211	20 A	3 kW	2	1	1
EME5-20-4111	41411	20 A	5,5 kW	4	1	1
EME5-40-4111	41411	40 A	15 kW	4	1	1
EME5-63-4111	41411	63 A	30 kW	4	1	1

Application categories:
- AC21A *Switching resistive loads including low overloads*
- AC3 *Squirrel-cage motors: starting, switching off, running motors*

INTENDED AREA OF USE

- Security switches for fans and HVAC equipment (e.g. roof fans, box fans, air handling units etc.)
- Suitable for use as on/off or maintenance switches

TECHNICAL DATA

- 90º switching angle
- Product variants featuring NO and NC auxiliary contacts
- Easy cable connection via M20/25 knockouts
- Forced open contacts
- Fulfils load break requirements up to 690 VAC
- Terminal screws in open position
- 3x padlockable in off-position
- Protection standard: IP65 (according to EN 60529)

- Ambient conditions:
  - Temperature: -5 — 40 ºC
  - Rel. humidity: ≤50% rH (at +40 ºC); ≤90% rH (at +20 ºC) (non-condensing)

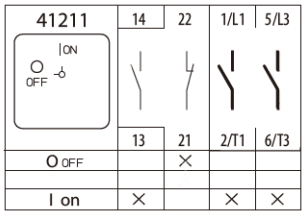
STANDARDS

- Low Voltage Directive (LVD) 2014/35/EU CE
  - EN IEC 60947-1:2021 Low-voltage switchgear and controlgear - Part 1: General rules
  - EN IEC 60947-3:2021 Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units

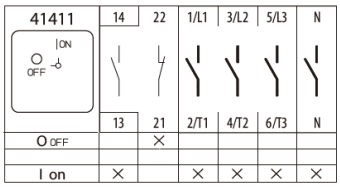
SWITCHING DIAGRAMS

Switch schemes

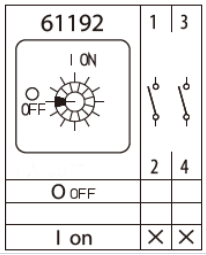
Switching diagram 41211



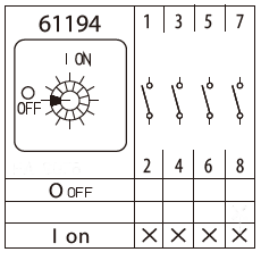
Switching diagram 41411



Switching diagram 61192



Switching diagram 61194



WIRING AND CONNECTIONS

EME5-20-2100 and EME5-20-4100	
1/L1, 3/L2, 5/L3	Input connections
7/L4	Input, neutral (if connected to L4, the circuit is broken when the switch is in OFF position)
N	Input, neutral (if connected to N, the circuit is not broken when the switch is in OFF position)
2/T1, 4/T2, 6/T3	Output connections
8/T4	Output, neutral (if connected to L4, the circuit is broken when the switch is in OFF position)
N	Output, neutral (if connected to N, the circuit is not broken when the switch is in OFF position)
⏚	Protective earth
EME5-20-2111, EME5-20-4111, EME5-40-4111 and EME5-63-4111	
1/L1, 3/L2, 5/L3	Input connections
Unmarked terminal	Input, neutral (if connected to L4, the circuit is broken when the switch is in OFF position)

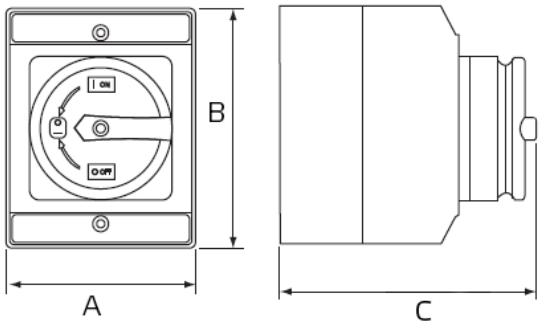
N	Input, neutral (if connected to N, the circuit is not broken when the switch is in OFF position)
2/T1, 4/T2, 6/T3	Output connections
Unmarked terminal	Output, neutral (if connected to L4, the circuit is broken when the switch is in OFF position)
N	Output, neutral (if connected to N, the circuit is not broken when the switch is in OFF position)
⏚	Protective earth
13, 14	Normally open contacts
21, 22	Normally closed contacts

MOUNTING INSTRUCTIONS IN STEPS

Before you start mounting EME5, read carefully **"Safety and Precautions"**. Then proceed with the following mounting steps:

1. Turn off the mains supply.
2. Remove and open the top of the enclosure of EME5.
3. Remove any of the pre-stamped cable entries (knockouts) to insert the wires.
4. Mount the unit onto the wall or panel using suitable fasteners. Mind the correct mounting position and unit mounting dimensions — see **Fig. 1** and **Fig. 2**.

Fig. 1 Mounting dimensions



Article code	A [mm]	B [mm]	C [mm]
EME5-20-2100	80	100	120
EME5-20-4100	80	100	120
EME5-20-2111	100	125	120
EME5-20-4111	100	125	120
EME5-40-4111	114	175	135
EME5-63-4111	114	175	135

Fig. 2 Mounting position

Correct	Incorrect
	
	

NOTE

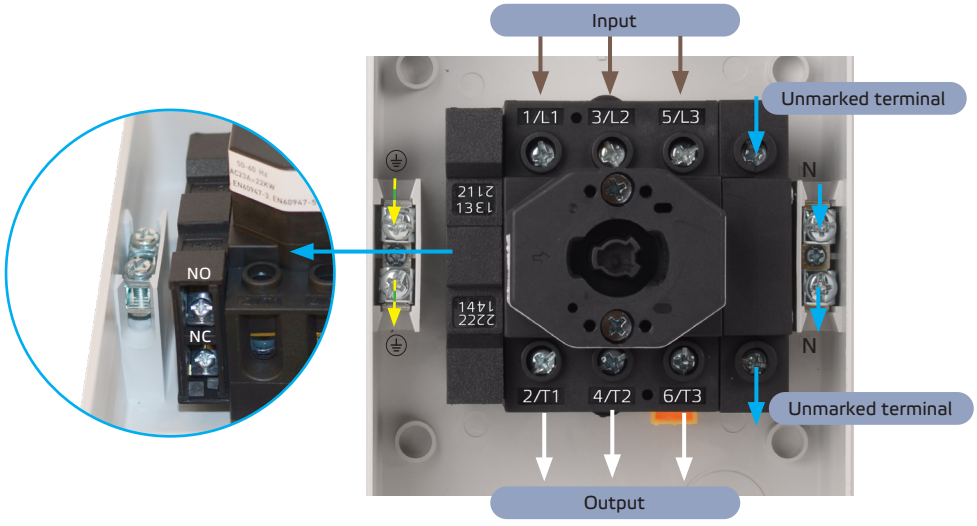
The enclosure can be opened only when the switch is in OFF position.

5. Do the wiring according to the wiring diagram (see **Fig. 3**) adhering to the information from section "**Wiring and connections**". To facilitate the wiring, you can remove the switch from the enclosure via the orange locking clip using a flat screwdriver and put it back into the enclosure after completing the wiring.

Fig. 3 Wiring and connections

3a EME5-20-2100 and EME5-20-4100

3b EME5-20-2111, EME5-20-4111, EME5-40-4111 and EME5-63-4111



6. Mount back the cover and secure it with the screws.
7. Turn on the mains supply.

NOTE

The switch is lockable only in OFF position. Locking it in ON position is forbidden.

NOTE

The position of the switch can be signalled to the control panel / room via the additional NO and NC contacts (if available).

TROUBLESHOOTING

In case of faulty operation, please check if:

- the right voltage is applied;
- all of the connections are correct;
- the device is functioning.

TRANSPORT AND STORAGE

Avoid shocks and extreme conditions; stock in original packing.

WARRANTY AND RESTRICTIONS

Two years from the delivery date against defects in manufacturing. Any modifications or alterations to the product after the date of publication relieve the manufacturer of any responsibilities. The manufacturer bears no responsibility for any misprints or mistakes in this data.

MAINTENANCE

In normal conditions this product is maintenance-free. If soiled, clean with a dry or damp cloth. In case of heavy pollution, clean with a non-aggressive product. In these circumstances, the unit should be disconnected from the supply. Pay attention that no fluids enter the unit. Only reconnect it to the supply when it is completely dry.