



SIRCO *MC PV*

Solar Disconnect Switch
up to 40 A, up to 1000 Vdc



Your guarantee for safe & reliable switching of photovoltaic circuits

Taking into account the specificity and technical constraints of solar applications, Socomec was the first manufacturer to release real PV-specific disconnect switches certified by UL, according to UL98B. The SIRCO MC PV follow the same trend and are tested according to the latest industry standards. Our complete range of PV disconnect switches is fully tested and certified according to the relevant standard for PV applications; this is our commitment to quality and performance.



Save time

Multiple mounting options **facilitate easy integration** into standard off the shelf enclosures or your custom designs.

Save space

The compact design ensures the **optimum use** of valuable space in the PV inverter or associated local enclosure.

Rationalize your equipments

The same product can be used to ensure that your standard design **conforms to all major international standards and approvals** including UL, IEC and CCC.



To find out more...
please consult our website;

<http://www.socomec.fr/en/sircomcpv>



FLOD-LRL 028 A GB

SIRCO MC PV

UL and IEC Solar Disconnect Switches
16, 25 & 40 A - 600 & 1000 Vdc

Specifically designed for photovoltaic applications, the SIRCO MC PV disconnect switches **have been tested for use in applications with high performance characteristics** that exceed the requirements of the latest industry standards.

Thanks to its very small size, the **space constraint is largely reduced**, which will allow the usage of much smaller enclosures.

The versatility of the solution, both in terms of installation possibilities and switching options, will make the **SIRCO MC PV fit perfectly in your photovoltaic application.**



SOCOMEK, your best asset

SOCOMEK is an industrial group specialized in the availability, control and safety of low voltage electrical energy which meets the requirements of the industry and service sectors.

As a manufacturer with complete control over its technological processes, SOCOMEK is constantly improving its fields of expertise in order to offer its clients increasingly customised and appropriate solutions.

As a recognized world leader in photovoltaic applications, SOCOMEK is offering you a full range of PV disconnect switches perfectly adapted to your needs.

ENERGY
SPECIALIST
SINCE 1922



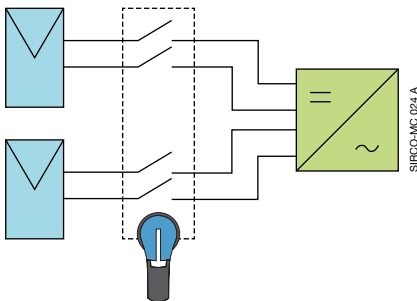
The advantages of **SIRCO MC PV**

Several switching options

- Multiple circuit



Due to its high performance the product for 2 circuits (2 MPPT, Multiple Power Points Tracking) allows the current interruption of two strings under higher voltage using a single compact switch. This improves ergonomics, reduces overall product size, and improves safety.

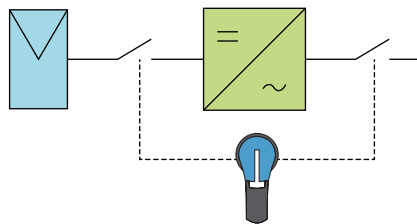


2MPPT switch, 2 circuits are switched together.

- Completely isolate the inverter within one operation



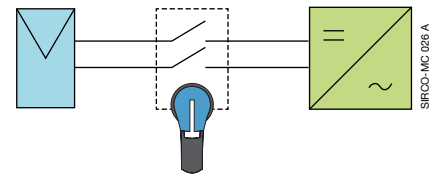
One single device can switch both DC and AC circuits, reducing the overall need for space within the inverter and allowing a voltage free maintenance of the inverter.



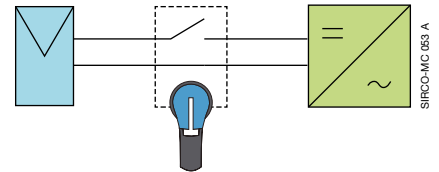
DC and AC circuits are switched with one handle.

- For grounded or ungrounded networks

It is possible to use the SIRCO MC PV in both network systems, either switching one single polarity or both polarities.



Ungrounded system, both polarities are switched.



Grounded system, only one polarity is switched.

Also available

Enclosed SIRCO MC PV

SIRCO MC PV is also available in non metallic polycarbonate 4x enclosure.



NEC and photovoltaic



Most of the PV systems fall under the provisions of the National Electrical Code (NEC). The requirement for disconnects for PV

systems are covered in Article 690 of the National Electrical Code. NEC limits one and two family dwellings, with certain limitations, to 600 V. Other installations with maximum photovoltaic system voltage over 600 Vdc

shall comply with Article 690, Part IX. However, if the most common voltage is still below 600 Vdc, the trend is for higher voltage in order to improve the efficiency of the system.

Various mounting options

• Base mounting

The SIRCO MC PV exists for back plate mounting by means of screws and on DIN rail. This mounting enables quick and efficient installation.



Direct operation

The handle is mounted directly on the switch which can only be operated when the door is open. Modular 45 mm cutout enables integration in modular type panels. The switch must be located behind a hinged cover.



External dead front handle

The handle is mounted on the door and is connected to the switch when the door is closed.

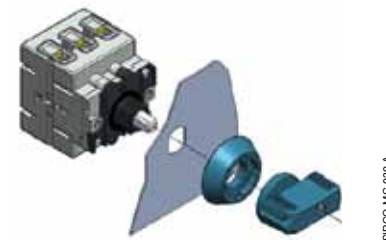
• Panel mounting

The switches can be mounted on the door without tools. The switch body is attached to the inside of the enclosure door.



Quickfix

Once the handle is fitted on the door by means of a nut, handle and switches are assembled through a quarter turn fixation.



Standard door mounting

This type of mounting is a cost effective and simple solution. The switch is fixed using a nut on the external side of the door.

The standards for PV disconnect switches

USA

- UL98B; Disconnect switches for photovoltaic systems, usually for rating above 40 A.
- UL508i; Manual disconnect switches for photovoltaic systems, usually for ratings up to 40 A.
- UL1741; Inverters and interconnection system equipment.

Worldwide

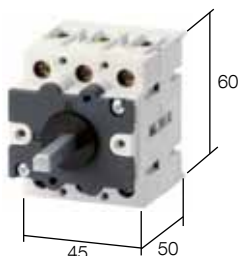
- IEC 60947; Low-voltage switchgear and controlgear. Part 3; Switches, disconnectors, switch-disconnectors and fuse-combination units.



Space saving

The compact design ensures the optimum use of valuable enclosure space. The SIRCO MC PV is easy to install in the

modern small photovoltaic inverter where space means cost and competitiveness.

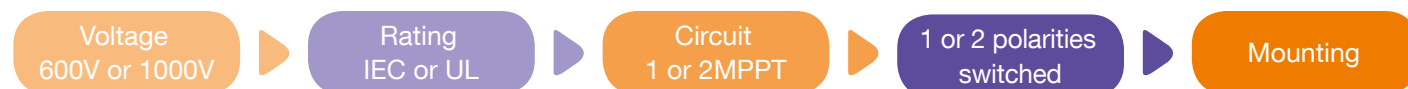


Base mounting.



Panel mounting.

The selection guide



SIRCO MC PV Solar Disconnect Switch

DC RATING			1 PV CIRCUIT (MPPT)			1 PV CIRCUIT (MPPT) AND AN AC CIRCUIT			2 PV CIRCUITS (MPPT)			
UL	IEC	MOUNTING	DIMENSIONS	UNGROUND 2 polarities switched	GROUND 1 polarity switched	DIMENSIONS	UNGROUND 2 polarities switched	GROUND 1 polarity switched	DIMENSIONS	UNGROUND 2 polarities switched	GROUND 1 polarity switched	
600 VDC	16 A	25 A	Back plate/DIN		21PV 2102	21PV 2102 ⁽¹⁾		21PV 2162	21PV 2162 ⁽¹⁾		21PV 5102	21PV 5102 ⁽¹⁾
			Door std		21PV 2202	21PV 2202 ⁽¹⁾		21PV 2262	21PV 2262 ⁽¹⁾		21PV 5202	21PV 5202 ⁽¹⁾
			Quickfix		21PV 2302	21PV 2302 ⁽¹⁾		21PV 2362	21PV 2312 ⁽¹⁾		21PV 5302	21PV 5302 ⁽¹⁾
	25 A	40 A	Back plate/DIN		21PV 3124	21PV 3114		21PV 3184	21PV 3174		21PV 6124	21PV 6114
			Door std		21PV 3224	21PV 3214		21PV 3284	21PV 3274		Consult us	
			Quickfix		21PV 3324	21PV 3314		21PV 3384	21PV 3374		Consult us	
	36 A	40 A	Back plate/DIN		Consult us	21PV 4134		Consult us			21PV 8154	21PV 8134
			Door std		Consult us	21PV 4234		Consult us			Consult us	
			Quickfix		Consult us	21PV 4334		Consult us			Consult us	
1000 VDC	16 A	25 A	Back plate/DIN		21PV 3722	21PV 3712		21PV 3782	21PV 3762		21PV 8154	21PV 8134
			Door std		21PV 3822	21PV 3812		21PV 3882	21PV 3862		Consult us	
			Quickfix		21PV 3922	21PV 3912		21PV 3982	21PV 3912		Consult us	
	25 A	40 A	Back plate/DIN		21PV 4754	21PV 4734		Consult us			21PV 8754	21PV 8734
			Door std		21PV 4854	21PV 4834		Consult us			Consult us	
			Quickfix		21PV 4954	21PV 4934		Consult us			Consult us	

(1) Bridge for pole connection in series not included

Switch for 3 and 4 PV circuits (MPPT) are also available, please contact us.

Handles & accessories

Direct operation

SWITCH MOUNTING	TYPE	COLOUR	REFERENCES
Back plate/DIN rail	MC01	Black	2119 1012

External operation

HANDLE				SHAFT		
SWITCH MOUNTING	TYPE	COLOUR	REFERENCES	LENGHT	WITH DOOR INTERLOCKED	WITHOUT DOOR INTERLOCKED
Back plate/DIN rail	MC1	Black	2119 3312	165 mm	2707 0517	2707 0516
		Red /yellow	2119 3313			
	S00	Black	147D 1111	200 mm	2107 0520	/
		Red /yellow	147E 1111			
Door mounting std*	MC2	Blue	2129 0112	N/A	N/A	N/A
Quickfix	MC3	Blue	2139 1212	N/A	N/A	N/A
	MC4	Black	2139 3312			
	MC4	Red /yellow	2139 3313			

* Non padlockable.

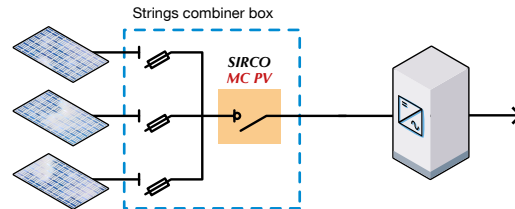
Auxiliary contacts (NO+NC)

Back plate/DIN rail	2119 0001
Door mounting	2129 0001

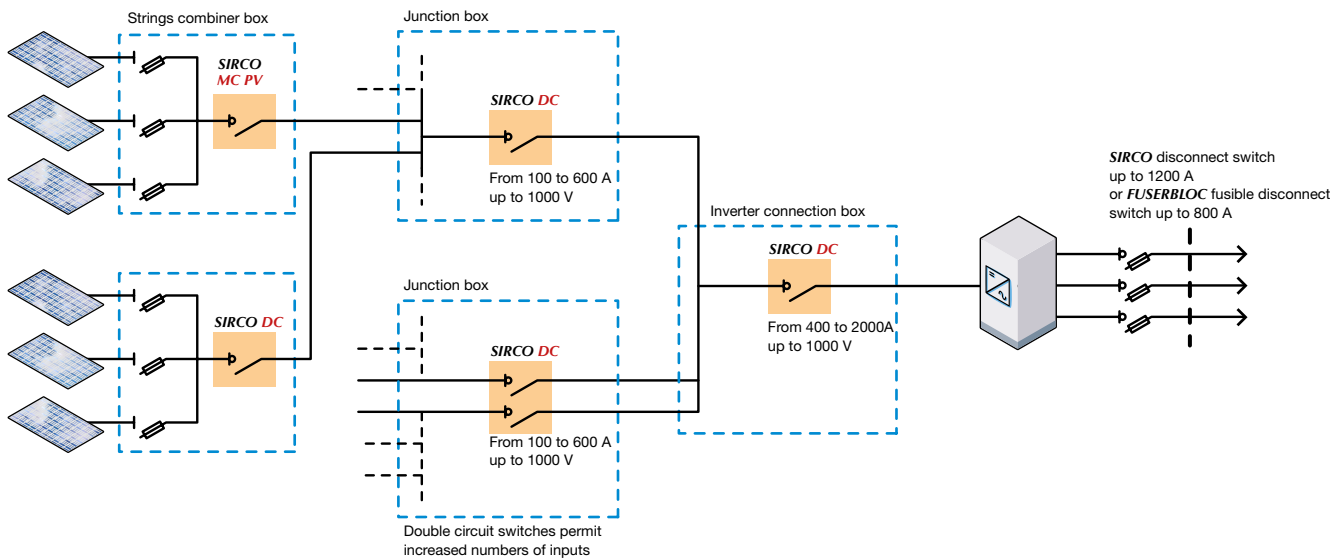
The **SIRCO** range; a complete offer for the photovoltaic applications from 16 A to 2500 A

As experts in the solar energy equipment field, SOCOMEC has the specialized know-how for implementing key strategic functions in PV facilities, including safety, through specially designed switch disconnectors to interrupt the DC current generated by solar panels regardless of the facility configuration and operating conditions.

Typical electrical distribution of a residential installation



Typical electrical distribution of a large PV installation

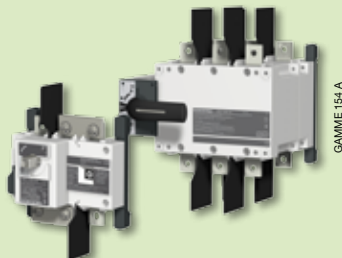


SIRCO-PV010 C GB

Also available

SIRCO DC PV up to 2500 A

SIRCO DC disconnect switches are heavy duty switches that break and make up to 1500 Vdc photovoltaic circuits on load. They are suitable for use in accordance with NEC Article 690 photovoltaic installations and Application UL1741.



Also available

Other UL products

- Sirco M; Manual motor controller from 16 to 80A
- Sirco; AC disconnect switches from 30 to 1200A
- Fuserbloc; Fusible disconnect switches from 30 to 800A
- Sircover; Manual transfer switches from 100A to 1200A
- Diris; Multi function metering devices



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