Brighter Solutions

IMO

Solar Product Range

Approvals

Proven compliance, globally. Our solar disconnects and control switches carry independent certifications for North America (UL) and Australia/ New Zealand (ESV/RCM), giving EPCs, OEMs and installers clear, auditable proof of safety and performance.

Certificate of Compliance

Certificate Number: E146487

Report Reference: E146487-20100324

Issue Date: 2025-03-20

UL – Industrial Control Switches (UL 60947-1 / 60947-4-1)

What it means: Representative samples of IMO industrial control switches (SI/SIM/SIME series) comply with North American safety requirements for low-voltage switchgear and electromechanical motor control. Suitable for use in UL-certified control panels.
Certificate: UL CoC E146487.

Certificate of Compliance

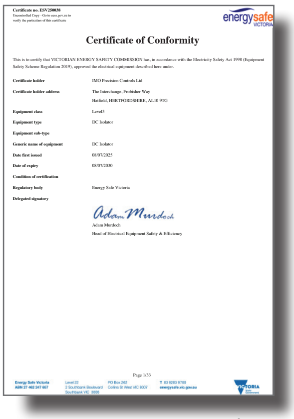
Certificate Number: E362605

Report Reference: E362605-20130515

Issue Date: 2025-03-19

UL – PV Manual Disconnect Switches (UL 508I)

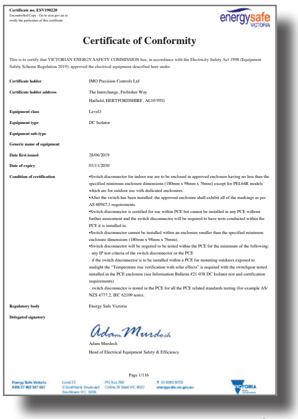
What it means: IMO SIA and SI photovoltaic manual disconnects meet UL 508I—PV-specific disconnect safety. This supports AHJ acceptance in U.S. solar installations and simplifies compliance for integrators and OEMs.
Certificate: UL CoC E362605.



Certificate of Conformity

Australia / New Zealand – ESV250038 (DC Isolators, 16–38 A ranges)

What it means:
DC isolators SIA16–SIA38 certified by Energy Safe Victoria (ESV) to AS/ NZS 60947.3 and 60947.1 standards. These isolators feature improved arc suppression and enhanced terminal design for high-reliability DC disconnection. Outdoor models use dedicated IP66NW enclosures, with RCM marking required for installation.
Validity: Certificate valid through 2030 (series dependent).



Certificate of Conformity

Australia / New Zealand – ESV190220 (DC Isolators, 16–38 A ranges)

What it means:
DC isolators SI16–SI38 certified by Energy Safe Victoria (ESV) to AS/ NZS 60947.3 and 60947.1 standards. Suitable for use in solar PV and DC switching applications. Outdoor versions are supplied in dedicated IP66NW enclosures, and RCM marking is required for compliance.
Validity: Certificate valid through 2030 (series dependent).

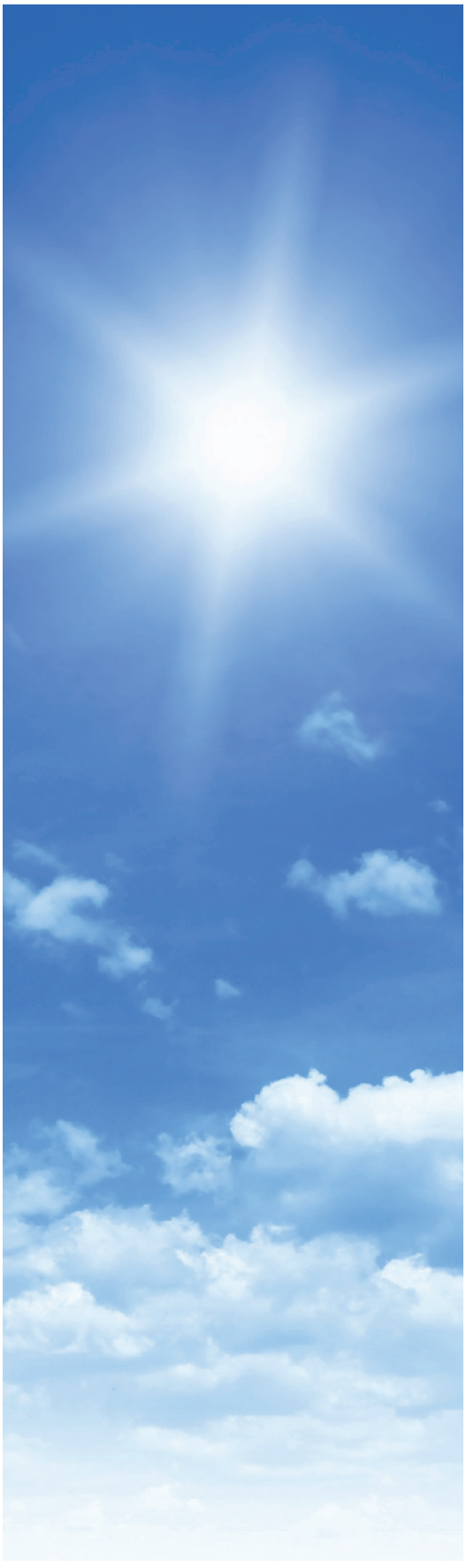
Certificate of Conformity

Australia / New Zealand – ESV Level 3 (Higher currents/voltage, 40–65 A ranges)

What it means: High-capacity DC isolators (SI40–SI65) certified by Energy Safe Victoria to AS 60947.3 for use up to 1500 VDC (models dependent). Installation conditions include minimum enclosure sizes and PV temperature-rise verification.
Certificate: ESV190372.

Contents

IMO Solar Guide - Abbreviations



AC	Alternating Current
DC	Direct Current
I_e	Rated Operational Current
IMO	IMO Precision Controls
I_{sc}	Short-Circuit Current
I_{th}	Thermal Current
MPPT	Maximum Power Point Tracking
PV	Photovoltaic
V_{oc}	Open-Circuit Voltage

References

BS 7671	Requirements for Electrical Installations
IEC/EN 60364-7-712	Low-voltage electrical installations. Part 7-712: Requirements for special installations or locations. Photovoltaic (PV) power systems
IEC/EN 60529	Specification for degrees of protection provided by enclosures (IP code)
IEC/EN 60947-1 **UL 60947-1**	Low-voltage switchgear and controlgear. Part 1: General rules
IEC/EN 60947-3 **UL 60947-3**	Low-voltage switchgear and controlgear. Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units
UL 60947-4-1	Low-voltage switchgear and controlgear. Contactors and motor-starters. Electromechanical contactors and motor-starters
IEC/EN 61215	Crystalline silicon terrestrial photovoltaic (PV) modules – Design qualification and type approval
IEC/EN 61646	Thin-film terrestrial photovoltaic (PV) modules - Design qualification and type approval
Nema 250	Enclosures for Electrical Equipment (1000 Volts Maximum)
UL 94	Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances
UL 508	Industrial Control Equipment
UL 508i	Manual Disconnect Switches intended for use in Photovoltaic Systems
DTI/Pub URN 06/1972	Photovoltaics in Buildings, Guide to the installation of PV systems 2nd Edition

Guide to Installation of PV Systems – 3rd Edition

Other Relevant References

G83/1-1	Recommendations for Connection of Small-scale Embedded Generators (Up to 16A per Phase) in Parallel with Public Low-Voltage Distribution Networks
G59/2	Recommendations for the Connection of Generating Plant to the Distribution Systems of Licensed Distribution Network Operators
NFPA70 2017	National Electrical Code

Introduction to PV design

A Photovoltaic (PV) power system primarily converts sunlight directly into electricity using a photovoltaic cell array. The conversion of the solar radiation into electric current is carried out using the photoelectric effect found when some semiconductors that are suitably “doped” generate electricity when exposed to solar radiation.

As an individual PV-cell gives a relatively low output, a number of PV-cells are connected in series to supply higher voltages and connected in parallel in order to offer higher current capability. These cell arrays are referred to as PV-panels, and a number of interconnected panels are referred to as PV-strings. If there is a requirement for increased capacity then a larger system can be constructed whereby the PV-strings are connected in parallel to form a PV-array that gives a DC output current equivalent to the sum of all the PV-string outputs.

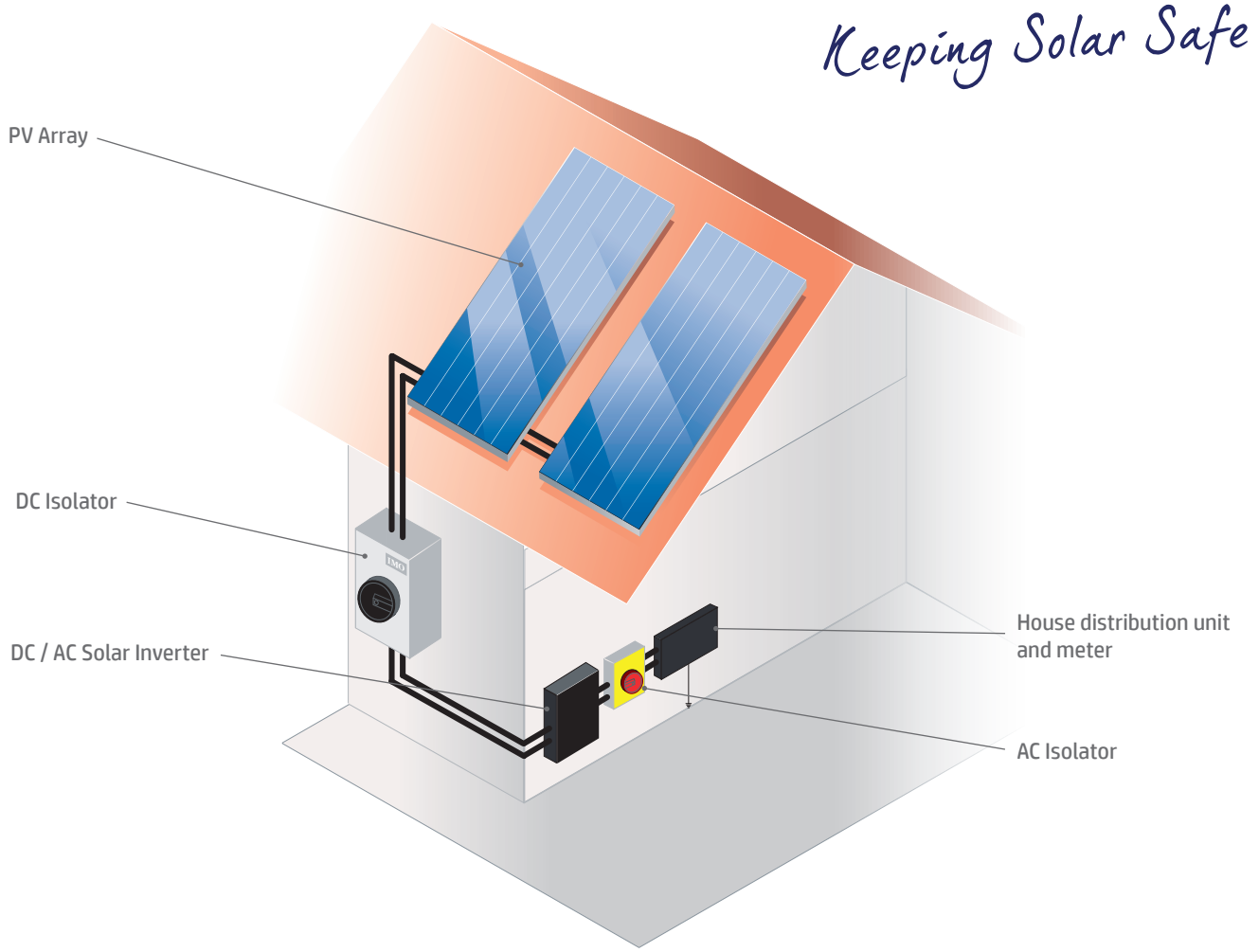
The main advantages of photovoltaic (PV) electricity generation are as follows:

- no fossil fuel usage and subsequent emission of pollution
- no nuclear fuel usage and disposal or storage of radioactive materials
- local distributed generation where needed
- installed system reliability and extended life
- reduced operating and maintenance costs
- ease of upgrading and replacement if necessary due to modularity of installation

When considering PV panels it is important to ensure that the units comply with all relevant standards for both electrical performance and for building requirements. It is recommended that, where possible, they comply with either IEC 61215 or IEC 61646, depending upon the structure of the cells. Once chosen the panels should be mounted in a location that maximises their exposure to sunlight for as long as possible and limits the possibility of shading, or future potential shading.

An inverter should be chosen to match the overall power capacity of the PV array, and like the arrays, it should operate as efficiently as possible. When considering the inverter, one using a Maximum Power Point Tracking (MPPT) system is preferential as this is a technique that grid connected inverters use to get the maximum possible power from one or more photovoltaic devices.

Where the PV installation is tied into the domestic grid system then the rules and procedures designated in G83 should be referred to and followed by a competent installer who is associated with a suitable accreditation scheme such as MCS.



Utilisation Categories

Utilisation Categories as are covered in the European Standards EN 60947-1 & EN60947-3 and define an equipment's intended application. The list of both AC and DC categories for low-voltage switchgear and controlgear are stated in EN 60947-1 Annex A along with the relevant product standards.

Manufacturers of both switchgear and controlgear should include in their technical product data all the operational ratings for the utilisation categories for which a product is designed and as such this should remove the confusion for users and designers in their selection of the correct product.

If we consider PV installations where there are requirements for switchgear being used on the DC side then the system falls typically within two categories below (for which the relevant standard is EN 60947-3)

DC-21 Switching of resistive loads, including moderate overloads
DC-22 Switching of mixed resistive and inductive loads, including moderate overloads

DC-PV1 Switching of single PV string(s) without reverse and overcurrents
DC-PV2 Switching of several PV strings with reverse and overcurrents

Compliance to the EN60947-3 utilisation categories involves the products completing a number of tests, these include the "Making and Breaking Capacity" (section 7.2.4.1/D7.2.4.1) and "Operational Performance" (section 7.2.4.2/D7.2.4.2). Verification of the operational making and breaking capacities are stated by reference to the rated operational voltage and rated operational current according to Table 3 and Table D7 (see extracts below).

Test Conditions for Making & Breaking Capacities

Utlilisation categories	Rated operational categories	Making			Breaking			Number of operating cycles
		I/I_e	U/U_e	L/R ms	I_c/I_e	U_r/U_e	L/R ms	
DC-21A - DC-21B	All values	1.5	1.05	1	1.5	1.05	1	5
DC-22B	All values	4	1.05	2.5	4	1.05	2.5	5
DC-PV1	All values	1.5	1.05	1	1.5	1.05	1	5
DC-PV2	All values	4	1.05	1	4	1.05	1	5

Test Conditions for Number of On Load Operating Cycles

Utilisation categories	Number of operating cycles per hour	Number of operating cycles					
		A categories			B categories		
		Without current	With current	Total	Without current	With current	Total
DC-21A/B & DC-22B	120	8,500	1,500	10,000	1,700	300	2,000
DC-PV1 & DC-PV2	120	9,700	300	10,000	-	-	-

Utilisation categories	Rated operational categories	Making			Breaking		
		I/I_e	U/U_e	L/R ms	I_c/I_e	U_r/U_e	L/R ms
DC-21A - DC-21B	All Values	1	1	1	1	1	1
DC-22B	All Values	1	1	2	1	1	2
DC-PV1	All Values	1	1	1	1	1	1
DC-PV2	All Values	1	1	1	1	1	1

I=making current I_c=breaking current I_e=rated operational current
U=applied voltage U_e=rated operational voltage U_r=operational frequency or d.c recovery voltage

PV Installation Isolation

PV installations consist of the DC side, the Inverter and the AC side with isolation required for both the PV-array to the inverter and for the AC supply from the load, particularly where the system is connected to the Distributed Network, this is a stipulation in G83/1. In some instances the "Guide to Installation of PV Systems" allows inverter and DC string isolation to be provided by the same device, for example the PV plug and socket connectors, but this is only deemed suitable for smaller systems and the connectors must be labelled appropriately. Generally IMO would always recommend the use of a suitably rated DC isolator.

DC Isolator Selection

BS 7671 states that a method of isolation must be provided on the DC side of a PV installation and this can be provided by a switch-disconnector as classified under EN 60947-3 this is also covered by "Guide to the installation of PV systems". The Guide also stipulates that the switch must isolate all live conductors (typically double pole to isolate PV array positive and negative conductors).

BS 7671 specifies that isolators that are in compliance with EN 60947-3 are appropriate for use in PV systems. The isolator rating must consider the maximum voltage and current of the PV string being switched and these parameters then adjusted in accordance with the safety factors stipulated in current standards. This should then be the minimum required rating of the isolator.

$$\text{Voltage} = N_S \times V_{OC} \times 1.15 \qquad \text{Current} = N_P \times I_{SC} \times 1.25$$

N_S - Number of panels connected in series
N_P - Number of strings connected in parallel
V_{OC} – Open-Circuit Voltage (from module manufacturer's data)
I_{SC} – Short-Circuit Current (from module manufacturer's data)

The isolator should also be suitable for use in the appropriate application which in PV installations is normally considered to be either DC-21A, DC-21B, DC-22A or DC-22B. Normally isolation of the DC supply from the inverter would not be a regular occurrence and therefore generally ratings for DC-21B or DC-22B would, as a minimum, be necessary; although category A types (as previously covered in Utilisation Categories) would be advantageous due to their capability of a higher number of switching operations, and therefore a longer guaranteed life.

AC Isolator Selection

AC Isolators are used in both stand-alone grid or network distributed systems. If connected to the distributed network then G83/1 stipulates the PV system must be connected directly to an isolation switch that is wired so as to isolate both the live and neutral conductors, capable of being secured in the "OFF" position and in an accessible location within the installation. In a stand-alone system IMO recommend that a lockable OFF isolation switch is similarly used within the installation. BS 7671 specifies that isolators that are in compliance with EN 60947-3 are appropriate for use in PV systems.

Unlike a DC isolator that is required to switch both the positive and negative conductors, an AC isolator should be chosen with regards to the supply being single phase, which is typically found in domestic installations or three phase, which is typical for commercial or industrial installations. Ideally for single phase a 2pole isolator should be used to switch the live and neutral line (earth constantly connected) whilst a 4pole isolator would be used to switch the 3 voltage lines and neutral (earth constantly connected).

The isolator rating should be based on the inverter output which is normally specified per phase, that is line to neutral, and for example maybe shown as 20A at 230VAC; if this output is from a three phase unit then the AC isolator must be rated to for the line-to-line voltage which would typically be 415VAC.

With both AC and DC isolators the ambient temperature of the environment in which the switch is mounted must be considered as most industrial switches are nominally rated for use in 35°C. However, if the isolator is to be used in an area where solar activity is prevalent, thereby making more efficient use of the installation and greater yield, or in an enclosed space such as a loft or that of an inverter enclosure, then an isolator capable of handling the elevated temperatures should be selected.

All IMO Solar Isolators are capable of being installed in areas where high ambient temperatures of up to +45°C can be found. In installations of higher temperatures, our open style product can be used up to +65°C, however, you should ensure safe operating conditions and correct mounting of the product.

Why use an IMO DC Solar Isolator?

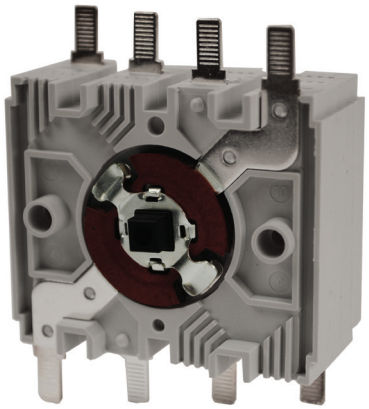
IMO Precision Controls offers a range of True DC Isolators specifically designed for use in Solar PV installations in accordance with EN 60364-7-712. The IMO design incorporates a user independent switching action so as the handle is moved it interacts with a spring mechanism which, upon reaching a set point, causes the contacts to "SNAP" over thereby ensuring a very fast break/make action. This mechanism means that the disconnection of the load circuits and suppression of the arc, produced by a constant DC load, is normally extinguished in 3ms using the specific pole suppression chambers incorporated within the design.

Many alternative solutions, particularly those based upon an AC isolator designs which use bridge contacts, have been modified and rated for DC operation. These types of product have a switching speed that is directly linked to operator speed therefore, slow operation of the handle results in slow contact separation of the contacts which can produce arcing times of 100ms or more. Also in these switches the contact surface is also the surface upon which arcs tend to form; therefore, any surface damage or sooting caused by the arcing is likely to have a detrimental effect on the isolator's contact resistance and its longevity.

The IMO Solar Isolator range is offered in a number of configurations all rated for installation and use as switch-disconnects and all with options allowing for "LOCKABLE OFF" operation. Although able to offer the industry standard two position 90° handle operation from LOCKABLE OFF-ON, IMO have also introduced a **SAFE-LOCK** patented handle that allows for three rotational positions relating to ON-OFF-LOCK. The facility offered by this design gives a LOCK position that is removed from the OFF setting ensuring the handle can be placed in its own unique position when locked, which is fully compliant with IEC 60947-1 section 8.2.5.2.1 for classification as an isolator or switch disconnector. When this design is used within the IMO enclosed Solar Isolators it ensures that engineering access can only be attained to the enclosure when the handle is in the OFF position; whilst the "LOCK" position ensures secure power isolation combined with non-access to the enclosure (when the isolator block is secured with supplied screws) and thereby significantly reducing the risks of tampering when maintenance/ repair is carried out on equipment in-line after the isolator, **SAFE-LOCK**. Once any work has been undertaken the locking mechanism can then be removed and the isolator returned to its normal operational mode.

IMO Solar Isolators use a rotary "knife contact" mechanism so when the unit is operated the handle movement gives a double make/ break per contact set. As DC load switching creates arcing the design is such that this only occurs on the corners of the switching parts meaning that the main contact is made on an area where no arcing has occurred. The rotary contact mechanism methodology used in the IMO Solar Isolators means that, when the isolator is operated, a self-cleaning action occurs on the arcing points and contact surfaces thereby producing good high vibration resistant contact integrity, with reduced contact resistance. This IMO contact system ensures that power loss per pole is kept as low as possible and consistent over the life of the product unlike conventional style isolators where entrapment of contaminants, and then subsequent compression on lateral operation, can lead to variable and increasing contact resistance and hence per pole losses.

As indicated in the section about **Utilisation Categories**, the IMO product is satisfactory for use in installations classified as either DC-PV1, DC-PV2, DC-21A, DC-21B or DC-22A, and so suitable for a high number of "off load" operations (without current) and also a high number of operating cycles "on load" (with current).



Unlike a number of DC isolators on the market, the IMO solar isolator is also polarity independent, which means that there is no requirement for specific directional wiring of the PV supply. A further advantage of the IMO contact mechanism is that, in the event of the supply to earth failure, the high short circuit current pulls the contacts together thereby giving a high short circuit withstand current of up to 2400A (product dependent). PV residential installations are typically 1000VDC however, IMO Solar Isolators already have the capability to operate up to 1500VDC.

In the move towards safer installations of PV systems, whether it be in a domestic or industrial environment, consideration has to often be given to the materials and the risk of fire hazard that they pose. Ratings referred to under the UL 94 category are deemed generally acceptable for compliance with this requirement as this cover tests for flammability of polymeric materials used for parts in devices and appliances. Although there are 12 flame classifications specified in UL 94, there are 6 which relate to materials commonly used in manufacturing enclosures, structural parts and insulators found in consumer electronic products. These are 5VA, 5VB, V-0, V-1, V-2 and HB.

IMO DC Isolator Approvals

Country	RoHS	USA, UL508i	US, CAN, UL60947-1	UKCA / Europe CE	CCC China	IEC CB Europe	ESV Australia
SI16/SIA16/SIME16	✓	✓	✓	✓	✓	✓	✓
SI25/SIA25/SIME25	✓	✓	✓	✓	✓	✓	✓
SI32/SIA32/SIME32	✓	✓	✓	✓	✓	✓	✓
SI38/SIA38/SIME38	✓	✓	✓	✓	✓	✓	✓
SI40/SI55/SI65	✓	✓	✓	✓	✓*	✓	✓

* Please note that the SI65 does not have CCC approval for China

It is because of this that the IMO Solar Isolator range is constructed of materials that significantly reduce the risk of a fire hazard and in particular our enclosed installation style products for which the main plastic enclosure is rated at UL 94V-0 and the handles are UL 94V-2 rated. The classification criteria for each of these ratings is found in of the UL 94 Table 8.1 (see extract below).

Criteria conditions	V-0	V-1	V-2
Afterflame time for each individual specimen t1 or t2	≤10s	≤10s	≤30s
Total afterflame time for any condition set (t1 plus t2 for the 5 specimens	≤50s	≤250s	≤250s
Afterflame puts afterglow time for each individual specimen after the second flame application (t2+t3)	≤30s	≤60s	≤60s
Afterflame or afterglow of any specimen up to the holding clamp	No	No	No
Cotton indicator ignited by flaming particles or drops	No	No	Yes

The installation requirements and environments of PV systems can vary significantly and the IMO Solar Isolator has been designed such that it can offer a wide range of configurations depending upon the users' requirement. Also the IMO Solar Isolator range includes models that, when mounted in accordance with their respective instructions and with the appropriate IMO handle, offer suitable protection up to IP66 (EN 60529) and NEMA 4X (Nema 250, UL508).

With the advent of more worldwide installations and the requirements laid down in many country's national wiring publications for the use of DC switches in PV installations, the IMO Solar Isolators have also been assessed and tested under the latest UL standard UL508i which has been specifically written to cover the use of "Manual Disconnect Switches intended for use in Photovoltaic Systems".

This UL508i standard specifically covers switches rated up to 1500 V that are intended for use in an ambient temperatures of -20˚C to +50˚C, and that are suitable for use on the load side of PV branch protection devices. In order to comply with this standard the IMO DC Isolators has to pass an overload test, at +50˚C, of 50 cycles at 200% of rated current; followed by an endurance test of 6000 cycles (6 cycles/min) at rated load (Ith) and a further 4000 cycles with no current.

The IMO DC Isolator has successfully attained certification under the UL508i standard and as such is suitable for use as a disconnection method for the isolation of the output of DC PV array where it is to be connected to a DC/AC inverter.

Examples of Typical PV Installations

Single String System – 3kW Output Single Phase

Consider two potential configurations for a typical 3kW system which would supply 13A at 230VAC:

Inverter: Input: 600VDC (V_{OC}), 16A (I_{DC}), 32A ($I_{DC\ max}$) Output: 230VAC (V_{AC}), 13A (I_{AC}), 17.2A ($I_{AC\ max}$)

Solar Panel: 60V (V_{OC}), 8A (I_{SC}) No. of panels: 8

Calculation: V = 8 x 60 x 1.15 = 552V I = 8 x 1.25 = 10A

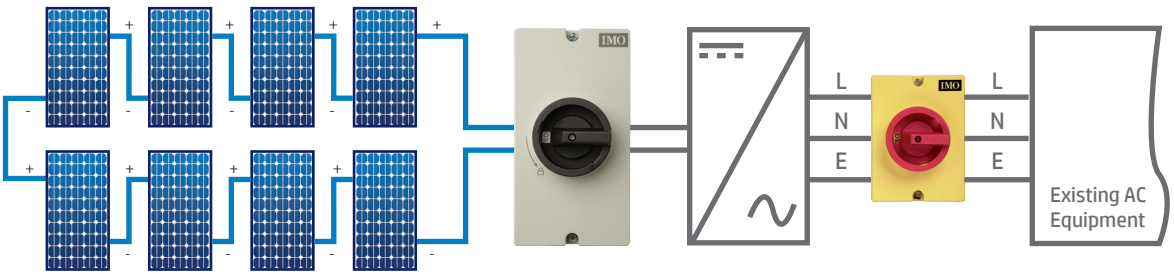
For this configuration, the IMO SI16-PEL64R-2 rated at 16A for 700VDC is suitable for the DC switch and the PE69-3020 rated at 20A is suitable for the AC switch.

Inverter: Input: 750VDC (V_{OC}), 15A (I_{DC}), 28A ($I_{DC\ max}$) Output: 230VAC (V_{AC}), 13A (I_{AC}), 16A ($I_{AC\ max}$)

Solar Panel: 60V (V_{OC}), 8A (I_{SC}) No. of panels: 10

Calculation: V = 10 x 60 x 1.15 = 895.62V I = 8 x 1.25 = 10A

For this configuration, the IMO SI25-PEL64R-2 would still be suitable as it is rated at 16A for 800VDC, however the IMO SI25-PEL64R-2 rated at 16A for 900VDC would allow for a greater margin of safety. The PE69-3020 rated at 20A is suitable for the AC switch.



PV Arrays

DC Isolator
600V: SI16-PEL64R-2
750V: SI25-PEL64R-2

Inverter
3kW

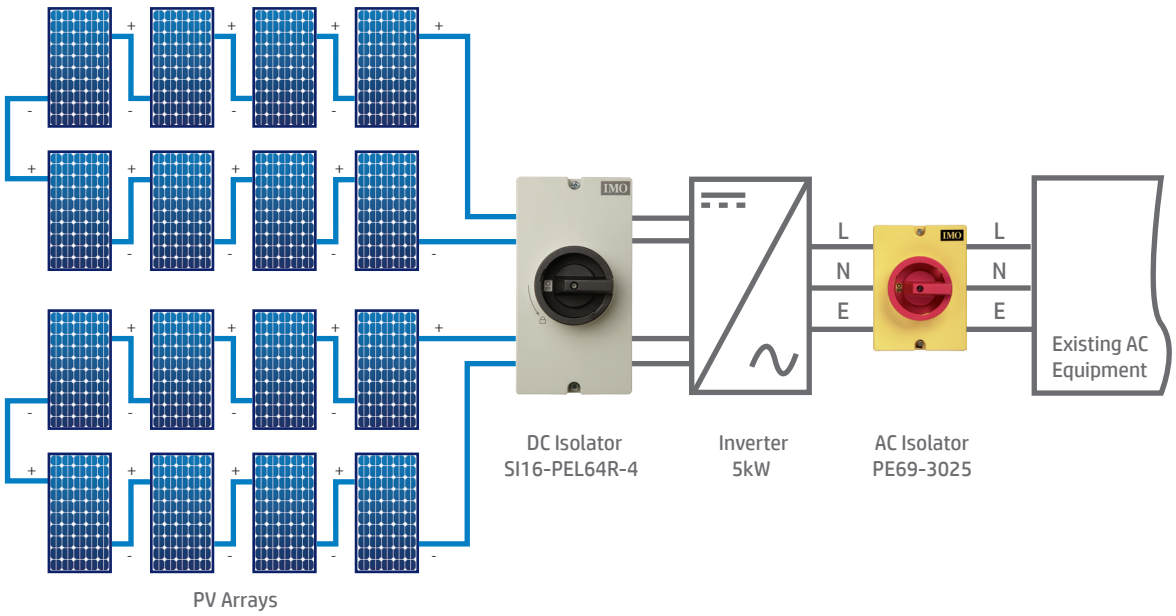
AC Isolator
PE69-3020
PE69-3020

Dual String System – 5kW Output Single Phase

Consider a typical 5kW system which would supply 22A at 230VAC:

Inverter:	Input (per string): 600VDC (V_{OC}), 18A (I_{DC}), 36A ($I_{DC\ max}$)	Output: 230VAC (V_{AC}), 25A ($I_{AC\ max}$)	
Solar Panel:	64.9V (V_{OC}), 6.46A (I_{SC}), 5.98A (I_{mpp}), 327Wp (P_{nom})	No. of panels:	8 per string
Calculation:	V = 8 x 64.9 x 1.15 = 597.08V	I = 6.46 x 1.25 = 8.08A	

For this configuration, each string is to be switched at these levels so the IMO SI16-PEL64R-4 rated at 16A for 700VDC per string is suitable for the DC switch and the PE69-3025 rated at 25A is suitable for the AC switch.



High Voltage Multi-string System – 12.5kW Output Three Phase

Inverter:	Input (per string): 900VDC (V_{OC}), 18A (I_{DC}), 36A ($I_{DC\ max}$)	Output: 4000VAC (V_{AC}), 20A ($I_{AC\ max}$)	
Solar Panel:	64.9V (V_{OC}), 6.46A (I_{SC}), 598A (I_{mpp}), 327Wp (P_{nom})	No. of panels:	12 per string
Calculation:	V = 12 x 64.9 x 1.15 = 895.62V	I = 6.46 x 1.25 = 8.08A	

For this system there are several options to consider. If each string is to be switched individually then the SI25-PEL64R-2 rated at 11A for 1000VDC is suitable for the DC switch. If there is a requirement to isolate the strings as pairs then the SI25-PEL64R-4 is suitable. If all strings are to be isolated using one DC isolator then the IMO SI25-PEL64R-8 is suitable. The PE69-3025 rated at 25A is suitable for the AC switch in each case.

Alternatively, if the requirement is to still have the capability of isolating each string individually whilst retaining a single housing unit, then an IMO distribution box populated with SI25-DBL-2 is suitable. These devices use the same switch block as the SI25-PEL64R-2 so have the same rating of 11A at 1000VDC.

Over 10 million Installed Units

In solar installation, the DC isolator is like a vehicle air-bag. You never know it really works until you need it. So it's good to know that the IMO SI has now surpassed Ten million installed units.

Not surprising considering the product carries all the most important approvals including UL508i, IEC/EN 60947-1, UL 60947-1, IEC/EN 60947-3, UL 60947-4-1, CE, RCM and CCC. In fact, the IMO SI solar isolator has been tested by some of the most rigorous examiners and OEM manufacturers in the world, passing with flying colours every single time.

As ever, the SI range has a guaranteed arc suppression time of 3mS, in built arc cooling chambers, operator independent switching mechanism and Safe-Lock handle, making it one of the safest DC isolators available, no matter who uses it or how slowly they operate it.

Why take a risk on safety? Insist on TRUE DC, contact us for a quotation and see why the IMO SI TRUE DC Isolator is the sensible choice for the PV installer.

Keep Solar Safe

SAFE-LOCK®

SI Solar Isolators

TRUE DC Isolators for PV Systems

- Market-leading design
- 2, 4, 6 & 8 pole versions available
- Max. rated current 85A@1000VDC (acc. to DC21B/DC-PV1 for SI55)
- Range of mounting options
- Guaranteed arc suppression (3ms typical)
- Operator independent switching mechanism
- Knife-edge contacts

UL508i

SAFE-LOCK

Innovators in TRUE DC isolation

When IMO first launched its SI Series DC isolator in 2009, little did it know that the SI would soon become the safety component of choice for many of the largest solar inverter manufacturers and installers around the world. Today, with over 10 million installations, the SI Series has proved itself more than capable of handling the most demanding DC switching applications.

Prior to the introduction of the SI series, AC modified isolators in multi-pole linked form were commonly used with all the performance and safety issues that such devices presented.

The SI TRUE DC range was specifically developed to meet the needs of the solar industry with full operator independent switching mechanism, a guaranteed 5ms maximum arc suppression time and long-life knife edge contacts. Arc chambers built-in to the unit keep the device cool under repeated operation and the full range of mounting options provide a solution for almost every application.

Adopted as the standard by many of the largest solar equipment designers and installers around the world, the SI Series continues to set the benchmark in solar safety.

Additional Resources

There is only so much you can illustrate in printed form, so we have included a QR code which will take you directly to the Featured Spotlight for TRUE DC isolators on the IMO website. Here you will be able to watch a couple of videos about solar safety and recommendations from the Institution of Engineering & Technology in conjunction with the BRE National Solar Centre, about raising the bar for quality in the solar PV industry.

Ordering Variations

Lever Handle Models

Panel Mount (4-screw) 64 x 64 Estcutcheon Plate Lever Handle, IP66, NEMA 3R	Single Hole Mount (22.5mm) 48 x 48 Escutcheon Plate Lever Handle, IP66, NEMA 4X	Base Mount (door coupling) 64 x 64 Escutcheon Plate Lever Handle, IP66, NEMA 4X	Modular Switch Lever Handle, IP40, Open Type
			
SIPM64***	**SI**SHM***	**SI**BMDC64***	**SI**DB***

Lever Handle Models with Lockable OFF SAFE-LOCK

Panel Mount (4-screw) 64 x 64 Estcutcheon Plate Lockable Lever Handle, IP66, NEMA 3R	Single Hole Mount (22.5mm) 48 x 48 Escutcheon Plate Lockable Lever Handle, IP66, NEMA 4X	Base Mount (door coupling) 64 x 64 Escutcheon Plate Lockable Lever Handle, IP66, NEMA 4X	Modular Switch Lockable Lever Handle, IP40, Open Type
			
SIPML64***	**SI**SHML***	**SI**BMDCL64***	**SI**DBL***

Rotary Handle Models with Lockable OFF SAFE-LOCK

Panel Mount (4-screw) 64 x 64 Lockable Rotary Handle, IP66, NEMA 3R	Base Mount (door coupling) 64 x 64 Lockable Rotary Handle, IP66, NEMA 4X	Enclosed Version Lockable Rotary Handle, IP67, NEMA 4X
		
SIPM64R***	**SI**BMDC64R***	**SI**PEL64R***

NOTE:

For description of each mounting mechanism please refer to pages 27 - 30.

IP ratings are for front panel and enclosed.

Part Number Configuration

SI **16** - **PM64R** - **2**

Series

SI DC Solar Isolator	**SI**

Switch Rating

16 Amp	**16**	40 Amp	**40**
25 Amp	**25**	55 Amp	**55**
32 Amp	**32**	65 Amp	**65**
38 Amp	**38**		

Mounting Type

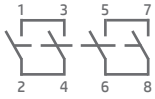
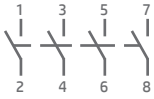
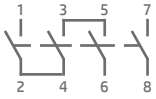
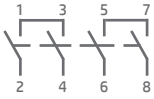
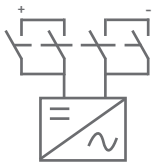
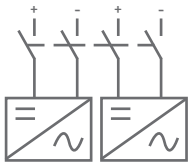
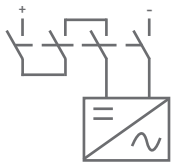
Panel Mount (4-screw), 64 x 64 Escutcheon Plate, Lever Handle	**PM64**
Panel Mount (4-screw), 64 x 64 Escutcheon Plate, Lockable Lever Handle	**PML64**
Panel Mount (4-screw), 64 x 64 Lockable Rotary Handle	**PM64R**
Single Hole (22.5mm) Mount, 48 x 48 Escutcheon Plate, Lever Handle	**SHM**
Single Hole (22.5mm) Mount, 48 x 48 Escutcheon Plate, Lockable Lever Handle	**SHML**
Base Mount (DIN Rail), 64 x 64 Escutcheon Plate, Lever Handle	**BMDC64**
Base Mount (DIN Rail), 64 x 64 Escutcheon Plate, Lockable Lever Handle	**BMDCL64**
Base Mount (DIN Rail), 64 x 64 Lockable Rotary Handle	**BMDC64R**
Modular Switch, Lever Handle	**DB**
Modular Switch, Lockable Lever Handle	**DBL**
Enclosed Version, Lockable Rotary Handle	**PEL64R**

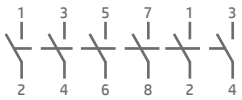
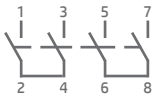
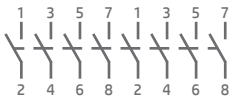
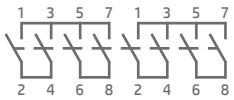
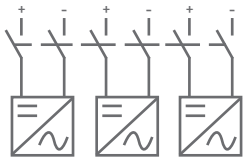
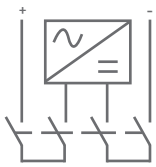
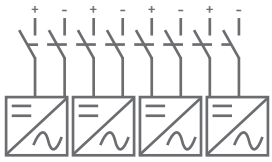
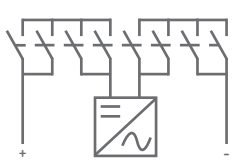
Number of Poles (see Switching Configurations on p.5)

2	2-Pole
2H	2-Pole 4 Parallel Poles
4	4-Pole
4S	2-Pole 4 Poles in Series (Input Top, Output botton)
4T	2-Pole 4 Poles in Series (Input & Output bottom)
4B	2-Pole 4 Poles in Series (Input & Output top)
6*	6-Pole
3H*	2-Pole 6 Parallel Poles
8*	8-Pole
4H*	2-Pole 8 Parallel Poles

*Not for Australian and New Zealand Market

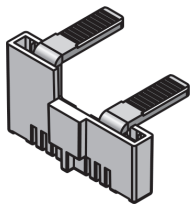
Switching Configurations

Type	2-pole	2-pole 4 parallel poles	4-pole	4 poles in series Input on top Output bottom	4 poles in series Input and Output bottom
SI16	2	2H	4	4S	4T
SI25	2	2H	4	4S	4T
SI32	2	2H	4	4S	4T
SI38	2	2H	4	4S	4T
SI40	2	2H	4	4S	4T
SI55	2	2H	4	4S	4T
SI65	2	2H	4	4S	4T
Contact Wiring Diagram					
Switching Example					

Type	6-pole	4 poles in series Input and Output on top	8-pole	2-pole 8 parallel poles
SI16	6	4B	8	4H
SI25	6	4B	8	4H
SI32	6	4B	8	4H
SI38	6	4B	8	4H
SI40	6	4B	8	4H
SI55	6	4B	8	4H
SI65	6	4B	8	4H
Contacts Wiring Diagram				
Switching example				

Insulated Jumper for series and parallel switching of contacts

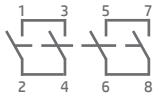
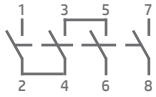
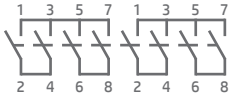
Type	SI16	SI25	SI32	SI38	SI40	SI55	SI65
4T / 4B / 4S	2x **SIV-B1-1N**			2x **SIV-B1-2N**	2x **SIV-B2-2N**		
2H	4x **SIV-B1-1N**				4x **SIV-B2-1N**		
4H	8x **SIV-B1-1N**, 2x **SIV-B1-2N**				8x **SIV-B2-1N**, 2x **SIV-B2-2N**		



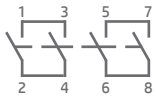
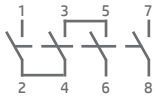
SIV-B1-1N

WARNING: *Verify that all connections (including bridging link connections) are suitable for the rated current, prepared to ensure only conductive parts are clamped and tightened to the manufacturer's required torque before energisation.*

Technical Data for DC according to IEC 60947-3

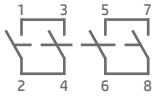
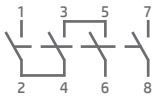
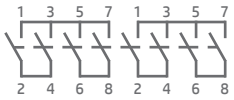
Type		DC-PV1								DC22B			
		500V	600V	700V	800V	900V	1000V	1200V	1500V	500V	600V	800V	1000V
2 poles in series 2 	SI16	16A	16A	16A	16A	16A	10A	7A	3A	7A	5.5A	2A	1A
	SI25	25A	25A	25A	20A	17A	11.5A	8.5A	5A	8A	6A	2.5A	1.5A
	SI32	32A	32A	32A	23A	20A	13A	10A	6A	9A	6.5A	3A	2A
	SI38	45A	45A	36A	30A	25A	20A	10A	6A				
	SI40	48A	48A	37A	35A	31A	29A	11A	8A				
	SI55	55A	55A	55A	55A	43A	36A	17A	10A				
	SI65	76A	76A	76A	65A	55A	40A	17A	10A				
2 poles in series + 2 parallel 2H 	SI16	29A	29A	22A	17A	16A	10A	7A	3A				
	SI25	45A	45A	27A	20A	17A	11.5A	8.5A	5A				
	SI32	58A	55A	32A	23A	20A	13A	10A	6A				
	SI38	65A	58A	36A	30A	25A	20A	10A	6A				
	SI40	72A	68A	49A	42A	31A	29A	11A	8A				
	SI55	85A	85A	77A	63A	43A	36A	17A	10A				
	SI65	85A	85A	80A	65A	55A	40A	17A	10A				
4 poles in series 4S, 4B, 4T 	SI16	16A	16A	16A	16A	16A	16A	16A	16A	16A	16A	11.5A	8A
	SI25	25A	25A	25A	25A	25A	25A	25A	25A	25A	25A	12A	9A
	SI32	32A	32A	32A	32A	32A	32A	32A	32A	32A	27.5A	12.5A	10A
	SI38	45A	45A	45A	45A	45A	38A	32A	32A				
	SI40	48A	48A	48A	48A	48A	40A	40A	40A				
	SI55	55A	55A	55A	55A	55A	55A	55A	55A				
	SI65	76A	76A	76A	76A	76A	76A	55A	55A				
4 poles in series + 2 parallel 4H 	SI16	29A	29A	29A	29A	29A	29A	29A	20A				
	SI25	45A	45A	45A	45A	45A	45A	33A	26A				
	SI32	58A	58A	58A	58A	58A	58A	50A	32A				
	SI38	65A	65A	65A	65A	65A	65A	50A	32A				
	SI40	72A	72A	72A	72A	72A	72A	56A	42A				
	SI55	85A	85A	85A	85A	85A	85A	65A	55A				
	SI65	85A	85A	85A	85A	85A	85A	65A	55A				

Technical Data for DC according to UL508i

Type		UL508i						
		350V	500V	600V	700V	800V	900V	1000V
2 poles in series 2 	SI16	16A	16A	16A				
	SI25	25A	25A	25A				
	SI32	32A	32A	32A				
	SI38	45A	45A	45A				
	SI40	48A	48A	48A	32A	26A	20A	16A
	SI55	55A	55A	55A	46A	37A	28A	20A
	SI65	65A	65A	65A	50A	40A	32A	25A
2 poles in series + 2 parallel 2H 	SI16	29A	29A	21A				
	SI25	45A	41A	30A				
	SI32	58A	43A	33A				
	SI38	58A	45A	36A				
	SI40	72A	53A	42A	35A	30A	26A	22A
	SI55	85A	66A	55A	47A	40A	32A	25A
	SI65	85A	73A	65A	50A	40A	32A	23A
4 poles in series 4S, 4H, 4T 	SI16	16A	16A	16A				
	SI25	25A	25A	25A				
	SI32	32A	32A	32A				
	SI38	45A	45A	36A				
	SI40	48A	48A	40A	40A	40A	40A	40A
	SI55	55A	55A	55A	55A	55A	55A	55A
	SI65	65A	65A	65A	65A	65A	65A	65A
4 poles in series + 2 parallel 4H 	SI16	29A	29A	29A				
	SI25	45A	45A	45A				
	SI32	58A	58A	50A				
	SI38	58A	58A	50A				
	SI40	80A	71A	65A	58A	51A	45A	42A
	SI55	85A	85A	85A	76A	71A	67A	64A
	SI65	85A	85A	85A	85A	76A	73A	70A

Technical Data

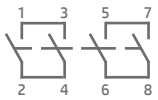
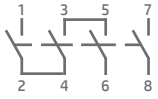
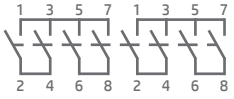
Data according to IEC 60947-3, VDE 0660, GB14048.3

Main Contacts			Type	SI16		SI25		SI32		SI38		SI40		SI55	
Rated thermal current I_{the}			A	16		25		32		45		48		55	
Rated insulation voltage U_i [1]			V	1000		1000		1000		1000		1500		1500	
Rated insulation voltage U_i [2]			V	1500		1500		1500		1500		1500		1500	
Distance of contacts (per pole)			mm	8		8		8		8		8		8	
Rated operational current I_e		300V	A	16		23		27		27		40		55	
	1 pole	400V	A	12	14	14	22	16	25	16	25	30	33	40	44
DC21A & DC21B	1	500V	A	9	10	11	17	13	20	13	20	19	24	25	32
		600V	A	6	7	8	12	10	15	10	15	15	19	20	25
		700V	A	4.5	5	6		7.5		7.5		10	12	15	18
		800V	A	3		4		5		5		8	10	10	13
		900V	A	2.5	3	3		4		4		6	8	8	10
DC21B		1000V	A	1.5	2	2		2.5	3	2.5	3	4	5	6	8
	2 poles in series	500V	A	16		25		32			45	48		55	
	2	600V	A	16		25		32			45	48		55	
		700V	A	16		23	25	27	32		36	35	37	55	
		800V	A	16	16	20			23		30	35		45	55
		900V	A	13	16	16	17		20		25	25	31	35	43
		1000V	A	9	10	11	11.5	13			20	25	29		36
		1200V	A	6	7	8	8.5	10				10	11	15	17
		1500V	A	3		4	5	5	6		6	6	7.5	7.5	10
	2 poles in series	500V	A	29		45		58			65	72		85	
	+ 2 poles parallel	600V	A	29		45		50	55			64	68	80	85
	2H	700V	A	16	22	23	27	27	32			35	49	55	77
		800V	A	16	17	20			23		30	35	42	45	63
		900V	A	13	16	16	17		20			25	31	35	43
		1000V	A	9	10	11	11.5	13			20	23	29	25	36
		1200V	A	6	7	8	8.5	10				10	11	15	17
		1500V	A	3		4	5	5	6		6	6	7.5	7.5	10
	4 poles in series	500V	A	16		25		32			45	48		55	
	4S, 4B, 4T	600V	A	16		25		32			45	48		55	
		700V	A	16		25		32				40		55	
		800V	A	16		25		32				40		55	
		900V	A	16		25		32				40		55	
		1000V	A	16		25		32			38	40		55	
		1200V	A	16		25		32				40		55	
		1500V	A	16		20	25	23	32		32	30	40	40	55
	4 poles in series	500V	A	29		45		58			65	72		85	
	+ 2 poles parallel	600V	A	29		45		58				72		85	
	4H	700V	A	29		45			58			72		85	
		800V	A	29		45			58			72		85	
		900V	A	29		45			58			72		85	
		1000V	A	29			45		58		65		72		85
		1200V	A	29			45	50			50		56		65
		1500V	A	16		20	26	23	32		32		42		55
Rated operational current I_e															
AC21B	2, 4	U_e max. 440V	A	16		25		32		45		48		55	
	2H	U_e max. 440V	A	29		45		58				72		85	

1) Suitable at overvoltage category I to III, pollution degree 3 (standard-industry): Uimp = 8kV.
2) Suitable at overvoltage category I to III, pollution degree 2 (min.IP55): Uimp = 8kV.

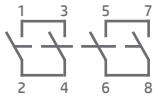
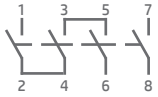
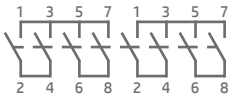
Technical Data continued

Data according to IEC 60947-3, VDE 0660, GB14048.3

Main Contacts			Type	SI16	SI25	SI32	SI38	SI40	SI55	SI65
Rated operational current I_e		300V	A	16	23	27	27	40	55	65
1 pole		400V	A	14	22	25	25	33	44	50
1		500V	A	10	17	20	20	24	32	40
DC-PV1		600V	A	7	12	15	15	19	25	30
		700V	A	5	6	7.5	7.5	12	18	21
		800V	A	3	4	5	5	10	13	15
		900V	A	3	3	4	4	8	10	10
		1000V	A	2	2	3	3	5	8	8
2 poles in series		500V	A	16	25	32	45	48	55	76
2		600V	A	16	25	32	45	48	55	76
		700V	A	16	25	32	36	37	55	76
		800V	A	16	20	23	30	35	55	65
		900V	A	16	17	20	25	31	43	55
		1000V	A	10	11.5	13	20	29	36	40
		1100V	A	8	10	11.5	-	19	25	-
		1200V	A	7	8.5	10	10	11	17	17
		1300V	A	6	7	8	-	10	14	-
		1400V	A	5	6	7	-	9	12	-
		1500V	A	3	5	6	6	8	10	10
2 poles in series		500V	A	29	45	58	65	72	85	85
+ 2 poles parallel		600V	A	29	45	55	58	68	85	85
2H		700V	A	22	27	32	36	49	77	80
		800V	A	17	20	23	30	42	63	65
		900V	A	16	17	20	25	31	43	55
		1000V	A	10	11.5	13	20	29	36	40
		1100V	A	8	10	11.5	-	19	25	-
		1200V	A	7	8.5	10	10	11	17	17
		1300V	A	6	7	8	-	10	14	-
		1400V	A	5	6	7	-	9	12	-
		1500V	A	3	5	6	6	8	10	10
4 poles in series		500V	A	16	25	32	45	48	55	76
4S, 4B, 4T		600V	A	16	25	32	45	48	55	76
		700V	A	16	25	32	45	48	55	76
		800V	A	16	25	32	45	48	55	76
		900V	A	16	25	32	45	48	55	76
		1000V	A	16	25	32	38	40	55	76
		1100V	A	16	25	32	-	40	55	55
		1200V	A	16	25	32	32	40	55	55
		1300V	A	16	25	32	-	40	55	55
		1400V	A	16	25	32	-	40	55	55
		1500V	A	16	25	32	32	40	55	55
4 poles in series		500V	A	29	45	58	65	72	85	85
+ 2 poles parallel		600V	A	29	45	58	65	72	85	85
4H		700V	A	29	45	58	65	72	85	85
		800V	A	29	45	58	65	72	85	85
		900V	A	29	45	58	65	72	85	85
		1000V	A	29	45	58	65	72	85	85
		1100V	A	29	45	54	-	60	68	-
		1200V	A	29	45	50	50	56	65	65
		1300V	A	26	39	44	-	50	61	-
		1400V	A	23	33	38	-	46	-	-
		1500V	A	20	26	32	32	42	55	55

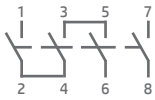
Technical Data continued

Data according to IEC 60947-3, VDE 0660, GB14048.3

Main Contacts			Type	SI16	SI25	SI32	SI38	SI40	SI55	SI65
Rated operational current I_e		300V	A	16	23	27	27	40	55	-
1 pole		400V	A	14	18	20	20	30	40	-
1		500V	A	10	12	14	14	19	25	-
DC-PV2		600V	A	5	6	8	8	10	13	-
		700V	A	1.5	2	3	3	7	10	-
		800V	A	1.5	2	3	3	6	8	-
		900V	A	1	1.5	2	2	5	6	-
		1000V	A	1	1.5	2	2	3	4	-
2 poles in series		500V	A	16	25	32	38	40	55	75
2		600V	A	14	21	27	31	40	55	75
		700V	A	13	19	22	25	35	55	65
		800V	A	12	15	17	19	33	49	52
		900V	A	8	10	12	14	25	35	38
		1000V	A	4	5	6	7	16	20	20
		1100V	A	3	4	5	-	11	15	-
		1200V	A	2	3	4	4	8	12	12
		1300V	A	1.5	2	3	-	7	10	-
		1400V	A	1	2	3	-	7	9	-
		1500V	A	1	1.5	2	2	6	8	8
2 poles in series		500V	A	25	39	50	58	72	85	85
+ 2 poles parallel		600V	A	20	32	35	38	60	75	75
2H		700V	A	13	19	22	25	38	60	65
		800V	A	12	15	17	19	33	49	52
		900V	A	8	10	12	14	25	35	38
		1000V	A	4	5	6	7	16	20	20
		1100V	A	3	4	5	-	11	15	-
		1200V	A	2	3	4	4	8	12	12
		1300V	A	1.5	2	3	-	7	10	-
		1400V	A	1	2	3	-	7	9	-
		1500V	A	1	1.5	2	2	6	8	8
4 poles in series		500V	A	16	25	32	45	48	55	75
4S, 4B, 4T		600V	A	16	25	32	45	48	55	75
		700V	A	16	25	32	45	48	55	75
		800V	A	16	25	32	38	40	55	75
		900V	A	16	25	32	38	40	55	65
		1000V	A	16	25	32	38	40	55	65
		1100V	A	15	25	32	-	-	55	-
		1200V	A	13.5	21	27	27	40	55	55
		1300V	A	12	19	24	-	-	50	-
		1400V	A	10.5	16	21	-	-	45	-
		1500V	A	9	14	18	18	30	40	40
4 poles in series		500V	A	29	45	58	65	72	85	-
+ 2 poles parallel		600V	A	29	45	58	65	72	85	-
4H		700V	A	25	40	53	65	72	80	-
		800V	A	21	35	45	60	67	75	-
		900V	A	18	30	37	55	59	70	-
		1000V	A	16	25	32	50	52	64	-
		1100V	A	-	-	-	-	44	59	-
		1200V	A	13.5	21	27	27	40	55	-
		1300V	A	-	-	-	-	36	50	-
		1400V	A	-	-	-	-	33	45	-
		1500V	A	9	14	18	18	30	40	-

Technical Data continued

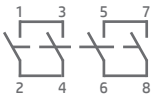
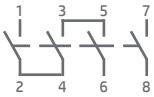
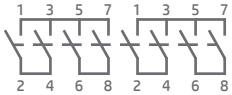
Data according to IEC 60947-3, VDE 0660, GB14048.3

Main Contacts			Type	SI16	SI25	SI32	SI38	SI40	SI55/SI65
Rated operational current I_e		500V	A	1	1.25	1.5	x	x	2.5
DC22B	1 pole	600V	A	0.5	0.75	1	x	x	2
	1 	800V	A	0.3	0.4	0.5	x	x	1.5
		1000V	A	0.15	0.2	0.25	x	x	1
		1200V	A				x	x	x
		1500V	A				x	x	x
	2 poles in series	500V	A	7	8	9	x	x	x
	2 	600V	A	5.5	6	6.5	x	x	x
		800V	A	2	2.5	3	x	x	x
		1000V	A	1	1.5	2	x	x	x
		1200V	A				x	x	x
		1500V	A				x	x	x
	4 poles in series	500V	A	16	25	32	x	x	x
	4S, 4B, 4T 	600V	A	16	25	27.5	x	x	x
		800V	A	11.5	12	12.5	x	x	x
		1000V	A	8	9	10	x	x	x
		1200V	A				x	x	x
		1500V	A				x	x	x
Rated conditional short-circuit current			kA_{eff}	5	5	5	5	10	10
Max. fuse size		gL (gG)	A	40	63	80	80	125	160
Mechanical Life			$x10^3$	10	10	10	10	10	10
Rated short-time withstand current (1s)	I_{cw}	2, 4, 6, 8	A	800	900	1000	1000	2, 4: 1200	2, 4: 1400
		2H, 3H, 4H	A	1300	1500	1700	1700	2H: 2000	2H: 2400
Short circuit making capacity	I_{cw}	2, 4, 6, 8	A	800	900	1000	1000	2, 4: 1200	2, 4: 1400
		2H, 3H, 4H	A	1300	1500	1700	1700	2H: 2000	2H: 2400
Maximum cable cross sections	(including jumper)			SIV-B1-1				SIV-B2-1	
solid or stranded			mm^2	4 - 16	4 - 16	4 - 16	4 - 16	2.5 - 25	2.5 - 25
flexible			mm^2	4 - 10	4 - 10	4 - 10	4 - 10	4 - 16	4 - 16
flexible (+ multicore cable end)			mm^2	4 - 10	4 - 10	4 - 10	4 - 10	2.5 - 16	2.5 - 16
Size of terminal screw				M4 Pz2	M4 Pz2	M4 Pz2	M4 Pz2	M5 Pz2	M5 Pz2
Tightening torque			Nm	1.8-2.0	1.8-2.0	1.8-2.0	1.8-2.0	2.5 - 2.8	2.5 - 2.8
2 cables per clamp without jumper									
	solid or stranded		mm^2	16+(1.5-2.5)/10+(1.5-6)/6+(1.5-10)/4+(1.5-10)				16+(1.5-2.5)/10+(1.5-10)/ 6+(1.5-10)/4+(1.5-10)	
	flexible & flexible + multicore cable end		mm^2	16+(1.5-2.5)/10+(1.5-4)/6+(1.5-6)				16+(1.5-6)/10+(1.5-10)/ 6+(1.5-16)/4+(1.5-16)	
	stranded		AWG	8+(16-12)/10+(16-10)/12+(16-8)/14+(16-8)				3+(18-10)/4+(18-10)/ 6+(18-8)/8+(18-8)	
	solid		AWG	10+(16-12)/12+(16-10)/14+(16-10)				10+(16-10)/12+(16-10)/ 14+(16-10)/12+(16-10)/14+(16-10)	
Maximum ambient temperature									
Operation	All types except PEL64R		°C	-40 to +65					
	PEL64R type		°C	-40 to +45					
Storage			°C	-50 to +90					
Power loss per switch at $I_{e\,max.}$				A	A	A		A	A
2		(A) / W		(16) / 1	(25) / 2.3	(32) / 3.7		(40) / 4	(55) / 7.5
4		(A) / W		(16) / 2	(25) / 4.6	(32) / 7.4		(40) / 8	(55) / 15
6		(A) / W		(16) / 3	(25) / 6.9	(32) / 11.1		(40) / 12	(55) / 22.5
8		(A) / W		(16) / 4	(25) / 9.2	(32) / 14.8		(40) / 16	(55) / 30
2H		(A) / W		(29) / 1.5	(45) / 3.7	(58) / 6		(72) / 6.5	(85) / 9
3H		(A) / W		(29) / 2.3	(45) / 5.6	(58) / 9		(72) / 9.8	(85) / 14
4H		(A) / W		(29) / 3	(45) / 7.4	(58) / 12		(72) / 13	(85) / 18
Contact Resistance per pole			mΩ	1.75	1.75	1.75	1.75	1.25	1.25

x - In Test

Technical Data continued

Data according to UL508i (UL) File E362605, CCN: NMSJ and UL60947-1 & UL60947-4-1 c(UL)us File E146487, CCN: NRNT, NRNT7

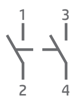
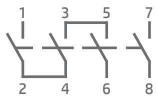
Main Contacts		Type	SI16	SI25	SI32	SI38	SI40	SI55	SI65
Ampere-Rating "General Use"	DC								
1 pole	350V	A	4	5	6	6	7.1	10	10
1 	500V	A	4	5	6	6	5.7	7	7
	600V	A	4	5	6	6	5	5.8	5.8
	700V	A					3.9	5	5
	800V	A					3.2	4.4	4.4
	900V	A					2.5	3.5	3.5
	1000V	A					1.5	2	2
2 poles in series	350V	A	16	25	32	45	48	55	65
2 	500V	A	16	25	32	45	48	55	65
	600V	A	16	25	32	36	40	55	65
	700V	A					32	46	50
	800V	A					26	37	40
	900V	A					20	28	32
	1000V	A					16	20	25
2 poles in series	350V	A	29	45	58	58	72	85	85
+ 2 poles parallel	500V	A	29	41	43	45	53	66	73
2H 	600V	A	21	30	33	36	42	55	65
	700V	A					35	47	50
	800V	A					30	40	40
	900V	A					26	32	32
	1000V	A					22	25	25
4 poles in series	350V	A	16	25	32	45	48	55	65
4S, 4B, 4T	500V	A	16	25	32	45	48	55	65
	600V	A	16	25	32	36	40	55	65
	700V	A					40	55	65
	800V	A					40	55	65
	900V	A					40	55	65
	1000V	A					40	55	65
4 poles in series	350V	A	29	45	58	58	80	85	85
+2 poles parallel	500V	A	29	45	58	58	71	85	85
4H	600V	A	29	45	50	50	65	85	85
	700V	A					58	76	85
	800V	A					51	71	76
	900V	A					45	67	73
	1000V	A					42	64	70
AC Rating "General Use" 2 poles in series 	600V	A	16	25	32		40	55	-
2 poles in series + 2 poles parallel 	277V	A			50		72	85	-
3 poles parallel	3x480V	A			32		40	55	-
Fuse size (RK5) Industrial Control Switch									
5kA / 600V		A	40	60	80	80	-	-	-
5kA / 1000V		A					160	160	160
Maximum cable cross sections	(including jumper SIV-B1-1/B2-1)								
solid or stranded		AWG	12 - 10	12 - 10	12 - 10	12 - 10	16 - 10	16 - 10	16 - 10
flexible		AWG	12 - 6	12 - 6	12 - 6	12 - 6	14 - 4	14 - 4	14 - 4
flexible (+ multicore cable end)		AWG	12 - 6	12 - 6	12 - 6	12 - 6			
Size of terminal screw			M4 Pz2	M4 Pz2	M4 Pz2	M4 Pz2	M5 Pz2	M5 Pz2	M5 Pz2
Tightening torque		Nm	1.8-2.0	1.8-2.0	1.8-2.0	1.8-2.0	2.5-2.8	2.5-2.8	2.5-2.8

x - In Test

Technical Data continued

Data according to AS & NZ standards AS/NZS 60947.1:2015 & AS 60947.3:2018

Identification	SI16	SI18	SI25	SI32	SI38
Switch, unenclosed - catalogue number (with DC-PV2 rating)	SI16.....	SI18.....	SI25.....	SI32.....	SI38.....
Specific dedicated individual enclosure - catalogue number (with minimum IP56NW rating)	n/a	n/a	n/a	n/a	n/a
Assembly of switch and specific dedicated individual enclosure - catalogue number	SI16-PEL....	SI18-PEL....	SI25-PEL....	SI32-PEL....	SI38-PEL....
I_{th} rated thermal current, unenclosed, at 40 °C shade ambient air temperature	16	18	25	32	45
I_{the} rated thermal current, indoors, at 40 °C shade ambient air temperature in a specific dedicated enclosure	16	18	25	32	45
I_{the} rated thermal current, outdoors, at 40 °C shade ambient air temperature without solar effects in a specific dedicated enclosure rated IP56NW	15.7	17.6	24.5	30.7	41.4
I_{the} solar current value outdoors at 60 °C shade ambient air temperature, with solar effects in a specific dedicated enclosure rated IP56NW	15	17	23.5	25.5	34.2

Main Contacts	SI16			SI18			SI25			SI32			SI38		
	U_e rated operational voltage V d.c.	I_e DCPV2 rated operational current A	I and I_c DC-PV2 4 x Ie A	U_e rated operational voltage V d.c.	I_e DCPV2 rated operational current A	I and I_c DC-PV2 4 x Ie A	U_e rated operational voltage V d.c.	I_e DCPV2 rated operational current A	I and I_c DC-PV2 4 x Ie A	U_e rated operational voltage V d.c.	I_e DCPV2 rated operational current A	I and I_c DC-PV2 4 x Ie A	U_e rated operational voltage V d.c.	I_e DCPV2 rated operational current A	I and I_c DC-PV2 4 x Ie A
1 pole	≤500	10	40	≤500	11	44	≤500	12	48	≤500	14	56	≤500	14	56
	600	5	20	600	5.5	22	600	6	24	600	8	32	600	8	32
	1000	1	4	1000	1	4	1000	1.5	6	1000	2	8	1000	2	8
2 poles in series	≤500	16	64	≤500	18	72	≤500	25	100	≤500	32	128	≤500	38	152
	600	14	56	600	16	64	600	21	84	600	27	108	600	31	124
	1000	4	16	1000	4	16	1000	5	20	1000	6	24	1000	7	28
4 poles in series	≤500	16	64	≤500	18	72	≤500	25	100	≤500	32	128	≤500	45	180
	600	16	64	600	18	72	600	25	100	600	32	128	600	45	180
	1000	16	64	1000	18	72	1000	25	100	1000	32	128	1000	38	152

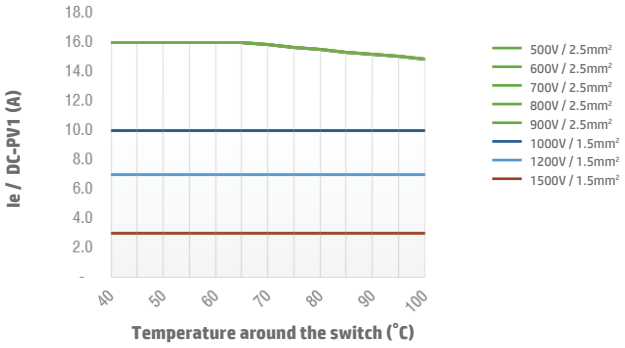
Installation Note
Recommended cable gland or conduit fitting.
A suitable cable gland with sufficient IP and installation to maintain the rating of type M12, M16, M20, M25 to be installed in the bottom of the enclosure.

IMO is at the forefront of control component technology specifically developed for the renewable energy market and in particular solar energy. Whether meeting the demands of safe and efficient DC switching or delivering tracking solutions that help to maximise solar energy conversion rates, you can be sure that IMO products have been developed to meet the highest technical and commercial standards.

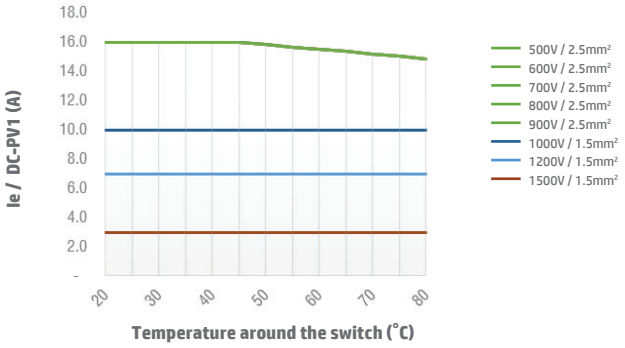
Keeping Solar Safe

Technical Data continued

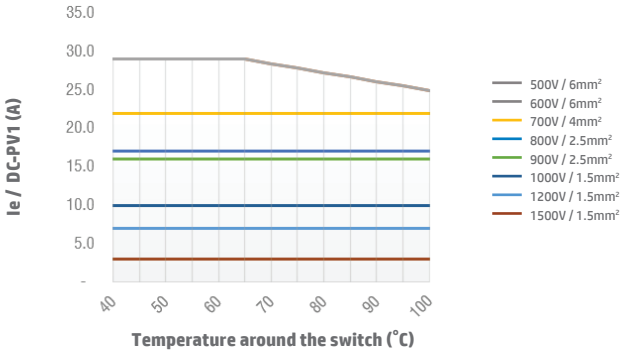
Switch SI16 2 poles DC-PV1 Open Type



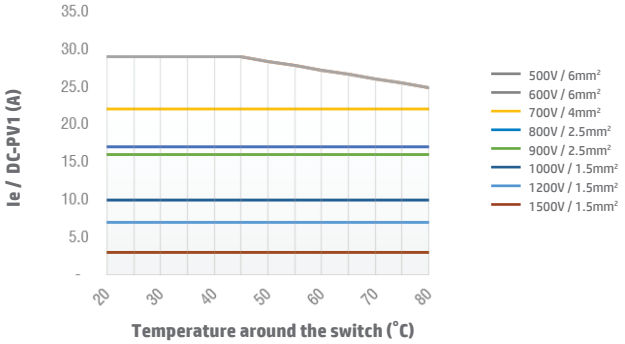
Switch SI16 2 poles DC-PV1 Enclosed Type



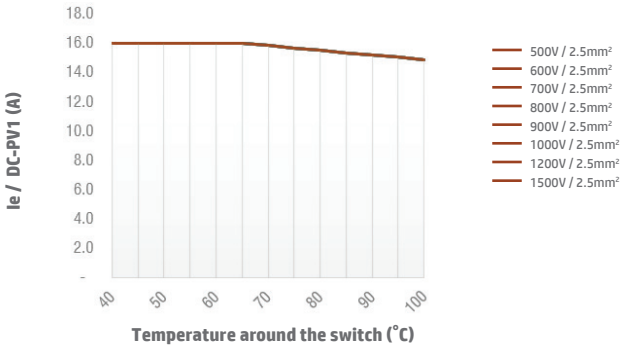
Switch SI16 2H DC-PV1 Open Type



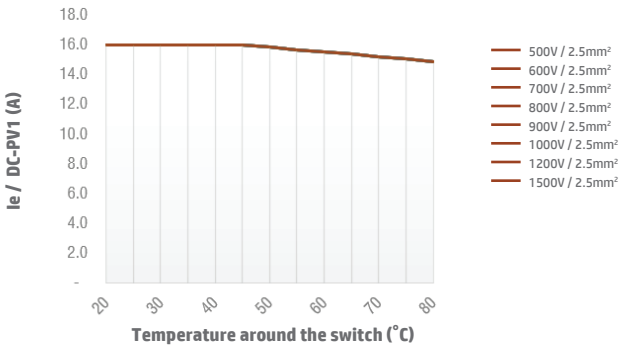
Switch SI16 2H DC-PV1 Enclosed Type



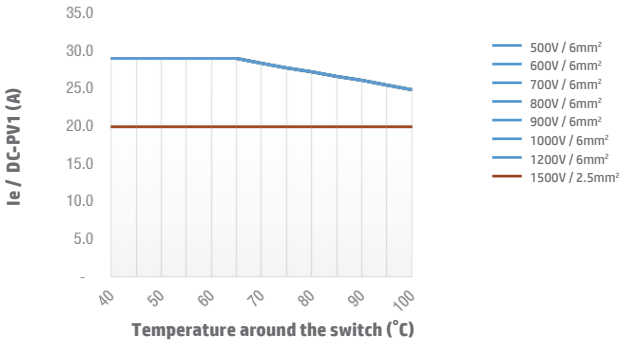
Switch SI16 4B/4S/4T DC-PV1 Open Type



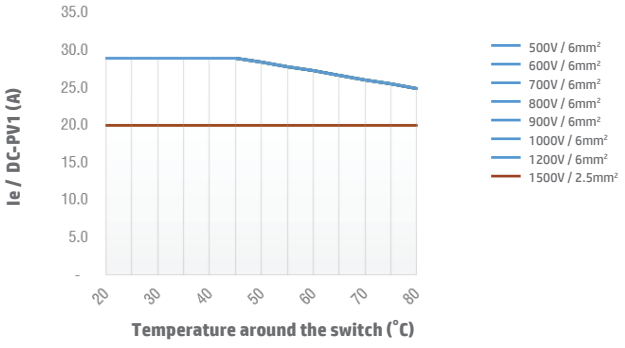
Switch SI16 4B/4S/4T DC-PV1 Enclosed Type



Switch SI16 4H DC-PV1 Open Type

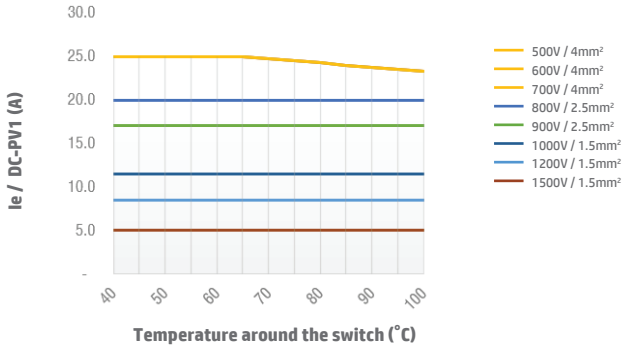


Switch SI16 4H DC-PV1 Enclosed Type

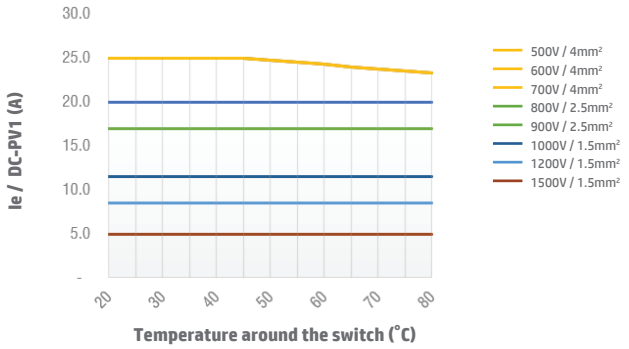


Technical Data continued

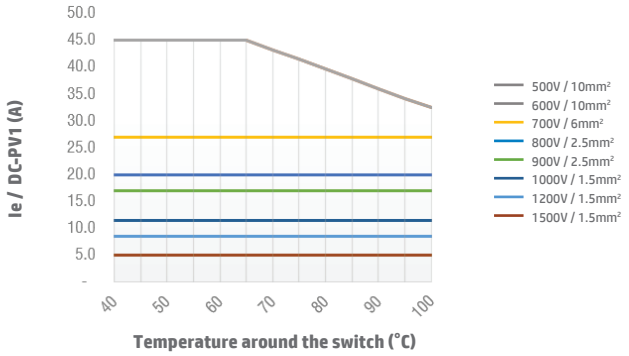
Switch SI25 2 poles DC-PV1 Open Type



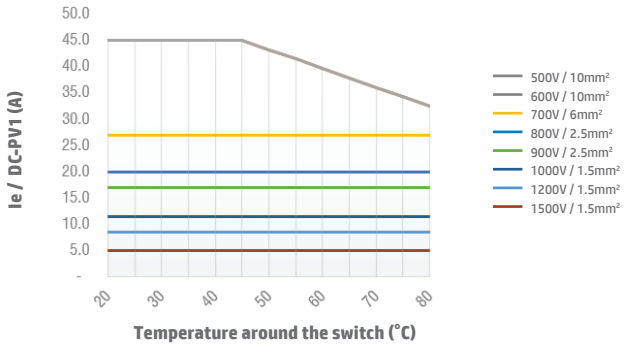
Switch SI25 2 poles DC-PV1 Enclosed Type



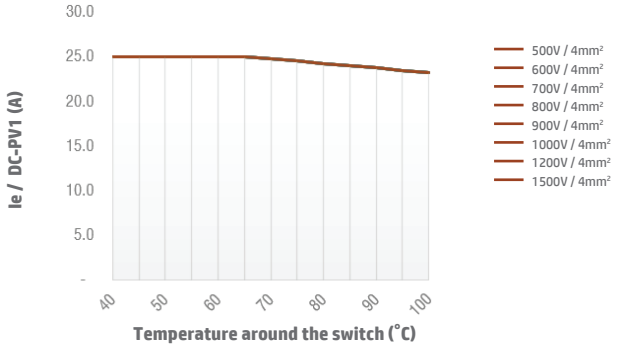
Switch SI25 2H DC-PV1 Open Type



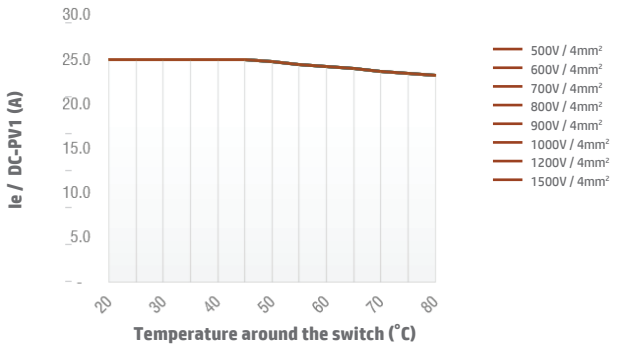
Switch SI25 2H DC-PV1 Enclosed Type



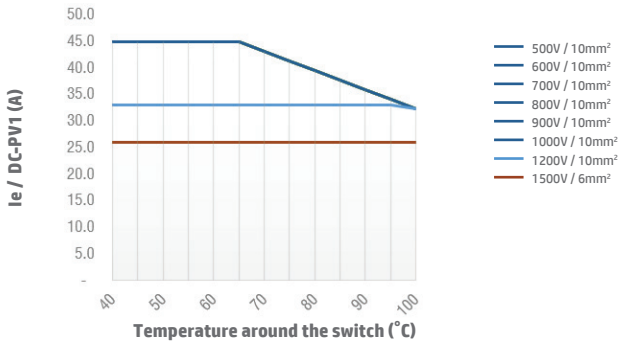
Switch SI25 4B/4S/4T DC-PV1 Open Type



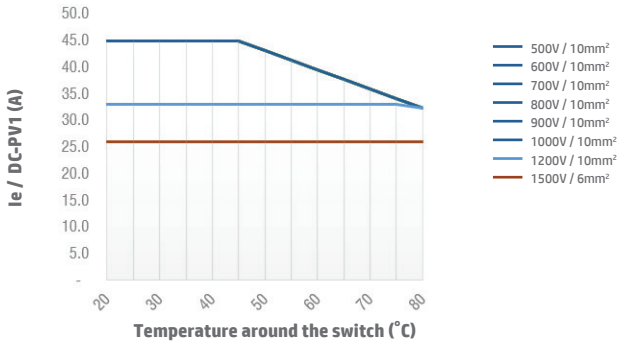
Switch SI25 4B/4S/4T DC-PV1 Enclosed Type



Switch SI25 4H DC-PV1 Open Type

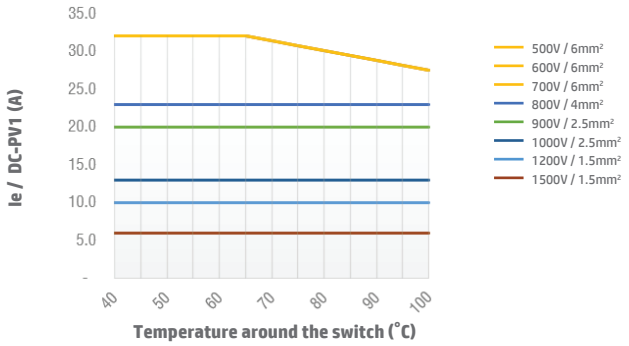


Switch SI25 4H DC-PV1 Enclosed Type

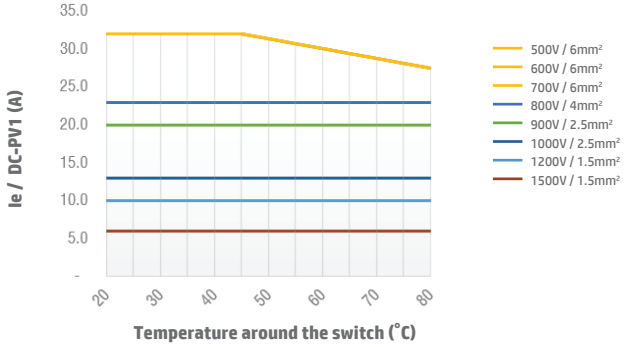


Technical Data continued

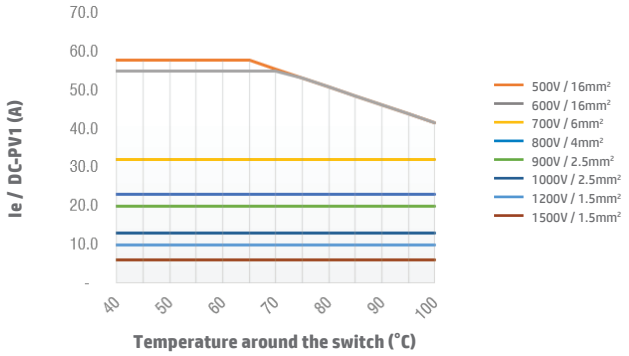
Switch SI32 2 poles DC-PV1 Open Type



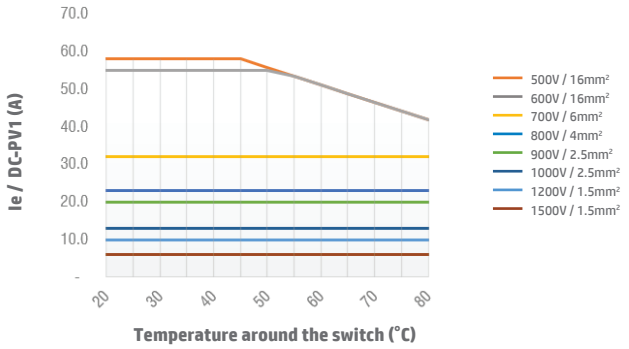
Switch SI32 2 poles DC-PV1 Enclosed Type



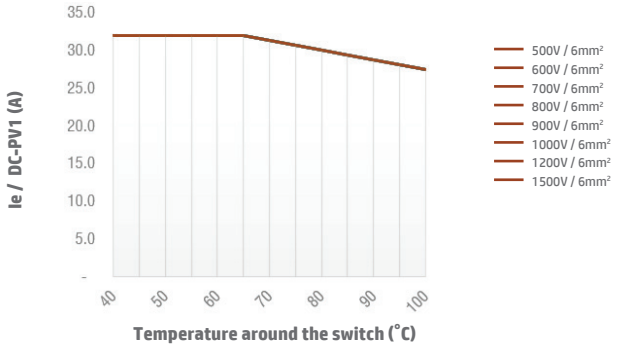
Switch SI32 2H DC-PV1 Open Type



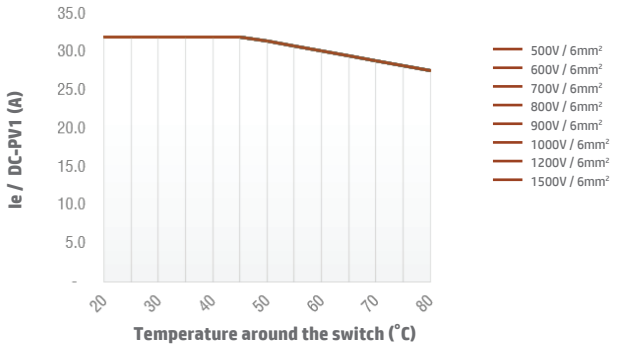
Switch SI32 2H DC-PV1 Enclosed Type



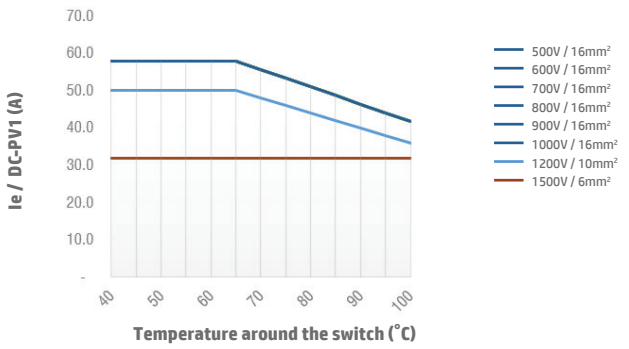
Switch SI32 4B/4S/4T DC-PV1 Open Type



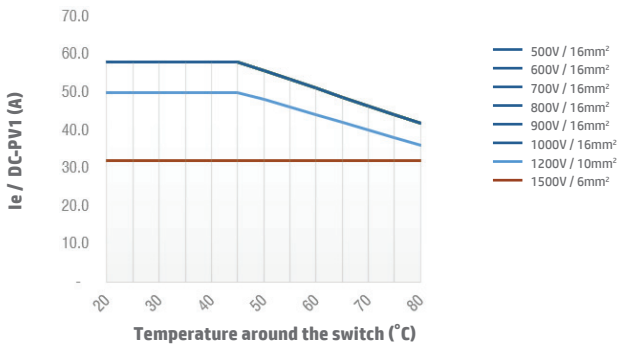
Switch SI32 4B/4S/4T DC-PV1 Enclosed Type



Switch SI32 4H DC-PV1 Open Type

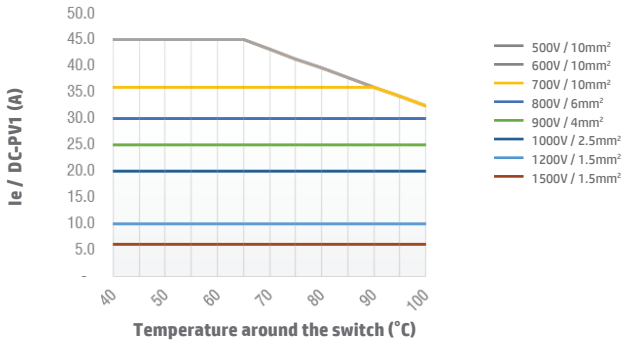


Switch SI32 4H DC-PV1 Enclosed Type

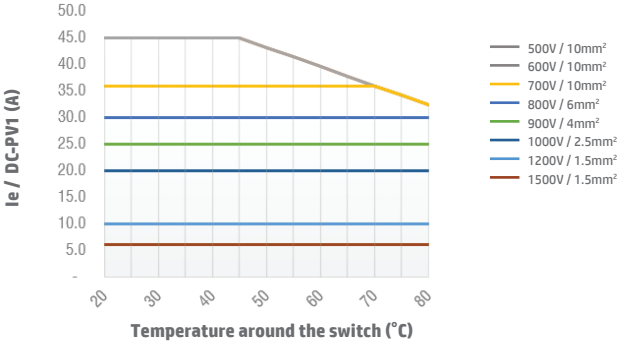


Technical Data continued

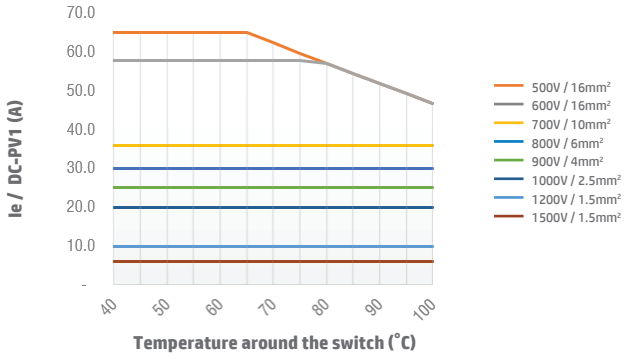
Switch SI38 2 poles DC-PV1 Open Type



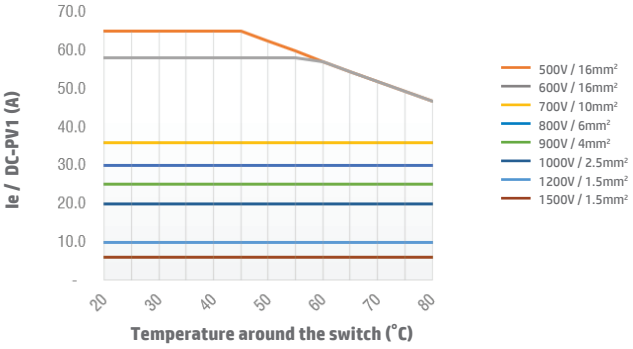
Switch SI38 2 poles DC-PV1 Enclosed Type



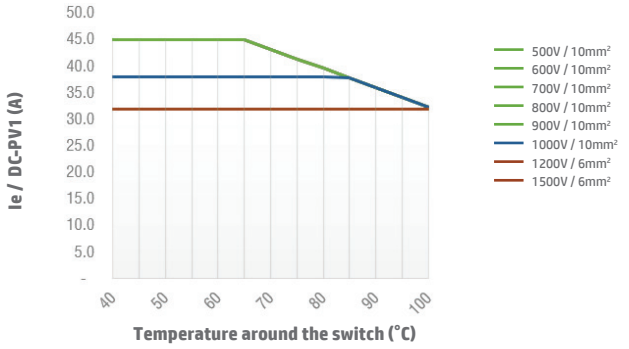
Switch SI38 2H DC-PV1 Open Type



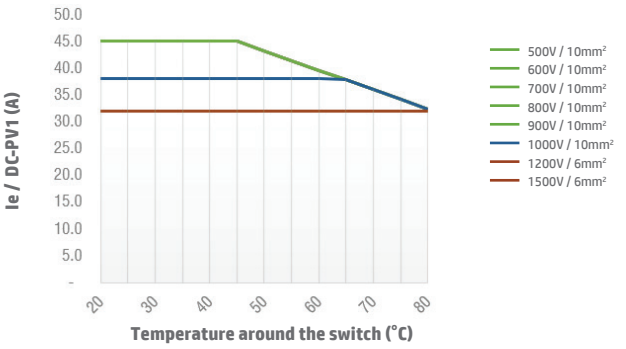
Switch SI38 2H DC-PV1 Enclosed Type



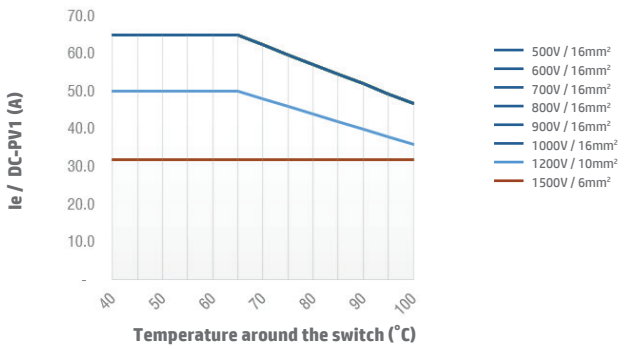
Switch SI38 4B/4S/4T DC-PV1 Open Type



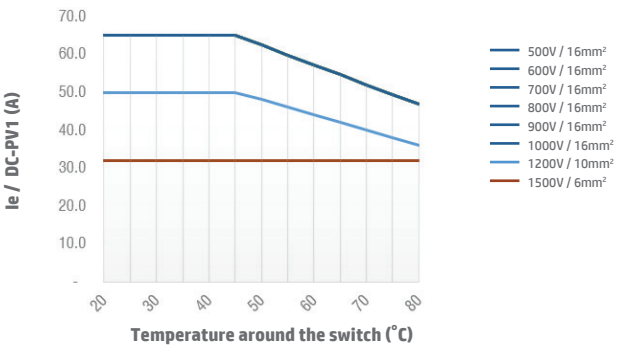
Switch SI38 4B/4S/4T DC-PV1 Enclosed Type



Switch SI38 4H DC-PV1 Open Type

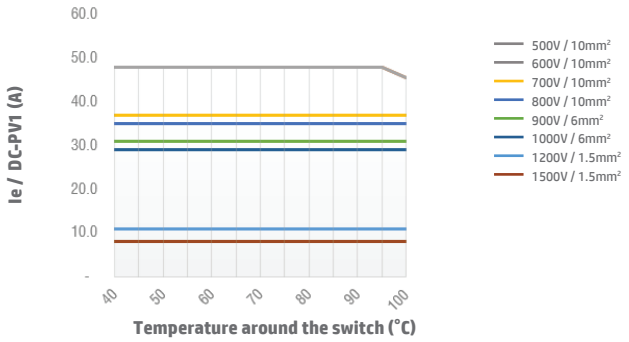


Switch SI38 4H DC-PV1 Enclosed Type

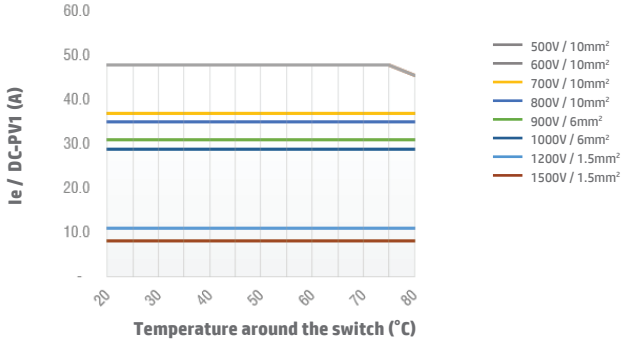


Technical Data continued

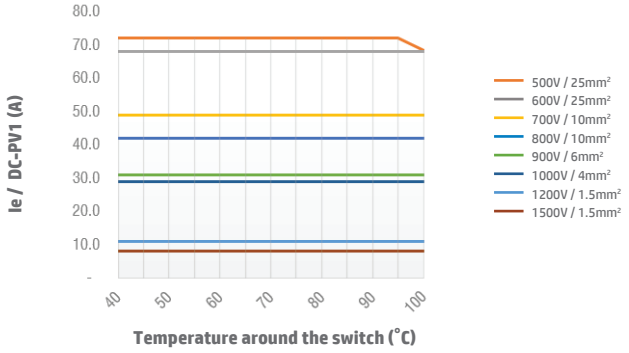
Switch SI40 2 poles DC-PV1 Open Type



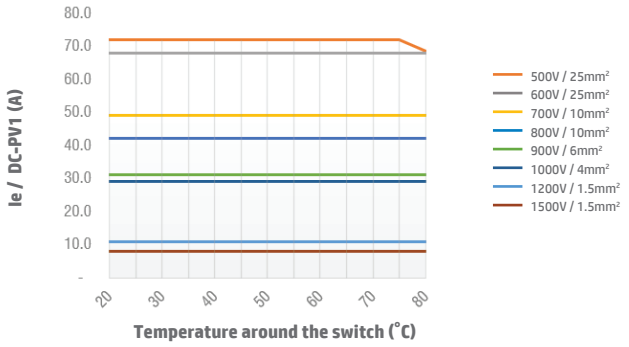
Switch SI40 2 poles DC-PV1 Enclosed Type



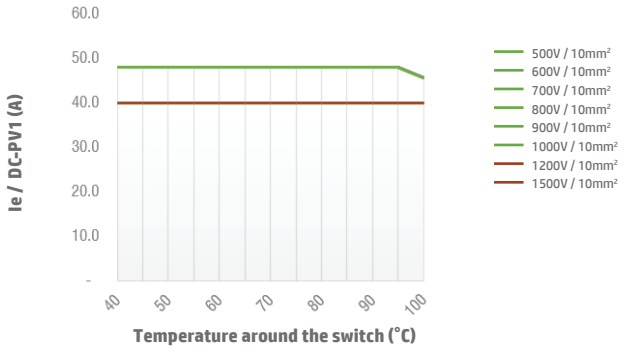
Switch SI40 2H DC-PV1 Open Type



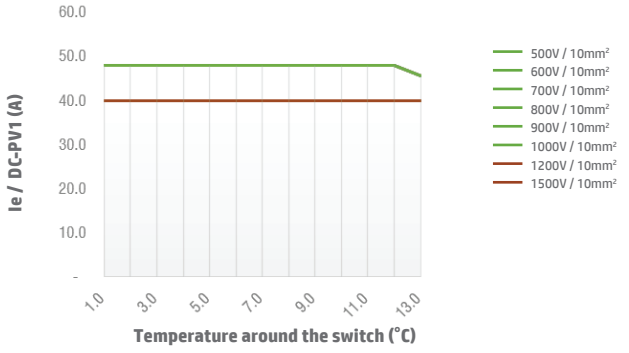
Switch SI40 2H DC-PV1 Enclosed Type



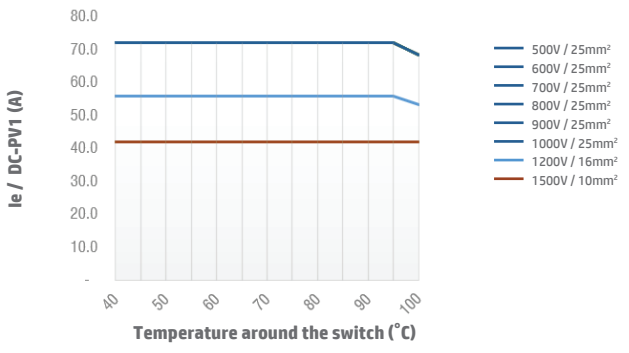
Switch SI40 4B/4S/4T DC-PV1 Open Type



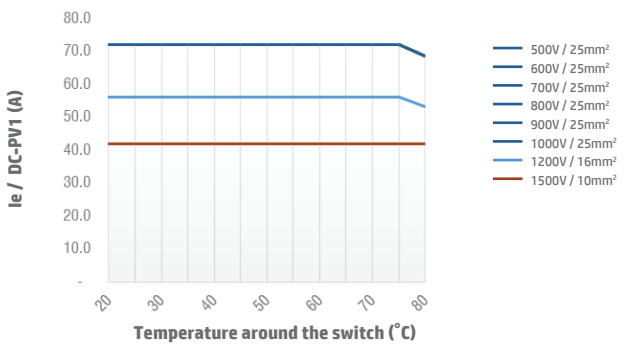
Switch SI40 4B/4S/4T DC-PV1 Enclosed Type



Switch SI40 4H DC-PV1 Open Type



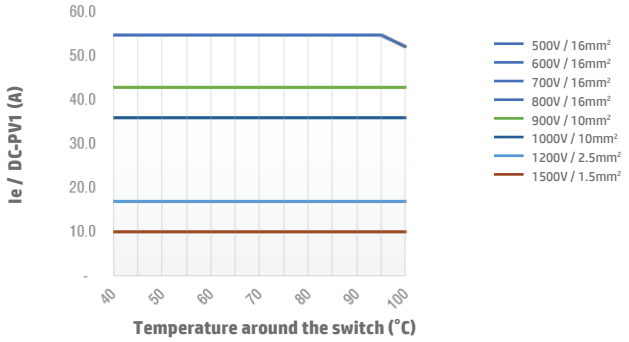
Switch SI40 4H DC-PV1 Enclosed Type



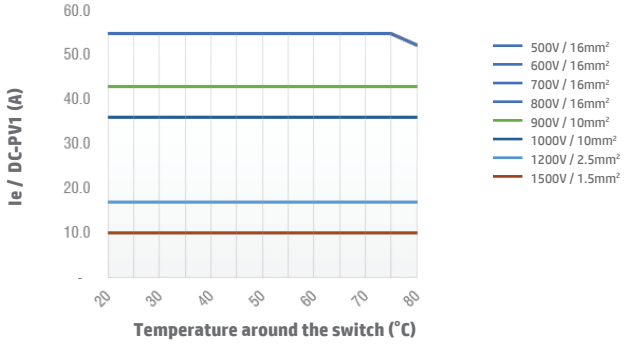
Note: For SI40 3H pole configuration, DC-PV1 derating graphs can be supplied upon request. Please contact IMO for more information.

Technical Data continued

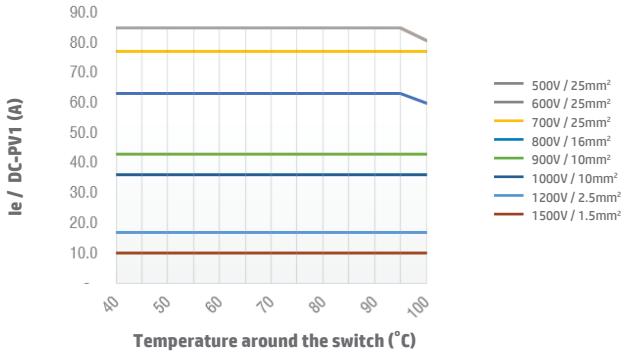
Switch SI55 2 poles DC-PV1 Open Type



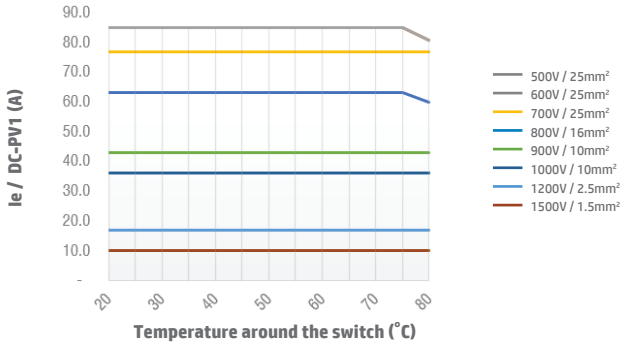
Switch SI55 2 poles DC-PV1 Enclosed Type



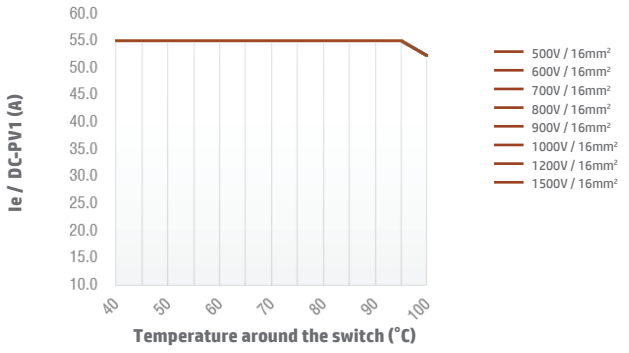
Switch SI55 2H DC-PV1 Open Type



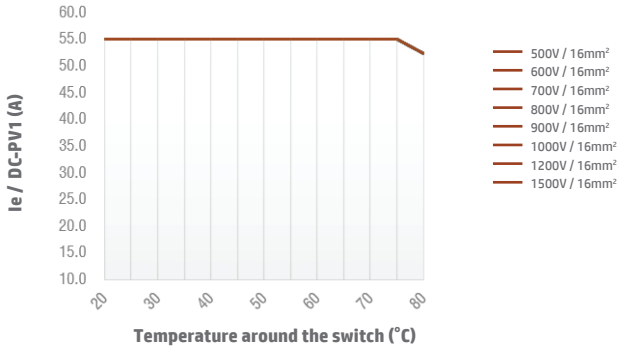
Switch SI55 2H DC-PV1 Enclosed Type



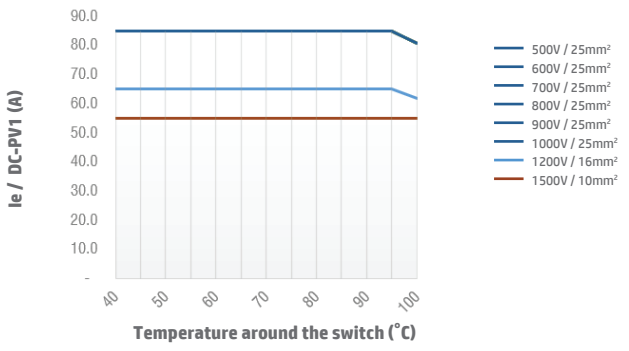
Switch SI55 4B/4S/4T DC-PV1 Open Type



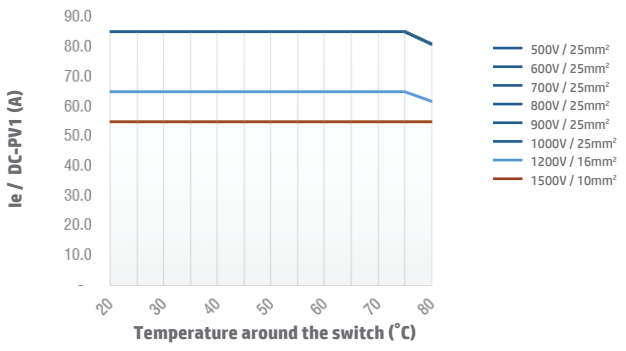
Switch SI55 4B/4S/4T DC-PV1 Enclosed Type



Switch SI55 4H DC-PV1 Open Type



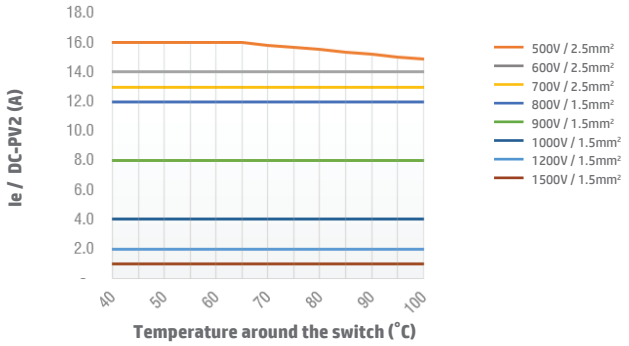
Switch SI55 4H DC-PV1 Enclosed Type



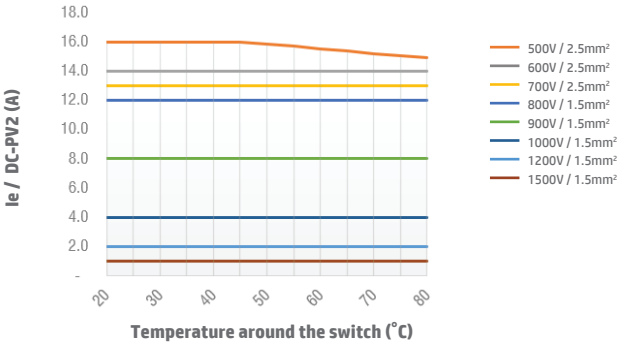
Note: SI55 3H pole configuration and SI65, DC-PV1 derating graphs can be supplied upon request. Please contact IMO for more information.

Technical Data continued

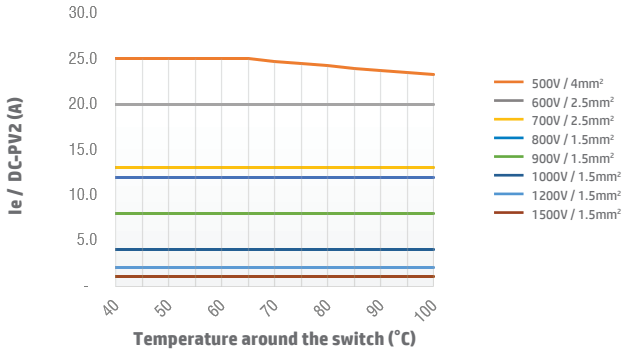
Switch SI16 2 poles DC-PV2 Open Type



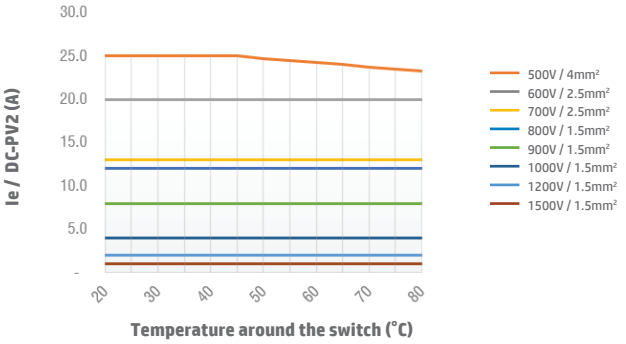
Switch SI16 2 poles DC-PV2 Enclosed Type



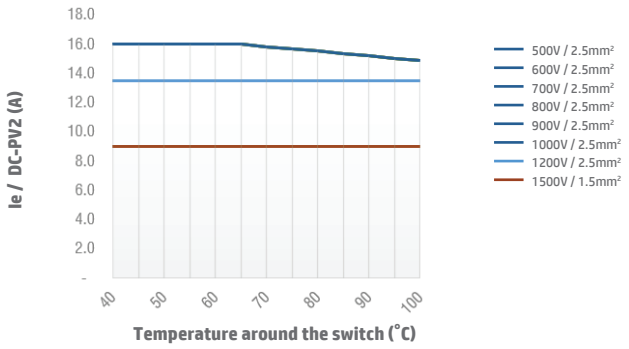
Switch SI16 2H DC-PV2 Open Type



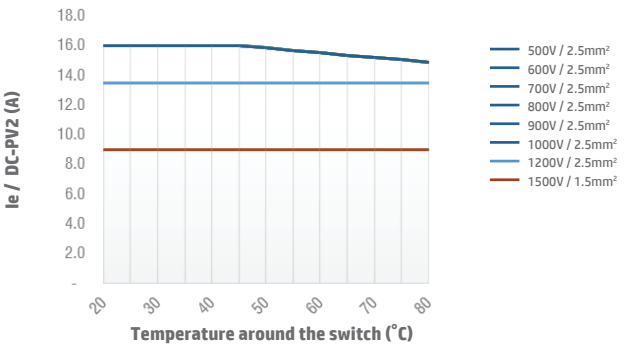
Switch SI16 2H DC-PV2 Enclosed Type



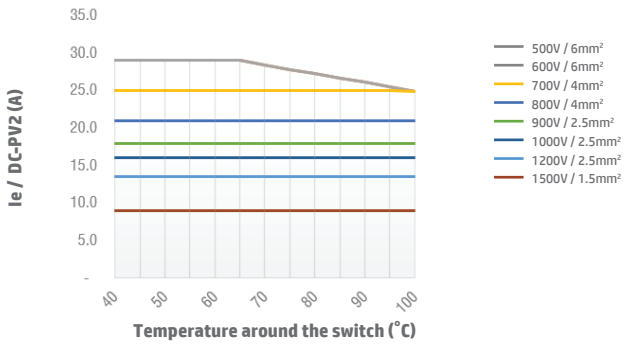
Switch SI16 4B/4S/4T DC-PV2 Open Type



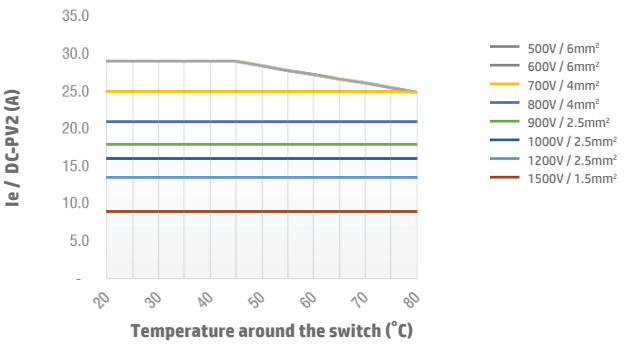
Switch SI16 4B/4S/4T DC-PV2 Enclosed Type



Switch SI16 4H DC-PV2 Open Type



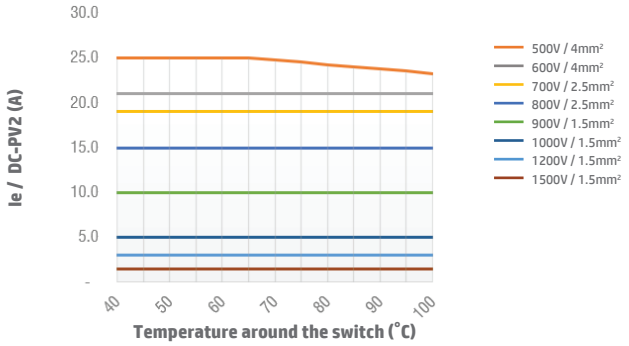
Switch SI16 4H DC-PV2 Enclosed Type



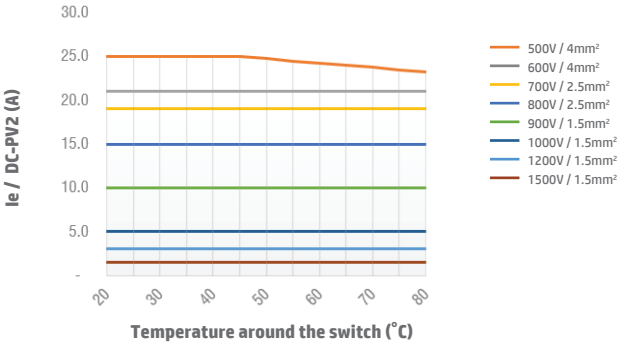
Note: For SI16 3H pole configuration, DC-PV2 derating graphs can be supplied upon request. Please contact IMO for more information.

Technical Data continued

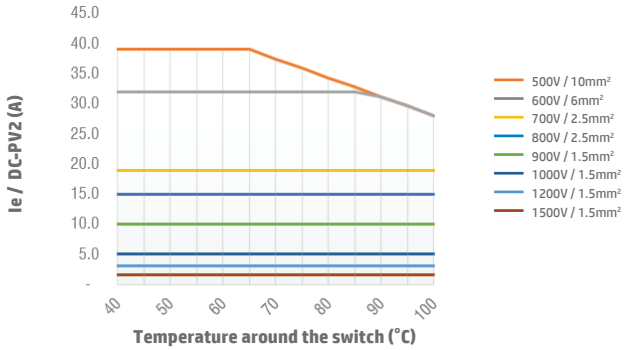
Switch SI25 2 poles DC-PV2 Open Type



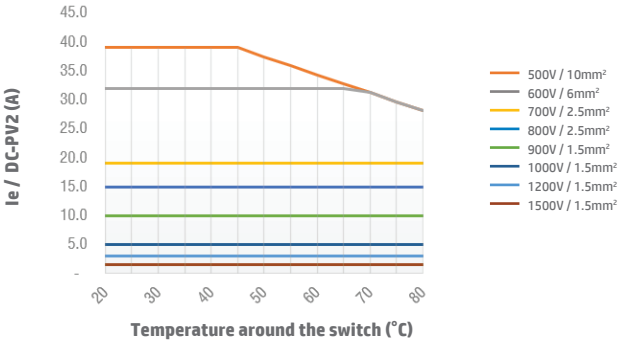
Switch SI25 2 poles DC-PV2 Enclosed Type



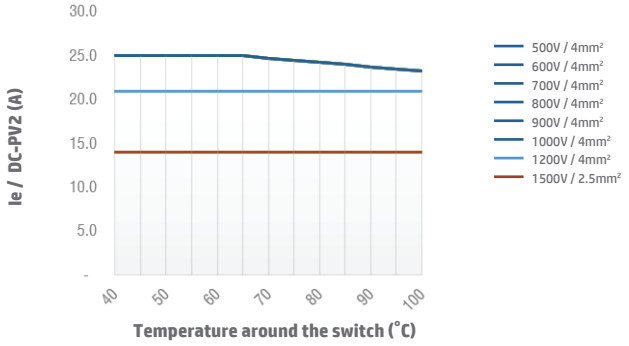
Switch SI25 2H DC-PV2 Open Type



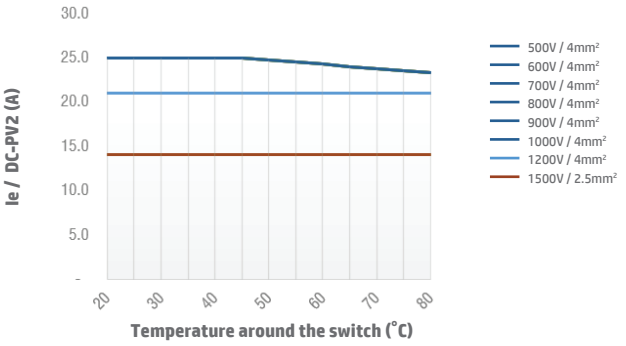
Switch SI25 2H DC-PV2 Enclosed Type



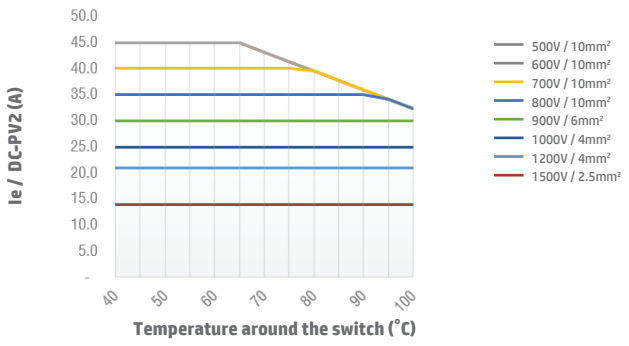
Switch SI25 4B/4S/4T DC-PV2 Open Type



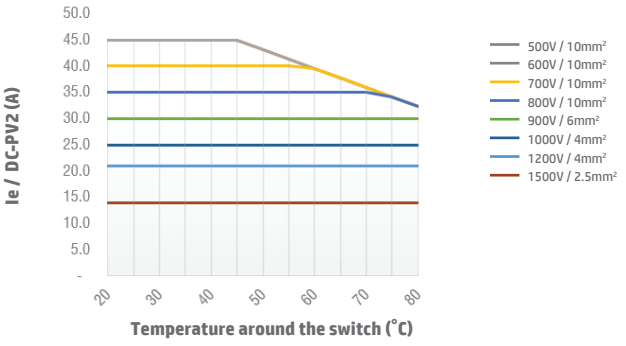
Switch SI25 4B/4S/4T DC-PV2 Enclosed Type



Switch SI25 4H DC-PV2 Open Type



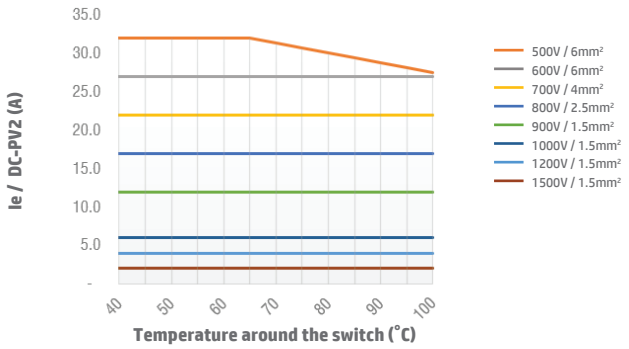
Switch SI25 4H DC-PV2 Enclosed Type



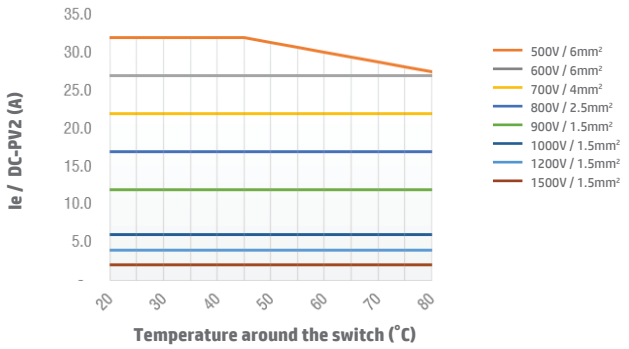
Note: For SI25 3H pole configuration, DC-PV2 derating graphs can be supplied upon request. Please contact IMO for more information.

Technical Data continued

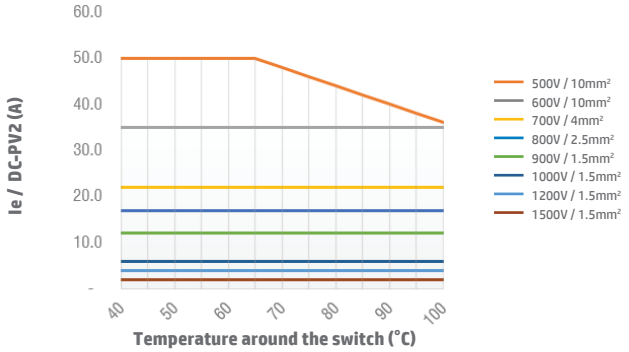
Switch SI32 2 poles DC-PV2 Open Type



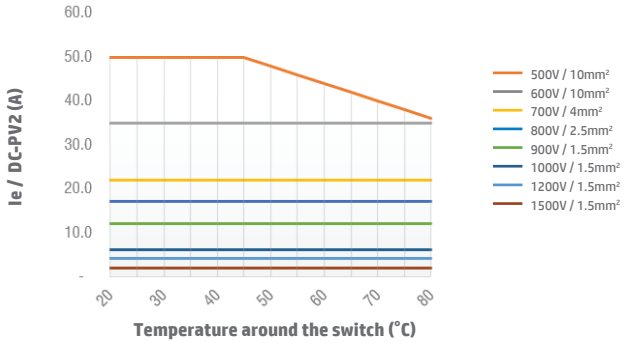
Switch SI32 2 poles DC-PV2 Enclosed Type



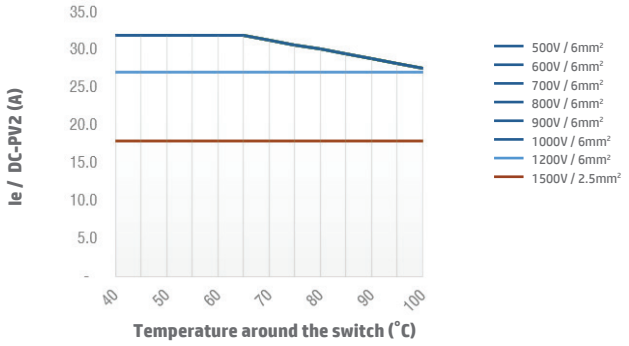
Switch SI32 2H DC-PV2 Open Type



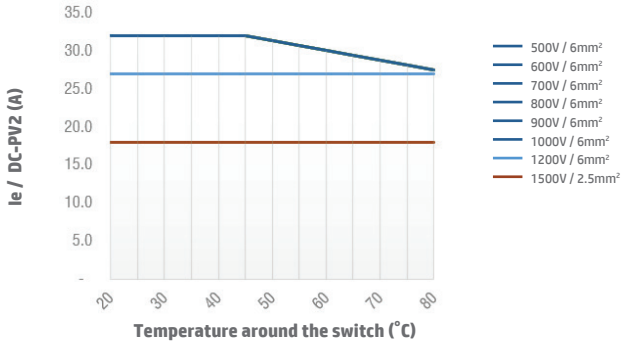
Switch SI32 2H DC-PV2 Enclosed Type



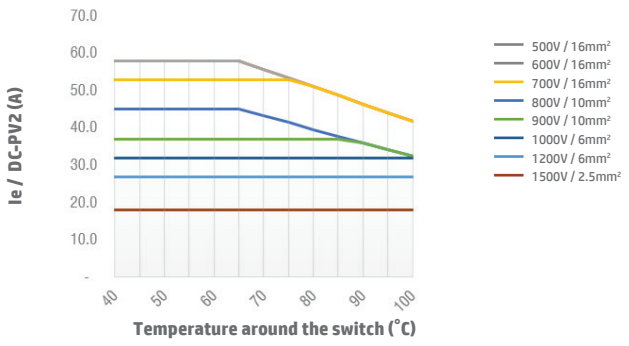
Switch SI32 4B/4S/4T DC-PV2 Open Type



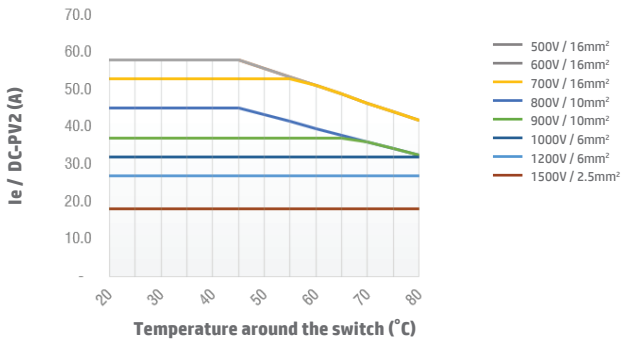
Switch SI32 4B/4S/4T DC-PV2 Enclosed Type



Switch SI32 4H DC-PV2 Open Type



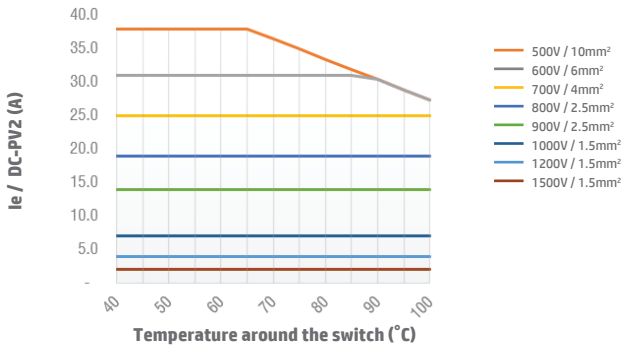
Switch SI32 4H DC-PV2 Enclosed Type



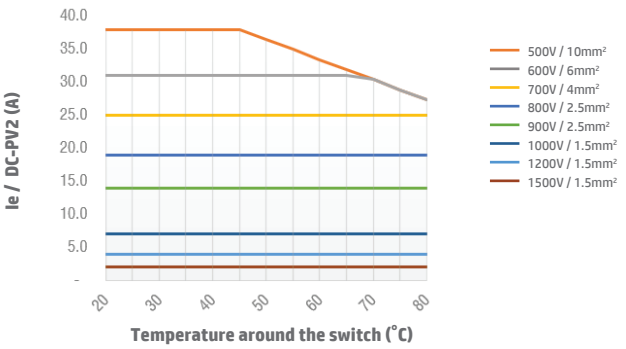
Note: For SI32 3H pole configuration, DC-PV2 derating graphs can be supplied upon request. Please contact IMO for more information.

Technical Data continued

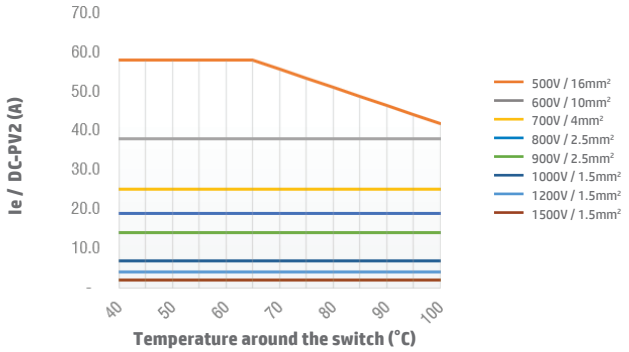
Switch SI38 2 poles DC-PV2 Open Type



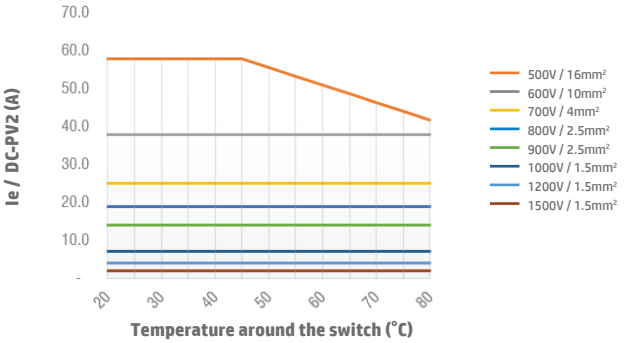
Switch SI38 2 poles DC-PV2 Enclosed Type



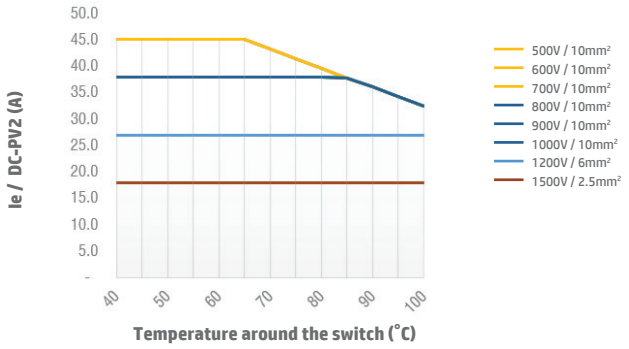
Switch SI38 2H DC-PV2 Open Type



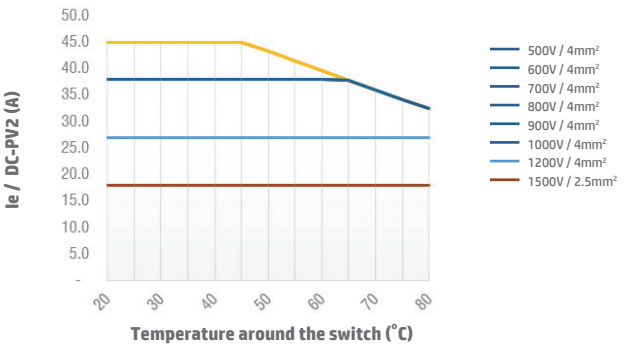
Switch SI38 2H DC-PV2 Enclosed Type



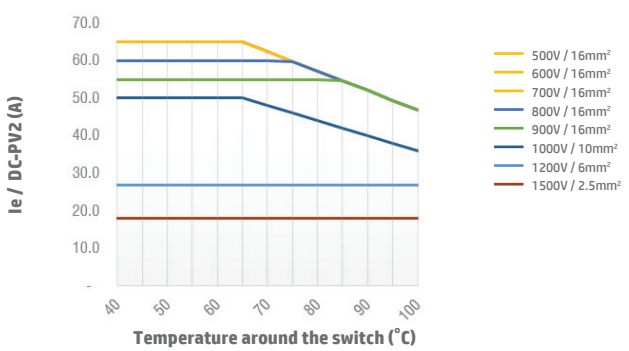
Switch SI38 4B/4S/4T DC-PV2 Open Type



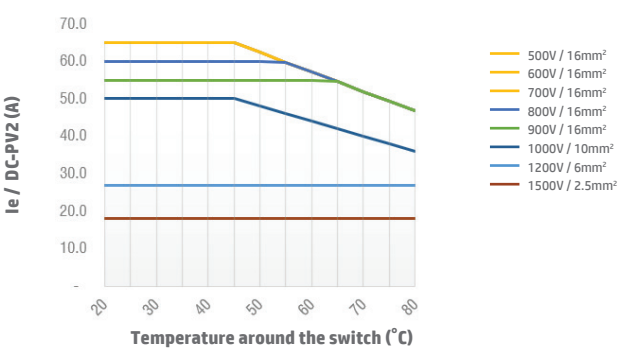
Switch SI38 4B/4S/4T DC-PV2 Enclosed Type



Switch SI38 4H DC-PV2 Open Type



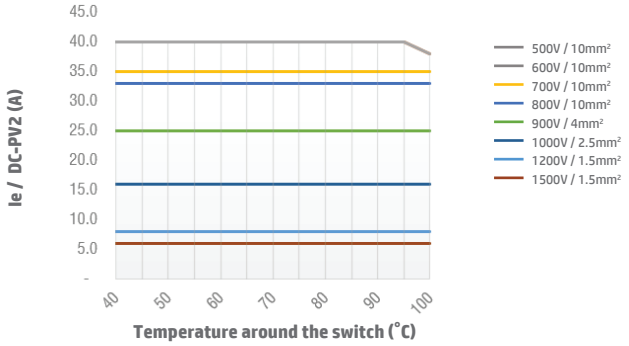
Switch SI38 4H DC-PV2 Enclosed Type



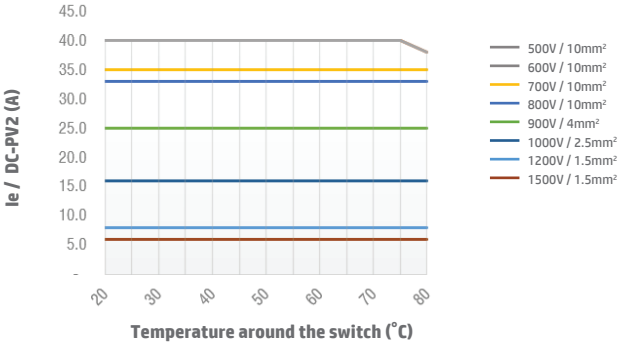
Note: For SI38 3H pole configuration, DC-PV2 derating graphs can be supplied upon request. Please contact IMO for more information.

Technical Data continued

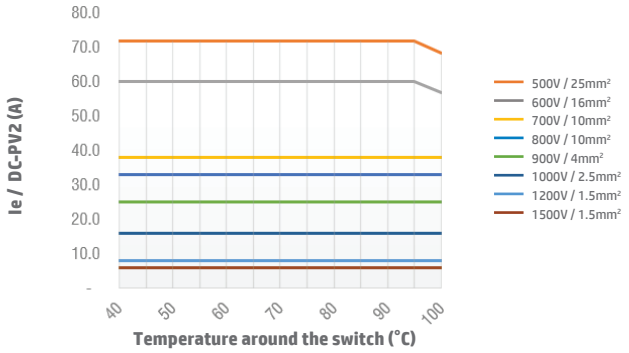
Switch SI40 2 poles DC-PV2 Open Type



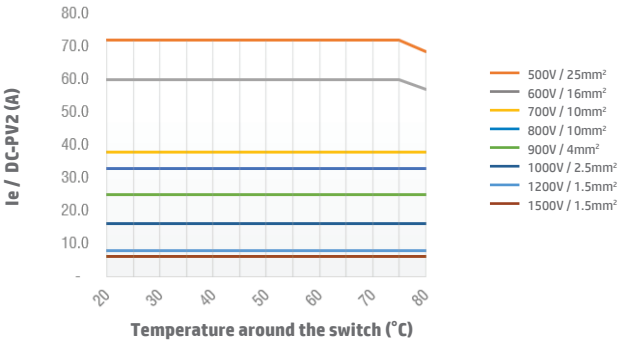
Switch SI40 2 poles DC-PV2 Enclosed Type



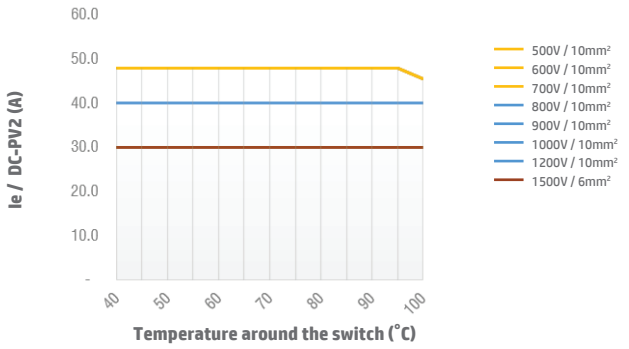
Switch SI40 2H DC-PV2 Open Type



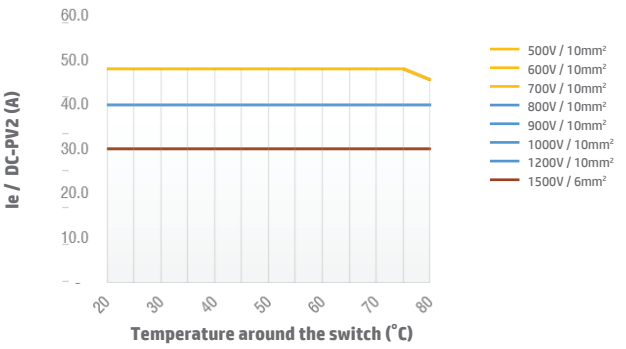
Switch SI40 2H DC-PV2 Enclosed Type



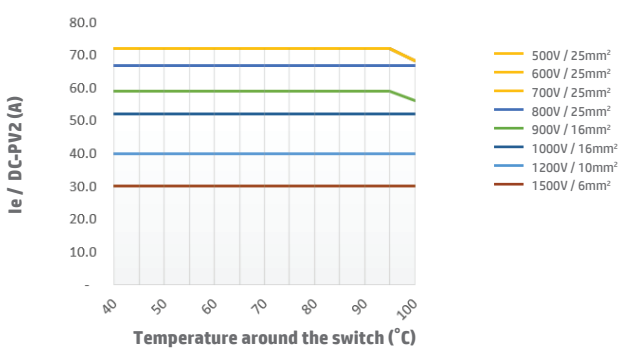
Switch SI40 4B/4S/4T DC-PV2 Open Type



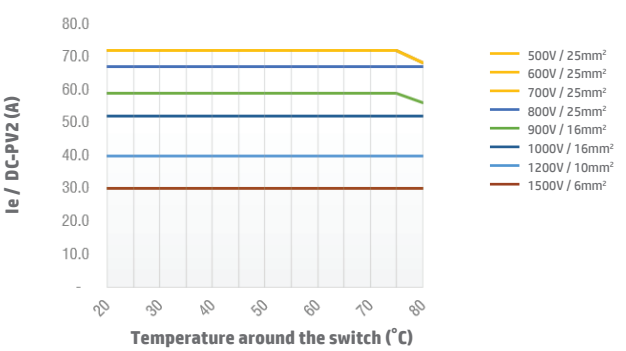
Switch SI40 4B/4S/4T DC-PV2 Enclosed Type



Switch SI40 4H DC-PV2 Open Type



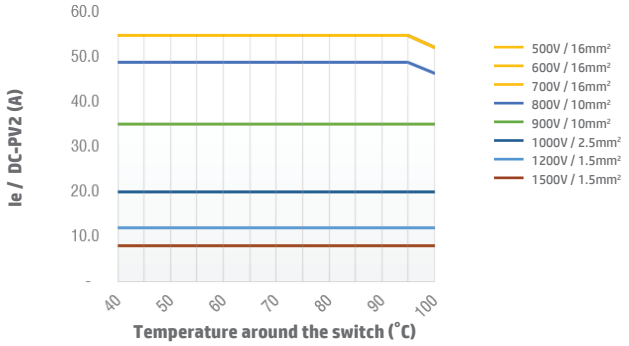
Switch SI40 4H DC-PV2 Enclosed Type



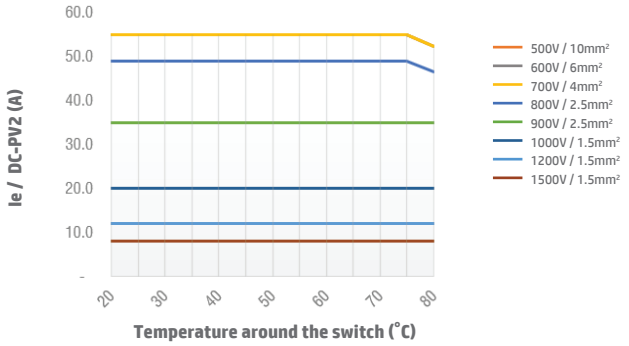
Note: For SI40 3H pole configuration, DC-PV2 derating graphs can be supplied upon request. Please contact IMO for more information.

Technical Data continued

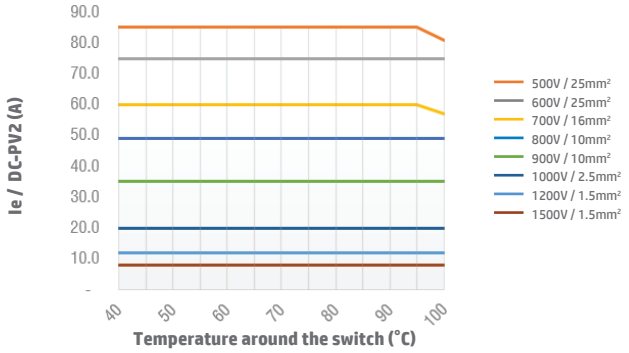
Switch SI55 2 poles DC-PV2 Open Type



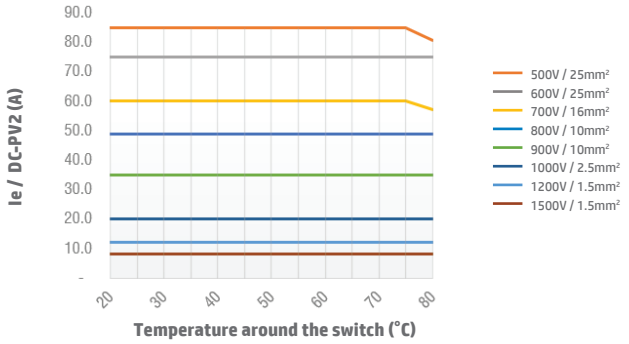
Switch SI55 2 poles DC-PV2 Enclosed Type



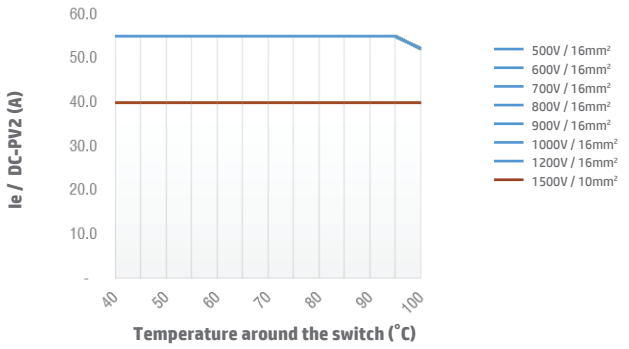
Switch SI55 2H DC-PV2 Open Type



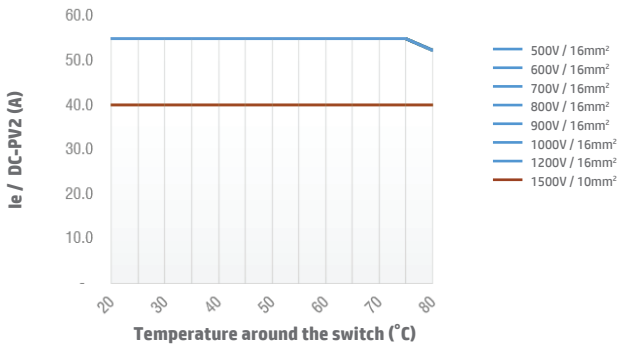
Switch SI55 2H DC-PV2 Enclosed Type



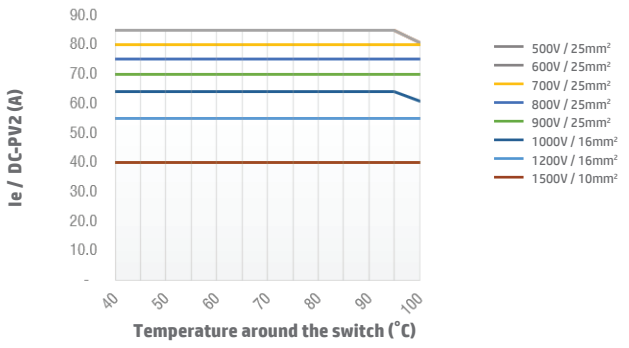
Switch SI55 4B/4S/4T DC-PV2 Open Type



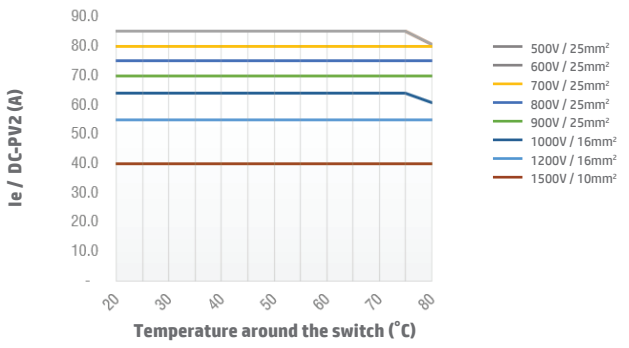
Switch SI55 4B/4S/4T DC-PV2 Enclosed Type



Switch SI55 4H DC-PV2 Open Type



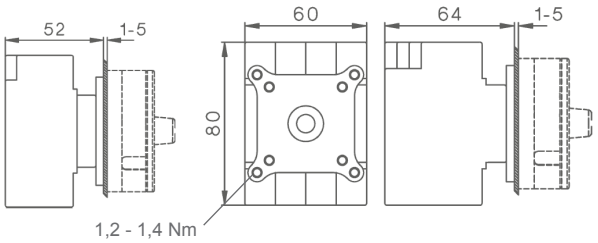
Switch SI55 4H DC-PV2 Enclosed Type



Note: SI55 3H pole configuration and SI65, DC-PV2 derating graphs can be supplied upon request. Please contact IMO for more information.

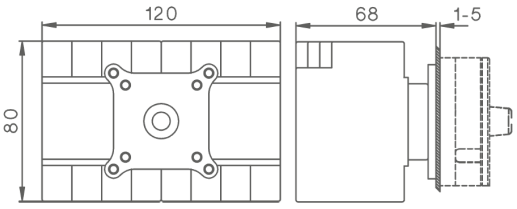
Dimensions (mm)

SI16PM / SI25PM / SI32PM / SI38PM
2

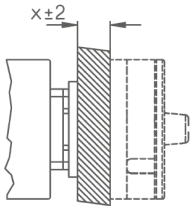


2H, 4

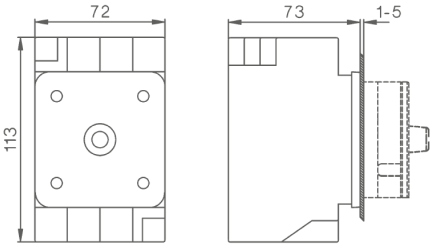
SI16PM / SI25PM / SI32PM / SI38PM
6, 3H, 8, 4H



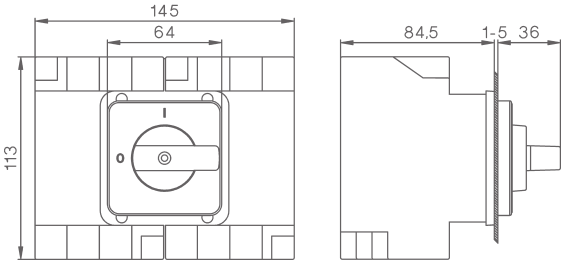
SI + X "Y"
Extended Switch Shaft



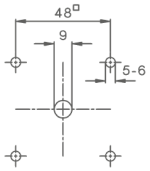
SI40PM / SI55PM / SI65PM
2, 2H, 4



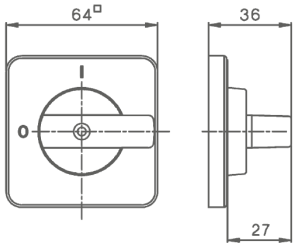
SI40PM / SI55PM / SI65PM
6, 3H, 8, 4H



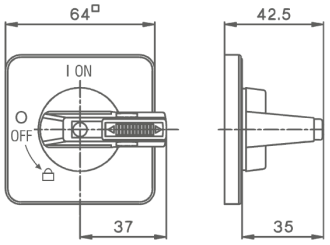
Mounting Hole



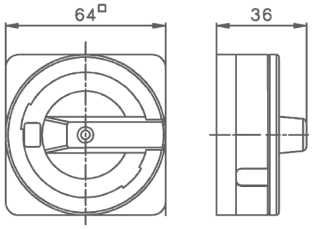
Escutcheon Plate 64
Lever



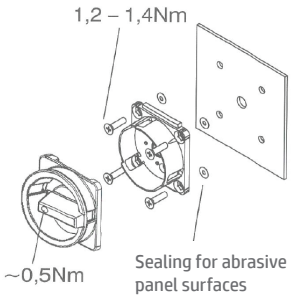
Lockable Lever



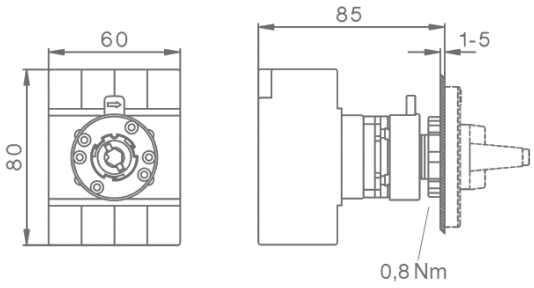
Lockable Rotary



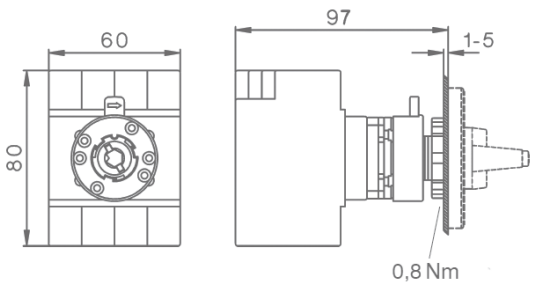
Panel Mounting



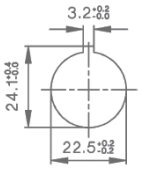
SI16SHM(L) / SI25SHM(L) / SI32SHM(L) / SI38SHM(L)
2



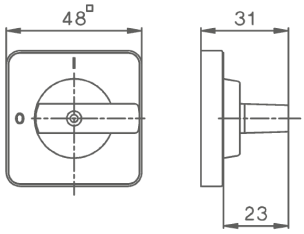
2H, 4



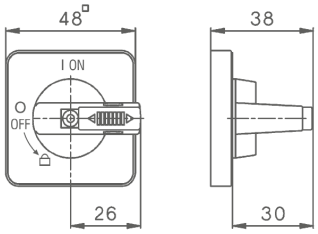
Mounting Hole



Escutcheon Plate 48
Lever Handle

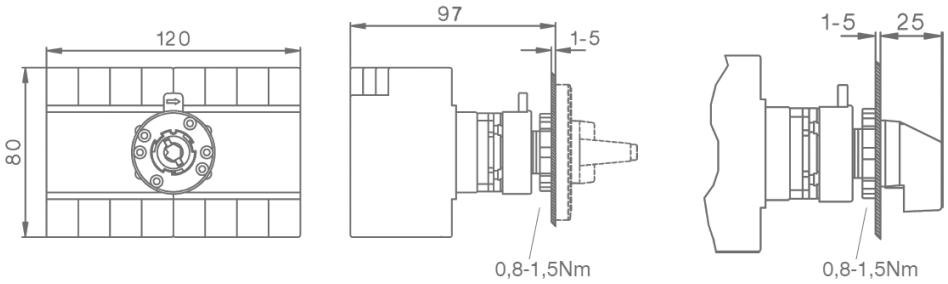


Lockable Lever

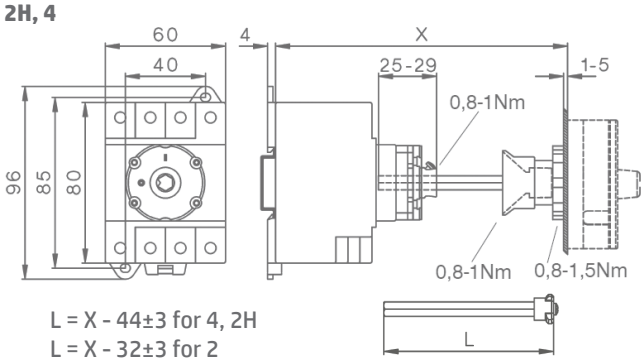


Dimensions (mm) continued

SI16SHM(L) / SI25SHM(L) / SI32SHM(L) / SI38SHM(L)
6, 3H, 8, 4H



SI16BMDC / SI25BMDC / SI32BMDC / SI38BMDC
2H, 4



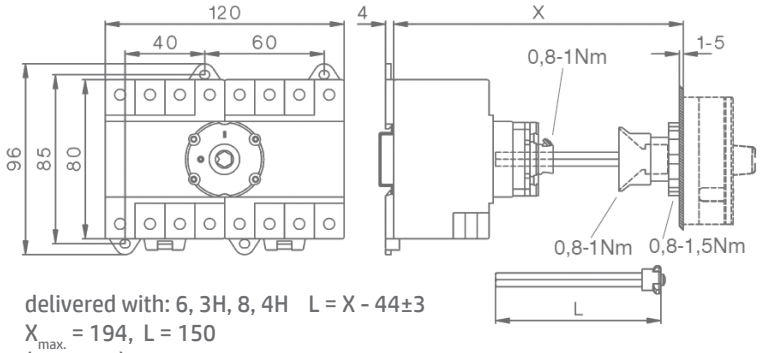
L = X - 44±3 for 4, 2H
L = X - 32±3 for 2

delivered with: 2H, 4
$X_{max.}$ = 194, L = 150
($X_{min.}$ = 89)

delivered with: 2
$X_{max.}$ = 182, L = 150
($X_{min.}$ = 77)

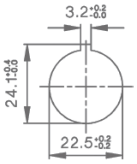
Greater X-Dimensions on request

SI16BMDC / SI25BMDC / SI32BMDC / SI38BMDC
6, 3H, 8, 4H

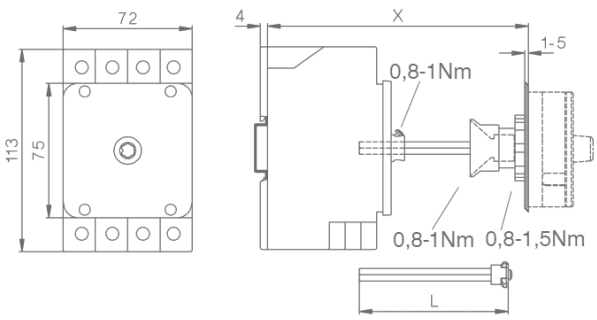


delivered with: 6, 3H, 8, 4H L = X - 44±3
$X_{max.}$ = 194, L = 150
($X_{min.}$ = 95)

Mounting Hole

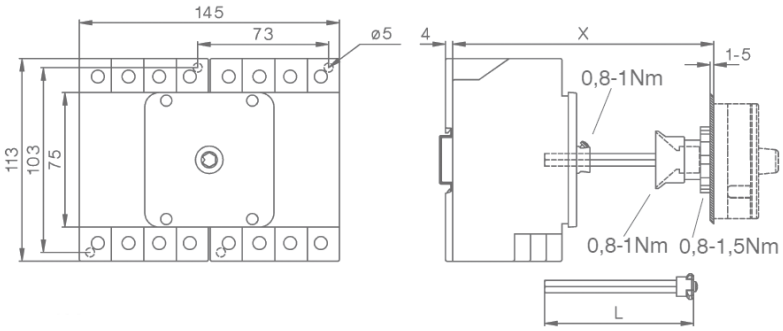


SI40BMDC / SI55BMDC / SI65BMDC
2, 2H, 4



delivered with: 2, 2H, 4 L = X - 61±3
$X_{max.}$ = 194, L = 133
($X_{min.}$ = 103)

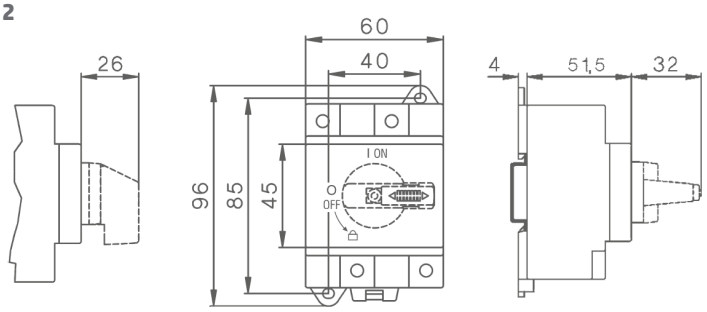
SI40BMDC / SI55BMDC / SI65BMDC
6, 3H, 8, 4H



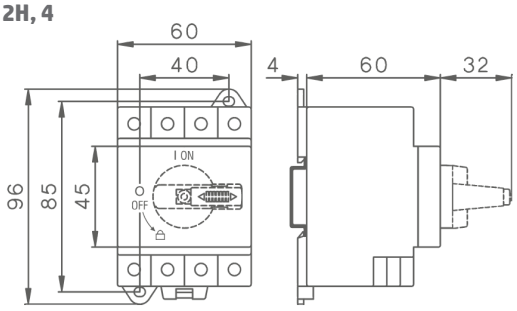
delivered with: 6, 3H, 8, 4H L = X - 73±3
$X_{max.}$ = 194, L = 121
($X_{min.}$ = 113)

Dimensions (mm) continued

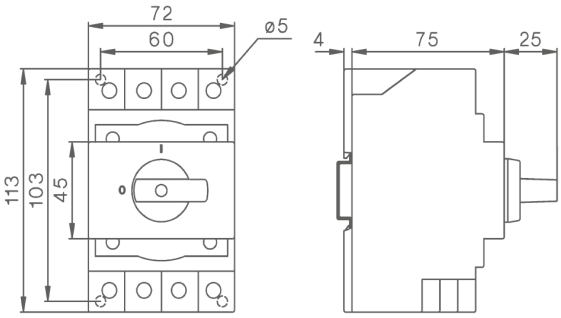
SI16DB(L) / SI25DB(L) / SI32DB(L) / SI38DB(L)
2



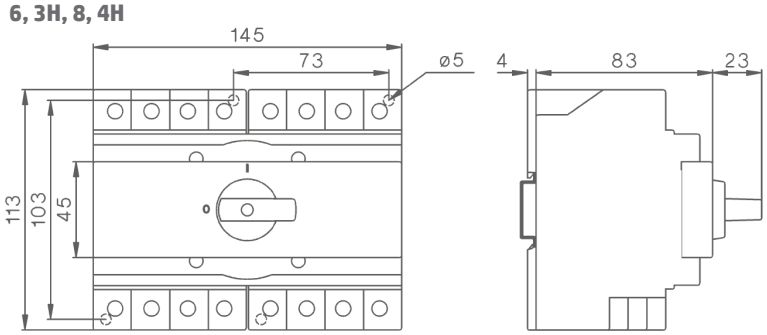
2H, 4



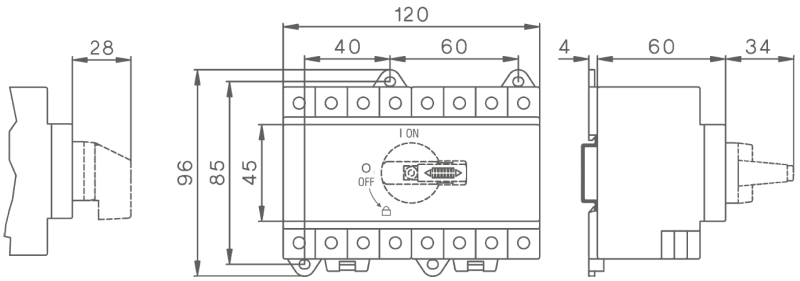
SI40DB(L) / SI55DB(L) / SI65DB(L)
2, 2H, 4



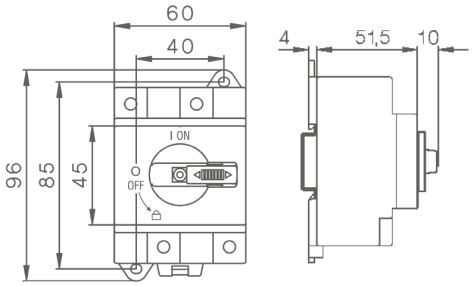
SI40DB(L) / SI55DB(L) / SI65DB(L)
6, 3H, 8, 4H



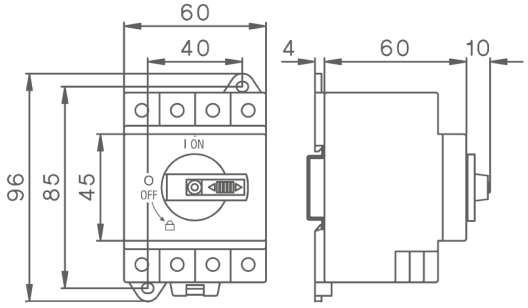
SI16DB(L) / SI25DB(L) / SI32DB(L) / SI38DB(L)
6, 3H, 8, 4H



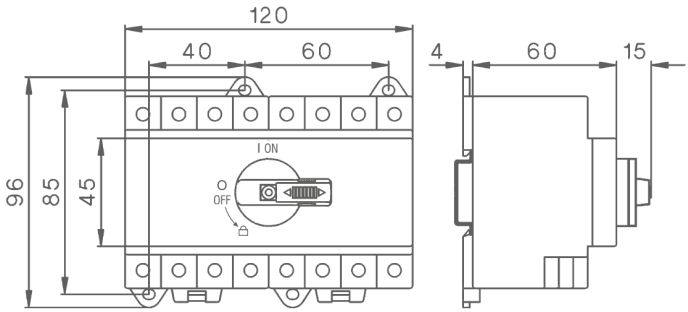
SI.. DBL with low height handle
2-LH



SI16DBL /SI25DBL / SI32DBL / SI38DBL with low height handle
2H-LH, 4-LH

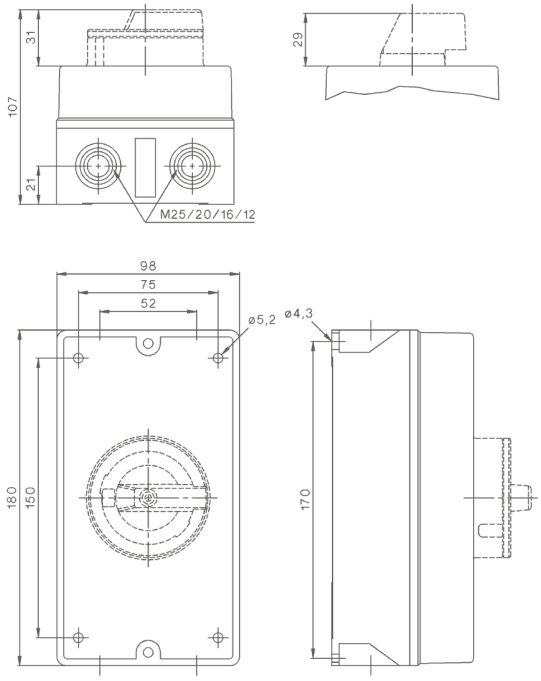


6-LH, 3H-LH, 8-LH, 4H-LH

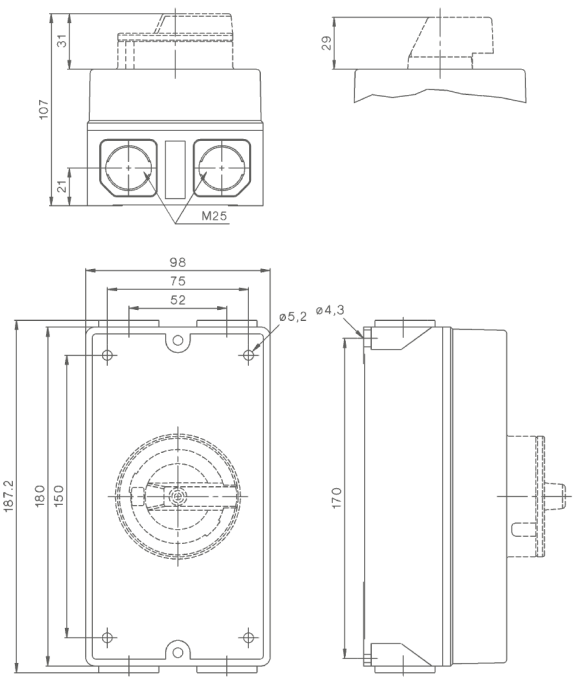


Dimensions (mm) continued

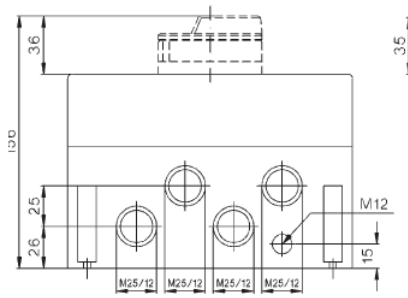
SI16PEL / SI25PEL / SI32PEL / SI38PEL
2, 2H, 4



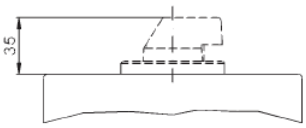
SI16PEL / SI25PEL / SI32PEL / SI38PEL
2, 2H, 4 + M25



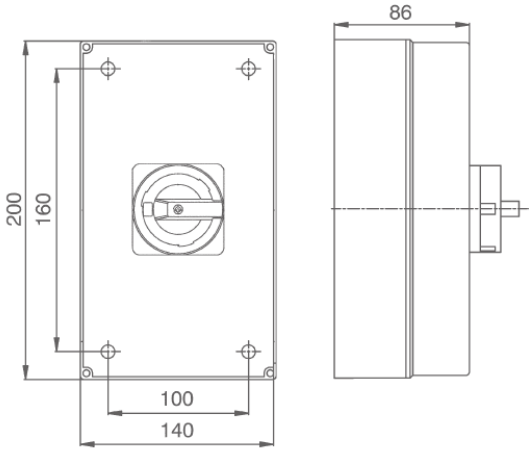
SI16PEL / SI25PEL / SI32PEL / SI38PEL
6, 8, 3H, 4H

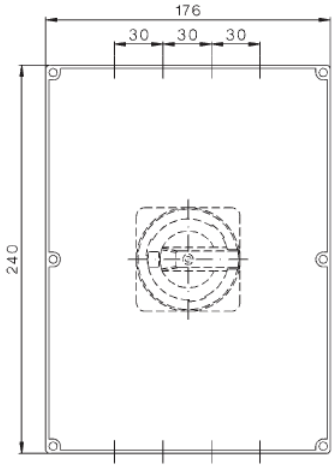


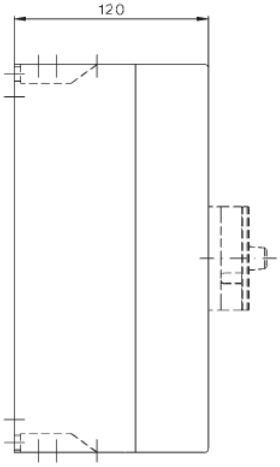
SI40PEL / SI55PEL / SI65PEL
6, 8, 3H, 4H

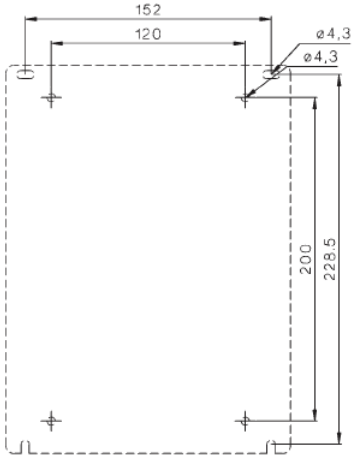


SI40PEL / SI55PEL / SI65PEL
2, 4, 2H





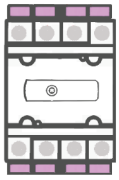




Jumper Applications

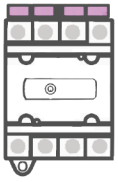
SI16.. / SI25.. / SI32.. / SI38..
2H


2x SIV-B1-1N



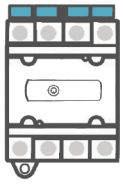

2x SIV-B1-1N

SI16.. / SI25.. / SI32..
4T



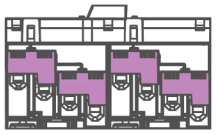

2x SIV-B1-1N

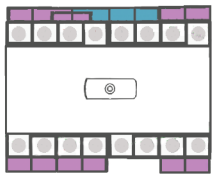
SI38..
4T

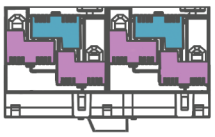



2x SIV-B1-2N

SI16.. / SI25.. / SI32.. / SI38..
4H

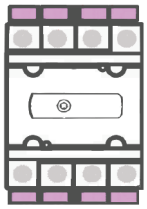

4x SIV-B1-1N




2x SIV-B1-2N
4x SIV-B1-1N

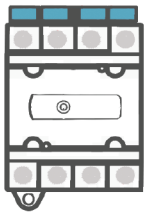
SI40.. / SI55.. / SI65..
2H


2x SIV-B2-1N



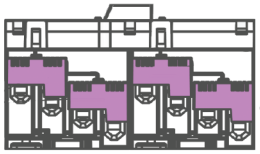

2x SIV-B2-1N

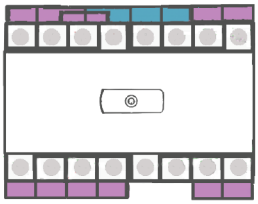
SI40.. / SI55.. / SI65..
4T

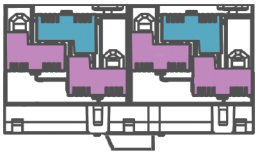



2x SIV-B2-2N

SI40.. / SI55.. / SI65..
4H


4x SIV-B2-1N




2x SIV-B2-2N
4x SIV-B2-1N

SIA Mini Solar Isolators

Mini TRUE DC Isolators for PV Systems

- Based on market-leading SI series design
- Compact smaller size
- Improved switching capacity
- Extended mounting options
- Guaranteed arc suppression (3ms typical)
- Operator independent switching mechanism
- Knife-edge contacts

UL508i

SAFE-LOCK

The next evolution in DC isolation

When IMO first launched its SI Series DC isolator in 2009, little did it know that the SI would soon become the safety component of choice for many of the largest solar inverter manufacturers and installers around the world. Today, with over 10 million installations, the SI Series has proved itself more than capable of handling the most demanding DC switching applications.

The NEW SIA represents the next evolution in DC isolation offering all the benefits of its big brother in a compact, high reliability package. With a 35% reduction in cubic volume, reduced front plate “real-estate”, increased ratings and extended mounting options, the SIA is packed with features. Yet it retains the high reliability technology of the current SI Series including knife edge contacts, high speed operator independent switching mechanism and full arc control with guaranteed suppression time.

The NEW SIA represents the next step in meeting the global demand for high reliability, compact and competitive DC safety switching solutions.

Safety as standard

In solar installations, the DC isolator is like a vehicle air-bag. It is rarely called upon but, when required, carries a huge responsibility. So it’s good to know that the IMO SI is safeguarding millions of solar installations around the world, without a single reported electrical failure.

Not surprising considering the product carries all the most important approvals including UL508i. In fact the IMO SI range of solar isolators have been tested by some of the most rigorous examiners and OEM manufacturers in the world, passing with flying colours every time.

Smaller... and better

When buying IMO you can be assured of the level of quality and reliability of our products. The SIA/SIME is no exception, and just because we have managed to squeeze everything that went into our market-leading SI range into the new SIA’s compact body, we haven’t compromised on reliability. In fact, we have increased the overall ratings and extended the mounting options.

The OEM’s choice

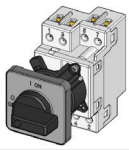
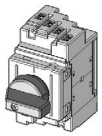
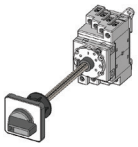
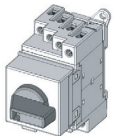
The SI range of isolators was specifically developed for arduous DC disconnect applications and SI isolators are used by many of the largest Solar Inverter manufacturers in the world.

The new SIA range features the same independent trigger ratchet switching mechanism delivering arc extinguishing times of <5ms (3ms typical). Specially designed internal arc cooling chambers control temperature rise and increase safety while knife edge contacts increase reliability and prolong electrical life.

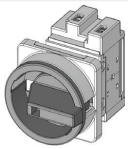
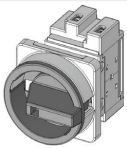
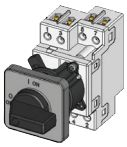
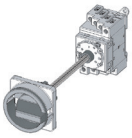
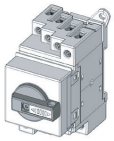
All this along with a 35% reduction in size makes the SIA Series the ideal next generation choice for OEMs globally.

Ordering Variations

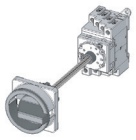
Lever Handle Models

Panel Mount (4-screw) 64 x 64 Esc. Plate, Lever Handle, IP66, NEMA 3R	Panel Mount (2-screw) 64 x 64 Esc. Plate, Lever Handle, IP66, NEMA 3R	Single Hole Mount (22.5mm) 48 x 48 Esc. Plate Lever Handle, IP66, NEMA 4X	Single Hole Mount (16mm) No Esc. Plate, Lever Handle, IP66, NEMA 4X	Base Mount (door coupling) 64 x 64 Esc. Plate, Lever Handle, IP66, NEMA 4X	Modular Switch Lever Handle, IP40
					
SIA**PM64*	SIA**PMT64*	SIA**SHM*	SIA**SHMS*	SIA**BMDC64*	SIA**DB*

Lever Handle Models with Lockable OFF SAFE-LOCK

Panel Mount (4-screw) 64 x 64 Esc. Plate, Lockable Lever Handle, IP66, NEMA 3R	Panel Mount (2-screw) 64 x 64 Esc. Plate, Lockable Lever Handle, IP66, NEMA 3R	Single Hole Mount (22.5mm) 48 x 48 Esc. Plate, Lockable Lever Handle, IP66, NEMA 4X	Base Mount (door coupling) 64 x 64 Esc. Plate, Lockable Lever Handle, IP66, NEMA 4X	Modular Switch Lockable Lever Handle, IP40
				
SIA**PML64*	SIA**PMTL64*	SIA**SHML*	SIA**BMDCL64*	SIA**DBL*

Rotary Handle Models with Lockable OFF SAFE-LOCK

Panel Mount (4-screw) 64 x 64 Lockable Rotary Handle, IP66, NEMA 3R	Base Mount (door coupling) 64 x 64 Lockable Rotary Handle, IP66, NEMA 4X	Enclosed Version Lockable Rotary Handle, IP67, NEMA 4X
		
SIA**PM64R*	SIA**BMDC64R*	SIA**PEL64R*

Part Number Configuration

SIA **16** - **PM64R** - **2**

Series

SIA Mini DC Solar Isolator (max. 4P)	**SIA**
SIME Mini DC Solar Isolator (6/8P)	**SIME**

Switch Rating

16 Amp	**16**
25 Amp	**25**
32 Amp	**32**
38 Amp	**38**

Number of Poles (see Switching Configurations on p.5)

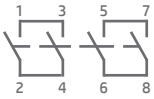
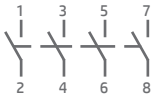
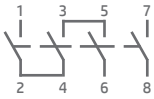
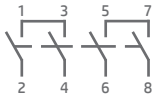
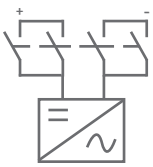
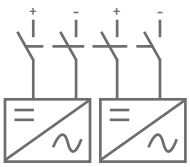
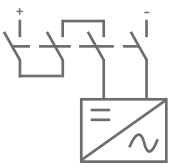
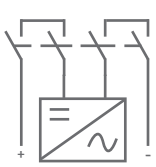
2	2-Pole
2H	2-Pole 4 Parallel Poles
4	4-Pole
4S	2-Pole 4 Poles in Series (Input Top, Output botton)
4T	2-Pole 4 Poles in Series (Input & Output bottom)
4B	2-Pole 4 Poles in Series (Input & Output top)
6*	6-Pole (SIME ONLY)
8*	8-Pole (SIME ONLY)
4H*	2-Pole 8 Parallel Poles

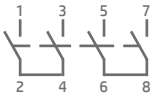
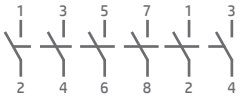
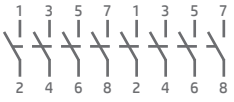
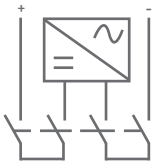
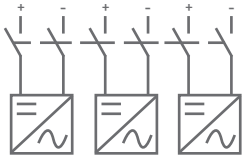
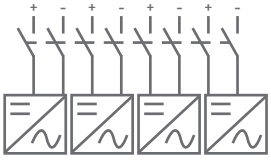
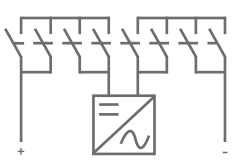
Mounting Type

Panel Mount (4-screw), 64 x 64 Escutcheon Plate, Lever Handle	**PM64**
Panel Mount (4-screw), 64 x 64 Escutcheon Plate, Lockable Lever Handle	**PML64**
Panel Mount (4-screw), 64 x 64 Lockable Rotary Handle	**PM64R**
Panel Mount (2-screw), 64 x 64 Escutcheon Plate, Lever Handle	**PMT64**
Panel Mount (2-screw), 64 x 64 Escutcheon Plate, Lockable Lever Handle	**PMTL64**
Single Hole (22.5mm) Mount, 48 x 48 Escutcheon Plate, Lever Handle	**SHM**
Single Hole (22.5mm) Mount, 48 x 48 Escutcheon Plate, Lockable Lever Handle	**SHML**
Single Hole (16mm) Mount, No Escutcheon Plate, Lever Handle	**SHMS**
Single Hole (16mm) Mount, No Escutcheon Plate, Lever Handle, Lockable	**SHMSR**
Base Mount (DIN Rail), 64 x 64 Escutcheon Plate, Lever Handle	**BMDC64**
Base Mount (DIN Rail), 64 x 64 Escutcheon Plate, Lockable Lever Handle	**BMDCL64**
Base Mount (DIN Rail), 64 x 64 Lockable Rotary Handle	**BMDC64R**
Modular Switch, Lever Handle	**DB**
Modular Switch, Lockable Lever Handle	**DBL**
Enclosed Version, Lockable Rotary Handle	**PEL64R**

*Not for Australian and New Zealand Market

Switching Configurations

Type	2-pole	2-pole 4 parallel poles	4-pole	4 poles in series Input on top Output bottom	4 poles in series Input and Output bottom
SIA16	2	2H	4	4S	4T
SIA25	2	2H	4	4S	4T
SIA32	2	2H	4	4S	4T
SIA38	2	2H	4	4S	4T
Contact Wiring Diagram					
Switching Example					

Type	4 poles in series Input and Output on top	6-pole	8-pole	2-pole 8 parallel poles
SIME16	4B	6	8	4H
SIME25	4B	6	8	4H
SIME32	4B	6	8	4H
SIME38	4B	6	8	4H
Contacts Wiring Diagram				
Switching example				

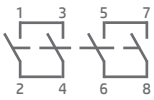
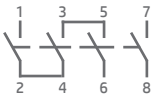
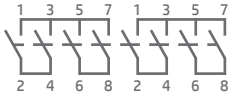
Insulated Jumper

for series and parallel switching of contacts

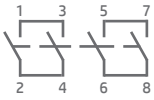
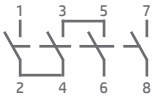
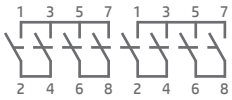
Type	SIA16	SIA25	SIA32	SIA38
4T / 4B	2x **SIAV-B1-1N**			2x **SIAV-B1-2N**
2H	4x **SIAV-B1-1N**			
4S	1x **SIAV-B1-1N** & 1x **LG11852**		1x **SIAV-B1-2N** & 1x **LG11852**	

WARNING: *Verify that all connections (including bridging link connections) are suitable for the rated current, prepared to ensure only conductive parts are clamped and tightened to the manufacturer's required torque before energisation.*

Technical Data for DC according to IEC 60947-3

Type		DC-PV1								DC-PV2			
		500V	600V	700V	800V	900V	1000V	1200V	1500V	500V	600V	800V	1000V
2 poles in series 2 	SIA16 ..	16A	16A	16A	16A	16A	10A	7A	3A	16A	14A	12A	4A
	SIA25 ..	25A	25A	25A	20A	17A	11.5A	8.5A	5A	25A	21A	15A	5A
	SIA32 ..	32A	32A	32A	23A	20A	13A	10A	6A	32A	27A	17A	6A
	SIA38 ..	45A	45A	36A	30A	25A	20A	10A	6A	38A	31A	19A	7A
2 poles in series + 2 parallel 2H 	SIA16 ..	29A	29A	22A	17A	16A	10A	7A	3A	25A	20A	12A	4A
	SIA25 ..	45A	36A	27A	20A	17A	11.5A	8.5A	5A	39A	32A	15A	5A
	SIA32 ..	50A	50A	32A	23A	20A	13A	10A	6A	50A	35A	17A	6A
	SIA38 ..	50A	50A	36A	30A	25A	20A	10A	6A	50A	38A	19A	7A
4 poles in series 4S, 4B, 4T 	SIA16 ..	16A	16A	16A	16A	16A	16A	16A	16A	16A	16A	16A	16A
	SIA25 ..	25A	25A	25A	25A	25A	25A	25A	25A	25A	25A	25A	25A
	SIA32 ..	32A	32A	32A	32A	32A	32A	32A	32A	32A	32A	32A	32A
	SIA38 ..	45A	45A	45A	45A	45A	38A	32A	32A	45A	45A	38A	38A
4 poles in series + 2 parallel 4H 	SIME16 ..	29A	29A	29A	29A	29A	29A	29A	20A	29A	29A	21A	16A
	SIME25 ..	45A	45A	45A	45A	45A	45A	33A	26A	45A	45A	35A	25A
	SIME32 ..	50A	50A	50A	50A	50A	50A	50A	32A	50A	50A	45A	32A
	SIME38 ..	50A	50A	50A	50A	50A	50A	50A	32A	50A	50A	50A	50A

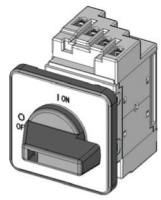
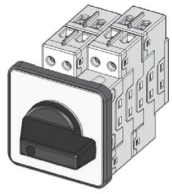
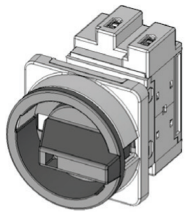
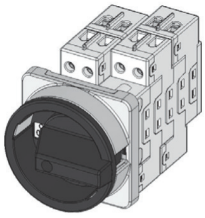
Technical Data for DC according to UL508i

Type		UL508i		
		350V	500V	600V
1 POLE 	SIA16 ..	4A	4A	4A
	SIA25 ..	5A	5A	5A
	SIA32 ..	6A	6A	6A
	SIA38 ..	20A	12A	9A
2 poles in series 2 	SIA16 ..	16A	16A	16A
	SIA25 ..	25A	25A	25A
	SIA32 ..	32A	32A	32A
	SIA38 ..	38A	38A	36A
2 poles in series + 2 parallel 2H 	SIA16 ..	29A	29A	21A
	SIA25 ..	45A	41A	30A
	SIA32 ..	50A	43A	33A
	SIA38 ..	50A	45A	36A
4 poles in series 4S, 4B, 4T 	SIA16 ..	16A	16A	16A
	SIA25 ..	25A	25A	25A
	SIA32 ..	32A	32A	32A
	SIA38 ..	38A	38A	36A
4 poles in series + 2 parallel 4H 	SIME16 ..	16A	16A	16A
	SIME25 ..	25A	25A	25A
	SIME32 ..	50A	50A	50A
	SIME38 ..	50A	50A	50A

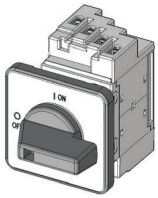
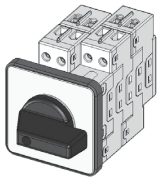
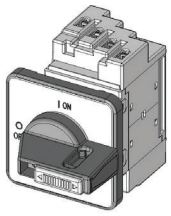
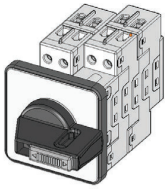
Data according to UL508I File E359344, Category no.: NMSJ, and UL60947-1 File E332938, Category no.: NRNT2,

Main Contacts	Type	SIA16/ SIME16	SIA25/ SIME25	SIA32/ SIME32	SIA38/ SIME38
Fuse size (RK5) Industrial Control Switch 5kA / 600V	A	40	60	80	80
Maximum cable cross sections	(including jumper SIMV-B1)				
solid	AWG	16 - 10	16 - 10	16 - 10	16 - 10
stranded	AWG	20 - 6	20 - 6	20 - 6	20 - 6
Size of terminal screw		M4 Pz1	M4 Pz1	M4 Pz1	M4 Pz1
Tightening torque	lb.inch	12.4	12.4	12.4	12.4

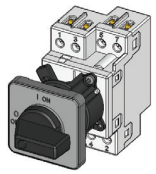
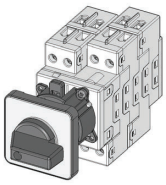
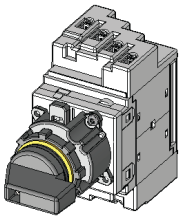
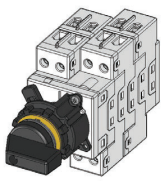
Technical Data

Mini DC-Isolators for Panel Mounting, 4 holes, Plate 64, IP66, Type 3R		DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
	SIA16 PM64 2	16A	10A	2	1	1	0,18
	SIA25 PM64 2	25A	11,5A	2	1	1	0,18
	SIA32 PM64 2	32A	13A	2	1	1	0,18
	SIA38 PM64 2	45A	29A	2	1	1	0,18
	SIA16 PM64 2H	29A	10A	2	1	1	0,24
	SIA25 PM64 2H	36A	11,5A	2	1	1	0,24
	SIA32 PM64 2H	50A	13A	2	1	1	0,24
	SIA38 PM64 2H	50A	29A	2	1	1	0,24
	SIA16 PM64 4	16A	10A	2	2	1	0,23
	SIA25 PM64 4	25A	11,5A	2	2	1	0,23
	SIA32 PM64 4	32A	13A	2	2	1	0,23
	SIA38 PM64 4	45A	29A	2	2	1	0,23
	SIA16 PM64 4T	16A	16A	4	1	1	0,25
	SIA25 PM64 4T	25A	25A	4	1	1	0,25
	SIA32 PM64 4T	32A	32A	4	1	1	0,25
	SIA38 PM64 4T	45A	45A	4	1	1	0,25
	SIA16 PM64 4B	16A	16A	4	1	1	0,25
	SIA25 PM64 4B	25A	25A	4	1	1	0,25
	SIA32 PM64 4B	32A	32A	4	1	1	0,25
	SIA38 PM64 4B	45A	45A	4	1	1	0,25
	SIME16 PM64 A6	16A	10A	2	3	1	0,50
	SIME25 PM64 A6	25A	11,5A	2	3	1	0,50
	SIME32 PM64 A6	32A	13A	2	3	1	0,50
	SIME38 PM64 A6	45A	20A	2	3	1	0,50
	SIME16 PM64 A8	16A	10A	2	4	1	0,52
	SIME25 PM64 A8	25A	11,5A	2	4	1	0,52
	SIME32 PM64 A8	32A	13A	2	4	1	0,52
	SIME38 PM64 A8	45A	20A	2	4	1	0,52
Lockable Mini DC-Isolators for Panel Mounting, 4 holes, Plate 64, IP66, Type 3R		DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
	SIA16 PM64R 2	16A	10A	2	1	1	0,19
	SIA25 PM64R 2	25A	11,5A	2	1	1	0,19
	SIA32 PM64R 2	32A	13A	2	1	1	0,19
	SIA38 PM64R 2	45A	29A	2	1	1	0,19
	SIA16 PM64R 2H	29A	10A	2	1	1	0,25
	SIA25 PM64R 2H	36A	11,5A	2	1	1	0,25
	SIA32 PM64R 2H	50A	13A	2	1	1	0,25
	SIA38 PM64R 2H	50A	29A	2	1	1	0,25
	SIA16 PM64R 4	16A	10A	2	2	1	0,24
	SIA25 PM64R 4	25A	11,5A	2	2	1	0,24
	SIA32 PM64R 4	32A	13A	2	2	1	0,24
	SIA38 PM64R 4	45A	29A	2	2	1	0,24
	SIA16 PM64R 4T	16A	16A	4	1	1	0,26
	SIA25 PM64R 4T	25A	25A	4	1	1	0,26
	SIA32 PM64R 4T	32A	32A	4	1	1	0,26
	SIA38 PM64R 4T	45A	45A	4	1	1	0,26
	SIA16 PM64R 4B	16A	16A	4	1	1	0,26
	SIA25 PM64R 4B	25A	25A	4	1	1	0,26
	SIA32 PM64R 4B	32A	32A	4	1	1	0,26
	SIA38 PM64R 4B	45A	45A	4	1	1	0,26
	SIME16 PM64R 6	16A	10A	2	3	1	0,51
	SIME25 PM64R 6	25A	11,5A	2	3	1	0,51
	SIME32 PM64R 6	32A	13A	2	3	1	0,51
	SIME38 PM64R 6	45A	20A	2	3	1	0,51
	SIME16 PM64R 8	16A	10A	2	4	1	0,53
	SIME25 PM64R 8	25A	11,5A	2	4	1	0,53
	SIME32 PM64R 8	32A	13A	2	4	1	0,53
	SIME38 PM64R 8	45A	20A	2	4	1	0,53

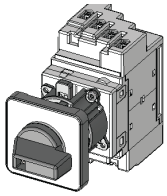
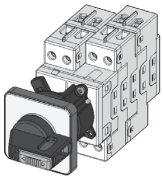
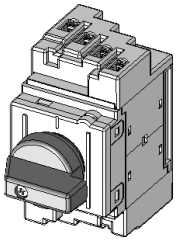
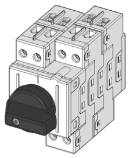
Technical Data

Mini DC-Isolators for Single Hole Mounting, 2 holes, Plate 64, IP66, Type		DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
	SIA16 PMT64 2	16A	10A	2	1	1	0,18
	SIA25 PMT64 2	25A	11,5A	2	1	1	0,18
	SIA32 PMT64 2	32A	13A	2	1	1	0,18
	SIA38 PMT64 2	45A	29A	2	1	1	0,18
	SIA16 PMT64 2H	29A	10A	2	1	1	0,24
	SIA25 PMT64 2H	36A	11,5A	2	1	1	0,24
	SIA32 PMT64 2H	50A	13A	2	1	1	0,24
	SIA38 PMT64 2H	50A	29A	2	1	1	0,24
	SIA16 PMT64 4	16A	10A	2	2	1	0,23
	SIA25 PMT64 4	25A	11,5A	2	2	1	0,23
	SIA32 PMT64 4	32A	13A	2	2	1	0,23
	SIA38 PMT64 4	45A	29A	2	2	1	0,23
	SIA16 PMT64 4T	16A	16A	4	1	1	0,25
	SIA25 PMT64 4T	25A	25A	4	1	1	0,25
	SIA32 PMT64 4T	32A	32A	4	1	1	0,25
	SIA38 PMT64 4T	45A	45A	4	1	1	0,25
	SIA16 PMT64 4B	16A	16A	4	1	1	0,25
	SIA25 PMT64 4B	25A	25A	4	1	1	0,25
	SIA32 PMT64 4B	32A	32A	4	1	1	0,25
	SIA38 PMT64 4B	45A	45A	4	1	1	0,25
	SIME16 PMT64 A6	16A	10A	2	3	1	0,50
	SIME25 PMT64 A6	25A	11,5A	2	3	1	0,50
	SIME32 PMT64 A6	32A	13A	2	3	1	0,50
	SIME38 PMT64 A6	45A	20A	2	3	1	0,50
	SIME16 PMT64 A8	16A	10A	2	4	1	0,52
	SIME25 PMT64 A8	25A	11,5A	2	4	1	0,52
	SIME32 PMT64 A8	32A	13A	2	4	1	0,52
	SIME38 PMT64 A8	45A	20A	2	4	1	0,52
Lockable Mini DC-Isolators for Panel Mounting, 4 holes, Plate 64, IP66, Type 3R		DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
	SIA16 PM64R 2	16A	10A	2	1	1	0,19
	SIA25 PM64R 2	25A	11,5A	2	1	1	0,19
	SIA32 PM64R 2	32A	13A	2	1	1	0,19
	SIA38 PM64R 2	45A	29A	2	1	1	0,19
	SIA16 PM64R 2H	29A	10A	2	1	1	0,25
	SIA25 PM64R 2H	36A	11,5A	2	1	1	0,25
	SIA32 PM64R 2H	50A	13A	2	1	1	0,25
	SIA38 PM64R 2H	50A	29A	2	1	1	0,25
	SIA16 PM64R 4	16A	10A	2	2	1	0,24
	SIA25 PM64R 4	25A	11,5A	2	2	1	0,24
	SIA32 PM64R 4	32A	13A	2	2	1	0,24
	SIA38 PM64R 4	45A	29A	2	2	1	0,24
	SIA16 PM64R 4T	16A	16A	4	1	1	0,26
	SIA25 PM64R 4T	25A	25A	4	1	1	0,26
	SIA32 PM64R 4T	32A	32A	4	1	1	0,26
	SIA38 PM64R 4T	45A	45A	4	1	1	0,26
	SIA16 PM64R 4B	16A	16A	4	1	1	0,26
	SIA25 PM64R 4B	25A	25A	4	1	1	0,26
	SIA32 PM64R 4B	32A	32A	4	1	1	0,26
	SIA38 PM64R 4B	45A	45A	4	1	1	0,26
	SIME16 PM64R 6	16A	10A	2	3	1	0,51
	SIME25 PM64R 6	25A	11,5A	2	3	1	0,51
	SIME32 PM64R 6	32A	13A	2	3	1	0,51
	SIME38 PM64R 6	45A	20A	2	3	1	0,51
	SIME16 PM64R 8	16A	10A	2	4	1	0,53
	SIME25 PM64R 8	25A	11,5A	2	4	1	0,53
	SIME32 PM64R 8	32A	13A	2	4	1	0,53
	SIME38 PM64R 8	45A	20A	2	4	1	0,53

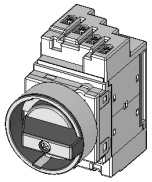
Technical Data

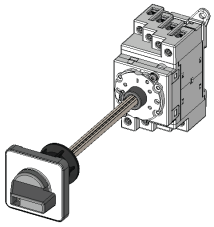
Mini DC-Isolators for Single Hole Mounting, Ø22,5mm, Plate 48, IP66, Type 4X		DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
	SIA16 SHM 2	16A	10A	2	1	1	0,17
	SIA25 SHM 2	25A	11,5A	2	1	1	0,17
	SIA32 SHM 2	32A	13A	2	1	1	0,17
	SIA38 SHM 2	45A	29A	2	1	1	0,17
	SIA16 SHM 2H	29A	10A	2	1	1	0,22
	SIA25 SHM 2H	36A	11,5A	2	1	1	0,22
	SIA32 SHM 2H	50A	13A	2	1	1	0,22
	SIA38 SHM 2H	50A	29A	2	1	1	0,22
	SIA16 SHM 4	16A	10A	2	2	1	0,21
	SIA25 SHM 4	25A	11,5A	2	2	1	0,21
	SIA32 SHM 4	32A	13A	2	2	1	0,21
	SIA38 SHM 4	45A	29A	2	2	1	0,21
	SIA16 SHM 4T	16A	16A	4	1	1	0,23
	SIA25 SHM 4T	25A	25A	4	1	1	0,23
	SIA32 SHM 4T	32A	32A	4	1	1	0,23
	SIA38 SHM 4T	45A	45A	4	1	1	0,23
	SIA16 SHM 4B	16A	16A	4	1	1	0,23
	SIA25 SHM 4B	25A	25A	4	1	1	0,23
	SIA32 SHM 4B	32A	32A	4	1	1	0,23
	SIA38 SHM 4B	45A	45A	4	1	1	0,23
	SIME16 SHM 6	16A	10A	2	3	1	0,50
	SIME25 SHM 6	25A	11,5A	2	3	1	0,50
	SIME32 SHM 6	32A	13A	2	3	1	0,50
	SIME38 SHM 6	45A	20A	2	3	1	0,50
	SIME16 SHM 8	16A	10A	2	4	1	0,52
	SIME25 SHM 8	25A	11,5A	2	4	1	0,52
	SIME32 SHM 8	32A	13A	2	4	1	0,52
	SIME38 SHM 8	45A	20A	2	4	1	0,52
Lockable Mini DC-Isolators for Panel Mounting, 4 holes, Plate 64, IP66, Type 3R		DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
	SIA16 SHMLN 2	1	10A	2	1	1	0,15
	SIA25 SHMLN 2	1	11,5A	2	1	1	0,15
	SIA32 SHMLN 2	1	13A	2	1	1	0,15
	SIA38 SHMLN 2	1	29A	2	1	1	0,15
	SIA16 SHMLN 2H	1	10A	2	1	1	0,19
	SIA25 SHMLN 2H	1	11,5A	2	1	1	0,19
	SIA32 SHMLN 2H	1	13A	2	1	1	0,19
	SIA38 SHMLN 2H	1	29A	2	1	1	0.19
	SIA16 SHMLN 4	1	10A	2	2	1	0,18
	SIA25 SHMLN 4	1	11,5A	2	2	1	0,18
	SIA32 SHMLN 4	1	13A	2	2	1	0,18
	SIA38 SHMLN 4	1	29A	2	2	1	0.18
	SIA16 SHMLN 4T	1	16A	4	1	1	0,19
	SIA25 SHMLN 4T	1	25A	4	1	1	0,19
	SIA32 SHMLN 4T	1	32A	4	1	1	0,19
	SIA38 SHMLN 4T	1	45A	4	1	1	0,19
	SIA16 SHMLN 4B	1	16A	4	1	1	0,19
	SIA25 SHMLN 4B	1	25A	4	1	1	0,19
	SIA32 SHMLN 4B	1	32A	4	1	1	0,19
	SIA38 SHMLN 4B	1	45A	4	1	1	0,19
	SIME16 SHMLN 6	1	10A	2	3	1	0,45
	SIME25 SHMLN 6	1	11,5A	2	3	1	0,45
	SIME32 SHMLN 6	1	13A	2	3	1	0,45
	SIME38 SHMLN 6	1	20A	2	3	1	0,45
	SIME16 SHMLN 8	1	10A	2	4	1	0,47
	SIME25 SHMLN 8	1	11,5A	2	4	1	0,47
	SIME32 SHMLN 8	1	13A	2	4	1	0,47
	SIME38 SHMLN 8	1	20A	2	4	1	0,47

Technical Data

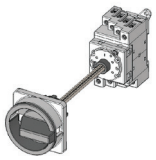
Mini DC-Isolators for Single Hole Mounting, 2 holes, Plate 64, IP66, Type		DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
	**SIA16 SHML 2**	16A	10A	2	1	1	0,17
	SIA25 SHML 2	25A	11,5A	2	1	1	0,17
	SIA32 SHML 2	32A	13A	2	1	1	0,17
	SIA38 SHML 2	45A	29A	2	1	1	0,17
	SIA16 SHML 2H	29A	10A	2	1	1	0,22
	SIA25 SHML 2H	36A	11,5A	2	1	1	0,22
	SIA32 SHML 2H	50A	13A	2	1	1	0,22
	SIA38 SHML 2H	50A	29A	2	1	1	0,22
	SIA16 SHML 4	16A	10A	2	2	1	0,21
	SIA25 SHML 4	25A	11,5A	2	2	1	0,21
	SIA32 SHML 4	32A	13A	2	2	1	0,21
	SIA38 SHML 4	45A	29A	2	2	1	0,21
	SIA16 SHML 4T	16A	16A	4	1	1	0,23
	SIA25 SHML 4T	25A	25A	4	1	1	0,23
	SIA32 SHML 4T	32A	32A	4	1	1	0,23
	SIA38 SHML 4T	45A	45A	4	1	1	0,23
	SIA16 SHML 4B	16A	16A	4	1	1	0,23
	SIA25 SHML 4B	25A	25A	4	1	1	0,23
	SIA32 SHML 4B	32A	32A	4	1	1	0,23
	SIA38 SHML 4B	45A	45A	4	1	1	0,23
	**SIME16 SHML 6**	16A	10A	2	3	1	0,50
	SIME25 SHML 6	25A	11,5A	2	3	1	0,50
	SIME32 SHML 6	32A	13A	2	3	1	0,50
	SIME38 SHML 6	45A	20A	2	3	1	0,50
	SIME16 SHML 8	16A	10A	2	4	1	0,52
	SIME25 SHML 8	25A	11,5A	2	4	1	0,52
	SIME32 SHML 8	32A	13A	2	4	1	0,52
	SIME38 SHML 8	45A	20A	2	4	1	0,52
Mini DC-Isolators for Single Hole Mounting, Ø16mm, without Plate, IP66, Type 4X		DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
	**SIA16 SHMS 2**	16A	10A	2	1	1	0,15
	SIA25 SHMS 2	25A	11,5A	2	1	1	0,15
	SIA32 SHMS 2	32A	13A	2	1	1	0,15
	SIA38 SHMS 2	45A	29A	2	1	1	0,15
	SIA16 SHMS 2H	29A	10A	2	1	1	0,19
	SIA25 SHMS 2H	36A	11,5A	2	1	1	0,19
	SIA32 SHMS 2H	50A	13A	2	1	1	0,19
	SIA38 SHMS 2H	50A	29A	2	1	1	0,19
	SIA16 SHMS 4	16A	10A	2	2	1	0,18
	SIA25 SHMS 4	25A	11,5A	2	2	1	0,18
	SIA32 SHMS 4	32A	13A	2	2	1	0,18
	SIA38 SHMS 4	45A	29A	2	2	1	0,18
	SIA16 SHMS 4T	16A	16A	4	1	1	0,19
	SIA25 SHMS 4T	25A	25A	4	1	1	0,19
	SIA32 SHMS 4T	32A	32A	4	1	1	0,19
	SIA38 SHMS 4T	45A	45A	4	1	1	0,19
	SIA16 SHMS 4B	16A	16A	4	1	1	0,19
	SIA25 SHMS 4B	25A	25A	4	1	1	0,19
	SIA32 SHMS 4B	32A	32A	4	1	1	0,19
	SIA38 SHMS 4B	45A	45A	4	1	1	0,19
	**SIME16 SHMS 6**	16A	10A	2	3	1	0,45
	SIME25 SHMS 6	25A	11,5A	2	3	1	0,45
	SIME32 SHMS 6	32A	13A	2	3	1	0,45
	SIME38 SHMS 6	45A	20A	2	3	1	0,45
	SIME16 SHMS 8	16A	10A	2	4	1	0,47
	SIME25 SHMS 8	25A	11,5A	2	4	1	0,47
	SIME32 SHMS 8	32A	13A	2	4	1	0,47
	SIME38 SHMS 8	45A	20A	2	4	1	0,47

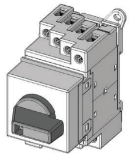
Technical Data

Lockable Mini DC-Isolators for Single Hole Mounting, Ø16mm, Plate 48, IP66, Type 4X		DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
	**SIA16 SHMSR 2**	16A	10A	2	1	1	0,19
	SIA25 SHMSR 2	25A	11,5A	2	1	1	0,19
	SIA32 SHMSR 2	32A	13A	2	1	1	0,19
	SIA38 SHMSR 2	45A	29A	2	1	1	0,19
	SIA16 SHMSR 2H	29A	10A	2	1	1	0,25
	SIA25 SHMSR 2H	36A	11,5A	2	1	1	0,25
	SIA32 SHMSR 2H	50A	13A	2	1	1	0,25
	SIA38 SHMSR 2H	50A	29A	2	1	1	0,25
	SIA16 SHMSR A4	16A	10A	2	2	1	0,24
	SIA25 SHMSR A4	25A	11,5A	2	2	1	0,24
	SIA32 SHMSR A4	32A	13A	2	2	1	0,24
	SIA38 SHMSR A4	45A	29A	2	2	1	0,24
	SIA16 SHMSR 4T	16A	16A	4	1	1	0,26
	SIA25 SHMSR 4T	25A	25A	4	1	1	0,26
	SIA32 SHMSR 4T	32A	32A	4	1	1	0,26
	SIA38 SHMSR 4T	45A	45A	4	1	1	0,26
	SIA16 SHMSR 4B	16A	16A	4	1	1	0,26
	SIA25 SHMSR 4B	25A	25A	4	1	1	0,26
	SIA32 SHMSR 4B	32A	32A	4	1	1	0,26
	SIA38 SHMSR 4B	45A	45A	4	1	1	0,26
	SIME16 SHMSR 6	16A	10A	2	3	1	0,51
	SIME25 SHMSR 6	25A	11,5A	2	3	1	0,51
	SIME32 SHMSR 6	32A	13A	2	3	1	0,51
	SIME38 SHMSR 6	45A	20A	2	3	1	0,51
	SIME16 SHMSR 8	16A	10A	2	4	1	0,53
	SIME25 SHMSR 8	25A	11,5A	2	4	1	0,53
	SIME32 SHMSR 8	32A	13A	2	4	1	0,53
	SIME38 SHMSR 8	45A	20A	2	4	1	0,53

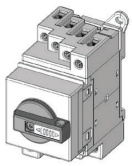
Mini DC-Isolators for Base Mounting, w. Door Clutch, Single Hole, Plate 64, IP66, Type 4X		DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
	**SIA16 BMDC64 2**	1	10A	2	1	1	0,20
	SIA25 BMDC64 2	1	11,5A	2	1	1	0,20
	SIA32 BMDC64 2	1	13A	2	1	1	0,20
	SIA38 BMDC64 2	1	29A	2	1	1	0,20
	SIA16 BMDC64 2H	1	10A	2	1	1	0,26
	SIA25 BMDC64 2H	1	11,5A	2	1	1	0,26
	SIA32 BMDC64 2H	1	13A	2	1	1	0,26
	SIA38 BMDC64 2H	1	29A	2	1	1	0,26
	SIA16 BMDC64 A4	1	10A	2	2	1	0,24
	SIA25 BMDC64 A4	1	11,5A	2	2	1	0,24
	SIA32 BMDC64 A4	1	13A	2	2	1	0,24
	SIA38 BMDC64 A4	1	29A	2	2	1	0,24
	SIA16 BMDC64 4T	1	16A	4	1	1	0,26
	SIA25 BMDC64 4T	1	25A	4	1	1	0,26
	SIA32 BMDC64 4T	1	32A	4	1	1	0,26
	SIA38 BMDC64 4T	1	45A	4	1	1	0,26
	SIA16 BMDC64 4B	1	16A	4	1	1	0,26
	SIA25 BMDC64 4B	1	25A	4	1	1	0,26
	SIA32 BMDC64 4B	1	32A	4	1	1	0,26
	SIA38 BMDC64 4B	1	45A	4	1	1	0,26
	SIME16 SHMLN 6	1	10A	2	3	1	0,26
	SIME25 SHMLN 6	1	11,5A	2	3	1	0,45
	SIME32 SHMLN 6	1	13A	2	3	1	0,45
	SIME38 SHMLN 6	1	20A	2	3	1	0,45
	SIME16 SHMLN 8	1	10A	2	4	1	0,47
	SIME25 SHMLN 8	1	11,5A	2	4	1	0,47
	SIME32 SHMLN 8	1	13A	2	4	1	0,47
	SIME38 SHMLN 8	1	20A	2	4	1	0,47

Technical Data

Lockable Mini DC-Isolators for Base Mounting, w. Door Clutch, Single Hole, Plate 64, IP66, Type 4X	DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
						
SIA16 BMDC64R 2	16A	10A	2	1	1	0,21
SIA25 BMDC64R 2	25A	11,5A	2	1	1	0,21
SIA32 BMDC64R 2	32A	13A	2	1	1	0,21
SIA38 BMDC64R 2	45A	29A	2	1	1	0,21
SIA16 BMDC64R 2H	29A	10A	2	1	1	0,27
SIA25 BMDC64R 2H	36A	11,5A	2	1	1	0,27
SIA32 BMDC64R 2H	50A	13A	2	1	1	0,27
SIA38 BMDC64R 2H	50A	29A	2	1	1	0,27
SIA16 BMDC64R 4	16A	10A	2	2	1	0,25
SIA25 BMDC64R 4	25A	11,5A	2	2	1	0,25
SIA32 BMDC64R 4	32A	13A	2	2	1	0,25
SIA38 BMDC64R 4	45A	29A	2	2	1	0,25
SIA16 BMDC64R 4T	16A	16A	4	1	1	0,27
SIA25 BMDC64R 4T	25A	25A	4	1	1	0,27
SIA32 BMDC64R 4T	32A	32A	4	1	1	0,27
SIA38 BMDC64R 4T	45A	45A	4	1	1	0,27
SIA16 BMDC64R 4B	16A	16A	4	1	1	0,27
SIA25 BMDC64R 4B	25A	25A	4	1	1	0,27
SIA32 BMDC64R 4B	32A	32A	4	1	1	0,27
SIA38 BMDC64R 4B	45A	45A	4	1	1	0,27
SIME16 SHML 6	16A	10A	2	3	1	0,50
SIME25 SHML 6	25A	11,5A	2	3	1	0,50
SIME32 SHML 6	32A	13A	2	3	1	0,50
SIME38 SHML 6	45A	20A	2	3	1	0,50
SIME16 SHML 8	16A	10A	2	4	1	0,52
SIME25 SHML 8	25A	11,5A	2	4	1	0,52
SIME32 SHML 8	32A	13A	2	4	1	0,52
SIME38 SHML 8	45A	20A	2	4	1	0,52

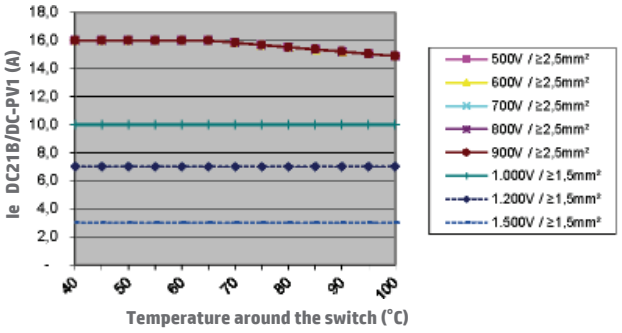
Mini DC-Isolators for Distribution Boards, IP40, Open Type	DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
						
SIA16 DB 2	16A	10A	2	1	1	0,18
SIA25 DB 2	25A	11,5A	2	1	1	0,18
SIA32 DB 2	32A	13A	2	1	1	0,18
SIA38 DB 2	45A	29A	2	1	1	0,18
SIA16 DB 2H	29A	10A	2	1	1	0,22
SIA25 DB 2H	36A	11,5A	2	1	1	0,22
SIA32 DB 2H	50A	13A	2	1	1	0,22
SIA38 DB 2H	50A	29A	2	1	1	0,22
SIA16 DB A4	16A	10A	2	2	1	0,20
SIA25 DB A4	25A	11,5A	2	2	1	0,20
SIA32 DB A4	32A	13A	2	2	1	0,20
SIA38 DB A4	45A	29A	2	2	1	0,20
SIA16 DB 4T	16A	16A	4	1	1	0,22
SIA25 DB 4T	25A	25A	4	1	1	0,22
SIA32 DB 4T	32A	32A	4	1	1	0,22
SIA38 DB 4T	45A	45A	4	1	1	0,22
SIA16 DB 4B	16A	16A	4	1	1	0,22
SIA25 DB 4B	25A	25A	4	1	1	0,22
SIA32 DB 4B	32A	32A	4	1	1	0,22
SIA38 DB 4B	45A	45A	4	1	1	0,22

Technical Data

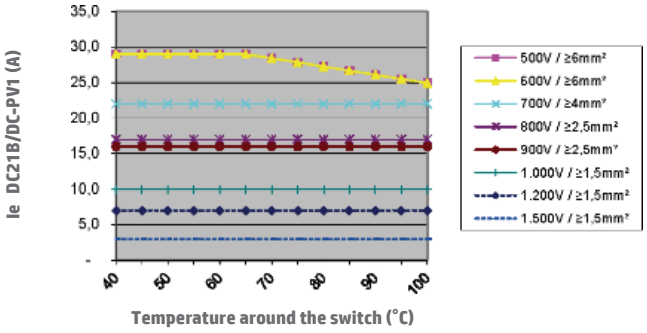
Lockable Mini DC-Isolators for Distribution Boards, IP40, Open Type	DC-PV1	(=DC21B) 1000V	Poles in Series	Strings	Pack pcs.	Weight kg/pce.
						
SIA16 DBL 2	16A	10A	2	1	1	0,18
SIA25 DBL 2	25A	11,5A	2	1	1	0,18
SIA32 DBL 2	32A	13A	2	1	1	0,18
SIA38 DBL 2	45A	29A	2	1	1	0,18
SIA16 DBL 2H	29A	10A	2	1	1	0,22
SIA25 DBL 2H	36A	11,5A	2	1	1	0,22
SIA32 DBL 2H	50A	13A	2	1	1	0,22
SIA38 DBL 2H	50A	29A	2	1	1	0.22
SIA16 DBL A4	16A	10A	2	2	1	0,20
SIA25 DBL A4	25A	11,5A	2	2	1	0,20
SIA32 DBL A4	32A	13A	2	2	1	0,20
SIA38 DBL A4	45A	29A	2	2	1	0,20
SIA16 DBL 4T	16A	16A	4	1	1	0,22
SIA25 DBL 4T	25A	25A	4	1	1	0,22
SIA32 DBL 4T	32A	32A	4	1	1	0,22
SIA38 DBL 4T	45A	45A	4	1	1	0,22
SIA16 DBL 4B	16A	16A	4	1	1	0,22
SIA25 DBL 4B	25A	25A	4	1	1	0,22
SIA32 DBL 4B	32A	32A	4	1	1	0,22
SIA38 DBL 4B	45A	45A	4	1	1	0,22

Derating Curves for SIA16

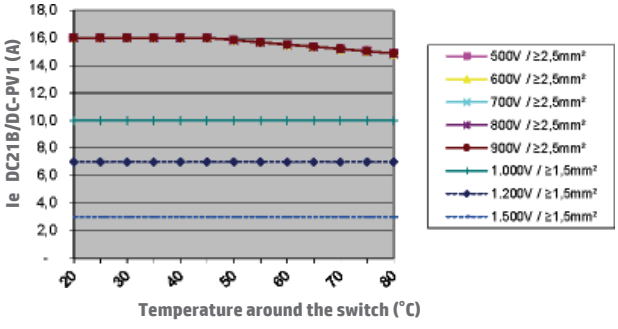
Switch open SIA16.., 2 contacts in series (2)



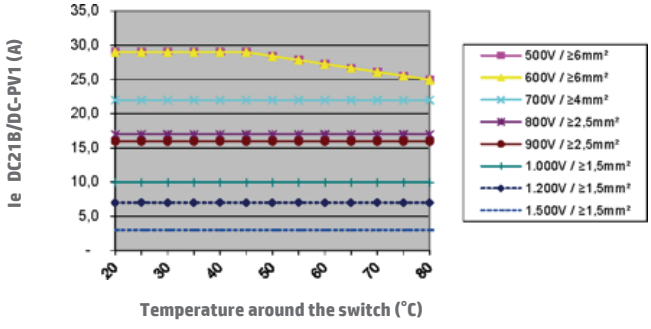
Switch open SIA16 .., 2 contacts in series + 2 parallel (2H)



Switch enclosed SIA16 PFL.., 2 contacts in series (2)



Switch enclosed SIA16 PFL.., 2 contacts in series + 2 parallel (2H)



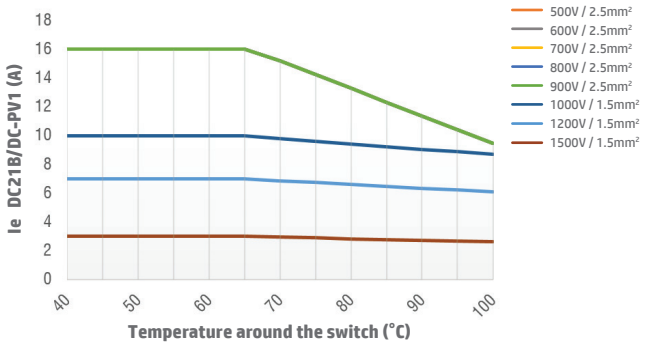
Technical Data continued

Data according to IEC 60947-3, VDE 0660, GB14048.3

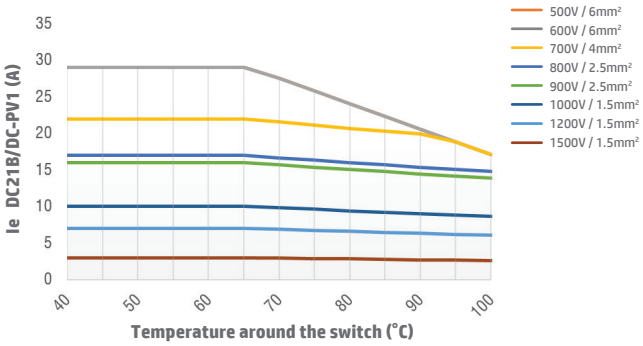
Main Contacts			Type	SIA16		SIA25		SIA32		SIA38	
Rated operational current I_e	300V	A	16	16	23	23	27	27	-	45
1 pole	400V	A	14	14	22	18	25	20	-	33
1	500V	A	10	10	17	12	20	14	-	15
DC-PV1	600V	A	7	5	12	6	15	8	-	9
	700V	A	5	1.5	6	2	7.5	3	-	6
DC-PV2	800V	A	3	1.5	4	2	5	3	-	5
	900V	A	3	1	3	1.5	4	2	-	4
	1000V	A	2	1	2	1.5	3	2	-	3
2 poles in series	500V	A	16	16	25	25	32	32	45	45
2	600V	A	16	14	25	21	32	27	45	45
	700V	A	16	13	25	19	32	22	45	40
	800V	A	16	12	20	15	23	17	45	30
	900V	A	16	8	17	10	20	12	39	20
	1000V	A	10	4	11.5	5	13	6	29	13
	1100V	A	8	3	10	4	-	-	-	-
	1200V	A	7	2	8.5	3	10	4	16	6
	1300V	A	6	1.5	7	2	-	-	-	-
	1400V	A	5	1	6	2	-	-	-	-
	1500V	A	3	1	5	1.5	6	2	7	3
2 poles in series	500V	A	29	25	45	39	50	50	50	50
+ 2 poles parallel	600V	A	29	20	36	32	50	35	50	50
2H	700V	A	22	13	27	19	32	22	50	40
	800V	A	17	12	20	15	23	17	47	30
	900V	A	16	8	17	10	20	12	39	20
	1000V	A	10	4	11.5	5	13	6	29	13
	1100V	A	8	3	10	4	-	-	-	-
	1200V	A	7	2	8.5	3	10	4	16	6
	1300V	A	6	1.5	7	2	-	-	-	-
	1400V	A	5	1	6	2	-	-	-	-
	1500V	A	3	1	5	1.5	6	2	7	3
4 poles in series	500V	A	16	16	25	25	32	32	45	45
4S, 4B, 4T	600V	A	16	16	25	25	32	32	45	45
	700V	A	16	16	25	25	32	32	45	45
	800V	A	16	16	25	25	32	32	45	45
	900V	A	16	16	25	25	32	32	45	45
	1000V	A	16	16	25	25	32	32	45	45
	1100V	A	16	16	25	25	-	-	-	-
	1200V	A	16	13.5	25	21	32	27	45	42
	1300V	A	16	12	25	19	-	-	-	-
	1400V	A	16	10.5	25	16	-	-	-	-
	1500V	A	16	9	25	14	32	18	45	28
4 poles in series + 2 parallel	500V	A	29	29	45	45	50	50	50	50
4H	600V	A	29	29	45	45	50	50	50	50
	700V	A	29	25	45	40	50	50	50	50
	800V	A	29	21	45	35	50	45	50	50
	900V	A	29	18	45	30	50	37	50	50
	1000V	A	29	16	45	25	50	32	50	50
	1100V	A	29	-	-	-	-	-	-	-
	1200V	A	29	13.5	33	21	50	27	50	27
	1300V	A	29	-	-	-	-	-	-	-
	1400V	A	29	-	-	-	-	-	-	-
	1500V	A	20	9	26	14	32	18	32	18

Derating Curves for SIM16

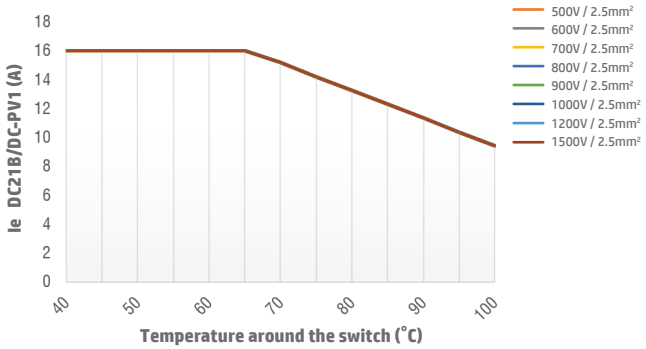
Switch SIME16 2 poles all types except PEL64R



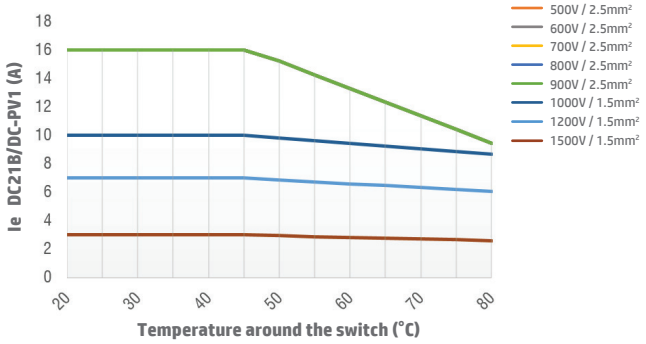
Switch SIME16 2H all types except PEL64R



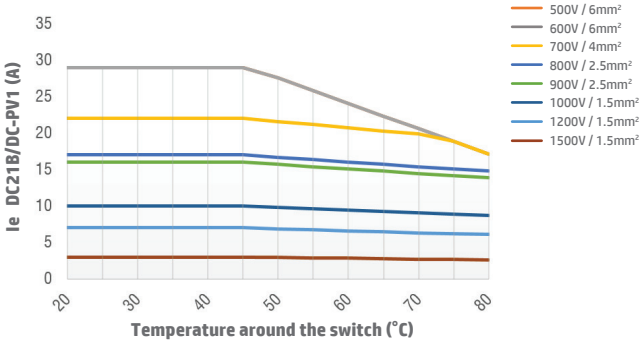
Switch SIME16 4S/4B/4T all types except PEL64R



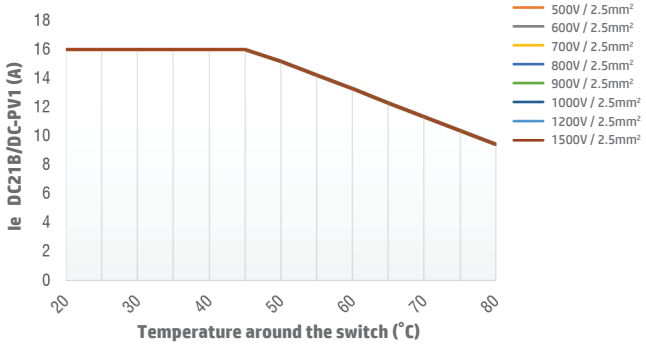
Switch SIME16 2 poles PEL64R type



Switch SIME16 2H PEL64R type

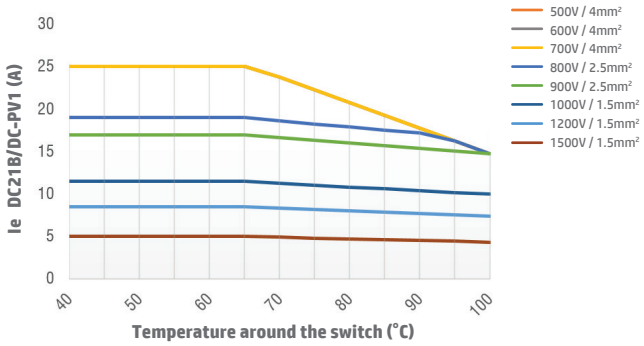


Switch SIME16 4S/4B/4T PEL64R type

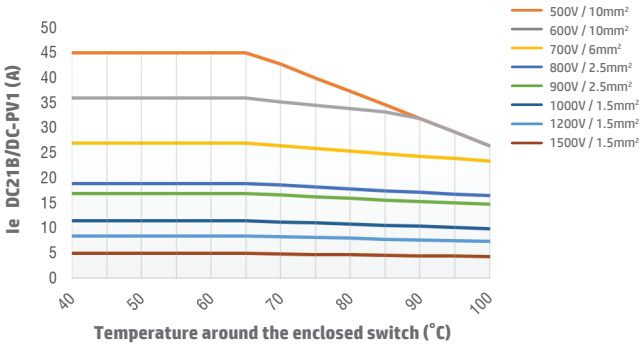


Derating Curves for SIM25

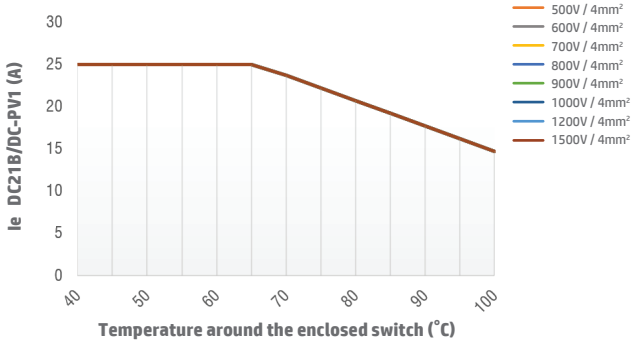
Switch SIME25 2 poles all types except PEL64R



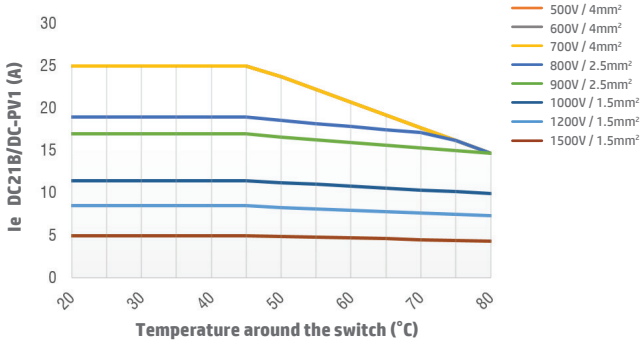
Switch SIME25 2H all types except PEL64R



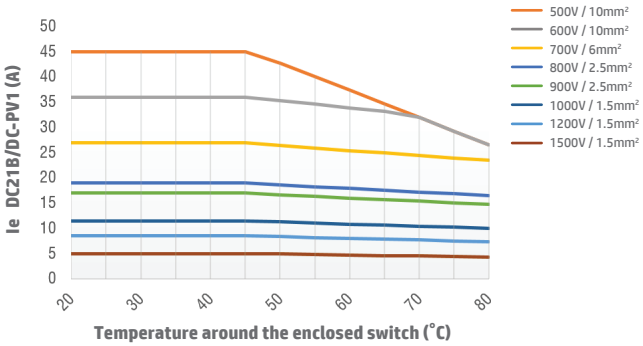
Switch SIME25 4S/4B/4T all types except PEL64R



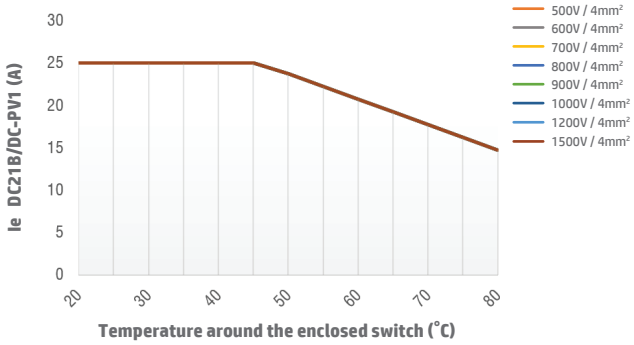
Switch SIME25 2 poles PEL64R type



Switch SIME25 2H PEL64R type



Switch SIM(E)25 4S/4B/4T PEL64R type

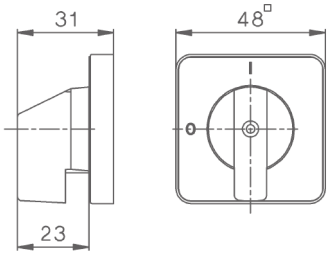


Note: SIM(E)32 & SIM(E)38 ratings available upon request

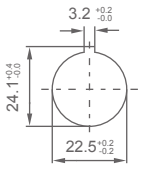
Handle Options

48 x 48 Lever Handle

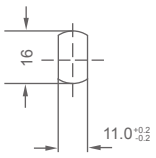
IP66 - NEMA 4X



Mounting Hole(s)



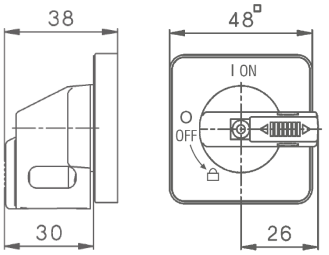
SHM Version

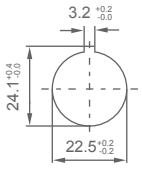


SHMS Version
(No escutcheon plate)

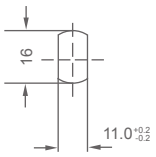
48 x 48 Lever Handle with Lockable OFF

IP66 - NEMA 4X





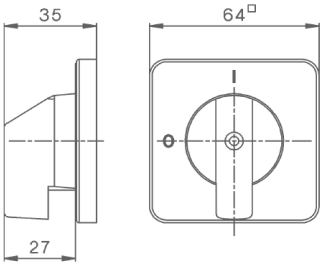
SHML Version

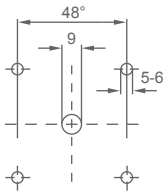


SHMSL Version
(No escutcheon plate)

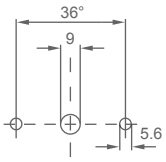
64 x 64 Lever Handle

IP66 - NEMA 3R





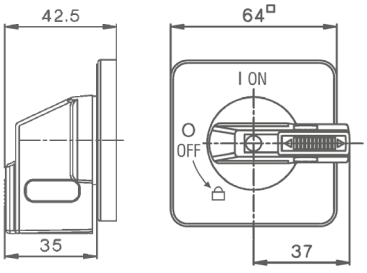
PM Version

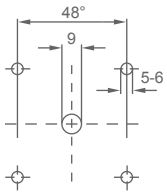


PMT Version

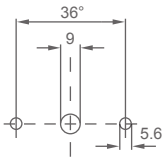
64 x 64 Lever Handle with Lockable OFF

IP66 - NEMA 3R





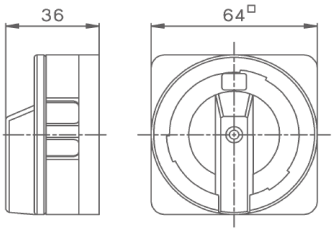
PM Version

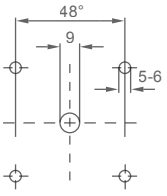


PMT Version

64 x 64 Rotary Handle with Lockable OFF

IP66 - NEMA 4X
(PEL64R version - IP67)

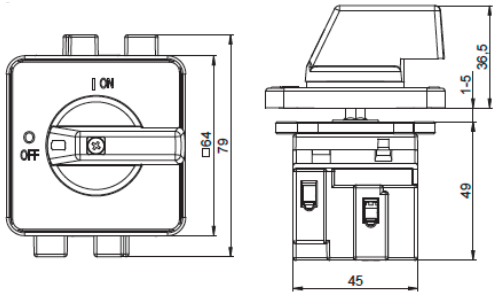




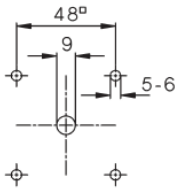
PM Version
Note: BMDC Version
only requires central hole

Dimensions (mm)

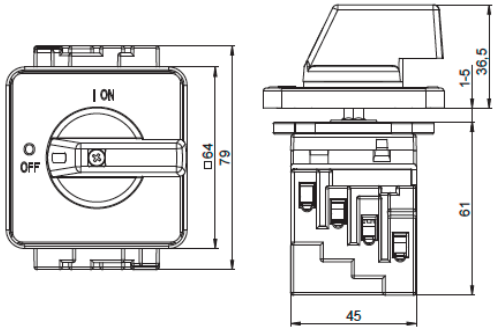
SIA-PM64-2**
Panel Mounting
64x64 Escutcheon Plate - 2 Pole

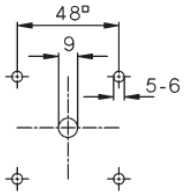


Mounting Hole

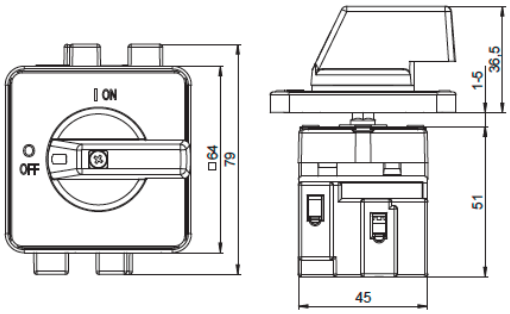


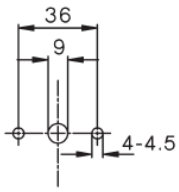
SIA-PM64-4 / SIM**-PM64-2H**
Panel Mounting
64x64 Escutcheon Plate - 4 Pole



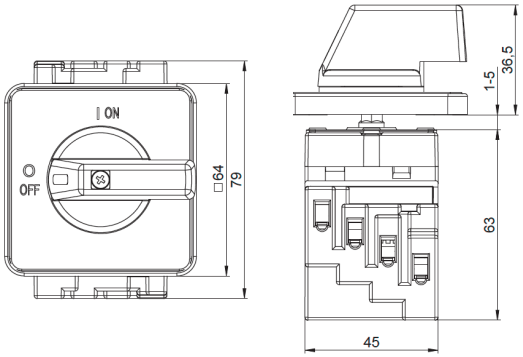


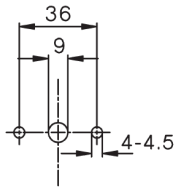
SIA-PMT64-2**
Panel Mounting
64x64 Escutcheon Plate - 2 Pole



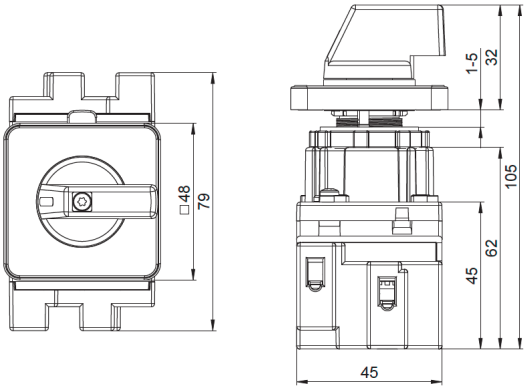


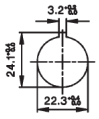
SIA-PMT64-4 / SIM**-PMT64-2H**
Panel Mounting
64x64 Escutcheon Plate - 4 Pole



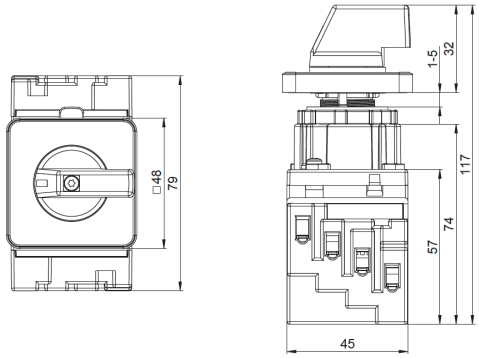


SIA-SHM-2**
Single Hole Mounting
Ø 22.5mm - 2 Pole

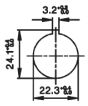




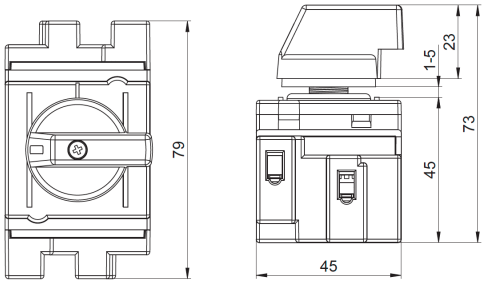
SIA-SHM-4 / SIM**-SHM-2H**
Single Hole Mounting
Ø 22.5mm - 4 Pole

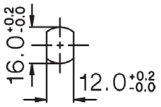


Mounting Hole

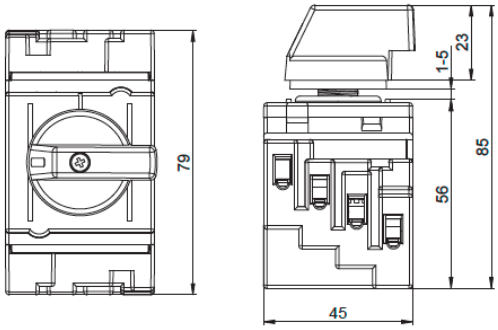


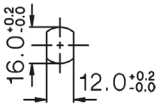
SIA-SHMS-2**
Single Hole Mounting
Ø 16mm - 2 Pole



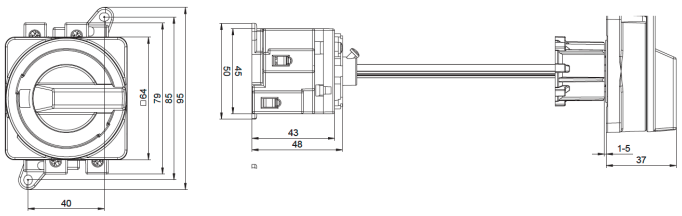


SIA-SHMS-4 / SIM**-SHMS-2H**
Single Hole Mounting
Ø 16mm - 4 Pole



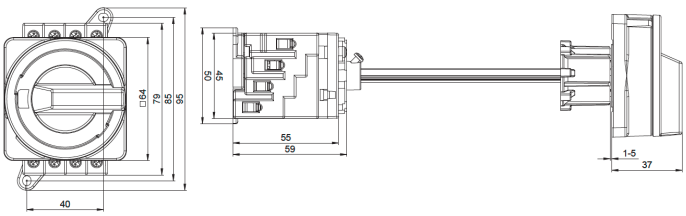


SIA-BMDC64R-2**
Base Mounting with door coupling
64x64 Escutcheon Plate - 2 Pole



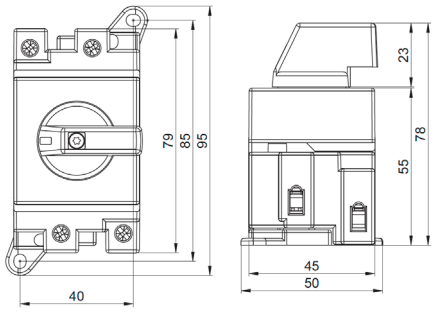
X_{max} = 182, L = 155,5
(X_{min} = 59,5)
L = X - 26,5±3

SIA-BMDC64R-4 / SIA**-BMDC64R-2H**
Base Mounting with door coupling
64x64 Escutcheon Plate - 4 Pole

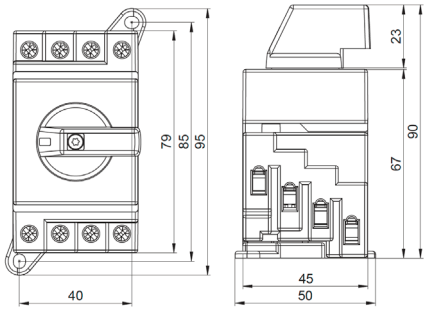


X_{max} = 194, L = 155,5
(X_{min} = 71,5)
L = X - 38,5±3

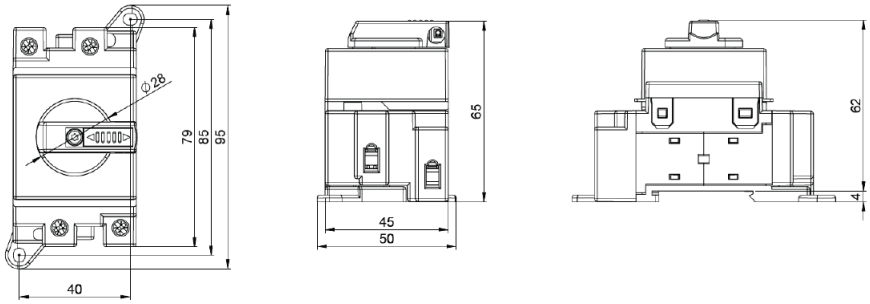
SIA-DB-2**
Modular Switch
2 Pole



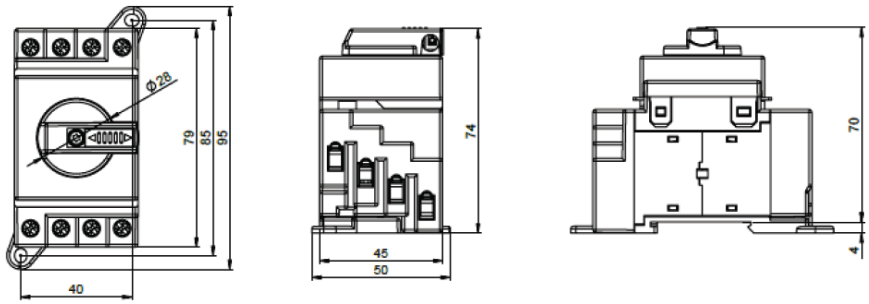
SIA-DB-4 / SIA**-DB-2H**
Modular Switch
4 Pole



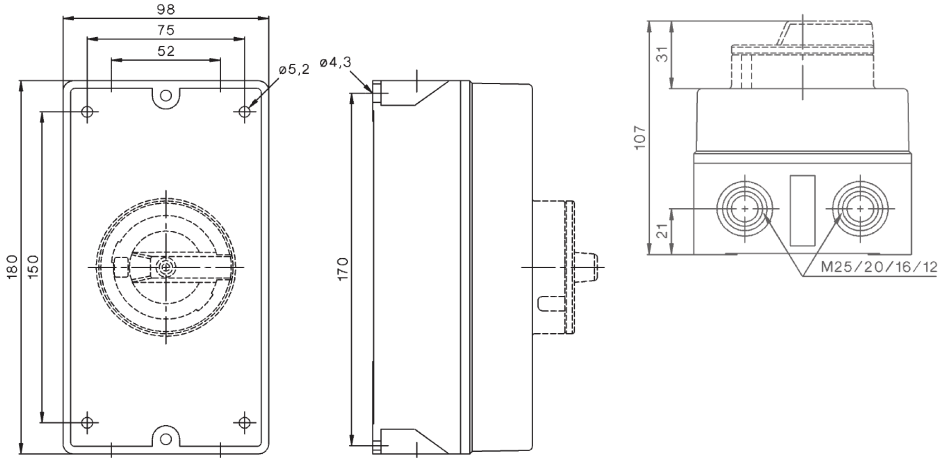
SIA-DBL-2**
Lockable Modular Switch
2 Pole



SIA-DBL-4 / SIA**-DBL-2H**
Lockable Modular Switch
4 Pole



SIA-PEL64R-***
Plastic Enclosure



DC Isolator Distribution/String Boxes

- 4 to 48 poles
- High thermal stability - ASA plastic
- Transparent door
- UV stabilized
- IP65 rating - Inside / Outside use
- Earth & neutral bars included
- Suitable for Photovoltaic applications
- Optional Key Lock (E-Lock)

Technical Data

Protection class	IP65	Temperature range	-25°C to 60°C
Isolation class	II ⧈	Colour	RAL 7035
Impact kit	IK07	IEC capability	60670-25

Type	Description	Number of terminals PE/N	Dimensions H x W x D (mm)
E-04W	4 Module Enclosure	4/4	201 x 128 x 120
E-06W	6 Module Enclosure	6/6	201 x 165 x 120
E-08W	8 Module Enclosure	8/8	201 x 202 x 120
E-12W	12 Module Enclosure	10/10	259 x 319 x 144
E-18W	18 Module Enclosure	13/13	259 x 428 x 144
E-24W	24 Module Enclosure	13/13	384 x 319 x 144
E-36W	36 Module Enclosure	15/15	534 x 319 x 144
E-48W	48 Module Enclosure	20/20	664 x 319 x 141

Type	Cable Entries
E-04W	4 x M20, 4 x M25/M32
E-06W	6 x M20, 4 x M25/M32
E-08W	8 x M20, 6 x M25 /M32
E-12W	12 x M20, 10 x M25/M32, 4 x M32/M40 2 x side knockout 90 x 37mm
E-18W	12 x M20, 10 x M25/M32, 4 x M32/M40 2 x side knockout 90 x 37mm
E-24W	12 x M20, 10 x M25/M32, 4 x M32/M40 4 x side knockout 90 x 37mm
E-36W	12 x M20, 10 x M25/M32, 4 x M32/M40 6 x side knockout 90 x 37mm
E-48W	12 x M20, 10 x M25/M32, 4 x M32/M40 6 x side knockout 90 x 37mm

String Box Selection Guide

		Maximum SI Isolator capacity (16A to 38A)				Maximum SI Isolator capacity (40A to 65A)				DC SPD
Type	Total Modules	2P	4P	6P	8P	2P	4P	6P	8P	4 Module
E-04W	4	1	1	0	0	1	1	0	0	1
E-06W	6	1	1	0	0	1	1	0	0	1
E-08W	8	2	2	1	1	2	2	0	0	2
E-12W	12	3	3	1	1	3	3	1	1	3
E-18W	18	5	5	2	2	4	4	2	2	4
E-24W	24	6	6	2	2	6	6	2	2	6
E-36W	36	9	9	3	3	9	9	3	3	9
E-48W	48	12	12	4	4	12	12	4	4	12

1. Due to the difference in frame size, isolators of frame size 1 (16A to 38A) and frame size 2 (40A to 65A) cannot be mounted on the same DIN rail.
2. DIN rail mounts must be reversed for suitable installation of isolators rated 40A to 65A due to increased depth.

Number of modules

Current Rating (A)	2 Pole SI Isolator	4 Pole SI Isolator	6 Pole SI Isolator	8 Pole SI Isolator
16 to 38	3.33	3.33	6.67	6.67
40 to 65	4.00	4.00	8.06	8.06
DC SPD	4.00			

Module width example: SI16-2P = 3.33 modules per 12 way slot.

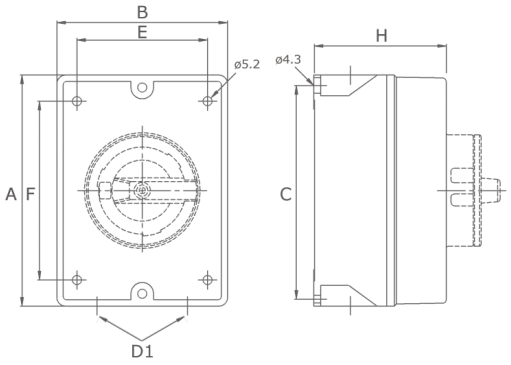
Enclosed AC Isolators - PE69

- 3, 4, 6 and 8 pole versions available
- On load 20A - 100A
- Red/Yellow
- 3 Padlock positions
- IP65
- IP66 taller enclosure available
- Aux. Contacts available

Part number	Number of poles	Rating @ 3~400V			
		AC21/Amps	AC3/kW	AC23/Amps	AC23/kW
PE69-3020	3	20	5.5	16	7.5
PE69-3025	3	25	7.5	20	10
PE69-3032	3	32	11	25	12.5
PE69-3040	3	40	15	32	16
PE69-3063	3	63	18.5	45	22
PE69-3080	3	80	18.5	45	22
PE69-30100	3	100	30	72	37
PE69-4020	4	20	5.5	16	7.5
PE69-4025	4	25	7.5	20	10
PE69-4032	4	32	11	25	12.5
PE69-4040	4	40	15	32	16
PE69-4063	4	63	18.5	45	22
PE69-4080	4	80	18.5	45	22
PE69-40100	4	100	30	72	37
PE69-6020	6	20	5.5	16	7.5
PE69-6025	6	25	7.5	20	10
PE69-6032	6	32	11	25	12.5
PE69-6060	6	40	15	32	16
PE69-6063	6	63	18.5	45	22
PE69-6080	6	80	18.5	45	22
PE69-8020	8	20	5.5	16	7.5
PE69-8025	8	25	7.5	20	10
PE69-8032	8	32	11	25	12.5
PE69-8080	8	40	15	32	16
PE69-8063	8	63	18.5	45	22
PE69-8080	8	80	18.5	45	22

Dimensions (mm)

Type	Pole	A	B	C	D1	E	F	H
PE69..20-40	3, 4	130	98	120	2x25.5/20,5	75	150	76
PE69..63-100	3, 4	200	140	188.5	40.5/32.5 +16.5	100	160	86
PE69..20-40	6	200	140	188.5	40.5/32.5 + 16.5	100	160	86
PE69..20-40	8	240	176	228.5	40.5/32.5	120	200	120
PE69..63-80	6, 8	240	176	228.5	40.5/32.5	120	200	120



IMO Worldwide Offices

IMO Precision Controls Limited
The Interchange
Frobisher Way
Hatfield, Herts AL10 9TG
United Kingdom

Tel: 01707 414 444

Email: imo@imopc.com
Web: www.imopc.com

IMO Jeambrun Automation SAS
Parc de la Broye
14 rue du Chaufour
59710 ENNEVELIN
France

Email: imo-fr@imopc.com
Web: www.imojeambrun.fr

IMO Automazione
Via Belfiore 10,
50144 Firenze (FI)
Italia

Tel: 800 930 872 (toll free)

Email: imo-it@imopc.com
Web: www.imopc.it

IMO Automation LLC
Suite 112,
5910 Shiloh Road East
Alpharetta, GA 30005
USA

Tel: 404 476 8810

Email: sales-na@imopc.com
Web: www.imoautomation.com

IMO Canada
1B-701 Rossland Road East
Suite #608
Whitby, Ontario L1N 9K3
Canada

Tel: 416 639 0709

Email: sales-ca@imopc.com
Web: www.imopc.com

IMO South Africa (Pty) Ltd
Unit 5 Osdam Business Park
Columbus Crescent, Rivergate
Parklands, Cape Town 7441
South Africa

Tel: 021 551 1787
Fax: 021 555 0676
Email: info@imopc.co.za
Web: www.imopc.co.za

IMO Pacific Pty Ltd
Unit 9, Dillington Pass
Landsdale
Perth WA 6065
Australia

Tel: 1300 34 21 31

Email: sales@imopacific.com.au
Web: www.imopacific.com.au

nqa ISO 9001 QUALITY MANAGEMENT
UKAS MANAGEMENT SYSTEMS 0015

LinkedIn
Connect with us and follow IMO Precision Controls for the latest news, views and reviews

QR CODE SCAN ME

CAT-SOLAR-RANGE-1025v21