

ISOLATORS-PH Series

PHOTOVOLTAIC/DC SWITCH DISCONNECTORS THERMOPLASTIC INSULATED ENCLOSURE 10A-40A (800V DC)



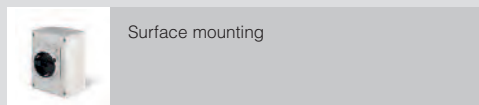
REFERENCE STANDARDS

EN 60947-3
Low voltage switchgear and controlgear.
Part 3: switches, disconnectors, switch-disconnectors and fuse-combination unit.

IEC 60364-7-712
Requirements for special installations or locations
Solar photovoltaic (RV) power supply systems.

EN 60529
Degrees of protection provided by enclosure.

VERSIONS



Scame embraces completely the renewable energy sources philosophy and the respect for the environment.

In our production plant and office building we have installed 250kWp of photovoltaic system. We follow up this field in several countries with a wide range of products.

From our experience is born the new range of DC Isolators specific for photovoltaic systems.

In according to the IEC 60364-7-712, in every photovoltaic installation it is necessary to isolate the photovoltaic panel from the rest of the system, DC Isolators must have a higher performance than the traditional AC Isolators because breaking direct current is more difficult than breaking alternating current, and furthermore in a photovoltaic system the voltage can reach even 800V.

The current and voltage values changes depending on the combination of the photovoltaic cells. DC Isolator range has been set up focusing on all of the main photovoltaic installations in order to get a range as essential as possible, simplify the choice of the customer and for have the maximum quality and technical characteristics. In the meantime we are improving and

TECHNICAL CHARACTERISTICS

Poles in series:	3P-4P-5P-6P-8P
Rated current (800V):	10A-15A-20A-25A-30A-40A
Protection degree:	IP65
Operating ambient temperature according to the reference standard:	-5°C +40°C
Min-Max. operating ambient temperature:	-25°C +60°C
IK degree:	IK08
Material:	Thermoplastic
Insulation class:	Class II (double insulation) ☑
Glow wire test:	650°C (enclosure) 850°C (switch)

up grading constantly our products, following and anticipating the change that the market requires due to the incentives available. Scame ISOLATORS Series includes also a complete range of AC Isolators, essential to make a photovoltaic system in compliance with IEC 60364-7-712. Finally in the photovoltaic range it is available a huge range of water tight cabinets and consumer unit suitable for make distribution board & export control.

BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	Rayons UV
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited Resistance	Resistant	Resistant	Resistant	Not Resistant	Not Resistant	Not Resistant	Limited Resistance	Limited Resistance	Resistant

CABLE INLETS

Photovoltaic/DC switch disconnectors thermoplastic insulated enclosure 3 and 4 poles

Size	Rated current (A)	Rated voltage (V)	Nr of poles in series	Enclosure dimensions	Cable entries		
1	16	450V	4	150x105x82	Top	1xM20+1xM25	Knock-outs
					Bottom	1xM20+1xM25	Knock-outs
					Rear	1xM20+1xM25	Knock-outs
2	15-20	800V	3-4-5	150x105x100	Top	-	Blank side (*)
					Bottom	-	Blank side (*)
					Rear	-	Blank side (*)
					Right	M25	Knock-out
					Left	M25	Knock-out
3	25-30	800V	6-8	210x155x107	Top	2xM32	Knock-outs
					Bottom	2xM32	Knock-outs
					Rear	-	Blank side (*)
4	40	800V	8	308x228x128	Top	-	Blank side (*)
					Bottom	-	Blank side (*)

(*) Perforated or threaded entries on request.

APPLICATION EXAMPLES



■ TECHNICAL DATA DC SWITCH DISCONNECTORS FOR PHOTOVOLTAIC DC APPLICATION

		16A	15A	20A	25A	30A	40A		
Rated insulation voltage	Ui	VAC	690	1500	1500	1500	1500		
Rated impulse withstand voltage	Uimp	kV	4	8	8	8	8		
Thermal current	Ith/Ithe	A	30	63	63	63	125		
Rated operational current – Ie	DC21A Resistive loads, including moderate overloads	300V	A	32	-	-	-	-	
		400V	A	-	30	35	40	60	80
		450V	A	16	-	-	-	-	-
		500V	A	-	30	35	40	45	65
		600V	A	-	20	25	40	40	60
		750V	A	-	15	20	25	30	40
		800V	A	-	15	20	25	30	40
Rated short time withstand current	Icw (1s)	A	400	1100	1100	1100	1100	3000	
Flexible wire		mm ²	1.5-10	16	16	16	16	70	
Rigid wire		mm ²	1.5-10	16	16	35	16	70	

■ POSSIBLE CONTACT WIRINGS

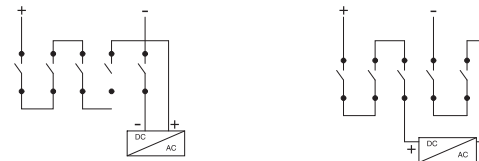
SWITCH LINKING

In order to make easier the work of the installer, it is possible to choose the manner of wiring of the poles in series. In this way the incoming and the outgoing can be varied both on the top side and on the bottom side. In the packaging jumpers are supplied to cover the chosen configuration.

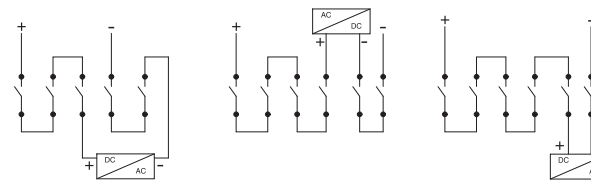
590.DCGE0815 - (4 POLES IN SERIES) - 3 JUMPERS SUPPLIED



590.DCGE0820 - (5 POLES IN SERIES) - 4 JUMPERS SUPPLIED



590.DCGE0825 - (6 POLES IN SERIES) - 5 JUMPERS SUPPLIED



590.DCGE0830 - (8 POLES IN SERIES) - 8 JUMPERS SUPPLIED

