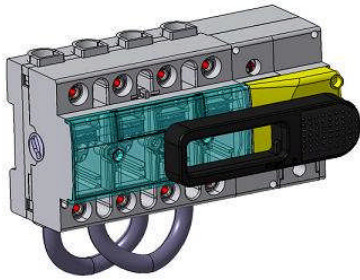


**Vistop 32, 63 and 125 A 1000 V DC  
isolating switches**

Catalogue number(s) : 4 142 81/82/83



4 142 81/82/83

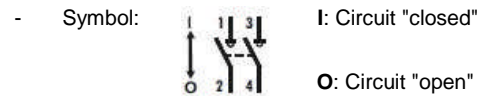
CONTENTS	PAGES
1. General characteristics .....	1
2. Dimensions .....	1
3. Setup .....	2
4. Conformity .....	2
5. Technical characteristics .....	2
6. Accessories .....	3

**1. GENERAL CHARACTERISTICS**

**1.1 Description – Usage**

- Safety isolating switches with visible load breaking and positive contact operation. Double break on each pole by self-cleaning snap-action make/break contacts.
  - Isolation of electrical circuits from the DC supply.
- This isolating switch is suitable for photovoltaic applications.

**Technology:** 2-pole (+/-), in series, connected by a shunt cable

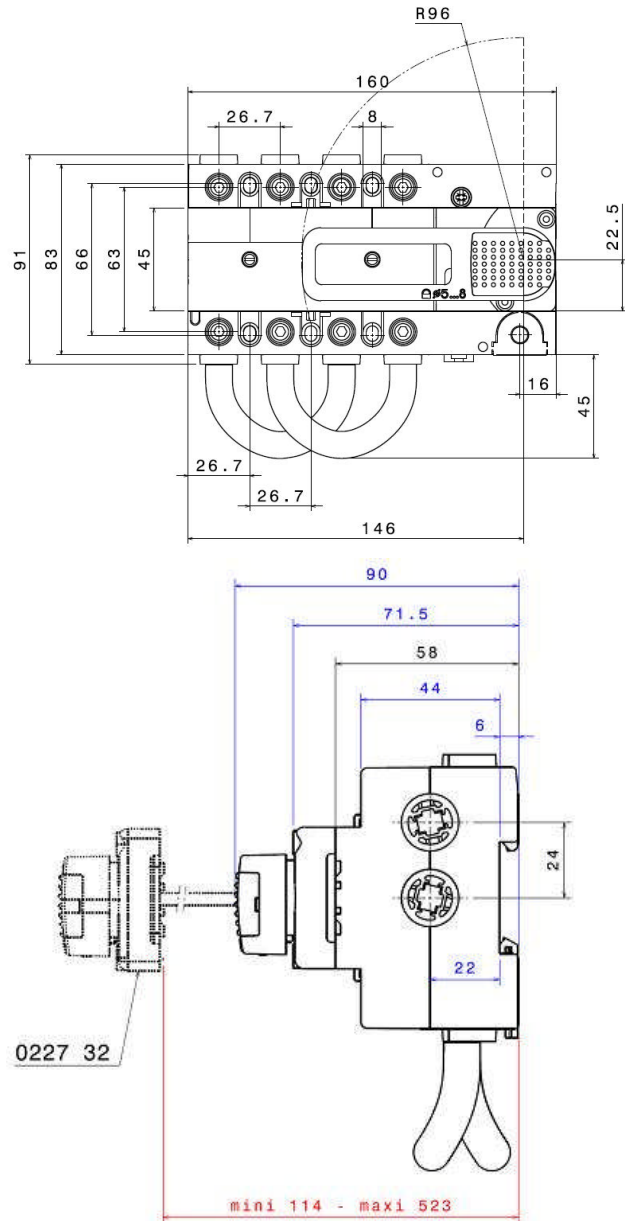


**1.2 Range**

	4 142 81	4 142 82	4 142 83
<b>Nominal current (In)</b>	32 A	63 A	125 A
<b>Nominal voltage (Un)</b>	1000 V DC	1000 V DC	1000 V DC
<b>Number of 17.5 mm modules</b>	9	9	9

- Black front handle, direct or external (with faceplate) with Cat. No. 227 32, to be ordered separately
- Label holder for identification
- Screw fixing or rail mounting on EN/IEC 60715 or DIN 35 symmetrical rail by bistable claws (lockable)
- Connection via cage terminals with screws tightened by Allen key (32 to 125 A)
- Option to add an auxiliary 2-pole 16 A isolating switch and 1 or 2 NC + NO auxiliary contacts (for AC only)

**2. DIMENSIONS**

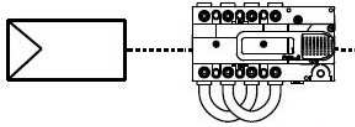


### 3. SETUP

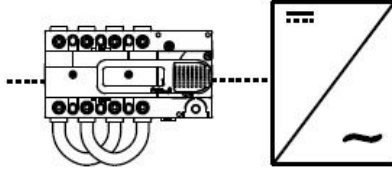
#### 3.1 Positioning

Position in the installation:

a) Near the panels:

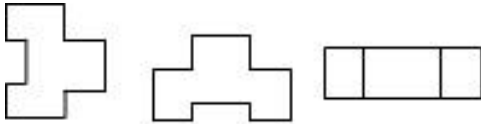


b) Near the inverter:



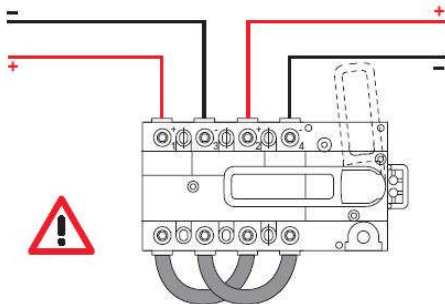
Positioning for operation:

. Vertical, horizontal or on its side:

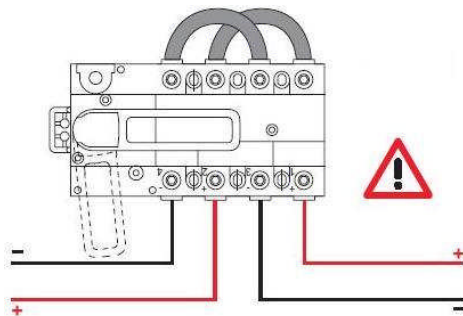


Power supply:

. From the top



. From the bottom



#### 3.2 Connection – Recommendations

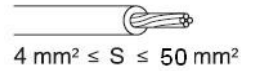
- Connection via cage terminals with screws tightened by 4 mm Allen key (32 to 125 A DC)

. Recommended stripped length: 18 mm

. Recommended tightening torque: 6 Nm

#### 3.2 Connection – Recommendations (continued)

. Permissible cross-sections (S):



. Conductor material:

Copper only

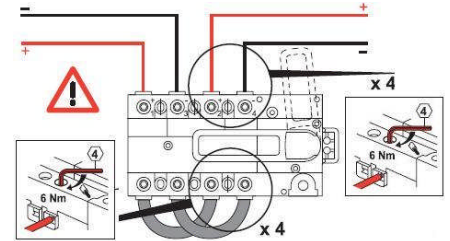


. Use of ferrules recommended for flexible cables.

. Recommendation :

Check cable clamps  
Order by diagram  
Against.

Torque: 6 Nm.



#### 3.3 Enclosures – Recommendations:

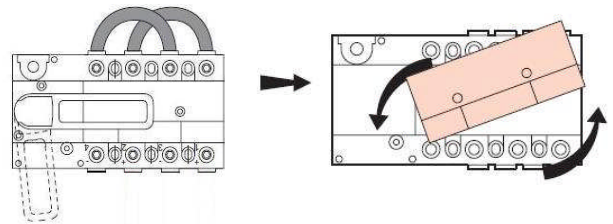
. For photovoltaic applications, mount in enclosures approved for use up to 1000 V DC.

**Restriction:**

. Do not mount in Plexo<sup>3</sup> enclosures with 1 row of 12 or 18 modules.

**Recommendations**

. For Plexo<sup>3</sup> enclosures with 2 or more rows, switches can be mounted in the first row by turning the switch round and feeding the power supply in at the bottom (see § 3.1). In this case, turn around the transparent cover plate using the 2 screws as shown in the diagram below.



### 4. CONFORMITY

#### 4. CONFORMITY WITH STANDARDS

. Reference standards: EN 60947-3 and IEC/EN 60947-3

. Low Voltage Directive: 2006/95/EC

. Legrand isolating switches can be used in the operating conditions defined in standard IEC/EN 60947.

. The following climatic conditions can affect the performance of the isolating switches: Hot and dry; Cold and dry; Hot and humid; Salt spray.

### 5. TECHNICAL CHARACTERISTICS

#### 5.1 Materials

. Casing: Polyamide 960°C

. Indicator lamp: Polycarbonate 750°C

#### 5.2 Ambient temperatures

. Storage: -30°C to +70°C

. Operation: -25°C to +70°C

## 5. TECHNICAL CHARACTERISTICS (continued)

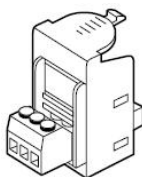
### 5-3 Summary table

Cat. No.	4 142 81	4 142 82	4 142 83
Rated current (Ie)	32 A	63 A	125 A
Operating voltage (Ue)	1000 V DC		
Insulation voltage (Ui)	1000 V min.		
Rated short-time current (1s) (Icw)	500 A	800 A	1500 A
Rated short-circuit capacity (Icm)	500 A	800 A	1500 A
Utilization category	DC -21B (1)		
Protection index	IP 2x B (IP 3x C under faceplate)		
Degree of pollution	2		
Protection against direct and indirect contact	Class II in enclosure or behind screen		
Terminals	Cage type		
Connection	Flexible copper with cable ends or rigid copper, 4 to 50 mm <sup>2</sup>		

(1) DC - 21B: Infrequent switching operations with on-load opening (isolation) on DC supply.

## 6. ACCESSORIES

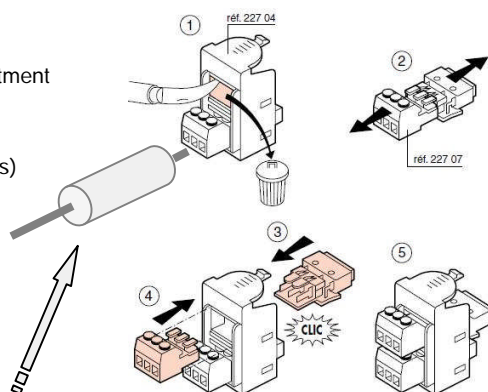
### . 0227 04 NC + NO contact



### . 0227 07 Additional NC + NO auxiliary contact

To be added to 0227 04 to obtain 2NC + 2NO

(Class II treatment with DC and other voltages)



**Note:** For 0227 04 & 0227 07, ensure that AC cables are routed in an insulated conduit (ICT sleeve) or that double insulated cable is used.

Associated technical data sheets are available.

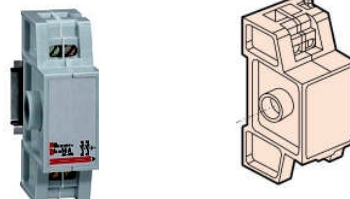
### . 0227 98 Set of two separable sealable terminal shields



## 6. ACCESSORIES (continued)

### . 0227 22 Auxiliary 2-pole 16 A 400V isolating switch

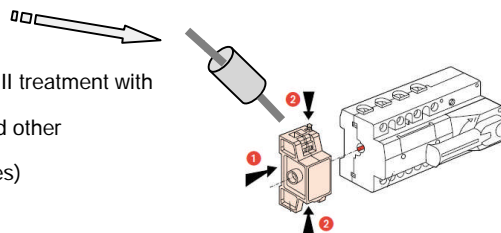
Cage terminals



Width: 1.5 modules. To create a 4-pole 32, 63, 125 A unit and 2-pole unit in 16 A 400 V on an AC or (if  $U < 48V$  DC) DC supply.

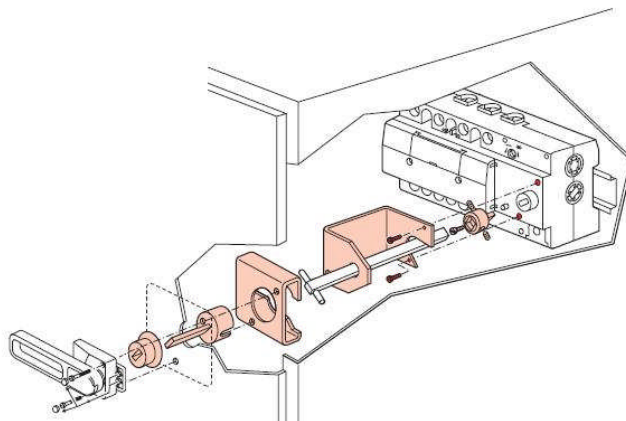
Note: To ensure class II treatment, make sure that AC cables are routed in an insulated conduit (e.g. ICT sleeve) or that double insulated cable is used.

(Class II treatment with DC and other voltages)



### . 0227 32 External front handle

Kit comprising: Connecting rod; Bracket; Self-adhesive drilling template; Fixing accessories with IP55 seal; Locking device preventing door opening with a closed circuit. Distance between door and Vistop switch: 35 to 470 mm.



### . 0227 97 Padlock supplied with 2 keys

Shackle  $\varnothing$  6 mm

(Combination of different keys for each padlock)

