# CERTIFICATE OF COMPLIANCE 

Certificate Number 20160309 - E346418<br>Report Reference E346418-20130829<br>Issue Date 2016-MARCH-09<br>Issued to: SOCOMEC S A<br>1 RTE DE WESTHOUSE<br>BOITE POSTALE 10<br>67235 BENFELD CEDEX, FRANCE FRANCE

| This is to certify that | SWITCHES, OPEN TYPE FOR USE IN PHOTOVOLTAIC |
| ---: | :--- |
| representative samples of | SYSTEMS |
|  | See Addendum Page |

See Addendum Page

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 98, "Enclosed and Dead-Front Switches Outline of Investigation for Open Type Switches," UL Subject 98A, "Outline of Investigation for Open-Type Switches," and UL Subject 98B, "Outline of Investigation for Enclosed and Dead-Front Switches for Use in Photovoltaic Systems."
Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

## Product Covered:

USL - Open type switches, manual for use in photovoltaic systems, Cat. Nos. 27PV1026, 27DC1026, 27PV2027, 27DC2027, 27PV2032, 27DC2032, 27PV2039, 27DC2039, 27PV3026, 27DC3026, 27PV3032, 27DC3032, 27PV3039, 27DC3039, 27PV4026, 27DC4026, 27PV4032, 27DC4032, 27PV4039, 27DC4039, 27PV6026, 27DC6026, 27PV6032, 27DC6032, 27PV6039, 27DC6039, 27PV8026, 27DC8026, 27PV8032, 27DC8032, 27PV8039, 27DC8039, 27PV2028, 27DC2028, 27PV2033, 27DC2033, 27PV2042, 27DC2042, 27PV3027, 27DC3027, 27PV3033, 27DC3033, 27PV3042, 27DC3042, 27PV4027, 27DC4027, 27PV4033, 27DC4033, 27PV4042, 27DC4042, 27PV2050, 27PV2065, 27PV5050, 27PV5065.

USL - Open type switches, Motorized for use in photovoltaic systems, Cat. Nos. 27DC2M28, 27DC2M33, 27DC2M42, 27PV2M28, 27PV2M33, 27PV2M42, 27DC3M27, 27DC3M33, 27DC3M42, 27PV3M27, 27PV3M33, 27PV3M42, 27DC4M27, 27DC4M33, 27DC4M42, 27PV4M27, 27PV4M33, 27PV4M42.

## Ratings:

OPEN TYPE SWITCHES, MANUAL FOR USE IN PHOTOVOLTAIC SYSTEMS

| Model | Current of General use, A | Voltage, DC | Number of Switch Poles | Number of Poles Used in Series | Number of Circuits | Short Circuit Rating, kA | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 27PV1026 } \\ & \text { 27DC1026 } \end{aligned}$ | 215 | 600 | 1 | 1 | 1 | 10 |  |
| 27PV2027 | 215 | 600 | 2 | 1 | 2 | 10 |  |
| 27DC2027 | 275 | 1000 |  | 2 | 1 | 10 |  |
| $\begin{aligned} & \text { 27PV2028 } \\ & \text { 27DC2028 } \end{aligned}$ |  |  |  |  |  |  |  |
| 27PV2032 | 215 | 600 |  | 1 | 2 | 10 |  |
| $\begin{aligned} & \text { 27DC2032 } \\ & \text { 27PV2033 } \end{aligned}$ | 325 | 1000 |  | 2 | 1 | 10 |  |
| $\frac{\text { 27DC2033 }}{27 P V 2039}$ |  |  |  |  |  |  |  |
|  | 215 | 600 |  | 1 | 2 | 10 |  |
| 27DC2039 |  |  |  |  |  |  |  |
| 27PV2042 27DC2042 | 400 | 1000 |  | 2 | 1 | 10 |  |

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PEN TYPE SWITCHES, MANUAL FOR USE IN PHOTOVOLTAIC SYSTEMS (Cont.)

| Model | Current of General use, A | Voltage, DC | Number of Switch Poles | Number of Poles Used in Series | Number of Circuits | Short Circuit Rating, kA | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27PV3026 | 215 | 600 | 3 | 1 | 3 | 10 |  |
| $\begin{aligned} & \text { 27DC3026 } \\ & \text { 27DC3027 } \end{aligned}$ | 275 | 1000 |  | 3 | 1 | 10 | Optional characteristics |
| 27PV3027 | 275 | 1500 |  | 3 | 1 | 10 |  |
| $\begin{aligned} & \hline \text { 27PV3032 } \\ & \text { 27DC3032 } \\ & \text { 27PV3033 } \\ & \text { 27DC3033 } \end{aligned}$ | 215 | 600 |  | 1 | 3 | 10 |  |
|  | 325 | 1000 |  | 3 | 1 | 10 | Optional characteristics |
|  | 325 | 1500 |  | 3 | 1 | 10 |  |
| 27PV303927DC303927PV304227DC3042 | 215 | 600 |  | 1 | 3 | 10 |  |
|  | 400 | 1000 |  | 3 | 1 | 10 | Optional characteristics |
|  | 400 | 1500 |  | 3 | 1 | 10 |  |
| $\begin{aligned} & \text { 27PV4026 } \\ & \text { 27DC4026 } \\ & \text { 27PV4027 } \\ & \text { 27DC4027 } \end{aligned}$ | 215 | 600 | 4 | 1 | 4 | 10 |  |
|  | 275 | 1000 |  | 2 | 2 | 10 | Optional characteristics |
|  | 275 | 1500 |  | 3 or 4 | 1 | 10 | For ungrounded systems, uses 4 poles in series |
| 27DC403227PV403227PV403327DC4033 | 215 | 600 |  | 1 | 4 | 10 |  |
|  | 325 | 1000 |  | 2 | 2 | 10 | Optional characteristics |
|  | 325 | 1500 |  | 3 or 4 | 1 | 10 | For ungrounded systems, uses 4 poles in series |
| $\begin{aligned} & \text { 27PV4039 } \\ & \text { 27DC4039 } \\ & \text { 27PV4042 } \\ & \text { 27DC4042 } \end{aligned}$ | 215 | 600 |  | 1 | 4 | 10 |  |
|  | 400 | 1000 |  | 2 | 2 | 10 | Optional characteristics |
|  | 400 | 1500 |  | 3 or 4 | 1 | 10 | For ungrounded systems, uses 4 poles in series |

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OPEN TYPE SWITCHES, MANUAL FOR USE IN PHOTOVOLTAIC SYSTEMS

| Model | Current of General use, A | Voltage, DC | Number of Switch Poles | Number of Poles Used in Series | Number of Circuits | Short Circuit Rating, kA |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline \text { 27PV6026 } \\ & \text { 27DC6026 } \end{aligned}$ | 215 | 600 | 6 | 1 | 6 | 10 |  |
|  | 275 | 1000 |  | 3 | 2 | 10 | Optional characteristics |
|  | 275 | 1500 |  | 3 | 2 | 10 |  |
| $\begin{aligned} & \hline \text { 27PV6032 } \\ & \text { 27DC6032 } \end{aligned}$ | 215 | 600 |  | 1 | 6 | 10 |  |
|  | 325 | 1000 |  | 3 | 2 | 10 | Optional characteristics |
|  | 325 | 1500 |  | 3 | 2 | 10 |  |
| $\begin{array}{\|l\|} \hline \text { 27PV6039 } \\ \text { 27DC6039 } \end{array}$ | 215 | 600 |  | 1 | 6 | 10 |  |
|  | 350 | 1000 |  | 3 | 2 | 10 | Optional characteristics |
|  | 350 | 1500 |  | 3 | 2 | 10 |  |
| $\begin{array}{\|l} \hline \text { 27PV8026 } \\ \text { 27DC8026 } \end{array}$ | 215 | 600 | 8 | 1 | 8 | 10 |  |
|  | 275 | 1000 |  | 2 | 4 | 10 | Optional characteristics |
|  | 275 | 1500 |  | 3 or 4 | 2 | 10 | For ungrounded systems, uses 4 poles in series |
| $\begin{array}{\|l} \hline \text { 27PV8032 } \\ \text { 27DC8032 } \end{array}$ | 215 | 600 |  | 1 | 8 | 10 |  |
|  | 325 | 1000 |  | 2 | 4 | 10 | Optional characteristics |
|  | 325 | 1500 |  | 3 or 4 | 2 | 10 | For ungrounded systems, uses 4 poles in series |

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OPEN TYPE SWITCHES, MANUAL FOR USE IN PHOTOVOLTAIC SYSTEMS (Cont.)

| Model | Current of General use, A | Voltage, DC | Number of Switch Poles | Number of Poles Used in Series | Number of Circuits | Short Circuit Rating, kA |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline \text { 27PV8039 } \\ & \text { 27DC8039 } \end{aligned}$ | 215 | 600 |  | 1 | 8 | 10 |  |
|  | 350 | 1000 |  | 2 | 4 | 10 | Optional characteristics |
|  | 350 | 1500 |  | 3 or 4 | 2 | 10 | For ungrounded systems, uses 4 poles in series |

See Illustration 2 for pole configurations for single stack constructions. See Illustration 3 for pole configurations for double stack constructions.

| Model | Current of <br> General <br> use, $A$ | Voltage, <br> DC | Number of <br> Switch <br> Poles | Number of <br> Poles Used <br> in Series | Number of <br> Circuits | Short Circuit <br> Rating, kA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27PV2050 | 325 | 1000 | 4 | 2 | 2 | 10 |
| 27PV2065 | 400 |  |  | 2 | 2 | 10 |
| 27PV5050 | 325 | 1000 | 8 | 2 | 4 | 10 |
| 27PV5065 | 350 |  |  | 2 | 4 | 10 |


| Model | $\begin{gathered} \text { Current of } \\ \text { General use, } \\ \text { A } \end{gathered}$ | Voltage, DC | Number of Switch Poles | *Wiring configuration | Number of Circuits | Short Circuit Rating, kA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27PV2050 | 500 | 1000 | 4 | 2 poles in parallel in | 1 | 10 |
| 27PV2065 | 650 |  |  |  | 1 | 10 |
| 27PV5050 | 500 | 1000 | 8 | 2 poles in parallel in series with 2 poles in | 2 | 10 |
| 27PV5065 | 650 |  |  |  | 2 | 10 |

See Illustration 1 for connection diagrams for 500A and 650A configuration.

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OPEN TYPE SWITCHES, MOTORIZED FOR USE IN PHOTOVOLTAIC SYSTEMS

| Model | Current of General use, A | Voltage, DC | Number of Switch Poles | Number of Poles Used in Series | Number of Circuits | Short Circuit Rating, kA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 27PV2M28 } \\ & \text { 27DC2M28 } \end{aligned}$ | 215 | 600 | 2 | 1 | 2 | 10 |
|  | 275 | 1000 |  | 2 | 1 | 10 |
| $\begin{aligned} & \text { 27PV2M33 } \\ & \text { 27DC2M33 } \end{aligned}$ | 215 | 600 |  | 1 | 2 | 10 |
|  | 325 | 1000 |  | 2 | 1 | 10 |
| $\begin{aligned} & \text { 27PV2M42 } \\ & \text { 27DC2M42 } \end{aligned}$ | 215 | 600 |  | 1 | 2 | 10 |
|  | 400 | 1000 |  | 2 | 1 | 10 |
| $\begin{aligned} & \text { 27DC3M27 } \\ & \text { 27PV3M27 } \end{aligned}$ | 215 | 600 | 3 | 1 | 3 | 10 |
|  | 275 | 1000 |  | 3 | 1 | 10 |
| $\begin{aligned} & \text { 27PV3M33 } \\ & \text { 27DC3M33 } \end{aligned}$ | 215 | 600 |  | 1 | 3 | 10 |
|  | 325 | 1000 |  | 3 | 1 | 10 |
| $\begin{aligned} & \text { 27PV3M42 } \\ & \text { 27DC3M42 } \end{aligned}$ | 215 | 600 |  | 1 | 3 | 10 |
|  | 400 | 1000 |  | 3 | 1 | 10 |
| $\begin{aligned} & \text { 27PV4M27 } \\ & \text { 27DC4M27 } \end{aligned}$ | 215 | 600 | 4 | 1 | 4 | 10 |
|  | 275 | 1000 |  | 2 | 2 | 10 |
| $\begin{aligned} & \text { 27PV4M33 } \\ & \text { 27DC4M33 } \end{aligned}$ | 215 | 600 |  | 1 | 4 | 10 |
|  | 325 | 1000 |  | 2 | 2 | 10 |
| $\begin{aligned} & \text { 27PV4M42 } \\ & \text { 27DC4M42 } \end{aligned}$ | 215 | 600 |  | 1 | 4 | 10 |
|  | 400 | 1000 |  | 2 | 2 | 10 |

Ambient range -20 to $+50^{\circ} \mathrm{C}$
Short circuit values when protected with any fuses ( 50 ms test without protection)

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