

# Spec Sheet: ZFV32x2 (type: ZFV32SMAH1A4+2)

**Features:**

- Compact 8P **non polarized** isolator up to **32A** and up to **1500V DC**.
- **Fault-make load-break switch operation**, ideal for DC systems.
- DIN profile complete with direct mounted padlockable handle.
- Terminals rated to IP20.
- Oxidation proof contacts with up to 16mm<sup>2</sup> cable capacity.

**Application:** PV array isolators.

**Certification:** EN 60947.3, UL 508, File E332938.

**Ratings**

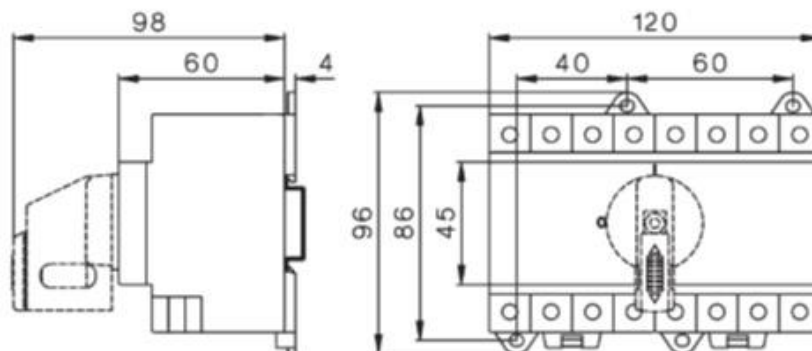
<b>Free air thermal current (I<sub>th</sub>)</b>	32A
<b>Rated insulation pollution degree III (U<sub>i</sub>)</b>	1000V
<b>Rated insulation pollution degree II (U<sub>i</sub>)</b>	1500V
<b>Rated impulse withstand voltage (U<sub>imp</sub>)</b>	8kV
<b>Ambient temperature enclosed</b>	-40 to +45
<b>Maximum fuse (A)</b>	80
<b>Max padlock shank size</b>	5mm
<b>Rated conditional short-cct current</b>	5kA
<b>Rated short-cct making capacity</b>	1.7kA
<b>Short Time Withstand (1sec)</b>	1kA
<b>Power loss / pole</b>	4.0W
<b>Mechanical endurance</b>	10,000
<b>Weight</b>	0.4kg
<b>Operating torque</b>	3.4Nm
<b>Connection torque</b>	1.2 - 1.8Nm
<b>Cable Size mm<sup>2</sup></b>	4 - 16



**ZFV32SMAH1A4+2**

The contact ratings need to be read in conjunction with AS5033-2012 Appendix B5 for floating PV systems with transformerless inverters. See over.

**Dimensions (mm)**



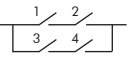
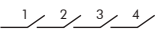
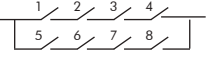


# ZFV32x2 - Technical Data

Data according to IEC 60947-3,  
VDE 0660, GB1448.3 (CCC China)



ZFV32SMAH1A4+2

Main Contacts		ZFV32X2			
Rated thermal current I <sub>the</sub> , A		32			
Rated insulation voltage U <sub>i</sub> <sup>1)</sup> , V		1000			
Rated insulation voltage U <sub>i</sub> <sup>2)</sup> , V		1500			
Distance of contacts (per pole), mm		8			
	U <sub>e</sub> rated operational voltage V.d.c.	DC21A & DC21B	I <sub>e</sub> ; DC-PV2 rated operational current A	I <sub>(make)</sub> and I <sub>(break)</sub> DC-PV2 4 x I <sub>e</sub> A	
<b>1 Pole</b> A1   L/R = 1ms	300V	27	27	108	
	400V	16	20	80	
	500V	13	14	56	
	600V	10	8	32	
	700V	7.5	3	12	
	800V	5	3	12	
	900V	4	2	8	
	1000V	2.5	2	8	
	<b>2 Pole In Series</b> A2  	500V	32	32	128
		600V	32	27	108
700V		27	22	88	
800V		23	17	68	
850V		25	-	-	
900V		20	12	48	
1000V		13	6	24	
1100V		-	5	20	
1200V		10	4	16	
1300V		-	3	12	
1400V		-	3	12	
1500V		5	2	8	
<b>2 Poles In Series + 2 Poles Parallel</b> A2+2  		500V	58	50	200
	600V	50	35	140	
	700V	27	22	88	
	800V	23	17	68	
	900V	20	12	48	
	1000V	13	6	24	
	1100V	-	5	20	
	1200V	10	4	16	
	1300V	-	3	12	
	1400V	-	3	12	
	1500V	5	2	8	
	<b>4 Poles In Series</b> A4  	500V	32	32	128
		600V	32	32	128
700V		32	32	128	
800V		32	32	128	
900V		32	32	128	
1000V		32	32	128	
1100V		-	32	128	
1200V		32	27	108	
1300V		-	24	96	
1400V		-	21	84	
1500V		23	18	72	
<b>4 Poles In Series + 2 Poles Parallel</b> A4+2  		500V	58	-	-
		600V	58	-	-
	700V	58	-	-	
	800V	58	-	-	
	900V	58	-	-	
	1000V	58	-	-	
	1100V	-	30	120	
	1200V	50	27	108	
	1300V	-	24	96	
	1400V	-	21	84	
	1500V	23	18	72	

DC21B

1) Suitable at overvoltage category I to III, pollution degree (standard-industry): U<sub>imp</sub> = 8kV.

2) Suitable at overvoltage category I to III, pollution degree (min. IP55): U<sub>imp</sub> = 8kV.

## Temperature - ZFV32x2

In Australia, operating temperature can create onerous conditions for switchgear to operate in. Often overlooked but of extreme importance is the thermal stresses placed on switchgear due to cyclic loading, i.e. thermal current with varying loads over a 24 hour period.

Switchgear should be de-rated according to the "Fluid Environment" it is subjected to. The definition of "Fluid Environment" is the area immediately surrounding the switchgear. This environment is subject to change as equipment and installations vary but the derating in each case must be considered to ensure a reliable network design.

## Ratings

Switch LS32 .., 2 contacts in series + 2 parallel, open

