

# ITV Devices SMT Battery Protection Device

PRODUCT: ITV5432L3030

DOCUMENT: SCD29528 REV LETTER: A

REV DATE: MARCH 7, 2020

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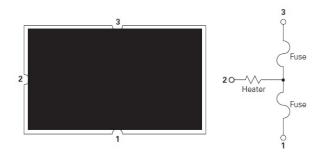
## **Specification Status: Released**

### TABLE I. Electrical Rating:

Current	100% x I <sub>rated</sub>					
Capacity	No Melting					
Cut Time	200% x I <sub>rated</sub>					
	< 1 min					
Interrupting	100A, power on 5 ms, power off 995 ms, 10000 cycles					
Current	No Melting					
Over Voltage	In apprehing valtage range, the fusing time is 14 min					
Operation	In operation voltage range, the fusing time is <1min.					

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### **Device Circuit:**



### TABLE II. DIMENSIONS (mm):

А	$5.40 \pm 0.2$
В	$3.20 \pm 0.3$
С	1.80 max
A1	0.72 ± 0.1
A2	$0.81 \pm 0.1$
А3	$2.20 \pm 0.1$
A4	$0.72 \pm 0.1$
B1	1.05 ± 0.1
B2	1.70 ± 0.1
В3	0.77 ± 0.1

### **TABLE III. Electrical Specification:**

Dorf Number	Morking	I <sub>rated</sub>	Cells in	$V_{max}$	I <sub>break</sub>	V <sub>OP</sub>	Resistance		Agency Approval	
Part Number	Marking	(A)	series	(V <sub>DC</sub> )	(A)	(V)	$R_{heater} \ (\Omega)$	$R_{fuse}$ (m $\Omega$ )	c <b>7/1</b> 'us	TÖVRheinland
ITV5432L3030	LF3030	30	7	62	80	23.0 ~ 31.5	24.6 ~ 39.3	0.5 ~ 2.5	Pending	Pending

### Notes:

 $I_{\text{rated:}}$  Current carrying capacity that is measured at  $40^{\circ}\text{C}$  thermal equilibrium condition.

 $\ensuremath{I_{\text{break}}}\xspace$  . The current that the fuse element is able to interrupt.

V<sub>max</sub>: The maximum voltage that can be cut off by fuse.

V<sub>OP</sub>: Range of operation voltage.

R<sub>heater</sub>: The resistance of the heating element.

R<sub>fuse</sub>: The resistance of the fuse element.

Cells in series: Number of battery cells connected in series in the circuit for ITV device to protect.

• Value specified is determined by using the PWB with 29.4mm\*2oz copper traces, AWG10 covered wire, and 0.6mm glass epoxy PCB.



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### **Materials Information:**

**ROHS Compliant** 

**ELV Compliant** 

**Halogen Free\*** 



Directive 2000/53/EC Compliant



\* Halogen Free refers to: Br≤900ppm, Cl≤900ppm, Br+Cl≤1500ppm.

### **Environmental Specifications:**

Storage Temperature	0~35°C, ≤ 70%RH				
	3 months after shipment				
Operating Temperature	-10°C to +65°C				
Hot Passive Aging	100±5°C, 250 hours				
	No structural damage and functional failure				
Humidity Aging	60°C±2°C, 90~95%R.H. 250 hours				
	No structural damage and functional failure				
Cold Passive Aging	-20±3°C, 500 hours				
	No structural damage and functional failure				
Thermal Shock	MIL-STD-202 Method 107G				
	+125°C /-55°C, 100 times				
	No structural damage and functional failure				

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