

# ITV Devices SMT Battery Protection Device

PRODUCT: ITV5432L4030

DOCUMENT: SCD29529 REV LETTER: A

REV DATE: MARCH 7, 2020

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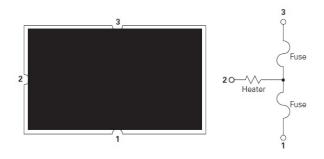
## **Specification Status: Released**

### 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 apparation 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):

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

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

Dorf Number	Marking	I <sub>rated</sub> (A)	Cells in series	$V_{max}$	I <sub>break</sub>	V <sub>OP</sub>	Resistance		Age Appı	-
Part Number				(V <sub>DC</sub> )	(A)	(V)	$R_{heater} \ (\Omega)$	$R_{fuse}$ (m $\Omega$ )	c <b>7/1</b> 'us	TÜVRheinland
ITV5432L4030	LF4030	30	9~10	62	80	34.2 ~ 46.9	64.0 ~ 87.0	0.5 ~ 2.5	Pending	Pending

### Notes:

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

I<sub>break</sub>: 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			
	MIL-STD-202 Method 107G			
Thermal Shock	+125°C /-55°C, 100 times			
	No structural damage and functional failure			

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