





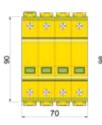


## Surge Protective Devices: **ZOTUPLIMITER**

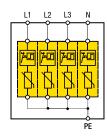












L 2/10 230 ff 4 TT is a ready to install assembly of four voltage limiting SPDs providing four modes of protection, typically installed in Sub Distribution Boards (SDBs) for three-phase plus neutral 230/400 V TT-systems downstream a RCD where connection type CT1 is applied according to HD 60364-5-534. This SPD is also suitable for three-phase plus neutral 230/400 V TN-systems, when high resistability against TOVs is required.

It provides the following features and benefits:

- Impulse test classification: Test class II according to IEC 61643-11 Ed. 1 (2011-03) and Type 2 according to EN 61643-11 (2012-10);
- Backup protection is not required with an upstream CB ≤ 160 A or up to an Isccr ≤ 5 kA rms;
- Three colour Status Indicator with progressive indication of remaining performance.

Nominal ac system voltage Modes of protection (number of poles)  Max Continuous Operating Voltage  Test Class according to IEC 61643-11 Ed.1 (2011-03)  Type according to IEC 61643-11 (2012-10)  Nominal discharge current (8/20 µs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 µs)  Max. discharge current (8/20 µs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 µs)  Woltage protection level at a discharge current of:  1 KA	Model L 2/10			230 ff 4 TT
Modes of protection (number of poles)  Max Continuous Operating Voltage  Test Class according to IEC 61643-11 Ed.1 (2011-03)  Type according to EN 61643-11 (2012-10)  Nominal discharge current (8/20 μs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 μs)  Max. discharge current (8/20 μs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 μs)  Voltage protection level at a discharge current of:  1 KA  5 kA  Up  4 S 0,83 kV  5 kA  Up  5 L-PE  Horax  20 KA  Wesponse time  Table (3/20 μs)  Table (3/20 μs)  Table (4/20 μs)  Table (5/20 μs)  Tab	CODE			202 240
Modes of protection (number of poles)  Max Continuous Operating Voltage  Test Class according to IEC 61643-11 Ed.1 (2011-03)  Type according to EN 61643-11 (2012-10)  Nominal discharge current (8/20 μs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 μs)  Max. discharge current (8/20 μs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 μs)  Voltage protection level at a discharge current of:  1 KA  5 kA  Up  4 S 0,83 kV  5 kA  Up  5 L-PE  Horax  20 KA  Wesponse time  Table (3/20 μs)  Table (3/20 μs)  Table (4/20 μs)  Table (5/20 μs)  Tab	Nominal ac system voltage		Un	230/400 V ac
Test Class according to IEC 61643-11 Ed.1 (2011-03)   II				4
Test Class according to EC 61643-11 Ed.1 (2011-03)  Type according to EN 61643-11 (2012-10)  Nominal discharge current (8/20 μs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 μs)  Max. discharge current (8/20 μs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 μs)  Voltage protection level at a discharge current of:  1 kA 5 kA 10 kA  10 kA  Response time  End of Life  OCFM (open circuit failure mode)  Behaviour in case of Temporary OverVoltage (TOV)  L-PE Ur 440 V / 120 min, (W); 1.455 V / 200 ms, (S)  withstand (W) / safe (S):  N-PE Ur 1200 V / 200 ms, (W)  Short Circuit Current rating without backup protection fuse  Max. back-up protection with TeUSE at prospective short circuit currents of  Follow current interrupt rating  Max. back-up protection with FUSE at prospective short circuit currents of  Follow current interrupt rating  NFC No Follow Current®  Status indicator (indication of disconnector operation)  Operating temperature range / Humidity  4-35 mm² flexible / 4-50 mm² semi rigid	Max Continuous Operating Voltage		Uc	335 V ac
Type according to EN 61643-11 (2012-10)  Nominal discharge current (8/20 $\mu$ s) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 $\mu$ s)  Max. discharge current (8/20 $\mu$ s) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 $\mu$ s)  Voltage protection level at a discharge current of:  1 kA  10 kA	Test Class according to IEC 61643-11 Ed.1 (2011-03)			
Nominal discharge current (8/20 μs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 μs)  Max. discharge current (8/20 μs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 μs)  Voltage protection level at a discharge current of:  1 kA  5 kA  10 k  Response time  1 ta  2 0 kA  Response time  1 ta  2 25 ns  COFM (open circuit failure mode)  Behaviour in case of Temporary OverVoltage (TOV)  Withstand (W) / safe (S):  N-PE  With 1200 V / 200 ms, (W)  Short Circuit Current rating without backup protection fuse  Max. back-up protection with up-stream CB with a max. let-through energy of (max. prospective short circuit current depends on the CB breaking capability).  Max. back-up protection with FUSE at prospective short circuit currents of  Follow current interrupt rating  In  NFC No Follow Current®  Status indicator (indication of disconnector) poperation)  Operating temperature range / Humidity  -40 +80 °C (extended) / 5% 95%  Terminal - Conductor size	· · · · · · · · · · · · · · · · · · ·			T2
(the upstream RCD may trip when discharge currents exceed 3 kA 8/20 μs)  Max. discharge current (8/20 μs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 μs)  Voltage protection level at a discharge current of:  1 kA  1 kA  1 μp  5 kA  1 μp  6 1,00 kV  10 kA  1				40.1.4
Max. discharge current (8/20 μs) (the upstream RCD may trip when discharge currents exceed 3 kA 8/20 μs)  Voltage protection level at a discharge current of:  1 kA 5 kA 10			In	10 KA
(the upstream RCD may trip when discharge currents exceed 3 kA 8/20 $\mu$ s)  Voltage protection level at a discharge current of:  1 kA  5 kA  Up  6 1,00 kV  10 kA  Up  6 21,25 kV  Response time  End of Life  Behaviour in case of Temporary OverVoltage (TOV)  Withstand (W) / safe (S):  Short Circuit Current rating without backup protection fuse  Max. back-up protection with up-stream CB with a max. let-through energy of (max. prospective short circuit current depends on the CB breaking capability).  Max. back-up protection with FUSE at prospective short circuit currents of  Follow current interrupt rating  Status indicator (indication of disconnector operation)  Operating temperature range / Humidity  1 kA  Up  6 0,83 kV  6 1,00 kV  6 1,00 kV  6 1,25 kV  6 1,25 kV  6 1,20 k				2014
Voltage protection level at a discharge current of: $ \begin{array}{ccccccccccccccccccccccccccccccccccc$			lmax	20 KA
Response time $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		1 kA	Un	≤ 0.83 kV
Response time $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		5 kA	Up	
Response time  End of Life  Behaviour in case of Temporary OverVoltage (TOV)  Withstand (W) / safe (S):  Short Circuit Current rating without backup protection (internal disconnector)  Short Circuit Current rating with max. backup protection fuse  Max. back-up protection with up-stream CB with a max. let-through energy of (max. prospective short circuit current depends on the CB breaking capability).  Max. back-up protection with FUSE at prospective short circuit currents of  Follow current interrupt rating  Status indicator (indication of disconnector operation)  Operating temperature range / Humidity  Terminal - Conductor size  L-PE  UT  440 V / 120 min, (W); 1.455 V / 200 ms, (S)  UT  1200 V / 200 ms, (S)  In 1200 V / 200 ms, (W)  Status indicator vincuit backup protection (internal disconnector)  Isocr  50 kA rms  160 A (max. 4,50 x 10 <sup>5</sup> A²s)  125 A gG (> 5 ÷ 50 kA rms)  NFC No Follow Current®  3 colours with progressive performance indication  Operating temperature range / Humidity  -40 +80 °C (extended) / 5% 95%  Terminal - Conductor size			-,	
End of Life  Behaviour in case of Temporary OverVoltage (TOV)  Withstand (W) / safe (S):  N-PE  UT  1200 V / 200 ms, (W)  Short Circuit Current rating without backup protection (internal disconnector)  Short Circuit Current rating with max. backup protection fuse  Max. back-up protection with up-stream CB with a max. let-through energy of (max. prospective short circuit current depends on the CB breaking capability).  Max. back-up protection with FUSE at prospective short circuit currents of  Follow current interrupt rating  Status indicator (indication of disconnector operation)  Operating temperature range / Humidity  Terminal - Conductor size  OCFM (open circuit failure mode)  440 V / 120 min, (W); 1.455 V / 200 ms, (S)  1200 V / 200 ms, (W)  1200 V / 200 m	Response time			·
Behaviour in case of Temporary OverVoltage (TOV)  Withstand (W) / safe (S):  N-PE  UT  1200 V / 200 ms, (W)  Short Circuit Current rating without backup protection (internal disconnector)  Short Circuit Current rating with max. backup protection fuse  Max. back-up protection with up-stream CB with a max. let-through energy of (max. prospective short circuit current depends on the CB breaking capability).  Max. back-up protection with FUSE at prospective short circuit currents of  Follow current interrupt rating  Status indicator (indication of disconnector operation)  Operating temperature range / Humidity  Terminal - Conductor size  L-PE  UT  440 V / 120 min, (W); 1.455 V / 200 ms, (S)  1200 V	•			
withstand (W) / safe (S):  Short Circuit Current rating without backup protection (internal disconnector)  Short Circuit Current rating with max. backup protection fuse  Max. back-up protection with up-stream CB with a max. let-through energy of (max. prospective short circuit current depends on the CB breaking capability).  Max. back-up protection with FUSE at prospective short circuit currents of Follow current interrupt rating  Status indicator (indication of disconnector operation)  Operating temperature range / Humidity  Terminal - Conductor size  N-PE Ut 1200 V / 200 ms, (W)  Isor 5 kA rms 160 A (max. 4,50 x 10 <sup>5</sup> A²s)  165 A gG (> 5 ÷ 50 kA rms)  165 NFC No Follow Current®  3 colours with progressive performance indication  4-35 mm² flexible / 4-50 mm² semi rigid		L-PE	Uτ	
Short Circuit Current rating without backup protection (internal disconnector)  Short Circuit Current rating with max. backup protection fuse  Max. back-up protection with up-stream CB with a max. let-through energy of (max. prospective short circuit current depends on the CB breaking capability).  Max. back-up protection with FUSE at prospective short circuit currents of Follow current interrupt rating  Status indicator (indication of disconnector operation)  Operating temperature range / Humidity  Terminal - Conductor size  5 kA rms  160 A (max. 4,50 x 10 <sup>5</sup> A²s)  125 A gG (> 5 ÷ 50 kA rms)  NFC No Follow Current®  3 colours with progressive performance indication  4-35 mm² flexible / 4-50 mm² semi rigid		N-PE	Uτ	
Short Circuit Current rating with max. backup protection fuse  Max. back-up protection with up-stream CB with a max. let-through energy of  (max. prospective short circuit current depends on the CB breaking capability).  Max. back-up protection with FUSE at prospective short circuit currents of  Follow current interrupt rating  Status indicator (indication of disconnector operation)  Operating temperature range / Humidity  Terminal - Conductor size  50 kA rms  160 A (max. 4,50 x 10 <sup>5</sup> A²s)  125 A gG (> 5 ÷ 50 kA rms)  NFC No Follow Current®  3 colours with progressive performance indication  -40 +80 °C (extended) / 5% 95%  4-35 mm² flexible / 4-50 mm² semi rigid			sccr	,
Max. back-up protection with up-stream CB with a max. let-through energy of (max. prospective short circuit current depends on the CB breaking capability).  Max. back-up protection with FUSE at prospective short circuit currents of 125 A gG ( $> 5 \div 50$ kA rms)  Follow current interrupt rating In NFC No Follow Current®  Status indicator (indication of disconnector operation) 3 colours with progressive performance indication  Operating temperature range / Humidity -40 +80 °C (extended) / 5% 95%  Terminal - Conductor size 4-35 mm² flexible / 4-50 mm² semi rigid			sccr	50 kA rms
(max. prospective short circuit current depends on the CB breaking capability).  Max. back-up protection with FUSE at prospective short circuit currents of  Follow current interrupt rating  Status indicator (indication of disconnector operation)  Operating temperature range / Humidity  Terminal - Conductor size  125 A gG (> 5 ÷ 50 kA rms)  NFC No Follow Current®  3 colours with progressive performance indication  -40 +80 °C (extended) / 5% 95%  4-35 mm² flexible / 4-50 mm² semi rigid				
Max. back-up protection with FUSE at prospective short circuit currents of 125 A gG ( $> 5 \div 50$ kA rms)  Follow current interrupt rating In NFC No Follow Current®  Status indicator (indication of disconnector operation) 3 colours with progressive performance indication  Operating temperature range / Humidity -40 +80 °C (extended) / 5% 95%  Terminal - Conductor size 4-35 mm² flexible / 4-50 mm² semi rigid	The state of the s			( ,
Follow current interrupt rating  Status indicator (indication of disconnector operation)  Operating temperature range / Humidity  Terminal - Conductor size  In NFC No Follow Current®  3 colours with progressive performance indication  -40 +80 °C (extended) / 5% 95%  4-35 mm² flexible / 4-50 mm² semi rigid				$125 \text{ A aG } (> 5 \div 50 \text{ kA rms})$
Status indicator (indication of disconnector operation)  Operating temperature range / Humidity  Terminal - Conductor size  3 colours with progressive performance indication  -40 +80 °C (extended) / 5% 95%  4-35 mm² flexible / 4-50 mm² semi rigid			lfi	
Operating temperature range / Humidity -40 +80 °C (extended) / 5% 95%  Terminal - Conductor size 4-35 mm² flexible / 4-50 mm² semi rigid				3 colours with progressive performance indication
Terminal - Conductor size 4-35 mm² flexible / 4-50 mm² semi rigid	,			
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Case material / Flammability grade BMC / V-0 in accordance with UL 94	J - 2 - 2 - 3			· ·
Pollution degree / Degree of protection PD / IP 3 / 20 (built-in)			PD / IP	
Approximate weight 480 g	• •			` ,
Dimensions: width 70 mm (4 modules)	11			ĕ
Certifications / Quality Mark  CB, STC issued by OVE / KEMA-KEUR				,
GTIN (EAN) 8054890321730				

Model L 2/10 with remote signal contact	Model L	. 2/10	with remote	signal	contac
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Model L 2/10 with remote signal contact	230 t ff 4 TT
CODE	212 240
Remote signal contact	potential-free changeover contact

Terminal - conductor size for remote signal contact max. 1,5 mm<sup>2</sup> flexible Switching capacity remote signal contact ac: 250 V / 0,5 A - dc: 125 V / 0,2 A; 75 V / 0,5 A GTIN (EAN) 8054890321761