

# KEMA TYPE TEST CERTIFICATE OF COMPLETE TYPE TESTS

<b>Object</b>	Product family of protection relays	<b>1650-19E</b>
<b>Type</b>	HighPROTEC Line	<b>Serial No.</b> See paragraph 2.2
<b>Product(s)</b>	MRI4, MRU4, MRA4, MCA4, MRDT4, MCDTV4, MCDGV4, MCDLV4, MRM4, MRMV4	
Operating range	-20 to +60 °C	EMC emission class
Mechanical class	1	EMC immunity zone
		A
		A
<b>Manufacturer</b>	SEG Electronics GmbH, Krefelder Weg 47, D-47906 Kempen, Germany *)	
<b>Client</b>	SEG Electronics GmbH, Krefelder Weg 47, D-47906 Kempen, Germany	
<b>Tested by</b>	KEMA B.V., Utrechtseweg 310, Arnhem, the Netherlands	
<b>Date of tests</b>	October 2018 to October 2019	

The object, constructed in accordance with the description, drawings and photographs incorporated in this Certificate, has been subjected to the series of proving tests in accordance with the complete type test requirements of

**IEC 60255-1**:2009, **IEC 60255-26**:2013, **IEC 60255-27**: 2013,  
**IEC 60255-127**:2010, **IEC 60255-149**:2013, **IEC 60255-151**:2009,  
**IEC 60255-181**:2019

The results are shown in the record of proving tests and the oscillograms attached hereto. The values obtained and the general performance are considered to comply with the above standard(s) and to justify the ratings assigned by the manufacturer as listed on page 5.

This Certificate applies only to the object tested. The responsibility for conformity of any object having the same type references as that tested rests with the Manufacturer.

\*) as declared by the manufacturer

This Certificate consists of 55 pages in total.

KEMA B.V.



Bas Verhoeven  
 Director, High-Voltage  
 Laboratory



Laboratories Arnhem, 5 March 2020