



**Test Certificate No.: 9812308842**

In accordance with Clause 12 of the Standards Law – 1953

**Details of order:**

Name of customer	: Bureau Veritas Consumer Product Services Germany GmbH
Address	: Businesspark A96, 86842 Türkheim, Germany
Date of order	: 10/03/2018

**Description of sample:**

Grid-tied photovoltaic inverter	
Models	: 842P040, 842P046
Manufacturer	: REFU Elektronik GmbH
Country of origin	: Germany
(see additional product information on pages 2-22)	

**Sampling details:**

No sample required.
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**Nature of test:**

Review of test reports Ref. No.: 16TH0364-IEC62109-1\_11 dated 25/01/18, 16TH0364-IEC62109-2\_7 dated 25/01/18, and 16TH0364-AS/NZS4777\_1 dated 07/03/2018, issued by Bureau Veritas Consumer Products Services, Germany GmbH for the above-specified solar inverter models according to the following standards:

IEC 62109-1: 2010 / EN 62109-1: 2010 – Safety of power converters for use in photovoltaic power system – Part 1: General requirements  
IEC/EN 62109-2: 2011 – Safety of power converters for use in photovoltaic power system – Part 2: Particular requirements for inverters

AS/NZS 4777.2: 2005 - Grid connection of energy systems via inverters: Inverter requirements;  
AS/NZS 4777.3: 2005 - Grid connection of energy systems via inverters: Grid protection requirements, with Deviations for Israel according to SI 4777 parts 2, 3: 2008 according to the Guidelines for Importers, Installers and Owners of Electricity Generating Systems Using Photo-Voltaic Technology, regarding Adjustment of Photo-Voltaic Inverters: 2013

This document contains 22 pages and may be used only in full.

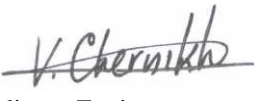
**The test results in this report refer only to the item tested.**

This document alone is not sufficient for the release of goods from customs.

**Test Conclusions:**

Based on the information provided in the above mentioned test reports, the above-specified solar inverter models **comply** with the Israeli requirements for grid-tied photovoltaic inverters.

Anatoly Oimatov   
Product Safety Engineer  
Electrical Safety Branch  
Electrical and Electronics Laboratory  
The Standards Institution of Israel  
Date: 29/03/2018

Vladimir Chernikh   
Senior Safety Compliance Engineer  
Electrical Safety Branch  
Electrical and Electronics Laboratory  
The Standards Institution of Israel  
Date: 29/03/2018

**This document does not permit marking the product with SII Mark**



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**ADDITIONAL PRODUCT INFORMATION**

Test item description.....:	Grid-tied photovoltaic inverter	
Trademark .....	<b>REFU</b> <b>Elektronik</b>	
Model / Type .....	842P046, 842P040	
<b>Ratings</b> ..... :	842P046	842P040
MPP DC voltage range [V].....:	575 - 850	490 - 850
Input DC voltage range [V].....:	350 - 1000	
Input DC current [A] .....	82,0	84,0
Output AC voltage [V] .....	460 V 3 / N / PE	400 V 3 / N / PE
Output AC current [A] .....	59,0	
Output power [VA].....:	46000	40000

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**APPENDIX**  
**List of Critical Components**  
**(19 pages attached)**

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14	TABLE: list of critical components					P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity1)	
<b>REFUsoI 842P04x</b>						
Enclosure Cover	+ Cool Case	Metal steel	Overall approx. dimension: 820 mm by 760 mm by min. 2,55 mm thickness Provided with Control panel		Accepted	
Enclosure Heat sink	+ Constellium Singen GmbH	Aluminum	Overall approx. dimension: 675 mm by 420 mm by 105 mm by 2,55 mm thickness		Accepted	
Cover plate for Heat sink	+ Cool Case	Aluminum	Overall approx. dimension: 418 mm by 661 mm by 12 mm by min. 1,4 mm thickness		Accepted	
Gasket Cover	+ Rampf	RAKU-PUR 32- 3250-11	<b>Temp. Class:</b> 100 °C	(JMST2)	URus MH30032	
Switch DC	+ Santon	DC-X-Type XC100.50P4E-D- XC0028	1000 V; 25 A  <b>Temp. Class:</b> 70 °C	(NMSJ2) IEC 60947	URus E362334	
Strain Relief	U I Lapp	53111370 M63x1,5 PA	<b>Flame/Temp. Class:</b> UL 94 V-2; 100 °C Provided with counter screw	(QCRV)	cULus E79903	
Strain Relief	Helukabel GmbH	903559 M63x1,5 PA	<b>Temp. Class:</b> 100 °C Provided with counter screw	EN 50262	VDE	
Strain Relief	WISKA	10064999 M63x1,5 PA	<b>Temp. Class:</b> Provided with counter screw	(QCRV2)	cURus E179850	
Strain Relief	U I Lapp	53111330 M25x1,5 PA	<b>Flame/Temp. Class:</b> UL 94 V-2; 100 °C Provided with counter screw	(QCRV2)	cULus E79903	
Strain Relief	Helukabel GmbH	903555 M25x1,5 PA	<b>Temp. Class:</b> 100 °C Provided with counter screw	EN 50262	VDE	
Strain Relief	WISKA	10064995 ESKV-RDE 25 M25x1,5 PA	<b>Temp. Class:</b> 100 °C Provided with counter screw	(QCRV2)	cURus E179850	
Cover for Ethernet	Phoenix	VS-08-SD-F	<b>Flame Class:</b> UL 94 V-0; IP67; Op. Temp. 80 °C		Accepted	
Membrane Outlet	Gore	PMF100320 PMF100321	<b>Flame Class:</b> UL 94 V-0; 125 °C	IEC 60068-2-3	Accepted	
Control panel Foil	+ Kundisch GmbH & Co. KG	MZ01 Autotex V 150 XE	Overall approx. dimension: 115 mm by 115 mm by 0,85 mm thickness  <b>Op. Temp.:</b> 70 °C		Accepted	
Ring Core	+ VAC	Vitroperm 500F T60006-L2030- W423-04	Overall approx. dimension: 30 mm by 20 mm by 10		Accepted	

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object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity <sup>1)</sup>	
			mm <b>Rating:</b> 1300 W – 2500 W; 120 °C			
Inductor AC 3 provided	schwa-medico	0034981 BV00	Overall approx. dimension: 114 mm by 136 mm by 82 mm thickness  <b>Rating:</b> 0,85 mH; 58 A  <b>Core:</b> AMCC 320  <b>Insulation Foil:</b> EI 120/53,5 - MSL 74 by Weisser Spulenkörper  <b>Wire end sleeve:</b> Copper; 50,00 mm <sup>2</sup> or 16,00 mm <sup>2</sup> by Hagemeyer Deutschland  <b>Epoxy:</b> Hysol 1K Epoxy 9514 Loctite by Henkel		Accepted	
Inductor AC 3 provided Bobbin	E I Dupont	Material Rynite FR530L BK 507	<b>Temp. Class:</b> 155 °C  <b>Flame Class:</b> UL 94 V-0; min. 2 mm thickness	(QMFZ2)	cURus E41938	
Inductor AC 3 provided Wire	+ Synflex Elektro GmbH	W200 Style 3289	AWG 6; 16 mm <sup>2</sup>  <b>Temp. Class:</b> 200 °C	(OBMW2)	URus E335481	
Inductor AC 3 provided Wire	+ Leoni Studer	Betatherm 155 Style 3289	600 Va.c.; 750 Vd.c.; AWG 6; 16 mm <sup>2</sup>  <b>Temp. Class:</b> 150 °C	(AVLV2)	URus E146164	
Inductor AC 3 provided Tubing	+ Sumitomo	Sumitube Z 85628	<b>Temp. Class:</b> 150 °C  <b>Flame Class:</b> VW-1; min. 0,3 mm thickness	(YDTU2)	URus E75077	
Inductor AC 3 provided Varnish	Axalta	Voltatex 4130	<b>Temp. Class:</b> 200 °C; MW 30-C	(OBOR2)	URus E101752	
Shielding for Inductor AC	+ WEVO-CHEMI	WEVOSIL 20018	Overall approx. dimension: 420 mm by 120 mm by 4 mm thickness  <b>Flame Class:</b> UL 94 V-0; 150 °C	(QMFZ2)	cURus E108835	
Inductor HSS 4 provided	schwa-medico	0034982 BV01	Overall approx. dimension: 170 mm by 163 mm by		Accepted	

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			117 mm  <b>Rating:</b> 4x 0,825 mH; 30 Ad.c.  <b>Core:</b> AMCC 320  <b>Wire end sleeve:</b> Copper; 6,00 mm <sup>2</sup> or 25,00 mm <sup>2</sup> by Hagemeyer Deutschland			
Inductor HSS 4 provided Bobbin	BASF	Ultramid A3X2G5	<b>Temp. Class:</b> 120 °C; Class B  <b>Flame Class:</b> UL 94 V-0; min. 0,8 mm thickness	(QMFZ2)	cURus E41871	
Inductor HSS 4 provided Wire	+ Synflex Elektro GmbH	W200 Style 3289	AWG 6; 16 mm <sup>2</sup>  <b>Temp. Class:</b> 200 °C	(OBMW2)	URus E335481	
Inductor HSS 4 provided Wire	+ Leoni Studer	Betatherm 155 Style 3289	600 Va.c.; 750 Vd.c.; AWG 6; 16 mm <sup>2</sup>  <b>Temp. Class:</b> 150 °C	(AVLV2)	URus E146164	
Inductor HSS 4 provided Tubing	+ Sumitomo	Sumitube Z 85628	<b>Temp. Class:</b> 150 °C  <b>Flame Class:</b> VW-1; min. 0,3 mm thickness	(YDTU2)	URus E75077	
Inductor HSS 4 provided Insulation Foil	Dupont	Mylar A 50 105 mm width	<b>Temp. Class:</b> 115 °C  <b>Flame Class:</b> VTM-2; min. 0,05 mm thickness	(QMFZ2)	cURus E93687	
Inductor HSS 4 provided Varnish	Axalta	Voltatex 4130	<b>Temp. Class:</b> 200 °C; MW 30-C	(OBOR2)	URus E101752	
Shielding for Inductor HSS	+ WEVO-CHEMI	WEVOSIL 20018	Overall approx. dimension: 145 mm by 150 mm by 4 mm thickness  <b>Flame Class:</b> UL 94 V-0; 150 °C	(QMFZ2)	cURus E108835	
Internal Wiring PE	+ Lappkabel	Style 1015	600 Va.c.; 105 °C; Size 2,5 mm <sup>2</sup> ; AWG 14	(AVLV2)	cURus E63634 VDE	
Internal Wiring DC Switch	+ Huber + Suhner	Radox 125	600 Va.c.; 750Vdc; Style 3289; 150°C	(AVLV2)	URus E63322	
Internal Wiring DC Filter	+ Huber + Suhner	Radox 125	600 Va.c.; 750 Vd.c.; Style 3289; 150 °C	(AVLV2)	URus E63322	
Internal Wiring AC	REFU Elektronik	AC 40K G2	600 Va.c.; 750 Vd.c.; Style SC2.2 ; 90 °C		Accepted	
Internal Wiring Distributed Power	REFU Elektronik	Cable set pcb board	600 Va.c.; 750 Vd.c.; Style SC2.2 ;		Accepted	

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Fan Intern	+ ebmPapst	4314GM	90 °C 24 V; 2,6 W; Amb. Temp. 70 °C  <b>Wire:</b> 300 V; AWG 24/7; UL 1007	(GPWV2)	URus E38324	
Holding plate for Fan	+ Ulrich CNC	Aluminum	Overall approx. dimension: 152 mm by 87 mm by min. 1,5 mm thickness		Accepted	
<b>DC Input Control Board</b>						
PCB DC Input Control Board	+ Panasonic	R-1755M or R-1650M	Overall approx. dimension: 288 mm by 278 mm by min. 2,5 mm thickness  <b>Flame Class:</b> UL 94 V-0; 130 °C	(QMTS2)	URus E81336	
PCB DC Input Control Board	+ Ventec	VT-481	Overall approx. dimension: 288 mm by 278 mm by min. 2,5 mm thickness  <b>Flame Class:</b> UL 94 V-0; 130 °C	(QMTS2)	URus E214381	
Connector (XA214, XA215, XA216, XA217, XB214, XB215, XB216, XB217)	+ Phoenix	SPT5/1-V-7,5	UL 600 V; 5 A; AWG 24-8	(XCFR2)	cURus E60425	
HSS Module (V1)	Vincotech	30- PT07NBA029FK	<b>Bypass Diode:</b> 1600 V; 50 A  <b>Boost MOSFET:</b> 650 V; 42 A; Tj=150 °C  <b>Boost FWD:</b> 600 V; 53 A; Tj=175 °C  <b>Insulation Voltage:</b> 4 kV  <b>Housing:</b> PBT Pocan B4235+; 94 V-0, 130 °C		Accepted	
Capacitor (C41, C42)	+ Vishay	MKP385468063JK 02W0	630 Vd.c.; 6,8 nF; 125 °C	IEC 60384-14	VDE	
Capacitor (C41, C42)	+ Vishay	MKP1840-468- 635M	630 Vd.c.; 6,8 nF; 125 °C	IEC 60384-14	VDE	
Capacitor (C33, C34)	+ Vishay	MKP1848530094K 2	900 Vd.c.; 3,0 µF; 105 °C	IEC 61071 IEC 60068	VDE	
Capacitor (C33, C34)	+ Vishay	MKP1848530704K 2	700 Vd.c.; 3,0 µF; 105 °C	IEC 61071 IEC 60068	VDE	
Capacitor (C33, C34)	+ Vishay	MKP1848530094K 2	700 Vd.c.; 3,0 µF; 105 °C	IEC 61071 IEC 60068	VDE	
Capacitor	+ Epcos	B32674D6335K00	630 Vd.c.; 3,0 µF;	IEC 61071	VDE	

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(C33, C34)		0	105 °C	IEC 60068		
Capacitor (C33, C34)	+ Epcos	B32774D1305K00 0	1300 Vd.c.; 3,0 µF; 105 °C	IEC 61071 IEC 60068	VDE	
Capacitor (C33, C34)	+ Epcos	B32774D8305K00 0	700 Vd.c.; 3,0 µF; 105 °C	IEC 61071 IEC 60068	VDE	
Capacitor (C44, C45, C46, C205) Electrolytic	+ Hitachi	HU32W681MRAS7	450 Vd.c.; 600 µF; 105 °C		Accepted	
Capacitor (C44, C45, C46, C205) Electrolytic	+ Nippon	ECSH451VSN601 MA50T	450 Vd.c.; 600 µF; 105 °C		Accepted	
Capacitor (C44, C45, C46, C205) Electrolytic	+ TDK	B43544S5607M00 1	450 Vd.c.; 600 µF; 105 °C		Accepted	
Capacitor (C44, C45, C46, C205) Electrolytic	+ Jianghai	ECS2WQH681MT4 P23555	450 Vd.c.; 600 µF; 105 °C		Accepted	
Capacitor (C44, C45, C46, C205) Electrolytic	+ Samxon	EKP607M2WQ60S WSHP	450 Vd.c.; 600 µF; 105 °C		Accepted	
Capacitor (C43, C206) Electrolytic	+ Nippon	E92F451VND152M BA0U	450 Vd.c.; 1500 µF; 105 °C		Accepted	
Capacitor (C43, C206) Electrolytic	+ STGCON	450SET152M4510 0HFB	450 Vd.c.; 1500 µF; 105 °C		Accepted	
Capacitor (C43, C206) Electrolytic	+ TDK	B43512A5158M00 0	450 Vd.c.; 1500 µF; 105 °C		Accepted	
Capacitor (C43, C206) Electrolytic	+ Jianghai	ECS2WQL152MT4 P44580	450 Vd.c.; 1500 µF; 105 °C		Accepted	
Capacitor (C43, C206) Electrolytic	+ Samxon	EHP158M2WR90S XSGP	450 Vd.c.; 1500 µF; 105 °C		Accepted	
Capacitor (C35, C36, C37, C38, C39, C40)	+ Vishay	MKP385447063JI0 2W0	630 Vd.c.; 0,47 µF; 125 °C	IEC 60384-14	VDE	
Capacitor (C35, C36, C37, C38, C39, C40)	+ Vishay	MKP1840-447- 635M	630 Vd.c.; 0,47 µF; 125 °C	IEC 60384-14	VDE	
Capacitor (C35, C36, C37, C38, C39, C40)	+ Wima	MKP4J034705G00 K	630 Vd.c.; 0,47 µF; 125 °C	IEC 60384-14	VDE	
Power Module (V12)	Vincotech	30- PT12NMA100SC0 1	<b>High (Low) Buck IGBT:</b> 1200 V; 99 A; Tj=175 °C  <b>High (Low) Buck IGBT Inv Diode:</b> 1200 V; 19 A; Tj=150 °C  <b>Boost FWD:</b> 1200 V; 74 A; Tj=175 °C  <b>High Buck FWD:</b> 600 V; 104 A;		Accepted	



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object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity1)	
			<p>Tj=175 °C</p> <p><b>Low Buck IGBT Inv Diode:</b> 1200 V; 20 A; Tj=175 °C</p> <p><b>Low Buck FWD:</b> 600 V; 49 A; Tj=175 °C</p> <p><b>Boost IGBT:</b> 600 V; 62 A; Tj=175 °C</p> <p><b>Boost IGBT Inv Diode:</b> 600 V; 16 A; Tj=175 °C</p> <p><b>Insulation Voltage:</b> 4 kV</p> <p><b>Housing:</b> PBT Pocan B4235+; UL 94 V- 0; 130 °C</p>			
Transformer (T10)	Voltis GmbH & Co	E-3139Ka	<p>Overall approx. dimension: 39 mm by 23 mm by 11 mm</p> <p><b>Rating:</b> Inductance: 500 µH Input: 50 Vss; 210 mA Output: 50 Vss; 210 mA Switching Frequency: 140 kHz</p> <p><b>Core:</b> Ferrite; E22PLT22; N87 or equivalent</p> <p><b>Insulation Tape:</b> Temp. Class B; Neoprene by CURS</p> <p><b>Insulation System:</b> 130 °C; Class B</p>		Accepted	
Transformer (T10) Bobbin	KSG	ML6	<p><b>Temp. Class:</b> 130 °C</p> <p><b>Flame Class:</b> UL 94 V-0; min. 0,064 mm thickness</p>	(ZPMV2)	cURus E143060	
Transformer (T10) Insulation Foil	+ E I Dupont	Thermoplastic	<p><b>Temp. Class:</b> 50 °C</p> <p><b>Flame Class:</b></p>	(QMFZ2)	cURus E41938	

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			UL 94 V-0; min. 1,5 mm thickness			
Transformer (T1, T2, T7, T8, T9)	Voltis GmbH & Co	E-909KA	<p>Closed type construction with overall approx. dimension: 28 mm by 21,5 mm by 11,4 mm</p> <p><b>Rating:</b> Input: 50 Vss; 30 mA Output: 50 Vss; 10 mA Switching Frequency: 140 kHz</p> <p><b>Core:</b> EFD 20/10/7; N87</p>		Accepted	
Transformer (T1, T2, T7, T8, T9)	Epcos	B78324A9277A003	<p>Closed type construction with overall approx. dimension: 28 mm by 21,5 mm by 11,4 mm</p> <p><b>Rating:</b> Input: 50 Vss; 30 mA Output: 50 Vss; 10 mA Switching Frequency: 140 kHz</p> <p><b>Core:</b> EFD 20/10/7; N87</p>		Accepted	
Transformer (T1, T2, T7, T8, T9)	Voltis	E-3168K/E-3168KA	<p>Closed type construction with overall approx. dimension: 28 mm by 21,5 mm by 11,4 mm</p> <p><b>Rating:</b> Input: 50 Vss; 30 mA Output: 50 Vss; 10 mA Switching Frequency: 140 kHz</p> <p><b>Core:</b> EFD 20/10/7; N87</p>		Accepted	
Transformer (T1, T2, T7, T8, T9)	Vogt	EI 110 128 11 13	<p>Closed type construction with overall approx. dimension: 28 mm by 21,5 mm by 11,4 mm</p> <p><b>Rating:</b> Input: 50 Vss; 30 mA</p>		Accepted	

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			Output: 50 Vss; 10 mA Switching Frequency: 140 kHz  <b>Core:</b> EFD 20/10/7; N87			
Optical Isolator (U1, U2, U3, U4, U5, U6, U7, U8, U9, U10, U11, U12)	+ Fairchild	FOD8320	Isolation Voltage min. 5000 Va.c. Op. Temp.: 100 °C	(FPQU2) IEC 60747-5-2	URus E90700 VDE	
Optical Isolator (U14, U17, U18, U19, U20)	+ Agilent	HCNR201	Isolation Voltage min. 5000 Va.c. Op. Temp. 100 °C	(FPQU2) VDE 0884	URus E55361 VDE	
Transistor (V114, V115)	+ On Semiconductor	2SK3747 2SK3748	Diameter 21,5 mm 1500 Vd.c.; Op. Temp. 85 °C Clamping Voltage 1500 V	(VZCA2) IEC 61643-331	URus E321126 VDE	
Current Transformer (U22, U23)	+ LEM	CKSR 25	Closed type construction with overall approx. dimension: 21,91 mm by 13,4 mm by 16 mm  <b>Primary:</b> 50 A  <b>Secondary:</b> max. 4,625 A  <b>Insulation Voltage:</b> 4 kV  <b>Flame Class:</b> UL 94 V-0  <b>Op. Temp.:</b> 105 °C	(NMTR2) IEC 61010-1	cURus E189713 VDE	
Current Transducer (U24)	LEM	HO 60-P	Closed type construction with overall approx. dimension: 21,91 mm by 13,4 mm by 16 mm  <b>Primary:</b> 600 Va.c./d.c.; 50 A  <b>Secondary:</b> 5 Vd.c.  <b>Electrostatic Discharge Voltage:</b> 2 kV  <b>Flame Class:</b> UL 94 V-0  <b>Amb./Op. Temp.:</b>	(NMTR2) IEC 61010-1	cURus E189713 VDE	

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			105 °C			
Relay (K1, K2, K3, K4)	Finder	67.23.9.024.4300	Contact: 230 Va.c.; 50 A Coil: 24 Vdc; 71 mA Amb. Temp.: 85 °C	(NRNT2) VDE 0126-1-1	cURus E106390 VDE	
<b>AC Output Supply Board</b>						
PCB AC Output Supply Board	+ Panasonic	R-1755M or R-1650M	Overall approx. dimension: 288 mm by 455 mm by min. 2,6 mm thickness  <b>Flame Class:</b> UL 94 V-0; 130 °C	(QMTS2)	URus E81336	
Connector (X218)	JST	B5P-VH-B(LF)(SN)	250 Va.c. / d.c.; 10 Aa.c. / d.c.; 85 °C	(ECBT2)	URus E60389	
Capacitor (C1, C2, C3, C4, C5, C6) Electrolytic Bulk	+ Nippon	E92F451VND152M BA0U	450 Vd.c.; 1500 µF; 105 °C		Accepted	
Capacitor (C1, C2, C3, C4, C5, C6) Electrolytic Bulk	+ STGCON	450SET152M4510 0HFB	450 Vd.c.; 1500 µF; 105 °C		Accepted	
Capacitor (C1, C2, C3, C4, C5, C6) Electrolytic Bulk	+ TDK	B43512A5158M00 0	450 Vd.c.; 1500 µF; 105 °C		Accepted	
Capacitor (C1, C2, C3, C4, C5, C6) Electrolytic Bulk	+ Jianghai	ECS2WQL152MT4 P44580	450 Vd.c.; 1500 µF; 105 °C		Accepted	
Capacitor (C1, C2, C3, C4, C5, C6) Electrolytic Bulk	+ Samxon	EHP158M2WR90S XSGP	450 Vd.c.; 1500 µF; 105 °C		Accepted	
Capacitor (C7, C8, C9, C10, C11, C12) Electrolytic Bulk	+ Hitachi	HU32W681MRAS7	450 Vd.c.; 600 µF; 105 °C		Accepted	
Capacitor (C7, C8, C9, C10, C11, C12) Electrolytic Bulk	+ Nippon	ECSH451VSN601 MA50T	450 Vd.c.; 600 µF; 105 °C		Accepted	
Capacitor (C7, C8, C9, C10, C11, C12) Electrolytic Bulk	+ TDK	B43544S5607M00 1	450 Vd.c.; 600 µF; 105 °C		Accepted	
Capacitor (C7, C8, C9, C10, C11, C12) Electrolytic Bulk	+ Jianghai	ECS2WQH681MT4 P23555	450 Vd.c.; 600 µF; 105 °C		Accepted	
Capacitor (C7, C8, C9, C10, C11, C12)	Samxon	EKP607M2WQ60S WSHP	450 Vd.c.; 600 µF; 105 °C		Accepted	

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Electrolytic Bulk						
Capacitor (C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24)	+ Vishay	MKP 385	250 Va.c.; 630 Vd.c.; 0,47 µF; 125 °C	IEC 60384-14	VDE	
Capacitor (C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24)	+ Vishay	MKP1840-447- 635M	250 Va.c.; 630 Vd.c.; 0,47 µF; 125 °C	IEC 60384-14	VDE	
Capacitor (C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24)	+ Wima	MKP4J034705G00 K	250 Va.c.; 630 Vd.c.; 0,47 µF; 125 °C	IEC 60384-14	VDE	
Power Module (V121, V212)	Vincotech	30- PT12NMA100SC0 1	<p><b>High (Low) Buck IGBT:</b> 1200 V; 99 A; Tj=175 °C</p> <p><b>High (Low) Buck IGBT Inv Diode:</b> 1200 V; 19 A; Tj=150 °C</p> <p><b>Boost FWD:</b> 1200 V; 74 A; Tj=175 °C</p> <p><b>High Buck FWD:</b> 600 V; 104 A; Tj=175 °C</p> <p><b>Low Buck IGBT Inv Diode:</b> 1200 V; 20 A; Tj=175 °C</p> <p><b>Low Buck FWD:</b> 600 V; 49 A; Tj=175 °C</p> <p><b>Boost IGBT:</b> 600 V; 62 A; Tj=175 °C</p> <p><b>Boost IGBT Inv Diode:</b> 600 V; 16 A; Tj=175 °C</p> <p><b>Insulation Voltage:</b> 4 kV</p> <p><b>Housing:</b> PBT Pocan B4235+; UL 94 V-0; 130 °C</p>		Accepted	
Connector (X1, X2, X3, X202, XA212, XA213, XB211, XB212, XB213)	+ Phoenix	SPT16/ 1-V-10,0	1000 V; 76 A; 105 °C	(XCFR2)	cURus E60425	

14	TABLE: list of critical components					P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity1)	
Relay (K1, K2, K3, K4)	Finder	67.23.9.024.4300	Contact: 230 Va.c.; 50 A Coil: 24 Vd.c.; 71 mA Amb. Temp.: 85 °C	(NRNT2) VDE 0126-1-1	cURus E106390 VDE	
Relay (K6, K7)	Finder	45.31.7.024 S	Contact: 230 Va.c.; 16 A Coil: 24 Vd.c.; 15 mA Amb. Temp.: 105 °C	(NLDX2) VDE 0126-1-1	cURus E81856 VDE	
Inductor (L1)	Schaffner	RU32970-65-99	Open type construction with overall approx. dimension: 70 mm by 73 mm by 45 mm  <b>Rating:</b> 4x 0,42 mH; 65 A Op. Temp. 130 °C  <b>Core:</b> Nanocrystalline  <b>Core Isolation:</b> PET; QMFZ2 Flame Class: UL 94 V-0; min. 0,35 mm thickness  <b>Wire:</b> Enamelled copper magnet wire wound on Core MW-35; 2,2 mm <sup>2</sup> ; C2,5 MW-35; 2,6 mm <sup>2</sup> ; C2,5  <b>Base plate:</b> Amilan P66; QMFZ2 Flame Class: UL 94 V-0; min. 0,9 mm thickness  <b>Spacer:</b> Flame Class: UL 94 V-0; min. 0,35 mm thickness		Accepted	
Capacitor (C40, C41, C42, C43) Line to PE	+ Vishay	WKP472MCPEF0K R	500 Va.c.; 4,7 nF; 125 °C; Y1	(FOWX2) IEC 60384-14	cURus E183844 VDE	
Capacitor (C40, C41, C42, C43) Line to PE	+ Vishay	WKP472MCPEJ0K R	500 Va.c.; 4,7 nF; 125 °C; Y1	(FOWX2) IEC 60384-14	cURus E183844 VDE	
Capacitor (C40, C41, C42, C43) Line to PE	+ Kemet	ERP610VH4470M	500 Va.c.; 4,7 nF; 125 °C; Y1	(FOWX2) IEC 60384-14	cURus E356389 VDE	
Capacitor (C44, C45, C46) Line to PE	+ Vishay	WKP Series	500 Va.c.; 220 pF; 125 °C; Y1 UL 250 Va.c.	(FOWX2) IEC 60384-14	cURus E183844 VDE	

14	TABLE: list of critical components					P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity1)	
Capacitor (C44, C45, C46) Line to PE	+ Keko	KZH/KZL	500 Va.c.; 220 pF; 125 °C; X1/Y1 UL 250 Va.c.	(FOWX2) IEC 60384-14	cURus E163318 VDE	
Capacitor (C44, C45, C46) Line to PE	+ Kemet	ERP610VH3220M	500 Va.c.; 220 pF; 125 °C; Y1 UL 250 Va.c.	(FOWX2) IEC 60384-14	cURus E356389 VDE	
Capacitor (C195) Line to PE	+ Vishay	WKP Series	300 Va.c.; 470 nF; 125 °C; Y2 UL 250 Va.c.	(FOWX2) IEC 60384-14	cURus E183844 VDE	
Varistor (R68, R69, R70, R71)	+ Epcos	S20K550	Diameter 21,5 mm 745 Vd.c.; Op. Temp. 85 °C Clamping Voltage 1500 V	(VZCA2) IEC 61643-331	URus E321126 VDE	
Surge arrester (F1)	Epcos	EF800X	680 V to 1000 V; Op. Temp. 90° C	(VZCA2) VDE 0845	cURus E319264 VDE	
Transformer (T3, T4, T5, T6)	Voltis GmbH & Co	E-909K	Closed type construction with overall approx. dimension: 28 mm by 21,5 mm by 11,4 mm  <b>Rating:</b> 3x 875 µH 1x 940 µH Input: 50 Vss; 30 mA Output: 50 Vss; 10 mA Switching Frequency: 140 kHz  <b>Core:</b> EFD 20/10/7; N87		Accepted	
Transformer (T3, T4, T5, T6)	Epcos	B78324A9277A003	Closed type construction with overall approx. dimension: 28 mm by 21,5 mm by 11,4 mm  <b>Rating:</b> 3x 875 µH 1x 940 µH Input: 50 Vss; 30 mA Output: 50 Vss; 10 mA Switching Frequency: 140 kHz  <b>Core:</b> EFD 20/10/7; N87		Accepted	
Transformer (T3, T4, T5, T6)	Voltis	E-3168K/E-3168KA	Closed type construction with overall approx. dimension: 28 mm by 21,5 mm by 11,4 mm  <b>Rating:</b> 3x 875 µH 1x 940 µH		Accepted	

14	TABLE: list of critical components					P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity1)	
			Input: 50 Vss; 30 mA Output: 50 Vss; 10 mA Switching Frequency: 140 kHz  <u>Core:</u> EFD 20/10/7; N87			
Transformer (T3, T4, T5, T6)	Vogt	EI 110 128 11 13	Closed type construction with overall approx. dimension: 28 mm by 21,5 mm by 11,4 mm  <u>Rating:</u> 3x 875 µH 1x 940 µH Input: 50 Vss; 30 mA Output: 50 Vss; 10 mA Switching Frequency: 140 kHz  <u>Core:</u> EFD 20/10/7; N87		Accepted	
Optical Isolator (U4, U5, U6, U7, U8, U9, U10, U11, U12, U13, U14, U15)	+ Fairchild	FOD8320	Isolation Voltage min. 5000 Va.c. Op. Temp.: 100 °C	(FPQU2) IEC 60747-5-2	URus E90700 VDE	
Current Transformer (U1, U2, U3)	+ LEM	CKSR 50-NP	Closed type construction with overall approx. dimension: 21,91 mm by 13,4 mm by 16 mm  <u>Primary:</u> 50 A  <u>Secondary:</u> max. 4,625 A  <u>Insulation Voltage:</u> 4 kV  <u>Flame Class:</u> UL 94 V-0  <u>Op. Temp.:</u> 105 °C	(NMTR2) IEC 61010-1	cURus E189713 VDE	
Current Transformer (U19)	+ LEM	CTSR0.3-P/SP10	Closed type construction with overall approx. dimension: 21,91 mm by 13,4 mm by 16 mm  <u>Primary:</u> 500 mA	(NMTR2) IEC 61010-1	cURus E189713 VDE	



14	TABLE: list of critical components					P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity1)	
			<u>Secondary:</u> 7 A  <u>Insulation Voltage:</u> 4250 V  <u>Flame Class:</u> UL 94 V-0  <u>Op. Temp.:</u> 105° C			
Optical Isolator (U16, U17)	Agilent	HCNR201	Isolation Voltage min. 5000 Va.c. Op. Temp. 100 °C	(FPQU2) VDE 0884	URus E55361 VDE	
Capacitor (C143) Line to Line	+ Epcos	MKP4 B32651	1000 Vd.c.; 0,22 µF; 105 °C; X		Accepted	
Capacitor (C143) Line to Line	+ Wima	MKP4O132205I00 KJSD	1000 Vd.c.; 0,22 µF; 105 °C; X	IEC 60384-16 EN 131 200	VDE	
Capacitor (C143) Line to Line	+ Epcos	B32653A0224K000	1000 Vd.c.; 0,22 µF; 105 °C; X	IEC 60384-16	VDE	
Capacitor (C143) Line to Line	+ Vishay	MKP1840422105M	1000 Vd.c.; 0,22 µF; 105 °C; X	IEC 61071 IEC 60068	VDE	
Capacitor (C143) Line to Line	+ Arcotronics	R474N32200001K	1000 Vd.c.; 0,22 µF; 105 °C; X		Accepted	
Capacitor (C143) Line to Line	+ Iskra	KNU1910	1000 Vd.c.; 0,22 µF; 100 °C; X	IEC 60384-16	VDE	
Capacitor (C141)	+ Epcos	B32776E0126K000	900 Vd.c.; 10 µ F / 12 µF; 85 °C	IEC 60384-16	VDE	
Capacitor (C141)	+ Wima	DC-LINK MKP 4	900 Vd.c.; 10 µ F / 12 µF; 85 °C	IEC 60384-16 EN 131 200	VDE	
Capacitor (C141)	+ Vishay	MKP1848612094P 2	900 Vd.c.; 10 µ F / 12 µF; 85 °C	IEC 61071 IEC 60068	VDE	
Capacitor (C141)	+ Vishay	MKP1848610094P 2	900 Vd.c.; 10 µ F / 12 µF; 85 °C	IEC 61071 IEC 60068	VDE	
Capacitor (C146, C147) Line to PE	+ Vishay	BFC233868106	300 Va.c.; 4,7 nF; 105 °C; Y2	(FOWX2) IEC 60384-14	cURus E183844 VDE	
Capacitor (C146, C147) Line to PE	+ Epcos	B32021A3472M18 9	300 Va.c.; 4,7 nF; 105 °C; Y2	(FOWX2) IEC 60384-14	cURus E97863 VDE	
Capacitor (C146, C147) Line to PE	+ Xiamen Faratronic	C43Q1472M40A40 5	300 Va.c.; 4,7 nF; 105 °C; Y2	(FOWX2) IEC 60384-14	cURus E186600 VDE	
Transistor (V126)	+ Cree	C2M1000170	1700 V; 4,9 A; 1 Ohm; 150 °C		Accepted	
Transformer (T2)	Voltis	E-3191K	Open type construction with overall approx. dimension: 44,4 mm by 37,2 mm by 32 mm  <u>Rating:</u> Input Voltage: max.1000 V Output Voltage: 24 V		Accepted	

14	TABLE: list of critical components				P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity1)
			Frequency: 32 kHz  <b>Core:</b> ETD 29/N87 or 3F3; Mf102; 35G  <b>Wire:</b> Class F; T-AA-X- XX-E by Rubadue E206198 Class B; TEX-E by Furukawa E206440  <b>Bobbin:</b> Temp. Class: 155 °C; Class F Flame Class: UL 94 V-0; min. 0,9 mm thickness  <b>Insulation Foil:</b> Temp. Class: 155 °C; Class F 0,025 mm thickness with adhesive: 0,06 mm  <b>Insulation Tape:</b> Temp. Class: 155 °C; Class F 0,025 mm thickness with adhesive: 0,06 mm  <b>Insulation Systems:</b> 155 °C; Class B		
Capacitor (C148, C149, C150, C151) Electrolytic	+ Nippon	LXY Series	35 V; 1000 µF; 105 °C		Accepted
Capacitor (C148, C149, C150, C151) Electrolytic	+ Philips	RVI136	35 V; 1000 µF; 105 °C		Accepted
Connector (X203)	+ Phoenix	MCV1,5/4-G-3,5	300 V; 8 A; 115 °C	(XCFR2) VDE	cURus E60425
<b>Control Panel Board</b>					
PCB Control panel	+ Panasonic	R1755M or R-1650M	Overall approx. dimension: 200 mm by 80 mm by min. 1,6 mm thickness  <b>Flame Class:</b> UL 94 V-0; 130 °C	(QMTS2)	URus E81336
Inductor (L2, L22)	Würth	TPC 7440530047	Closed type construction with overall approx. dimension: 5,8 mm by 5,8 mm by 2,8 mm  <b>Rating:</b> 4,7 µH; 2,4 A		Accepted

14		TABLE: list of critical components				P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity1)	
			Op. Temp.: 125 °C			
Capacitor (C183)	+ Starcap/ Korchip	DCLT 5R5 105	5,5 Vd.c.; 1 F; 85 °C		Accepted	
Capacitor (C183)	+ Panasonic	EECRF0H105N	5,5 Vd.c.; 1 F; 85 °C		Accepted	
Capacitor (C185, C186, C220, C228, C232)	+ Vishay	S102K43Y5PR63K 7R	3000 Vd.c.; 1 nF; 125 °C	IEC 60384	Accepted	
Transformer (T1)	Würth	FE7490140110	Closed type construction with overall approx. dimension: 18,25 mm by 24,55 mm by 10,85 mm  <b>Rating:</b> 350 µH; 8 mA  <b>Core:</b> Ferrite; Toroid		Accepted	
Transformer (T1) Wire	Rubadue	TCA3	<b>Temp. Class:</b> 155 °C; Class F	(OBJT2)	URus E206198	
Transformer (T1) Wire	Great Leoflon	UTWA-1X	<b>Temp. Class:</b> 180 °C; Class H	(OBJT2)	URus E211989	
Transformer (T1) Epoxy	Dow Corning	1-2577	<b>Temp. Class:</b> 130 °C  <b>Flame Class:</b> UL 94 V-0; min. 1,4 mm thickness	(QMJU2)	URus E81611	
Transformer (T1) Insulating Tape	3M	75	<b>Temp. Class:</b> 130 °C	(OANZ2)	URus E17385	
Transformer (T1) Case	Sumitomo	PM-9630	<b>Temp. Class:</b> 150 °C  <b>Flame Class:</b> UL 94 V-0; min. 0,16 mm thickness	(QMFZ2)	cURus E41429	
DC/DC Converter (U9)	XP Power	IW2405SA-H	Input: 24 Vd.c. Output: 5 V Isolation Voltage: 3 kVd.c. Op. Temp.: 85 °C		Accepted	
DC/DC Converter (U9)	RECOM	RSO-2405S/H3	Input: 24 Vd.c.; 8 mA Output: 5 V; 200 mA Isolation Voltage: 3 kVd.c. Op. Temp.: 100 °C	EN 60950-1 EN 60601-1	Accepted	
DC/DC Converter (U9)	Aimtec	AM1G-2405SH30Z	Input: 24 Vd.c. Output: 5 V; 200 mA Isolation Voltage: 3 kVd.c. Op. Temp.: 85 °C	EN 55022 EN 55024 IEC 61000	Accepted	
Digital Isolator (U10, U17)	Silicon Labs	Si8431AB	Supply Voltage: 2,7 V to 5,5 V Isolation Voltage: 3600 V Op. Temp.: 125 °C	IEC 60950- IEC 60747-5-2 VDE 0884	VDE	
DC/DC Converter (U35)	RECOM	REC3-2412 DRWZ H4A	Input: 24 Vd.c. Output: 12 V	(QQGQ2)	cURus E358085	

14		TABLE: list of critical components				P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity <sup>1)</sup>	
			Isolation Voltage: 1,6 kV Op. Temp.: 85 °C			
DC/DC Converter (U35)	Aimtec	AM3TW- 2412DH35Z	Input: 24 Vd.c. Output: 12 V; 125 mA Isolation Voltage: 3,5 kV Op. Temp.: 85 °C		Accepted	
<b>Display Board</b>						
PCB Display Board	+ Panasonic	R1755M or R-1650M	Overall approx. dimension: 90 mm by 80 mm by min. 1,6 mm thickness  <b>Flame Class:</b> UL 94 V-0; 150 °C	(QMTS2)	URus E81336	
Display (H5)	MSC Gleichmann	GE-012864D1- TFH/R020	Overall approx. dimension: 80 mm by 54 mm by 10,2 mm  Supply Voltage: 3,3 V Op. Temp.: 70 °C		Accepted	
Display (H5)	Autronic Melchers	aMZ-12864D1- FPFLW-W-6#020	Overall approx. dimension: 80 mm by 54 mm by 10,2 mm  Supply Voltage: 3,3 V Op. Temp.: 70 °C		Accepted	
Holder for SR Board	+ Cool Case	Aluminium	Overall approx. dimension: 249 mm by 60 mm by 29 mm by min. 1,2 mm thickness		Accepted	
<b>AC Filter Board</b>						
PCB AC Filter Board	+ Panasonic	R1755M or R-1650M	Overall approx. dimension: 170 mm by 100 mm by min. 1,6 mm thickness  <b>Flame Class:</b> UL 94 V-0; 150 °C	(QMTS2)	URus E81336	
Capacitor (C1) Line to Line	+ Kemet	ERP610VH4470M	500 Va.c.; 4,7 nF; 125 °C; Y1	(FOWX2) IEC 60384-14	cURus E356389 VDE	
Capacitor (C1) Line to Line	+ Vishay	WKP472MCPEJ0K R	500 Va.c.; 4,7 nF; 125 °C; Y1	(FOWX2) IEC 60384-14	cURus E183844 VDE	
Capacitor (C1) Line to Line	+ Vishay	WKP472MCPEF0K R	500 Va.c.; 4,7 nF; 125 °C; Y1	(FOWX2) IEC 60384-14	cURus E183844 VDE	
Capacitor (C5, C6, C7) Line to PE	+ Vishay	WKP221MCPEF0K	500 Va.c.; 220 pF; 125 °C; Y1 UL 250 Va.c.	(FOWX2) IEC 60384-14	cURus E183844 VDE	
Capacitor (C5, C6, C7) Line to PE	+ Kemet	ERP610VH3220M	500 Va.c.; 220 pF; 125 °C; Y1 UL 250 Va.c.	(FOWX2) IEC 60384-14	cURus E356389 VDE	
Capacitor (C5, C6, C7)	+ Keko	KZH/KZL	500 Va.c.; 220 pF; 125 °C; X1/Y1	(FOWX2) IEC 60384-14	cURus E163318 VDE	

14		TABLE: list of critical components				P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity1)	
Line to PE			UL 250 Va.c.			
Capacitor (C8) Line to PE	+ Epcos	B32024A3474M	300 Va.c.; 470 nF; 125 °C; Y2 UL 250 Va.c.	(FOWX2) IEC 60384-14	cURus E97863 VDE	
<b>DC Filter Board</b>						
PCB DC Filter Board	+ Panasonic	R1755M or R-1650M	Overall approx. dimension: 170 mm by 100 mm by min. 1,6 mm thickness  <b>Flame Class:</b> UL 94 V-0; 150 °C	(QMTS2)	URus E81336	
Connector (X1, X2, X3, X4)	+ Phoenix	SPT16/ 1-V-10,0	1000 V; 76 A; 105 °C	(XCFR2)	cURus E60425	
Varistor (R1, R2)	+ Epcos	S20K1000 B72220S0102K101	Diameter 21,5mm 1465 Vd.c.; 6500 A; 125 °C	(VZCA2) IEC 61643-331	URus E321126 VDE	
Capacitor (C7, C8) Line to PE	+ Vishay	WKP Series	500 Va.c.; 470 pF; 125 °C; Y2	(FOWX2) IEC 60384-14	cURus E183844 VDE	
Capacitor (C10, C20) Line to Line	+ Epcos	B32776E0126K000	900 Vd.c.; 10 µF / 12 µF; 105 °C; X	IEC 60384-16	VDE	
Capacitor (C10, C20) Line to Line	+ Wima	MKP 4	900 Vd.c.; 10 µF / 12 µF; 100 °C; X	IEC 60384-16 EN 131 200	VDE	
Capacitor (C10, C20) Line to Line	+ Vishay	MKP1848612094P 2	900 Vd.c.; 10 µF / 12 µF; 85 °C; X	IEC 61071 IEC 60068	VDE	
Capacitor (C10, C20) Line to Line	+ Vishay	MKP1848610094P 2	900 Vd.c.; 10 µF / 12 µF; 85 °C; X	IEC 61071 IEC 60068	VDE	
Capacitor (C5, C6, C21, C22) Line to PE	+ Vishay	BFC233868106	300 Va.c.; 4,7 nF; 105 °C; Y1	(FOWX2) IEC 60384-14	cURus E183844 VDE	
Capacitor (C5, C6, C21, C22) Line to PE	+ Epcos	B32021A3472M18 9/000	300 Va.c.; 4,7 nF; 105 °C; Y1	(FOWX2) IEC 60384-14	cURus E97863 VDE	
Capacitor (C5, C6, C21, C22) Line to PE	+ Xiamen Faratronic	C43Q1472M40A40 5	300 Va.c.; 4,7 nF; 105 °C; Y1	(FOWX2) IEC 60384-14	cURus E186600 VDE	
Capacitor (C3, C4) Line to PE	+ Epcos	B32024A3224M	300 Va.c.; 220 nF; 110 °C; Y2	(FOWX2) IEC 60384-14	cURus E97863 VDE	
Capacitor (C3, C4) Line to PE	+ Vishay	BFC233860224	300 Va.c.; 220 nF; 105 °C; Y2	(FOWX2) IEC 60384-14	cURus E354331 VDE	
Capacitor (C3, C4) Line to PE	+ Epcos	B32024B3224M	300 Va.c.; 220 nF; 110 °C; Y2	(FOWX2) IEC 60384-14	cURus E97863 VDE	
Inductor (L2)	Sumida	EL 160 621 11 12	Overall approx. dimension: 40 mm by 72 mm  <b>Rating:</b> 2x 0,5 mH; 2x 85 A; 2,25 kVrms Op. Temp. 130 °C  <b>Core:</b> Ferrite; Toroid		Accepted	
Inductor (L2)	+ NAN YA	FR-4-86	<b>Flame Class:</b> UL 94 V-0; 130 °C	(QMTS2)	cURus E98983	

14		TABLE: list of critical components				P
object/part No.	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity <sup>1)</sup>	
Spacer			at 0,18 mm thickness			
Inductor (L2) Spacer	+ Kingboard	KB-6150/6150C	<b>Flame Class:</b> UL 94 V-0; 130 °C at min. 0,38 mm thickness	(QMTS2)	cURus E123995	
Inductor (L2) Base Plate	+ Doosan	DS-7106A CEM-1	<b>Flame Class:</b> UL 94 V-0; 130 °C at min. 0,63 mm thickness	(QMTS2)	URus E103670	
Inductor (L2) Base Plate	+ Kingboard	KB-5150&	<b>Flame Class:</b> UL 94 V-0; 130 °C at min. 0,63 mm thickness	(QMTS2)	cURus E123995	
Inductor (L2) Magnet Wire	+ LWW	Damid 200	<b>Temp. Class:</b> 200 °C	(OBMW2)	URus E101843	
Inductor (L2) Core Insulation	+ NEWRIXU Electronic	A-010A	<b>Flame Class:</b> UL 94 V-0; 90 °C at min. 0,2 mm thickness	(QMFZ2)	URus E257126	
Inductor (L2) Insulating Tape	+ 3M	1350F-1	<b>Temp. Class:</b> 130 °C	(OANZ2)	URus E17385	
Inductor (L2) Insulating Tape	+ CMC	CMC 10858	<b>Temp. Class:</b> 130 °C	(OANZ2)	URus E93622	
Inductor (L2) Insulating Tape	+ Jingjiang	PZ280	<b>Temp. Class:</b> 130 °C	(OANZ2)	URus E165111	
Inductor (L2) Insulating	Mitsubishi	Hostaphan RN	<b>Temp. Class:</b> 105 °C	(QMFZ2)	URus E53895	
Inductor (L2)	SchwaMedico	AREF-0024	Overall approx. dimension: 45 mm by 80 mm  <b>Rating:</b> 2x 0,5 mH; 2x 85 A Amb. Temp. 80 °C  <b>Coil:</b> Enamelled Copper Magnet Wire wound on Core  <b>Magnet Wire / Bare Copper Foil:</b> CuL 2.8 / MW 35- C; NEMA MW 1000; Temp. Index H		Accepted	
Inductor (L2) Core	Ferroxcube	TX63/38/25-3E27	<b>Flame Class:</b> UL 94 V-0; Temp. Index N	(OCDT2)	URus E228348	
Inductor (L2) Base Plate	+ Kingboard	FR-4	<b>Flame Class:</b> UL 94 V-0; Temp. Index B	(QMTS2)	cURus E123995	

<sup>1)</sup> an asterisk indicates a mark which assures the agreed level of surveillance

<sup>2)</sup> + means, that components from other vendor and other model number, but with the same rating and equivalent approvals are accepted.