

## EMC test laboratory Royal Philips Drachten, Netherlands

Report : SM 9628	Samples : 3	Appliance : Epilator
Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivatives: See page 2
Tested sample: BRE605 & BCR430		
Remarks : Panasonic Safety Track		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

**Test equipment calibrated up to February, 2021**

### Summary of test results :

Tested according to	Test result
2014/30/EU	PASS

### RF Emission

Test according to :	Result
EN 55011:2009+A1	N.A.
CISPR 11:2009+A1	
EN 55014-1:2017	Pass
CISPR 14-1:2016	
EN 55015:2013+A1	N.A.
CISPR 15:2013+A1	

### LF Emission

Test according to :	Result
EN 61000-3-2:2014	Pass
IEC 61000-3-2:2014	
EN 61000-3-3:2013	Pass
IEC 61000-3-3:2013+A1	

### Immunity

Test according to :	Result
EN 55014-2:2015	Pass
CISPR 14-2:2015	
EN 60601-1-2:2014	N.A.
IEC 60601-1-2:2014	

Test conditions EMC-EMF laboratory:	
Temperature:	22.4 °C
Humidity:	58.9 %

## FINAL TEST RESULT:

**Fulfills EMC-requirements for CE-mark**

### Interference source :

Electronics.  
Commutatormotor Loda,  
type : LD-280FC-3254P1 - 3V6.  
exchangeable with :  
Commutatormotor Jiaai,  
type : JP24/303453 - 3V6.

### Interference suppression :

<C101> Cap: 470pF  
<C102> Cap: 10nF  
<C104b> Cap: 47nF  
<C108> Cap: 47nF  
<C112> Cap: 10nF  
<D802> Diode, ROHM, Schottky.  
<R124> 4R7 Ohm  
<L102> 10R @ 100MHz  
<M> Disk varistor on commutator,

This report is based on testdata from report SM9573

### Circuitdiagram

See page 23 & 24.

### Mircoprocessor

16MHz

### Appliance tested with Powerplug :

HQ8505/D (PI electronics ) see : SM8889 (U4)  
HQ8505/SSW2600 (Salom)see : SM8859 (U4)  
exchangeable with :  
HQ8505/D (PI electronics ) see : SM9468 (U5)

(most unfavorable values noted in this report)

**PHILIPS**  
EMC testlab.  
Box 20100  
9200 CA Drachten  
Netherlands



Measurements are done according required standards and norms in all aspects such as test setup, placement (distance) of EUT, cord length, test voltage etc.

**Test Engineer :** H. Bodde

**Date :** March 30, 2020

**Signed for approval :** J. Hoekstra

## EMC test laboratory Royal Philips Drachten, Netherlands

Report : SM 9573	Appliance : Epilator
Date : March 30, 2020	type nr. : BRE605
Test engineer : H. Bodde	
Tested sample: BRE605 & BCR430	
Remarks : Panasonic Safety Track	
Test purpose : Release	Rating : 100-240V / 9W
Manufacturer : China	50/60Hz.

### Typenumbers

Parent : BRE605  
Derived : BRE610 up to and including BRE659

MS6440

BRL175

BCR430

BCR431

BRP535

BRP545

BRP566

BRP586

BRE700

BRE710

BRE712

BRE715

BRE720

BRE721

BRE730

BRE732

BRE735

BRE740

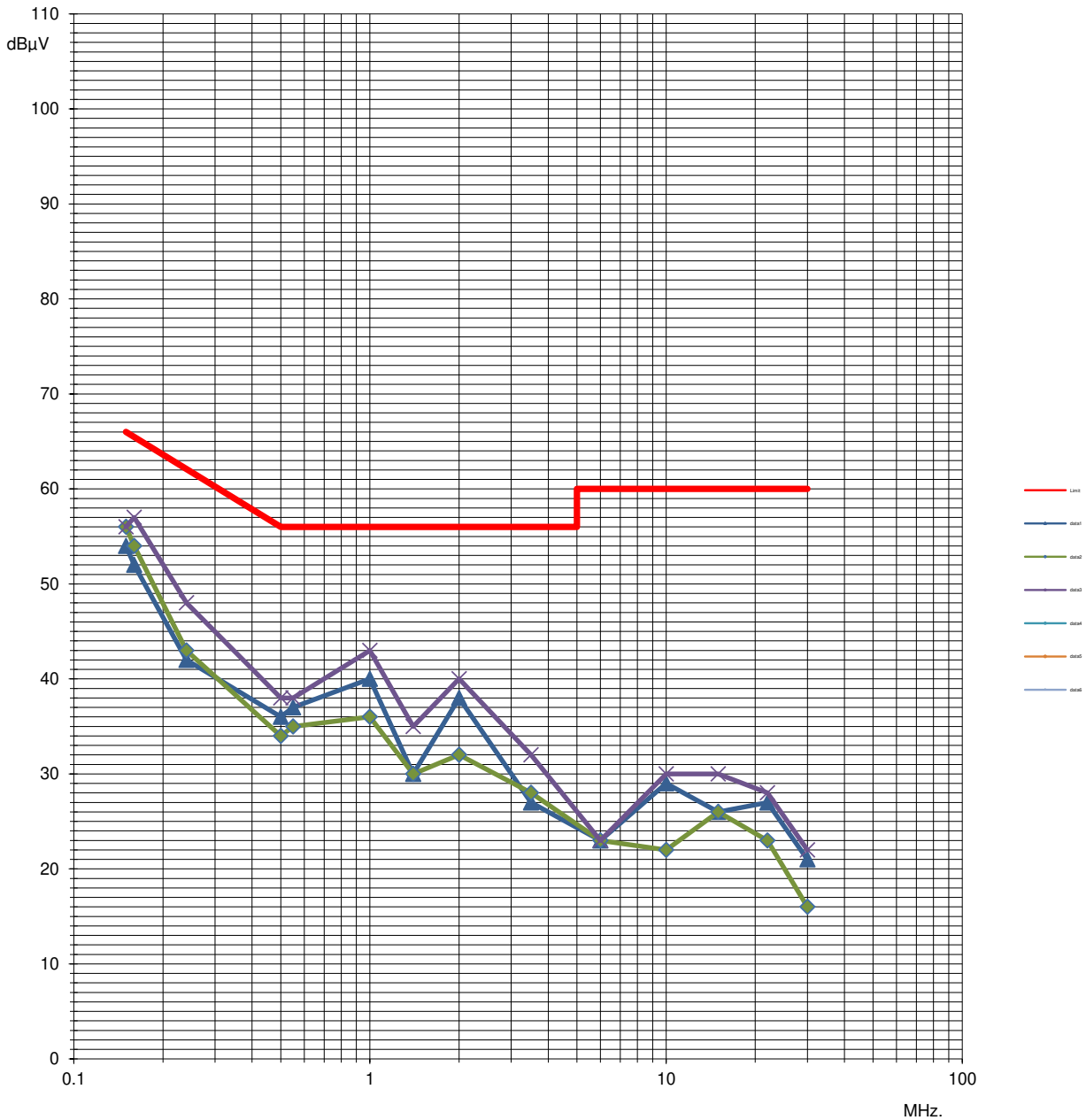
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Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : Tested with HQ8505 PIE		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

## Voltage measurement 0.1485-30 MHz. acc. to CISPR-14 Q-PEAK detector / Q-PEAK limit

Test equipment : Receiver TESEQ SMR4503

LISN ROHDE&SCHWARZ ENV 216



**TESTRESULT**

**PASS**

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Test equipment : Receiver TESEQ SMR4503 LISN ROHDE&SCHWARZ ENV 216

Frequency (MHz.)	Emission of appliance nr.: (dBμV)									80%/80% calculation			
	1	2	3	---	---	---	Margin1	Margin2	Margin3	X	S	X+K*S	Limit
0.1500	54	56	56										66
0.1600	52	54	57										65.5
0.2400	42	43	48				-12.0	-10.0	-8.5	-10	1.8	-6.5	62.1
0.5000	36	34	38										56
0.5500	37	35	38										56
1.0000	40	36	43										56
1.4000	30	30	35										56
2.0000	38	32	40										56
3.5000	27	28	32				-16.0	-20.0	-13.0	-16	3.5	-9.2	56
6.0000	23	23	23										60
10.0000	29	22	30										60
15.0000	26	26	30										60
22.0000	27	23	28										60
30.0000	21	16	22				-31.0	-34.0	-30.0	-32	2.1	-27.4	60
							<b>TESTRESULT</b>	<b>PASS</b>					

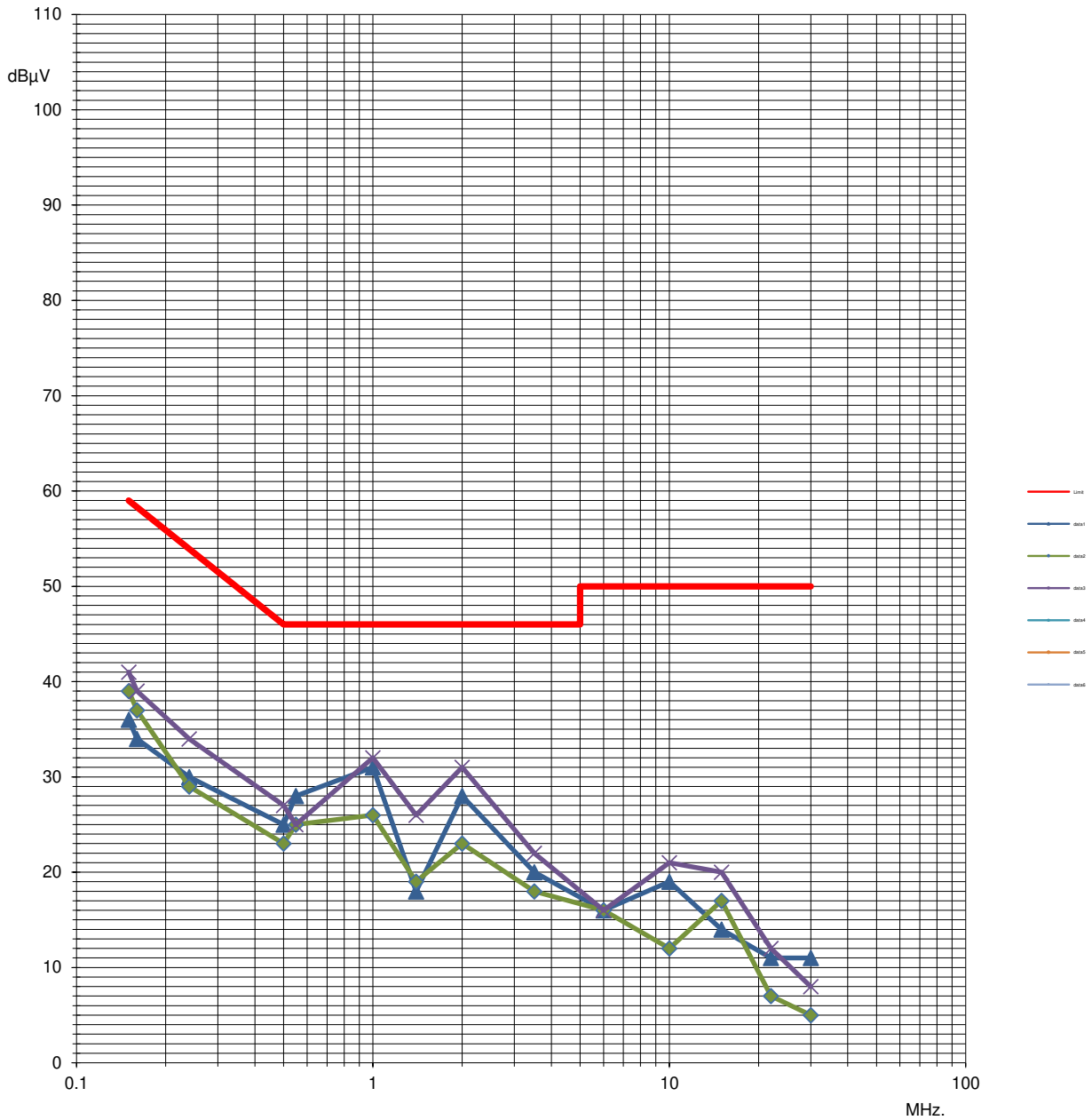
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Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

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<b>TESTRESULT</b>	<b>PASS</b>
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Manufacturer : China		50/60Hz.

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Frequency (MHz.)	Emission of appliance nr.: (dBμV)									80%/80% calculation			
	1	2	3	---	---	---	Margin1	Margin2	Margin3	X	S	X+K*S	Limit
0.1500	36	39	41										59
0.1600	34	37	39										58.3
0.2400	30	29	34				-23.0	-20.0	-18.0	-20	2.5	-15.2	53.9
0.5000	25	23	27										46
0.5500	28	25	25										46
1.0000	31	26	32										46
1.4000	18	19	26										46
2.0000	28	23	31										46
3.5000	20	18	22				-15.0	-20.0	-14.0	-16	3.2	-9.8	46
6.0000	16	16	16										50
10.0000	19	12	21										50
15.0000	14	17	20										50
22.0000	11	7	12										50
30.0000	11	5	8				-31.0	-33.0	-29.0	-31	2	-26.9	50
							TESTRESULT	PASS					

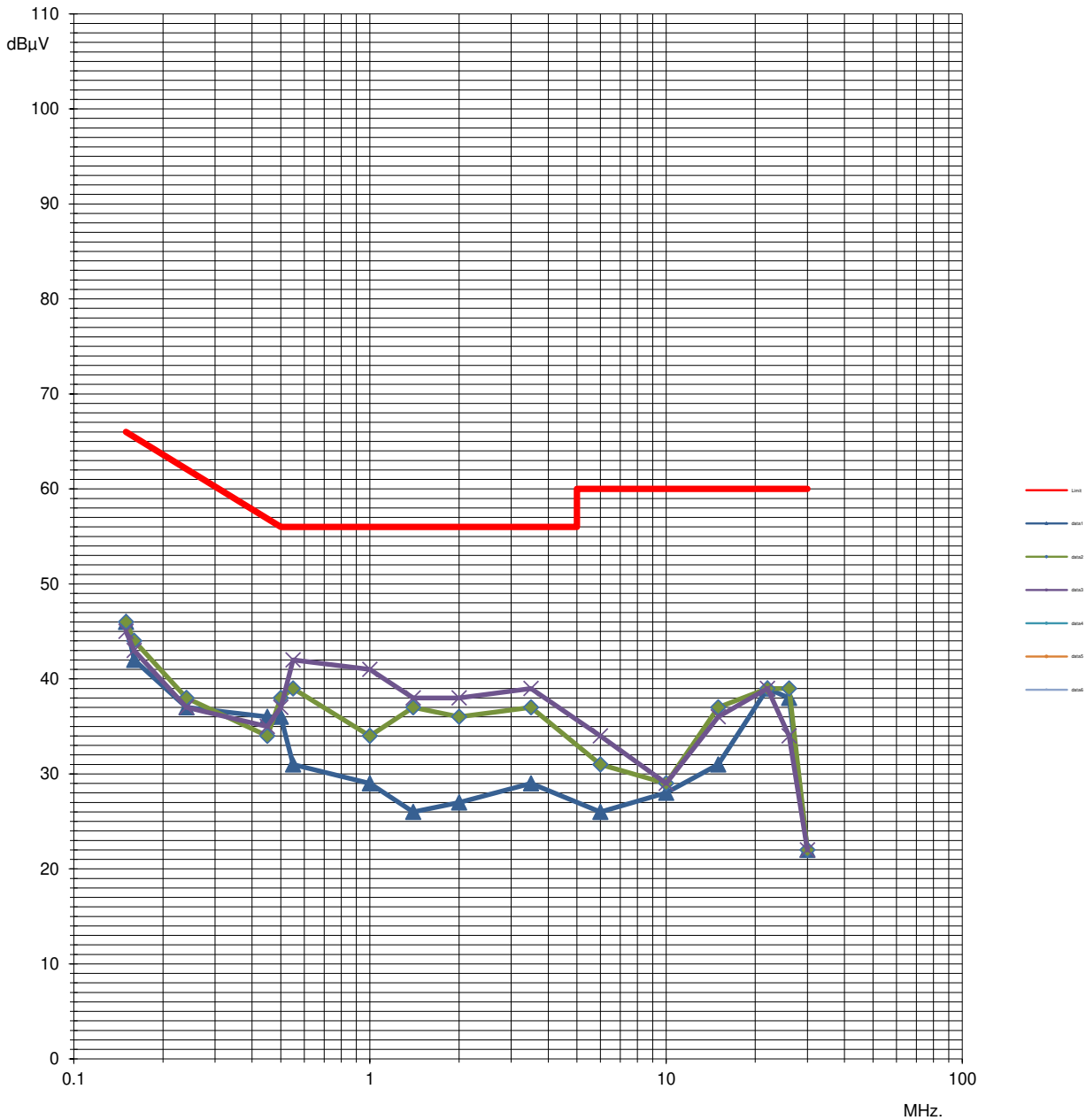
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Report : SM 9628	Samples : 3	Appliance: Epilator
Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : Tested with HQ8505 Salom		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

### Voltage measurement 0.1485-30 MHz. acc. to CISPR-14 Q-PEAK detector / Q-PEAK limit

Test equipment : Receiver TESEQ SMR4503

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**TESTRESULT**

**PASS**

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Remarks : Tested with HQ8505 Salom		
Test purpose : Release	Rating : 100-240V / 9W	
Manufacturer : China	50/60Hz.	

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Frequency (MHz.)	Emission of appliance nr.: (dB $\mu$ V)									80%/80% calculation				
	1	2	3	---	---	---	Margin1	Margin2	Margin3	X	S	X+K*S	Limit	
0.1500	46	46	45										66	
0.1600	42	44	43										65.5	
0.2400	37	38	37										62.1	
0.4500	36	34	35				-20.0	-20.0	-21.0				56.9	
0.5000	36	38	37										56	
0.5500	31	39	42										56	
1.0000	29	34	41										56	
1.4000	26	37	38										56	
2.0000	27	36	38										56	
3.5000	29	37	39				-20.0	-17.0	-14.0				56	
6.0000	26	31	34										60	
10.0000	28	29	29										60	
15.0000	31	37	36										60	
22.0000	39	39	39										60	
26.0000	38	39	34										60	
30.0000	22	22	22				-21.0	-21.0	-21.0				60	
							<b>TESTRESULT</b>					<b>PASS</b>		



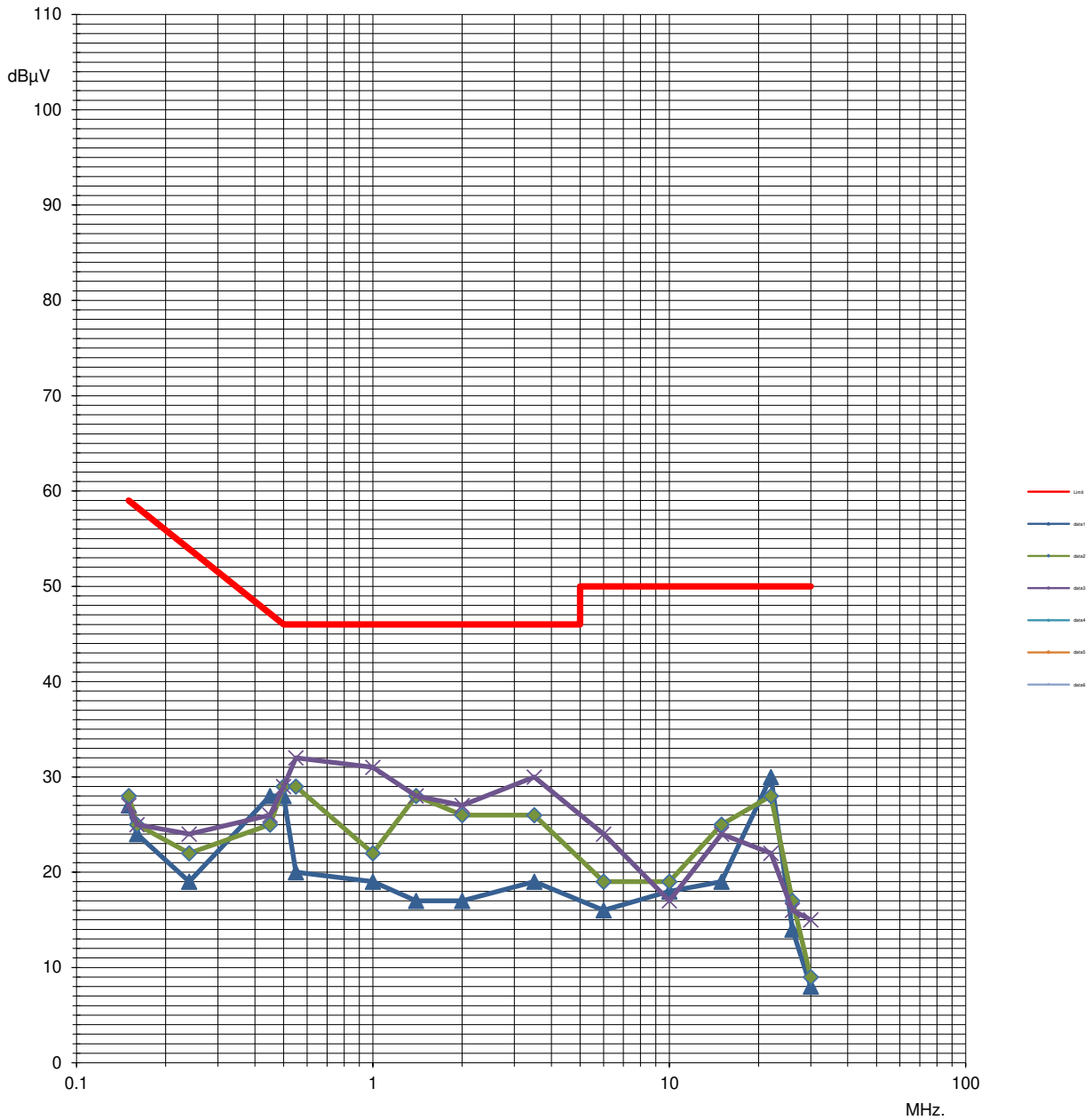
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Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : Tested with HQ8505 Salom		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

## Voltage measurement 0.1485-30 MHz. acc. to CISPR-14 AVERAGE detector / AVERAGE limit

Test equipment : Receiver TESEQ SMR4503

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<b>TESTRESULT</b>	<b>PASS</b>
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Test equipment : Receiver TESEQ SMR4503 LISN ROHDE&SCHWARZ ENV 216

Frequency (MHz.)	Emission of appliance nr.: (dBμV)									80%/80% calculation			
	1	2	3	---	---	---	Margin1	Margin2	Margin3	X	S	X+K*S	Limit
0.1500	27	28	27										59
0.1600	24	25	25										58.3
0.2400	19	22	24										53.9
0.4500	28	25	26				-19.1	-22.1	-21.1	-21	1.5	-17.7	47.1
0.5000	28	29	29										46
0.5500	20	29	32										46
1.0000	19	22	31										46
1.4000	17	28	28										46
2.0000	17	26	27										46
3.5000	19	26	30				-18.0	-17.0	-14.0	-16	2.1	-12	46
6.0000	16	19	24										50
10.0000	18	19	17										50
15.0000	19	25	24										50
22.0000	30	28	22										50
26.0000	14	17	16										50
30.0000	8	9	15				-20.0	-22.0	-26.0	-23	3.1	-16.4	50
							<b>TESTRESULT</b>			<b>PASS</b>			

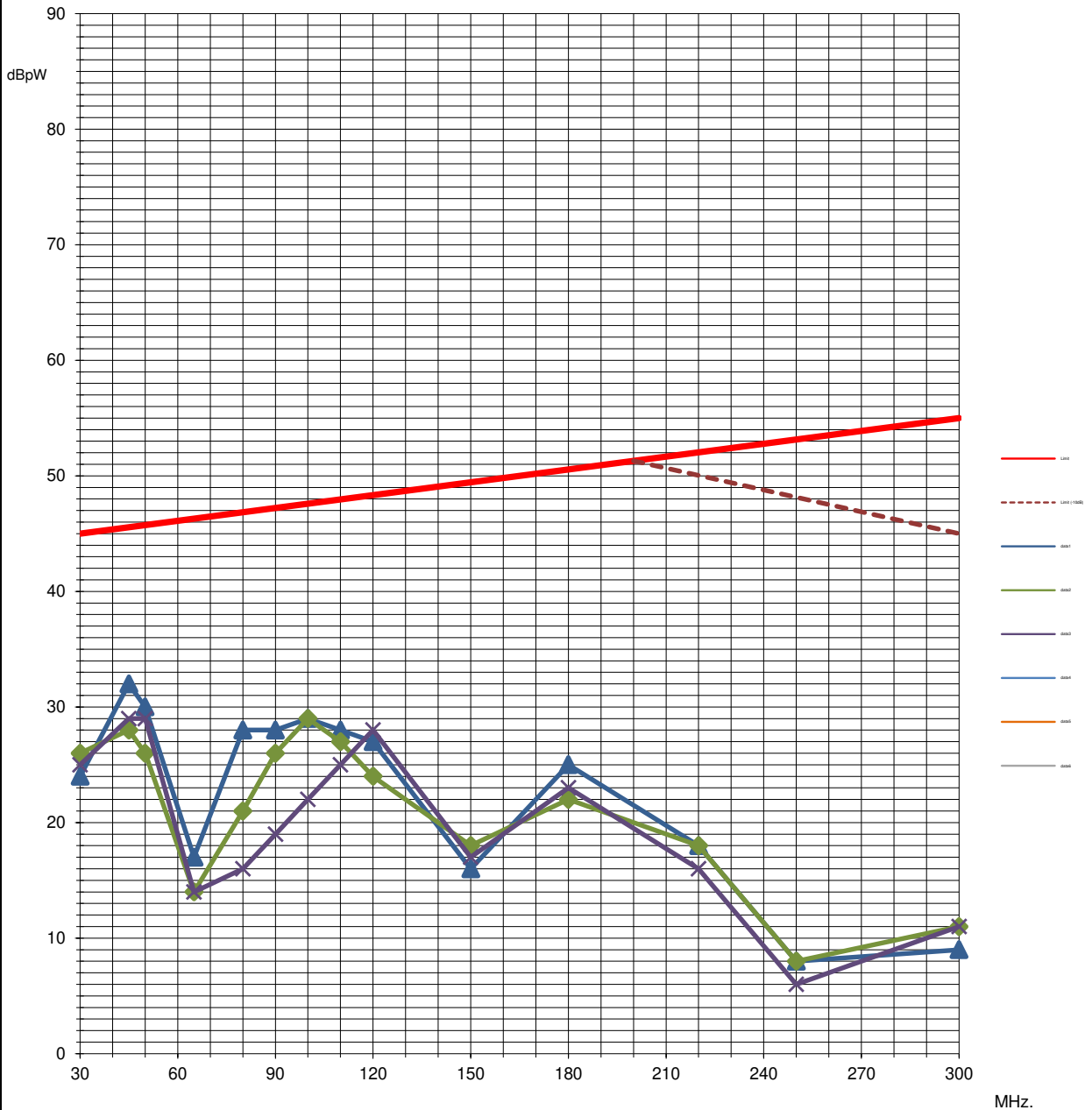
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Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : Tested with HQ8505 PIE		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

## Power measurement 30-300 MHz. acc. to CISPR-14 Q-PEAK detector / Q-PEAK limit

Test equipment : Receiver TESEQ SMR4503

Clamp Lüthi Mds 21



**TESTRESULT**      **PASS**

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Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : Tested with HQ8505 PIE		
Test purpose : Release		
Manufacturer : China		Rating : 100-240V / 9W 50/60Hz.

## Power measurement 30-300 MHz. acc. to CISPR-14 Q-PEAK detector / Q-PEAK limit

Test equipment : Receiver TESEQ SMR4503      Clamp Lüthi MdS 21

Frequency (MHz.)	Emission of appliance nr.:										80%/80% calculation			
	1	2	3	---	---	---	Margin1	Margin2	Margin3		X	S	X+K*S	Limit
30.0000	24	26	25											45
45.0000	32	28	29											45.6
50.0000	30	26	29											45.7
65.0000	17	14	14											46.3
80.0000	28	21	16											46.9
90.0000	28	26	19				-13.6	-17.6	-16.6		-16	2.1	-11.6	47.2
100.0000	29	29	22											47.6
110.0000	28	27	25											48
120.0000	27	24	28											48.3
150.0000	16	18	17											49.4
180.0000	25	22	23				-18.6	-18.6	-20.3		-19	1	-17.2	50.6
220.0000	18	18	16											52
250.0000	8	8	6											53.1
300.0000	9	11	11				-34.0	-34.0	-36.0		-35	1.2	-32.3	55
TESTRESULT							PASS							

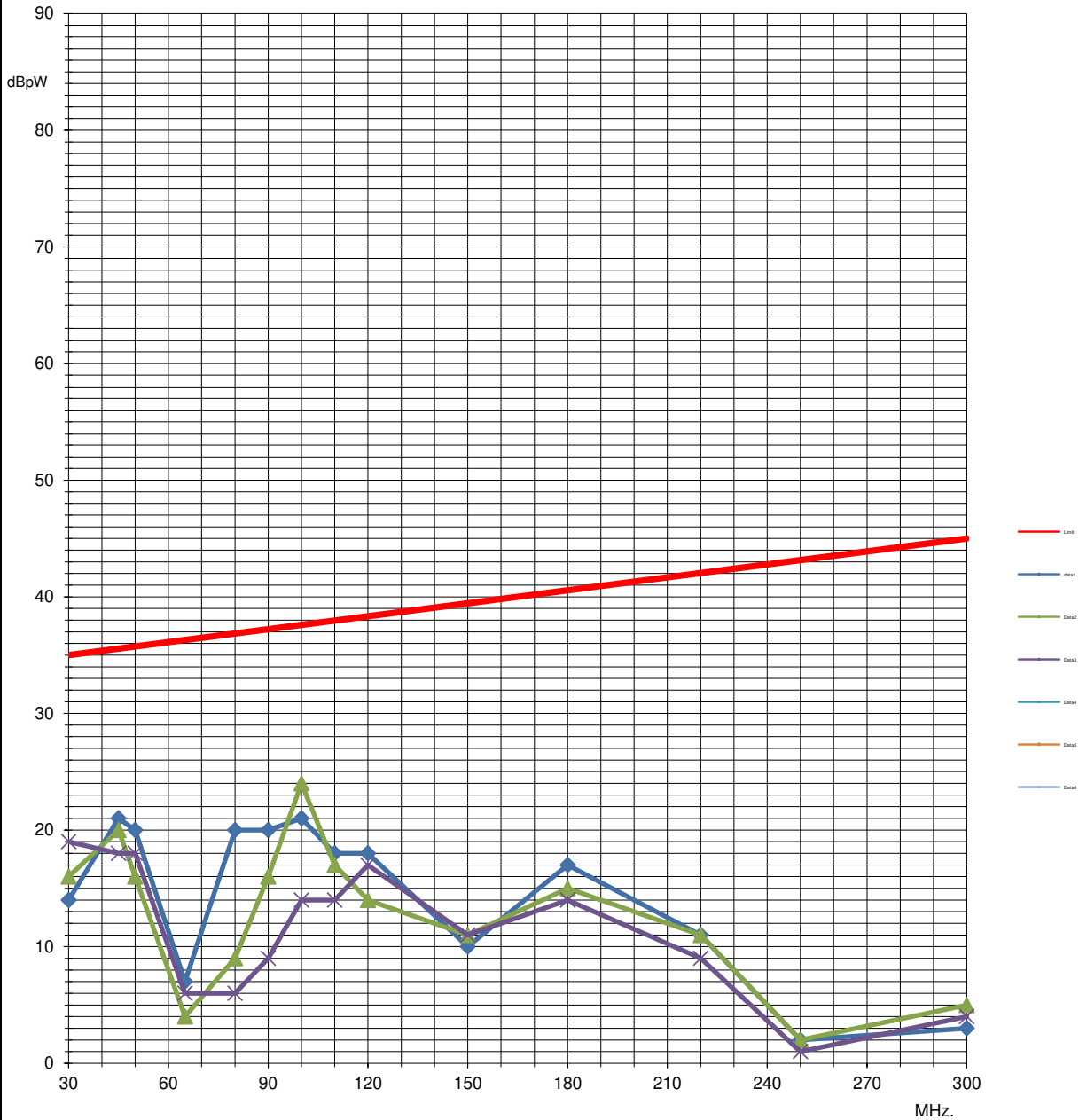
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Date : March 30, 2020		type nr. : BRE605
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Tested sample: BRE605 & BCR430		
Remarks : Tested with HQ8505 PIE		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

**Power measurement 30-300 MHz. acc. to CISPR-14 AVERAGE detector / AVERAGE limit**

Test equipment : Receiver TESEQ SMR4503

Clamp Lüthi MdS 21



**TESTRESULT**      **PASS**



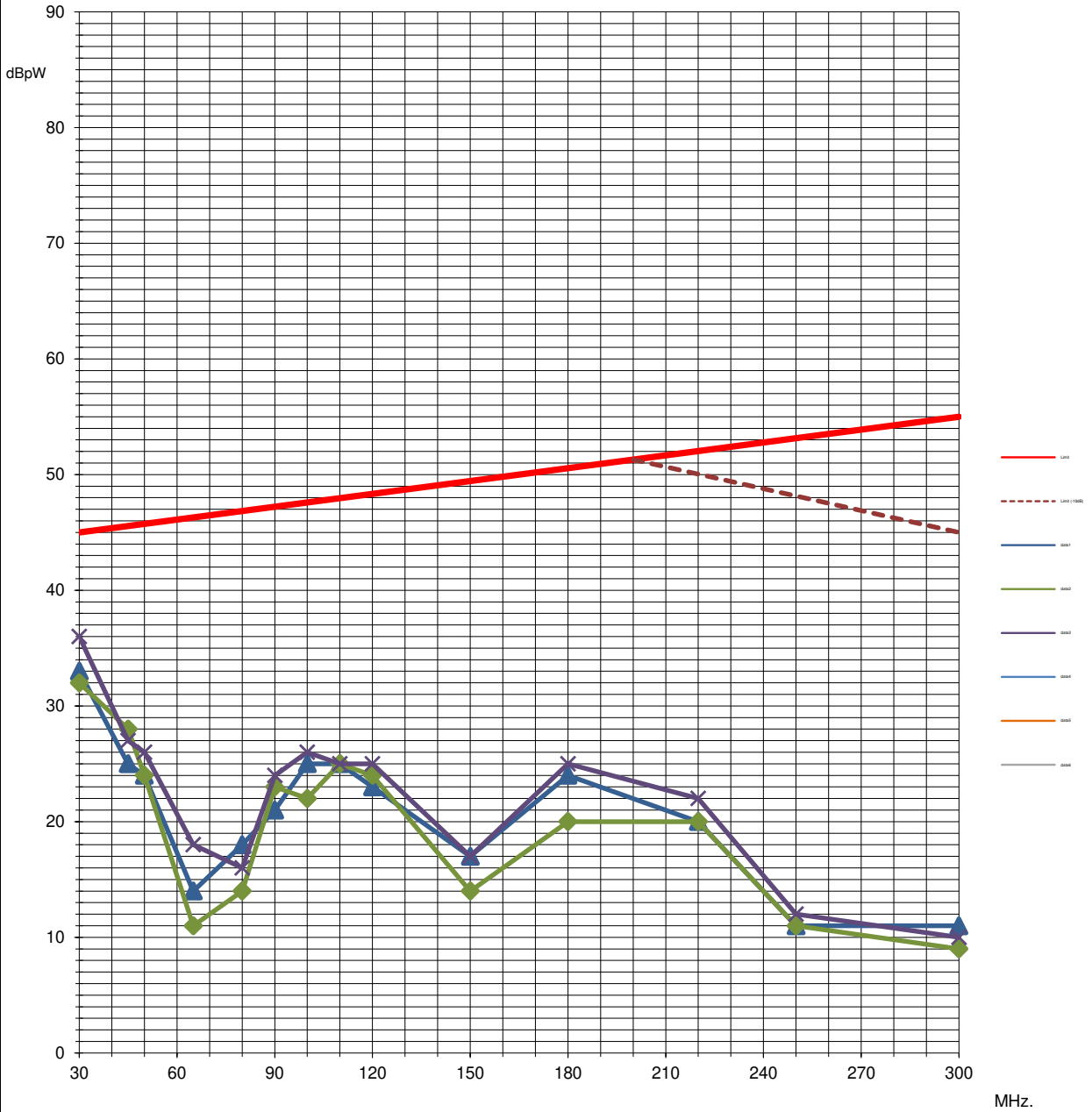
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Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : Tested with HQ8505 Salom		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

## Power measurement 30-300 MHz. acc. to CISPR-14 Q-PEAK detector / Q-PEAK limit

Test equipment : Receiver TESEQ SMR4503

Clamp Lüthi MdS 21



**TESTRESULT**      **PASS**

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Tested sample: BRE605 & BCR430		
Remarks : Tested with HQ8505 Salom		
Test purpose : Release		Rating : 100-240V / 9W 50/60Hz.
Manufacturer : China		

### Power measurement 30-300 MHz. acc. to CISPR-14 Q-PEAK detector / Q-PEAK limit

Test equipment : Receiver TESEQ SMR4503          Clamp Lüthi MdS 21

Frequency (MHz.)	Emission of appliance nr.:									80%/80% calculation				
	1	2	3	---	---	---	Margin1	Margin2	Margin3	X	S	X+K*S	Limit	
30.0000	33	32	36										45	
45.0000	25	28	27										45.6	
50.0000	24	24	26										45.7	
65.0000	14	11	18										46.3	
80.0000	18	14	16										46.9	
90.0000	21	23	24				-12.0	-13.0	-9.0	-11	2.1	-7	47.2	
100.0000	25	22	26										47.6	
110.0000	25	25	25										48	
120.0000	23	24	25										48.3	
150.0000	17	14	17										49.4	
180.0000	24	20	25				-22.6	-23.0	-21.6	-22	0.7	-21	50.6	
220.0000	20	20	22										52	
250.0000	11	11	12										53.1	
300.0000	11	9	10				-32.0	-32.0	-30.0	-31	1.2	-28.9	55	
	<b>TESTRESULT</b>						<b>PASS</b>							



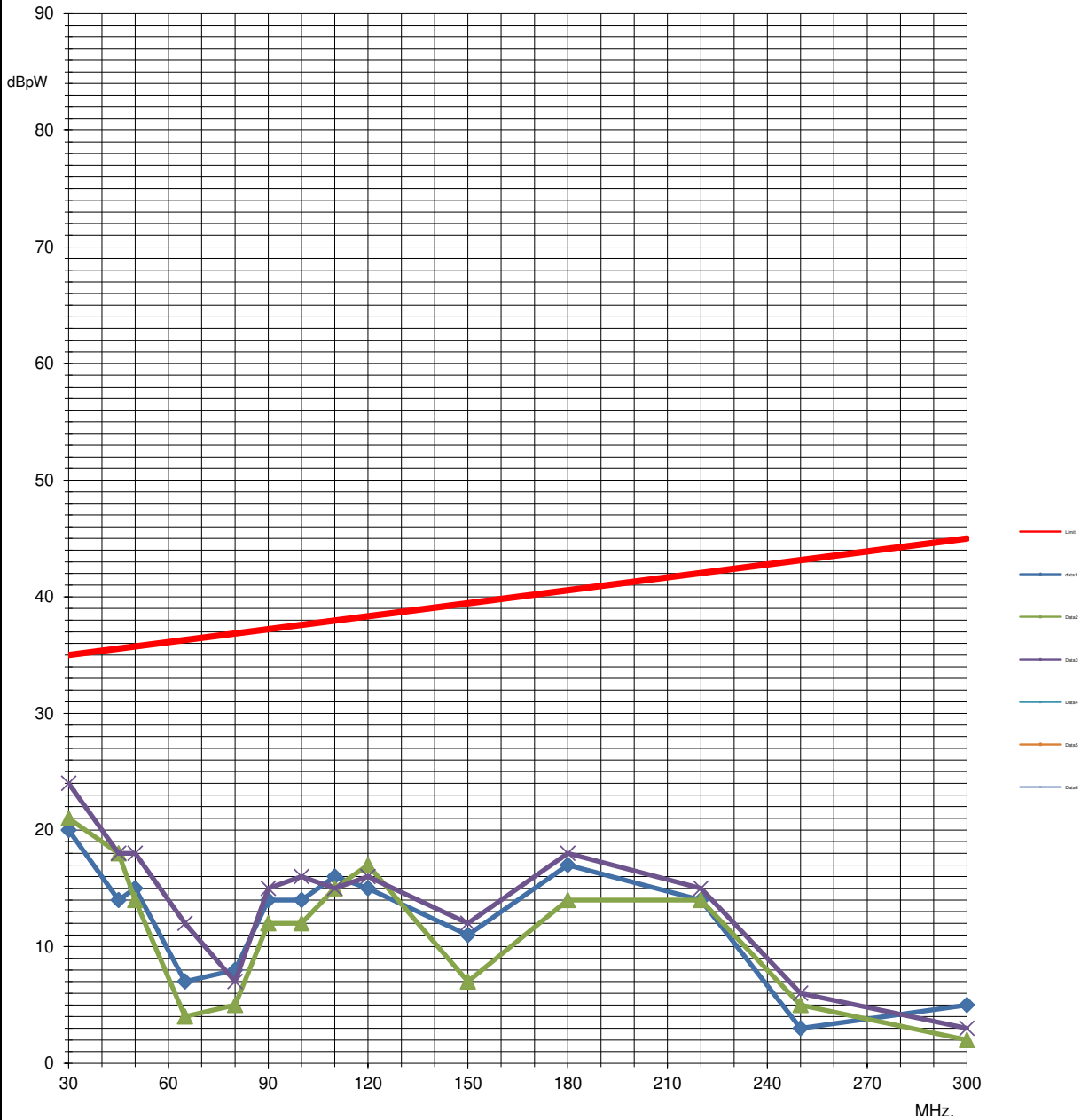
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Manufacturer : China		50/60Hz.

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Test equipment : Receiver TESEQ SMR4503

Clamp Lüthi MdS 21



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Test equipment : Receiver TESEQ SMR4503      Clamp Lüthi MdS 21

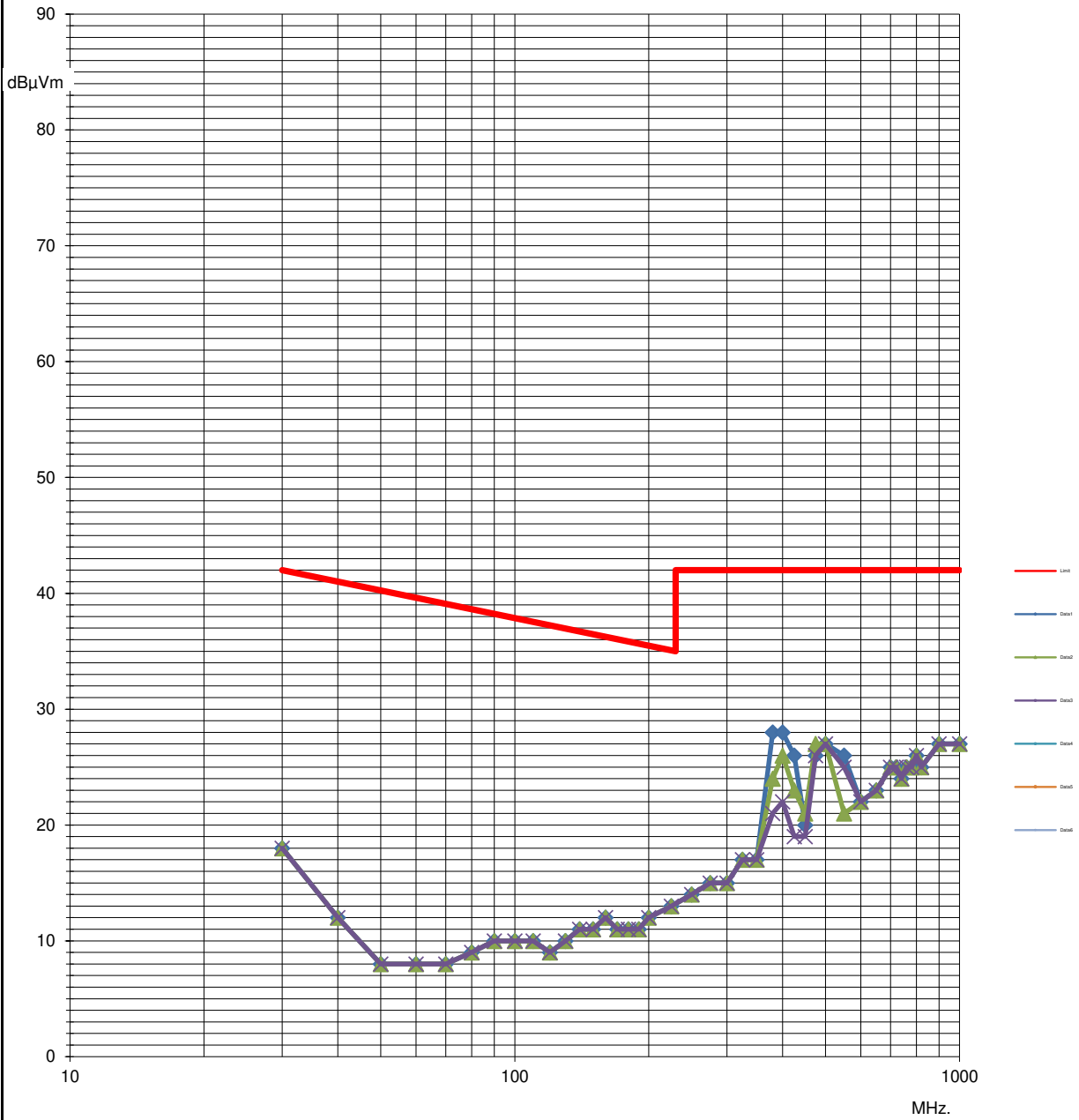
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	1	2	3	---	---	---	Margin1	Margin2	Margin3	X	S	X+K*S	Limit
30.0000	20	21	24										35
45.0000	14	18	18										35.6
50.0000	15	14	18										35.7
65.0000	7	4	12										36.3
80.0000	8	5	7										36.9
90.0000	14	12	15				-15.0	-14.0	-11.0	-13	2.1	-9	37.2
100.0000	14	12	16										37.6
110.0000	16	15	15										38
120.0000	15	17	16										38.3
150.0000	11	7	12										39.4
180.0000	17	14	18				-22.0	-21.3	-21.6	-22	0.4	-20.8	40.6
220.0000	14	14	15										42
250.0000	3	5	6										43.1
300.0000	5	2	3				-28.0	-28.0	-27.0	-28	0.6	-26.5	45
							<b>TESTRESULT</b>	<b>PASS</b>					

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Report : SM 9628	Samples : 3	Appliance: Epilator
Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : <span style="color: blue;">Tested with Loda motor</span>		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

### Fieldstrength measurement (3M) 30-1000 MHz. acc. to CISPR-14 Q-PEAK detector

Test equipment : Receiver TESEQ SMR4503, Antenna 3142E ETS-Lindgren, C.F.A.R. RAINFORD



<b>TESTRESULT</b>	<b>PASS</b>
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Tested sample: BRE605 & BCR430		
Remarks : <b>Tested with Loda motor</b>		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

### Fieldstrength measurement (3M) 30-1000 MHz. acc. to CISPR-14 Q-PEAK detector

Test equipment : Receiver TESEQ SMR4503, Antenna 3142E ETS-Lindgren, C.F.A.R. RAINFORD

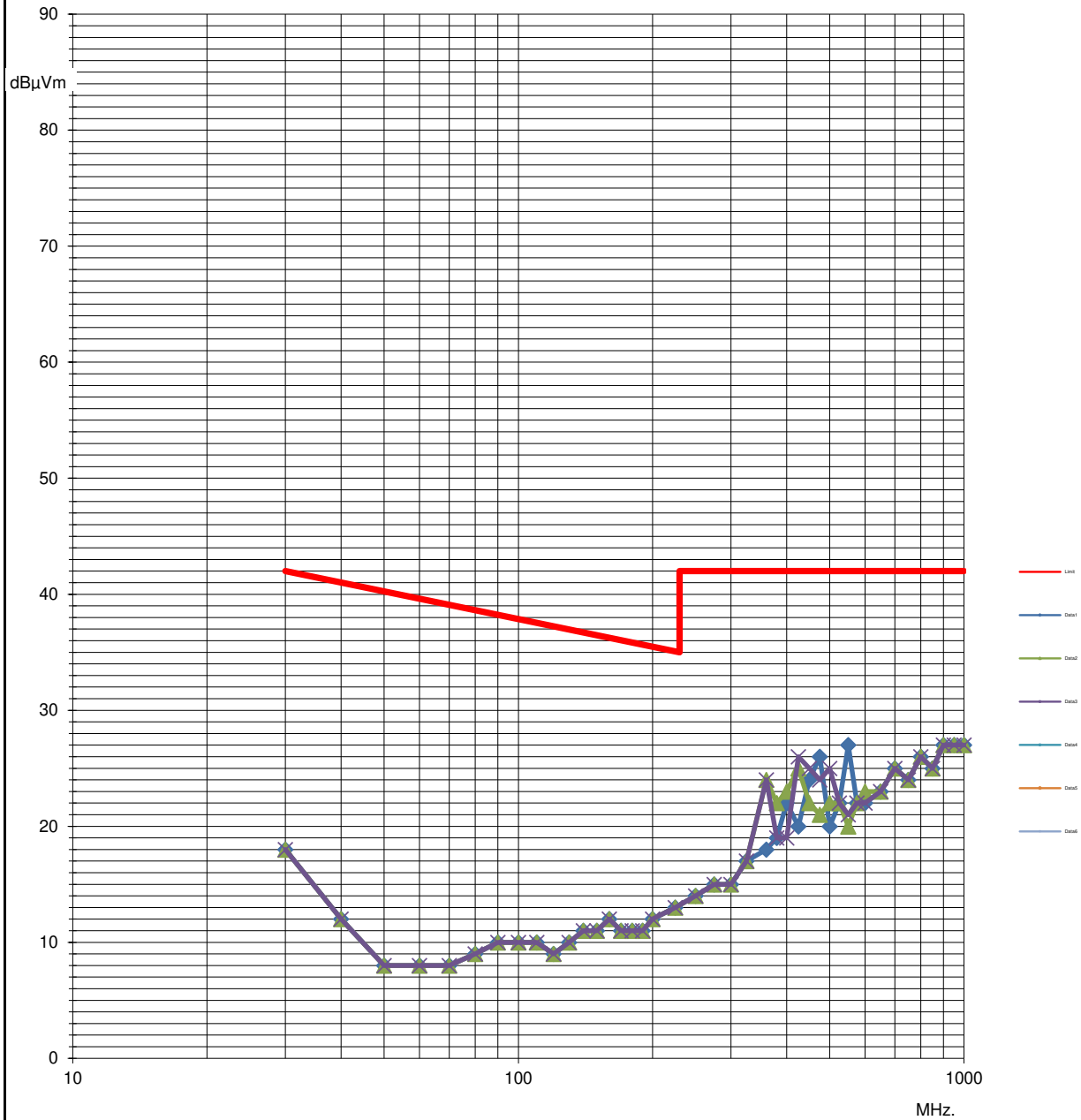
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	1	2	3	---	---	---	Margin1	Margin2	Margin3	X	S	X+K*S	Limit	
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40.0000	12	12	12										41	
50.0000	8	8	8										40.2	
60.0000	8	8	8										39.6	
70.0000	8	8	8										39.1	
80.0000	9	9	9										38.6	
90.0000	10	10	10										38.2	
100.0000	10	10	10										37.9	
110.0000	10	10	10										37.5	
120.0000	9	9	9										37.2	
130.0000	10	10	10										37	
140.0000	11	11	11										36.7	
150.0000	11	11	11										36.5	
160.0000	12	12	12										36.2	
170.0000	11	11	11										36	
180.0000	11	11	11										35.8	
190.0000	11	11	11										35.7	
200.0000	12	12	12										35.5	
225.0000	13	13	13				-22.1	-22.1	-22.1	-22	0	-22.1	35.1	
250.0000	14	14	14										42	
275.0000	15	15	15										42	
300.0000	15	15	15										42	
325.0000	17	17	17										42	
350.0000	17	17	17										42	
380.0000	28	24	21										42	
400.0000	28	26	22										42	
425.0000	26	23	19										42	
450.0000	20	21	19										42	
475.0000	26	27	26				-14.0	-15.0	-16.0	-15	1	-13	42	
500.0000	27	27	27										42	
550.0000	26	21	25										42	
600.0000	22	22	22										42	
650.0000	23	23	23										42	
700.0000	25	25	25										42	
720.0000	25	25	25										42	
740.0000	24	24	24										42	
760.0000	25	25	25										42	
780.0000	25	25	25										42	
800.0000	26	26	26										42	
820.0000	25	25	25										42	
900.0000	27	27	27										42	
1,000.0000	27	27	27				-15.0	-15.0	-15.0	-15	0	-15	42	
							<b>TESTRESULT</b>	<b>PASS</b>						

## EMC test laboratory Royal Philips Drachten, Netherlands

Report : SM 9628	Samples : 3	Appliance: Epilator
Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : <span style="color: blue;">Tested with Jiaai motor</span>		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

### Fieldstrength measurement (3M) 30-1000 MHz. acc. to CISPR-14 Q-PEAK detector

Test equipment : Receiver TESEQ SMR4503, Antenna 3142E ETS-Lindgren, C.F.A.R. RAINFORD



TESTRESULT	PASS
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## EMC test laboratory Royal Philips Drachten, Netherlands

Report : SM 9628	Samples : 3	Appliance: Epilator
Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : <b>Tested with Jiaai motor</b>		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

### Fieldstrength measurement (3M) 30-1000 MHz. acc. to CISPR-14 Q-PEAK detector

Test equipment : Receiver TESEQ SMR4503, Antenna 3142E ETS-Lindgren, C.F.A.R. RAINFORD

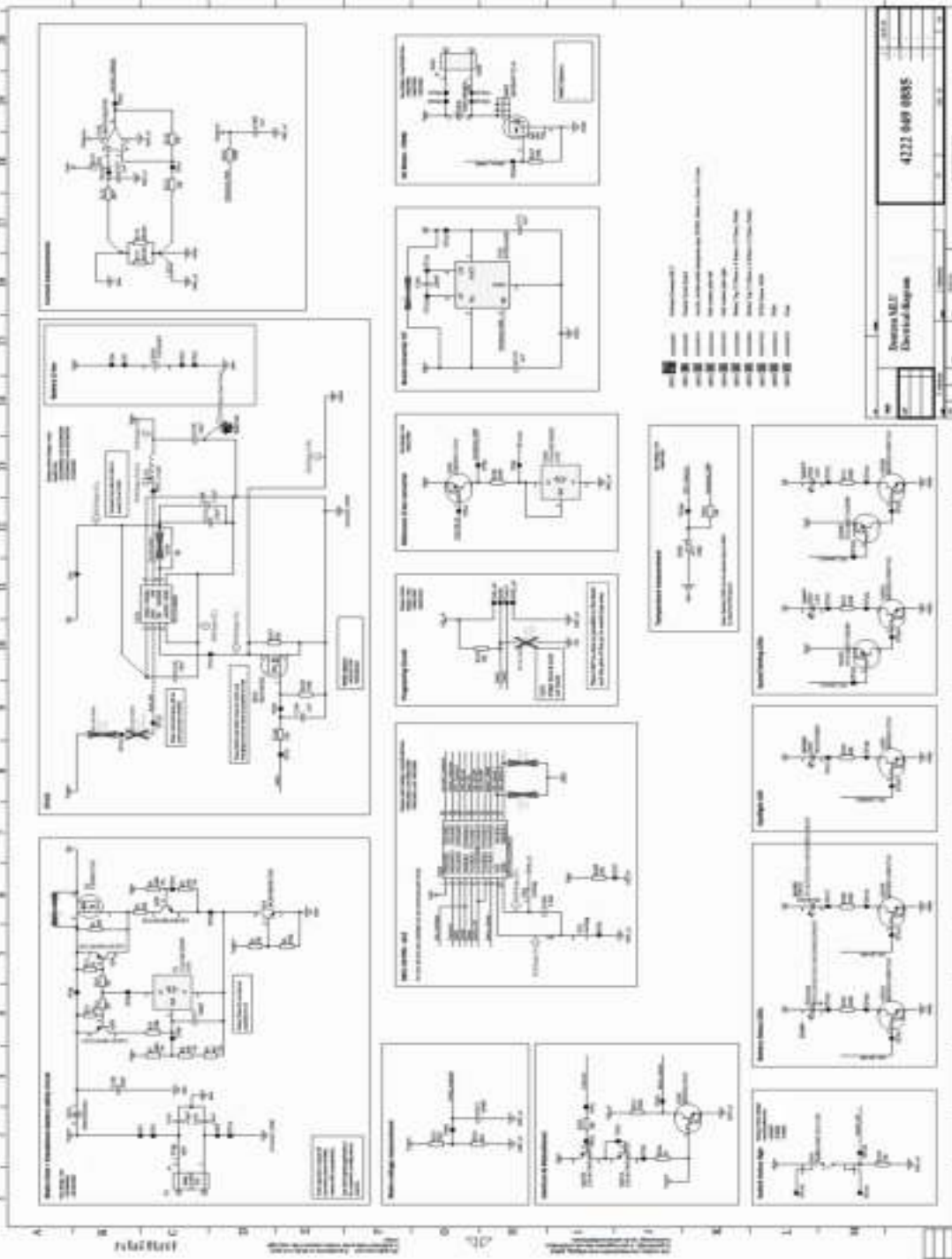
Frequency (MHz.)	Emission of appliance nr.: (dBµVm)									80%/80% calculation			
	1	2	3	---	---	---	Margin1	Margin2	Margin3	X	S	X+K*S	Limit
30.0000	18	18	18										42
40.0000	12	12	12										41
50.0000	8	8	8										40.2
60.0000	8	8	8										39.6
70.0000	8	8	8										39.1
80.0000	9	9	9										38.6
90.0000	10	10	10										38.2
100.0000	10	10	10										37.9
110.0000	10	10	10										37.5
120.0000	9	9	9										37.2
130.0000	10	10	10										37
140.0000	11	11	11										36.7
150.0000	11	11	11										36.5
160.0000	12	12	12										36.2
170.0000	11	11	11										36
180.0000	11	11	11										35.8
190.0000	11	11	11										35.7
200.0000	12	12	12										35.5
225.0000	13	13	13				-22.1	-22.1	-22.1	-22	0	-22.1	35.1
250.0000	14	14	14										42
275.0000	15	15	15										42
300.0000	15	15	15										42
325.0000	17	17	17										42
360.0000	18	24	24										42
380.0000	19	22	19										42
400.0000	22	23	19										42
425.0000	20	25	26										42
450.0000	24	22	25										42
475.0000	26	21	24				-16.0	-17.0	-16.0	-16	0.6	-15.1	42
500.0000	20	22	25										42
525.0000	22	22	22										42
550.0000	27	20	21										42
575.0000	22	22	22										42
600.0000	22	23	22										42
650.0000	23	23	23										42
700.0000	25	25	25										42
750.0000	24	24	24										42
800.0000	26	26	26										42
850.0000	25	25	25										42
900.0000	27	27	27										42
950.0000	27	27	27										42
1,000.0000	27	27	27				-15.0	-15.0	-15.0	-15	0	-15	42

**TESTRESULT      PASS**

# EMC test laboratory Royal Philips Drachten, Netherlands

Report : SM 9628	Appliance: Epilator
Date : March 30, 2020	type nr. : BRE605
Test engineer : H. Bodde	Derivative: See page 2
Tested sample: BRE605 & BCR430	
Remarks : Panasonic Safety Track	
Test purpose : Release	Rating : 100-240V / 9W
Manufacturer : China	50/60Hz.

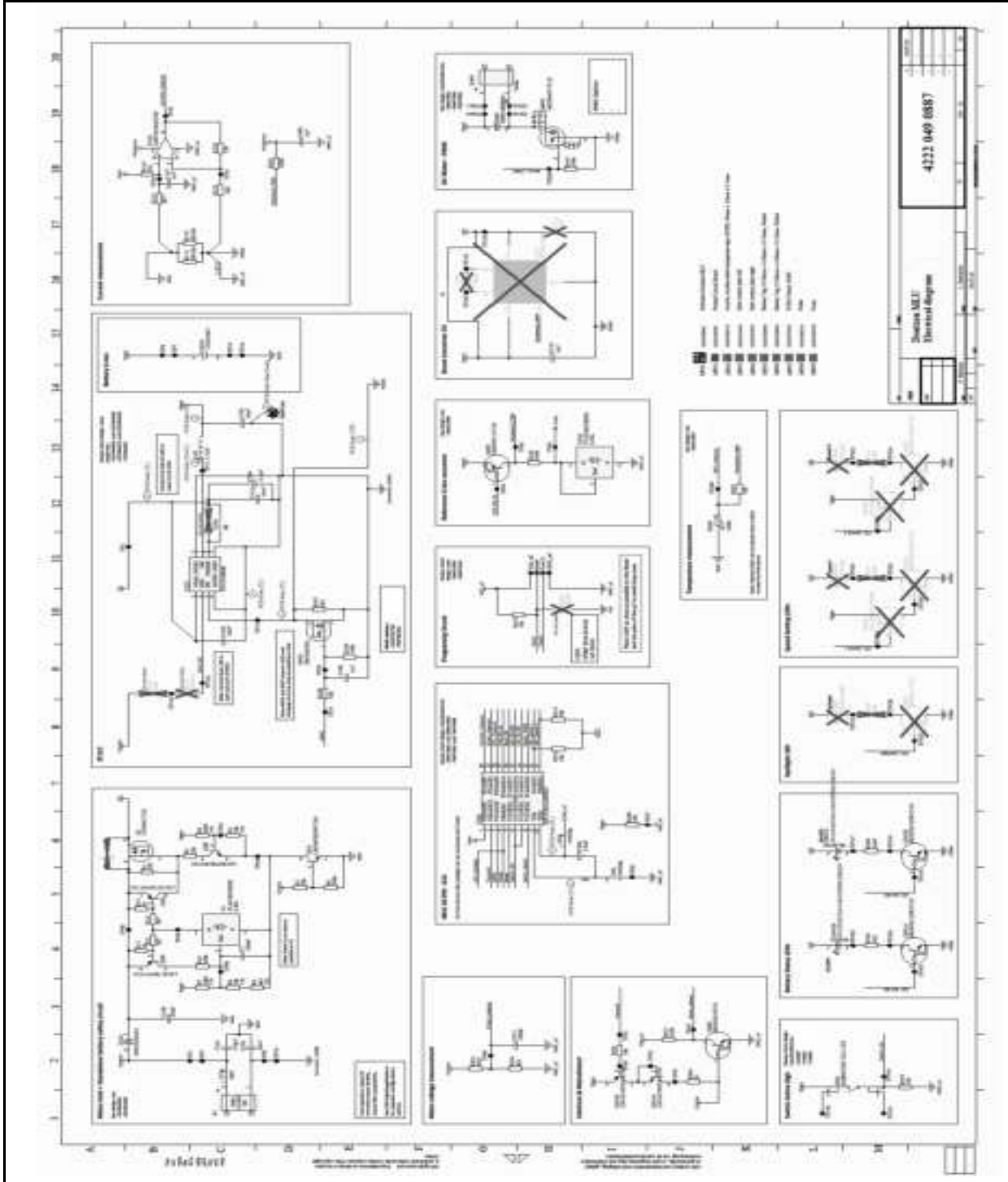
## Circuitdiagram Doutzen



# EMC test laboratory Royal Philips Drachten, Netherlands

Report : SM 9628	Appliance: Epilator
Date : March 30, 2020	type nr. : BRE605
Test engineer : H. Bodde	Derivative: See page 2
Tested sample: BRE605 & BCR430	
Remarks : Panasonic Safety Track	
Test purpose : Release	Rating : 100-240V / 9W
Manufacturer : China	50/60Hz.

## Circuitdiagram Gisele





## EMC test laboratory Royal Philips Drachten, Netherlands

Report : SM 9628	Samples : 1	Appliance: Epilator
Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : Panasonic Safety Track		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

### **Flicker measurement, according to EN61000-3-3**

Test equipment : California Instruments Interface PACS-1, AC Powersource 5001ix

**THIS APPLIANCE FULFILLS THE REQUIREMENT WITHOUT TESTING**

(conclusion based on electrical diagram / power-rating / number of switchings)

## EMC test laboratory Royal Philips Drachten, Netherlands

Report : SM 9628	Samples : 1	Appliance: Epilator
Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : Panasonic Safety Track		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

### Flicker, Inrush measurement, according to EN61000-3-3

Test equipment : California Instruments Interface PACS-1, AC Powersource 5001ix

Determining the type of equipment (limit $d_{max}$ )	
<b>X</b>	Equipment with manual switching and max. r.m.s. current (including inrush current) $\leq 20$ A. and the supply current after inrush is within a variation band of 1.5 A.
	Equipment without additional conditions.
	Equipment switched on manually or automatic more frequently than twice per day, and also has either a delayed restart ( $> 0.2$ sec)
	Equipment attended whilst in use (hairdrier, vac cleaner, kitchen equipment such as mixers), or switched on automatically, or is intended to be switched on manually, no more than twice per day, and also has either a delayed restart ( $> 0.2$ sec.) or manual restart, after a power supply interruption.

THIS APPLIANCE FULFILLS THE REQUIREMENT WITHOUT TESTING

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## EMC test laboratory Royal Philips Drachten, Netherlands

Report : SM 9628	Samples : 1	Appliance: Epilator
Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : Panasonic Safety Track		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.
<b>Harmonic-current measurement domestic appliances, according to EN 61000-3-2</b>		
Test equipment : California Instruments Interface PACS-1, AC Powersource 5001ix		

**THIS APPLIANCE FULFILLS THE REQUIREMENT WITHOUT TESTING**

(conclusion based on electrical diagram / power-rating)

## EMC test laboratory Royal Philips Drachten, Netherlands

Report : SM 9628	Samples : 1	Appliance: Epilator
Date : March 30, 2020		type nr. : BRE605
Test engineer : H. Bodde		Derivative See page 2
Tested sample: BRE605 & BCR430		
Remarks : Panasonic Safety Track		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

### Immunity test, according to EN55014-2

Test equipm.: EMtest UCS500M, Schaffner NSG2070, Schaffner NSG435, California Instruments PACS-1;5001ix

#### Classification of apparatus

	category I
	category II
✘	category III
	category IV

#### Tested criteria :

✘	Motor speed		Illumination
✘	Switching		Display data
	Standby mode		Data storage
	Temperature		Sensor functions
	Power consumption		Audible signal
	Heating	✘	Charge process
	Timing		

		Result	Comment on performance loss
EN 61000-4-2		Pass	
Electro Static Discharge	Contact : 4kV Air : 8kV		
EN 61000-4-3		Pass	
RF Electro Magnetic Field	Level 2(3Vm)		
EN 61000-4-4		Pass	
Fast Transients	Level 2(1kV) 5/100kHz Pos. / Neg. for 2min.		
EN 61000-4-5		Pass	
Surges	L-L Level 2(1kV/2Ω) L-E Level 3(2kV/12Ω)		
EN 61000-4-6		Pass	
Injected Current	0.15-250MHz. Level 2(3V)mod.80%		
EN 61000-4-11		Pass	
Volt. Dips and Interruptions	All levels / durations		

**TOTAL TESTRESULT      PASS**

## EMC test laboratory Royal Philips Drachten, Netherlands

Report : SM 9628	Appliance: Epilator
Date : March 30, 2020	type nr. : BRE605
Test engineer : H. Bodde	Derivative: See page 2
Tested sample: BRE605 & BCR430	
Remarks : Panasonic Safety Track	
Test purpose : Release	Rating : 100-240V / 9W
Manufacturer : China	50/60Hz.

### Measurement Uncertainties

A measurement result only approximates the value of the measurand, because uncertainties in quantities that influence the measurement give rise to uncertainty in that result. The measurement uncertainty U describes an interval about the measurement result within which the value of the measurand is believed to lie with a specified level of confidence.

#### Accuracy of measurement

The reported expanded uncertainty is stated as the standard uncertainty of measurement multiplied by the coverage factor  $k = 2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%.

A lack of reproducibility caused by different interpretations of an ambiguous or incomplete test method, is not a contributor to the reported measurement uncertainty.

#### CISPR 16-4-2 uncertainty values (Ucisp)

Ucisp, is a measurement uncertainty achievable using well-calibrated quality test equipment which meets CISPR 16-1 specifications, and applying good engineering practice.

If the measurement uncertainty U is less than or equal to Ucisp, compliance is deemed to occur provided no measured emission exceeds the emission limits.

If the measurement uncertainty U is greater than Ucisp, compliance is deemed to occur provided no measured emission, increased by  $(U - Ucisp)$ , exceeds the emission limit.

<u>Measurement</u>	<u>Equipment</u>	<u>Standard</u>	<u>Measurement uncertainty [dB]</u>	
			<u>Utest lab</u>	<u>Ucisp</u>
<b>EMISSION</b>				
Mains terminal disturbance voltage 9 kHz – 150 kHz	LISN R&S, receiver PMM 9000	CISPR 15 / FCC 18	3.6	4.0
Mains terminal disturbance voltage 9 kHz – 50 kHz	LISN R&S, receiver Schwarzbeck FMLK 1518	CISPR 15 / FCC 18	(14.0)	4.0 (Receiver not used below 150KHz)
Mains terminal disturbance voltage 50 kHz – 150 kHz	LISN R&S, receiver Schwarzbeck FMLK 1518	CISPR 15 / FCC 18	6.2	4.0
Mains terminal disturbance voltage 0.15 - 30 MHz	LISN R&S, receiver PMM 9000	CISPR 11/13/14/15/22 FCC 15/18	3.6	3.6
Mains terminal disturbance voltage 0.15 - 30 MHz	LISN R&S, receiver Schwarzbeck FMLK 1518	CISPR 11/13/14/15/22 FCC 15/18	3.8	3.6
Mains terminal disturbance voltage 0.9 - 30 MHz	LISN R&S, receiver TESEQ SMR4503	CISPR 11/13/14/15/22 FCC 15/18	3.5	3.6
Conducted emission: voltage probe	Voltage probe, receiver PMM9000	CISPR 14	3.1	u.c.
Disturbance power 30 - 300 MHz absorbing clamp	Clamp, receiver PMM9000	CISPR 13/14	4.4	4.5
Disturbance power 30 - 300 MHz absorbing clamp	Clamp, receiver TESEQ SMR4503	CISPR 13/14	4.4	4.5
Disturbance radiation 9 kHz - 30 MHz large loop	LLA, receiver FMLK 1518	CISPR 11 / 15	4.0	u.c.
Disturbance 30-300MHz CDN method	CDN216, receiver PMM9000	CISPR 15 annex B	2.7	
Disturbance 30-300MHz CDN method	CDN216, receiver TESEQ SMR4503	CISPR 15 annex B	2.5	
Field strength measurement 30-1000MHz	Schwartzbeck VUMA 1521 antenna ETS3142E	CISPR 11/14	3.5	
Field strength measurement 30-1000MHz	TESEQ SMR4503 antenna ETS3142E	CISPR 11/14	3.0	
Inrush current	California Instruments model 5001IX	EN 61000-3-3	note 1)	u.c. Calibrated by voltage measurement
Mains harmonic currents injected in the mains	California Instruments model 5001IX	IEC 61000-3-2	note 1)	u.c. harmonics not calibrated, software control
Mains voltage fluctuations and flicker	California Instruments model 5001IX	IEC 61000-3-3	note 1)	u.c.
EMF	ELT-400 model BN-2304/03 + 100cm <sup>2</sup> probe	EN-IEC62233	4.4	
<b>IMMUNITY</b>				
Electrostatic discharge	NSG 435	IEC 61000-4-2	note 1)	
Radiated, RF-electromagnetic field	Radi Field Sensor + Radi Power heads	IEC 61000-4-3	u.c	2.8
Electrical fast transient/burst	UCS500N5	IEC 61000-4-4	note 1)	
Surge	UCS500N5	IEC 61000-4-5	note 1)	
Immunity to RF-conducted disturbances	NSG2070	IEC 61000-4-6	note 1)	
Power frequency magnetic field	Loop	IEC 61000-4-8	note 2)	Current measurement ±2%
Voltage dips and interruptions	California Instruments model 5001IX	IEC 61000-4-11	note 1)	voltage levels checked by software

u.c. = under consideration

Note 1)

The Test Equipment meets the specified requirements in the standard

Note 2)

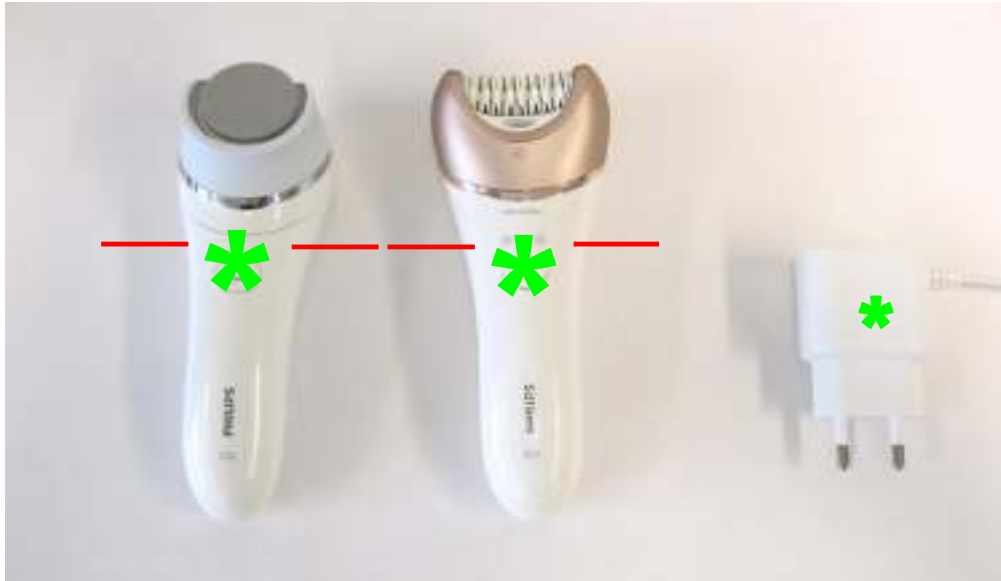
Field check with EMF meter

## EMC test laboratory Royal Philips Drachten, Netherlands

Report : EMF 9628	Samples : 1	Appliance: Epilator
Date : November 1, 2017		type nr. : BRE605
Test engineer : H. Bodde		Derivative: See page 2
Tested sample: BRE605 & BCR430		
Remarks : Panasonic Safety Track		
Test purpose : Release		Rating : 100-240V / 9W
Manufacturer : China		50/60Hz.

### E.M.F. measurement according to IEC / EN62233 (2008)

Test equipment : Narda ELT-400 model BN2304/03 + Probe model BN2300/90.10



Polarisation of the magnetic flux B.

\* = Max. field position

Measuring position	Test distance	W		Result
On cutter / head (Ioda)	0 cm.	7.41	%	Pass
On cutter / head (Jiaai)	0 cm.	3.28	%	Pass
All surfaces <small>(adapter)</small>	30 cm.	2.43	%	Pass

<b>TEST RESULT</b>	<b>PASS</b>
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Assessed by KEMA  
see 2082764.01-QUA/BST