参考資料

COSEL

TEST DATA OF RBC300F

Regulated DC power supply
July 21, 2020

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INPUT : AC 85～264V

COSEL CO.,LTD.

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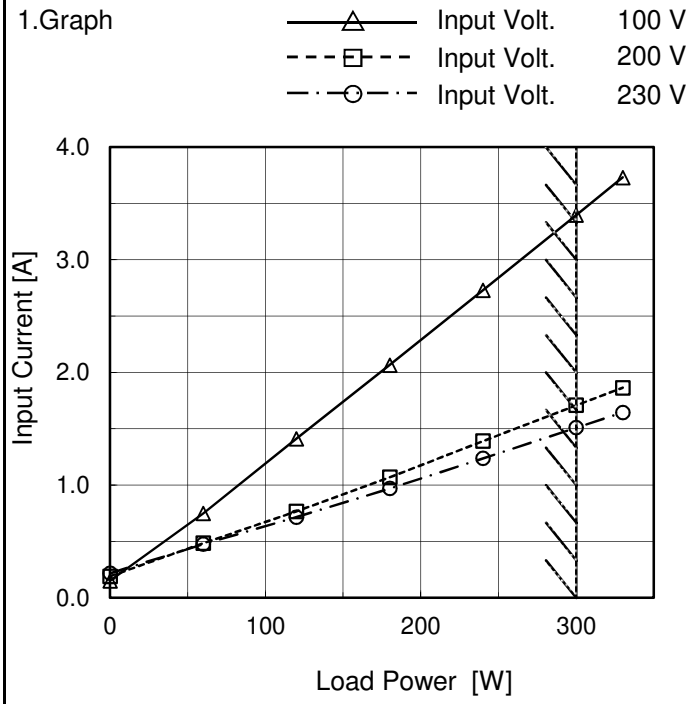
Model	RBC300F
Item	Input Current (by Load Power)
Object	———————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load power.

2.Values

Load Power [W]	Input Current [A]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0	0.149	0.189	0.216
60	0.748	0.484	0.474
120	1.411	0.767	0.715
180	2.064	1.068	0.970
240	2.728	1.389	1.237
300	3.397	1.708	1.510
330	3.731	1.864	1.645
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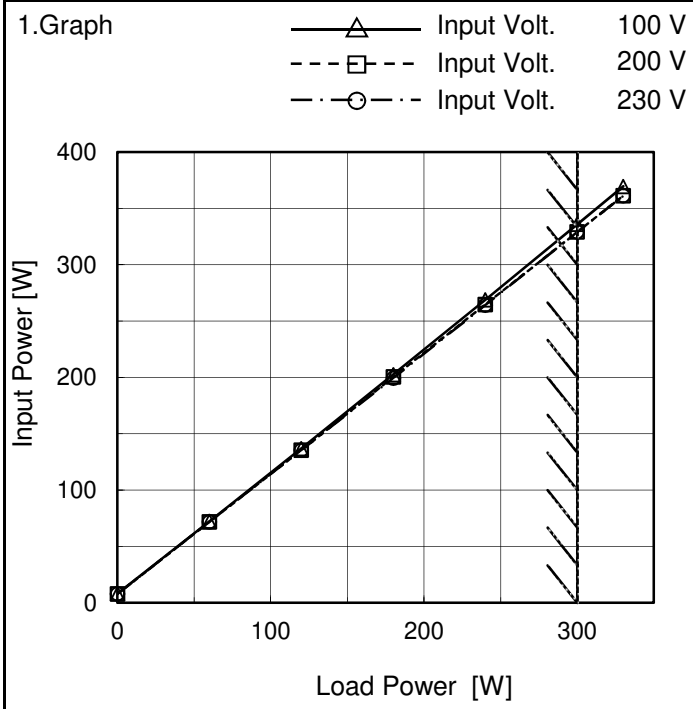
Model	RBC300F
Item	Input Power (by Load Power)
Object	———————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load power.

2.Values

Load Power [W]	Input Power [W]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0	8.0	7.7	7.7
60	72.3	71.7	71.8
120	136.9	135.4	135.4
180	202.5	200.4	199.4
240	268.9	264.7	264.2
300	336.0	329.1	329.1
330	369.7	361.4	361.3
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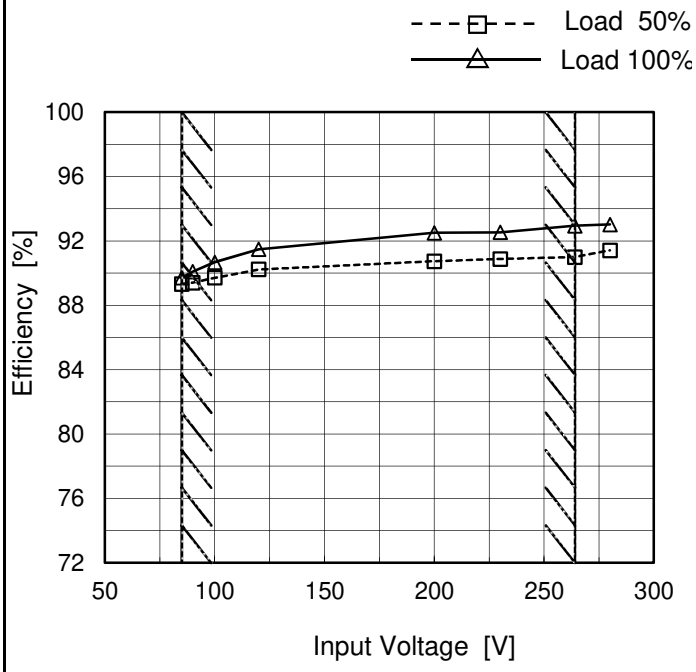
COSEL

Model	RBC300F
Item	Efficiency (by Input Voltage)
Object	———————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated input voltage.

2.Values

Input Voltage [V]	Efficiency [%]	
	Load 50%	Load 100%
85	89.3	89.7
90	89.4	90.1
100	89.7	90.7
120	90.2	91.5
200	90.7	92.5
230	90.9	92.5
264	91.0	92.9
280	91.4	93.0
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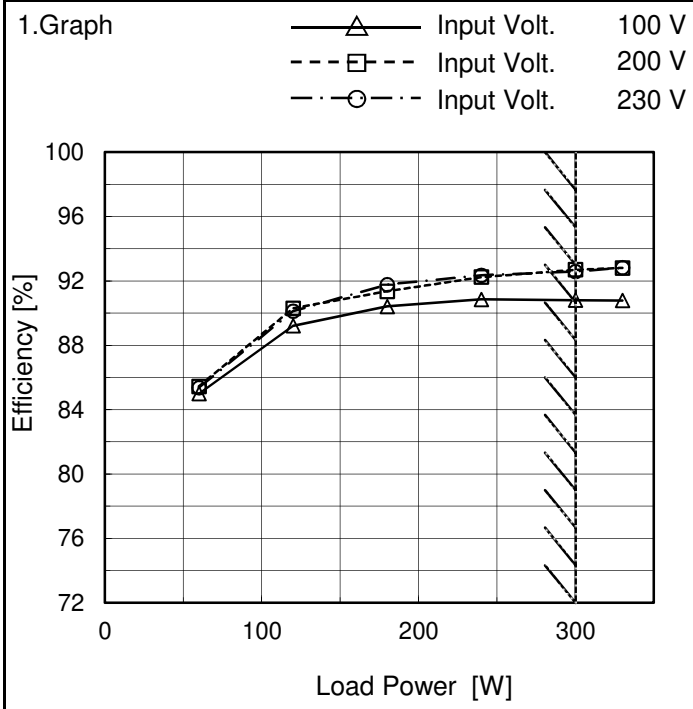
Model	RBC300F
Item	Efficiency (by Load Power)
Object	———————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load power.

2.Values

Load Power [W]	Efficiency [%]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0	--	--	--
60	85.0	85.4	85.4
120	89.2	90.3	90.1
180	90.4	91.3	91.8
240	90.8	92.2	92.3
300	90.7	92.5	92.5
330	90.8	92.8	92.8
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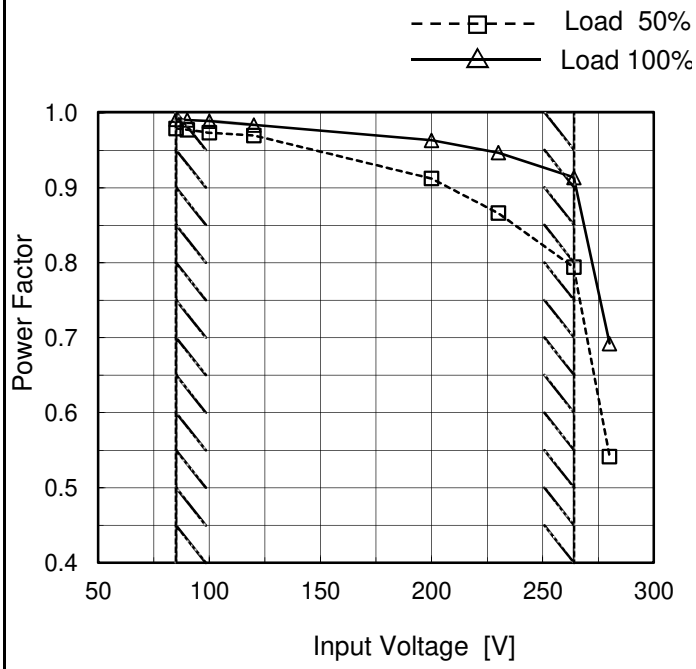
COSEL

Model	RBC300F
Item	Power Factor (by Input Voltage)
Object	———————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated input voltage.

2.Values

Input Voltage [V]	Power Factor	
	Load 50%	Load 100%
85	0.979	0.992
90	0.978	0.991
100	0.974	0.989
120	0.970	0.984
200	0.913	0.963
230	0.866	0.947
264	0.794	0.914
280	0.541	0.692
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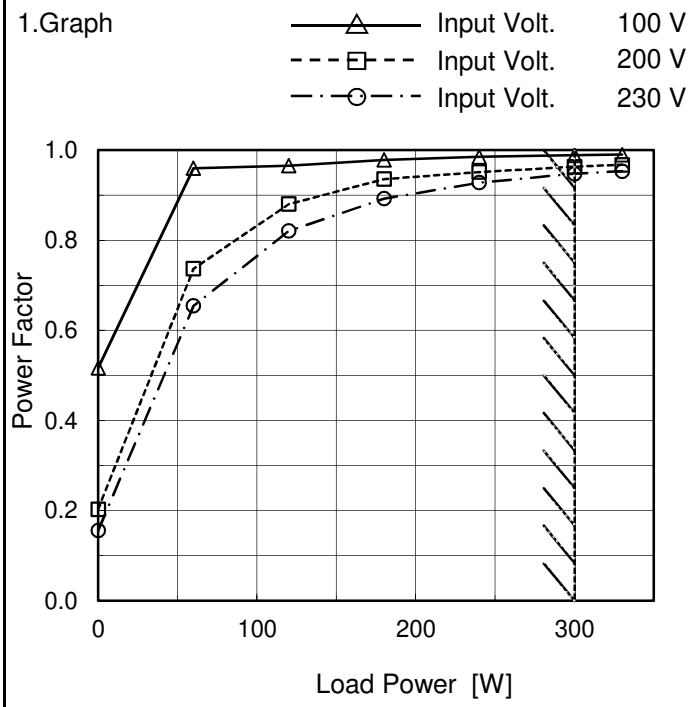
Model	RBC300F
Item	Power Factor (by Load Power)
Object	———————

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load power.

2.Values

Load Power [W]	Power Factor		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0	0.517	0.203	0.156
60	0.960	0.737	0.654
120	0.966	0.880	0.821
180	0.979	0.936	0.893
240	0.985	0.952	0.928
300	0.989	0.963	0.947
330	0.990	0.968	0.953
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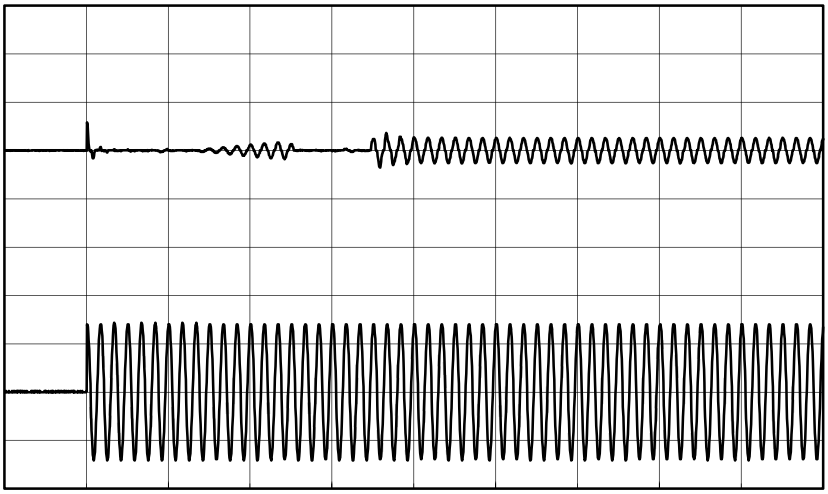
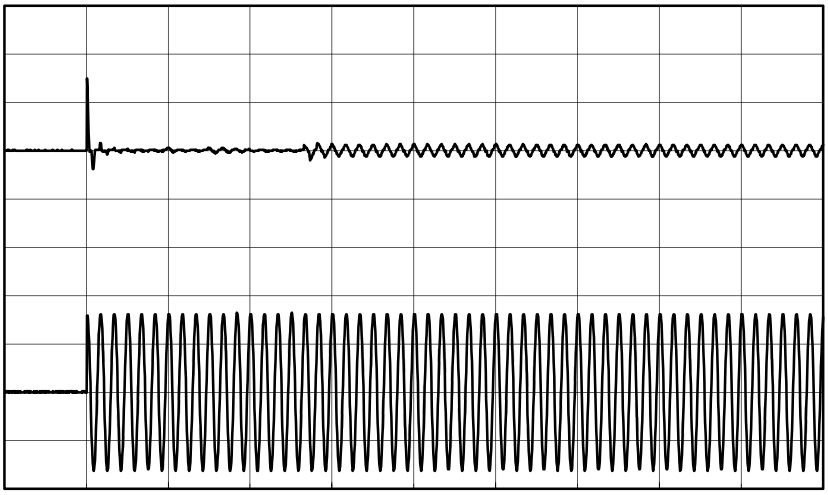
Model	RBC300F	
Item	Inrush Current	Temperature 25°C Testing Circuitry Figure A
Object	———————	



Input Voltage 100 V
Frequency 60 Hz
Load 100 %

inrush current :
11.7 A



Input Voltage 230 V
Frequency 60 Hz
Load 100 %

inrush current :
30.0 A

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Model	RBC300F	
Item	Leakage Current	Temperature 25°C Testing Circuitry Figure B
Object	———————	

1.Results

[mA]

Standards	Testing Circuitry	Measuring Method	Input Volt.			Note
			100 [V]	200 [V]	240 [V]	
DEN-AN	Figure B-1	Both phases	0.11	0.20	0.21	Operation
		One of phases	0.14	0.32	0.39	Stand by
IEC62368-1	Figure B-2	Both phases	0.08	0.17	0.20	Operation
		One of phases	0.14	0.32	0.38	Stand by
	Figure B-3	Both phases	0.10	0.18	0.21	Operation
		One of phases	0.15	0.31	0.38	Stand by

The value for "One of phases" is the reference value only.

2.Condition

Leakage current value is concluded after measuring both phases of AC input and by choosing the larger one.

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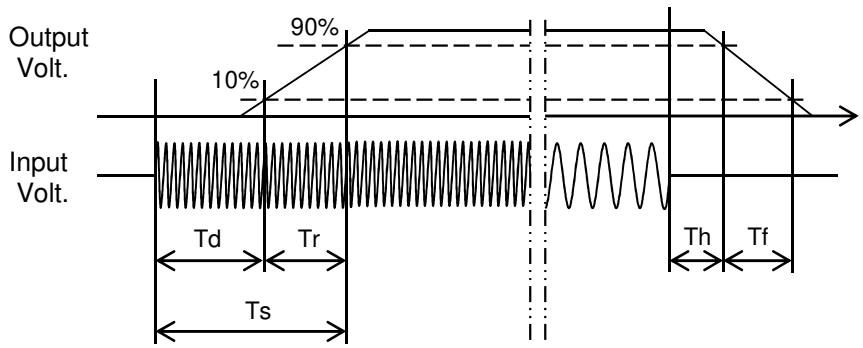
Model	RBC300F	
Item	Rise and Fall Time	Temperature 25°C Testing Circuitry Figure A
Object	———————	



Input Volt 100V

Load power 100% [ms]

Time / Module	Td	Tr	Ts	Th	Tf
240W,SINGLE	379	3～5	382～384	30	2～10
30W,SINGLE	330	2～39	332～369	41	3～46
30W,DUAL	330	4～20	334～350	44	8～11
15W,SINGLE	332	4～27	336～359	50	9～63
15W,DUAL	333	4～7	337～340	59	10～17

Input Volt 230V

Load power 100% [ms]

Time / Module	Td	Tr	Ts	Th	Tf
240W,SINGLE	297	3～5	300～302	30	2～10
30W,SINGLE	242	2～39	244～281	41	3～47
30W,DUAL	241	4～20	245～261	44	8～11
15W,SINGLE	256	4～27	260～283	50	9～62
15W,DUAL	256	4～7	260～263	59	10～17

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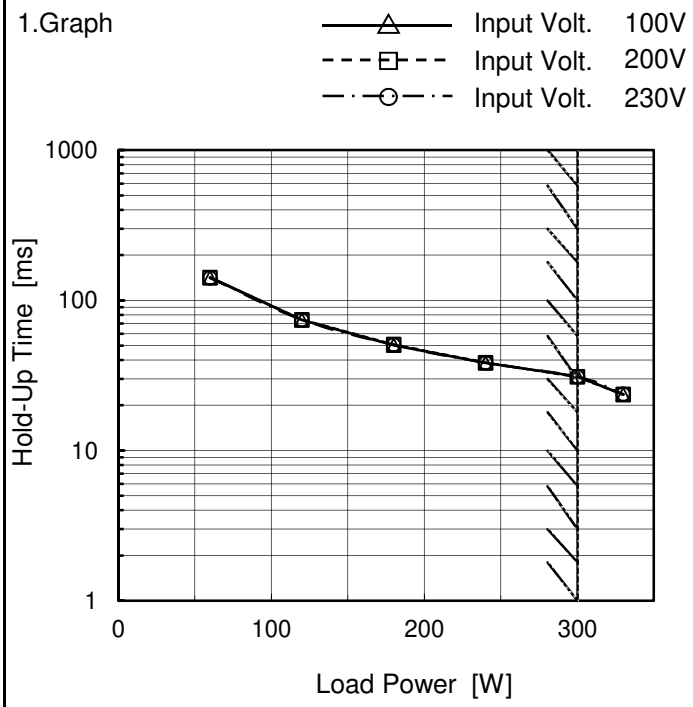
Model	RBC300F
Item	Hold-Up Time (by Load Power)
Object	———

Temperature 25°C
Testing Circuitry Figure A

1.Graph



This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.
Note: Slanted line shows the range of the rated load power.

2.Values

Load Power [W]	Hold-Up Time [ms]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0	--	--	--
60	142	142	141
120	74	74	74
180	50	51	51
240	38	38	38
300	31	31	31
330	24	24	24
--	--	--	--
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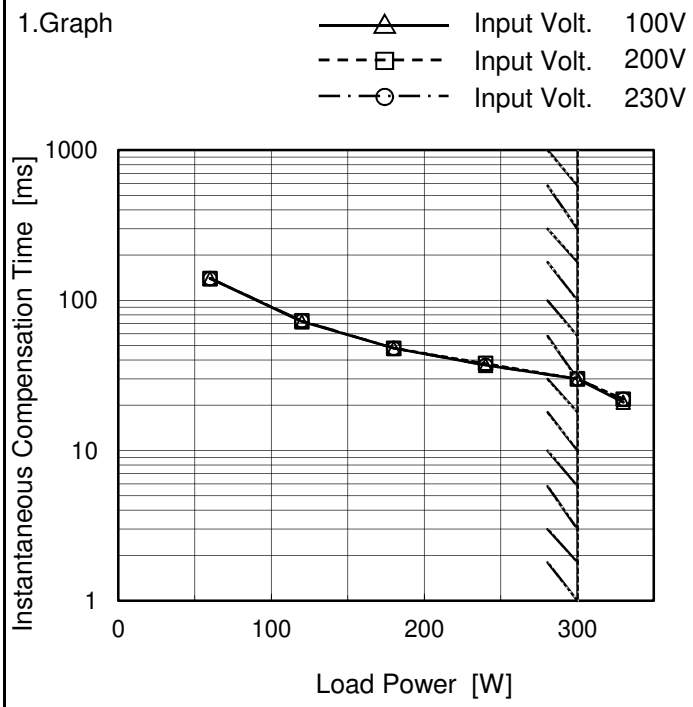
Model	RBC300F
Item	Instantaneous Interruption Compensation (by Load Power)
Object	

Temperature 25°C
Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated load power.

2.Values

Load Power [W]	Time [ms]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0	--	--	--
60	140	140	140
120	72	73	73
180	48	48	48
240	37	38	37
300	30	30	30
330	21	22	22
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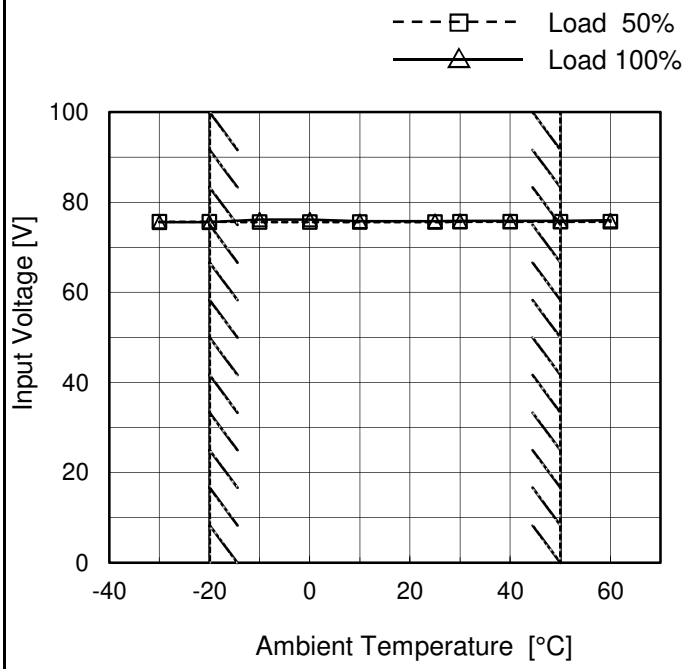
Model	RBC300F
Item	Minimum Input Voltage for Regulated Output Voltage
Object	———————

Testing Circuitry Figure A

1.Graph



Note: Slanted line shows the range of the rated ambient temperature.

2.Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-30	76	76
-20	76	76
-10	76	76
0	76	76
10	76	76
25	76	76
30	76	76
40	76	76
50	76	76
60	76	76
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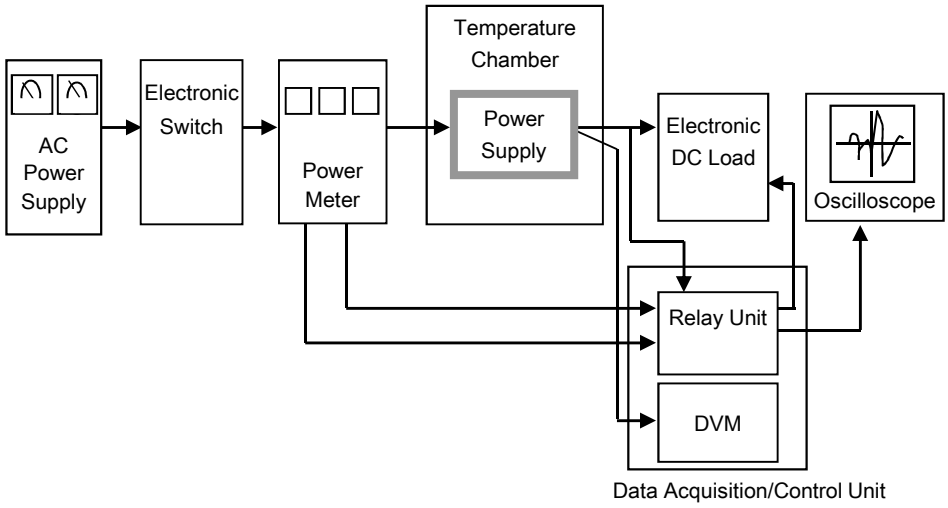

Figure A

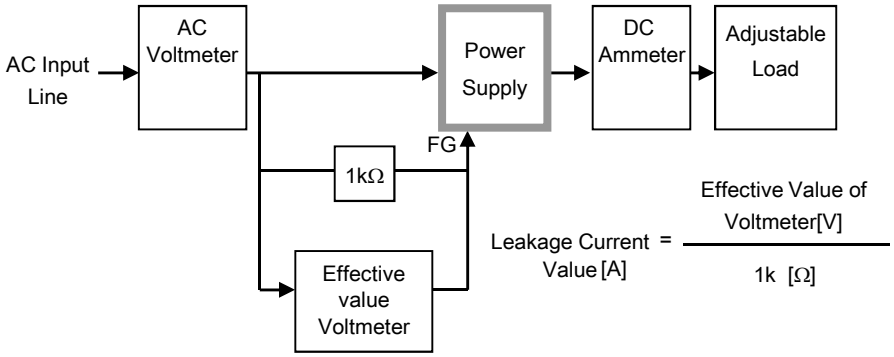

Figure B-1 (DEN-AN)

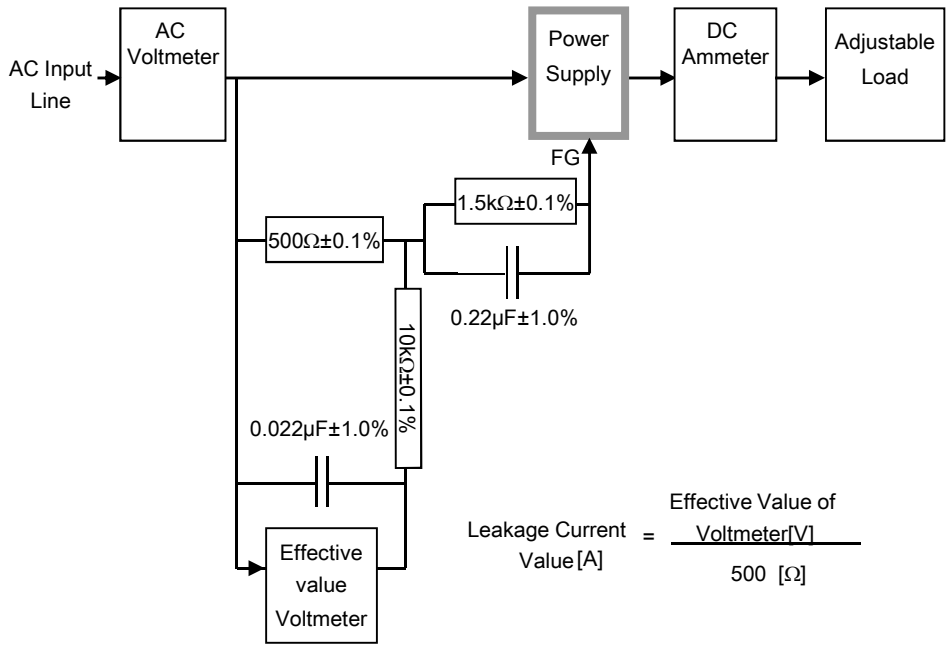

Figure B-2 (IEC62368-1 refer to IEC60990 Fig.4)

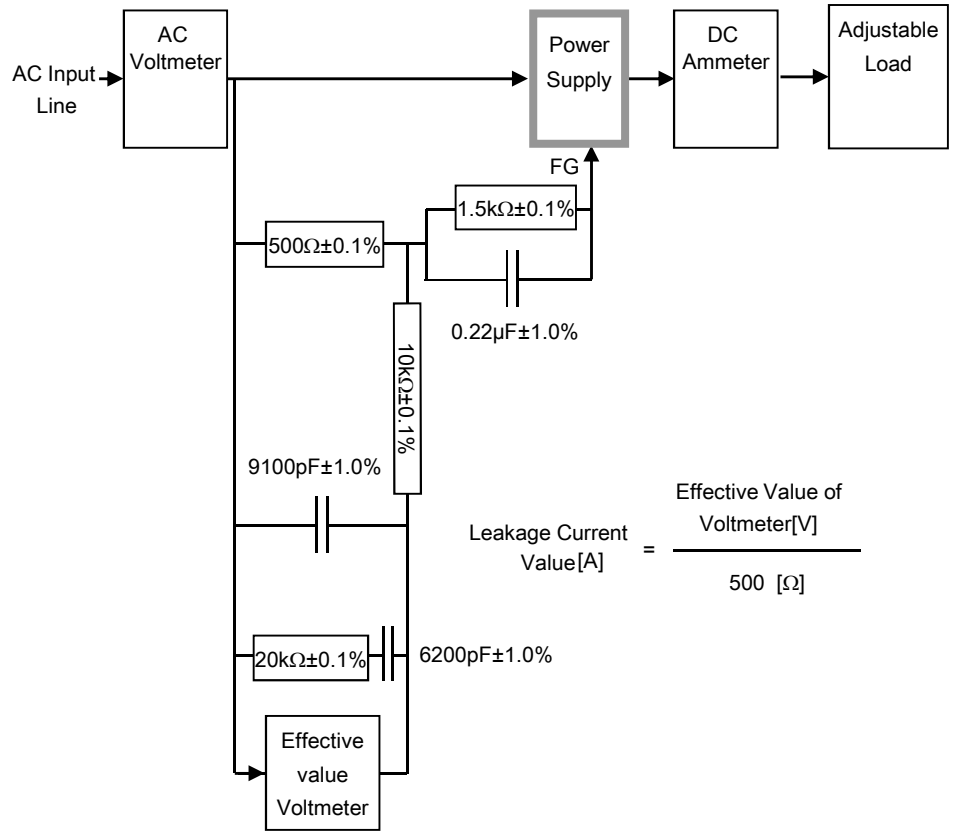

Figure B-3 (IEC62368-1 refer to IEC60990 Fig.5)