

TEST DATA OF TUHS15F15

Regulated DC Power Supply
August 29, 2017

Approved by : Kenji Shiko
Kenji Shiko Design Manager

Prepared by : Tomoyuki Sakuma
Tomoyuki Sakuma Design Engineer

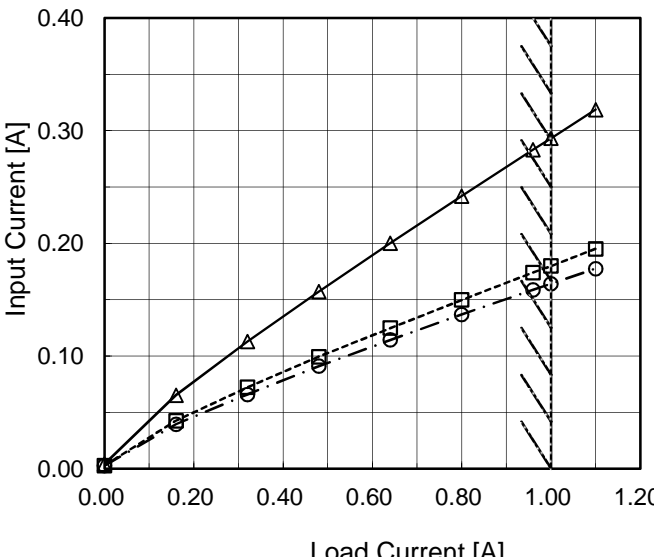
COSEL CO.,LTD.

CONTENTS

1.Input Current (by Load Current)	1
2.Input Power (by Load Current)	2
3.Efficiency (by Input Voltage)	3
4.Efficiency (by Load Current)	4
5.Power Factor (by Input Voltage)	5
6.Power Factor (by Load Current)	6
7.Inrush Current	7
8.Leakage Current	8
9.Line Regulation	9
10.Load Regulation	10
11.Dynamic Load Response	11
12.Ripple Voltage (by Load Current)	12
13.Ripple-Noise	13
14.Ripple Voltage (by Ambient Temperature)	14
15.Ambient Temperature Drift	15
16.Output Voltage Accuracy	16
17.Time Lapse Drift	17
18.Rise and Fall Time	18
19.Hold-Up Time	19
20.Instantaneous Interruption Compensation	20
21.Minimum Input Voltage for Regulated Output Voltage	21
22.Overcurrent Protection	22
23.Overvoltage Protection	23
24.Figure of Testing Circuitry	24

(Final Page 25)

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Model		TUHS15F15		Temperature 25°C																																																				
Item		Input Current (by Load Current)		Testing Circuitry Figure A																																																				
Object		_____																																																						
1.Graph		<div><div>—△—</div>Input Volt. 100V</div> <div><div>---□---</div>Input Volt. 200V</div> <div><div>-·-○-·-</div>Input Volt. 230V</div>  <p>Input Current [A]</p> <p>Load Current [A]</p>		2.Values																																																				
		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Input Current [A]</th></tr><tr><th>Input Volt. 100[V]</th><th>Input Volt. 200[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>0.00</td><td>0.004</td><td>0.003</td><td>0.003</td></tr><tr><td>0.16</td><td>0.065</td><td>0.043</td><td>0.039</td></tr><tr><td>0.32</td><td>0.113</td><td>0.072</td><td>0.066</td></tr><tr><td>0.48</td><td>0.157</td><td>0.099</td><td>0.091</td></tr><tr><td>0.64</td><td>0.200</td><td>0.125</td><td>0.114</td></tr><tr><td>0.80</td><td>0.242</td><td>0.150</td><td>0.137</td></tr><tr><td>0.96</td><td>0.283</td><td>0.174</td><td>0.159</td></tr><tr><td>1.00</td><td>0.293</td><td>0.180</td><td>0.164</td></tr><tr><td>1.10</td><td>0.319</td><td>0.195</td><td>0.178</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table>		Load Current [A]	Input Current [A]			Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	0.00	0.004	0.003	0.003	0.16	0.065	0.043	0.039	0.32	0.113	0.072	0.066	0.48	0.157	0.099	0.091	0.64	0.200	0.125	0.114	0.80	0.242	0.150	0.137	0.96	0.283	0.174	0.159	1.00	0.293	0.180	0.164	1.10	0.319	0.195	0.178	--	-	-	-	--	-	-	-		
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<div><div><div>—△—</div><div>Input Volt.</div><div>100V</div></div><div><div>---□---</div><div>Input Volt.</div><div>200V</div></div><div><div>-·-○-·-</div><div>Input Volt.</div><div>230V</div></div></div> <p>Note: Slanted line shows the range of the rated load current.</p>		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Input Power [W]</th></tr><tr><th>Input Volt. 100[V]</th><th>Input Volt. 200[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>0.00</td><td>0.12</td><td>0.13</td><td>0.14</td></tr><tr><td>0.16</td><td>3.02</td><td>3.18</td><td>3.24</td></tr><tr><td>0.32</td><td>5.71</td><td>5.90</td><td>5.96</td></tr><tr><td>0.48</td><td>8.43</td><td>8.61</td><td>8.69</td></tr><tr><td>0.64</td><td>11.18</td><td>11.30</td><td>11.38</td></tr><tr><td>0.80</td><td>13.96</td><td>14.02</td><td>14.10</td></tr><tr><td>0.96</td><td>16.77</td><td>16.75</td><td>16.81</td></tr><tr><td>1.00</td><td>17.47</td><td>17.43</td><td>17.49</td></tr><tr><td>1.10</td><td>19.24</td><td>19.15</td><td>19.21</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table>		Load Current [A]	Input Power [W]			Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	0.00	0.12	0.13	0.14	0.16	3.02	3.18	3.24	0.32	5.71	5.90	5.96	0.48	8.43	8.61	8.69	0.64	11.18	11.30	11.38	0.80	13.96	14.02	14.10	0.96	16.77	16.75	16.81	1.00	17.47	17.43	17.49	1.10	19.24	19.15	19.21	--	-	-	-	--	-	-	-
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- 4 -

BC-11208

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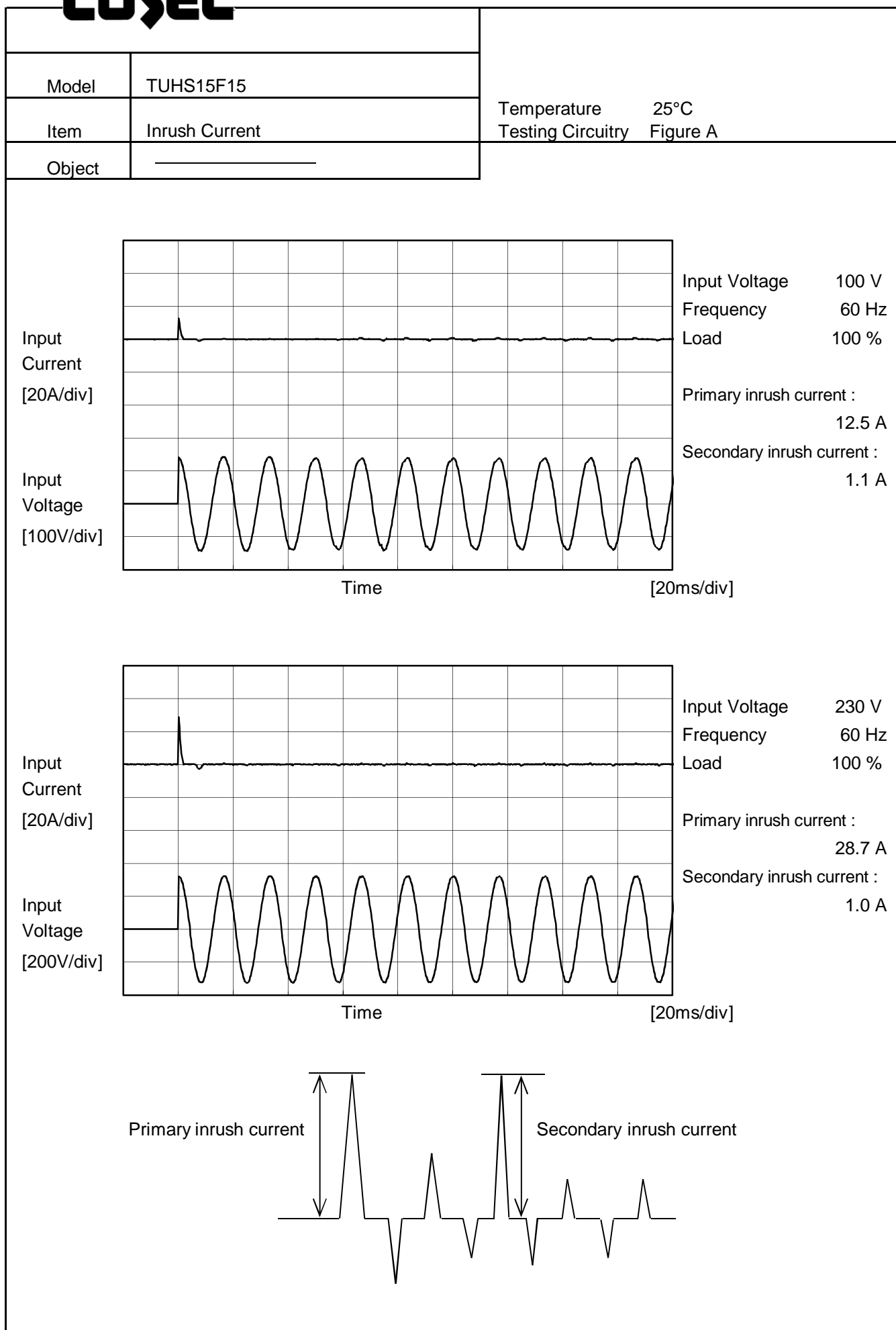
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-6-

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		Temperature 25°C Testing Circuitry Figure B
Model	TUHS15F15	
Item	Leakage Current	
Object	_____	

1.Results

[mA]

Standards		Input Volt.			Note
		100 [V]	200 [V]	230 [V]	
DEN-AN	Both phases	0.005	0.007	0.008	Operation
	One of phases	0.004	0.010	0.011	Stand by
IEC60950-1	Both phases	0.003	0.006	0.007	Operation
	One of phases	0.004	0.009	0.010	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.

There is no FG in TUHS series and it is a reinforced insulation power supply of the class 2.

Model	TUHS15F15																																		
Item	Line Regulation	Temperature	25°C																																
		Testing Circuitry	Figure A																																
Object	+15V1A																																		
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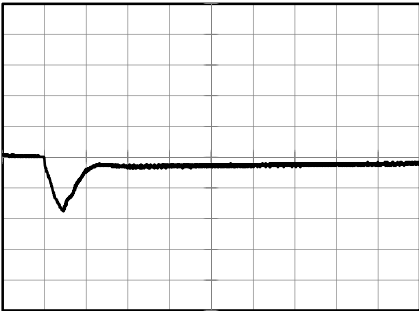
Model	TUHS15F15		
Item	Dynamic Load Response	Temperature	25°C
		Testing Circuitry	Figure A
Object	+15V 1A		

Input Volt. 230V
Cycle 500ms

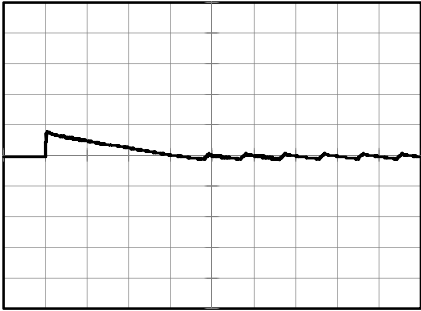
Load Current  1A / 100us

Min.Load (0A)←→
Load 100%(1A)

1 V/div



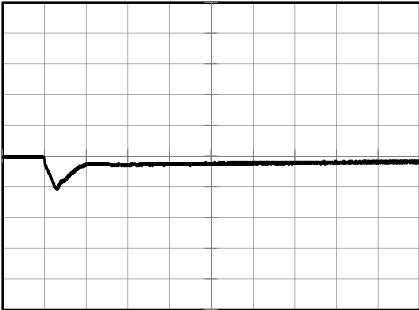
200 us/div



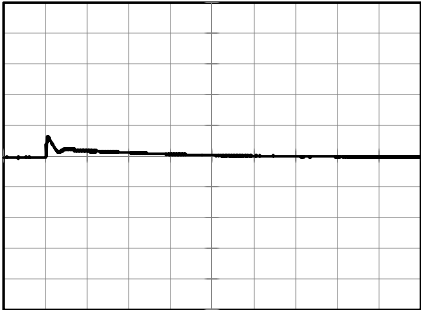
1 ms/div

Load 20% (0.2A)←→
Load 100%(1A)

1 V/div



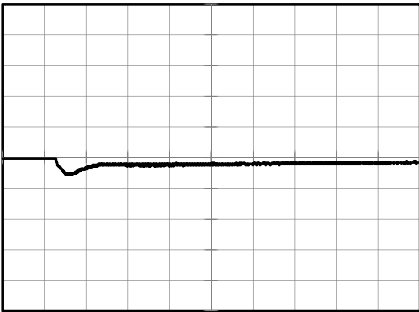
200 us/div



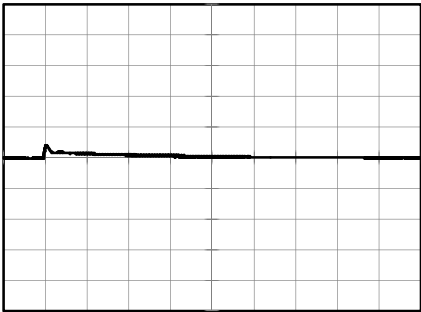
1 ms/div

Load 50% (0.5A)←→
Load 100% (1A)

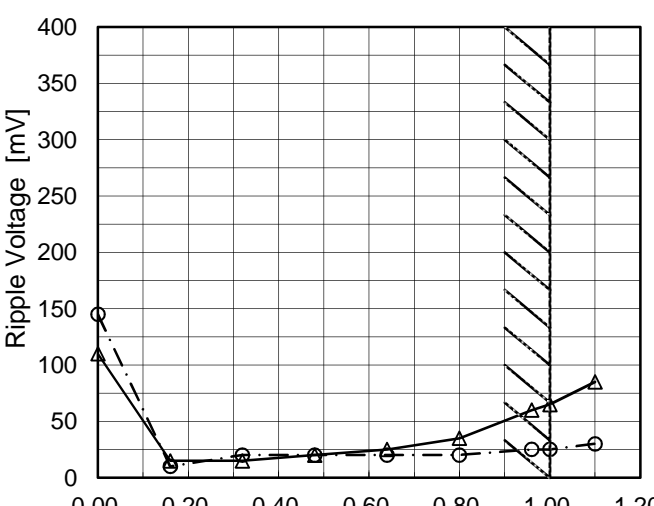
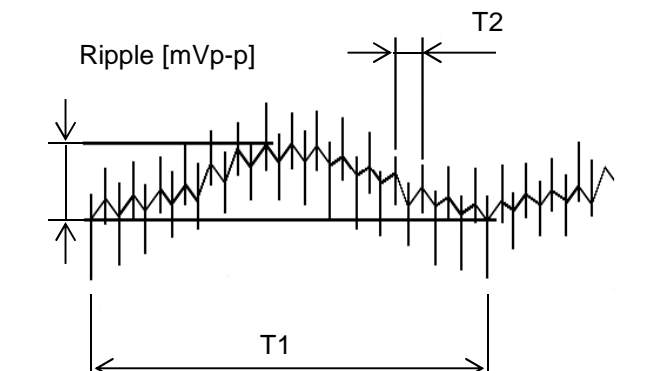
1 V/div



200 us/div



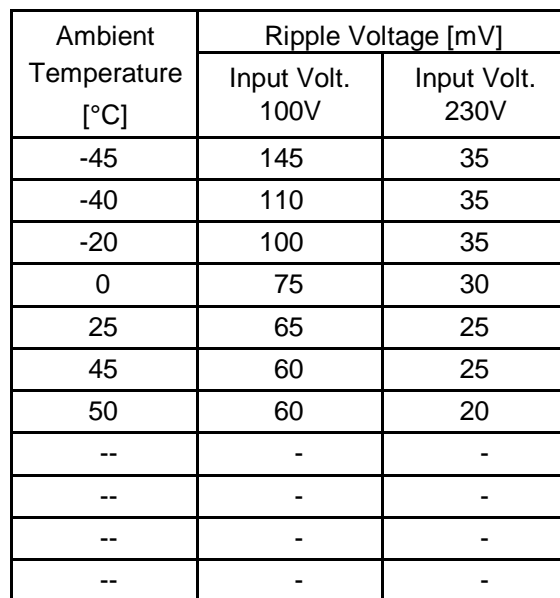
1 ms/div

Model	TUHS15F15																																								
Item	Ripple Voltage (by Load Current)	Temperature	25°C																																						
Object	+15V1A	Testing Circuitry	Figure C																																						
1.Graph		2.Values																																							
<div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div>Input Volt. 100V</div><div>Input Volt. 230V</div></div></div>  <p>Measured by 100 MHz Oscilloscope. Ripple Voltage is shown as p-p in the figure below. Note: Slanted line shows the range of the rated load current.</p>		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="2">Ripple Voltage [mV]</th></tr><tr><th>Input Volt. 100 [V]</th><th>Input Volt. 230 [V]</th></tr><tr><td>0.00</td><td>110</td><td>145</td></tr><tr><td>0.16</td><td>15</td><td>10</td></tr><tr><td>0.32</td><td>15</td><td>20</td></tr><tr><td>0.48</td><td>20</td><td>20</td></tr><tr><td>0.64</td><td>25</td><td>20</td></tr><tr><td>0.80</td><td>35</td><td>20</td></tr><tr><td>0.96</td><td>60</td><td>25</td></tr><tr><td>1.00</td><td>65</td><td>25</td></tr><tr><td>1.10</td><td>85</td><td>30</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Load Current [A]	Ripple Voltage [mV]		Input Volt. 100 [V]	Input Volt. 230 [V]	0.00	110	145	0.16	15	10	0.32	15	20	0.48	20	20	0.64	25	20	0.80	35	20	0.96	60	25	1.00	65	25	1.10	85	30	--	-	-	--	-	-
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<div><div><div>T1: Due to AC Input Line</div><div>T2: Due to Switching</div></div></div>																																									
Fig. Complex Ripple Wave Form																																									

Model	TUHS15F15																																								
Item	Ripple-Noise	Temperature	25°C																																						
Object	+15V1A	Testing Circuitry	Figure C																																						
1.Graph		2.Values																																							
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Fig. Complex Ripple Wave Form																																									

Testing Circuitry Figure C

2.Values



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

Model		TUHS15F15																																																				
Item		Ambient Temperature Drift																																																				
Object		+15V1A																																																				
1.Graph		2.Values																																																				
<div><div><div><div><div></div><div></div></div><div>—△—</div><div>Input Volt.</div><div>100V</div></div><div><div><div></div><div></div></div><div>---□---</div><div>Input Volt.</div><div>200V</div></div><div><div><div></div><div></div></div><div>---○---</div><div>Input Volt.</div><div>230V</div></div></div><div><p>Output Voltage [V]</p><p>Ambient Temperature [°C]</p><p>Load 100%</p></div></div>		<table><tr><th rowspan="2">Ambient Temperature [°C]</th><th colspan="3">Output Voltage [V]</th></tr><tr><th>Input Volt. 100[V]</th><th>Input Volt. 200[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>-45</td><td>15.079</td><td>15.084</td><td>15.084</td></tr><tr><td>-40</td><td>15.078</td><td>15.082</td><td>15.082</td></tr><tr><td>-20</td><td>15.065</td><td>15.065</td><td>15.064</td></tr><tr><td>0</td><td>15.045</td><td>15.044</td><td>15.043</td></tr><tr><td>25</td><td>15.013</td><td>15.012</td><td>15.012</td></tr><tr><td>45</td><td>14.978</td><td>14.979</td><td>14.979</td></tr><tr><td>50</td><td>14.970</td><td>14.971</td><td>14.971</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table>		Ambient Temperature [°C]	Output Voltage [V]			Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	-45	15.079	15.084	15.084	-40	15.078	15.082	15.082	-20	15.065	15.065	15.064	0	15.045	15.044	15.043	25	15.013	15.012	15.012	45	14.978	14.979	14.979	50	14.970	14.971	14.971	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
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		Testing Circuitry Figure A
Model	TUHS15F15	
Item	Output Voltage Accuracy	
Object	+15V1A	

1. Output Voltage Accuracy

This is defined as the value of the output voltage, regulation load, ambient temperature and input voltage varied at random in the range as specified below.

Temperature : -40 - 45°C

Input Voltage : 85 - 264V

Load Current : 0 - 1A

* Output Voltage Accuracy = $\pm(\text{Maximum of Output Voltage} - \text{Minimum of Output Voltage}) / 2$

* Output Voltage Accuracy (Ration) = $\frac{\text{Output Voltage Accuracy}}{\text{Rated Output Voltage}} \times 100$

2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	-40	264	0	15.089	±56	±0.4
Minimum Voltage	45	100	1	14.978		

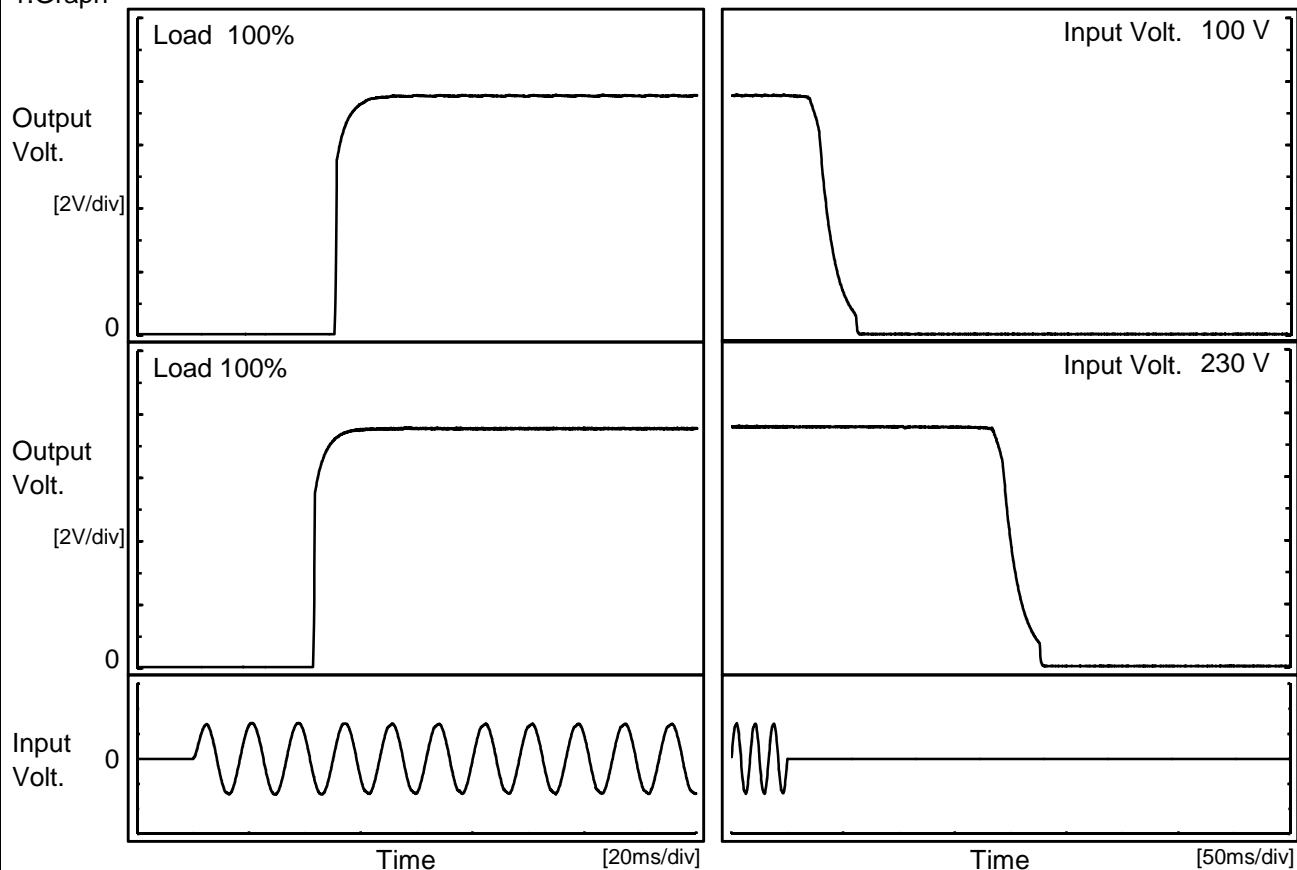
COSEL

Model		TUHS15F15	Temperature25°C Testing CircuitryFigure A
Item		Time Lapse Drift	
Object		+15V1A	
1.Graph		2.Values	
<div><div><div>Output Voltage [V]</div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></di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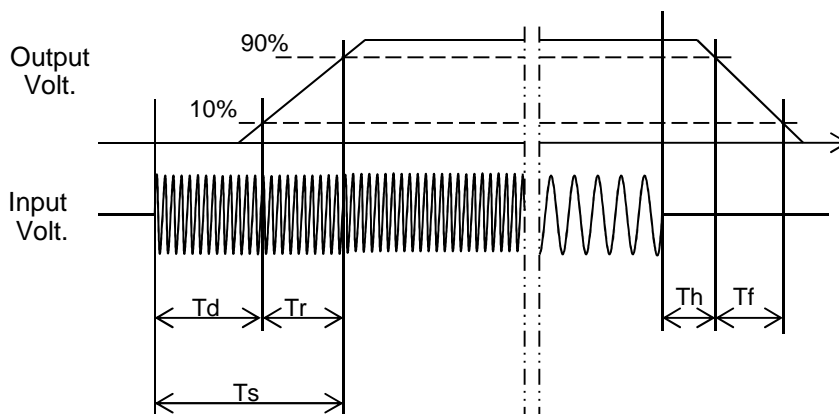
Model	TUHS15F15	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+15V1A		

1. Graph



2. Values

Input Volt. \ Time	Td	Tr	Ts	Th	Tf
100V	50.8	4.4	55.2	25.8	32.5
230V	43.0	4.2	47.2	190.3	34.8

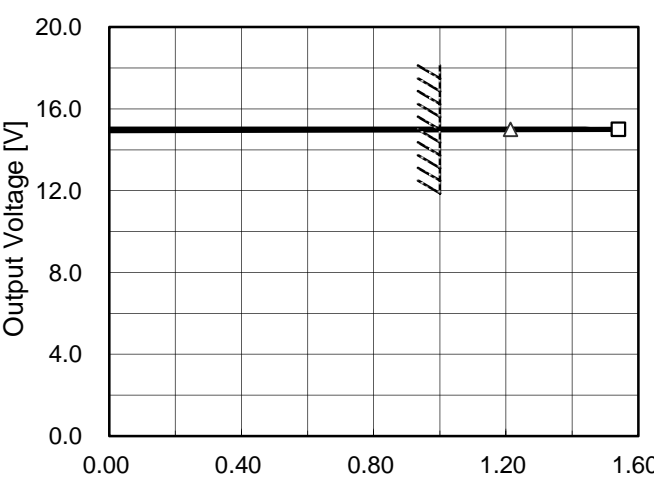


Model	TUHS15F15																																		
Item	Hold-Up Time	Temperature	25°C																																
		Testing Circuitry	Figure A																																
Object	+15V1A																																		
1.Graph		2.Values																																	
<div><div><div>---□--- Load 50%</div><div>—△— Load 100%</div></div><div>Hold-Up Time [ms]</div><div>Input Voltage [V]</div></div>		<table><tr><th rowspan="2">Input Voltage [V]</th><th colspan="2">Hold-Up Time [ms]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr><tr><td>75</td><td>29</td><td>3</td></tr><tr><td>85</td><td>41</td><td>9</td></tr><tr><td>100</td><td>61</td><td>19</td></tr><tr><td>120</td><td>94</td><td>36</td></tr><tr><td>200</td><td>290</td><td>134</td></tr><tr><td>230</td><td>390</td><td>185</td></tr><tr><td>264</td><td>523</td><td>253</td></tr><tr><td>280</td><td>593</td><td>289</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>		Input Voltage [V]	Hold-Up Time [ms]		Load 50%	Load 100%	75	29	3	85	41	9	100	61	19	120	94	36	200	290	134	230	390	185	264	523	253	280	593	289	--	-	-
Input Voltage [V]	Hold-Up Time [ms]																																		
	Load 50%	Load 100%																																	
75	29	3																																	
85	41	9																																	
100	61	19																																	
120	94	36																																	
200	290	134																																	
230	390	185																																	
264	523	253																																	
280	593	289																																	
--	-	-																																	
<p>This duration covers from Shut-off of input voltage to the moment when output voltage descends to the rated range of voltage accuracy.</p> <p>Note: Slanted line shows the range of the rated input voltage.</p>																																			

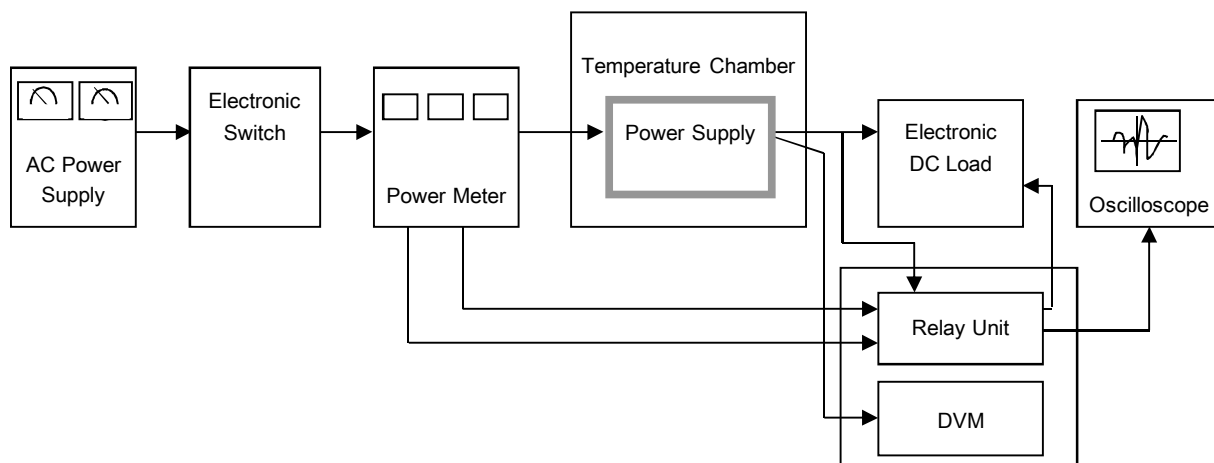
Model		TUHS15F15		Temperature 25°C																																																				
Item		Instantaneous Interruption Compensation		Testing Circuitry Figure A																																																				
Object		+15V1A																																																						
1.Graph		<div><div><div>—△—</div><div>Input Volt.</div><div>100V</div></div><div><div>---□---</div><div>Input Volt.</div><div>200V</div></div><div><div>-·-○-·-</div><div>Input Volt.</div><div>230V</div></div></div> <p>Instantaneous Compensation Time [ms]</p> <p>Load Current [A]</p>		2.Values																																																				
		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Time [ms]</th></tr><tr><th>Input Volt. 100[V]</th><th>Input Volt. 200[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>0.00</td><td>-</td><td>-</td><td>-</td></tr><tr><td>0.16</td><td>204</td><td>1129</td><td>1494</td></tr><tr><td>0.32</td><td>102</td><td>599</td><td>799</td></tr><tr><td>0.48</td><td>65</td><td>405</td><td>543</td></tr><tr><td>0.64</td><td>47</td><td>304</td><td>407</td></tr><tr><td>0.80</td><td>35</td><td>238</td><td>322</td></tr><tr><td>0.96</td><td>22</td><td>189</td><td>247</td></tr><tr><td>1.00</td><td>22</td><td>187</td><td>239</td></tr><tr><td>1.10</td><td>13</td><td>164</td><td>222</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table>				Load Current [A]	Time [ms]			Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	0.00	-	-	-	0.16	204	1129	1494	0.32	102	599	799	0.48	65	405	543	0.64	47	304	407	0.80	35	238	322	0.96	22	189	247	1.00	22	187	239	1.10	13	164	222	--	-	-	-	--	-	-	-
Load Current [A]	Time [ms]																																																							
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]																																																					
0.00	-	-	-																																																					
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0.80	35	238	322																																																					
0.96	22	189	247																																																					
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1.10	13	164	222																																																					
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Note: Slanted line shows the range of the rated load current.																																																								

		Testing Circuitry Figure A																																						
Model	TUHS15F15																																							
Item	Minimum Input Voltage for Regulated Output Voltage																																							
Object	+15V1A																																							
1.Graph		2.Values																																						
<div><div><div>---□---</div><div>Load 50%</div></div><div><div>—△—</div><div>Load 100%</div></div></div> <table><thead><tr><th rowspan="2">Ambient Temperature [°C]</th><th colspan="2">Input Voltage [V]</th></tr><tr><th>Load 50%</th><th>Load 100%</th></tr></thead><tbody><tr><td>-45</td><td>40</td><td>72</td></tr><tr><td>-40</td><td>39</td><td>72</td></tr><tr><td>-20</td><td>38</td><td>70</td></tr><tr><td>0</td><td>38</td><td>69</td></tr><tr><td>25</td><td>37</td><td>68</td></tr><tr><td>45</td><td>37</td><td>68</td></tr><tr><td>50</td><td>37</td><td>67</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></tbody></table> <p>Note: Slanted line shows the range of the rated ambient temperature.</p>		Ambient Temperature [°C]	Input Voltage [V]		Load 50%	Load 100%	-45	40	72	-40	39	72	-20	38	70	0	38	69	25	37	68	45	37	68	50	37	67	--	-	-	--	-	-	--	-	-	--	-	-	
Ambient Temperature [°C]	Input Voltage [V]																																							
	Load 50%	Load 100%																																						
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-40	39	72																																						
-20	38	70																																						
0	38	69																																						
25	37	68																																						
45	37	68																																						
50	37	67																																						
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Model		TUHS15F15		Temperature Testing Circuitry	25°C Figure A																																															
Item		Overcurrent Protection																																																		
Object		+15V1A																																																		
1.Graph		<div><div><div></div><div>△</div><div>Input Volt. 100V</div></div><div><div></div><div>□</div><div>Input Volt. 230V</div></div></div>  <p>Note: Slanted line shows the range of the rated load current.</p>		2.Values																																																
		<table><tr><th rowspan="2">Output Voltage [V]</th><th colspan="2">Load Current [A]</th></tr><tr><th>Input Volt. 100[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>15.0</td><td>1.21</td><td>1.54</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr><tr><td>--</td><td>-</td><td>-</td></tr></table>				Output Voltage [V]	Load Current [A]		Input Volt. 100[V]	Input Volt. 230[V]	15.0	1.21	1.54	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-	--	-	-
Output Voltage [V]	Load Current [A]																																																			
	Input Volt. 100[V]	Input Volt. 230[V]																																																		
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		Testing Circuitry Figure A
Model	TUHS15F15	
Item	Overvoltage Protection	
Object	+15V1A	
1.Graph		2.Values
<div><div><div>—△—</div><div>Input Volt. 100V</div></div><div><div>---□---</div><div>Input Volt. 230V</div></div></div>		
Note: Slanted line shows the range of the rated ambient temperature.		



Data Acquisition/Control Unit

Figure A

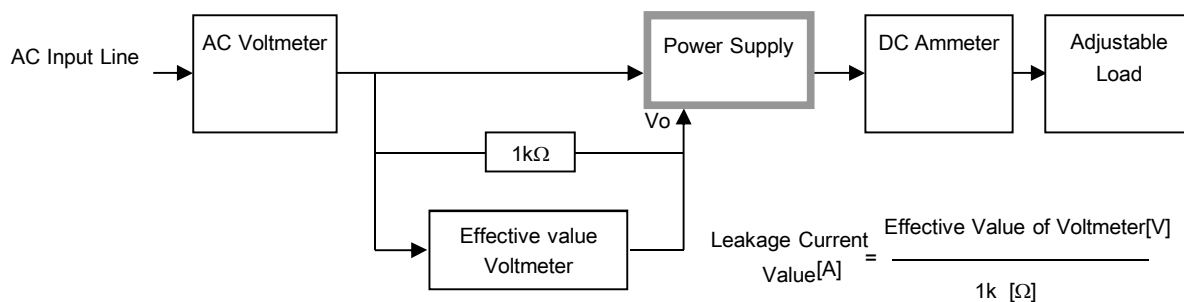


Figure B (DEN-AN)

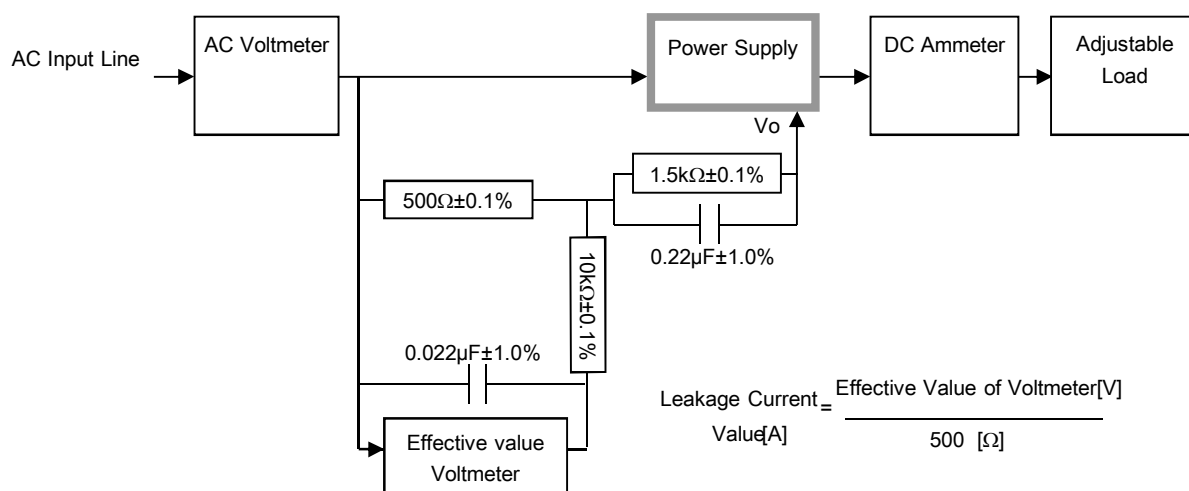


Figure B (IEC60950-1)

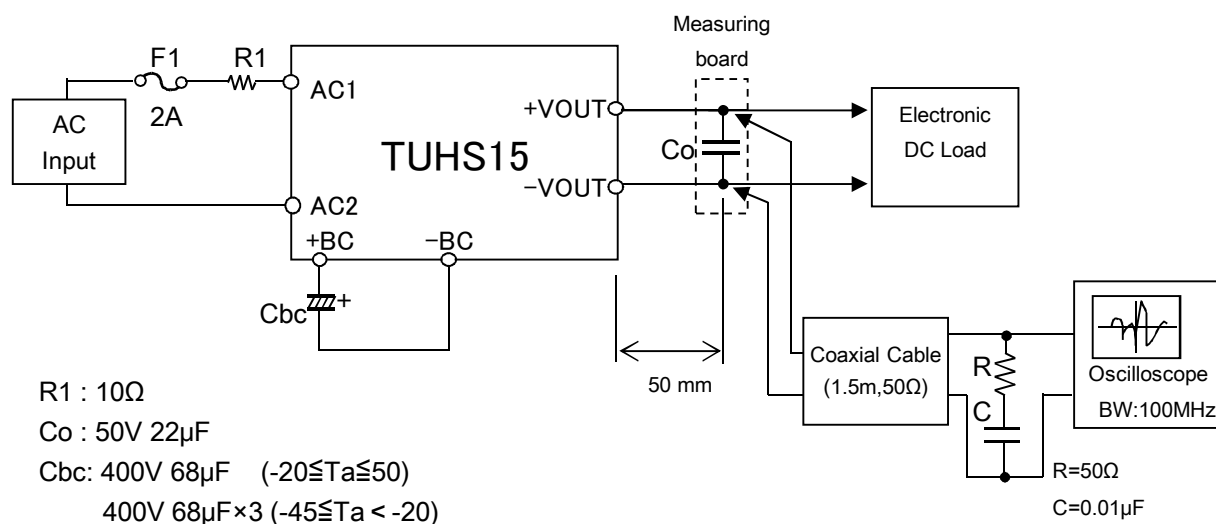


Figure C