

# TEST DATA OF PJMA300F-12

Regulated DC Power Supply  
September 6, 2021

Approved by : Takashi Kajii  
Design Manager

Prepared by : Ryo Takahashi  
Design Engineer

**COSEL CO.,LTD.**

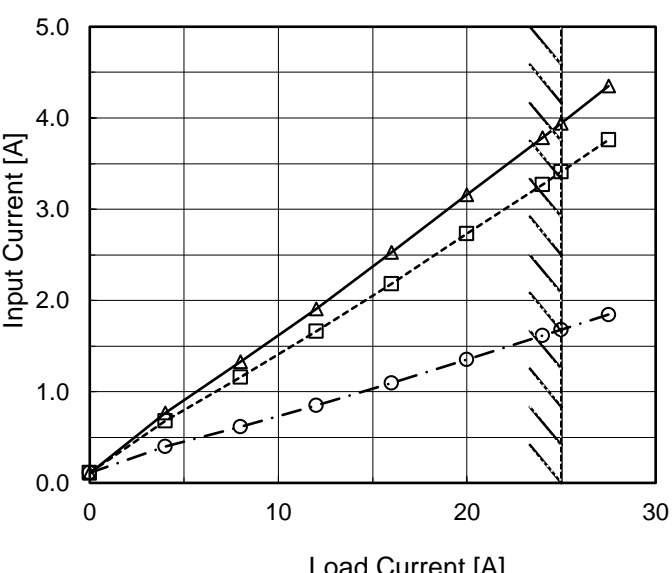


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Model		PJMA300F-12		Temperature 25°C																																																				
Item		Input Current (by Load Current)		Testing Circuitry Figure A																																																				
Object		_____																																																						
1.Graph		<div><div>—△—</div>Input Volt. 100V</div> <div><div>---□---</div>Input Volt. 115V</div> <div><div>-·-○-·-</div>Input Volt. 230V</div>  <p>Input Current [A]</p> <p>Load Current [A]</p>		2.Values																																																				
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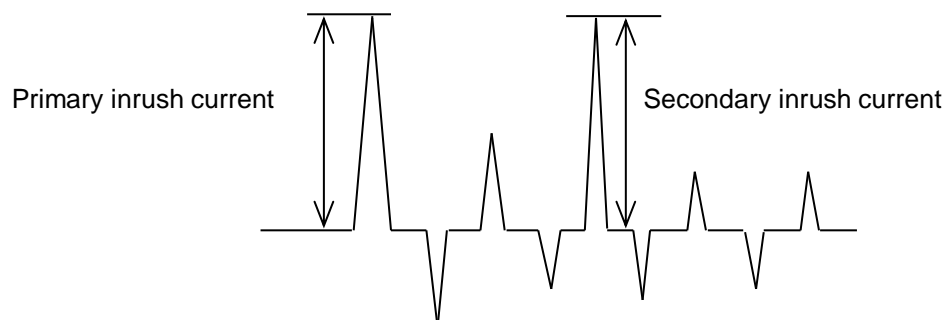
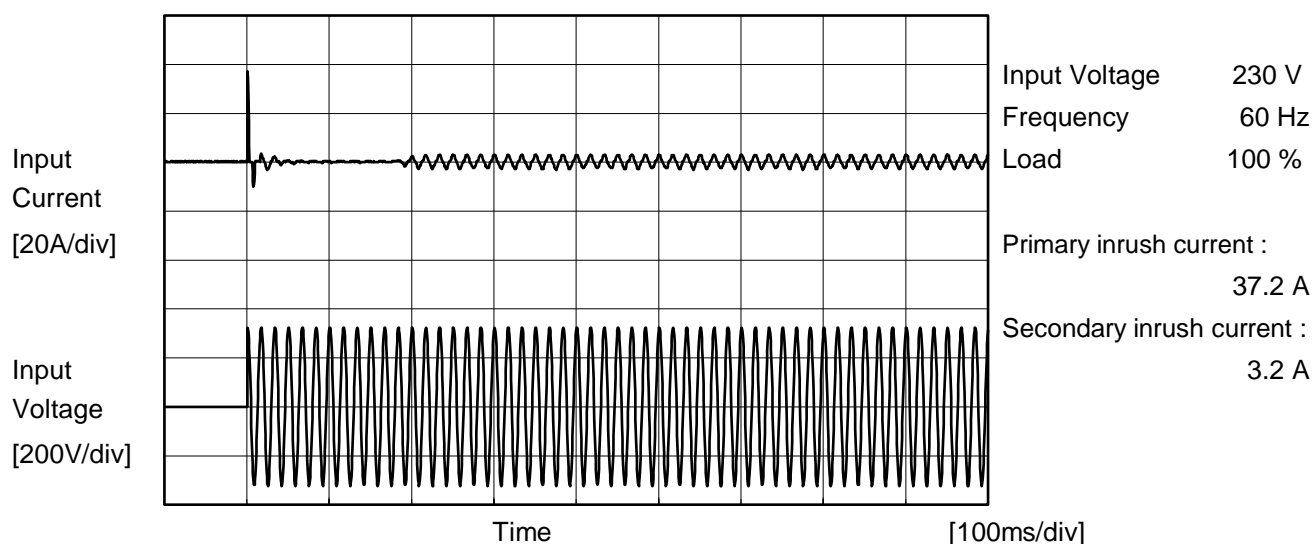
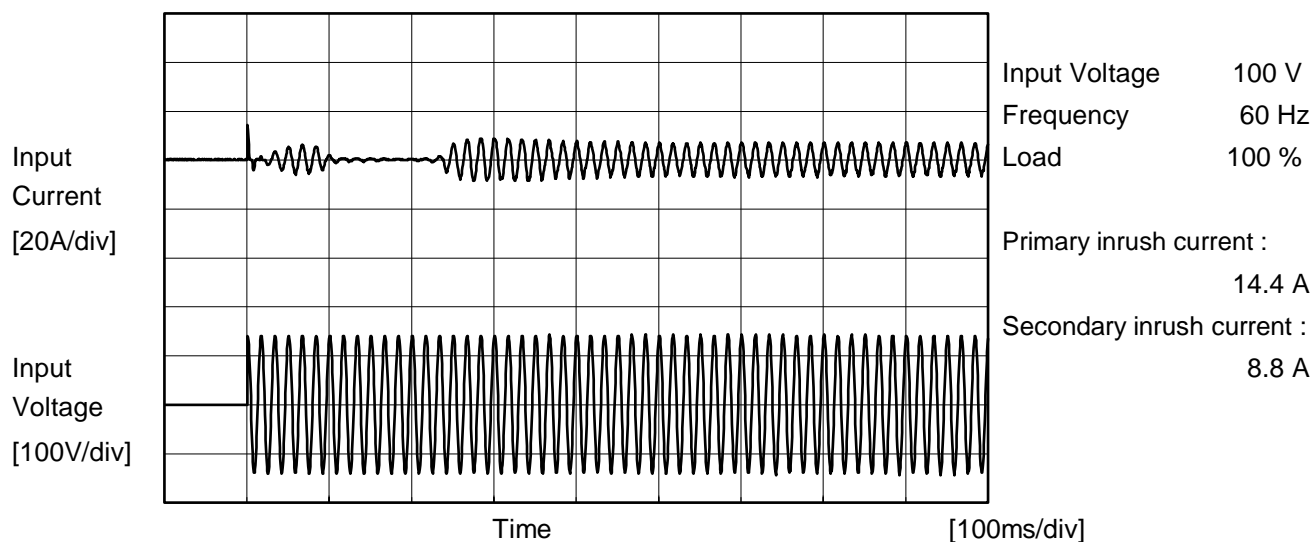
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Model	PJMA300F-12	Temperature    25°C Testing Circuitry   Figure A	
Item	Inrush Current		
Object	_____		







		Temperature 25°C Testing Circuitry Figure C
Model	PJMA300F-12	
Item	Leakage Current	
Object	_____	

## 1.Results

[mA]

Standards		Input Volt.			Note
		115 [V]	230 [V]	240 [V]	
IEC60601-1	Both phases	0.08	0.18	0.18	Operation
	One of phases	0.16	0.33	0.34	Stand by

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

## 2.Condition

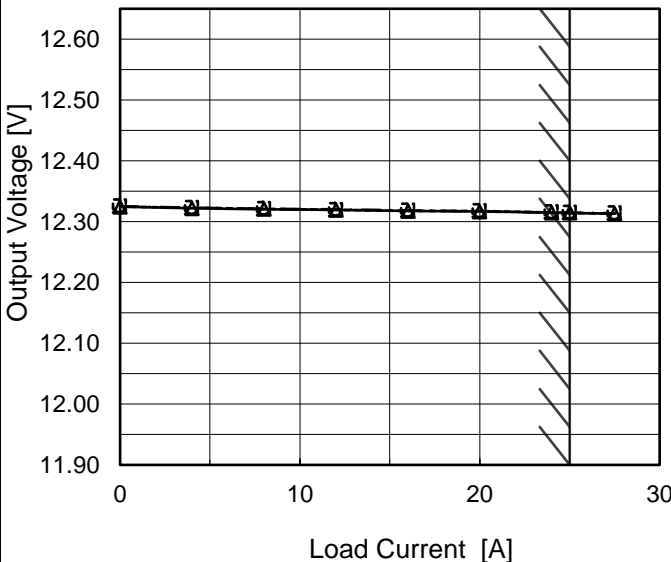
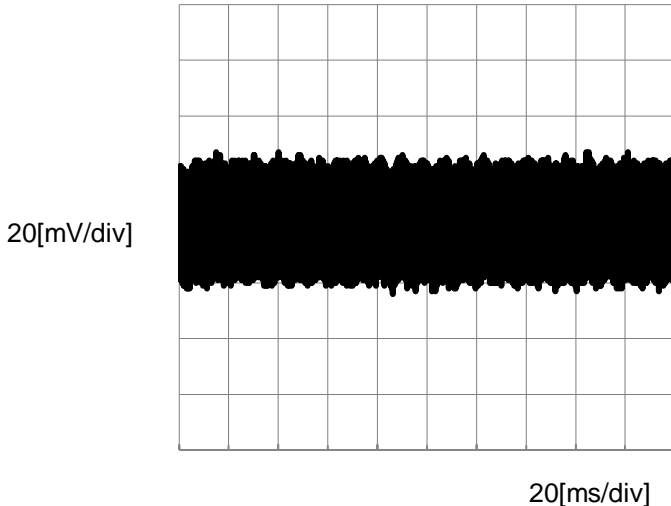
Leakage current value is concluded after measuring both phases of AC input and by choosing the larger one.



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Item		Line Regulation		Testing Circuitry		Figure A																																	
Object		+12V25A																																					
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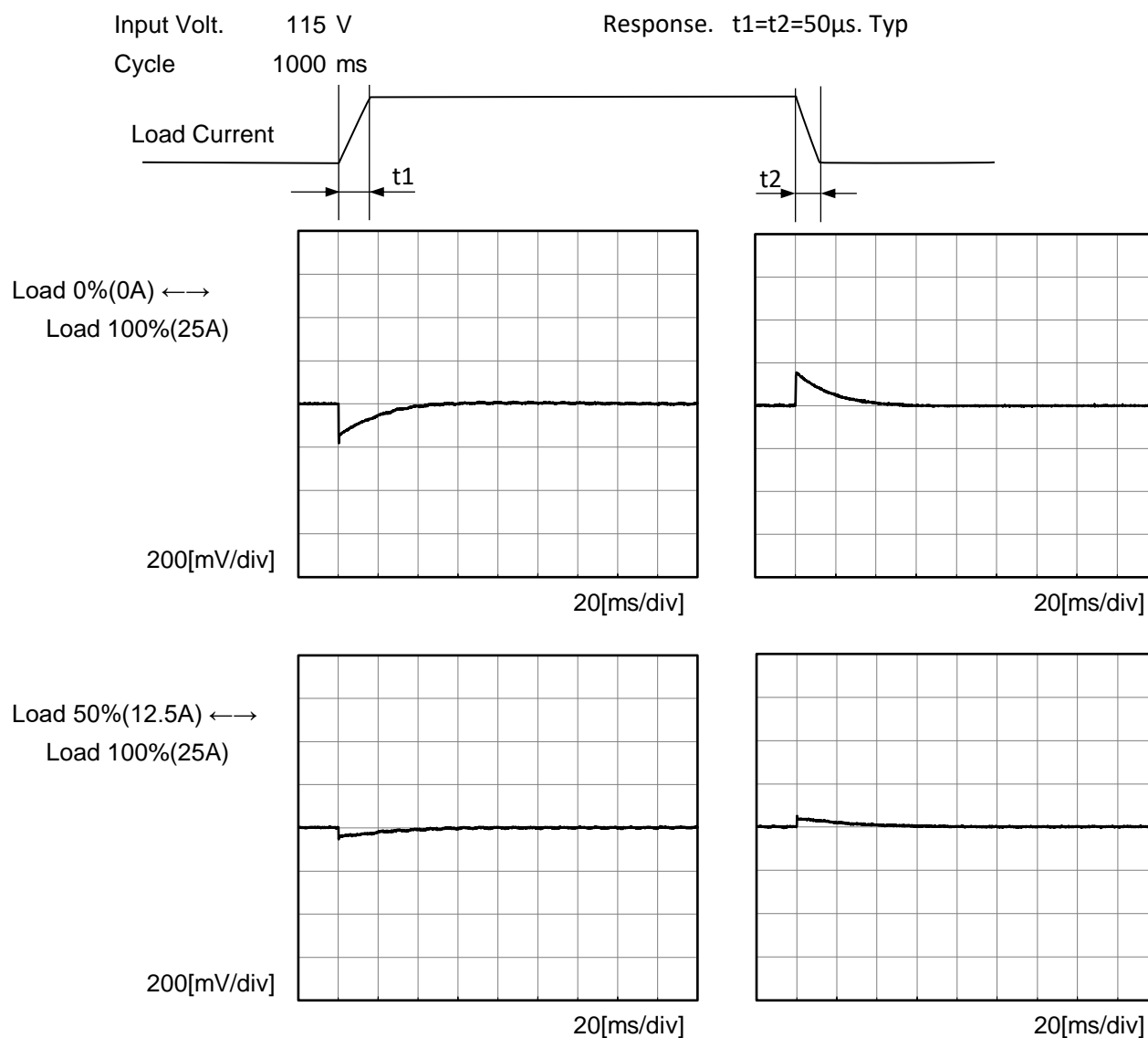
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<div><div><div>Input Voltage</div><div>115V</div></div><div><div>Load</div><div>100%</div></div></div> <div><div>20[mV/div]</div><div></div><div>20[ms/div]</div></div>																																																						



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Model	PJMA300F-12	Temperature 25°C Testing Circuitry Figure A
Item	Dynamic Load Response	
Object	+12V25A	

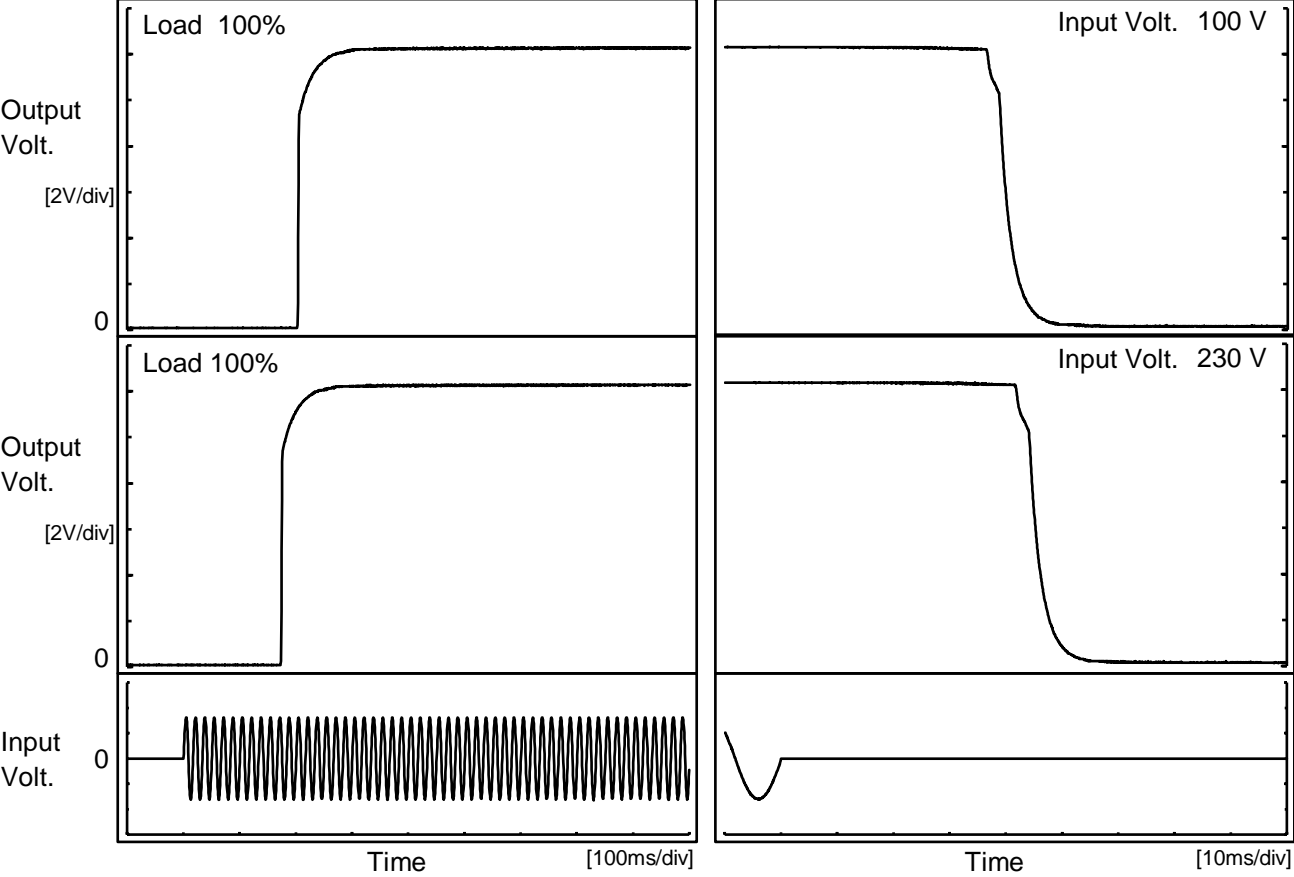






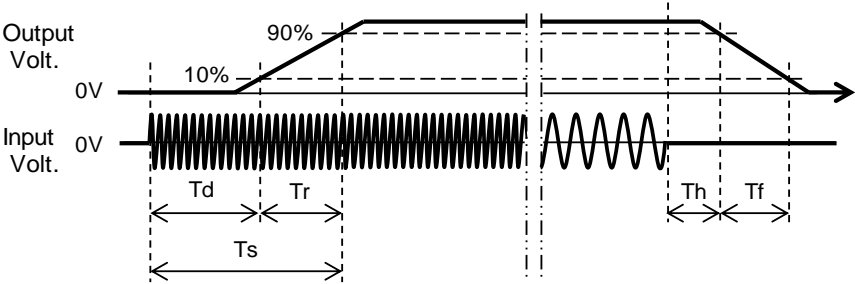
Model	PJMA300F-12		
Item	Rise and Fall Time	Temperature	25°C
Object	+12V25A	Testing Circuitry	Figure A

1.Graph



2.Values

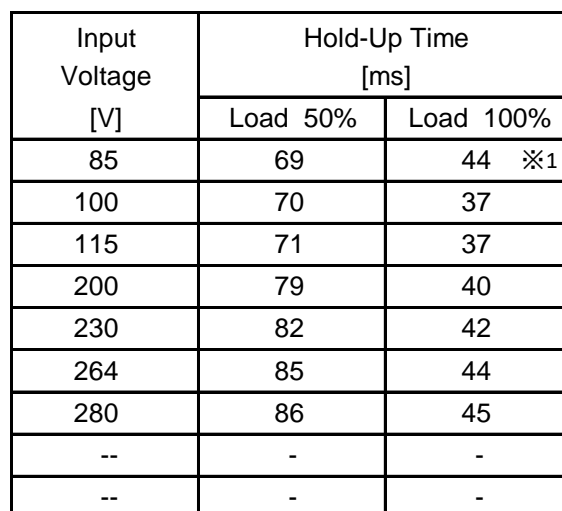
		[ms]				
Input Volt.	Time	Td	Tr	Ts	Th	Tf
100V		204.0	21.5	225.5	37.6	6.0
230V		174.0	21.5	195.5	42.7	6.1





Temperature 25°C  
Testing Circuitry Figure A

## 2.Values



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 input voltage.



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<div><div><div>—△—</div><div>Input Volt.</div><div>100V</div></div><div><div>---□---</div><div>Input Volt.</div><div>115V</div></div><div><div>-·-○-·-</div><div>Input Volt.</div><div>230V</div></div></div> <div><div><div>Instantaneous Compensation Time [ms]</div><div><div><div>1000</div><div>100</div><div>10</div><div>1</div></div><div><div>0</div><div>10</div><div>20</div><div>30</div></div></div><div><div>Load Current [A]</div></div></div></div> <div>Note: Slanted line shows the range of the rated load current.</div>				<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. 115[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>0.0</td><td>-</td><td>-</td><td>-</td></tr><tr><td>4.0</td><td>190</td><td>198</td><td>231</td></tr><tr><td>8.0</td><td>97</td><td>98</td><td>127</td></tr><tr><td>12.0</td><td>64</td><td>65</td><td>86</td></tr><tr><td>16.0</td><td>48</td><td>51</td><td>64</td></tr><tr><td>20.0</td><td>40</td><td>43</td><td>53</td></tr><tr><td>24.0</td><td>38</td><td>38</td><td>45</td></tr><tr><td>25.0</td><td>37</td><td>38</td><td>43</td></tr><tr><td>27.5</td><td>31</td><td>34</td><td>38</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. 115[V]	Input Volt. 230[V]	0.0	-	-	-	4.0	190	198	231	8.0	97	98	127	12.0	64	65	86	16.0	48	51	64	20.0	40	43	53	24.0	38	38	45	25.0	37	38	43	27.5	31	34	38	--	-	-	-	--	-	-	-
Load Current [A]	Time [ms]																																																							
	Input Volt. 100[V]	Input Volt. 115[V]	Input Volt. 230[V]																																																					
0.0	-	-	-																																																					
4.0	190	198	231																																																					
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25.0	37	38	43																																																					
27.5	31	34	38																																																					
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		Testing Circuitry    Figure A																			
Model	PJMA300F-12																				
Item	Ambient Temperature Drift																				
Object	+12V25A																				
1.Values <div>Load 100%</div> <table><tr><td rowspan="2">Ambient Temperature[°C]</td><td colspan="3">Output Voltage [V]</td></tr><tr><td>Input Volt. 100V</td><td>Input Volt. 115V</td><td>Input Volt. 230V</td></tr><tr><td>-20</td><td>12.297</td><td>12.297</td><td>12.297</td></tr><tr><td>25</td><td>12.320</td><td>12.319</td><td>12.320</td></tr><tr><td>50</td><td>12.319</td><td>12.319</td><td>12.319</td></tr></table>			Ambient Temperature[°C]	Output Voltage [V]			Input Volt. 100V	Input Volt. 115V	Input Volt. 230V	-20	12.297	12.297	12.297	25	12.320	12.319	12.320	50	12.319	12.319	12.319
Ambient Temperature[°C]	Output Voltage [V]																				
	Input Volt. 100V	Input Volt. 115V	Input Volt. 230V																		
-20	12.297	12.297	12.297																		
25	12.320	12.319	12.320																		
50	12.319	12.319	12.319																		
Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry    Figure A																			
Object	+12V25A																				
1.Values <table><tr><td rowspan="2">Ambient Temperature[°C]</td><td colspan="2">Input Voltage [V]</td></tr><tr><td>Load 50%</td><td>Load 100%</td></tr><tr><td>-20</td><td>37</td><td>53</td></tr><tr><td>25</td><td>37</td><td>54</td></tr><tr><td>50</td><td>38</td><td>56</td></tr></table>			Ambient Temperature[°C]	Input Voltage [V]		Load 50%	Load 100%	-20	37	53	25	37	54	50	38	56					
Ambient Temperature[°C]	Input Voltage [V]																				
	Load 50%	Load 100%																			
-20	37	53																			
25	37	54																			
50	38	56																			
Item	Overvoltage Protection	Testing Circuitry    Figure A																			
Object	+12V25A																				
1.Values <div>Load 0%</div> <table><tr><td rowspan="2">Ambient Temperature[°C]</td><td colspan="2">Operating Point [V]</td></tr><tr><td>Input Volt. 100V</td><td>Input Volt. 230V</td></tr><tr><td>-20</td><td>14.86</td><td>14.75</td></tr><tr><td>25</td><td>15.16</td><td>15.10</td></tr><tr><td>50</td><td>15.27</td><td>15.33</td></tr></table>			Ambient Temperature[°C]	Operating Point [V]		Input Volt. 100V	Input Volt. 230V	-20	14.86	14.75	25	15.16	15.10	50	15.27	15.33					
Ambient Temperature[°C]	Operating Point [V]																				
	Input Volt. 100V	Input Volt. 230V																			
-20	14.86	14.75																			
25	15.16	15.10																			
50	15.27	15.33																			

- 13 -

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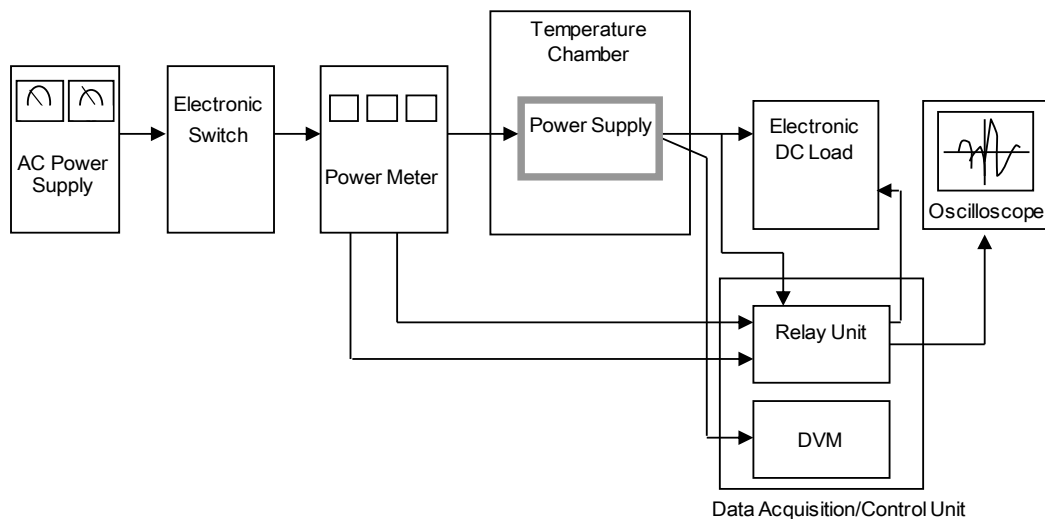


Figure A

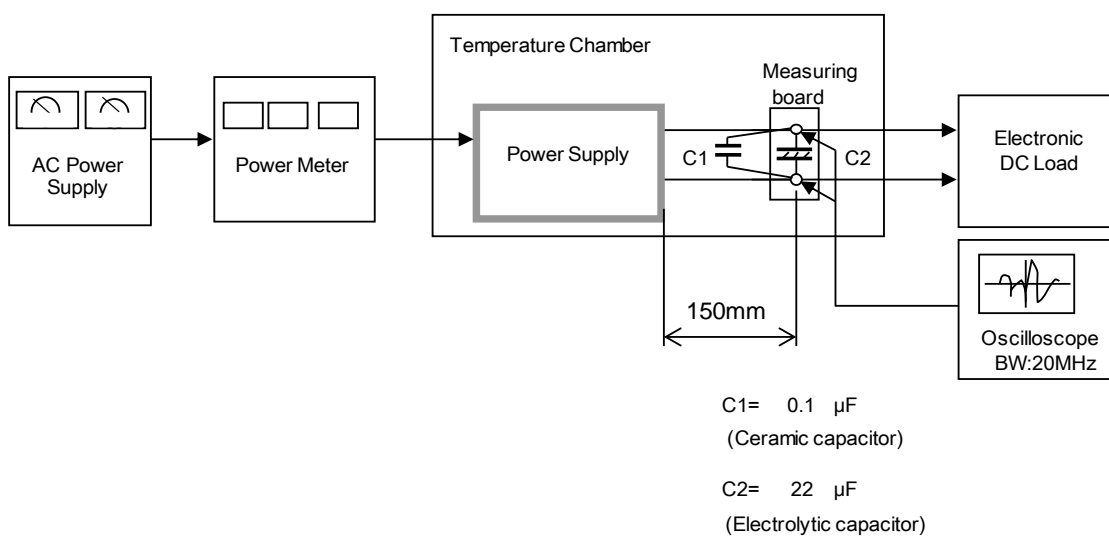


Figure B

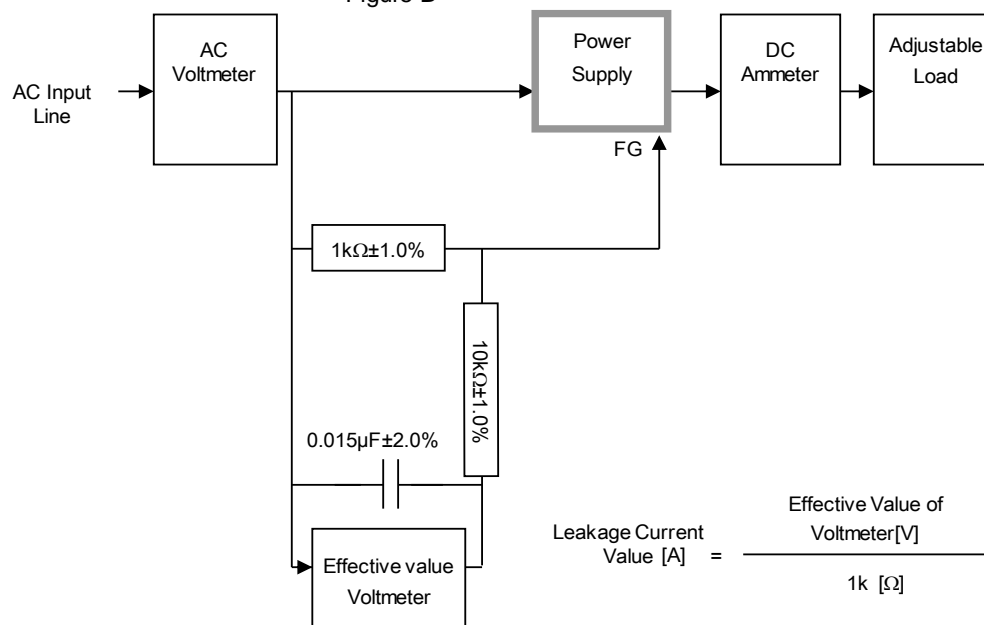


Figure C ( IEC60601-1 )