

TEST DATA OF PDA150F-5

Regulated DC Power Supply
December 13, 2024

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COSEL CO.,LTD.



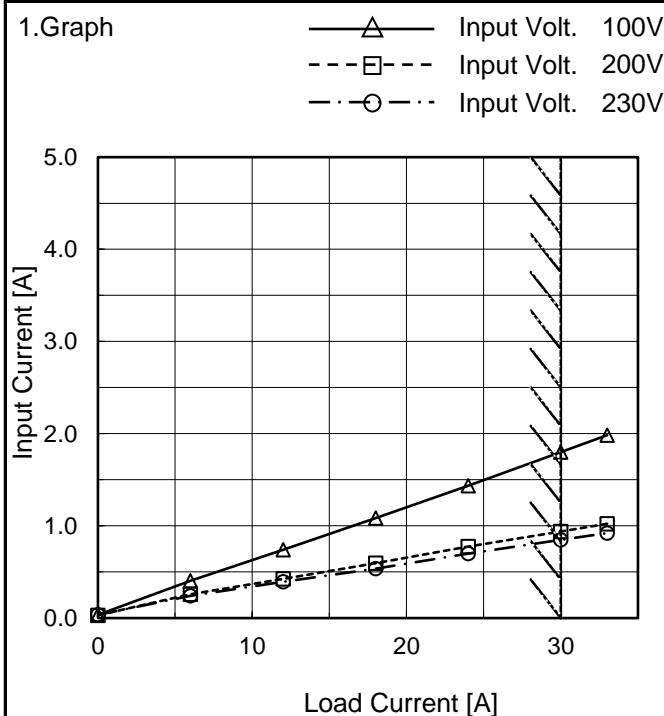
CONTENTS

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

(Final Page 15)

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Model	PDA150F-5
Item	Input Current (by Load Current)
Object	_____



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

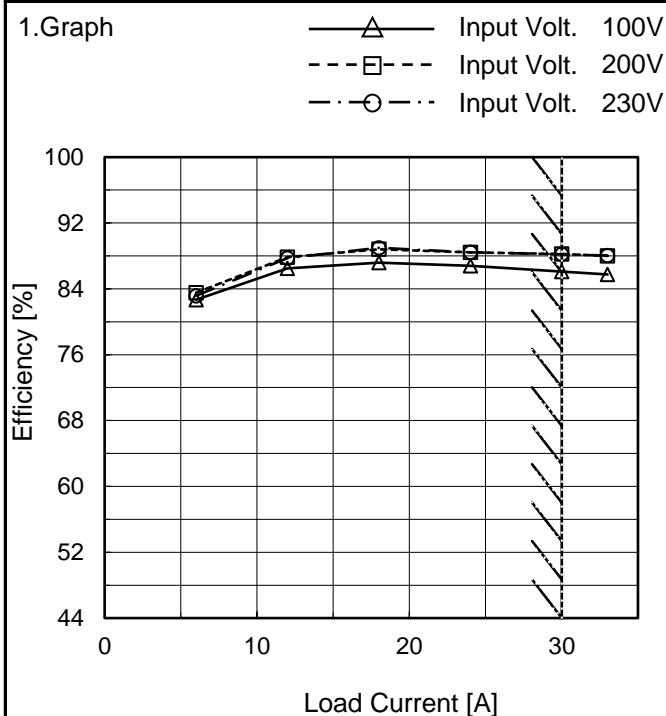
 Temperature 25°C
 Testing Circuitry Figure A

2. Values

Load Current [A]	Input Current [A]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.00	0.035	0.031	0.035
6.00	0.406	0.259	0.242
12.00	0.742	0.424	0.393
18.00	1.083	0.596	0.538
24.00	1.437	0.776	0.700
30.00	1.800	0.938	0.849
33.00	1.984	1.023	0.922
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

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Model	PDA150F-5
Item	Efficiency (by Load Current)
Object	_____



Temperature 25°C
Testing Circuitry Figure A

2. Values

Load Current [A]	Efficiency [%]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.00	-	-	-
6.00	82.7	83.5	83.2
12.00	86.5	87.9	87.7
18.00	87.2	88.8	89.0
24.00	86.8	88.4	88.4
30.00	86.1	88.2	88.2
33.00	85.8	88.0	88.0
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

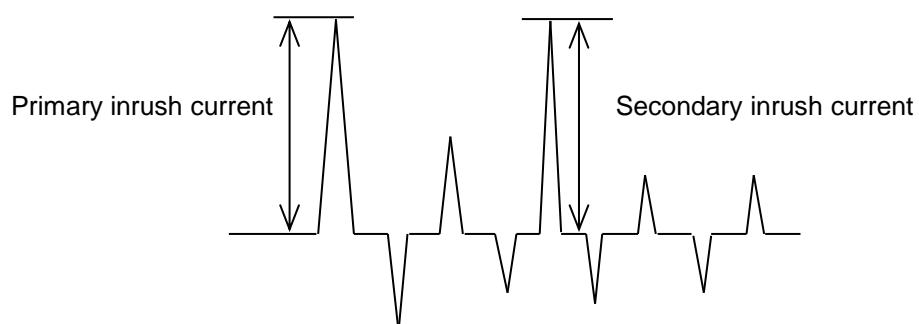
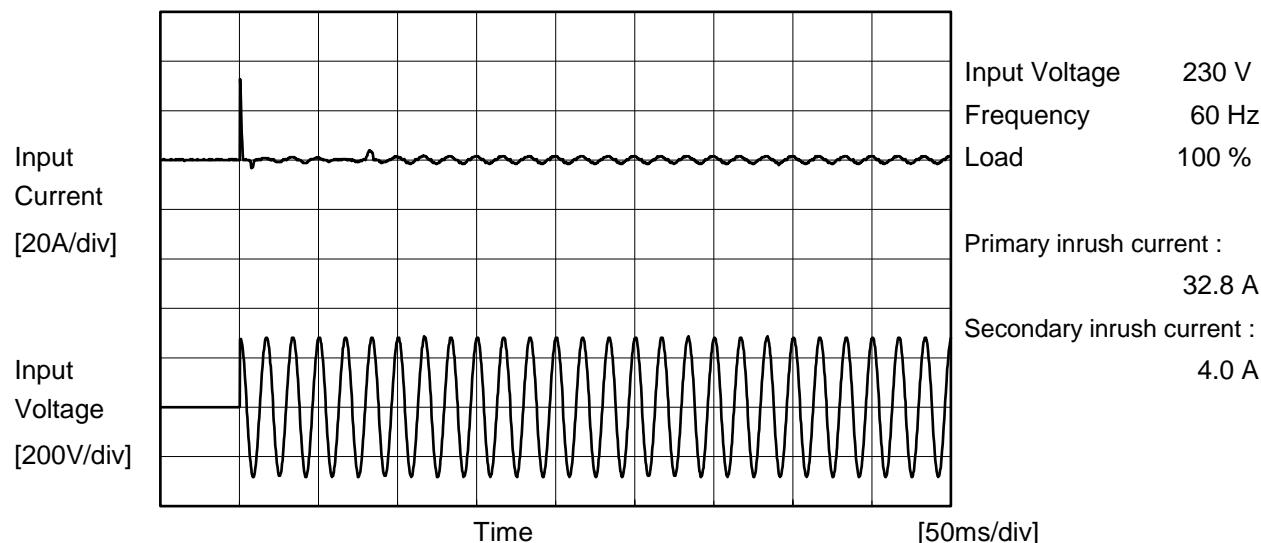
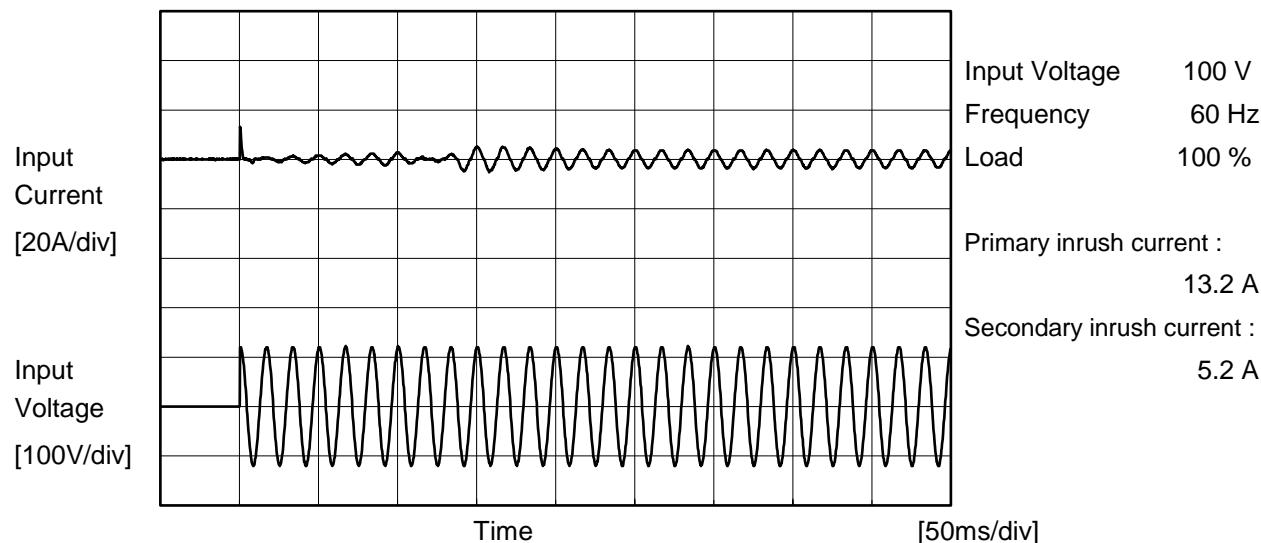
Note: Slanted line shows the range of the rated load current.

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Model	PDA150F-5	Temperature Testing Circuitry 25°C Figure A																															
Item	Power Factor (by Load Current)																																
Object	_____																																
1.Graph		2.Values																															
<p>—△— Input Volt. 100V - - -□- - Input Volt. 200V - · -○- - Input Volt. 230V</p> <table border="1"> <caption>Data points estimated from Figure A graph</caption> <thead> <tr> <th>Load Current [A]</th> <th>Input Volt. 100[V]</th> <th>Input Volt. 200[V]</th> <th>Input Volt. 230[V]</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>0.414</td><td>0.173</td><td>0.185</td></tr> <tr><td>6.00</td><td>0.909</td><td>0.704</td><td>0.659</td></tr> <tr><td>12.00</td><td>0.949</td><td>0.816</td><td>0.767</td></tr> <tr><td>18.00</td><td>0.966</td><td>0.862</td><td>0.829</td></tr> <tr><td>24.00</td><td>0.975</td><td>0.885</td><td>0.853</td></tr> <tr><td>30.00</td><td>0.981</td><td>0.917</td><td>0.881</td></tr> <tr><td>33.00</td><td>0.983</td><td>0.927</td><td>0.894</td></tr> </tbody> </table>		Load Current [A]	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]	0.00	0.414	0.173	0.185	6.00	0.909	0.704	0.659	12.00	0.949	0.816	0.767	18.00	0.966	0.862	0.829	24.00	0.975	0.885	0.853	30.00	0.981	0.917	0.881	33.00	0.983	0.927	0.894
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<p>Note: Slanted line shows the range of the rated load current.</p>																																	

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Model	PDA150F-5	Temperature Testing Circuitry 25°C Figure A
Item	Inrush Current	
Object	_____	





Model	PDA150F-5	Temperature Testing Circuitry Object	25°C Figure C
Item	Leakage Current		
Object	_____		

1. Results

Standards	Testing Circuitry	Measuring Method	Input Volt.			Note
			100 [V]	230 [V]	240 [V]	
DEN-AN	Figure C-1	Both phases	0.15	0.37	0.39	Operation
		One of phases	0.28	0.71	0.74	Stand by
IEC62368-1	Figure C-2	Both phases	0.14	0.36	0.38	Operation
		One of phases	0.27	0.69	0.72	Stand by
	Figure C-3	Both phases	0.14	0.35	0.37	Operation
		One of phases	0.27	0.68	0.71	Stand by

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

2. Condition

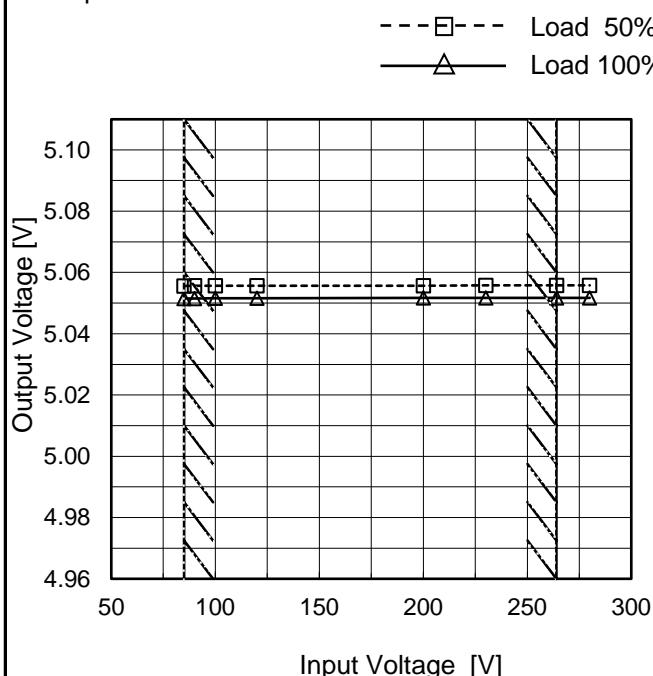
Leakage current value is concluded after measuring both phases of AC input and by choosing the larger one.

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Model	PDA150F-5
Item	Line Regulation
Object	+5V30A

Temperature 25°C
Testing Circuitry Figure A

1.Graph

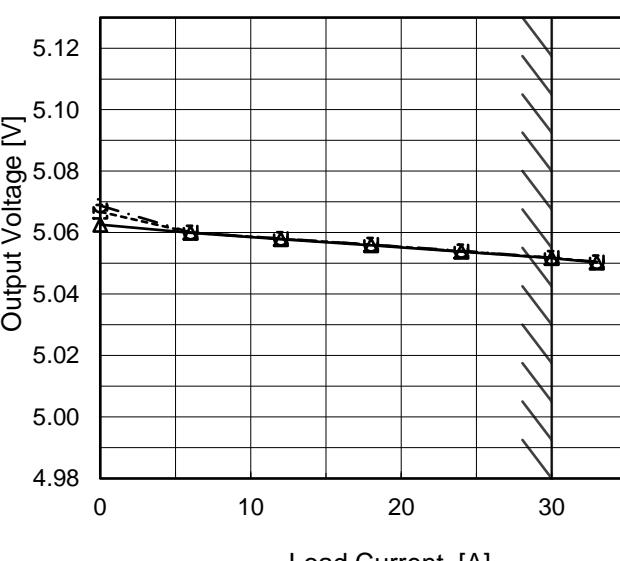
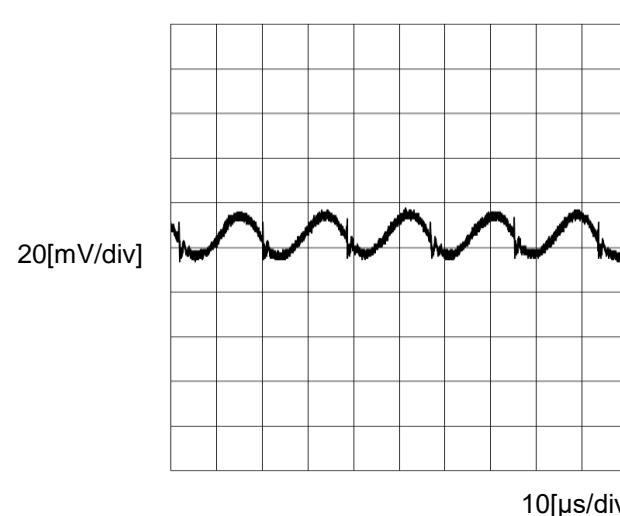


Note: Slanted line shows the range of the rated input voltage.

2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
85	5.056	5.052
90	5.056	5.052
100	5.056	5.052
120	5.056	5.052
200	5.056	5.052
230	5.056	5.052
264	5.056	5.052
280	5.056	5.052
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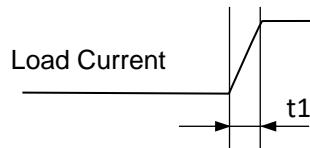
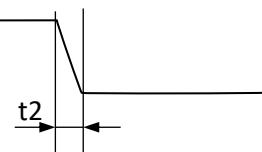
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Item	Ripple-Noise	Temperature 25°C Testing Circuitry Figure B																																																			
Object	+5V30A																																																				
1.Graph	<p>Input Voltage 230V Load 100%</p>  <p>20[mV/div]</p> <p>10[μs/div]</p>																																																				

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Model	PDA150F-5	Temperature Testing Circuitry Figure A	25°C
Item	Dynamic Load Response		
Object	+5V30A		

Input Volt. 230 V

Cycle 1000 ms

Response. $t_1=t_2=50\mu\text{s}$. Typ

Load 0%(0A) \longleftrightarrow
Load 100%(30A)

200[mV/div]

4[ms/div]

10[ms/div]

Load 50%(15A) \longleftrightarrow
Load 100%(30A)

200[mV/div]

4[ms/div]

10[ms/div]

Load 0%(0A) \longleftrightarrow
Load 50%(15A)

200[mV/div]

4[ms/div]

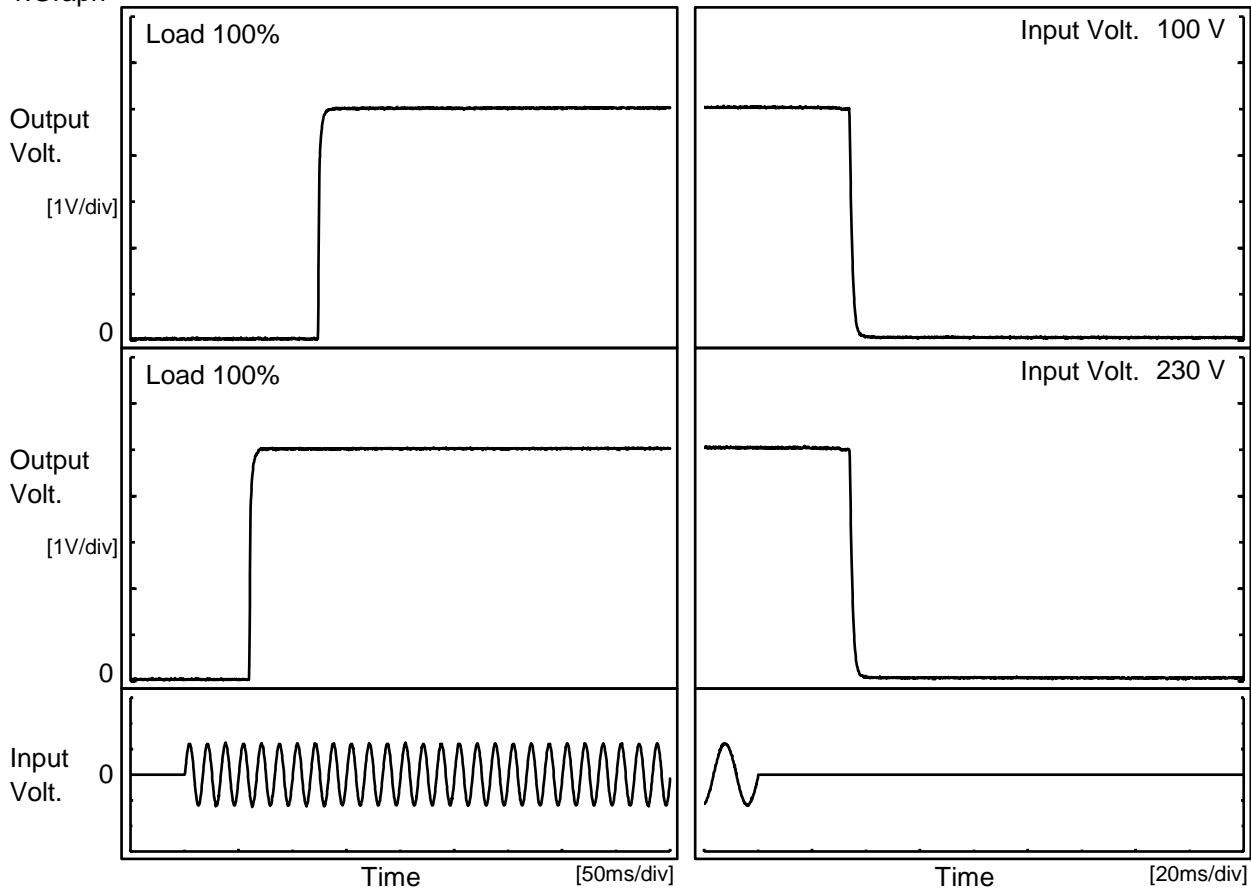
10[ms/div]

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Model	PDA150F-5
Item	Rise and Fall Time
Object	+5V30A

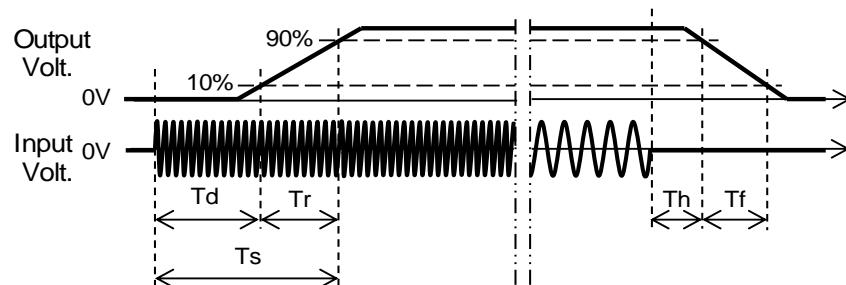
Temperature 25°C
Testing Circuitry Figure A

1. Graph



2. Values

Input Volt.	Time	Td	Tr	Ts	Th	Tf	[ms]
100 V		124.0	3.0	127.0	33.9	2.1	
230 V		60.3	3.3	63.6	34.0	2.1	

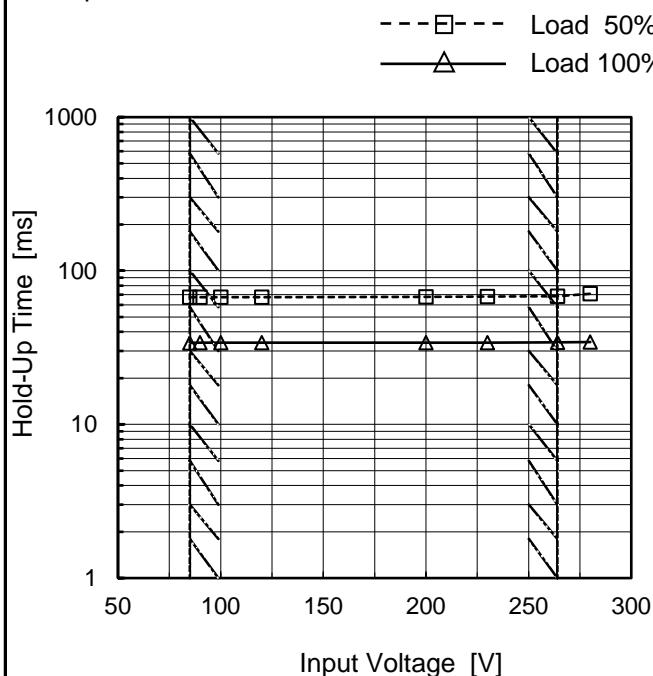


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Model	PDA150F-5
Item	Hold-Up Time
Object	+5V30A

Temperature 25°C
Testing Circuitry Figure A

1.Graph



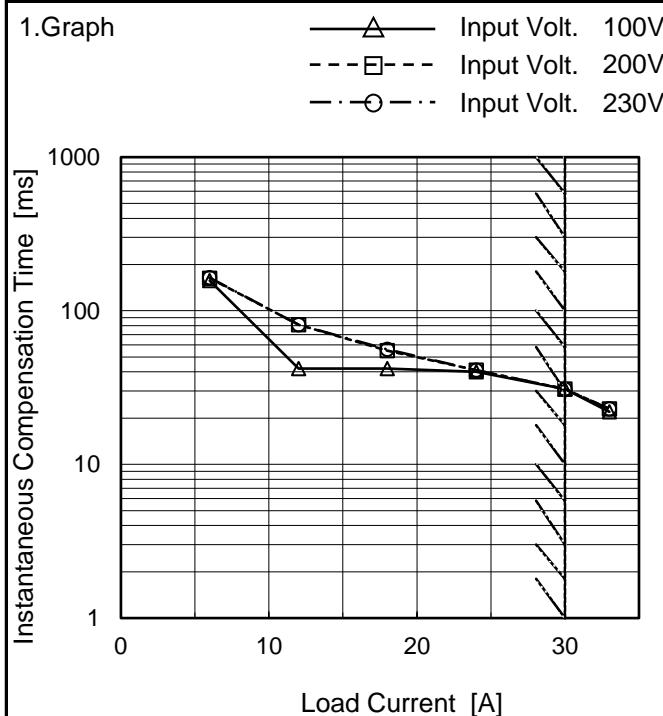
2.Values

Input Voltage [V]	Hold-Up Time [ms]	
	Load 50%	Load 100%
85	67	34
90	67	34
100	67	34
120	67	34
200	68	34
230	68	34
264	68	34
280	71	34
--	-	-

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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Model	PDA150F-5
Item	Instantaneous Interruption Compensation
Object	+5V30A



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

Temperature 25°C
Testing Circuitry Figure A

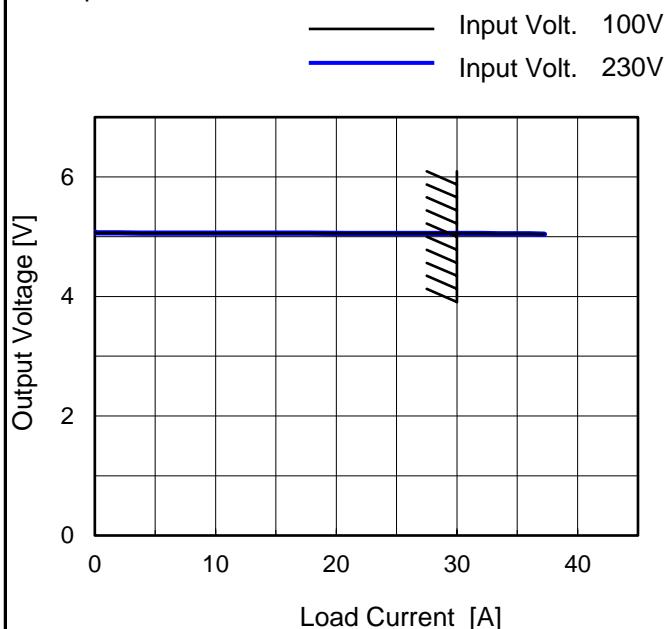
2.Values

Load Current [A]	Time [ms]		
	Input Volt. 100[V]	Input Volt. 200[V]	Input Volt. 230[V]
0.00	-	-	-
6.00	157	163	164
12.00	42	81	81
18.00	42	55	56
24.00	40	41	41
30.00	31	31	31
33.00	22	23	23
--	-	-	-
--	-	-	-
--	-	-	-
--	-	-	-

COSEL

Model	PDA150F-5
Item	Overcurrent Protection
Object	+5V30A

1.Graph



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

 Temperature 25°C
 Testing Circuitry Figure A

2.Values

Output Voltage [V]	Load Current [A]	
	Input Volt. 100[V]	Input Volt. 230[V]
5.00	37.23	37.25
4.75	-	-
4.50	-	-
4.00	-	-
3.50	-	-
3.00	-	-
2.50	-	-
2.00	-	-
1.50	-	-
1.00	-	-
0.50	-	-
0.00	-	-

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Model	PDA150F-5	Testing Circuitry Figure A
Item	Ambient Temperature Drift	
Object	+5V30A	

1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 100V	Input Volt. 200V	Input Volt. 230V
-10	5.037	5.037	5.038
25	5.053	5.053	5.053
50	5.060	5.060	5.059

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+5V30A	

1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-10	41	47
25	41	53
50	40	48

Item	Overvoltage Protection	Testing Circuitry Figure A
Object	+5V30A	

1.Values

Load 0%

Ambient Temperature[°C]	Operating Point [V]	
	Input Volt. 100V	Input Volt. 230V
-20	6.74	6.74
25	6.71	6.71
50	6.71	6.71

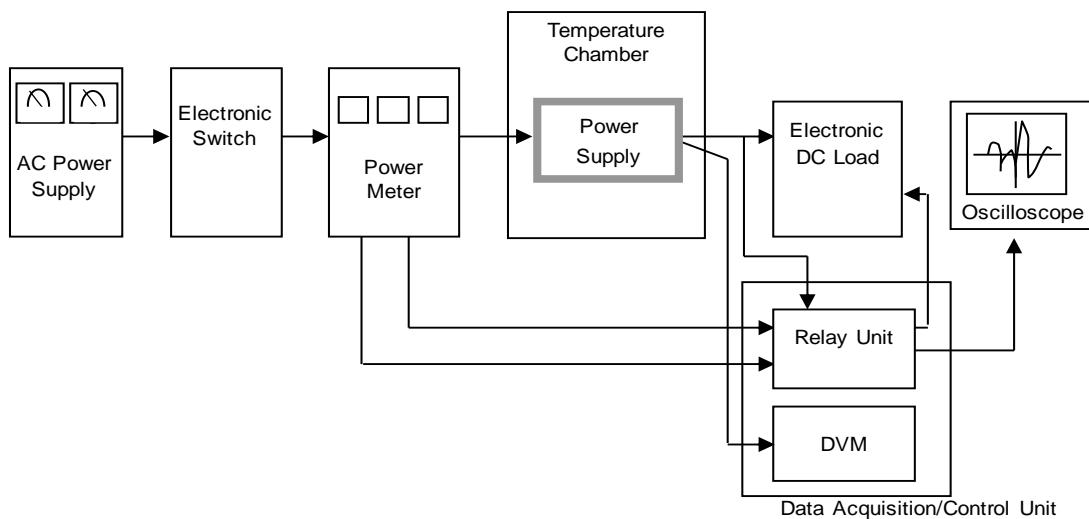


Figure A

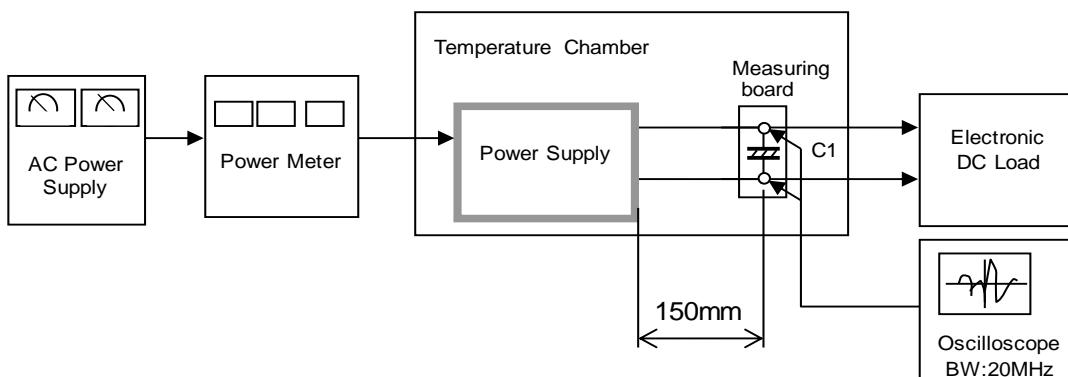


Figure B

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