

TEST DATA OF PLA100F-24

Regulated DC Power Supply
May 23, 2013

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(Final Page 25)

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Model

PLA100F-24

Item

Input Current (by Load Current)

Object

1.Graph

—△—

Input Volt.

100V

---□---

Input Volt.

115V

---○---

Input Volt.

230V

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

Temperature

25°C

Testing Circuitry

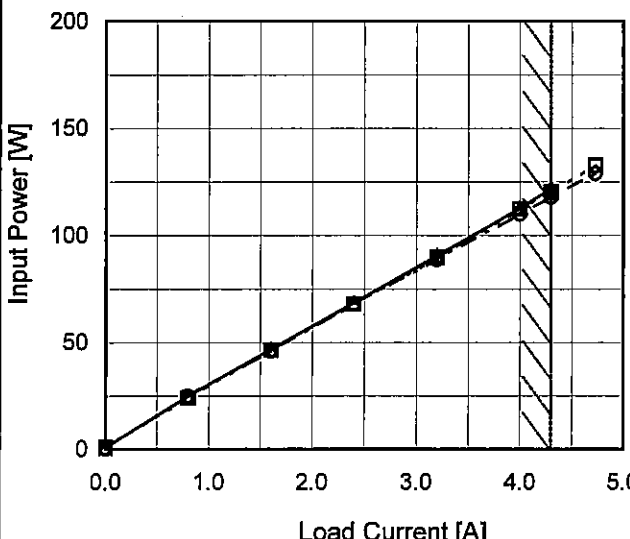
Figure A

2.Values

| Load Current [A] | Input Current [A] | | |
|------------------|--------------------|--------------------|--------------------|
| | Input Volt. 100[V] | Input Volt. 115[V] | Input Volt. 230[V] |
| 0.00 | 0.041 | 0.037 | 0.038 |
| 0.80 | 0.260 | 0.227 | 0.148 |
| 1.60 | 0.482 | 0.422 | 0.240 |
| 2.40 | 0.692 | 0.604 | 0.334 |
| 3.20 | 0.912 | 0.787 | 0.422 |
| 4.00 | 1.135 | 0.985 | 0.512 |
| 4.30 | 1.224 | 1.054 | 0.548 |
| 4.73 | - | 1.162 | 0.596 |
| -- | - | - | - |
| -- | - | - | - |
| -- | - | - | - |

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| Model | | PLA100F-24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------|---|--------------------|------------------|-----------------|--|--|--------------------|--------------------|--------------------|------|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|------|-------|-------|-------|------|---|-------|-------|----|---|---|---|----|---|---|---|----|---|---|---|
| Item | | Input Power (by Load Current) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Object | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.Graph | | 2.Values | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div><div><div><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> | | <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. 115[V]</th><th>Input Volt. 230[V]</th></tr><tr><td>0.00</td><td>0.9</td><td>0.9</td><td>0.5</td></tr><tr><td>0.80</td><td>24.8</td><td>24.0</td><td>25.0</td></tr><tr><td>1.60</td><td>46.8</td><td>46.2</td><td>46.0</td></tr><tr><td>2.40</td><td>68.6</td><td>67.8</td><td>68.0</td></tr><tr><td>3.20</td><td>90.6</td><td>89.5</td><td>89.0</td></tr><tr><td>4.00</td><td>112.8</td><td>112.4</td><td>110.0</td></tr><tr><td>4.30</td><td>121.8</td><td>120.3</td><td>118.0</td></tr><tr><td>4.73</td><td>-</td><td>132.6</td><td>129.0</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> | | Load Current [A] | Input Power [W] | | | Input Volt. 100[V] | Input Volt. 115[V] | Input Volt. 230[V] | 0.00 | 0.9 | 0.9 | 0.5 | 0.80 | 24.8 | 24.0 | 25.0 | 1.60 | 46.8 | 46.2 | 46.0 | 2.40 | 68.6 | 67.8 | 68.0 | 3.20 | 90.6 | 89.5 | 89.0 | 4.00 | 112.8 | 112.4 | 110.0 | 4.30 | 121.8 | 120.3 | 118.0 | 4.73 | - | 132.6 | 129.0 | -- | - | - | - | -- | - | - | - | -- | - | - | - |
| Load Current [A] | Input Power [W] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Input Volt. 100[V] | Input Volt. 115[V] | Input Volt. 230[V] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.00 | 0.9 | 0.9 | 0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.80 | 24.8 | 24.0 | 25.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.60 | 46.8 | 46.2 | 46.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.40 | 68.6 | 67.8 | 68.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.20 | 90.6 | 89.5 | 89.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.00 | 112.8 | 112.4 | 110.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.30 | 121.8 | 120.3 | 118.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.73 | - | 132.6 | 129.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Note: Slanted line shows the range of the rated load current. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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Model

PLA100F-24

Item

Efficiency (by Input Voltage)

Object

1.Graph

□

Load 50%

△

Load 100%

100

92

84

76

68

60

52

44

Efficiency [%]

50

100

150

200

250

300

Input Voltage [V]

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

2.Values

| Input Voltage [V] | Efficiency [%] | |
|-------------------|----------------|-----------|
| | Load 50% | Load 100% |
| 85 | 85.1 | 85.0 ※1 |
| 100 | 86.2 | 86.0 ※2 |
| 115 | 86.3 | 87.1 |
| 200 | 86.2 | 88.8 |
| 230 | 86.2 | 88.8 |
| 264 | 86.2 | 88.3 |
| 280 | 86.1 | 88.1 |
| -- | - | - |
| -- | - | - |

※1:Load 80%

※2:Load 90%



Model

PLA100F-24

Item

Efficiency (by Load Current)

Object

1.Graph

—△—

Input Volt. 100V

---□---

Input Volt. 115V

---○---

Input Volt. 230V

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

2.Values

| Load Current [A] | Efficiency [%] | | |
|------------------|--------------------|--------------------|--------------------|
| | Input Volt. 100[V] | Input Volt. 115[V] | Input Volt. 230[V] |
| 0.00 | - | - | - |
| 0.80 | 80.3 | 83.0 | 79.6 |
| 1.60 | 83.9 | 85.0 | 85.4 |
| 2.40 | 86.3 | 86.4 | 86.2 |
| 3.20 | 86.4 | 86.7 | 87.8 |
| 4.00 | 86.3 | 86.8 | 88.7 |
| 4.30 | 86.1 | 87.1 | 88.8 |
| 4.73 | - | 86.9 | 88.7 |
| -- | - | - | - |
| -- | - | - | - |
| -- | - | - | - |

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| | |
|--------|---------------------------------|
| Model | PLA100F-24 |
| Item | Power Factor (by Input Voltage) |
| Object | |

1.Graph

□

Load 50%

△

Load 100%

The graph plots Power Factor (Y-axis, 0.4 to 1.0) against Input Voltage [V] (X-axis, 50 to 300). Two data series are shown: Load 50% (dashed line with square markers) and Load 100% (solid line with triangle markers). Both series show a decrease in power factor as input voltage increases. A slanted line with diagonal hatching indicates the range of the rated input voltage, which is approximately between 115V and 280V.

| Input Voltage [V] | Power Factor (Load 50%) | Power Factor (Load 100%) |
|-------------------|-------------------------|--------------------------|
| 85 | 0.995 | 0.995 |
| 100 | 0.987 | 0.995 |
| 115 | 0.966 | 0.991 |
| 200 | 0.901 | 0.963 |
| 230 | 0.864 | 0.950 |
| 264 | 0.465 | 0.566 |
| 280 | 0.420 | 0.494 |

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

Temperature

25°C

Testing Circuitry

Figure A

2.Values

| Input Voltage [V] | Power Factor | |
|-------------------|--------------|-----------|
| | Load 50% | Load 100% |
| 85 | 0.995 | 0.995 ※1 |
| 100 | 0.987 | 0.995 ※2 |
| 115 | 0.966 | 0.991 |
| 200 | 0.901 | 0.963 |
| 230 | 0.864 | 0.950 |
| 264 | 0.465 | 0.566 |
| 280 | 0.420 | 0.494 |
| — | — | — |
| — | — | — |

※1:Load 80%

※2:Load 90%

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Model

PLA100F-24

Item

Power Factor (by Load Current)

Object

1.Graph

—△—

Input Volt. 100V

---□---

Input Volt. 115V

---○---

Input Volt. 230V

Power Factor

Load Current [A]

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

Temperature 25°C

Testing Circuitry Figure A

2.Values

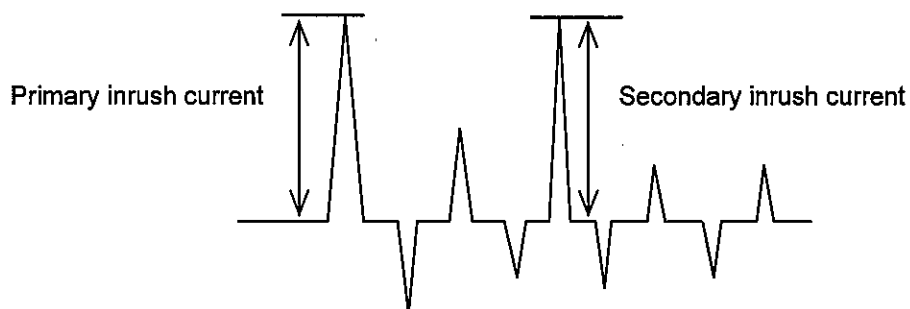
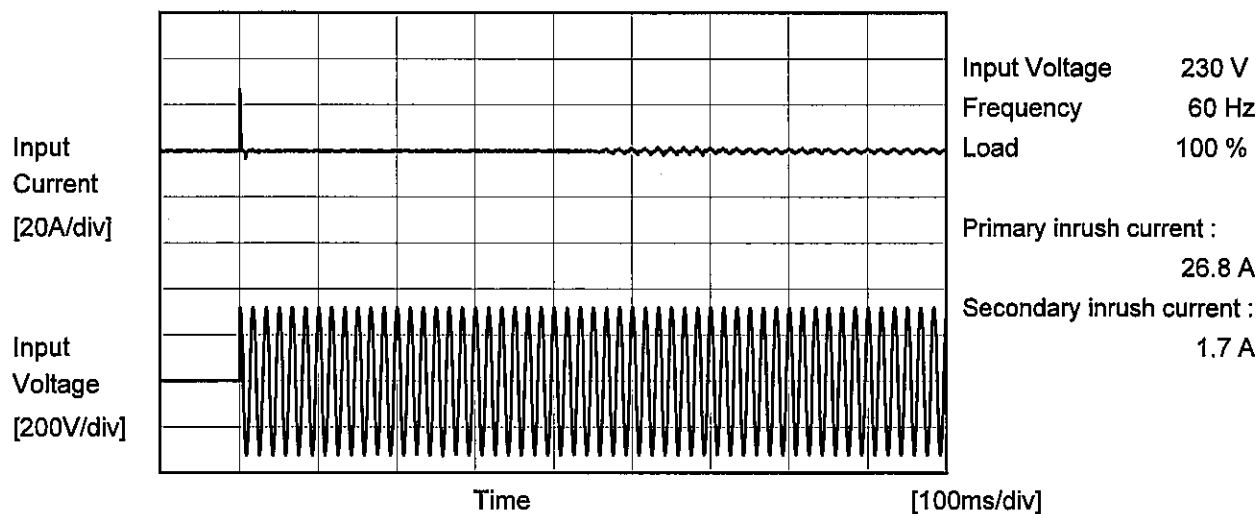
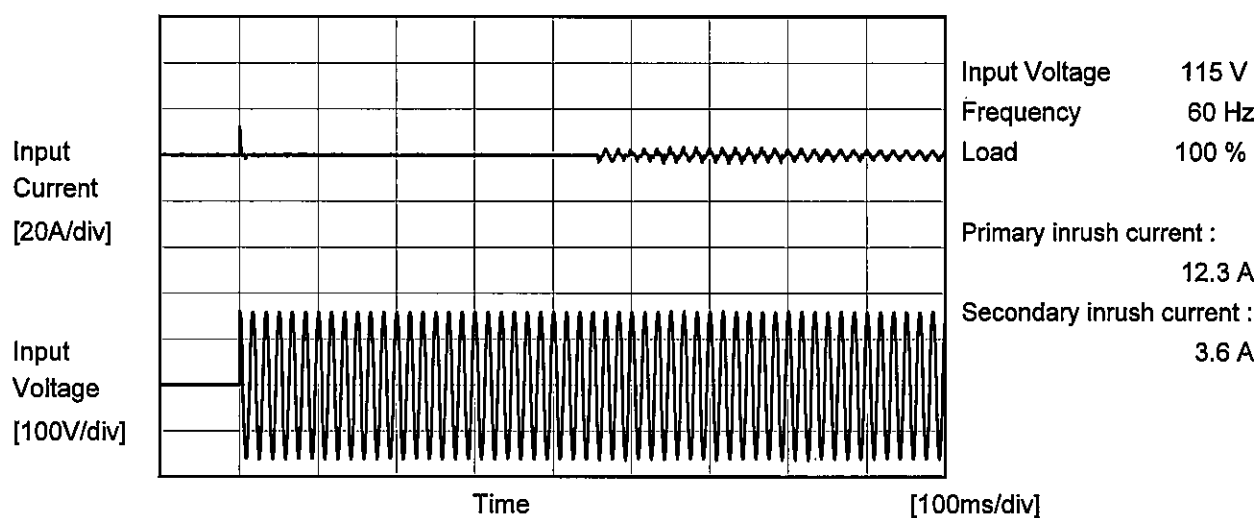
| Load Current [A] | Power Factor | | |
|------------------|--------------------|--------------------|--------------------|
| | Input Volt. 100[V] | Input Volt. 115[V] | Input Volt. 230[V] |
| 0.00 | 0.375 | 0.310 | 0.051 |
| 0.80 | 0.954 | 0.920 | 0.735 |
| 1.60 | 0.971 | 0.953 | 0.836 |
| 2.40 | 0.991 | 0.976 | 0.883 |
| 3.20 | 0.993 | 0.989 | 0.918 |
| 4.00 | 0.993 | 0.992 | 0.932 |
| 4.30 | 0.996 | 0.993 | 0.950 |
| 4.73 | - | 0.993 | 0.942 |
| -- | - | - | - |
| -- | - | - | - |
| -- | - | - | - |

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| | | | |
|--------|--|----------------|--|
| Model | | PLA100F-24 | Temperature 25°C Testing Circuitry Figure A |
| Item | | Inrush Current | |
| Object | | _____ | |





| | | | |
|--------|--|-----------------|--|
| Model | | PLA100F-24 | Temperature 25°C Testing Circuitry Figure B |
| Item | | Leakage Current | |
| Object | | | |

1.Results

[mA]

| Standards | | Input Volt. | | | Note |
|------------|---------------|-------------|--------|--------|-----------|
| | | 100[V] | 115[V] | 240[V] | |
| DEN-AN | Both phases | 0.34 | 0.34 | 0.62 | Operation |
| | One of phases | 0.30 | 0.34 | 0.77 | Stand by |
| IEC60950-1 | Both phases | 0.25 | 0.28 | 0.55 | Operation |
| | One of phases | 0.27 | 0.32 | 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 | | PLA100F-24 | |
| Item | | Line Regulation | |
| Object | | +24V4.3A | |

1.Graph

□

Load 50%

△

Load 100%

Output Voltage [V]

<

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| | | | |
|--------|--|-----------------|--|
| Model | | PLA100F-24 | |
| Item | | Load Regulation | |
| Object | | +24V4.3A | |

1.Graph

—△—

Input Volt.

100V

---□---

Input Volt.

115V

---○---

Input Volt.

230V

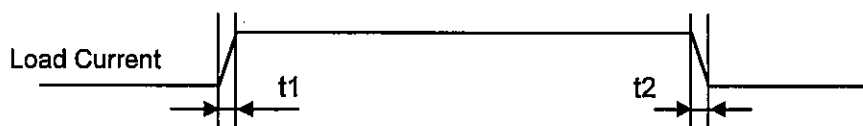
Output Voltage [V]

COSEL

| | | | |
|--------|-----------------------|----------------------------------|-------------------|
| Model | PLA100F-24 | Temperature Testing Circuitry | 25° C Figure A |
| Item | Dynamic Load Response | | |
| Object | +24V4.3A | | |

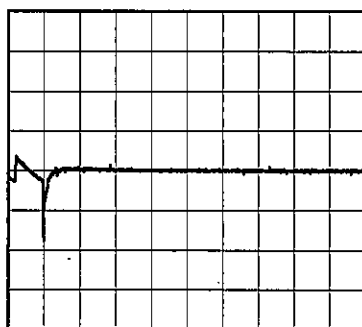
Input Volt. 115 V
Cycle 1000 ms

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

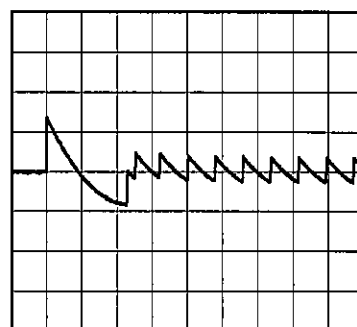


Min. Load (0A) \longleftrightarrow
Load 100% (4.3A)

400 mV/div



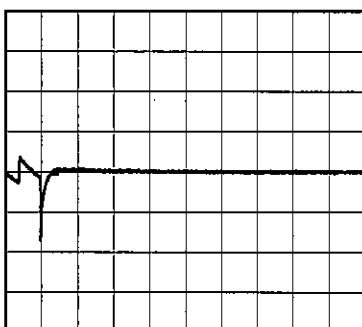
200 ms/div



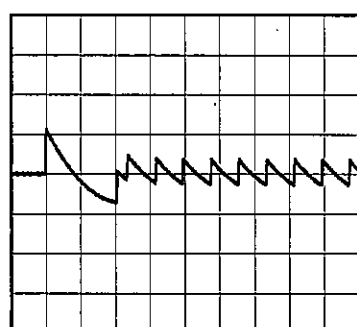
200 ms/div

Min. Load (0A) \longleftrightarrow
Load 50% (2.15A)

400 mV/div

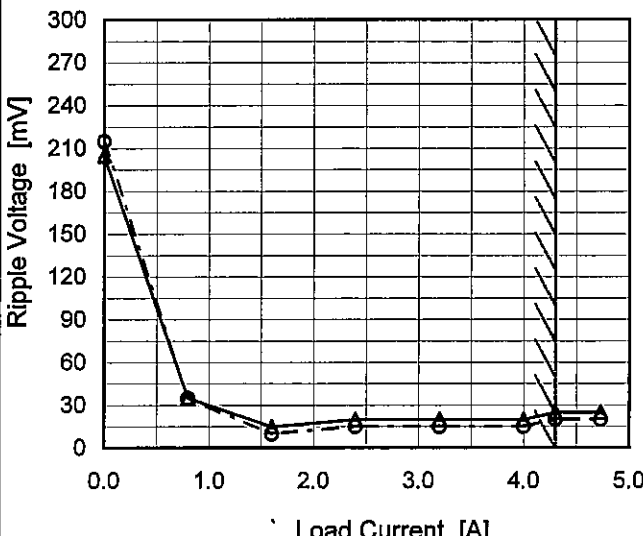
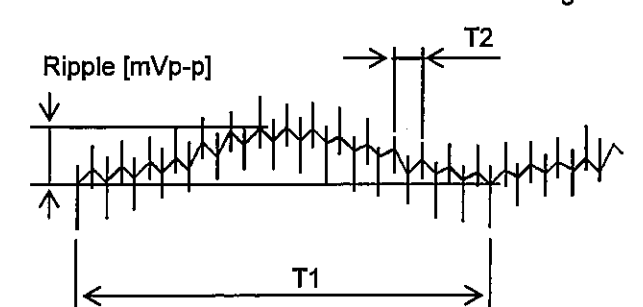


200 ms/div



200 ms/div

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| Model | | PLA100F-24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------|--|--|------------------|---------------------|--|---------------------|---------------------|-------|-----|-----|-------|----|----|-------|----|----|-------|----|----|-------|----|----|-------|----|----|-------|----|----|-------|----|----|----|---|---|----|---|---|----|---|---|
| Item | | Ripple Voltage (by Load Current) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Object | | +24V4.3A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.Graph | | 2.Values | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div><div>—△—</div><div>Input Volt. 115V</div></div><div><div>-·-○-·-</div><div>Input Volt. 230V</div></div></div>  | | <table><tr><th rowspan="2">Load Current [A]</th><th colspan="2">Ripple Voltage [mV]</th></tr><tr><th>Input Volt. 115 [V]</th><th>Input Volt. 230 [V]</th></tr><tr><td>0.000</td><td>205</td><td>215</td></tr><tr><td>0.800</td><td>35</td><td>35</td></tr><tr><td>1.600</td><td>15</td><td>10</td></tr><tr><td>2.400</td><td>20</td><td>15</td></tr><tr><td>3.200</td><td>20</td><td>15</td></tr><tr><td>4.000</td><td>20</td><td>15</td></tr><tr><td>4.300</td><td>25</td><td>20</td></tr><tr><td>4.730</td><td>25</td><td>20</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> | | Load Current [A] | Ripple Voltage [mV] | | Input Volt. 115 [V] | Input Volt. 230 [V] | 0.000 | 205 | 215 | 0.800 | 35 | 35 | 1.600 | 15 | 10 | 2.400 | 20 | 15 | 3.200 | 20 | 15 | 4.000 | 20 | 15 | 4.300 | 25 | 20 | 4.730 | 25 | 20 | -- | - | - | -- | - | - | -- | - | - |
| Load Current [A] | Ripple Voltage [mV] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Input Volt. 115 [V] | Input Volt. 230 [V] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.000 | 205 | 215 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.800 | 35 | 35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.600 | 15 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.400 | 20 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.200 | 20 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.000 | 20 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.300 | 25 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.730 | 25 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Measured by 20 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> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div>T1: Due to AC Input Line</div><div>T2: Due to Switching</div></div>  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fig. Complex Ripple Wave Form | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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COSEL

| | | | |
|--------|--|--------------|--|
| Model | | PLA100F-24 | |
| Item | | Ripple-Noise | |
| Object | | +24V4.3A | |

1.Graph

—△—

Input Volt. 115V

- - ○ - -

Input Volt. 230V

300

270

240

210

180

150

120

90

60

30

0

0.0

1.0

2.0

3.0

4.0

5.0

Ripple-Noise [mV]

Load Current [A]

Measured by 20 MHz Oscilloscope.

Ripple-Noise is shown as p-p in the figure below.

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

| | | |
|------------------|---------------------|---------------------|
| Load Current [A] | Ripple-Noise [mV] | |
| | Input Volt. 115 [V] | Input Volt. 230 [V] |
| 0.000 | 230 | 245 |
| 0.800 | 70 | 65 |
| 1.600 | 50 | 50 |
| 2.400 | 55 | 50 |
| 3.200 | 55 | 50 |
| 4.000 | 55 | 50 |
| 4.300 | 55 | 50 |
| 4.730 | 60 | 55 |
| -- | - | - |
| -- | - | - |
| -- | - | - |

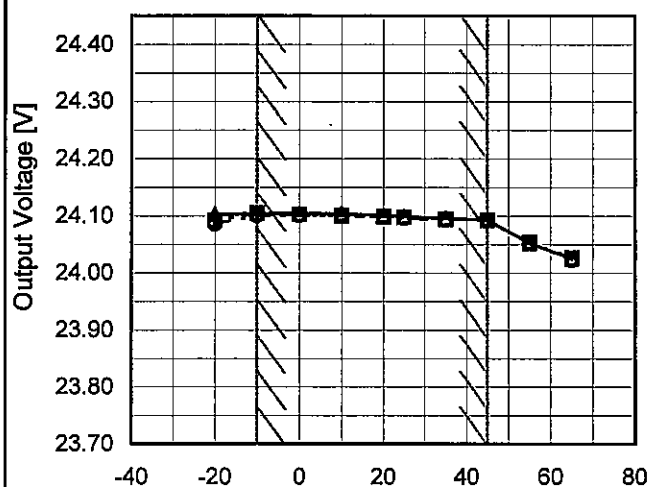
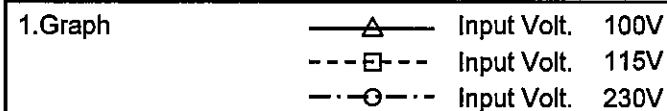
T1: Due to AC Input Line

T2: Due to Switching

</

| | | |
|---------------|--|---------------------------|
| Model | | PLA100F-24 |
| Item | | Ambient Temperature Drift |
| Object | | +24V4.3A |

1. Graph



Ambient Temperature [°C]

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

Testing Circuitry **Figure A**

2.Values

| Ambient Temperature [°C] | Output Voltage [V] | | |
|--------------------------|--------------------|--------------------|--------------------|
| | Input Volt. 100[V] | Input Volt. 115[V] | Input Volt. 230[V] |
| -20 | 24.103 | 24.092 | 24.086 |
| -10 | 24.105 | 24.104 | 24.101 |
| 0 | 24.104 | 24.102 | 24.101 |
| 10 | 24.104 | 24.100 | 24.100 |
| 20 | 24.101 | 24.098 | 24.099 |
| 25 | 24.099 | 24.097 | 24.096 |
| 35 | 24.096 | 24.094 | 24.093 |
| 45 | 24.094 | 24.092 | 24.093 |
| 55 | 24.053 | 24.054 | 24.053 |
| 65 | 24.026 | 24.026 | 24.023 |
| — | — | — | — |

Note: In case of Input Volt. 100V, Load 90%.
Other case Load 100%.

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| | | | |
|--------|--|-------------------------|----------------------------|
| Model | | PLA100F-24 | Testing Circuitry Figure A |
| Item | | Output Voltage Accuracy | |
| Object | | +24V4.3A | |

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 : -10 - 45°C

Input Voltage : 115 - 264V

Load Current : 1.29 - 4.3A

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

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

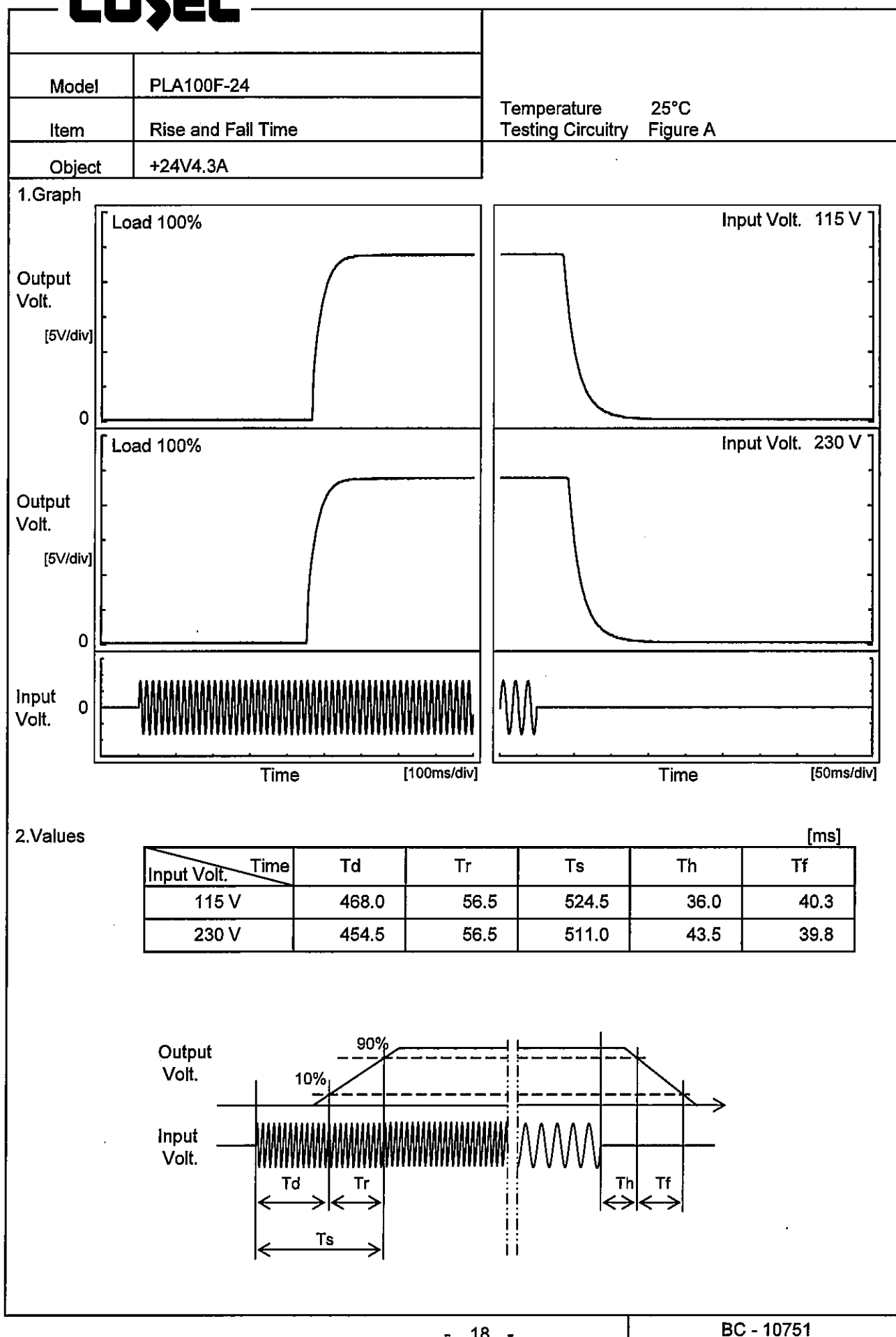
2. Values

| Item | Temperature [°C] | Input Voltage[V] | Output | | Output Voltage Accuracy | |
|-----------------|---------------------|---------------------|------------|------------|-------------------------|-----------|
| | | | Current[A] | Voltage[V] | Value [mV] | Ratio [%] |
| Maximum Voltage | -10 | 230 | 1.29 | 24.121 | ±15 | ±0.1 |
| Minimum Voltage | 45 | 115 | 4.3 | 24.092 | | |

COSEL

| | | | |
|---|--|------------------|--|
| Model | | PLA100F-24 | Temperature25°C Testing CircuitryFigure A |
| Item | | Time Lapse Drift | |
| Object | | +24V4.3A | |
| 1.Graph | | 2.Values | |
| <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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COSEL



COSEL

| | | | |
|---------|--|--|--|
| Model | | PLA100F-24 | |
| Item | | Hold-Up Time | |
| Object | | +24V4.3A | |
| 1.Graph | | Temperature 25°C Testing Circuitry Figure A | |

Hold-Up Time [ms]

1000

100

10

1

50

100

150

200

250

300

Input Voltage [V]

□

Load 50%

—

△

—

Load 100%

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.

| | | |
|-------------------|-------------------|-----------|
| Input Voltage [V] | Hold-Up Time [ms] | |
| | Load 50% | Load 100% |
| 85 | 68 | 43 ※1 |
| 100 | 68 | 38 ※2 |
| 115 | 68 | 33 |
| 200 | 68 | 33 |
| 230 | 80 | 37 |
| 264 | 86 | 42 |
| 280 | 99 | 47 |
| -- | - | - |
| -- | - | - |

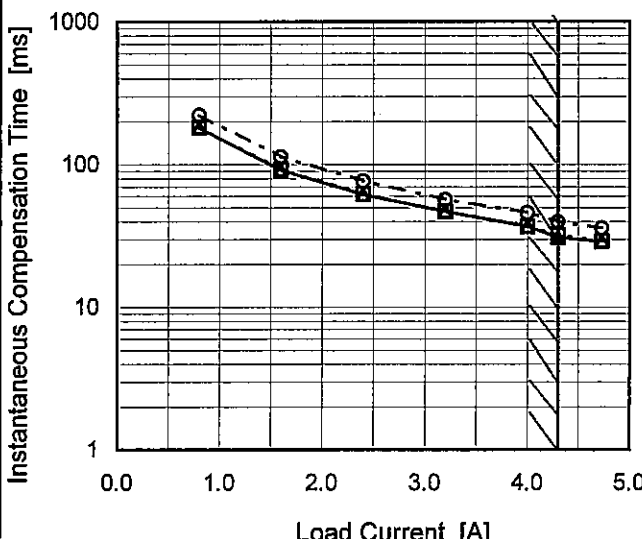
※1:Load 80%

※2:Load 90%

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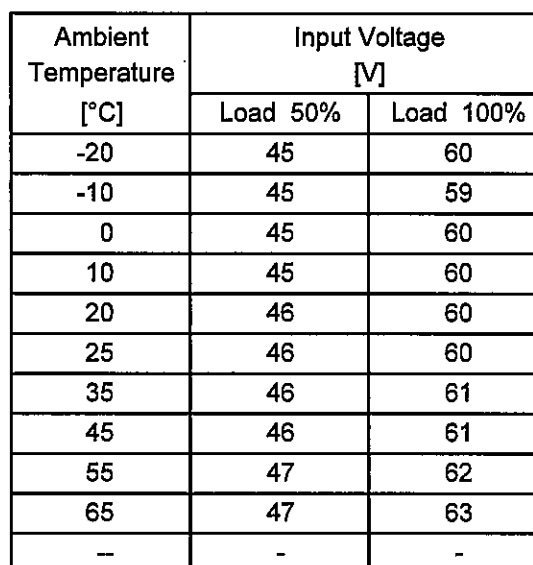
| Model | PLA100F-24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--------------------|--|------------------|-----------|--|--|--------------------|--------------------|--------------------|------|---|---|---|------|-----|-----|-----|------|----|----|-----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|---|---|---|----|---|---|---|----|---|---|---|
| Item | Instantaneous Interruption Compensation | Temperature | 25°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Object | +24V4.3A | Testing Circuitry | Figure A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.Graph | | 2.Values | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div><div>—△—</div><div>Input Volt. 100V</div></div> <div><div>---□---</div><div>Input Volt. 115V</div></div> <div><div>---○---</div><div>Input Volt. 230V</div></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>0.00</td><td>-</td><td>-</td><td>-</td></tr><tr><td>0.80</td><td>181</td><td>181</td><td>222</td></tr><tr><td>1.60</td><td>92</td><td>93</td><td>114</td></tr><tr><td>2.40</td><td>62</td><td>62</td><td>77</td></tr><tr><td>3.20</td><td>47</td><td>47</td><td>57</td></tr><tr><td>4.00</td><td>37</td><td>37</td><td>46</td></tr><tr><td>4.30</td><td>31</td><td>32</td><td>40</td></tr><tr><td>4.73</td><td>29</td><td>29</td><td>36</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> | | | Load Current [A] | Time [ms] | | | Input Volt. 100[V] | Input Volt. 115[V] | Input Volt. 230[V] | 0.00 | - | - | - | 0.80 | 181 | 181 | 222 | 1.60 | 92 | 93 | 114 | 2.40 | 62 | 62 | 77 | 3.20 | 47 | 47 | 57 | 4.00 | 37 | 37 | 46 | 4.30 | 31 | 32 | 40 | 4.73 | 29 | 29 | 36 | -- | - | - | - | -- | - | - | - | -- | - | - | - |
| Load Current [A] | Time [ms] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Input Volt. 100[V] | Input Volt. 115[V] | Input Volt. 230[V] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.00 | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.80 | 181 | 181 | 222 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.60 | 92 | 93 | 114 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.40 | 62 | 62 | 77 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.20 | 47 | 47 | 57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.00 | 37 | 37 | 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.30 | 31 | 32 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.73 | 29 | 29 | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -- | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Note: Slanted line shows the range of the rated load current. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

- 20 -

BC - 10751

Testing Circuitry Figure A

2.Values



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

COSEL

| | | | |
|--------|--|------------------------|--|
| Model | | PLA100F-24 | |
| Item | | Overcurrent Protection | |
| Object | | +24V4.3A | |

1.Graph

Input Volt. 115V

Input Volt. 230V

Output Voltage [V]



Model

PLA100F-24

Item

Overvoltage Protection

Object

+24V4.3A

1.Graph

—△—

Input Volt. 115V

---□---

Input Volt. 230V

Operating Point [V]

Ambient Temperature [°C]

Load 0%

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

2.Values

| Ambient Temperature [°C] | Operating Point [V] | |
|--------------------------|---------------------|--------------------|
| | Input Volt. 115[V] | Input Volt. 230[V] |
| -20 | 30.66 | 30.66 |
| -10 | 30.66 | 30.66 |
| 0 | 30.66 | 30.66 |
| 10 | 30.66 | 30.66 |
| 20 | 30.66 | 30.66 |
| 25 | 30.66 | 30.66 |
| 35 | 30.66 | 30.66 |
| 45 | 30.66 | 30.66 |
| 55 | 30.65 | 30.65 |
| 65 | 30.65 | 30.65 |
| -- | - | - |

COSEL

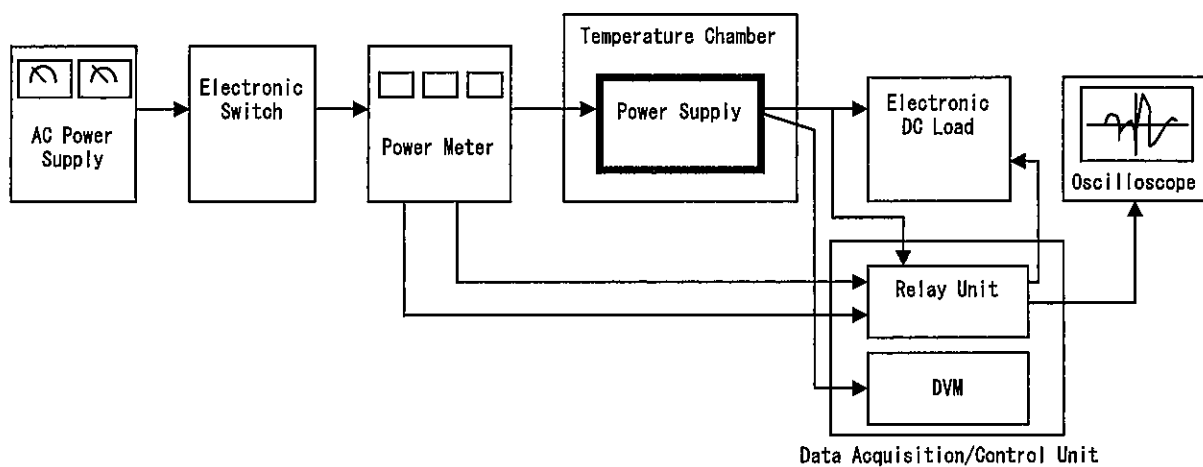


Figure A

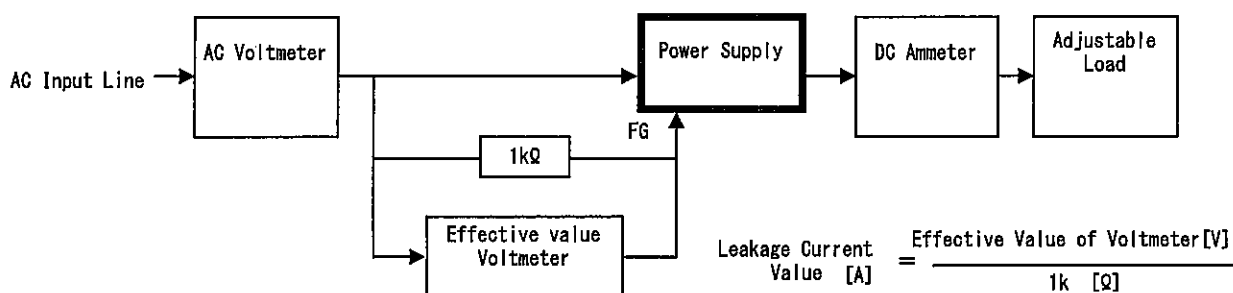


Figure B (DEN-AN)

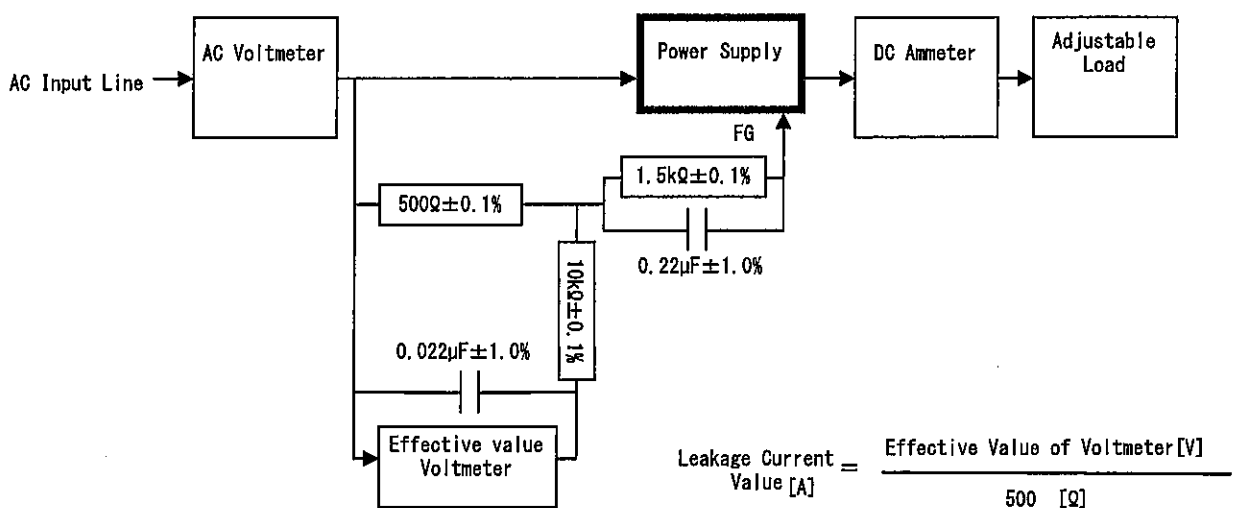


Figure B (IEC60950-1)

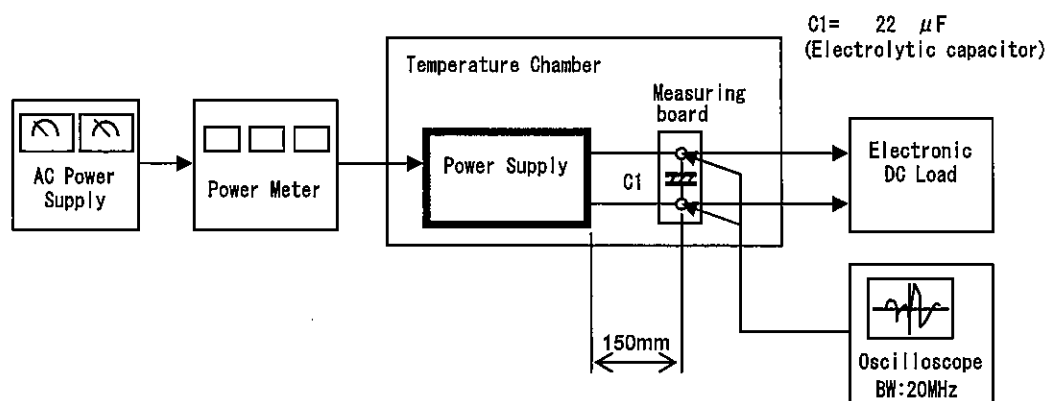


Figure C