

# TEST DATA OF FETA2500BA-36

Regulated DC Power Supply  
October 25, 2016

Approved by : Koji Todo  
Koji Todo Design Manager

Prepared by : Nobuto Kawataka  
Nobuto Kawataka 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.Oversupply Protection . . . . .	23
24.Figure of Testing Circuitry . . . . .	24

(Final Page 24)

**COSEL**

Model	FETA2500BA-36																																																					
Item	Input Current (by Load Current)																																																					
Object	_____																																																					
1.Graph	<p>Legend:</p> <ul style="list-style-type: none"> <li>— ▲ — Input Volt. 170V</li> <li>- ■ - Input Volt. 200V</li> <li>- ○ - Input Volt. 264V</li> </ul>																																																					
2.Values	<table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Input Current [A]</th> </tr> <tr> <th>Input Volt. 170[V]</th> <th>Input Volt. 200[V]</th> <th>Input Volt. 264[V]</th> </tr> </thead> <tbody> <tr> <td>0.0</td> <td>0.384</td> <td>0.412</td> <td>0.493</td> </tr> <tr> <td>8.0</td> <td>2.138</td> <td>1.876</td> <td>1.601</td> </tr> <tr> <td>16.0</td> <td>3.980</td> <td>3.440</td> <td>2.787</td> </tr> <tr> <td>24.0</td> <td>5.810</td> <td>4.990</td> <td>3.930</td> </tr> <tr> <td>32.0</td> <td>7.690</td> <td>6.560</td> <td>5.110</td> </tr> <tr> <td>40.0</td> <td>9.650</td> <td>8.190</td> <td>6.310</td> </tr> <tr> <td>48.0</td> <td>11.610</td> <td>9.820</td> <td>7.510</td> </tr> <tr> <td>55.0</td> <td>13.350</td> <td>11.280</td> <td>8.570</td> </tr> <tr> <td>60.5</td> <td>14.750</td> <td>12.440</td> <td>9.430</td> </tr> <tr> <td>--</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>--</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>			Load Current [A]	Input Current [A]			Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	0.0	0.384	0.412	0.493	8.0	2.138	1.876	1.601	16.0	3.980	3.440	2.787	24.0	5.810	4.990	3.930	32.0	7.690	6.560	5.110	40.0	9.650	8.190	6.310	48.0	11.610	9.820	7.510	55.0	13.350	11.280	8.570	60.5	14.750	12.440	9.430	--	-	-	-	--	-	-	-
Load Current [A]	Input Current [A]																																																					
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]																																																			
0.0	0.384	0.412	0.493																																																			
8.0	2.138	1.876	1.601																																																			
16.0	3.980	3.440	2.787																																																			
24.0	5.810	4.990	3.930																																																			
32.0	7.690	6.560	5.110																																																			
40.0	9.650	8.190	6.310																																																			
48.0	11.610	9.820	7.510																																																			
55.0	13.350	11.280	8.570																																																			
60.5	14.750	12.440	9.430																																																			
--	-	-	-																																																			
--	-	-	-																																																			
Note:	Slanted line shows the range of the rated load current.																																																					

**COSEL**

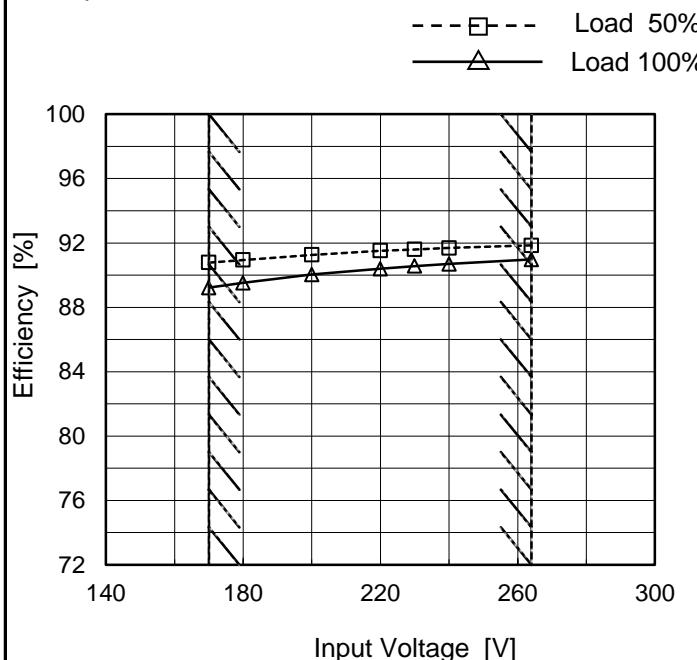
Model	FETA2500BA-36																																																			
Item	Input Power (by Load Current)	Temperature 25°C	Testing Circuitry Figure A																																																	
Object	_____																																																			
1.Graph	<p>Legend:</p> <ul style="list-style-type: none"> <li>Input Volt. 170V</li> <li>Input Volt. 200V</li> <li>Input Volt. 264V</li> </ul> <table border="1"> <thead> <tr> <th>Load Current [A]</th> <th>Input Power [W] (170V)</th> <th>Input Power [W] (200V)</th> <th>Input Power [W] (264V)</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>27</td><td>28</td><td>27</td></tr> <tr><td>8.0</td><td>340</td><td>339</td><td>338</td></tr> <tr><td>16.0</td><td>653</td><td>651</td><td>647</td></tr> <tr><td>24.0</td><td>969</td><td>965</td><td>959</td></tr> <tr><td>32.0</td><td>1292</td><td>1284</td><td>1275</td></tr> <tr><td>40.0</td><td>1625</td><td>1614</td><td>1601</td></tr> <tr><td>48.0</td><td>1958</td><td>1942</td><td>1924</td></tr> <tr><td>55.0</td><td>2255</td><td>2234</td><td>2210</td></tr> <tr><td>60.5</td><td>2493</td><td>2467</td><td>2439</td></tr> <tr><td>--</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>--</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>	Load Current [A]	Input Power [W] (170V)	Input Power [W] (200V)	Input Power [W] (264V)	0.0	27	28	27	8.0	340	339	338	16.0	653	651	647	24.0	969	965	959	32.0	1292	1284	1275	40.0	1625	1614	1601	48.0	1958	1942	1924	55.0	2255	2234	2210	60.5	2493	2467	2439	--	-	-	-	--	-	-	-			
Load Current [A]	Input Power [W] (170V)	Input Power [W] (200V)	Input Power [W] (264V)																																																	
0.0	27	28	27																																																	
8.0	340	339	338																																																	
16.0	653	651	647																																																	
24.0	969	965	959																																																	
32.0	1292	1284	1275																																																	
40.0	1625	1614	1601																																																	
48.0	1958	1942	1924																																																	
55.0	2255	2234	2210																																																	
60.5	2493	2467	2439																																																	
--	-	-	-																																																	
--	-	-	-																																																	
2.Values																																																				
Note: Slanted line shows the range of the rated load current.																																																				

**COSEL**

Model	FETA2500BA-36
Item	Efficiency (by Input Voltage)
Object	_____

 Temperature 25°C  
 Testing Circuitry Figure A

## 1.Graph



## 2.Values

Input Voltage [V]	Efficiency [%]	
	Load 50%	Load 100%
170	90.8	89.2
180	90.9	89.5
200	91.3	90.0
220	91.5	90.4
230	91.6	90.6
240	91.7	90.7
264	91.9	91.0
--	-	-
--	-	-

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

**COSEL**

Model	FETA2500BA-36	Temperature	25°C																																																			
Item	Efficiency (by Load Current)	Testing Circuitry	Figure A																																																			
Object	<hr/>																																																					
1.Graph	<p>Efficiency [%]</p> <p>Load Current [A]</p> <p>Legend:</p> <ul style="list-style-type: none"> <li>Input Volt. 170V</li> <li>Input Volt. 200V</li> <li>Input Volt. 264V</li> </ul>																																																					
2.Values	<table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Efficiency [%]</th> </tr> <tr> <th>Input Volt. 170[V]</th> <th>Input Volt. 200[V]</th> <th>Input Volt. 264[V]</th> </tr> </thead> <tbody> <tr> <td>0.0</td><td>-</td><td>-</td><td>-</td></tr> <tr> <td>8.0</td><td>86.6</td><td>86.9</td><td>87.1</td></tr> <tr> <td>16.0</td><td>89.9</td><td>90.2</td><td>90.7</td></tr> <tr> <td>24.0</td><td>90.7</td><td>91.1</td><td>91.7</td></tr> <tr> <td>32.0</td><td>90.7</td><td>91.2</td><td>91.9</td></tr> <tr> <td>40.0</td><td>90.1</td><td>90.7</td><td>91.4</td></tr> <tr> <td>48.0</td><td>89.7</td><td>90.4</td><td>91.3</td></tr> <tr> <td>55.0</td><td>89.2</td><td>90.0</td><td>91.0</td></tr> <tr> <td>60.5</td><td>88.7</td><td>89.7</td><td>90.7</td></tr> <tr> <td>--</td><td>-</td><td>-</td><td>-</td></tr> <tr> <td>--</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>			Load Current [A]	Efficiency [%]			Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	0.0	-	-	-	8.0	86.6	86.9	87.1	16.0	89.9	90.2	90.7	24.0	90.7	91.1	91.7	32.0	90.7	91.2	91.9	40.0	90.1	90.7	91.4	48.0	89.7	90.4	91.3	55.0	89.2	90.0	91.0	60.5	88.7	89.7	90.7	--	-	-	-	--	-	-	-
Load Current [A]	Efficiency [%]																																																					
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]																																																			
0.0	-	-	-																																																			
8.0	86.6	86.9	87.1																																																			
16.0	89.9	90.2	90.7																																																			
24.0	90.7	91.1	91.7																																																			
32.0	90.7	91.2	91.9																																																			
40.0	90.1	90.7	91.4																																																			
48.0	89.7	90.4	91.3																																																			
55.0	89.2	90.0	91.0																																																			
60.5	88.7	89.7	90.7																																																			
--	-	-	-																																																			
--	-	-	-																																																			
Note:	Slanted line shows the range of the rated load current.																																																					

**COSEL**

Model	FETA2500BA-36																																	
Item	Power Factor (by Input Voltage)	Temperature 25°C Testing Circuitry Figure A																																
Object	<hr/>																																	
1.Graph																																		
<p>Legend:</p> <ul style="list-style-type: none"> <li>-- □ -- Load 50%</li> <li>— △ — Load 100%</li> </ul> <p>Input Voltage [V]</p>																																		
<p>Note: Slanted line shows the range of the rated input voltage.</p>																																		
2.Values																																		
<table border="1"> <thead> <tr> <th rowspan="2">Input Voltage [V]</th> <th colspan="2">Power Factor</th> </tr> <tr> <th>Load 50%</th> <th>Load 100%</th> </tr> </thead> <tbody> <tr> <td>170</td> <td>0.986</td> <td>0.994</td> </tr> <tr> <td>180</td> <td>0.982</td> <td>0.994</td> </tr> <tr> <td>200</td> <td>0.974</td> <td>0.991</td> </tr> <tr> <td>220</td> <td>0.963</td> <td>0.988</td> </tr> <tr> <td>230</td> <td>0.958</td> <td>0.986</td> </tr> <tr> <td>240</td> <td>0.952</td> <td>0.984</td> </tr> <tr> <td>264</td> <td>0.935</td> <td>0.977</td> </tr> <tr> <td>--</td> <td>-</td> <td>-</td> </tr> <tr> <td>--</td> <td>-</td> <td>-</td> </tr> </tbody> </table>			Input Voltage [V]	Power Factor		Load 50%	Load 100%	170	0.986	0.994	180	0.982	0.994	200	0.974	0.991	220	0.963	0.988	230	0.958	0.986	240	0.952	0.984	264	0.935	0.977	--	-	-	--	-	-
Input Voltage [V]	Power Factor																																	
	Load 50%	Load 100%																																
170	0.986	0.994																																
180	0.982	0.994																																
200	0.974	0.991																																
220	0.963	0.988																																
230	0.958	0.986																																
240	0.952	0.984																																
264	0.935	0.977																																
--	-	-																																
--	-	-																																

**COSEL**

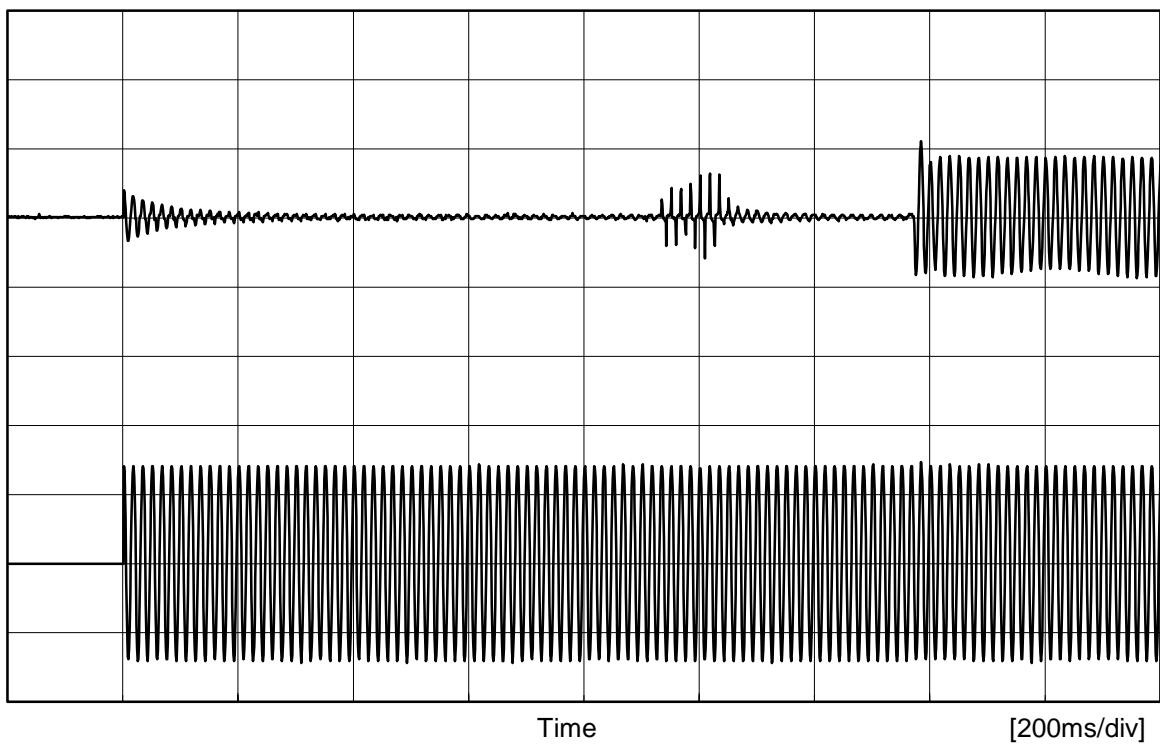
Model	FETA2500BA-36																																																						
Item	Power Factor (by Load Current)	Temperature 25°C	Testing Circuitry Figure A																																																				
Object	_____																																																						
1.Graph	<p>Legend:</p> <ul style="list-style-type: none"> <li>Input Volt. 170V</li> <li>Input Volt. 200V</li> <li>Input Volt. 264V</li> </ul> <table border="1"> <thead> <tr> <th>Load Current [A]</th> <th>170[V]</th> <th>200[V]</th> <th>264[V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>0.417</td><td>0.334</td><td>0.207</td></tr> <tr><td>8.0</td><td>0.936</td><td>0.903</td><td>0.801</td></tr> <tr><td>16.0</td><td>0.966</td><td>0.947</td><td>0.880</td></tr> <tr><td>24.0</td><td>0.982</td><td>0.968</td><td>0.925</td></tr> <tr><td>32.0</td><td>0.989</td><td>0.979</td><td>0.947</td></tr> <tr><td>40.0</td><td>0.992</td><td>0.986</td><td>0.961</td></tr> <tr><td>48.0</td><td>0.993</td><td>0.989</td><td>0.971</td></tr> <tr><td>55.0</td><td>0.995</td><td>0.992</td><td>0.977</td></tr> <tr><td>60.5</td><td>0.995</td><td>0.993</td><td>0.981</td></tr> <tr><td>--</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>--</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>	Load Current [A]	170[V]	200[V]	264[V]	0.0	0.417	0.334	0.207	8.0	0.936	0.903	0.801	16.0	0.966	0.947	0.880	24.0	0.982	0.968	0.925	32.0	0.989	0.979	0.947	40.0	0.992	0.986	0.961	48.0	0.993	0.989	0.971	55.0	0.995	0.992	0.977	60.5	0.995	0.993	0.981	--	-	-	-	--	-	-	-	2.Values					
Load Current [A]	170[V]	200[V]	264[V]																																																				
0.0	0.417	0.334	0.207																																																				
8.0	0.936	0.903	0.801																																																				
16.0	0.966	0.947	0.880																																																				
24.0	0.982	0.968	0.925																																																				
32.0	0.989	0.979	0.947																																																				
40.0	0.992	0.986	0.961																																																				
48.0	0.993	0.989	0.971																																																				
55.0	0.995	0.992	0.977																																																				
60.5	0.995	0.993	0.981																																																				
--	-	-	-																																																				
--	-	-	-																																																				
2.	<table border="1"> <thead> <tr> <th rowspan="2">Load Current [A]</th> <th colspan="3">Power Factor</th> </tr> <tr> <th>Input Volt. 170[V]</th> <th>Input Volt. 200[V]</th> <th>Input Volt. 264[V]</th> </tr> </thead> <tbody> <tr><td>0.0</td><td>0.417</td><td>0.334</td><td>0.207</td></tr> <tr><td>8.0</td><td>0.936</td><td>0.903</td><td>0.801</td></tr> <tr><td>16.0</td><td>0.966</td><td>0.947</td><td>0.880</td></tr> <tr><td>24.0</td><td>0.982</td><td>0.968</td><td>0.925</td></tr> <tr><td>32.0</td><td>0.989</td><td>0.979</td><td>0.947</td></tr> <tr><td>40.0</td><td>0.992</td><td>0.986</td><td>0.961</td></tr> <tr><td>48.0</td><td>0.993</td><td>0.989</td><td>0.971</td></tr> <tr><td>55.0</td><td>0.995</td><td>0.992</td><td>0.977</td></tr> <tr><td>60.5</td><td>0.995</td><td>0.993</td><td>0.981</td></tr> <tr><td>--</td><td>-</td><td>-</td><td>-</td></tr> <tr><td>--</td><td>-</td><td>-</td><td>-</td></tr> </tbody> </table>	Load Current [A]	Power Factor			Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	0.0	0.417	0.334	0.207	8.0	0.936	0.903	0.801	16.0	0.966	0.947	0.880	24.0	0.982	0.968	0.925	32.0	0.989	0.979	0.947	40.0	0.992	0.986	0.961	48.0	0.993	0.989	0.971	55.0	0.995	0.992	0.977	60.5	0.995	0.993	0.981	--	-	-	-	--	-	-	-			
Load Current [A]	Power Factor																																																						
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]																																																				
0.0	0.417	0.334	0.207																																																				
8.0	0.936	0.903	0.801																																																				
16.0	0.966	0.947	0.880																																																				
24.0	0.982	0.968	0.925																																																				
32.0	0.989	0.979	0.947																																																				
40.0	0.992	0.986	0.961																																																				
48.0	0.993	0.989	0.971																																																				
55.0	0.995	0.992	0.977																																																				
60.5	0.995	0.993	0.981																																																				
--	-	-	-																																																				
--	-	-	-																																																				
Note:	Slanted line shows the range of the rated load current.																																																						

COSEL

Model FETA2500BA-36

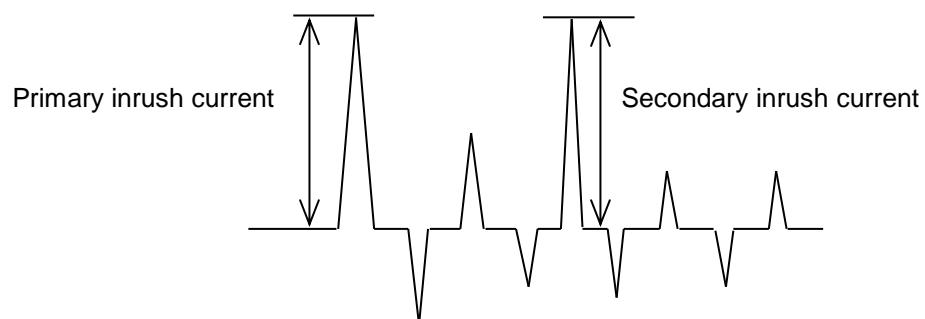
Item Inrush Current

Object \_\_\_\_\_

Temperature 25°C  
Testing Circuitry Figure AInput  
Current  
[20A/div]

Input Voltage	200 V
Frequency	60 Hz
Load	100 %

Primary inrush current	8.0 A
Secondary inrush current	22.1 A





Model	FETA2500BA-36	Temperature	25°C
Item	Leakage Current	Testing Circuitry	Figure B
Object	_____		

### 1. Results

[mA]

Standards		Input Volt.			Note
		200 [V]	240 [V]	264 [V]	
DEN-AN	Both phases	-	-	-	Operation
	One of phases	-	-	-	Stand by
IEC60950-1	Both phases	0.61	0.73	0.81	Operation
	One of phases	1.06	1.30	1.43	Stand by

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

### 2. Condition

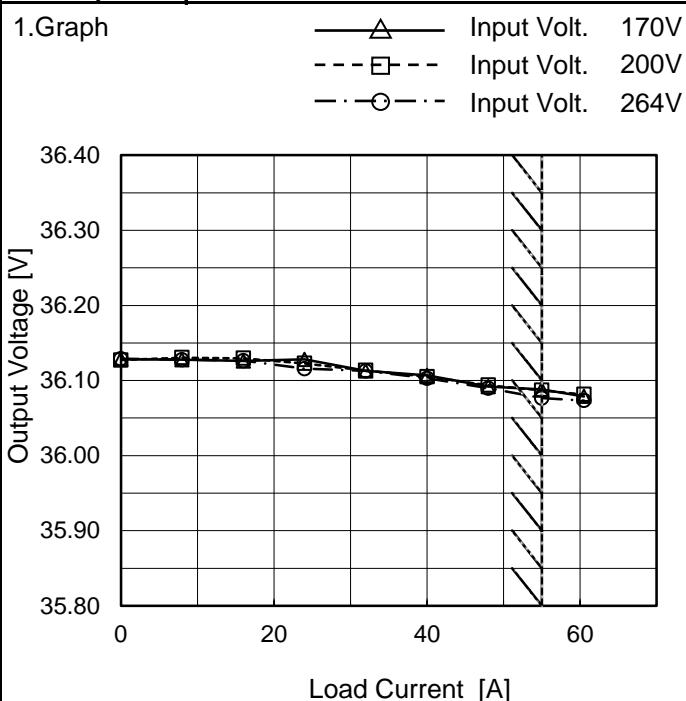
Leakage current value is concluded after measuring both phases of AC input and by choosing the larger one.

**COSEL**

Model	FETA2500BA-36																																	
Item	Line Regulation	Temperature 25°C Testing Circuitry Figure A																																
Object	+36V55A																																	
1.Graph																																		
<p>Output Voltage [V]</p> <p>Input Voltage [V]</p> <p>Legend: --- □--- Load 50% — △— Load 100%</p>																																		
<p>Note: Slanted line shows the range of the rated input voltage.</p>																																		
2.Values																																		
<table border="1"> <thead> <tr> <th rowspan="2">Input Voltage [V]</th> <th colspan="2">Output Voltage [V]</th> </tr> <tr> <th>Load 50%</th> <th>Load 100%</th> </tr> </thead> <tbody> <tr> <td>170</td><td>36.089</td><td>36.068</td></tr> <tr> <td>180</td><td>36.083</td><td>36.068</td></tr> <tr> <td>200</td><td>36.091</td><td>36.073</td></tr> <tr> <td>220</td><td>36.093</td><td>36.071</td></tr> <tr> <td>230</td><td>36.093</td><td>36.075</td></tr> <tr> <td>240</td><td>36.096</td><td>36.081</td></tr> <tr> <td>264</td><td>36.095</td><td>36.079</td></tr> <tr> <td>--</td><td>-</td><td>-</td></tr> <tr> <td>--</td><td>-</td><td>-</td></tr> </tbody> </table>			Input Voltage [V]	Output Voltage [V]		Load 50%	Load 100%	170	36.089	36.068	180	36.083	36.068	200	36.091	36.073	220	36.093	36.071	230	36.093	36.075	240	36.096	36.081	264	36.095	36.079	--	-	-	--	-	-
Input Voltage [V]	Output Voltage [V]																																	
	Load 50%	Load 100%																																
170	36.089	36.068																																
180	36.083	36.068																																
200	36.091	36.073																																
220	36.093	36.071																																
230	36.093	36.075																																
240	36.096	36.081																																
264	36.095	36.079																																
--	-	-																																
--	-	-																																

**COSEL**

Model	FETA2500BA-36
Item	Load Regulation
Object	+36V55A

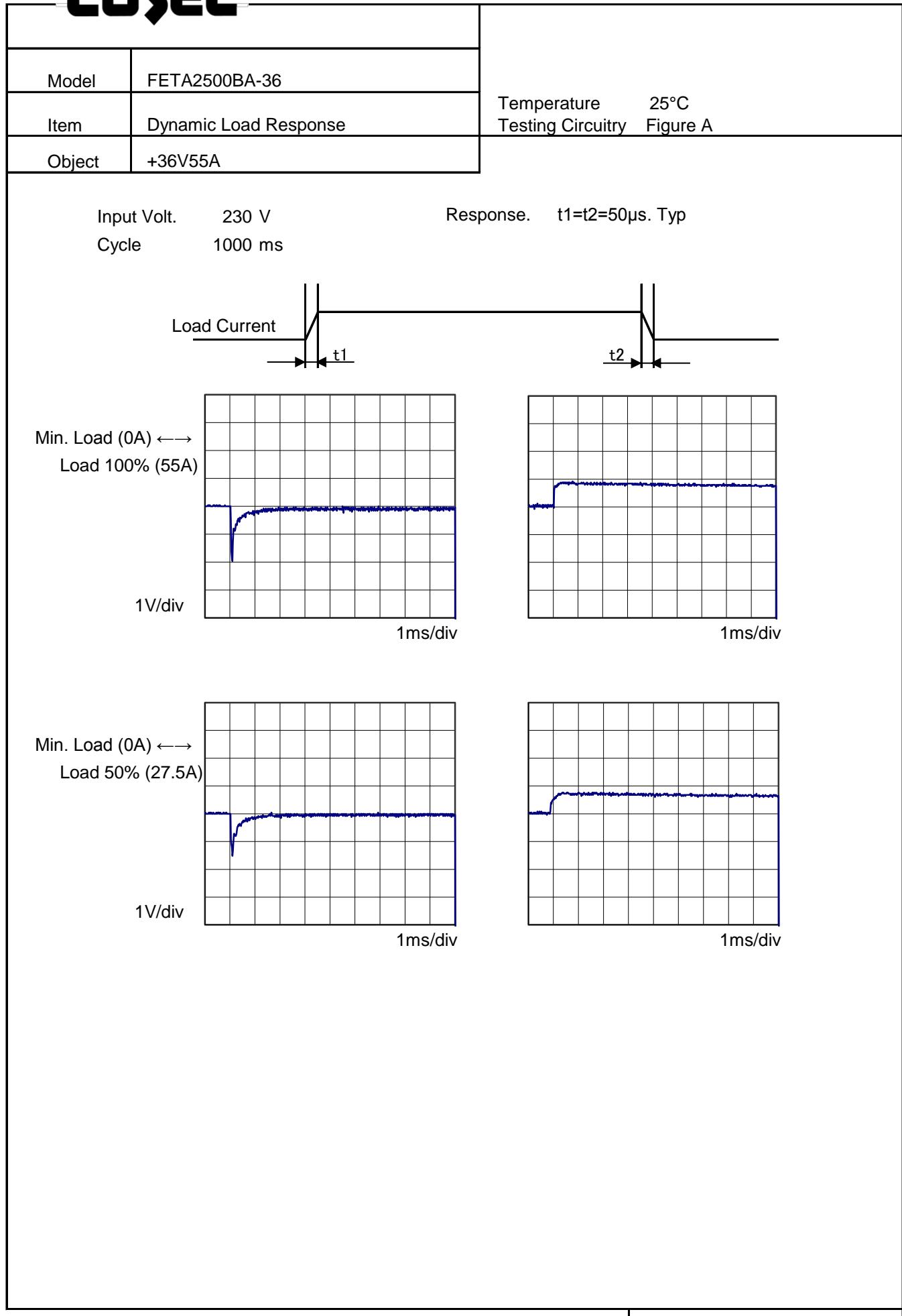
 Temperature 25°C  
 Testing Circuitry Figure A


## 2.Values

Load Current [A]	Output Voltage [V]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0.0	36.128	36.127	36.129
8.0	36.128	36.131	36.128
16.0	36.126	36.130	36.126
24.0	36.128	36.123	36.116
32.0	36.113	36.113	36.113
40.0	36.107	36.105	36.103
48.0	36.092	36.094	36.090
55.0	36.088	36.087	36.077
60.5	36.079	36.081	36.073
--	-	-	-
--	-	-	-

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

**COSEL**

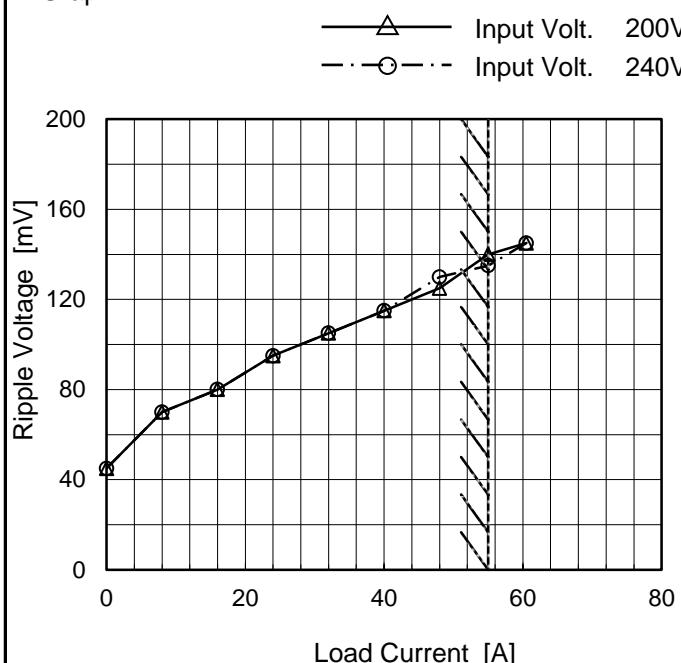


COSEL

Model	FETA2500BA-36
Item	Ripple Voltage (by Load Current)
Object	+36V55A

Temperature 25°C  
Testing Circuitry Figure C

## 1. Graph



## 2. Values

Load Current [A]	Ripple Voltage [mV]	
	Input Volt. 200 [V]	Input Volt. 240 [V]
0.0	45	45
8.0	70	70
16.0	80	80
24.0	95	95
32.0	105	105
40.0	115	115
48.0	125	130
55.0	140	135
60.5	145	145
--	-	-
--	-	-

Measured by 500 MHz Oscilloscope.

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

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

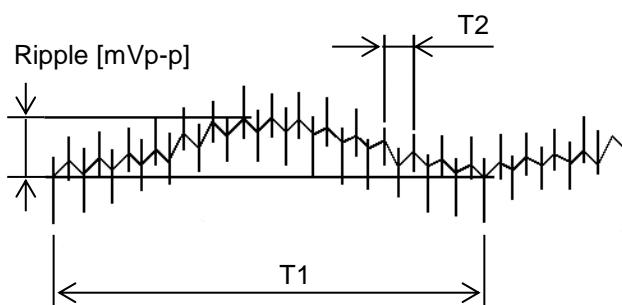
T1: Due to AC Input Line  
T2: Due to Switching

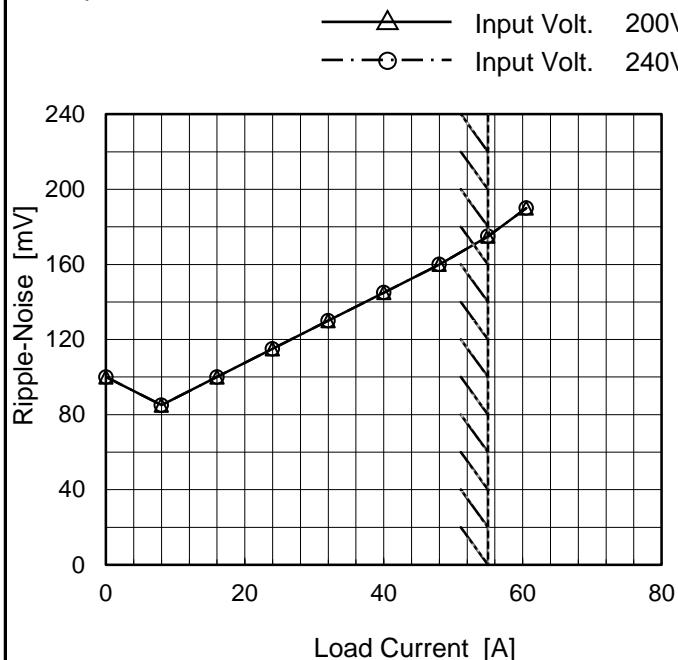
Fig. Complex Ripple Wave Form

COSEL

Model	FETA2500BA-36
Item	Ripple-Noise
Object	+36V55A

Temperature 25°C  
Testing Circuitry Figure C

## 1. Graph



Measured by 500 MHz Oscilloscope.

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

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

## 2. Values

Load Current [A]	Ripple-Noise [mV]	
	Input Volt. 200 [V]	Input Volt. 240 [V]
0.0	100	100
8.0	85	85
16.0	100	100
24.0	115	115
32.0	130	130
40.0	145	145
48.0	160	160
55.0	175	175
60.5	190	190
--	-	-
--	-	-

T1: Due to AC Input Line  
T2: Due to Switching

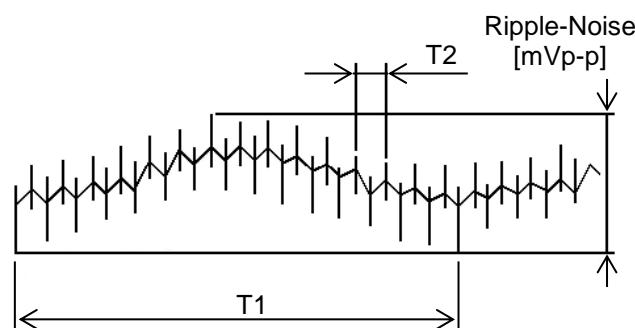


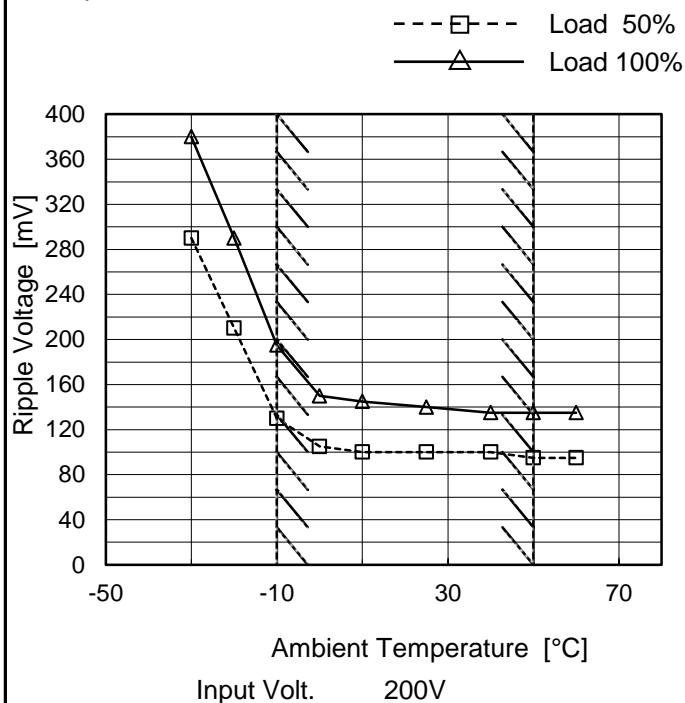
Fig. Complex Ripple Wave Form

**COSEL**

Model	FETA2500BA-36
Item	Ripple Voltage (by Ambient Temp.)
Object	+36V55A

Testing Circuitry Figure C

## 1. Graph



## 2. Values

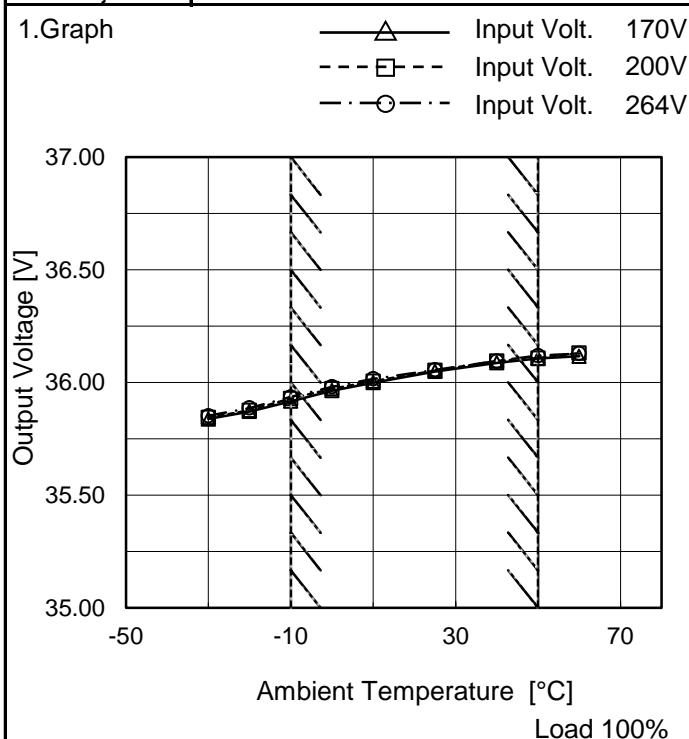
Ambient Temperature [°C]	Ripple Voltage [mV]	
	Load 50%	Load 100%
-30	290	380
-20	210	290
-10	130	195
0	105	150
10	100	145
25	100	140
40	100	135
50	95	135
60	95	135
--	-	-
--	-	-

Measured by 500 MHz Oscilloscope.

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

**COSEL**

Model	FETA2500BA-36
Item	Ambient Temperature Drift
Object	+36V55A



Testing Circuitry Figure A

## 2.Values

Ambient Temperature [°C]	Output Voltage [V]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
-30	35.838	35.844	35.852
-20	35.871	35.876	35.887
-10	35.917	35.929	35.936
0	35.964	35.972	35.981
10	35.999	36.006	36.016
25	36.049	36.053	36.056
40	36.088	36.095	36.095
50	36.107	36.108	36.119
60	36.117	36.131	36.128
--	-	-	-
--	-	-	-

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



Model	FETA2500BA-36	Testing Circuitry Figure A
Item	Output Voltage Accuracy	
Object	+36V55A	

### 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 - 50°C

Input Voltage : 170 - 264V

Load Current : 0 - 55A

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

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

### 2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ration [%]
Maximum Voltage	50	170	0	36.142	$\pm 113$	$\pm 0.3$
Minimum Voltage	-10	170	0	35.916		

**COSEL**

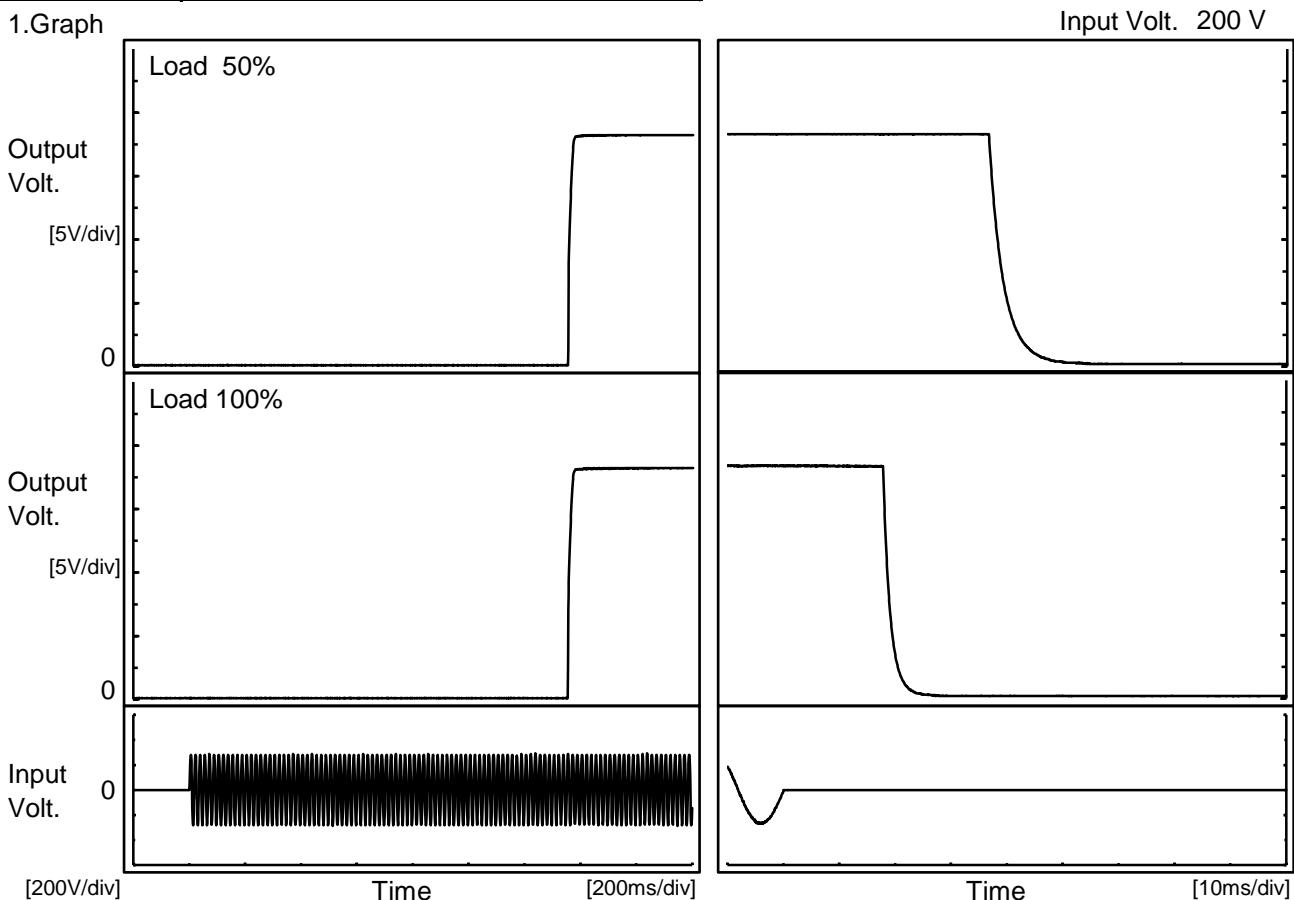
Model	FETA2500BA-36	Temperature	25°C																						
Item	Time Lapse Drift	Testing Circuitry	Figure A																						
Object	+36V55A																								
1. Graph			2. Values																						
<p>Output Voltage [V]</p> <p>Time [H]</p> <p>Input Volt. 200V</p> <p>Load 100%</p>			<table border="1"> <thead> <tr> <th>Time since start [H]</th><th>Output Voltage [V]</th></tr> </thead> <tbody> <tr><td>0.0</td><td>36.058</td></tr> <tr><td>0.5</td><td>36.078</td></tr> <tr><td>1.0</td><td>36.078</td></tr> <tr><td>2.0</td><td>36.079</td></tr> <tr><td>3.0</td><td>36.081</td></tr> <tr><td>4.0</td><td>36.082</td></tr> <tr><td>5.0</td><td>36.078</td></tr> <tr><td>6.0</td><td>36.081</td></tr> <tr><td>7.0</td><td>36.079</td></tr> <tr><td>8.0</td><td>36.079</td></tr> </tbody> </table>	Time since start [H]	Output Voltage [V]	0.0	36.058	0.5	36.078	1.0	36.078	2.0	36.079	3.0	36.081	4.0	36.082	5.0	36.078	6.0	36.081	7.0	36.079	8.0	36.079
Time since start [H]	Output Voltage [V]																								
0.0	36.058																								
0.5	36.078																								
1.0	36.078																								
2.0	36.079																								
3.0	36.081																								
4.0	36.082																								
5.0	36.078																								
6.0	36.081																								
7.0	36.079																								
8.0	36.079																								

**COSEL**

Model	FETA2500BA-36
Item	Rise and Fall Time
Object	+36V55A

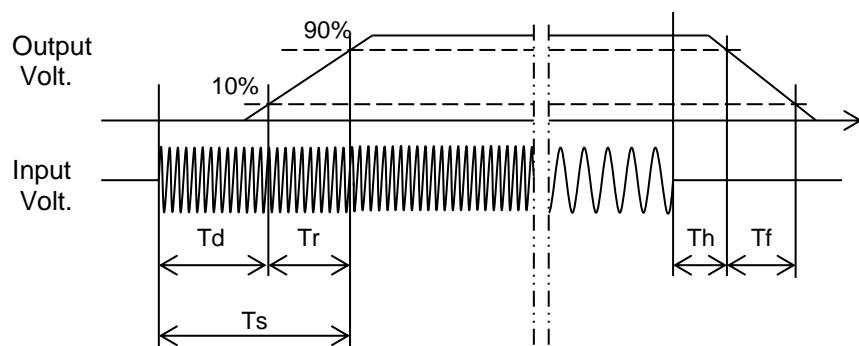
Temperature 25°C  
Testing Circuitry Figure A

## 1.Graph



## 2.Values

Load	Time	Td	Tr	Ts	Th	Tf	[ms]
50 %		1355.0	14.0	1369.0	37.0	5.8	
100 %		1353.0	15.0	1368.0	18.0	2.9	

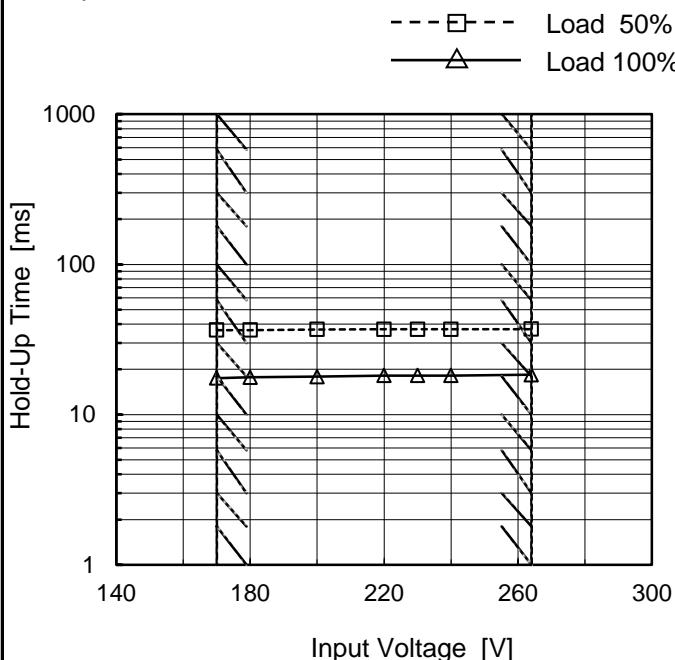


**COSEL**

Model	FETA2500BA-36
Item	Hold-Up Time
Object	+36V55A

 Temperature 25°C  
 Testing Circuitry Figure A

## 1. Graph



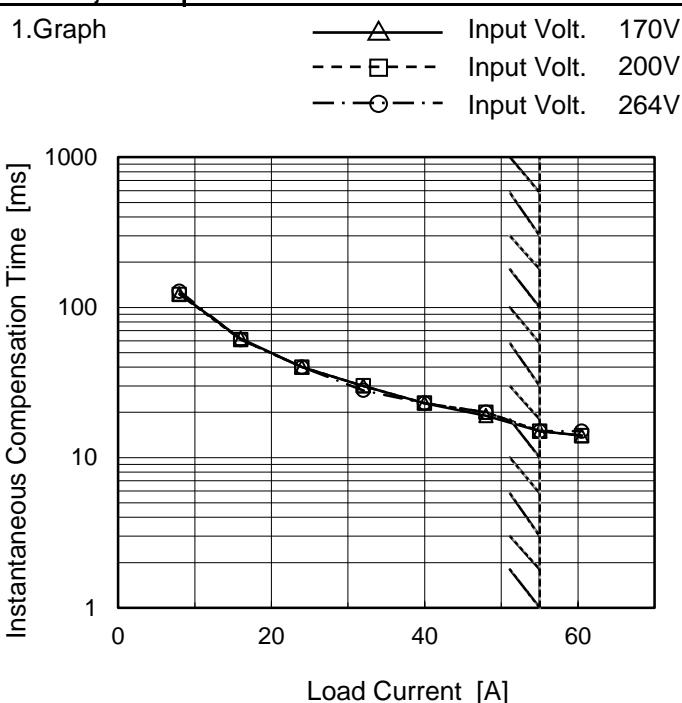
## 2. Values

Input Voltage [V]	Hold-Up Time [ms]	
	Load 50%	Load 100%
170	37	18
180	37	18
200	37	18
220	37	18
230	37	18
240	37	18
264	37	18
--	-	-
--	-	-

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.

**COSEL**

Model	FETA2500BA-36
Item	Instantaneous Interruption Compensation
Object	+36V55A

 Temperature 25°C  
 Testing Circuitry Figure A


## 2. Values

Load Current [A]	Time [ms]		
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]
0.0	-	-	-
8.0	123	122	128
16.0	62	61	61
24.0	40	40	40
32.0	30	30	28
40.0	23	23	23
48.0	19	20	20
55.0	15	15	15
60.5	14	14	15
--	-	-	-
--	-	-	-

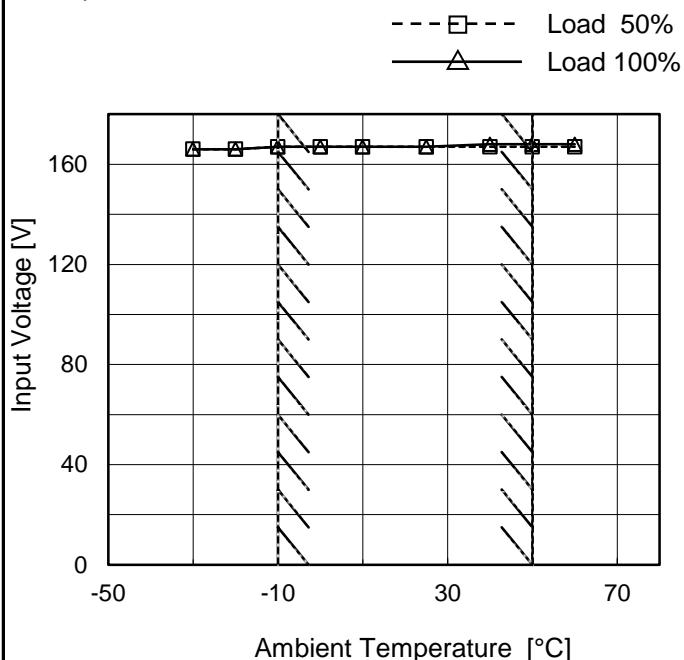
Note: Slanted line shows the range of the rated load current.

**COSEL**

Model	FETA2500BA-36
Item	Minimum Input Voltage for Regulated Output Voltage
Object	+36V55A

## Testing Circuitry Figure A

## 1.Graph



## 2.Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-30	166	166
-20	166	166
-10	167	167
0	167	167
10	167	167
25	167	167
40	167	168
50	167	168
60	167	168
--	-	-
--	-	-

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

**COSEL**

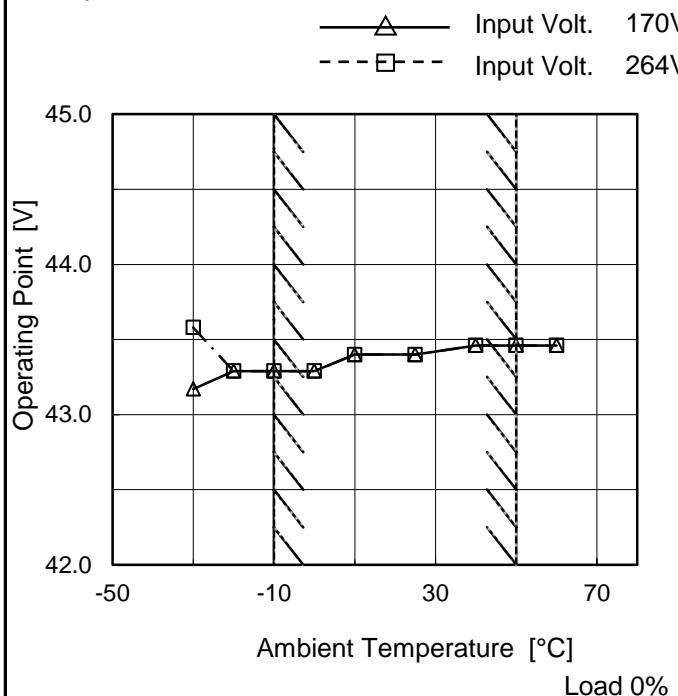
Model	FETA2500BA-36																																																													
Item	Overcurrent Protection																																																													
Object	+36V55A																																																													
1.Graph	<p>Output Voltage [V]</p> <p>Load Current [A]</p> <p>Input Volt. 170V Input Volt. 200V Input Volt. 264V</p>																																																													
	<p>Note: Slanted line shows the range of the rated load current.</p>																																																													
Temperature	25°C																																																													
Testing Circuitry	Figure A																																																													
2.Values	<table border="1"> <thead> <tr> <th rowspan="2">Output Voltage [V]</th> <th colspan="3">Load Current [A]</th> </tr> <tr> <th>Input Volt. 170[V]</th> <th>Input Volt. 200[V]</th> <th>Input Volt. 264[V]</th> </tr> </thead> <tbody> <tr><td>34.2</td><td>61.87</td><td>62.15</td><td>62.22</td></tr> <tr><td>32.4</td><td>61.98</td><td>62.26</td><td>62.35</td></tr> <tr><td>28.8</td><td>62.24</td><td>62.51</td><td>62.58</td></tr> <tr><td>25.2</td><td>62.50</td><td>62.71</td><td>62.76</td></tr> <tr><td>21.6</td><td>62.62</td><td>62.81</td><td>62.86</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> <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> </tbody> </table>			Output Voltage [V]	Load Current [A]			Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]	34.2	61.87	62.15	62.22	32.4	61.98	62.26	62.35	28.8	62.24	62.51	62.58	25.2	62.50	62.71	62.76	21.6	62.62	62.81	62.86	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-
Output Voltage [V]	Load Current [A]																																																													
	Input Volt. 170[V]	Input Volt. 200[V]	Input Volt. 264[V]																																																											
34.2	61.87	62.15	62.22																																																											
32.4	61.98	62.26	62.35																																																											
28.8	62.24	62.51	62.58																																																											
25.2	62.50	62.71	62.76																																																											
21.6	62.62	62.81	62.86																																																											
--	-	-	-																																																											
--	-	-	-																																																											
--	-	-	-																																																											
--	-	-	-																																																											
--	-	-	-																																																											
--	-	-	-																																																											
--	-	-	-																																																											
--	-	-	-																																																											

**COSEL**

Model	FETA2500BA-36
Item	Overvoltage Protection
Object	+36V55A

Testing Circuitry Figure A

## 1. Graph



## 2. Values

Ambient Temperature [°C]	Operating Point [V]	
	Input Volt. 170[V]	Input Volt. 264[V]
-30	43.17	43.58
-20	43.29	43.29
-10	43.29	43.29
0	43.29	43.29
10	43.40	43.40
25	43.40	43.40
40	43.46	43.46
50	43.46	43.46
60	43.46	43.46
--	-	-
--	-	-

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

COSEL

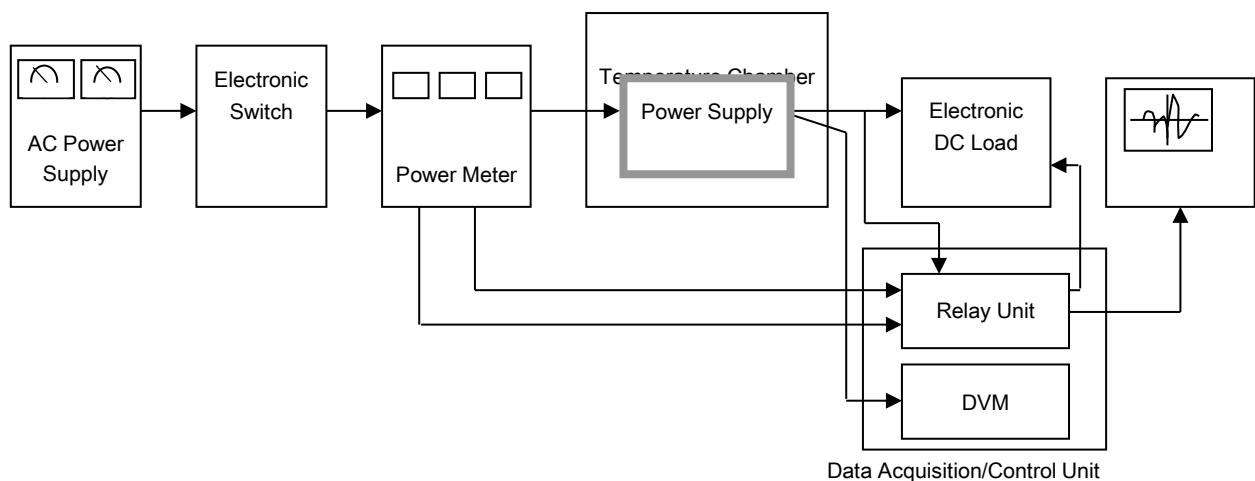


Figure A

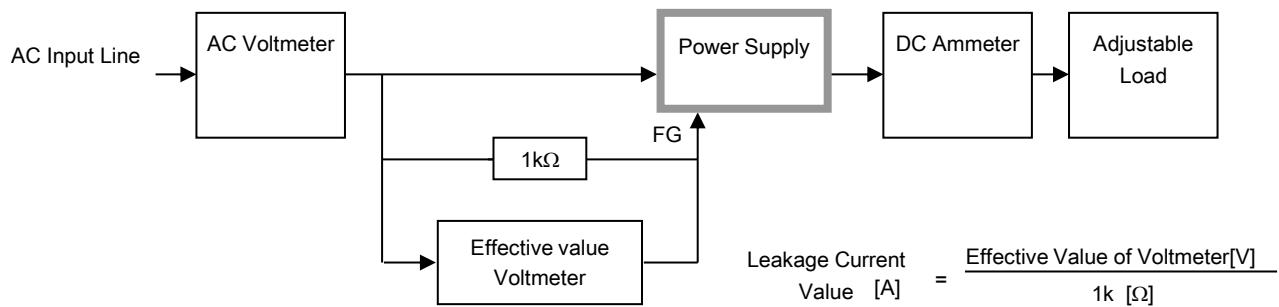


Figure B ( DEN-AN )

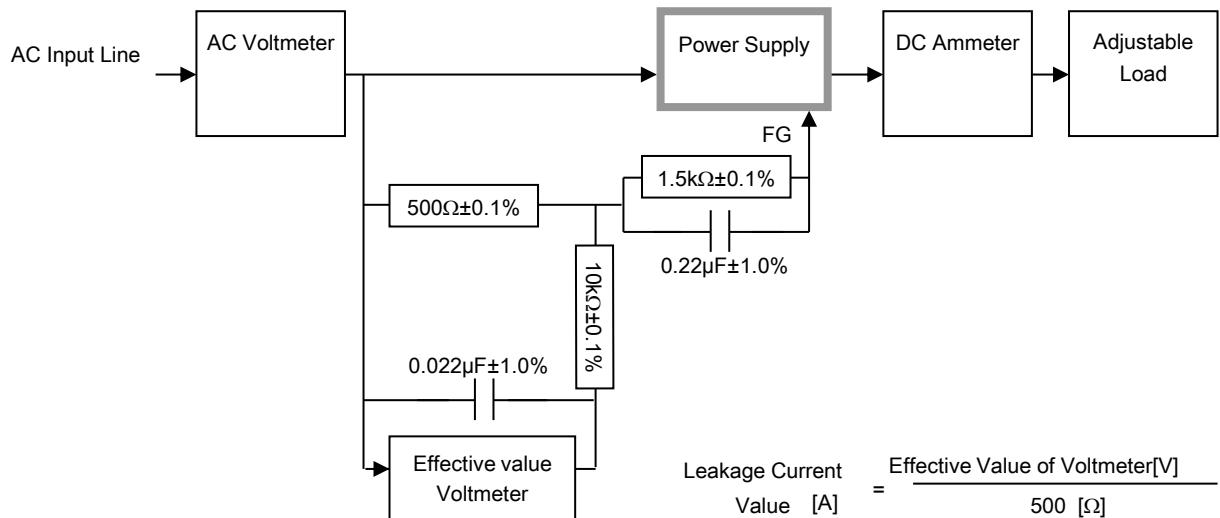


Figure B ( IEC60950-1 )