



TEST DATA OF CQS48015-50

Regulated DC Power Supply
Dec 20, 2007

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CONTENTS

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

(Final Page 19)

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Model		CQS48015-50	
Item		Input Current (by Input Voltage)	
Object			

1.Graph

—△—

Load 100%

---□---

Load 50%

---○---

Load 0%

Input Current [A]

5.0

4.0

3.0

2.0

1.0

0.0

0

20

40

60

80

Input Voltage [V]

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

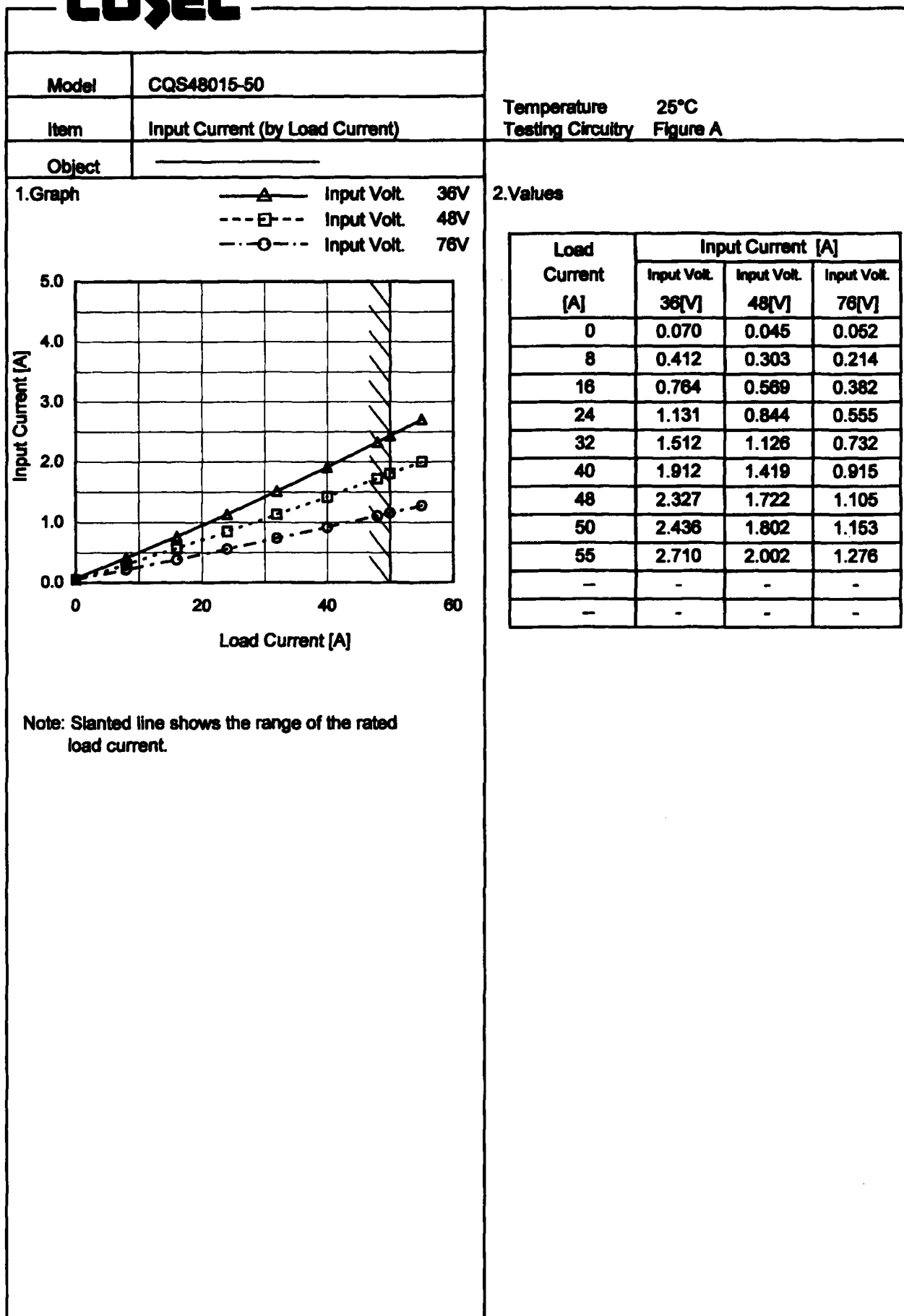
2.Values

Input Voltage [V]	Input Current [A]		
	Load 0%	Load 50%	Load 100%
0.0	0.000	0.000	0.000
8.0	0.000	0.000	0.000
16.0	0.000	0.000	0.000
24.0	0.002	0.002	0.002
33.0	0.003	0.003	0.003
33.6	0.085	1.281	2.642
36.0	0.070	1.177	2.436
40.0	0.054	1.048	2.170
48.0	0.045	0.879	1.802
60.0	0.048	0.716	1.449
70.0	0.051	0.624	1.251
76.0	0.052	0.578	1.153
80.0	0.053	0.552	1.102
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—	-	-	-
—	-	-	-
—	-	-	-
—	-	-	-

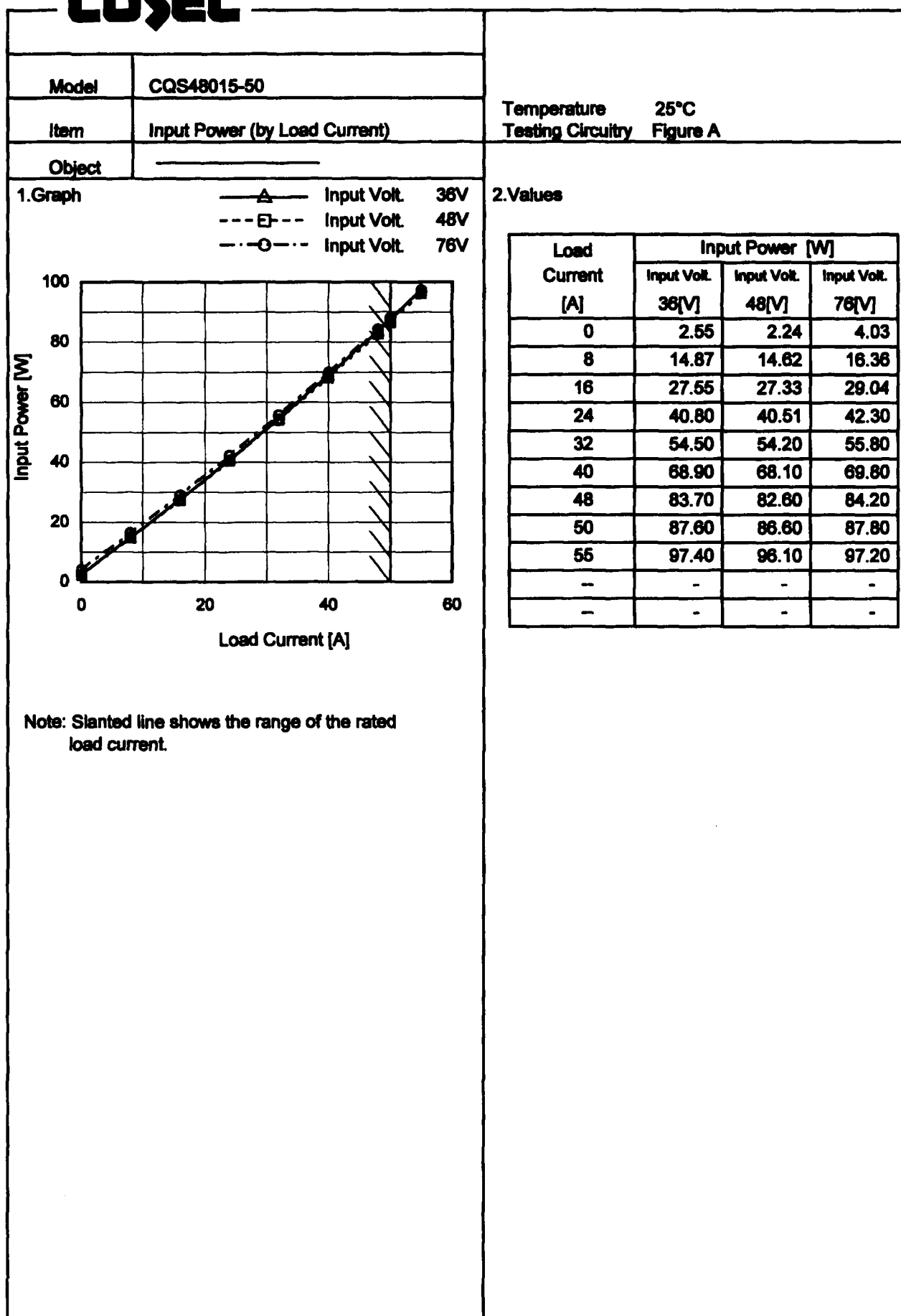
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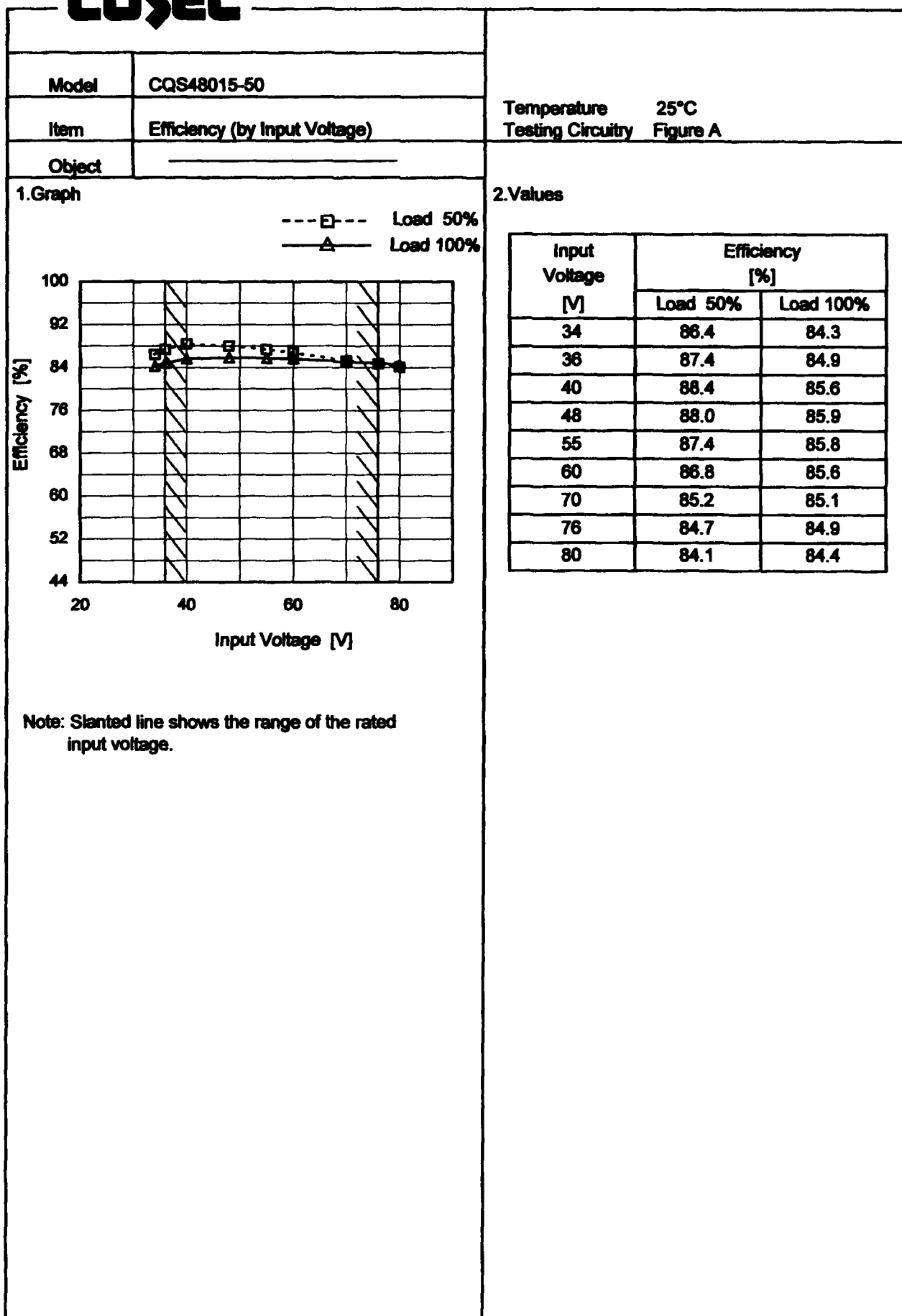
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Model		CQS48015-50	
Item		Line Regulation	
Object		+1.5V50A	

1.Graph

□

Load 50%

△

Load 100%

Output Voltage [V]

1.54

1.52

1.50

1.48

1.46

1.44

1.42

1.40

20

40

60

80

Input Voltage [V]

20

40

60

80

1.48

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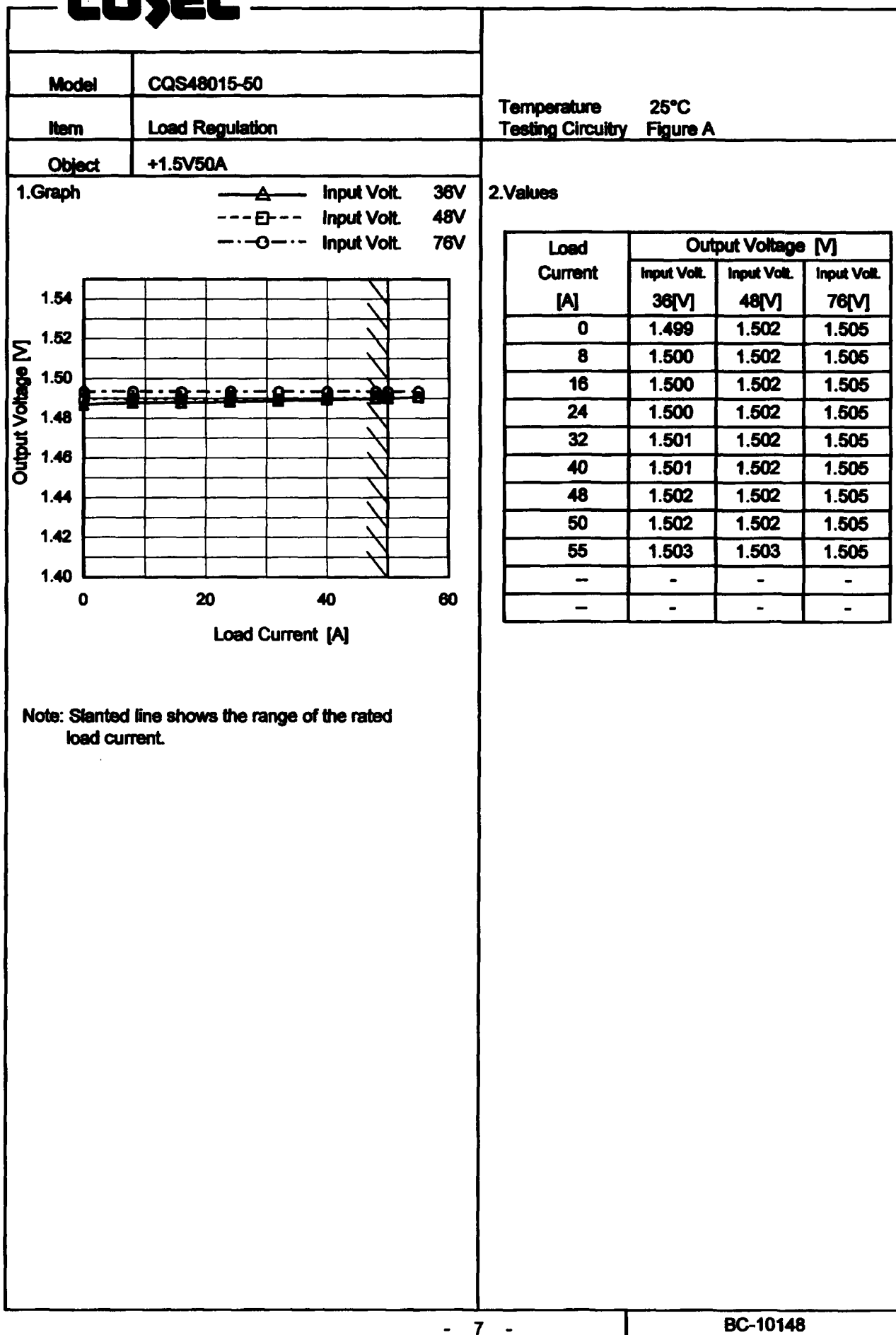
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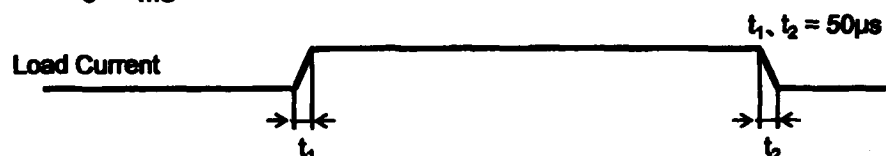
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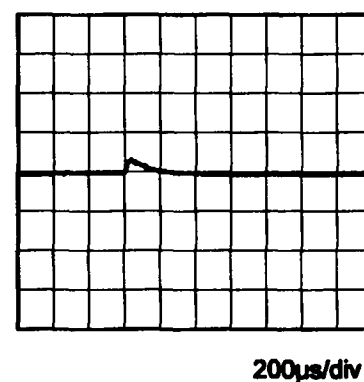
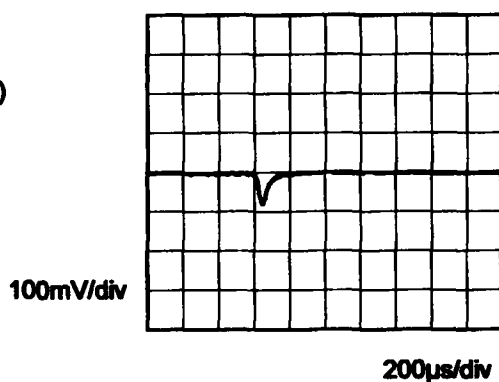
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Model	CQS48015-50	Temperature	25°C
Item	Dynamic Load Response	Testing Circuitry	Figure A
Object	+1.5V50A		

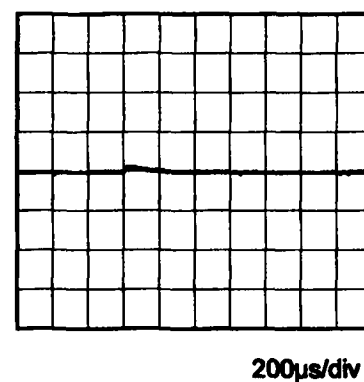
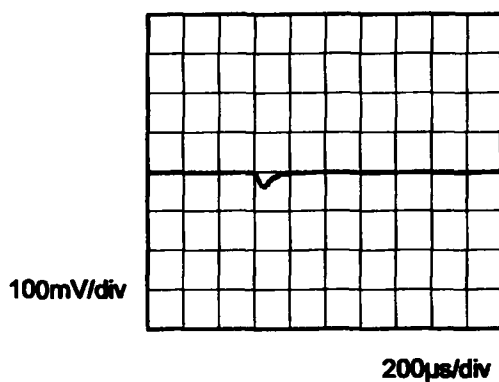
Input Volt. 48 V
Cycle 5 mS



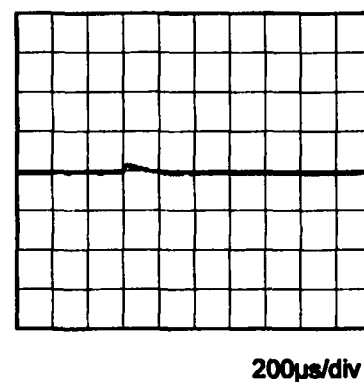
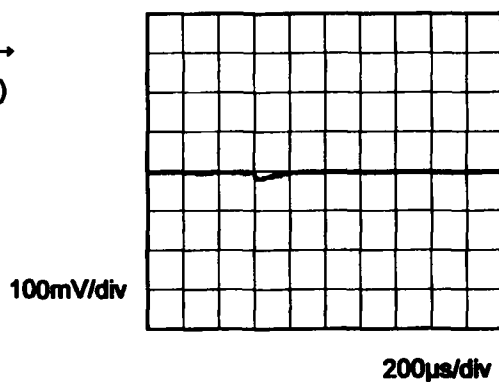
Min. Load (0A) \longleftrightarrow
Load 100% (50A)



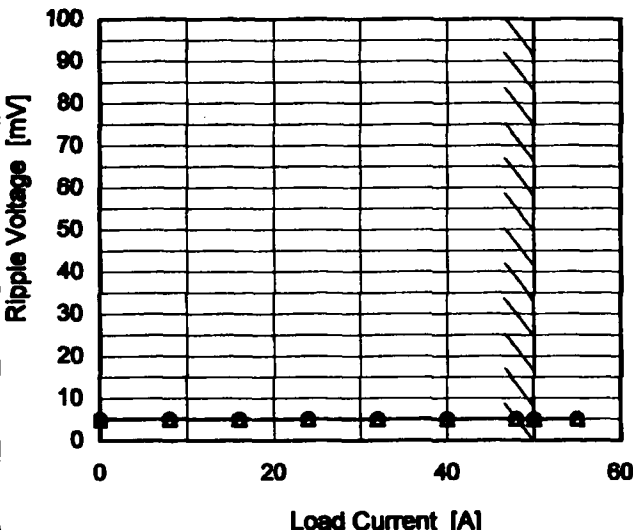
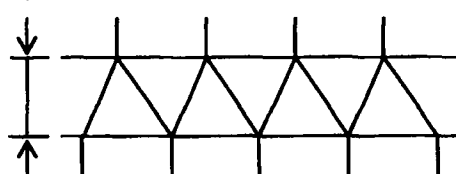
Min. Load (0A) \longleftrightarrow
Load 50% (25A)



Load 50% (25A) \longleftrightarrow
Load 100% (50A)



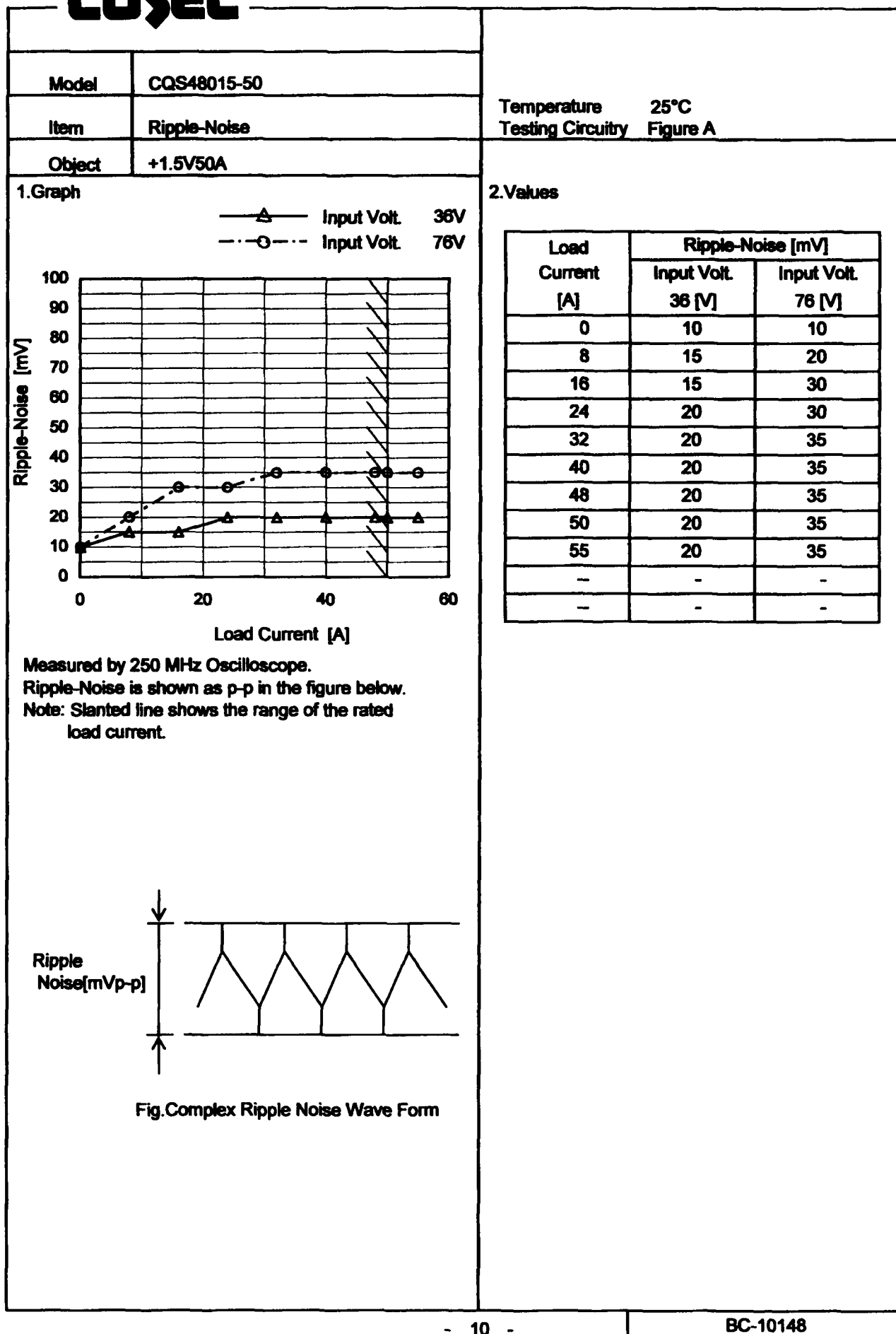
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Model		CQS48015-50		Temperature 25°C																																							
Item		Ripple Voltage (by Load Current)		Testing Circuitry Figure A																																							
Object		+1.5V50A																																									
1.Graph				2.Values																																							
<div><div><div><div></div><div>—△—</div><div>Input Volt.</div><div>36V</div></div><div><div></div><div>- - -○- - -</div><div>Input Volt.</div><div>76V</div></div></div><div></div></div>				<table><tr><th rowspan="2">Load Current [A]</th><th colspan="2">Ripple Voltage [mV]</th></tr><tr><th>Input Volt. 36 [V]</th><th>Input Volt. 76 [V]</th></tr><tr><td>0</td><td>5</td><td>5</td></tr><tr><td>8</td><td>5</td><td>5</td></tr><tr><td>16</td><td>5</td><td>5</td></tr><tr><td>24</td><td>5</td><td>5</td></tr><tr><td>32</td><td>5</td><td>5</td></tr><tr><td>40</td><td>5</td><td>5</td></tr><tr><td>48</td><td>5</td><td>5</td></tr><tr><td>50</td><td>5</td><td>5</td></tr><tr><td>55</td><td>5</td><td>5</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. 36 [V]	Input Volt. 76 [V]	0	5	5	8	5	5	16	5	5	24	5	5	32	5	5	40	5	5	48	5	5	50	5	5	55	5	5	-	-	-	-	-	-
Load Current [A]	Ripple Voltage [mV]																																										
	Input Volt. 36 [V]	Input Volt. 76 [V]																																									
0	5	5																																									
8	5	5																																									
16	5	5																																									
24	5	5																																									
32	5	5																																									
40	5	5																																									
48	5	5																																									
50	5	5																																									
55	5	5																																									
-	-	-																																									
-	-	-																																									
<div>Measured by 20 MHz Oscilloscope.</div> <div>Ripple Voltage is shown as p-p in the figure below.</div> <div>Note: Slanted line shows the range of the rated load current.</div>																																											
<div><div>Ripple [mVp-p]</div><div></div></div> <div>Fig.Complex Ripple Wave Form</div>																																											

- 9 -

BC-10148

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		Testing Circuitry Figure A
Model	CQS48015-50	
Item	Output Voltage Accuracy	
Object	+1.5V50A	

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 - 85°C

Input Voltage : 36 - 76V

Load Current : 0 - 50A

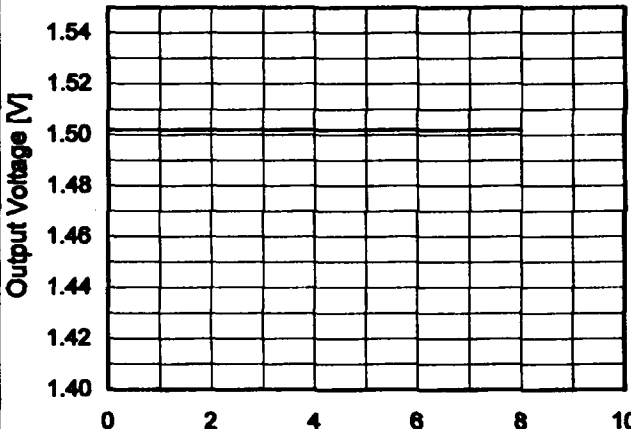
* Output Voltage Accuracy = $\pm(\text{Maximum of Output Voltage} - \text{Minimum of Output Voltage}) / 2$

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

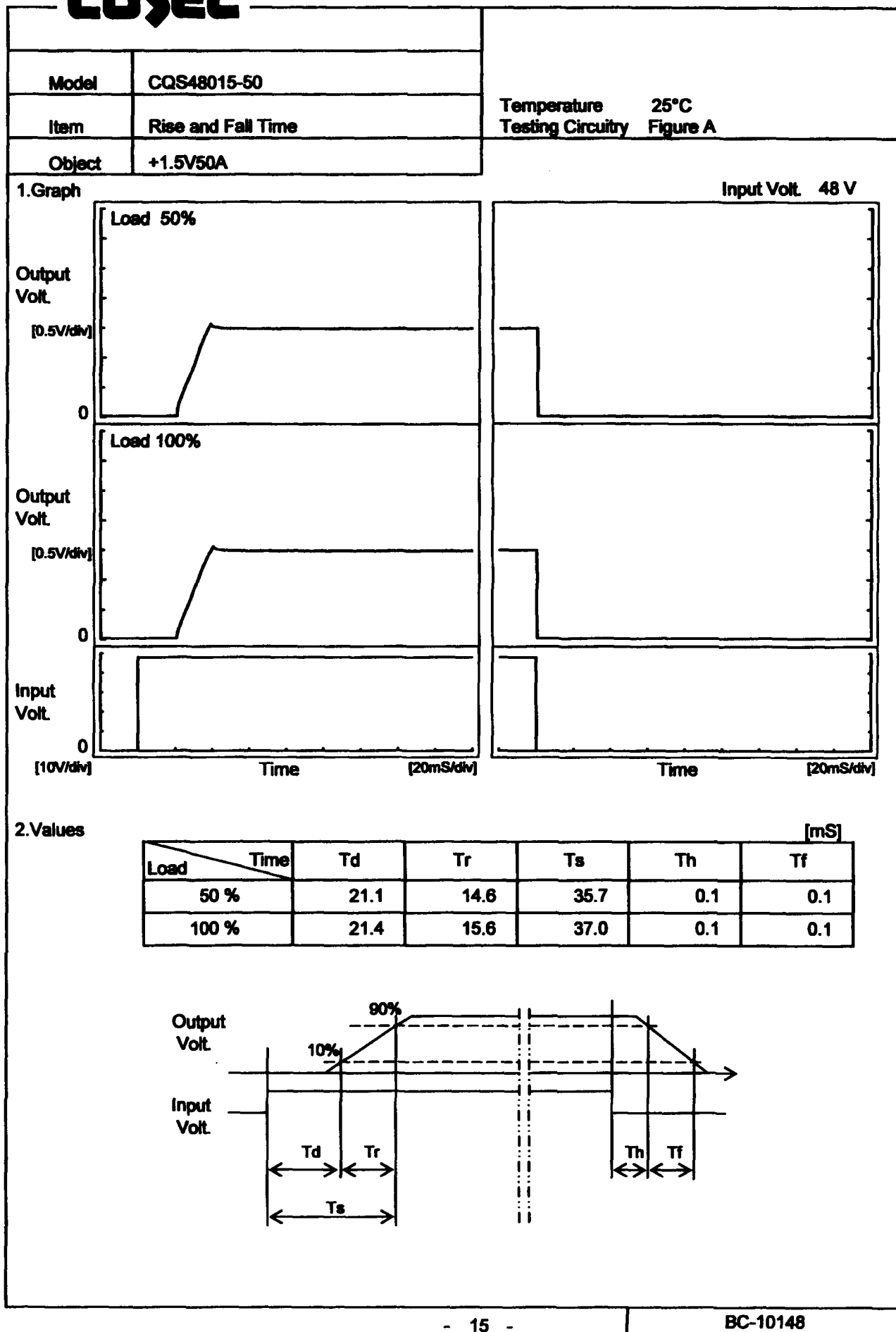
2. Values

Item	Temperature [°C]	Input Voltage[V]	Output		Output Voltage Accuracy	
			Current[A]	Voltage[V]	Value [mV]	Ratio [%]
Maximum Voltage	0	76	50	1.505	±3	±0.2
Minimum Voltage	85	36	0	1.499		

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Model	CQS48015-50	Temperature Testing Circuitry	25°C Figure A																						
Item	Time Lapse Drift																								
Object	+1.5V50A																								
1.Graph		2.Values																							
<div><p>Output Voltage [V]</p><p>Time [H]</p><p>Input Volt. 48V Load 100%</p></div>		<table><tr><th>Time since start [H]</th><th>Output Voltage [V]</th></tr><tr><td>0.0</td><td>1.502</td></tr><tr><td>0.5</td><td>1.502</td></tr><tr><td>1.0</td><td>1.502</td></tr><tr><td>2.0</td><td>1.502</td></tr><tr><td>3.0</td><td>1.502</td></tr><tr><td>4.0</td><td>1.502</td></tr><tr><td>5.0</td><td>1.502</td></tr><tr><td>6.0</td><td>1.502</td></tr><tr><td>7.0</td><td>1.502</td></tr><tr><td>8.0</td><td>1.502</td></tr></table>		Time since start [H]	Output Voltage [V]	0.0	1.502	0.5	1.502	1.0	1.502	2.0	1.502	3.0	1.502	4.0	1.502	5.0	1.502	6.0	1.502	7.0	1.502	8.0	1.502
Time since start [H]	Output Voltage [V]																								
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0.5	1.502																								
1.0	1.502																								
2.0	1.502																								
3.0	1.502																								
4.0	1.502																								
5.0	1.502																								
6.0	1.502																								
7.0	1.502																								
8.0	1.502																								

COSEL



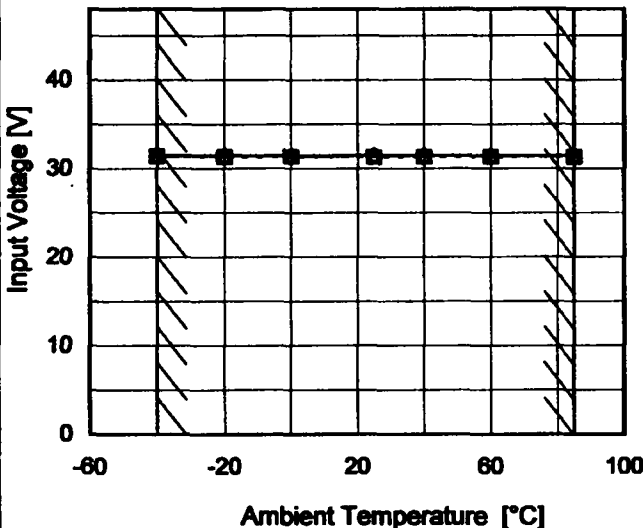
COSEL

Model		CQS48015-50	
Item		Minimum Input Voltage for Regulated Output Voltage	
Object		+1.5V50A	

1.Graph

---□--- Load 50%

—△— Load 100%



Input Voltage [V]

Ambient Temperature [°C]

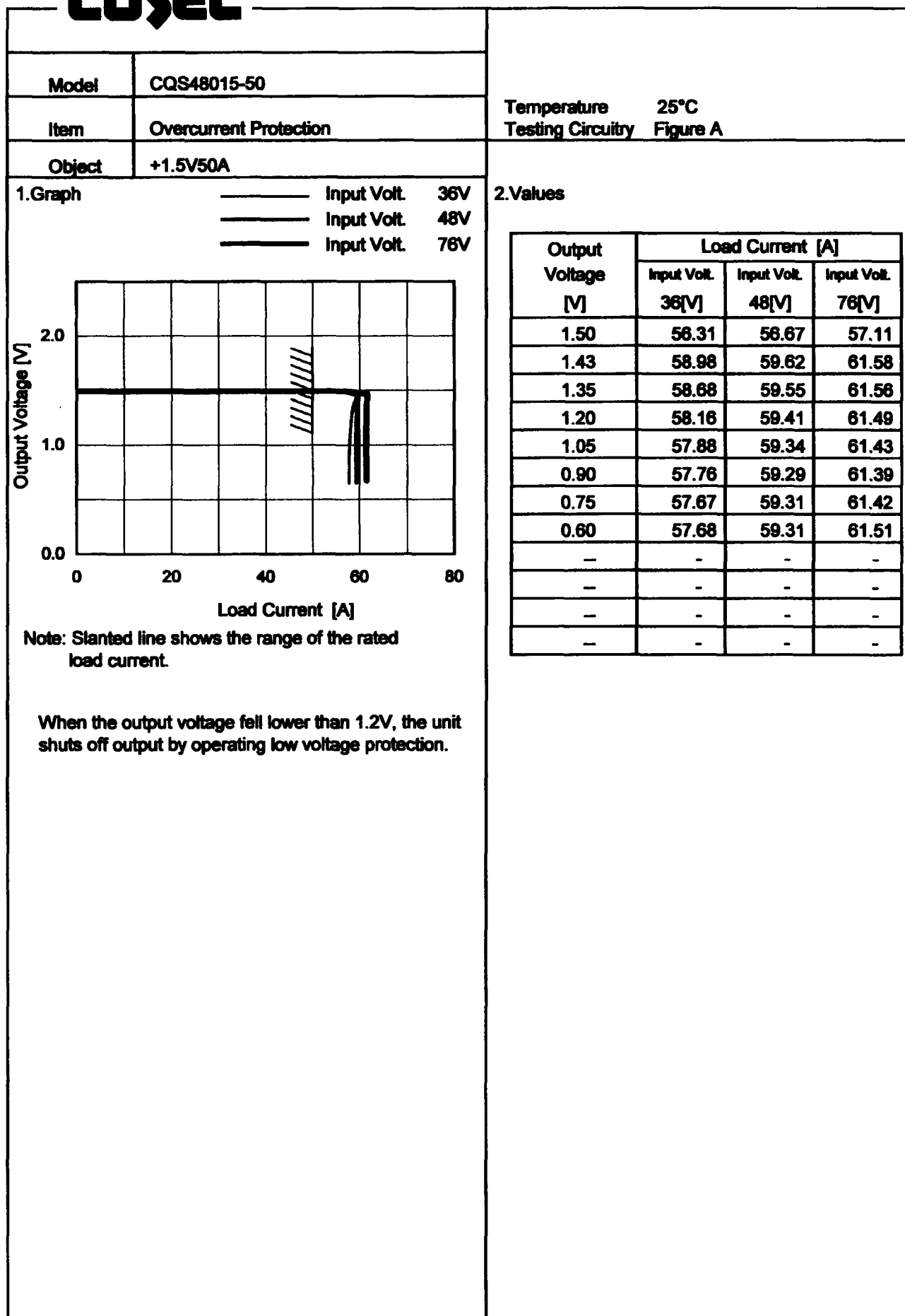
Note: Slanted line shows the range of the rated ambient temperature.

2.Values

Ambient Temperature [°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	31.5	31.5
-20	31.4	31.5
0	31.4	31.5
25	31.3	31.5
40	31.3	31.5
60	31.3	31.5
85	31.3	31.4
—	-	-
—	-	-
—	-	-
—	-	-

- 16 -

BC-10148

COSEL

COSEL

Model		CQS48015-50	
Item		Overvoltage Protection	
Object		+1.5V50A	

1.Graph

—△—

Input Volt.

36V

---□---

Input Volt.

48V

-·-○-·-

Input Volt.

76V

Operating Point [V]

COSEL

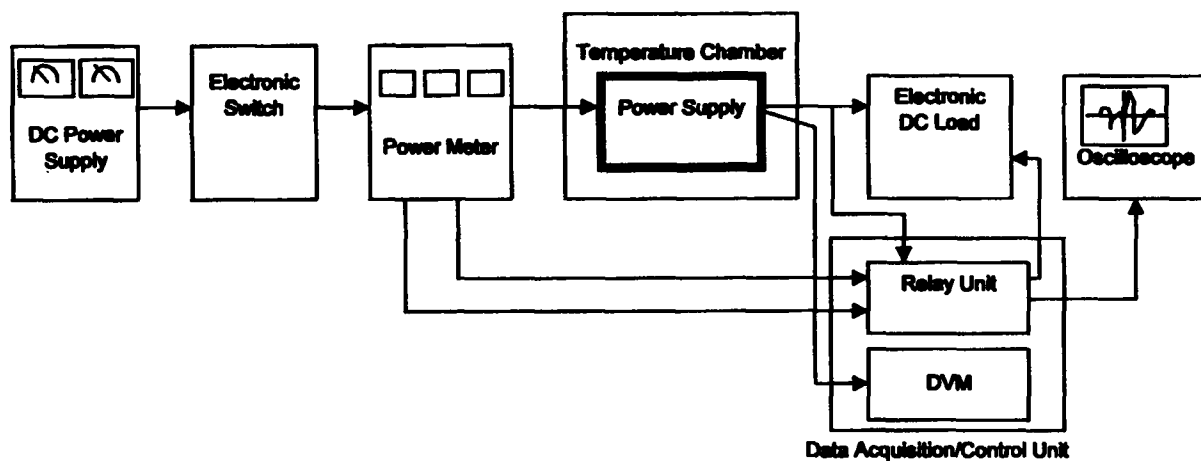


Figure A

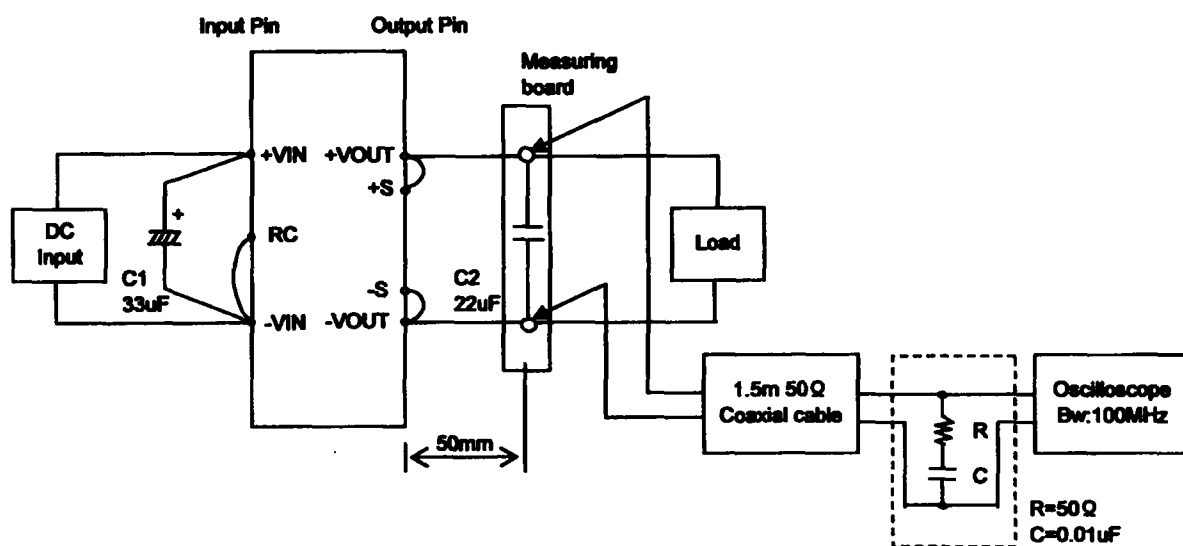


Figure B