

# TEST DATA OF MUW64815

Regulated DC Power Supply  
May.8. 2025

Approved by : Kenichi Tsukada  
Design Manager

Prepared by : Yoshihiko Saeki  
Design Engineer

**COSEL CO.,LTD.**

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Model		MUW64815	Temperature		25°C																																															
Item		Input Current (by Load Current)	Testing Circuitry		Figure A																																															
Object																																																				
1.Graph		<div><div><div>—△—</div><div>Input Volt.</div><div>36V</div></div><div><div>---□---</div><div>Input Volt.</div><div>48V</div></div><div><div>---○---</div><div>Input Volt.</div><div>76V</div></div></div> <table><thead><tr><th>Load Ratio [%]</th><th>Input Current [A] (36V)</th><th>Input Current [A] (48V)</th><th>Input Current [A] (76V)</th></tr></thead><tbody><tr><td>0</td><td>0.007</td><td>0.006</td><td>0.004</td></tr><tr><td>20</td><td>0.043</td><td>0.034</td><td>0.022</td></tr><tr><td>40</td><td>0.078</td><td>0.060</td><td>0.039</td></tr><tr><td>60</td><td>0.115</td><td>0.087</td><td>0.057</td></tr><tr><td>80</td><td>0.152</td><td>0.114</td><td>0.074</td></tr><tr><td>100</td><td>0.189</td><td>0.142</td><td>0.091</td></tr><tr><td>110</td><td>0.208</td><td>0.156</td><td>0.099</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>	Load Ratio [%]	Input Current [A] (36V)	Input Current [A] (48V)	Input Current [A] (76V)	0	0.007	0.006	0.004	20	0.043	0.034	0.022	40	0.078	0.060	0.039	60	0.115	0.087	0.057	80	0.152	0.114	0.074	100	0.189	0.142	0.091	110	0.208	0.156	0.099	--	-	-	-	--	-	-	-	--	-	-	-	--	-	-	-	2.Values	
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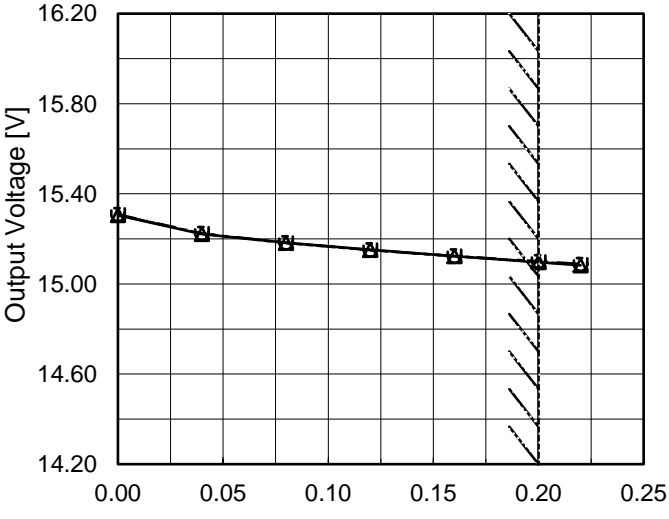
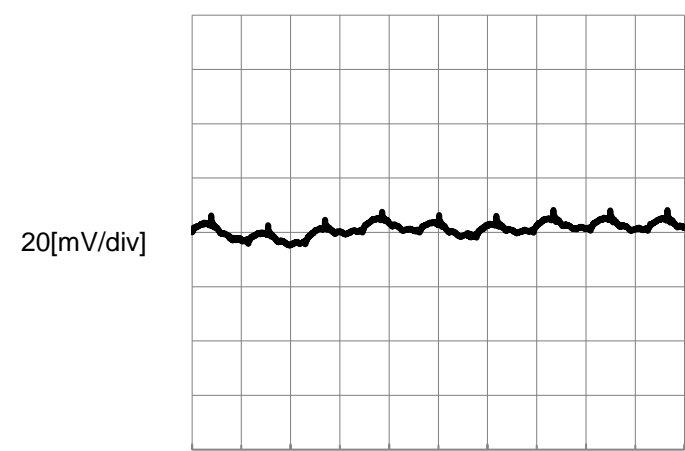
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Model		MUW64815	Temperature		25°C
Item		Line Regulation	Testing Circuitry		Figure A
Object		+15V0.2A			
1.Graph			2.Values		
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0.12	15.152	15.150	15.151																																																			
0.16	15.123	15.123	15.124																																																			
0.20	15.096	15.098	15.100																																																			
0.22	15.083	15.086	15.089																																																			
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Item	Ripple-Noise	Temperature	25°C																																																			
Object	+15V0.2A	Testing Circuitry	Figure B																																																			
1.Graph																																																						
<div><div><div>Input Voltage</div><div>48V</div></div><div><div>Load</div><div>100%</div></div></div>  <p>-15V: Rated Load Current</p>																																																						

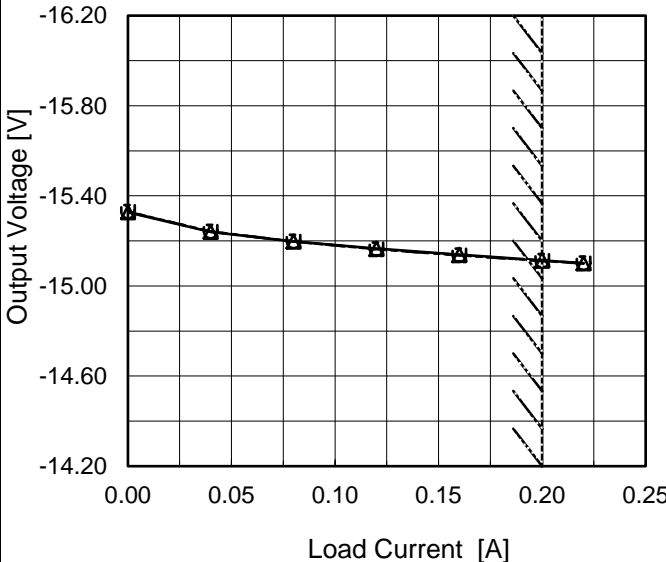
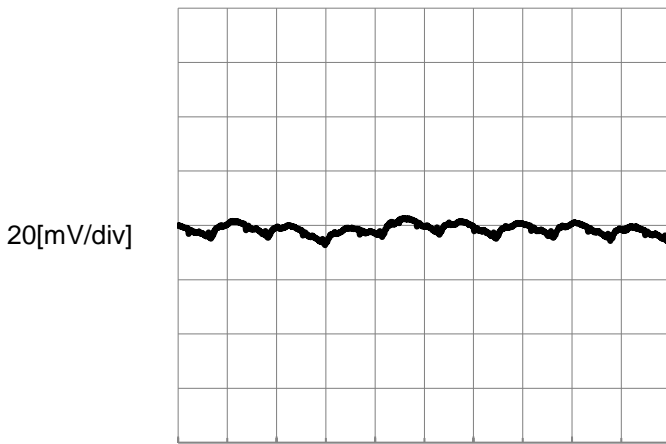
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**COSEL**

Model	MUW64815																																																					
Item	Load Regulation	Temperature	25°C																																																			
Object	-15V0.2A	Testing Circuitry	Figure A																																																			
1.Graph		2.Values																																																				
<div><div><div>—△—</div><div>Input Volt.</div><div>36V</div></div><div><div>---□---</div><div>Input Volt.</div><div>48V</div></div><div><div>---○---</div><div>Input Volt.</div><div>76V</div></div></div>  <p>Note: Slanted line shows the range of the rated load current.</p>		<table><tr><th rowspan="2">Load Current [A]</th><th colspan="3">Output Voltage [V]</th></tr><tr><th>Input Volt. 36[V]</th><th>Input Volt. 48[V]</th><th>Input Volt. 76[V]</th></tr><tr><td>0.00</td><td>-15.327</td><td>-15.329</td><td>-15.329</td></tr><tr><td>0.04</td><td>-15.240</td><td>-15.242</td><td>-15.241</td></tr><tr><td>0.08</td><td>-15.197</td><td>-15.197</td><td>-15.197</td></tr><tr><td>0.12</td><td>-15.166</td><td>-15.164</td><td>-15.163</td></tr><tr><td>0.16</td><td>-15.139</td><td>-15.137</td><td>-15.136</td></tr><tr><td>0.20</td><td>-15.113</td><td>-15.112</td><td>-15.111</td></tr><tr><td>0.22</td><td>-15.101</td><td>-15.101</td><td>-15.100</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></table> <p>+15V: Rated Load Current</p>		Load Current [A]	Output Voltage [V]			Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]	0.00	-15.327	-15.329	-15.329	0.04	-15.240	-15.242	-15.241	0.08	-15.197	-15.197	-15.197	0.12	-15.166	-15.164	-15.163	0.16	-15.139	-15.137	-15.136	0.20	-15.113	-15.112	-15.111	0.22	-15.101	-15.101	-15.100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Load Current [A]	Output Voltage [V]																																																					
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Item	Ripple-Noise	Temperature	25°C																																																			
Object	-15V0.2A	Testing Circuitry	Figure B																																																			
1.Graph																																																						
<div><div><div>Input Voltage</div><div>48V</div></div><div><div>Load</div><div>100%</div></div></div>  <p>+15V: Rated Load Current</p>																																																						

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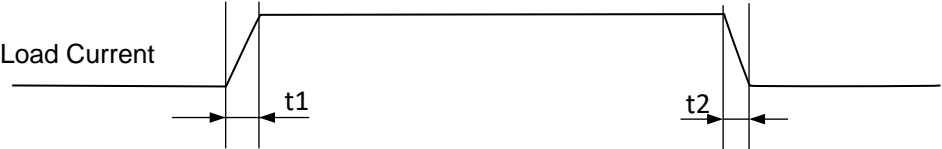
Model		MUW64815	Temperature     25°C Testing Circuitry   Figure A
Item		Dynamic Load Response	
Object		+15V0.2A	

Input Volt.     48 V

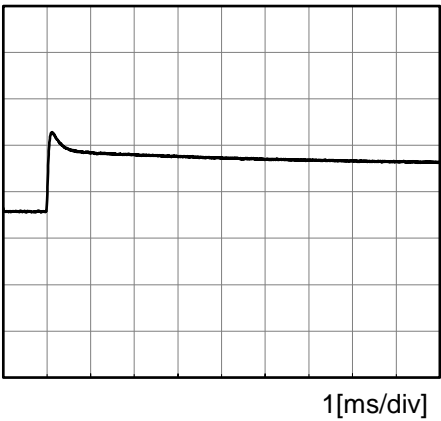
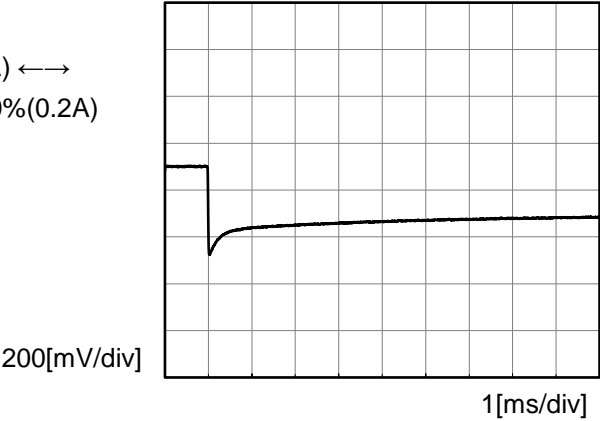
-15V:Rated Load Current

Response. t1=t2=50μs. Typ

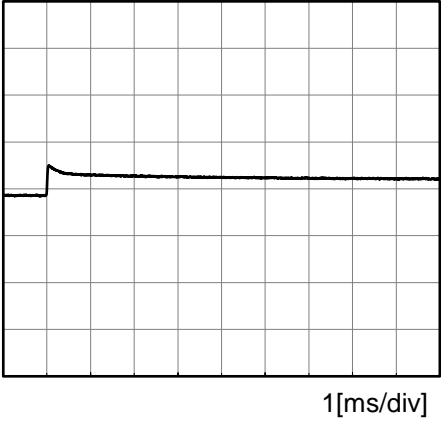
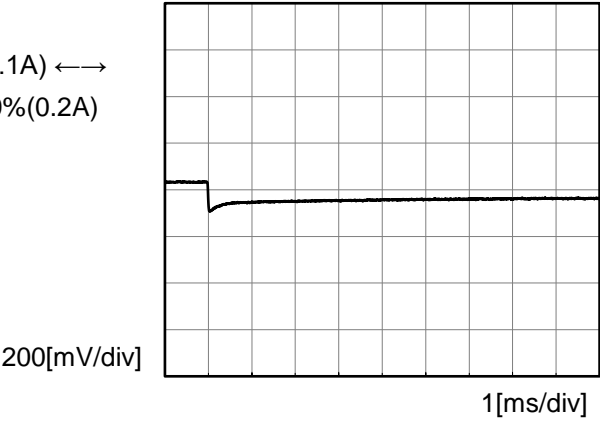
Cycle     100 ms



Load 0%(0A) ↔  
Load 100%(0.2A)



Load 50%(0.1A) ↔  
Load 100%(0.2A)





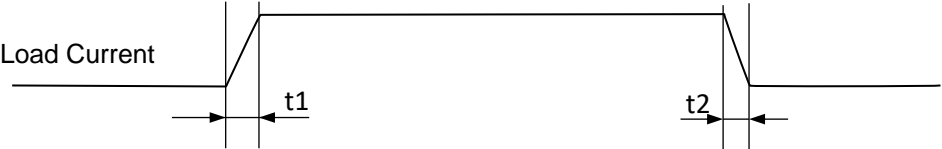
Model		MUW64815	Temperature     25°C Testing Circuitry   Figure A
Item		Dynamic Load Response	
Object		-15V0.2A	

Input Volt.     48 V

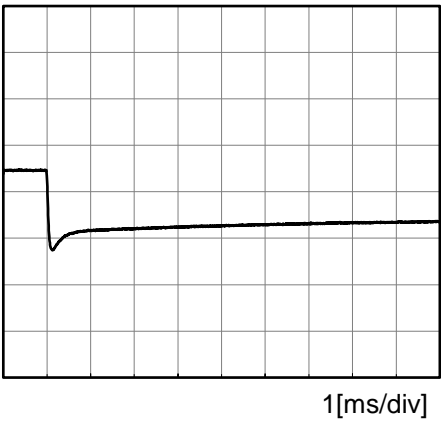
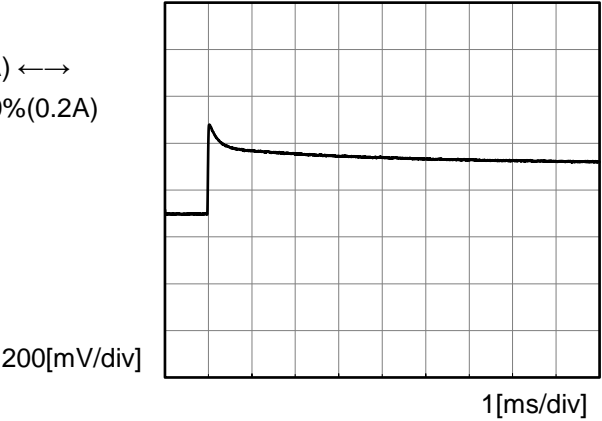
+15V:Rated Load Current

Response. t1=t2=50μs. Typ

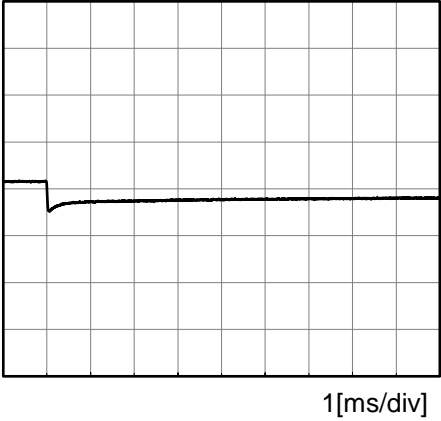
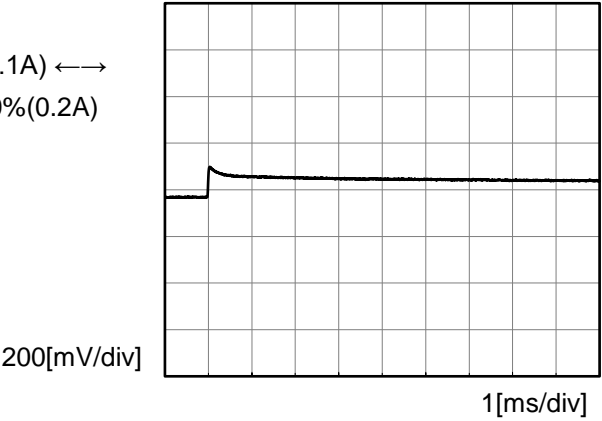
Cycle     100 ms



Load 0%(0A) ↔  
Load 100%(0.2A)



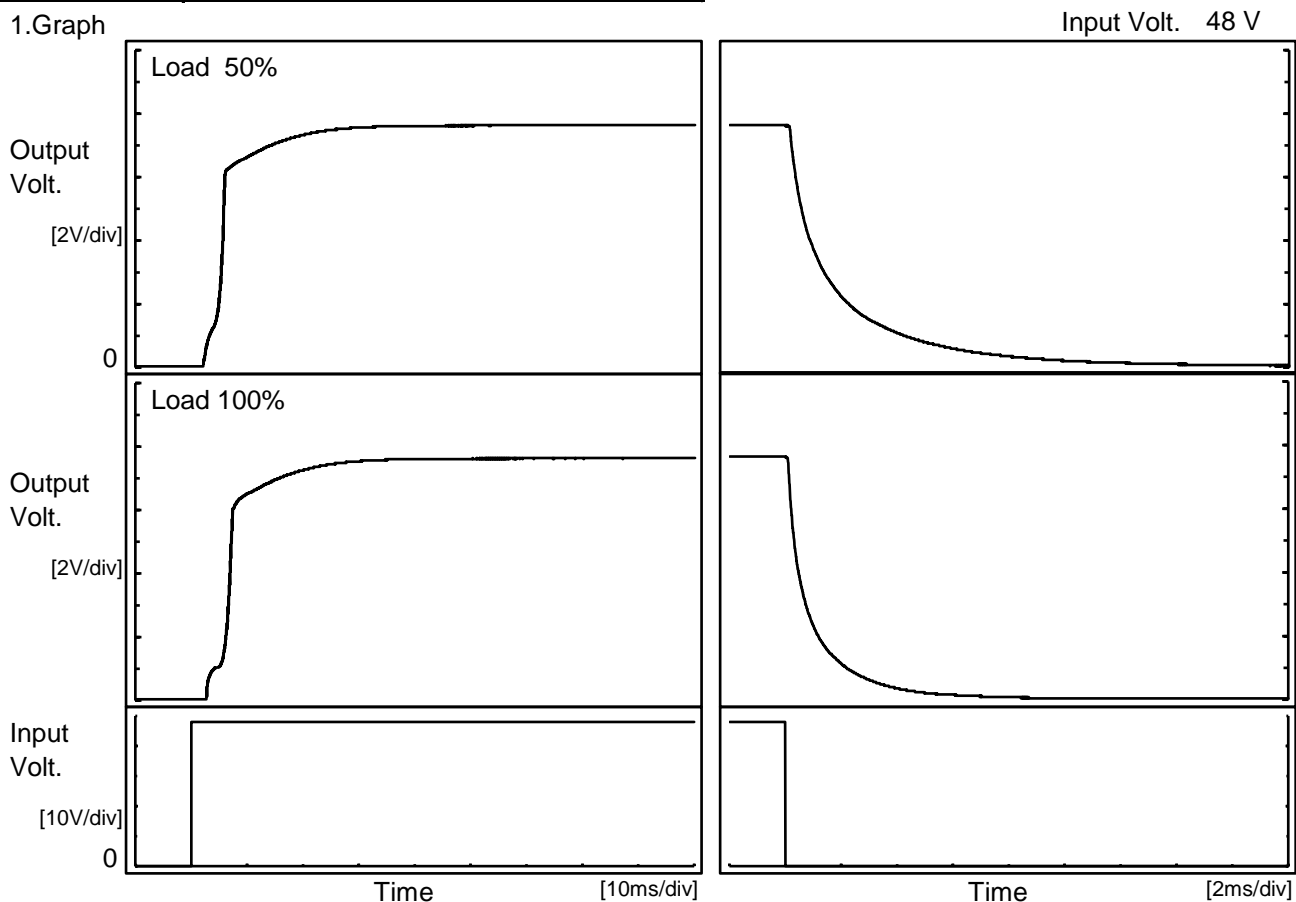
Load 50%(0.1A) ↔  
Load 100%(0.2A)



**COSEL**

Model	MUW64815	Temperature 25°C Testing Circuitry Figure A
Item	Rise and Fall Time	
Object	+15V0.2A	

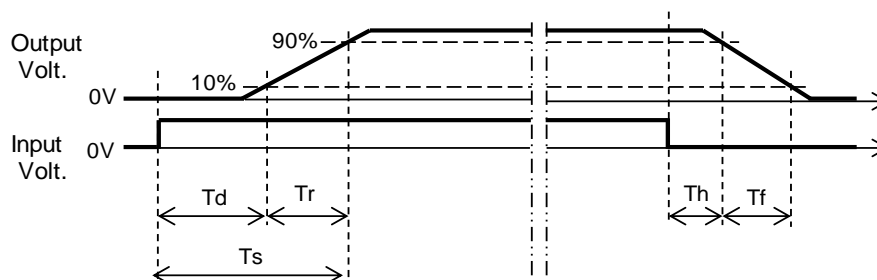
## 1.Graph



-15V: Load Current is same as +15V

## 2.Values

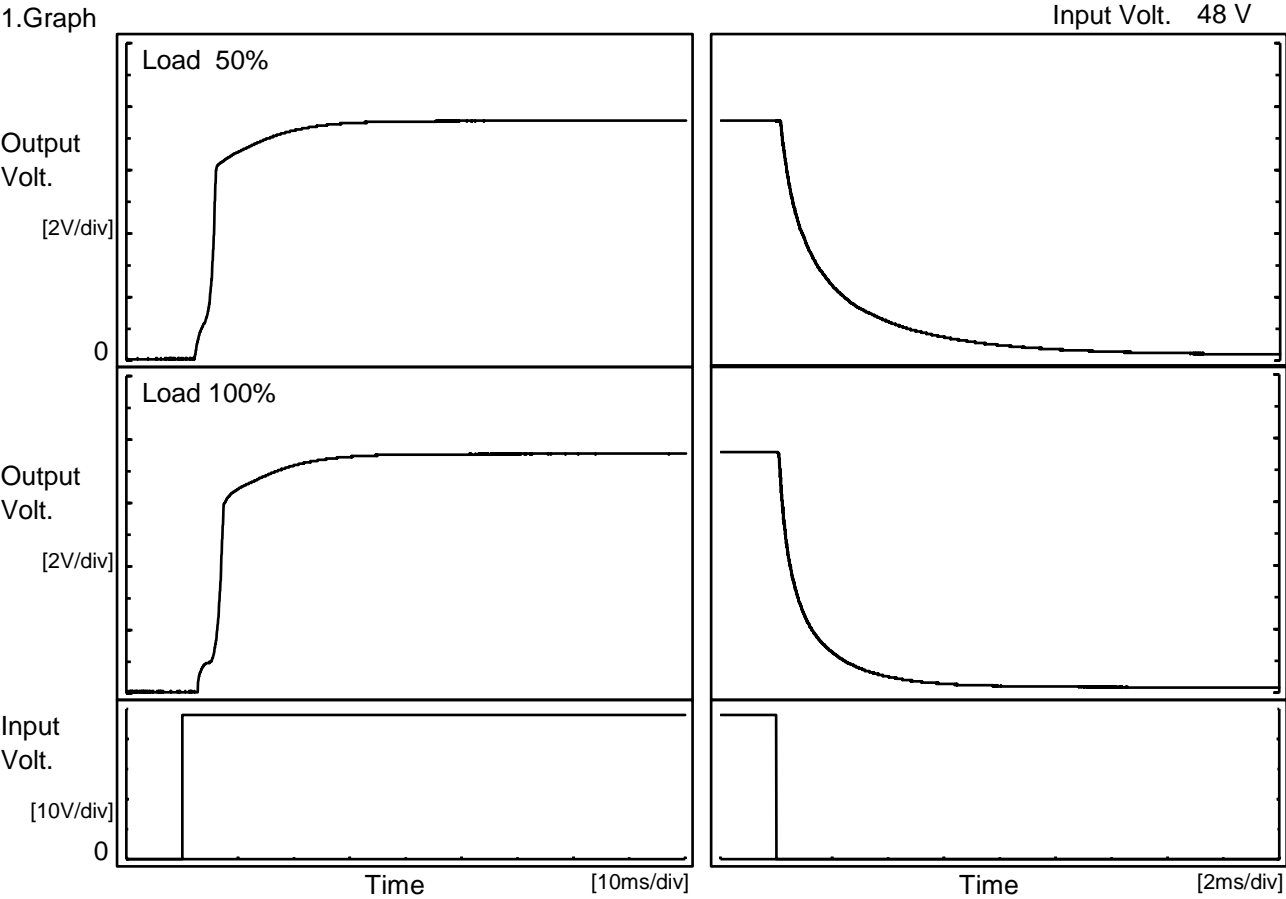
		[ms]				
Load	Time	Td	Tr	Ts	Th	Tf
50 %		2.9	8.7	11.6	0.3	4.8
100 %		3.3	9.6	12.9	0.1	2.5





Model		MUW64815	Temperature     25°C Testing Circuitry   Figure A
Item		Rise and Fall Time	
Object		-15V0.2A	

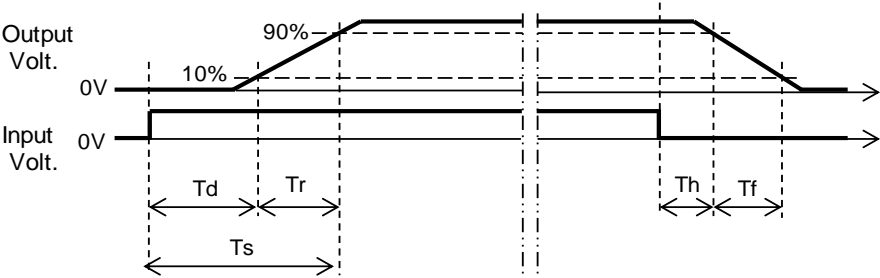
1.Graph



+15V:Load Current is same as -15V

2.Values

		[ms]				
Load	Time	Td	Tr	Ts	Th	Tf
50 %		3.0	9.4	12.4	0.2	5.5
100 %		3.5	10.3	13.8	0.1	2.8



**COSEL**

Model	MUW64815																																																									
Item	Overcurrent Protection	Temperature	25°C																																																							
Object	+15V0.2A	Testing Circuitry	Figure A																																																							
1.Graph		2.Values																																																								
<div><div><div></div>Input Volt. 36V</div><div><div></div>Input Volt. 48V</div><div><div></div>Input Volt. 76V</div></div>		<table><tr><th rowspan="2">Output Voltage [V]</th><th colspan="3">Load Current [A]</th></tr><tr><th>Input Volt. 36[V]</th><th>Input Volt. 48[V]</th><th>Input Volt. 76[V]</th></tr><tr><td>14.25</td><td>0.38</td><td>0.40</td><td>0.40</td></tr><tr><td>13.50</td><td>0.40</td><td>0.42</td><td>0.42</td></tr><tr><td>12.00</td><td>0.44</td><td>0.47</td><td>0.47</td></tr><tr><td>10.50</td><td>0.50</td><td>0.53</td><td>0.53</td></tr><tr><td>9.00</td><td>0.56</td><td>0.60</td><td>0.60</td></tr><tr><td>7.50</td><td>0.60</td><td>0.62</td><td>0.58</td></tr><tr><td>6.00</td><td>0.59</td><td>0.59</td><td>0.54</td></tr><tr><td>4.50</td><td>0.58</td><td>0.58</td><td>0.52</td></tr><tr><td>3.00</td><td>0.59</td><td>0.57</td><td>0.50</td></tr><tr><td>1.50</td><td>0.62</td><td>0.60</td><td>0.51</td></tr><tr><td>0.00</td><td>0.72</td><td>0.70</td><td>0.62</td></tr><tr><td>--</td><td>-</td><td>-</td><td>-</td></tr></table> <div>-15V : Rated Load Current</div>		Output Voltage [V]	Load Current [A]			Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]	14.25	0.38	0.40	0.40	13.50	0.40	0.42	0.42	12.00	0.44	0.47	0.47	10.50	0.50	0.53	0.53	9.00	0.56	0.60	0.60	7.50	0.60	0.62	0.58	6.00	0.59	0.59	0.54	4.50	0.58	0.58	0.52	3.00	0.59	0.57	0.50	1.50	0.62	0.60	0.51	0.00	0.72	0.70	0.62	--	-	-	-
Output Voltage [V]	Load Current [A]																																																									
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Output Voltage [V]	Load Current [A]																																																									
	Input Volt. 36[V]	Input Volt. 48[V]	Input Volt. 76[V]																																																							
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Note: Slanted line shows the range of the rated load current.																																																										

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		Testing Circuitry Figure A
Model	MUW64815	
Item	Ambient Temperature Drift	
Object	+15V0.2A	

## 1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 36V	Input Volt. 48V	Input Volt. 76V
-40	14.983	14.985	14.988
25	15.096	15.098	15.099
85	15.127	15.129	15.130

-15V: Load Current is same as +15V

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+15V0.2A	

## 1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	28.1	28.1
25	28.2	28.2
85	28.3	28.3

-15V: Load Current is same as +15V



		Testing Circuitry Figure A
Model	MUW64815	
Item	Ambient Temperature Drift	
Object	-15V0.2A	

## 1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 36V	Input Volt. 48V	Input Volt. 76V
-40	-15.002	-15.001	-15.000
25	-15.113	-15.112	-15.111
85	-15.146	-15.144	-15.142

+15V: Load Current is same as -15V

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	-15V0.2A	

## 1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	28.1	28.1
25	28.2	28.2
85	28.3	28.3

+15V: Load Current is same as -15V

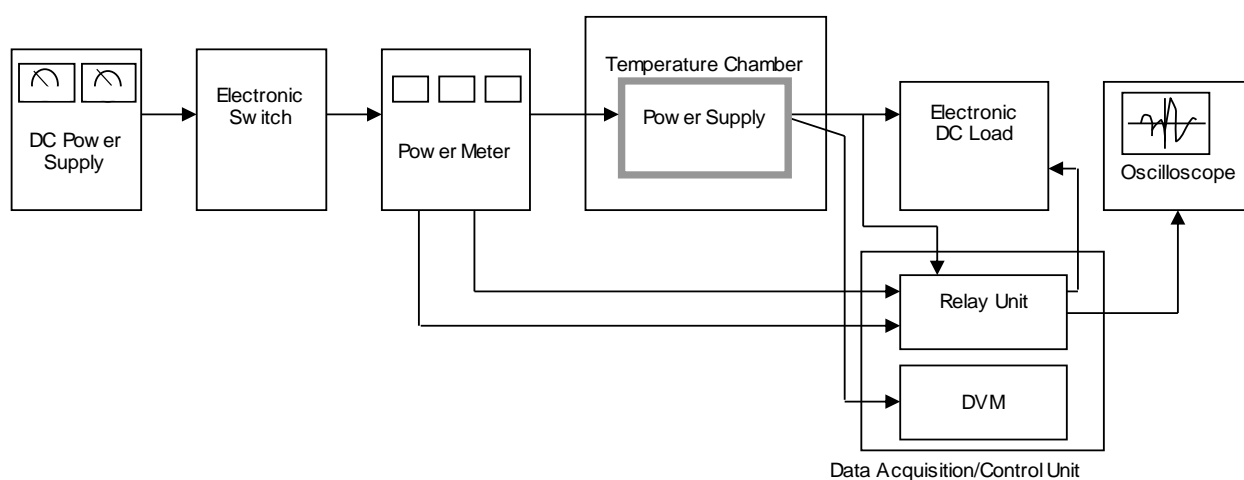


Figure A

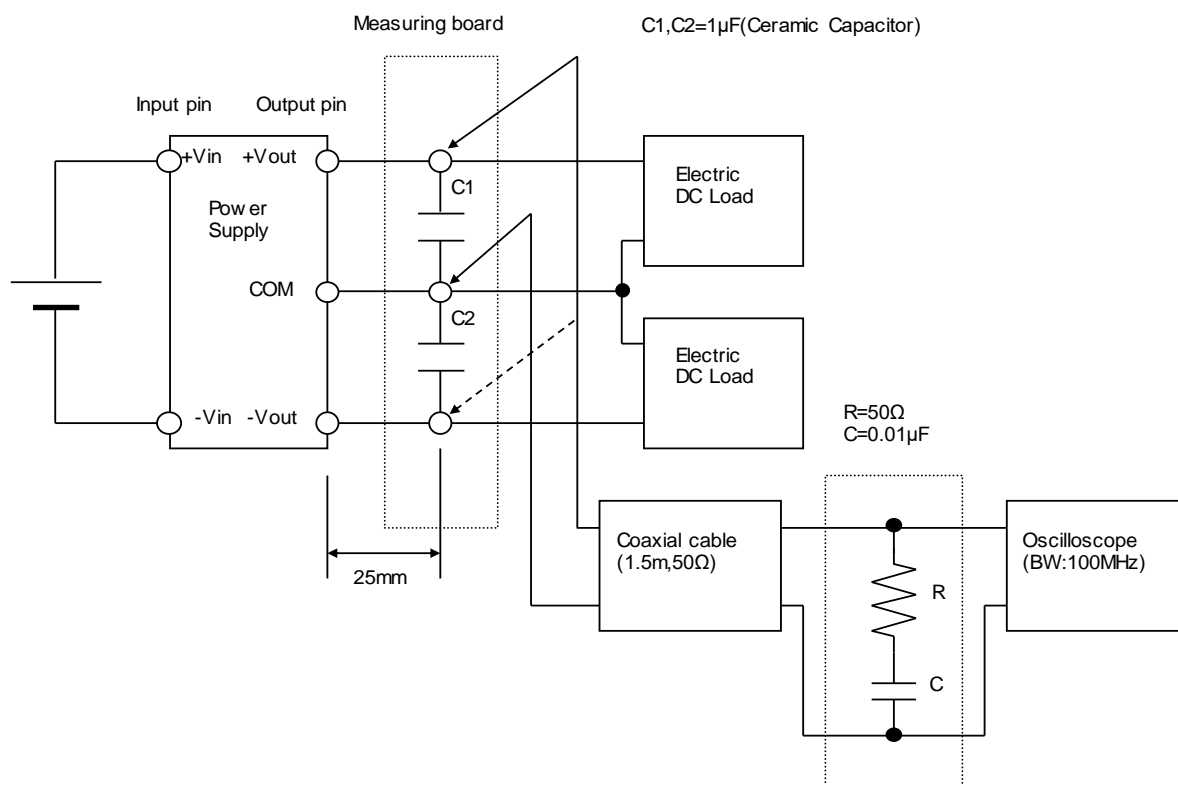


Figure B