



TEST DATA OF DCS1400B24

Regulated DC Power Supply
April 4, 2025

Approved by : _____ Junichi Hatagishi

Design Manager

Prepared by : _____ Yeongjun Lee

Design Engineer

COSEL CO.,LTD.



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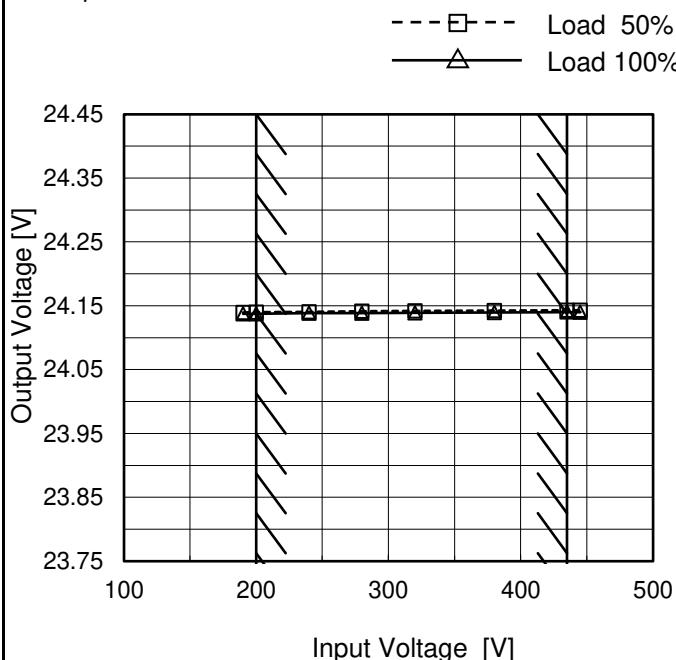
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Model	DCS1400B24
Item	Line Regulation
Object	+24V58.5A

 Temperature 25°C
 Testing Circuitry Figure A

1.Graph



2.Values

Input Voltage [V]	Output Voltage [V]	
	Load 50%	Load 100%
190	24.140	24.137
200	24.140	24.138
240	24.140	24.138
280	24.141	24.139
320	24.142	24.139
380	24.143	24.140
435	24.143	24.140
445	24.143	24.140
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Note: Slanted line shows the range of the rated input voltage.

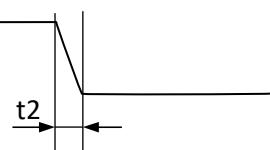
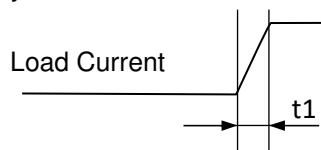
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Item	Ripple-Noise	Temperature	25°C																																																			
Object	+24V58.5A	Testing Circuitry	Figure B																																																			
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<p>Input Voltage 280V Load 100%</p>																																																						

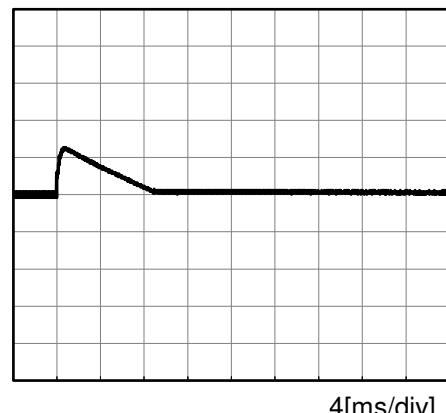
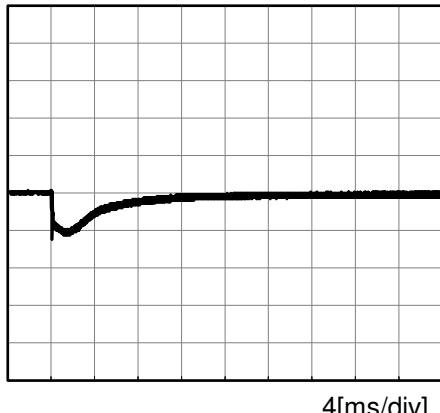
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Model	DCS1400B24	Temperature	25°C
Item	Dynamic Load Response	Testing Circuitry	Figure B
Object	+24V58.5A		

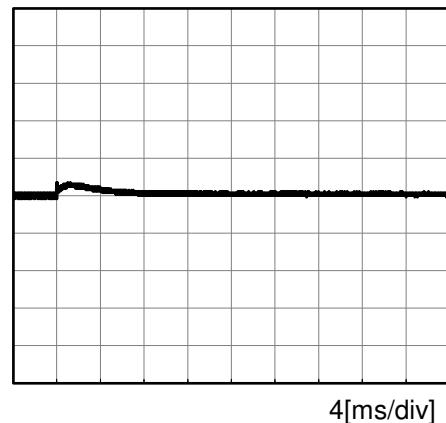
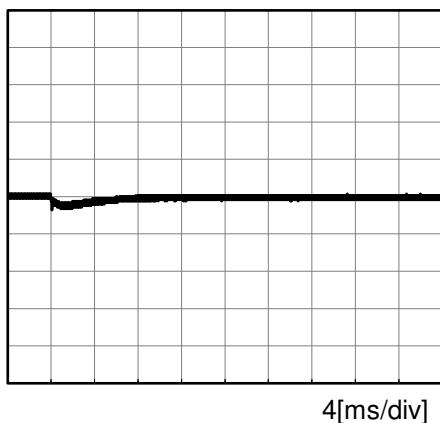
Input Volt. 280 V
 Cycle 1000 ms

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

Load 0%(0A) \longleftrightarrow
 Load 100%(58.5A)



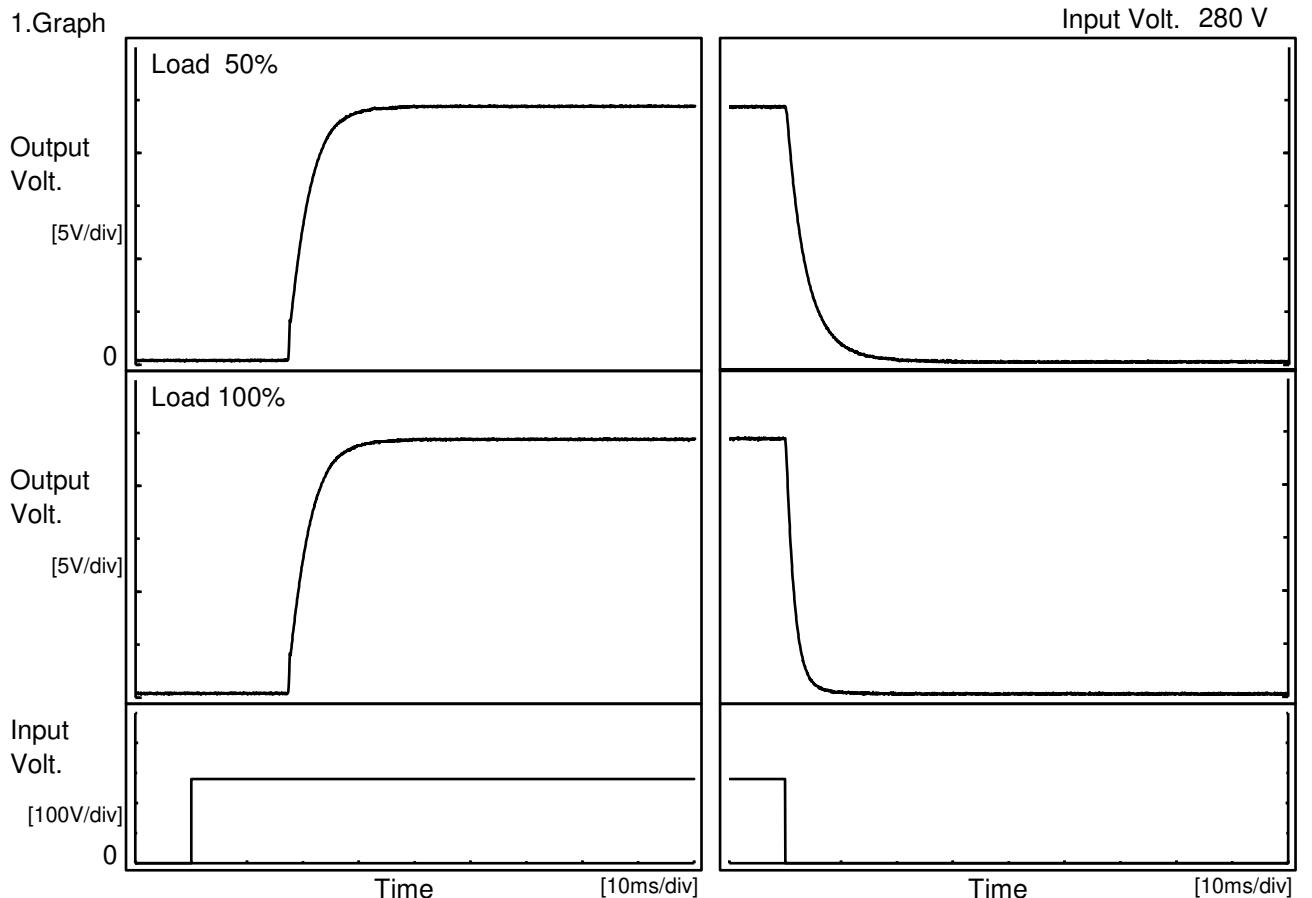
Load 50%(29.25A) \longleftrightarrow
 Load 100%(58.5A)



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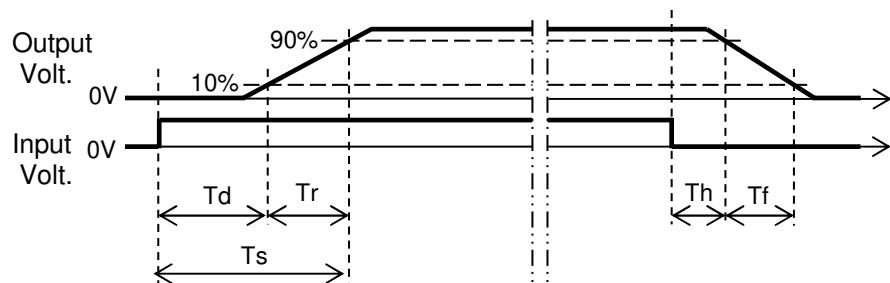
Model	DCS1400B24	Temperature	25°C
Item	Rise and Fall Time	Testing Circuitry	Figure A
Object	+24V58.5A		

1.Graph



2.Values

Load	Time	Td	Tr	Ts	Th	Tf	[ms]
50 %		17.6	7.1	24.7	0.6	8.0	
100 %		17.6	7.2	24.8	0.3	3.4	



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	Hiccup mode activates when the output voltage is from 12.0 to 0V.																																																										



Model	DCS1400B24	Testing Circuitry Figure A
Item	Ambient Temperature Drift	
Object	+24V58.5A	

1.Values

Load 100%

Ambient Temperature[°C]	Output Voltage [V]		
	Input Volt. 200V	Input Volt. 280V	Input Volt. 435V
-40	24.089	24.091	24.093
25	24.146	24.148	24.150
70	24.157	24.158	24.160

Item	Minimum Input Voltage for Regulated Output Voltage	Testing Circuitry Figure A
Object	+24V58.5A	

1.Values

Ambient Temperature[°C]	Input Voltage [V]	
	Load 50%	Load 100%
-40	168	168
25	170	171
70	171	171

Item	Overvoltage Protection	Testing Circuitry Figure A
Object	+24V58.5A	

1.Values

Load 0%

Ambient Temperature[°C]	Operating Point [V]	
	Input Volt. 200V	Input Volt. 435V
-40	30.72	30.72
25	30.78	30.78
70	30.84	30.84

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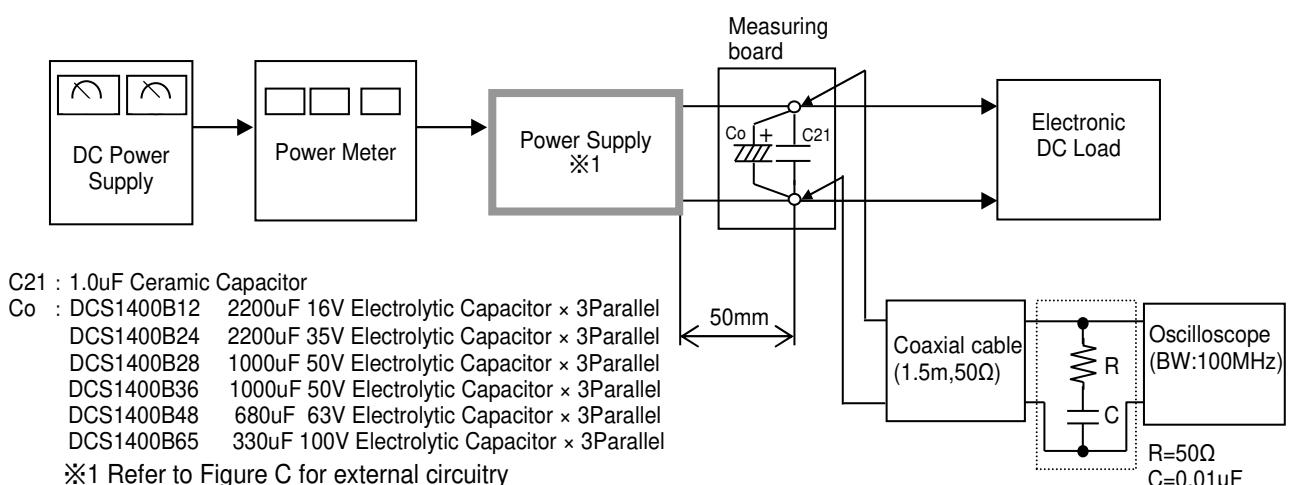
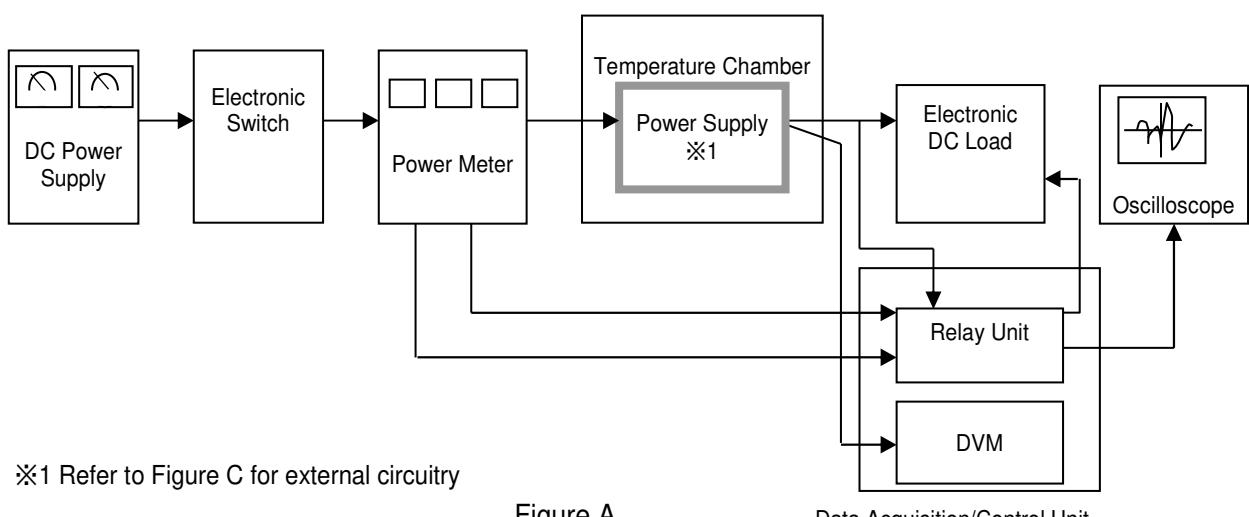
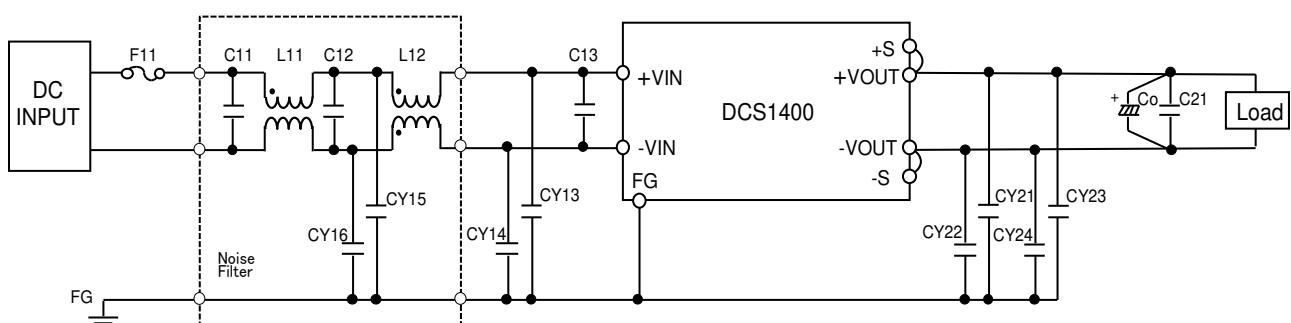


Figure B



※Other components are the same as in Figure B

F11	: 0505016
L11,L12	: SCF25XV-150-1R6A010JH
C11,C13	: 1.0uF 450V Film Capacitor
C12	: 2.2uF 450V Film Capacitor
CY13,CY14	: 2200pF 400V
CY15,CY16	: 1500pF 400V
CY21,CY22,CY23,CY24	: 0.01uF 300V (For DCS1400B65 only)

Figure C