Test Data

NSP7-100-X2S

(AC85~135V, AC170~264V And DC26.4V Battery INPUT)

NON-STOP POWER SUPPLY

Approved by : Osami Nakano

Prepared by : Yoichi Aisaka

INPUT : AC 85V ~ 135V
AC 170V ~ 264V
Battery 26.4V

OUTPUT : V1: 3.3V 6A
V2: 5V 10A (Peak 15A)
V3: 12V 1.5A (Peak 6A)
V4: -12V 0.2A
V5: 5Vs 0.72A

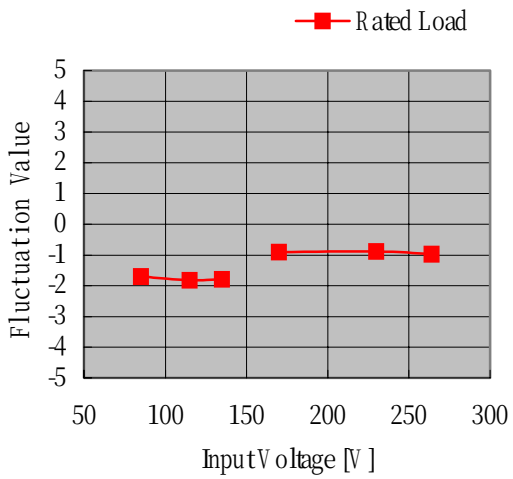
株式会社 ニプロン
Nipron.Co.,Ltd.

CONTENTS

Model	NSP7-100-X2S
Item	Line Regulation

V1：3.3V 6A

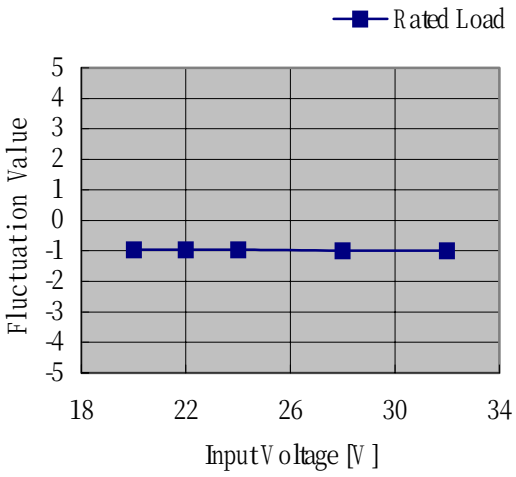
at AC Input



at AC Input

Input Voltage [V]	Output Voltage [V]	Fluctuation Value [%]
AC 85	3.244	-1.70
115	3.240	-1.82
230	3.271	-0.88
264	3.268	-0.97

at Back up by Battery



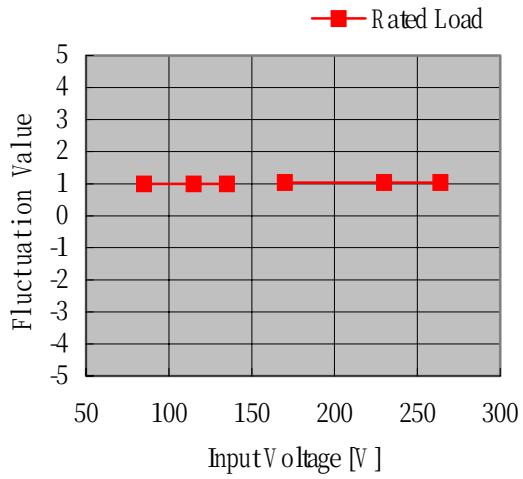
at Back up by Battery

Input Voltage [V]	Output Voltage [V]	Fluctuation Value [%]
DC 20	3.268	-0.97
24	3.268	-0.97
32	3.267	-1.00

Model	NSP7-100-X2S
Item	Line Regulation

V2：5V 10A

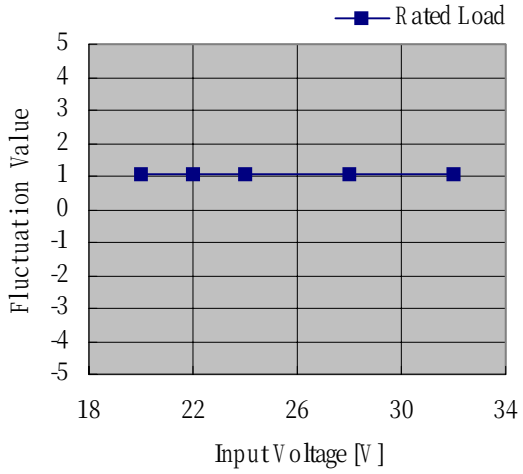
at AC Input



at AC Input

Input Voltage [V]	Output Voltage [V]	Fluctuation Value [%]
AC 85	5.050	1.00
115	5.050	1.00
230	5.052	1.04
264	5.052	1.04

at Back up by Battery



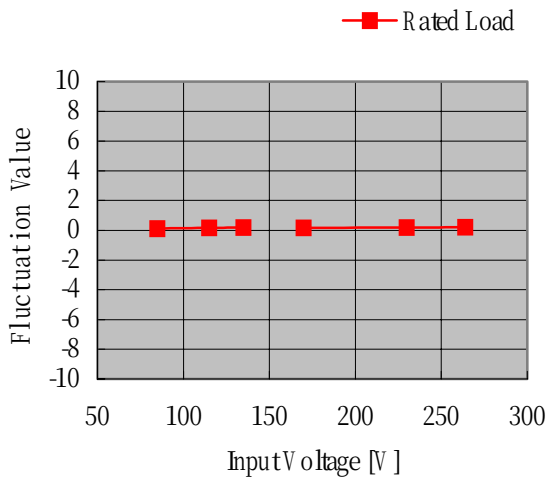
at Back up by Battery

Input Voltage [V]	Output Voltage [V]	Fluctuation Value [%]
DC 20	5.052	1.04
24	5.052	1.04
32	5.052	1.04

Model	NSP7-100-X2S
Item	Line Regulation

V3：12V 1.5A

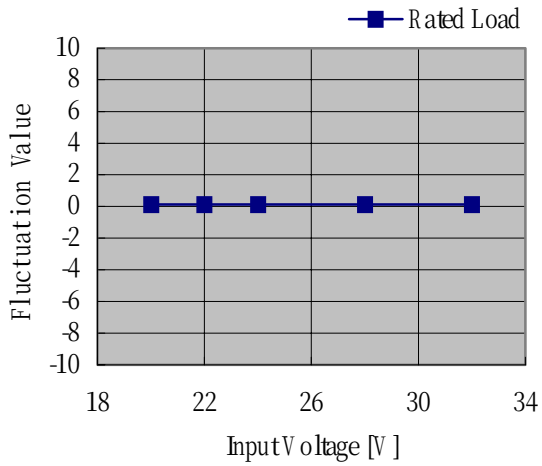
at AC Input



at AC Input

Input Voltage [V]	Output Voltage [V]	Fluctuation Value [%]
AC 85	12.015	0.13
115	12.018	0.15
230	12.023	0.19
264	12.026	0.22

at Back up by Battery



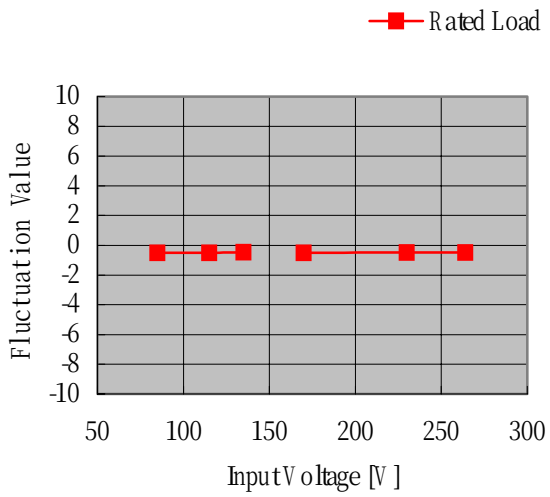
at Back up by Battery

Input Voltage [V]	Output Voltage [V]	Fluctuation Value [%]
DC 20	12.015	0.13
24	12.015	0.13
32	12.015	0.13

Model	NSP7-100-X2S
Item	Line Regulation

V4:-12V 0.2A

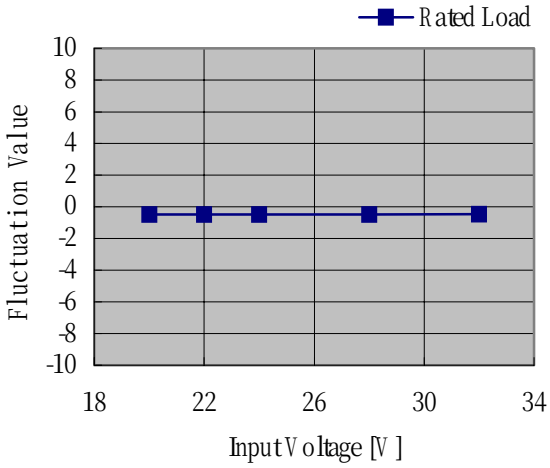
at AC Input



at AC Input

Input Voltage [V]	Output Voltage [V]	Fluctuation Value [%]
AC 85	-11.941	-0.49
115	-11.941	-0.49
230	-11.943	-0.48
264	-11.943	-0.48

at Back up by Battery



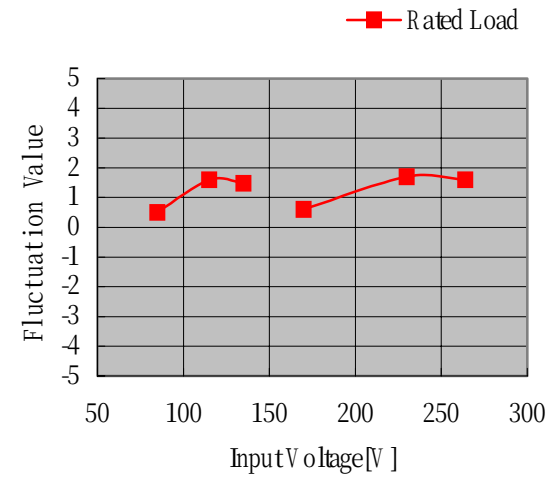
at Back up by Battery

Input Voltage [V]	Output Voltage [V]	Fluctuation Value [%]
DC 20	-11.941	-0.49
24	-11.942	-0.48
32	-11.944	-0.47

Model	NSP7-100-X2S
Item	Line Regulation

V5：5Vs 0.72A

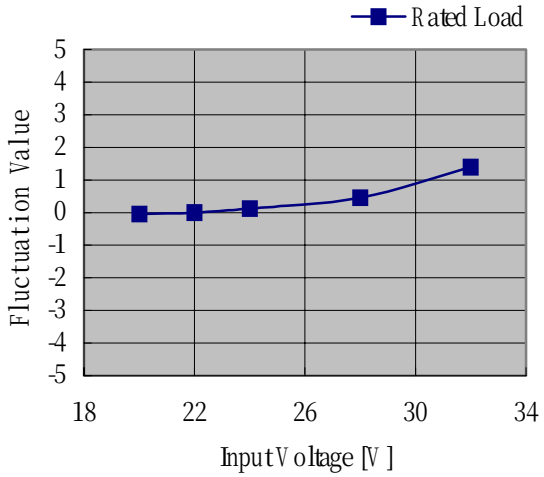
at AC Input



at AC Input

Input Voltage [V]	Output Voltage [V]	Fluctuation Value [%]
AC 85	5.025	0.50
115	5.080	1.60
230	5.085	1.70
264	5.080	1.60

at Back up by Battery

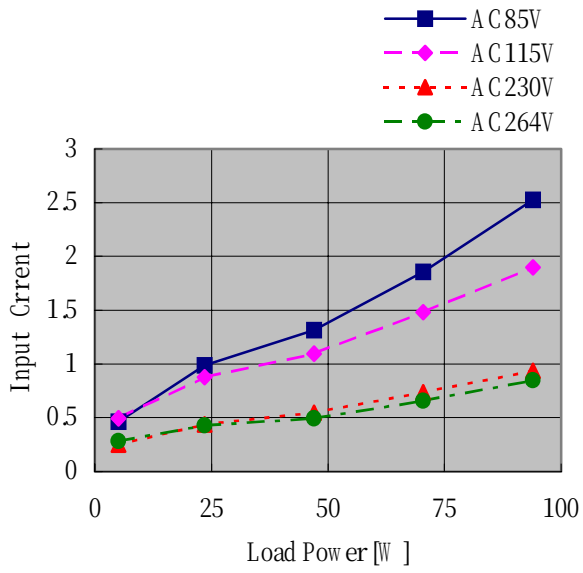


at Back up by Battery

Input Voltage [V]	Output Voltage [V]	Fluctuation Value [%]
DC 20	4.998	-0.04
24	5.006	0.12
32	5.070	1.40

Model	NSP7-100-X2S
Item	Input Current (by Load Power)

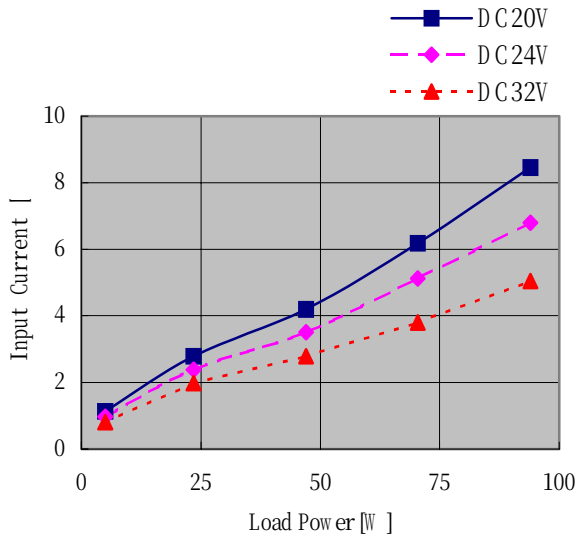
at AC Input



at AC Input

Load Power [W]	Input Current [A rms]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
5	0.46	0.49	0.25	0.28
23.5	0.99	0.88	0.44	0.43
47	1.31	1.10	0.55	0.50
70.4	1.86	1.48	0.74	0.66
94	2.53	1.90	0.94	0.85

at Back up by Battery

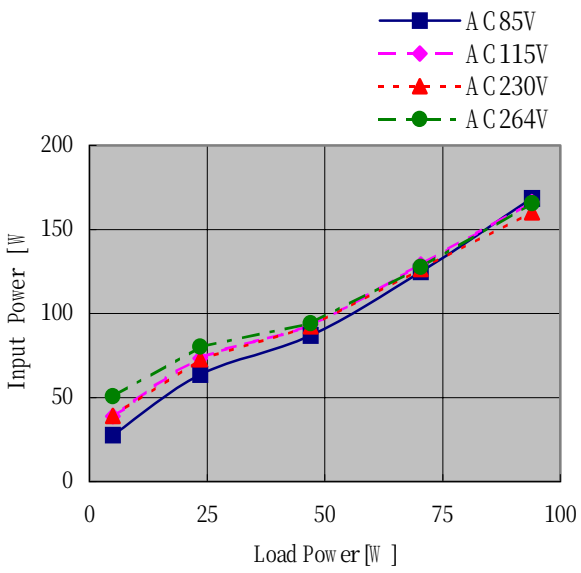


at Back up by Battery

Load Power [W]	Input Current [A]		
	Input Voltage DC20V	Input Voltage DC24V	Input Voltage DC32V
5	1.13	0.97	0.81
23.5	2.79	2.39	1.98
47	4.20	3.51	2.79
70.4	6.18	5.13	3.80
94	8.45	6.79	5.05

Model	NSP7-100-X2S
Item	Input Power (by Load Power)

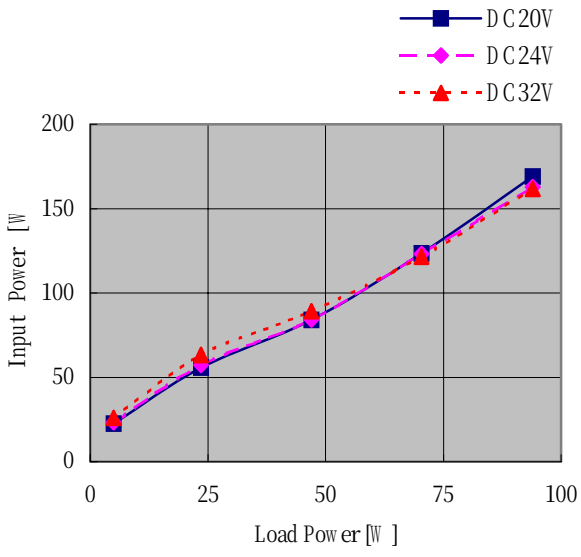
at AC Input



at AC Input

Load Power [W]	Input Power [W]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
5	27.69	38.82	39.12	50.61
23.5	63.75	73.28	72.74	80.23
47	86.96	93.45	92.46	94.16
70.4	124.94	129.26	126.52	127.59
94	168.48	166.41	160.28	165.44

at Back up by Battery

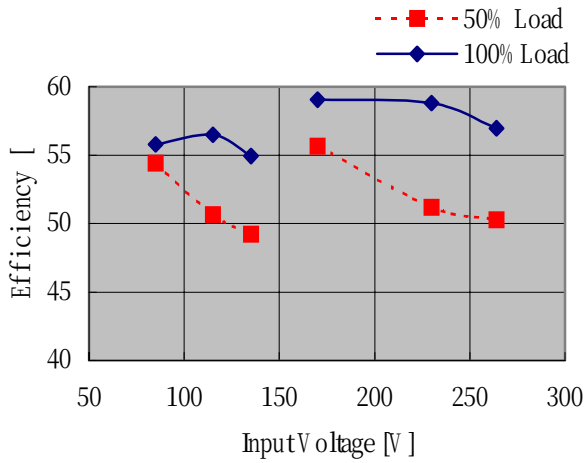


at Back up by Battery

Load Power [W]	Input Power [W]		
	Input Voltage DC20V	Input Voltage DC24V	Input Voltage DC32V
5	22.60	23.28	25.92
23.5	55.80	57.36	63.36
47	84.00	84.24	89.28
70.4	123.60	123.12	121.60
94	169.00	162.96	161.60

Model	NSP7-100-X2S
Item	Efficiency (by Input Voltage)

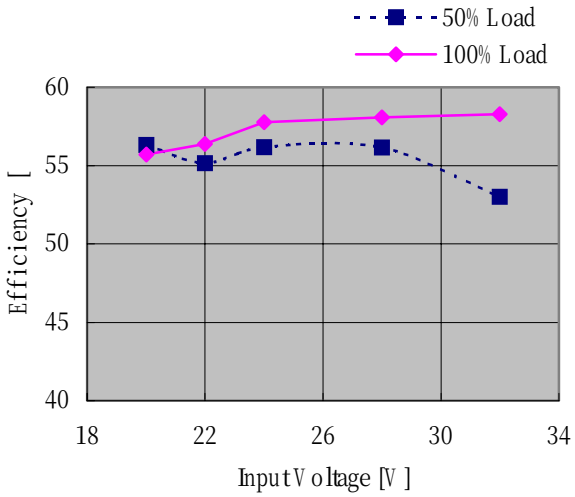
at AC Input



at AC Input

Input Voltage [V]	Efficiency [%]	
	50% Load	100% Load
85	54.42	55.79
115	50.66	56.49
230	51.20	58.79
264	50.28	56.95

at Back up by Battery

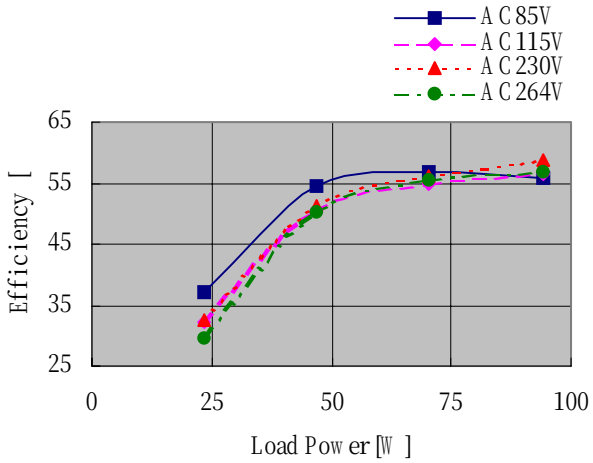


at Back up by Battery

Input Voltage [V]	Efficiency [%]	
	50% Load	100% Load
20	56.32	55.70
24	56.17	57.77
32	53.01	58.28

Model	NSP7-100-X2S
Item	Efficiency (by Load Power)

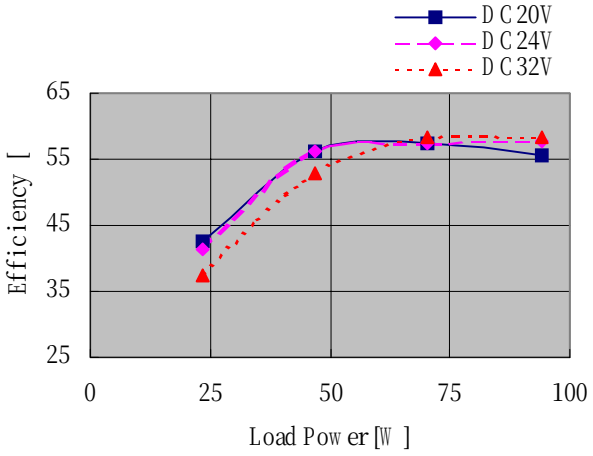
at AC Input



at AC Input

Load Power [W]	Efficiency [%]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
23.5	37.18	32.36	32.60	29.56
47	54.42	50.66	51.20	50.28
70.4	56.72	54.84	56.03	55.57
94	55.79	56.49	58.79	56.95

at Back up by Battery

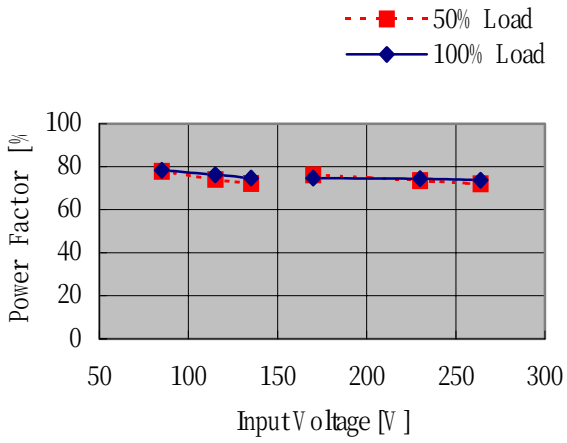


at Back up by Battery

Load Power [W]	Efficiency [%]		
	Input Voltage DC20V	Input Voltage DC24V	Input Voltage DC27V
23.5	42.47	41.32	37.40
47	56.32	56.17	53.01
70.4	57.32	57.54	58.27
94	55.70	57.77	58.28

Model	NSP7-100-X2S
Item	Power Factor

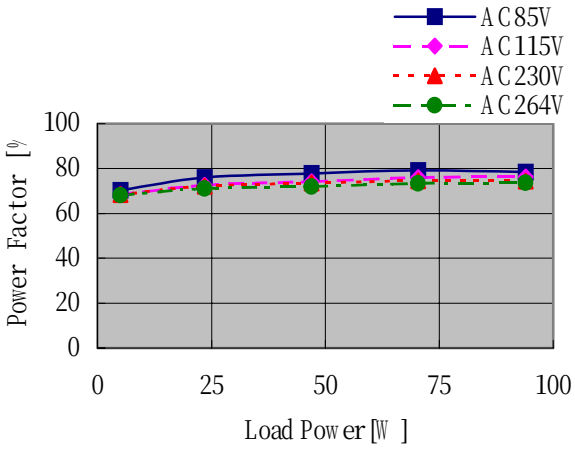
at AC Input



at AC Input

Input Voltage [V]	Power Factor [%]	
	50%Load	100% Load
85	77.85	78.39
115	74.12	76.20
230	73.56	74.37
264	71.92	73.73

at AC Input

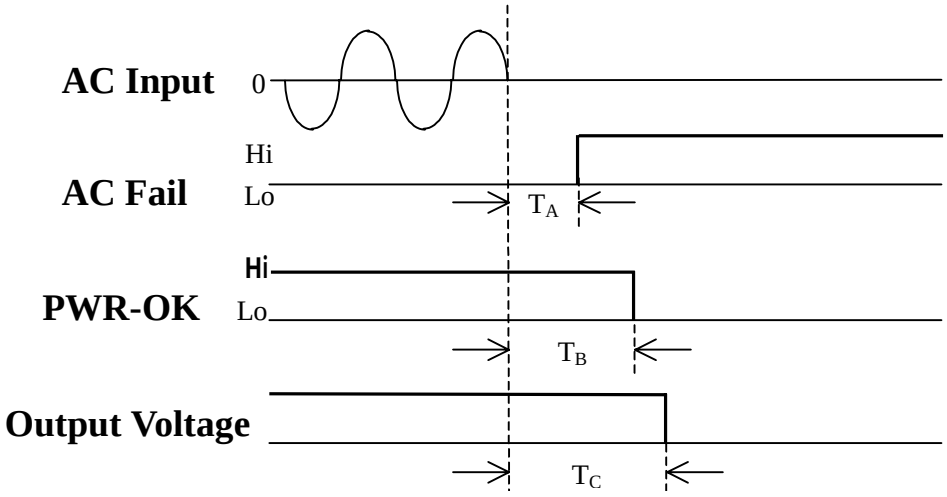


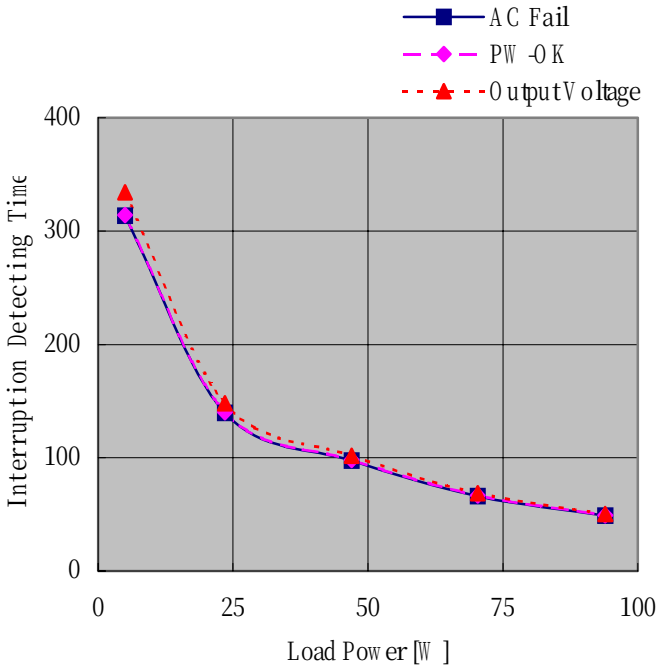
at AC Input

Load Power [W]	Power Factor [%]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
23.5	75.94	72.58	72.17	71.02
47	77.85	74.12	73.56	71.92
70.4	79.11	75.88	74.64	73.33
94	78.39	76.20	74.37	73.73

Model	NSP7-100-X2S	
Item	Instantaneous Interruption Compensation (by Load Power)	

at AC Input (85V / 100V / 240V / 264V)
AC Unit Only (without Non-Stop Unit)



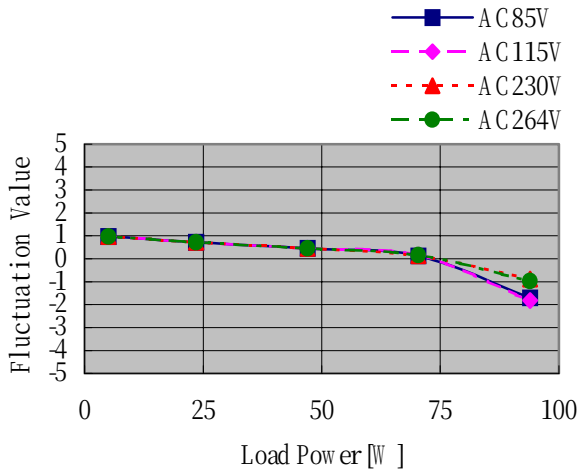


Load Power [W]	Interruption Detecting Time (ms)		
	AC Fail T_A	PWR-OK T_B	DC Output T_C
5	313.58	314.12	334.28
23.5	139.72	140.26	148.10
47	97.51	98.05	101.92
70.4	66.18	66.71	68.84
94	48.91	49.44	50.53

Model	NSP7-100-X2S
Item	Load Regulation

V1：3.3V 6A

at AC Input



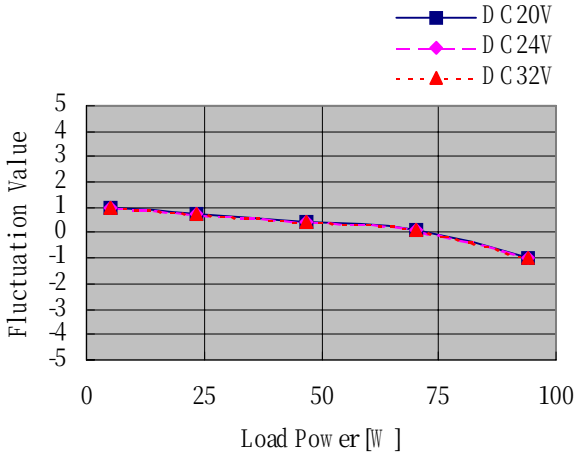
at AC Input

Load Power [W]	Fluctuation Value [%]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
5	0.97	0.97	0.97	0.97
23.5	0.73	0.73	0.73	0.73
47	0.45	0.45	0.45	0.45
70.4	0.12	0.15	0.12	0.15
94	-1.70	-1.82	-0.88	-0.97

Load Condition

Load Power [W]	Load Current [A]				
	3.3V	5V	12V	-12V	5Vs
5	0	1	0	0	0
23.5	1.5	2.5	0.375	0.05	0.18
47	3	5	0.75	0.1	0.36
70.4	4.5	7.5	1.125	0.15	0.54
94	6	10	1.5	0.2	0.72

at Back up by Battery



at Back up by Battery

Load Power [W]	Fluctuation Value [%]		
	Input Voltage DC20V	Input Voltage DC24V	Input Voltage DC32V
5	0.97	0.97	0.97
23.5	0.73	0.73	0.73
47	0.45	0.45	0.45
70.4	0.12	0.12	0.12
94	-0.97	-0.97	-1.00

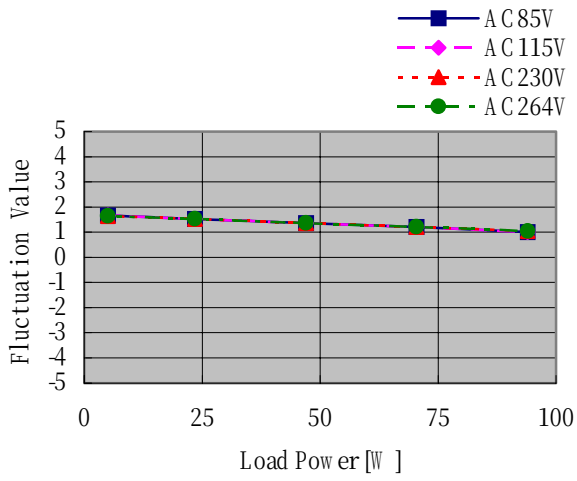
Load Condition

Load Power [W]	Load Current [A]				
	3.3V	5V	12V	-12V	5Vs
5	0	1	0	0	0
23.5	1.5	2.5	0.375	0.05	0.18
47	3	5	0.75	0.1	0.36
70.4	4.5	7.5	1.125	0.15	0.54
94	6	10	1.5	0.2	0.72

Model	NSP7-100-X2S
Item	Load Regulation

V2：5V 10A

at AC Input



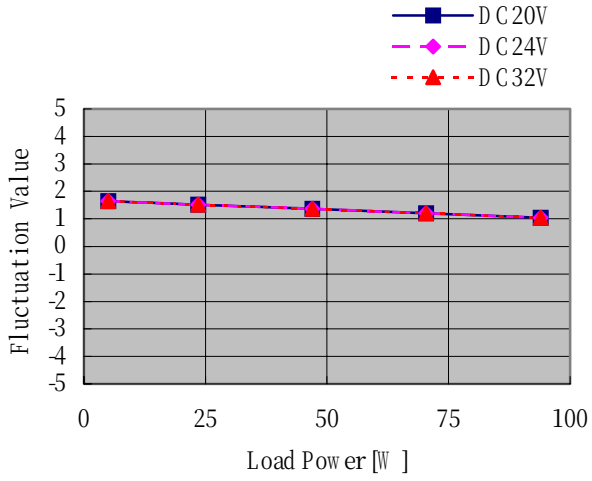
at AC Input

Load Power [W]	Fluctuation Value [%]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
5	1.66	1.66	1.64	1.64
50	1.52	1.52	1.52	1.52
100	1.36	1.36	1.36	1.36
150	1.20	1.20	1.20	1.20
200	1.00	1.00	1.04	1.04

Load Condition

Load Power [W]	Load Current [A]				
	3.3V	5V	12V	-12V	5Vs
5	0	1	0	0	0
23.5	1.5	2.5	0.375	0.05	0.18
47	3	5	0.75	0.1	0.36
70.4	4.5	7.5	1.125	0.15	0.54
94	6	10	1.5	0.2	0.72

at Back up by Battery



at Back up by Battery

Load Power [W]	Fluctuation Value [%]		
	Input Voltage DC20V	Input Voltage DC24V	Input Voltage DC32V
5	1.64	1.64	1.64
50	1.52	1.52	1.52
100	1.36	1.36	1.36
150	1.20	1.20	1.20
200	1.04	1.04	1.04

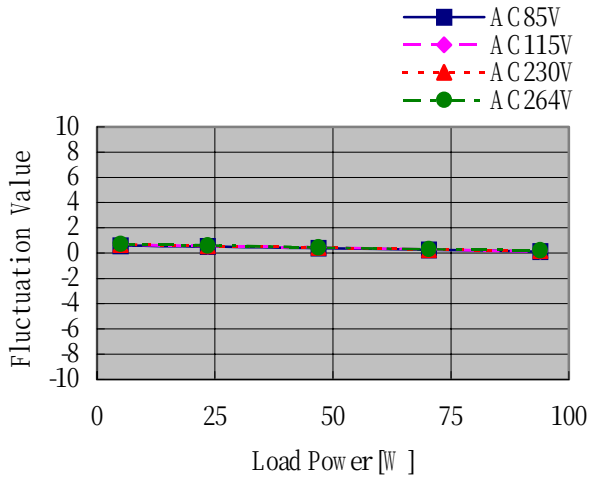
Load Condition

Load Power [W]	Load Current [A]				
	3.3V	5V	12V	-12V	5Vs
5	0	1	0	0	0
23.5	1.5	2.5	0.375	0.05	0.18
47	3	5	0.75	0.1	0.36
70.4	4.5	7.5	1.125	0.15	0.54
94	6	10	1.5	0.2	0.72

Model	NSP7-100-X2S
Item	Load Regulation

V3:12V 1.5A

at AC Input



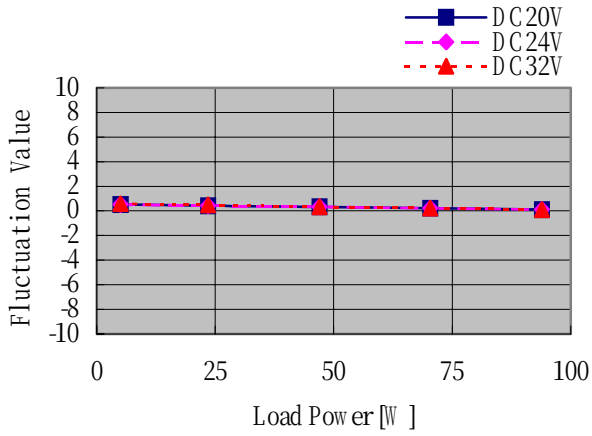
at AC Input

Load Power [W]	Fluctuation Value [%]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
5	0.58	0.68	0.68	0.71
23.5	0.52	0.57	0.58	0.61
47	0.38	0.43	0.43	0.43
70.4	0.27	0.28	0.29	0.31
94	0.13	0.15	0.19	0.22

Load Condition

Load Power [W]	Load Current [A]				
	3.3V	5V	12V	-12V	5Vs
5	0	1	0	0	0
23.5	1.5	2.5	0.375	0.05	0.18
47	3	5	0.75	0.1	0.36
70.4	4.5	7.5	1.125	0.15	0.54
94	6	10	1.5	0.2	0.72

at Back up by Battery



at Back up by Battery

Load Power [W]	Fluctuation Value [%]		
	Input Voltage DC20V	Input Voltage DC24V	Input Voltage DC32V
5	0.53	0.53	0.58
23.5	0.42	0.41	0.49
47	0.34	0.34	0.34
70.4	0.22	0.23	0.23
94	0.13	0.13	0.13

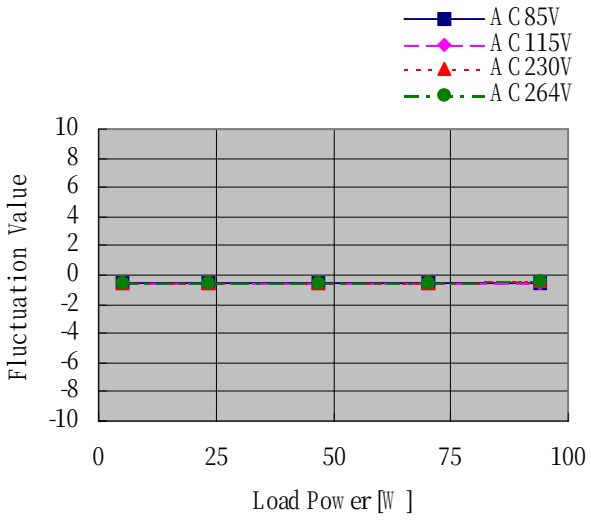
Load Condition

Load Power [W]	Load Current [A]				
	3.3V	5V	12V	-12V	5Vs
5	0	1	0	0	0
23.5	1.5	2.5	0.375	0.05	0.18
47	3	5	0.75	0.1	0.36
70.4	4.5	7.5	1.125	0.15	0.54
94	6	10	1.5	0.2	0.72

Model	NSP7-100-X2S
Item	Load Regulation

V4:-12V 0.2A

at AC Input



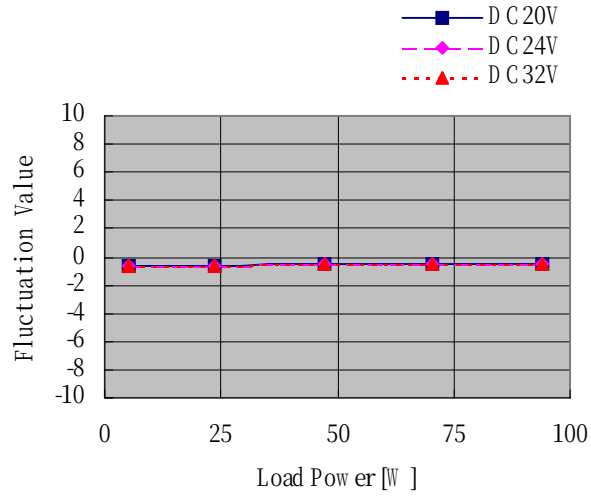
at AC Input

Load Power [W]	Fluctuation Value [%]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
5	-0.59	-0.59	-0.59	-0.59
23.5	-0.61	-0.59	-0.59	-0.59
47	-0.56	-0.55	-0.55	-0.55
70.4	-0.52	-0.50	-0.50	-0.50
94	-0.49	-0.49	-0.48	-0.48

Load Condition

Load Power [W]	Load Current [A]				
	3.3V	5V	12V	-12V	5Vs
5	0	1	0	0	0
23.5	1.5	2.5	0.375	0.05	0.18
47	3	5	0.75	0.1	0.36
70.4	4.5	7.5	1.125	0.15	0.54
94	6	10	1.5	0.2	0.72

at Back up by Battery



at Back up by Battery

Load Power [W]	Fluctuation Value [%]		
	Input Voltage DC20V	Input Voltage DC24V	Input Voltage DC32V
5	-0.59	-0.59	-0.59
23.5	-0.60	-0.59	-0.59
47	-0.55	-0.55	-0.55
70.4	-0.52	-0.52	-0.51
94	-0.49	-0.48	-0.47

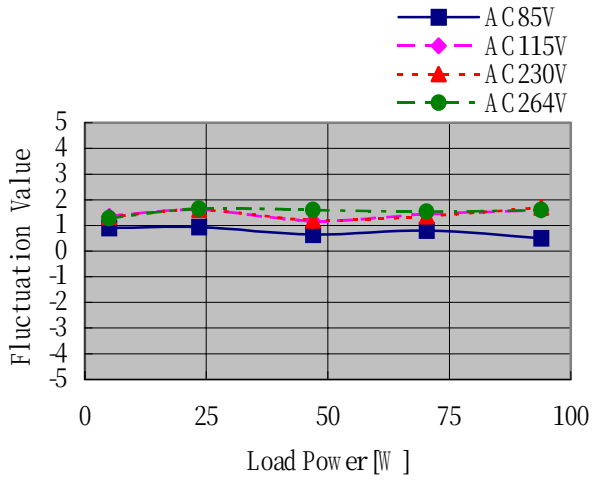
Load Condition

Load Power [W]	Load Current [A]				
	3.3V	5V	12V	-12V	5Vs
5	0	1	0	0	0
23.5	1.5	2.5	0.375	0.05	0.18
47	3	5	0.75	0.1	0.36
70.4	4.5	7.5	1.125	0.15	0.54
94	6	10	1.5	0.2	0.72

Model	NSP7-100-X2S
Item	Load Regulation

V5: 5Vs 0.72A

at AC Input



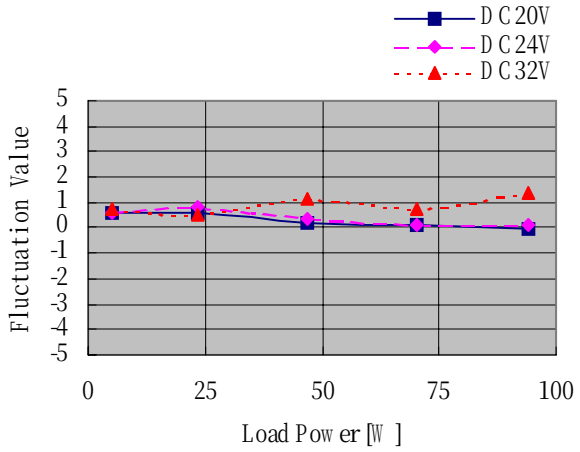
at AC Input

Load Power [W]	Fluctuation Value [%]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
5	0.90	1.36	1.32	1.28
23.5	0.94	1.62	1.62	1.66
47	0.64	1.18	1.20	1.60
70.4	0.80	1.44	1.36	1.54
94	0.50	1.60	1.70	1.60

at Load Condition

Load Power [W]	Load Current [A]				
	3.3V	5V	12V	-12V	5Vs
5	0	1	0	0	0
23.5	1.5	2.5	0.375	0.05	0.18
47	3	5	0.75	0.1	0.36
70.4	4.5	7.5	1.125	0.15	0.54
94	6	10	1.5	0.2	0.72

at Back up by Battery



at Back up by Battery

Load Power [W]	Fluctuation Value [%]		
	Input Voltage DC20V	Input Voltage DC24V	Input Voltage DC32V
5	0.56	0.60	0.74
23.5	0.56	0.86	0.54
47	0.20	0.36	1.16
70.4	0.10	0.14	0.72
94	-0.04	0.12	1.40

at Load Condition

Load Power [W]	Load Current [A]				
	3.3V	5V	12V	-12V	5Vs
5	0	1	0	0	0
23.5	1.5	2.5	0.375	0.05	0.18
47	3	5	0.75	0.1	0.36
70.4	4.5	7.5	1.125	0.15	0.54
94	6	10	1.5	0.2	0.72

Model	NSP7-100-X2S	
Item	Ripple / Noise Voltage Test	

Temperature	Input voltage	CH1 3.3V ripple (mV)	CH1 3.3V spike (mV)	CH2 5V ripple (mV)	CH2 5V spike (mV)	CH3 12V ripple (mV)	CH3 12V spike (mV)
-5℃	AC 85V	35	90	20	70	40	90
	115V	30	100	20	80	30	90
	135V	35	100	20	85	30	95
	170V	30	90	20	70	30	90
	230V	30	95	20	75	30	90
	264V	35	95	20	75	35	95
25℃	AC 85V	30	50	25	50	40	70
	115V	30	50	25	50	40	70
	135V	35	50	30	50	40	75
	170V	30	50	30	50	40	75
	230V	30	50	30	50	40	75
	264V	30	50	30	50	40	75
55℃	AC 85V	40	50	30	50	50	70
	115V	30	50	20	50	45	70
	135V	30	50	30	50	45	70
	170V	30	50	25	50	50	80
	230V	30	60	30	50	40	70
	264V	35	60	30	50	40	70
Specification		50	100	50	100	120	200
Judgement		Good		Good		Good	

Temperature	Input voltage	CH4 -12V ripple (mV)	CH4 -12V spike (mV)	CH5 5VS ripple (mV)	CH5 5VS spike (mV)
-5℃	AC 85V	10	80	45	150
	115V	15	80	45	150
	135V	10	80	50	140
	170V	10	80	45	145
	230V	10	75	45	140
	264V	10	80	45	140
25℃	AC 85V	15	50	40	100
	115V	15	50	50	100
	135V	15	50	50	100
	170V	15	40	45	100
	230V	15	50	45	100
	264V	15	50	50	100
55℃	AC 85V	10	40	50	130
	115V	15	45	60	140
	135V	15	45	60	140
	170V	15	40	60	140
	230V	15	45	60	140
	264V	15	45	60	140
Specification		120	200	70	150
Judgement		Good		Good	

Model	NSP7-100-X2S	
Item	Ripple / Noise Voltage Test	

Temperature	Input voltage	CH1 3.3V ripple (mV) / spike (mV)	CH2 5V ripple (mV) / spike (mV)	CH3 12V ripple (mV) / spike (mV)
-5℃	DC 20 V	30 / 50	30 / 50	40 / 70
	24 V	30 / 50	30 / 50	40 / 70
	32 V	30 / 50	30 / 50	40 / 70
25℃	DC 20 V	30 / 50	30 / 50	35 / 70
	24 V	30 / 50	30 / 50	45 / 70
	32 V	30 / 50	30 / 60	35 / 70
55℃	DC 20 V	30 / 60	30 / 50	30 / 70
	24 V	35 / 60	30 / 50	30 / 70
	32 V	35 / 60	30 / 50	30 / 70
Specification		50 / 100	50 / 100	120 / 200
Judgement		Good	Good	Good

Temperature	Input voltage	CH4 -12V ripple (mV) / spike (mV)	CH5 5VS ripple (mV) / spike (mV)
-5℃	DC 20 V	15 / 50	50 / 90
	24 V	15 / 50	50 / 90
	32 V	15 / 50	50 / 90
25℃	DC 20 V	15 / 50	50 / 90
	24 V	15 / 45	50 / 90
	32 V	15 / 50	50 / 100
55℃	DC 20 V	20 / 50	60 / 120
	24 V	20 / 50	60 / 120
	32 V	15 / 40	60 / 120
Specification		120 / 200	70 / 150
Judgement		Good	Good

Model	NSP7-100-X2S	
Item	Over-Current Protection	

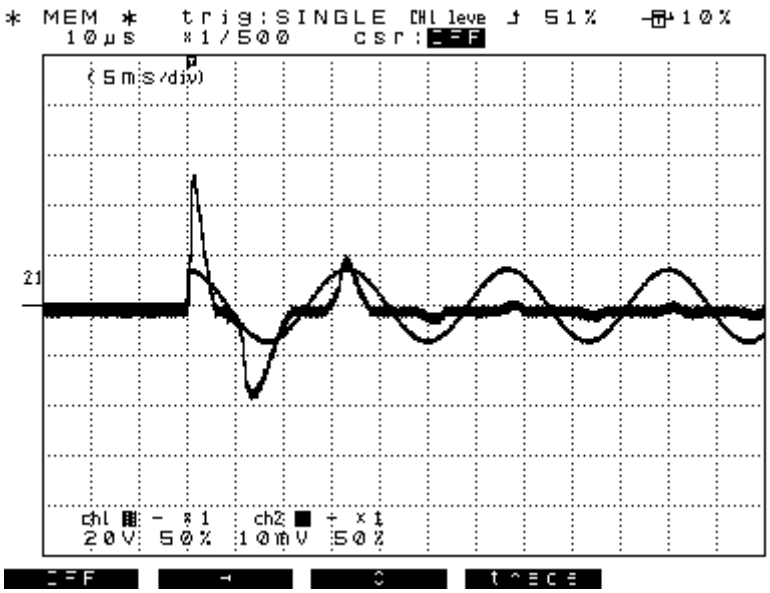
Temp.	Input voltage	CH1 +3.3V	CH2 +5V	CH3 +12V	CH4 -12V	CH4 +5VS
-5℃	AC 85V	8.4 A	19.5 A	13.50 A	0.92 A	2.10 A
	115V	8.4 A	19.5 A	13.50 A	0.92 A	2.10 A
	135V	8.4 A	19.5 A	13.50 A	0.92 A	2.10 A
	170V	8.3 A	20.0 A	14.00 A	0.94 A	2.20 A
	230V	8.3 A	20.0 A	14.00 A	0.90 A	2.20 A
	264V	8.3 A	20.0 A	14.00 A	0.90 A	2.10 A
	DC 20V	8.3 A	20.0 A	14.00 A	0.95 A	2.10 A
	24V	8.3 A	20.0 A	14.00 A	0.90 A	2.10 A
	32V	8.3 A	20.0 A	14.00 A	0.92 A	2.10 A
25℃	AC 85V	8.3 A	20.0 A	13.50 A	0.92 A	2.20 A
	115V	8.3 A	20.0 A	13.50 A	0.92 A	2.10 A
	135V	8.4 A	20.0 A	14.00 A	0.94 A	2.10 A
	170V	8.4 A	20.0 A	14.00 A	0.92 A	2.20 A
	230V	8.4 A	20.0 A	14.00 A	0.94 A	2.20 A
	264V	8.4 A	20.0 A	14.00 A	0.94 A	2.20 A
	DC 20V	8.4 A	20.0 A	14.00 A	0.90 A	2.20 A
	24V	8.4 A	20.5 A	13.50 A	0.90 A	2.20 A
	32V	8.4 A	20.5 A	13.50 A	0.88 A	2.10 A
55℃	AC 85V	8.1 A	20.0 A	13.50 A	0.80 A	2.10 A
	115V	8.1 A	20.0 A	13.50 A	0.80 A	2.00 A
	135V	8.2 A	19.5 A	13.50 A	0.80 A	2.00 A
	170V	8.2 A	19.5 A	14.10 A	0.80 A	2.10 A
	230V	8.2 A	19.5 A	14.10 A	0.78 A	2.00 A
	264V	8.2 A	19.6 A	14.00 A	0.80 A	2.00 A
	DC 20V	8.2 A	20.0 A	12.50 A	0.78 A	2.10 A
	24V	8.2 A	20.0 A	13.00 A	0.76 A	2.10 A
	32V	8.2 A	20.0 A	13.00 A	0.76 A	2.10 A
Specification		6.3A or more	16.5A or more	7A or more	0.4A or more	1A or more
Judgement		Good	Good	Good	Good	Good

Model	NSP7-100-X2S	
Item	Over-Voltage Protection	

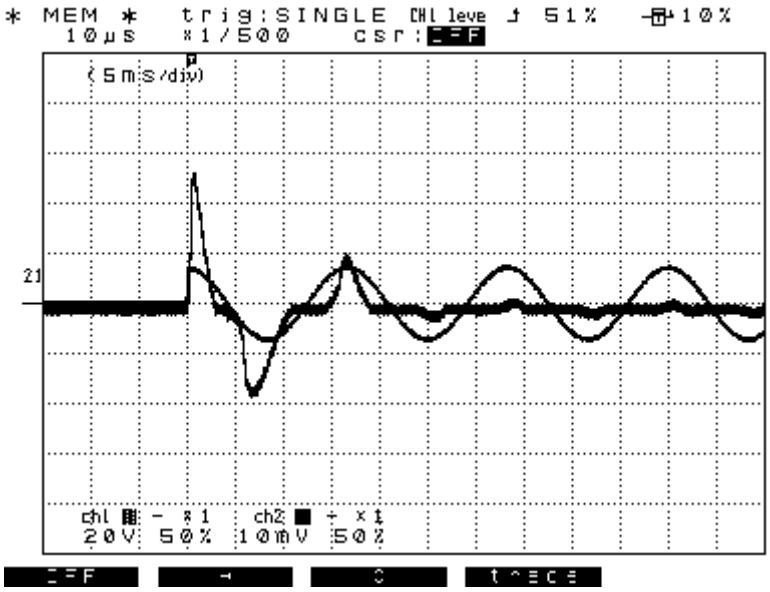
Temp.	Input voltage	CH1 +3.3V	CH2 +5V	CH3 +12V
-5℃	AC 115V	4.0 V	6.7 V	14.8 V
	AC 230V	4.0 V	6.7 V	14.8 V
	DC 24V	4.0 V	6.7 V	14.8 V
25℃	AC 115V	4.0 V	6.7 V	14.7 V
	AC 230V	4.0 V	6.7 V	14.7 V
	DC 24V	4.0 V	6.7 V	14.7 V
55℃	AC 115V	4.0 V	6.7 V	14.7 V
	AC 230V	4.0 V	6.7 V	14.7 V
	DC 24V	4.0 V	6.7 V	14.7 V
Specification		3.7～4.3V	6～7V	14～15.6V
Judgement		Good	Good	Good

Model	NSP7-100-X2S	
Item	Inrush Current	

Inrush Current Wave



Wave No1	
CH1	Measuring Point: Input Voltage
	Range 200V/DIV
CH2	Measuring Point: Input Current
	Range 10A/DIV
Time Line	5ms/DIV
Conditions	Input: AC100V 60Hz Load: Rated Load
Note: Inrush Current Value: 26.8A	

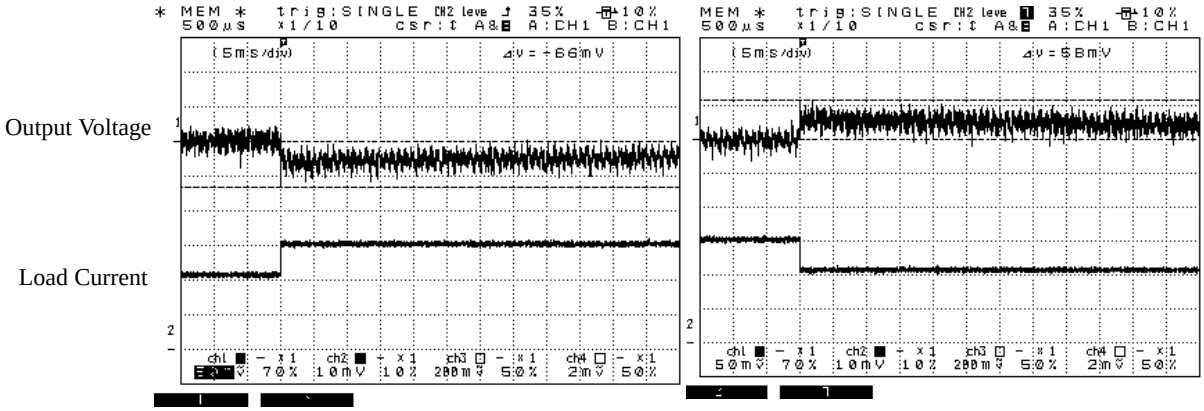


Wave No2	
CH1	Measuring Point: Input Voltage
	Range 500V/DIV
CH2	Measuring Point: Input Current
	Range 20A/DIV
Time Line	5ms/DIV
Conditions	Input: AC240V 60Hz Load: Rated Load
Note: Inrush Current Value: 47.2A	

Model	NSP7-100-X2S	
Item	Dynamic Load Response	

V1：+3.3V 6A

70% Load⇔ 100% Load

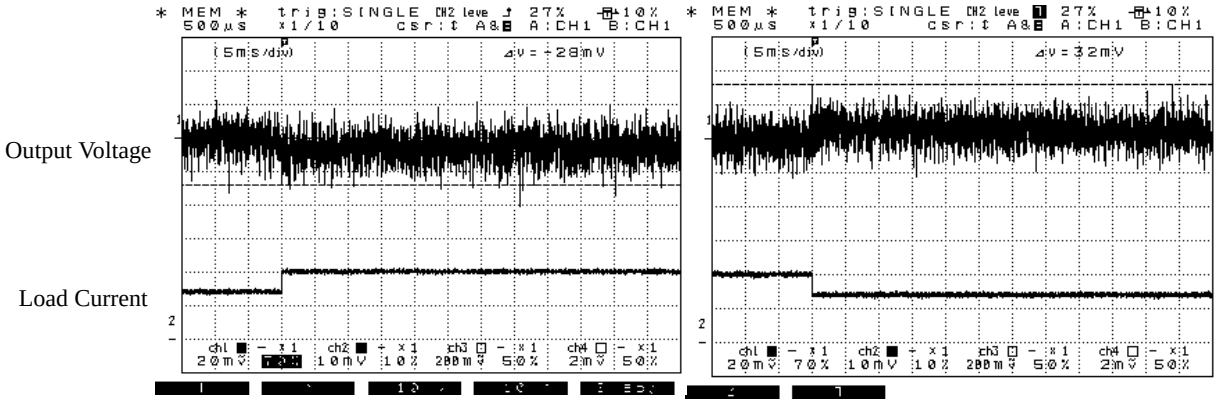


Sudden Fluctuation of Load	Fluctuation Value	ATX Specific Value	Judgement
70%Load→**100**% Load	**- mV** **-66mV**	**±165mV**	Good
100% Load→**70**% Load	**58mV** **- mV**		Good

Model	NSP7-100-X2S	
Item	Dynamic Load Response	

V2：+5V 10A

70% Load⇔ **100%** Load



Sudden Fluctuation of Load	Fluctuation Value	ATX Specific Value	Judgement
70%Load→**100%** Load	**- mV** **-28mV**	**±250mV**	Good
100% Load→**70%** Load	**32mV** **- mV**		Good

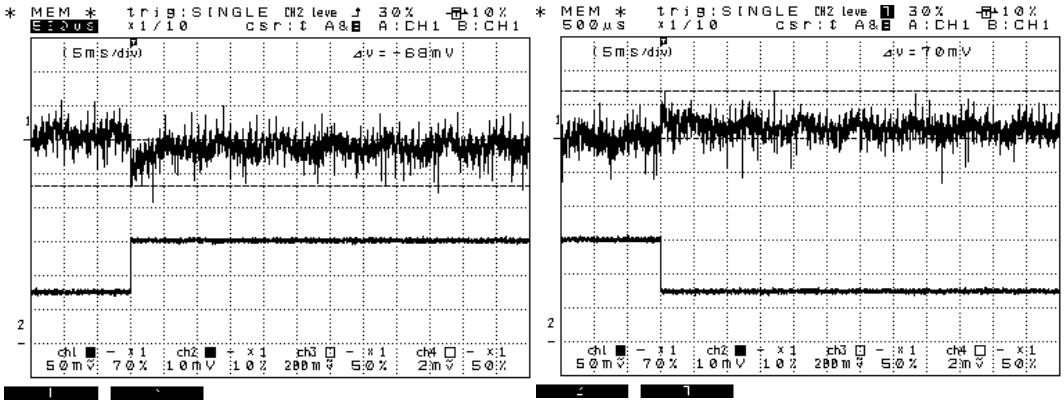
Model	NSP7-100-X2S	
Item	Dynamic Load Response	

V3：+12V 1.5A

50% Load ⇔ 100% Load

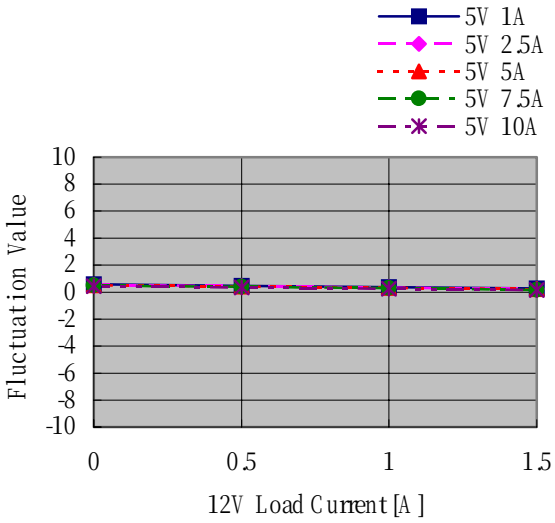
Output Voltage

Load Current



Sudden Fluctuation of Load	Fluctuation Value	ATX Specific Value	Judgement
50%Load→**100**% Load	**-68mV**	**±600mV**	Good
100% Load→**50**% Load	**70mV**		Good

Model	NSP7-100-X2S
Item	12V Cross Regulation

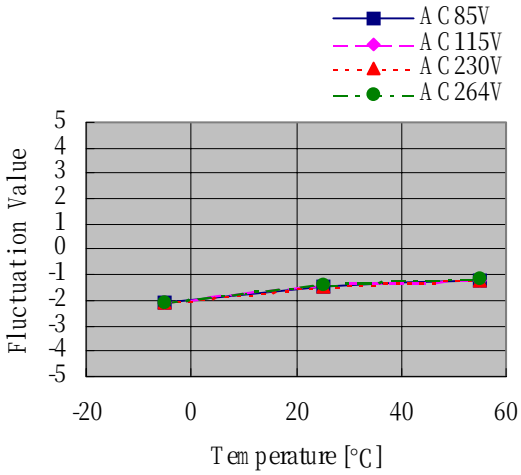


12V Load Current	12V Voltage Value [V]				
	5V 1A	5V 2.5A	5V 5A	5V 7.5A	5V 10A
0A	12.072	12.065	12.062	12.060	12.055
0.5A	12.057	12.054	12.050	12.048	12.042
1.0A	12.045	12.042	12.040	12.036	12.031
1.5A	12.033	12.029	12.028	12.021	12.019

12V Load Current	Fluctuation Value [%]				
	5V 1A	5V 2.5A	5V 5A	5V 7.5A	5V 10A
0A	0.60	0.54	0.52	0.50	0.46
0.5A	0.48	0.45	0.42	0.40	0.35
1.0A	0.37	0.35	0.33	0.30	0.26
1.5A	0.28	0.24	0.23	0.18	0.16

Model	NSP7-100-X2S
Item	Ambient Temperature Drift

V1：3.3V 6A

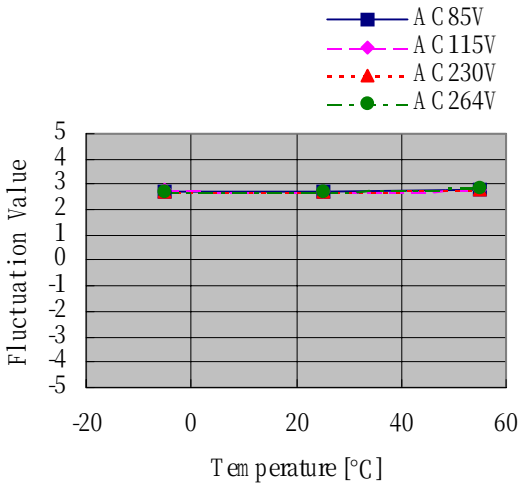


at AC Input

Temperature (℃)	Output Voltage [V]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
-5	3.231	3.231	3.232	3.231
25	3.253	3.254	3.253	3.254
50	3.259	3.261	3.261	3.263

Temperature (℃)	Fluctuation Value [%]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
-5	-2.09	-2.09	-2.06	-2.09
25	-1.42	-1.39	-1.42	-1.39
50	-1.24	-1.18	-1.18	-1.12

V2：5V 10A



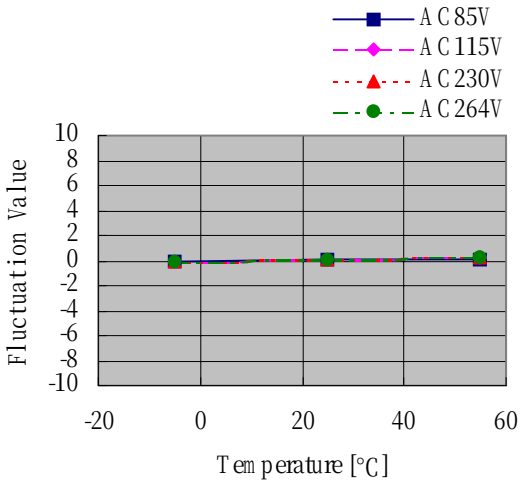
at AC Input

Temperature (℃)	Output Voltage [V]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
-5	5.137	5.138	5.134	5.136
25	5.134	5.134	5.134	5.134
50	5.140	5.141	5.142	5.142

Temperature (℃)	Fluctuation Value [%]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
-5	2.74	2.76	2.68	2.72
25	2.68	2.68	2.68	2.68
50	2.80	2.82	2.82	2.84

Model	NSP7-100-X2S
Item	Ambient Temperature Drift

V3：12V 1.5A

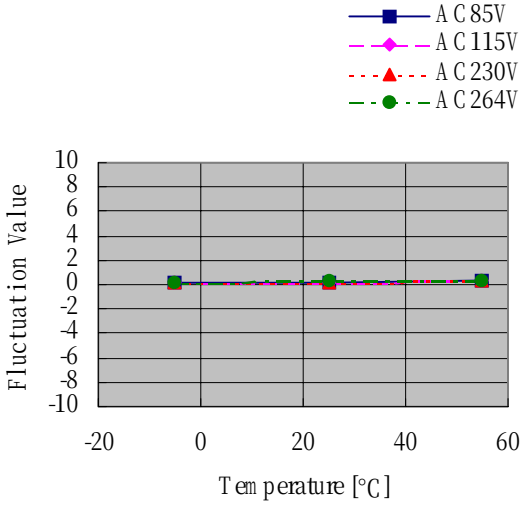


at AC Input

Temperature (℃)	Output Voltage [V]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
-5	11.981	11.986	11.983	11.987
25	12.002	12.003	12.001	12.002
50	12.019	12.021	12.021	12.022

Temperature (℃)	Fluctuation Value [%]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
-5	-0.16	-0.12	-0.14	-0.11
25	0.02	0.03	0.01	0.02
50	0.16	0.18	0.18	0.18

V4：-12V 0.2A



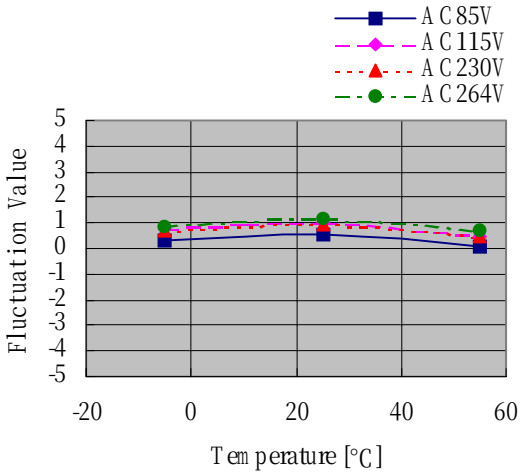
at AC Input

Temperature (℃)	Output Voltage [V]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
-5	-12.025	-12.028	-12.024	-12.027
25	-12.027	-12.027	-12.029	-12.030
50	-12.040	-12.041	-12.042	-12.042

Temperature (℃)	Fluctuation Value [%]			
	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
-5	0.21	0.23	0.20	0.22
25	0.22	0.22	0.24	0.25
50	0.33	0.34	0.35	0.35

Model	NSP7-100-X2S
Item	Ambient Temperature Drift

V5：5Vs 0.72A



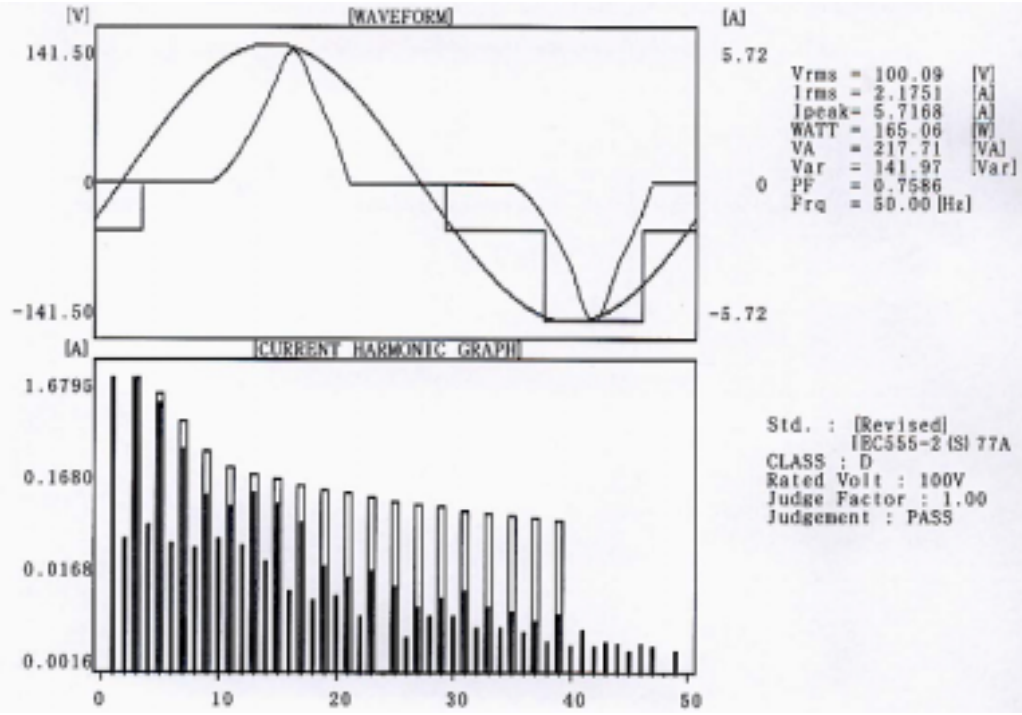
at AC Input

	Output Voltage [V]			
Temperature (℃)	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
-5	5.016	5.038	5.034	5.042
25	5.028	5.049	5.047	5.057
50	5.004	5.023	5.024	5.034

	Fluctuation Value [%]			
Temperature (℃)	Input Voltage AC85V	Input Voltage AC115V	Input Voltage AC230V	Input Voltage AC264V
-5	0.32	0.76	0.68	0.84
25	0.56	0.98	0.94	1.14
50	0.08	0.46	0.48	0.68

Model	NSP7-100-X2S	
Item	Harmonic Current	

Measuring Instrument ： MP701(Keisoku Giken)

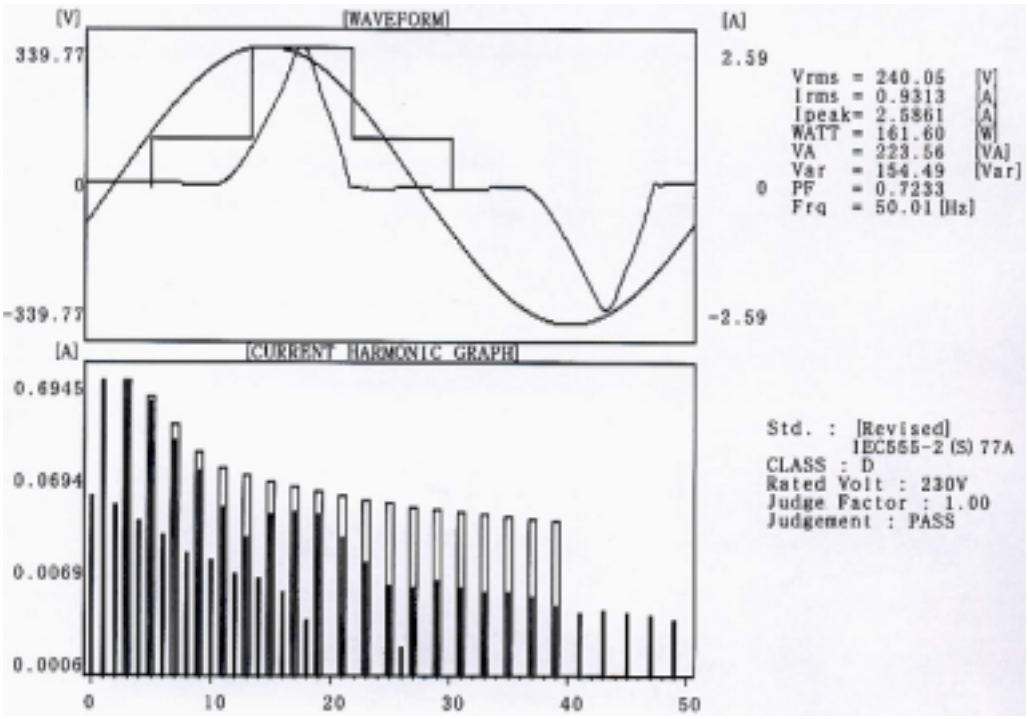


[CURRENT HARMONIC DATA]

No	(A)	No	(A)	No	(A)	No	(A)
00	0.0016	13	0.0748	26	0.0025	39	0.0042
01	1.6795	14	0.0147	27	0.0051	40	0.0020
02	0.0257	15	0.0583	28	0.0041	41	0.0029
03	1.2148	16	0.0072	29	0.0063	42	0.0020
04	0.0348	17	0.0380	30	0.0040	43	0.0022
05	0.6056	18	0.0058	31	0.0074	44	0.0021
06	0.0232	19	0.0133	32	0.0031	45	0.0018
07	0.2062	20	0.0065	33	0.0050	46	0.0021
08	0.0210	21	0.0102	34	0.0031	47	0.0020
09	0.0722	22	0.0040	35	0.0044	48	0.0015
10	0.0252	23	0.0122	36	0.0028	49	0.0018
11	0.0545	24	0.0010	37	0.0035		
12	0.0213	25	0.0082	38	0.0022		

Model	NSP7-100-X2S	
Item	Harmonic Current	

Measuring Instrument ： MP701(Keisoku Giken)



[CURRENT HARMONIC DATA]

No	(A)	No	(A)	No	(A)	No	(A)
00	0.0318	13	0.0117	26	0.0009	39	0.0023
01	0.6945	14	0.0045	27	0.0035	40	0.0002
02	0.0250	15	0.0198	28	0.0000	41	0.0020
03	0.5291	16	0.0031	29	0.0043	42	0.0000
04	0.0173	17	0.0215	30	0.0004	43	0.0021
05	0.2916	18	0.0017	31	0.0036	44	0.0000
06	0.0122	19	0.0199	32	0.0007	45	0.0020
07	0.1164	20	0.0007	33	0.0033	46	0.0000
08	0.0082	21	0.0120	34	0.0007	47	0.0018
09	0.0557	22	0.0007	35	0.0031	48	0.0000
10	0.0068	23	0.0066	36	0.0000	49	0.0017
11	0.0234	24	0.0007	37	0.0029		
12	0.0051	25	0.0038	38	0.0004		

Model	NSP7-100-X2S	
Item	Leakage Current Test	

Temperature Room Temperature
Input AC100V、240V
Load Rated Load, Minimum Load

Input Voltage (V)	at Rated Load (mA)	at Minimum Load (mA)
100V	0.43	0.37
240V	0.77	0.76

Measuring Instrument：YEW.TYPE3226 Applicable Products（ Range：1KΩ

Model	NSP7-100-X2S	
Item	Line Noise Tolerance	

Temperature	Room Temperature
Input	AC115V,60Hz
Load	Rated Load
Noise Impressed Voltage	±2000V
Repeat Cycle	10～35ms
Pulse Width	100,800ns

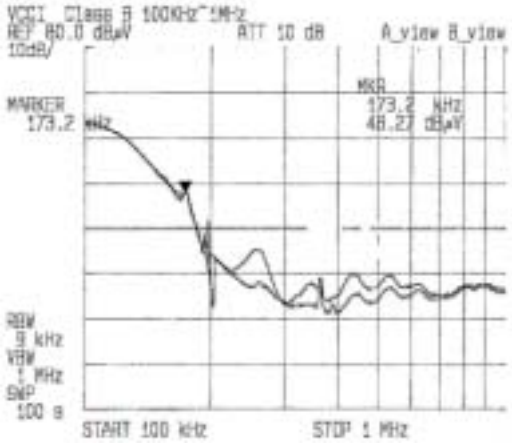
	Pulse Impressed Mode			
Normal	100ns		800ns	
	Polarity +	Polarity -	Polarity +	Polarity -
	○	○	○	○
Common R Phase	Pulse Impressed Mode			
	100ns		800ns	
	Polarity +	Polarity -	Polarity +	Polarity -
	○	○	○	○
Common S Phase	Pulse Impressed Mode			
	100ns		800ns	
	Polarity +	Polarity -	Polarity +	Polarity -
	○	○	○	○

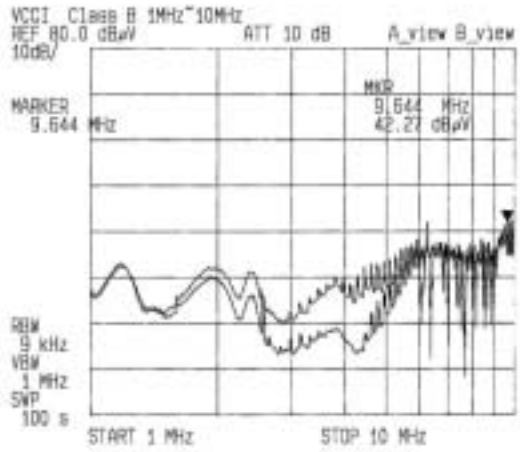
○→No Trouble
△→Faulty Operation of Over-Voltage and so on
×→Power Supply Breakdown

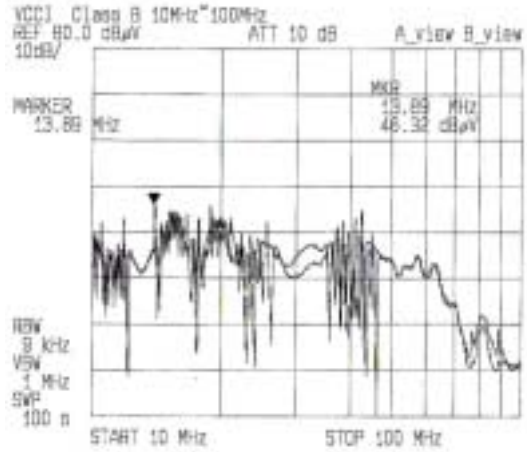
Measuring Instrument ： INS420 (Noise Laboratory Co.,Ltd.)

Model	NSP7-100-X2S	
Item	Conduction Emission	

Temperature Room Temperature
Input AC115V
Load Rated Load
Mesearing Point L-FG
Measuring Instrument R3261A (Advantest)

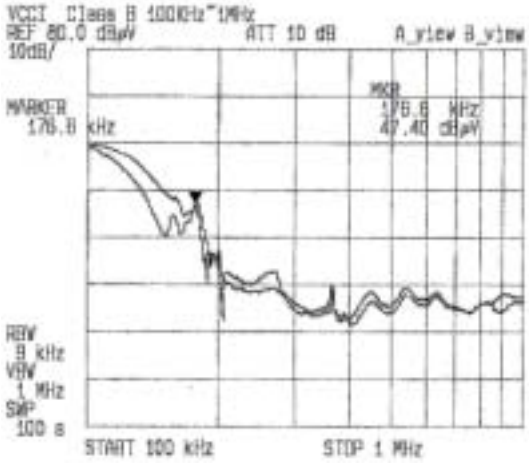


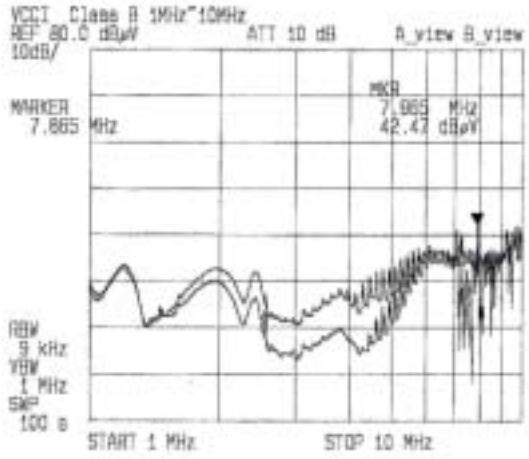


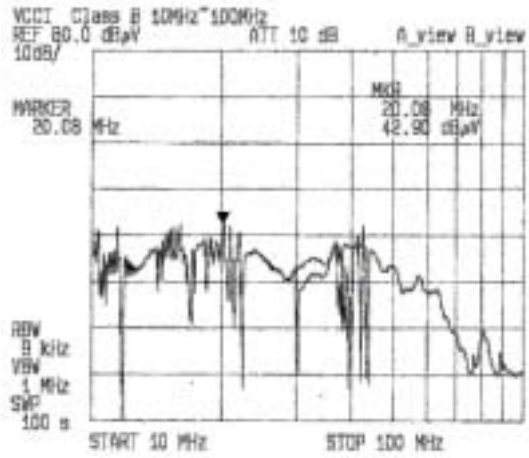


Model	NSP7-100-X2S	
Item	Conduction Emission	

Temperature Room Temperature
Input AC230V
Load Rated Load
Measuring Point L-FG、N-FG
Measuring Instrument R3261A (Advantest)

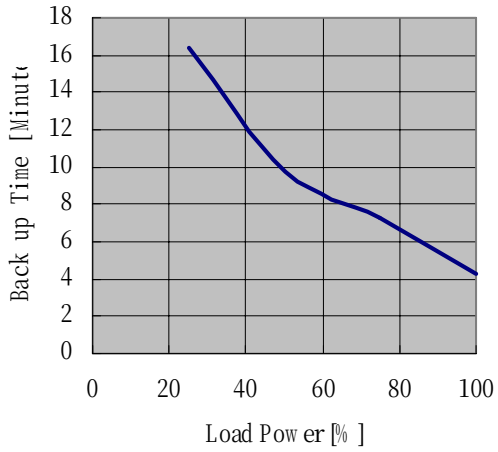






Model	NSP7-100-X2S	
Item	Battery Discharge	

Back up Time

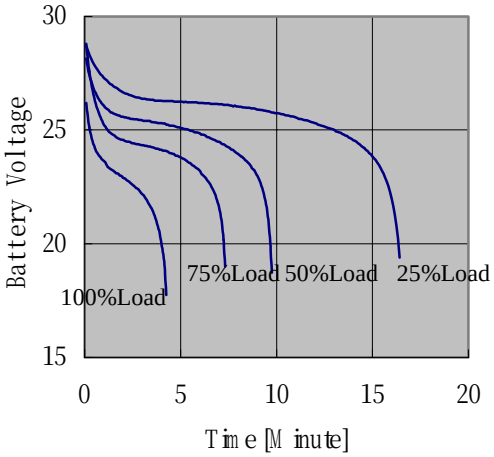


At Room Temperature (25℃)

Load Power [%]	Back up Time [Minute]
25	16.4
50	9.8
75	7.3
100	4.3

※100%Load = 94W

Battery Voltage



Battery：PS2668(Ni-Cd Battery)