

Evaluation Data

품 목	SMPS
품 명	RP50-DW
Rev. No.	A

CE CB

ORIENT
ELE^C ELECTRONICS

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CONTENTS

1. RP50-BDW

- . Input Current & Efficiency
- . Line & Load Regulation
- . Leakage Current
- . Inrush Current
- . Ripple & Noise
- . Turn on Time
- . Hold up Time
- . Electro Magnetic Compatibility

2. RP50-BHW

3. RP50-DDW

4. RP50-EEW

RP50-BDW

Input Current & Efficiency

Specification : 1.3A / 78% @ AC110V , 0.8A / 78% @ AC220V

I _o		V _{in}	AV85V	AC110V	AC220V	AC264V
		0%	Input Current [A]		0.046	0.046
Efficiency [%]			-	-	-	-
50%	Input Current [A]		0.602	0.483	0.330	0.271
	Efficiency [%]		78.3%	79.8%	78.3%	76.9%
100%	Input Current [A]		1.005	0.994	0.614	0.536
	Efficiency [%]		77.6%	79.1%	80.0%	79.7%

Line & Load Regulation

Specification : Line Regulation Ch1. ±25mV / Ch2. ±180mV

Load Regulation Ch1. ±25mV / Ch2. ±360mV

V _{in}			AC85V	AC110V	AC220V	AC264V	Line Regulation [mV]
		0%	CH1		4.998	4.999	4.999
CH2			12.058	12.073	12.038	11.988	85
50%	CH1		5.018	5.016	5.016	5.017	2
	CH2		12.110	12.106	12.093	12.094	17
100%	CH1		4.995	4.994	4.994	4.995	1
	CH2		12.064	12.091	12.029	12.178	149
Load Regulation [mV]	CH1		23	22	22	22	-
	CH2		52	33	64	190	

Leakage Current

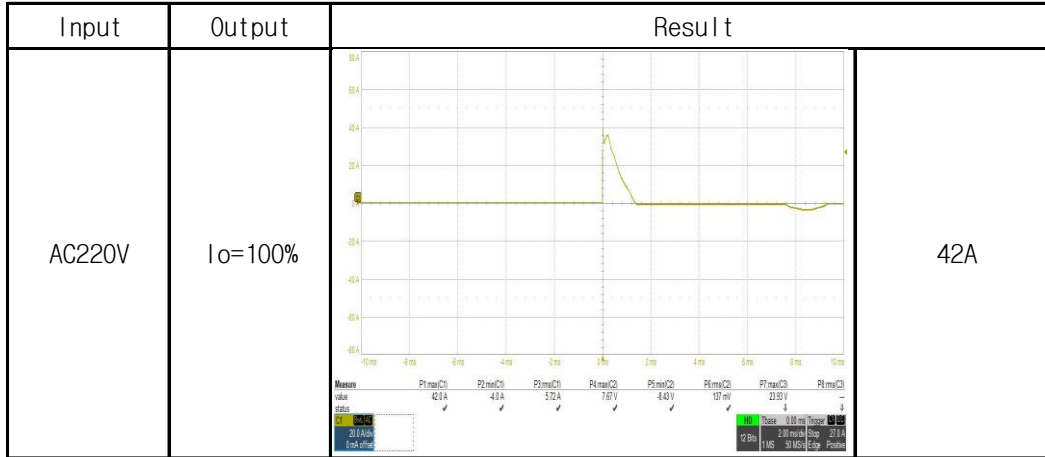
Specification : 2mA

	110V	220V
Line L [mA]	0.29	0.51
Line N [mA]	0.51	0.50

RP50-BDW

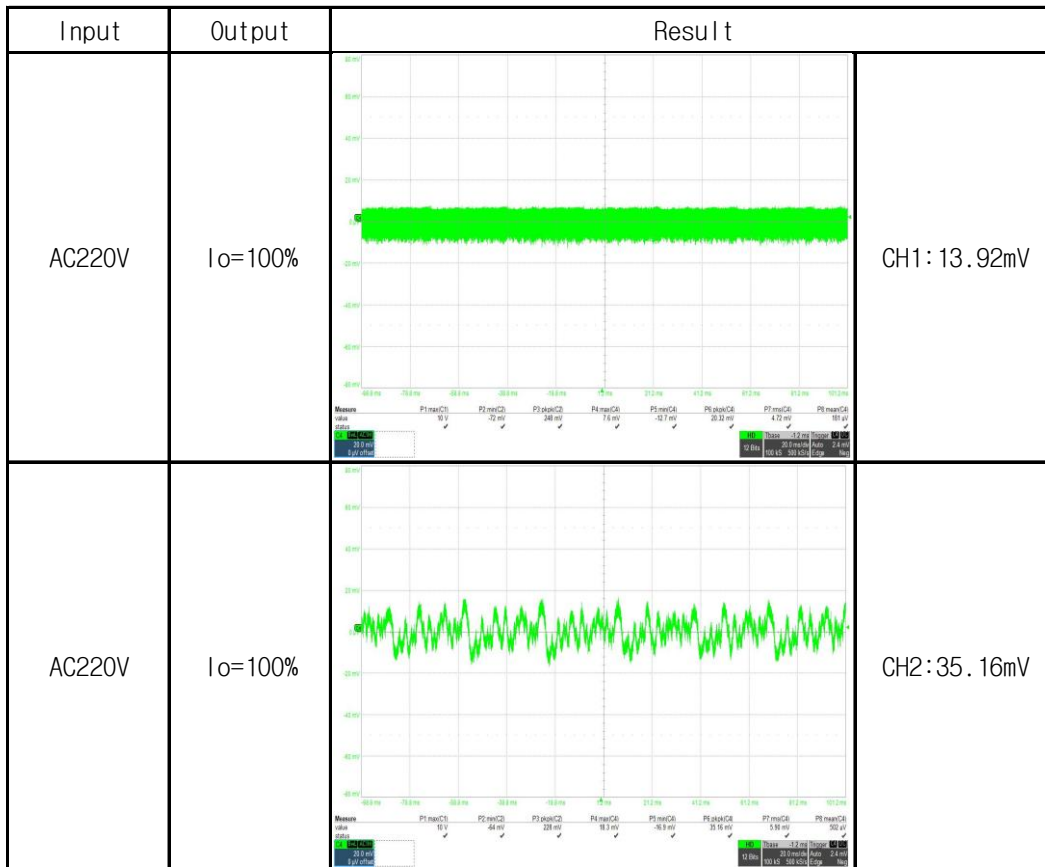
Inrush Current

Specification : 48A



Ripple & Noise

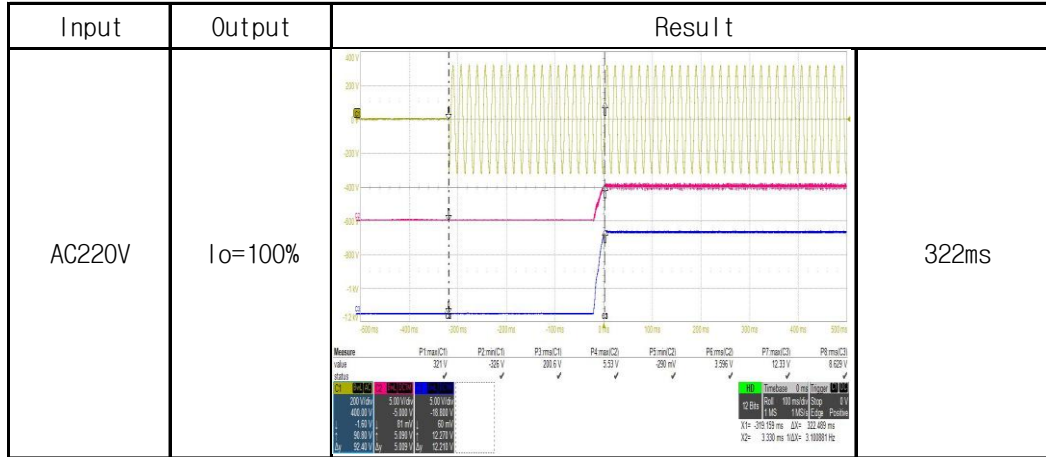
Specification : Ch1. 80mV / Ch2. 120mV



RP50-BDW

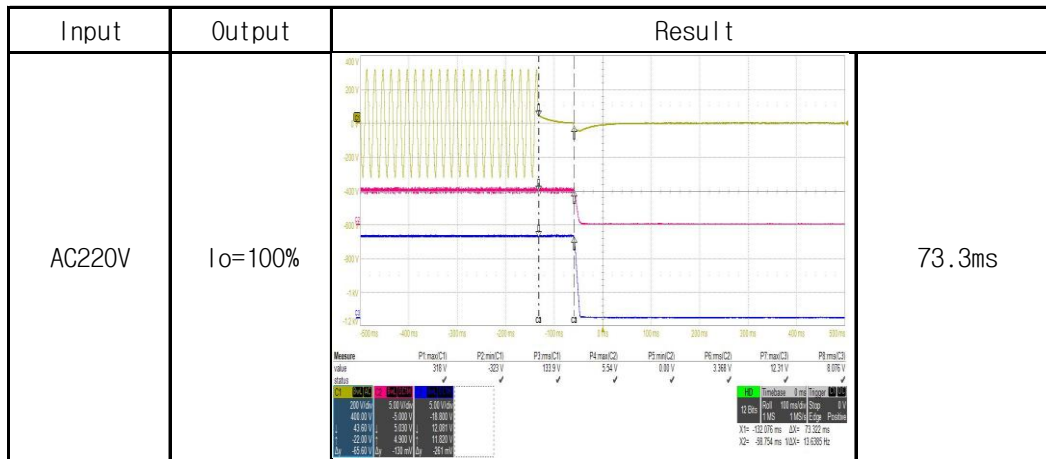
Turn on Time

Specification : 500ms



Hold up Time

Specification : 60ms



Electro Magnetic Compatibility

Item	Standard	Tset Condition	Result
EMI (Conduction/Radiation)	EN55032	AC230V, 50Hz, Full Load	Class B Pass
Harmonic Current	EN61000-3-2	AC230V, 50Hz, Full Load	Class A Pass
Electrostatic Discharge	EN61000-4-2	AC230V, 50Hz, Full Load Ari : 8kV, Contact : 4kV	Criteria A
Electrical Fast Transient	EN61000-4-4	AC230V, 50Hz, Full Load 2kV	Criteria A
Surge	EN61000-4-5	AC230V, 50Hz, Full Load Line-Line : 2kV Line-PE : 4kV	Criteria A

RP50-BHW

Input Current & Efficiency

Specification : 1.3A / 79% @ AC110V , 0.8A / 79% @ AC220V

I _o		V _{in}	AV85V	AC110V	AC220V	AC264V
		0%	Input Current [A]		0.035	0.038
Efficiency [%]			-	-	-	-
50%	Input Current [A]		0.568	0.454	0.316	0.255
	Efficiency [%]		81.3%	83.4%	80.6%	80.0%
100%	Input Current [A]		0.963	0.951	0.573	0.506
	Efficiency [%]		79.7%	81.2%	82.0%	81.8%

Line & Load Regulation

Specification : Line Regulation Ch1. ±25mV / Ch2. ±360mV

Load Regulation Ch1. ±25mV / Ch2. ±720mV

V _{in}			AC85V	AC110V	AC220V	AC264V	Line Regulation [mV]
		0%	CH1		5.008	5.009	5.009
CH2			24.070	24.110	24.100	24.230	160
50%	CH1		5.010	5.011	5.011	5.012	2
	CH2		23.580	23.570	23.540	23.550	40
100%	CH1		4.994	4.989	4.989	4.988	6
	CH2		23.810	23.880	23.720	23.700	180
Load Regulation [mV]	CH1		16	22	22	24	-
	CH2		490	540	560	680	

Leakage Current

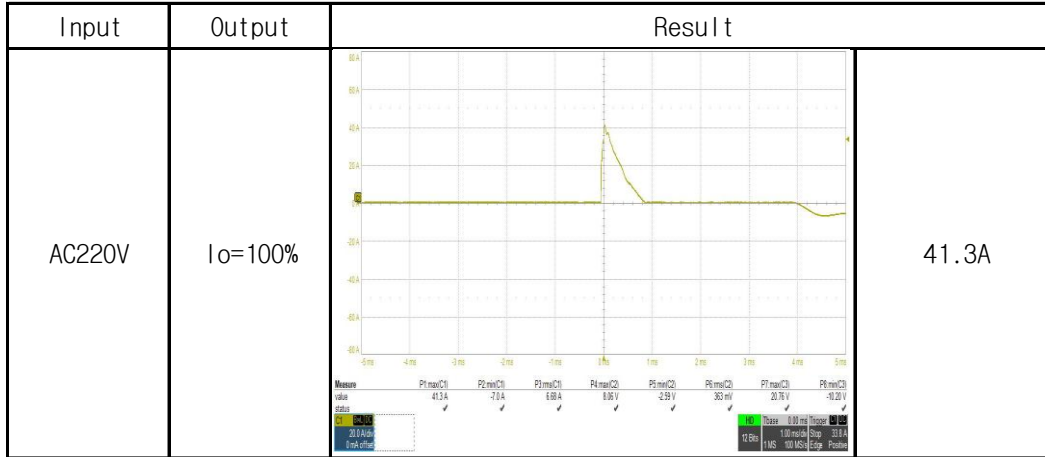
Specification : 2mA

	110V	220V
Line L [mA]	0.21	0.39
Line N [mA]	0.27	0.43

RP50-BHW

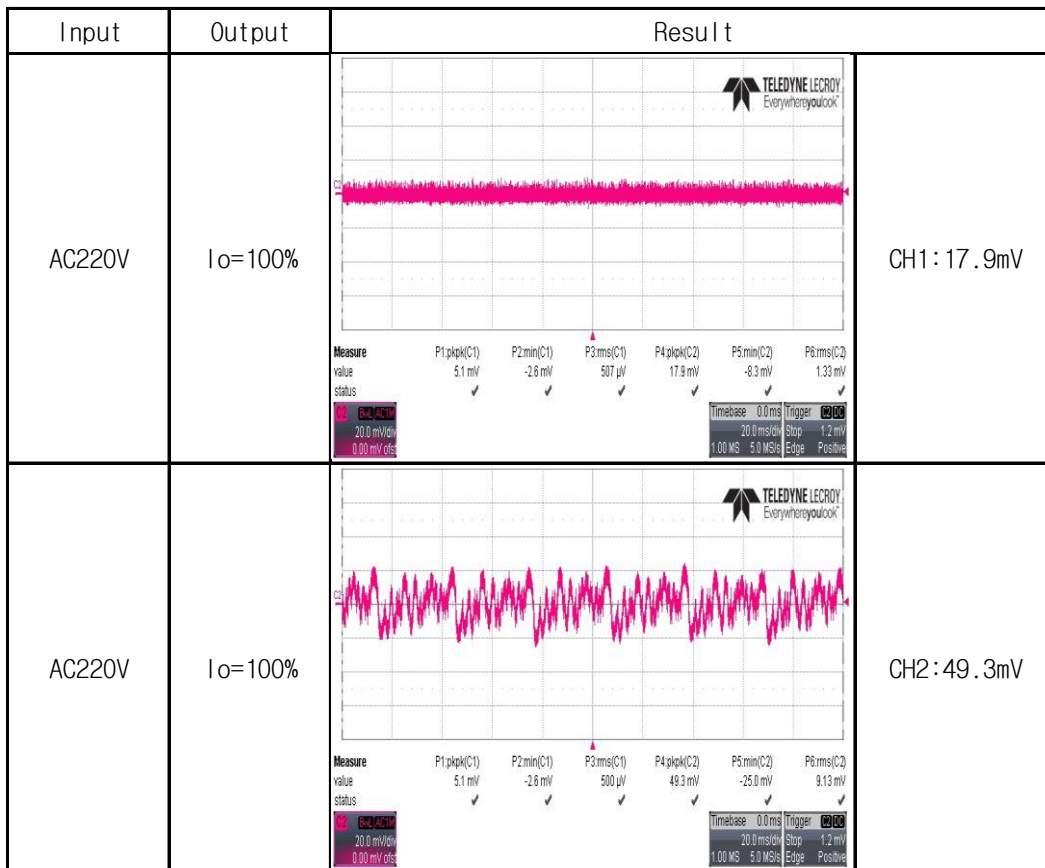
Inrush Current

Specification : 48A



Ripple & Noise

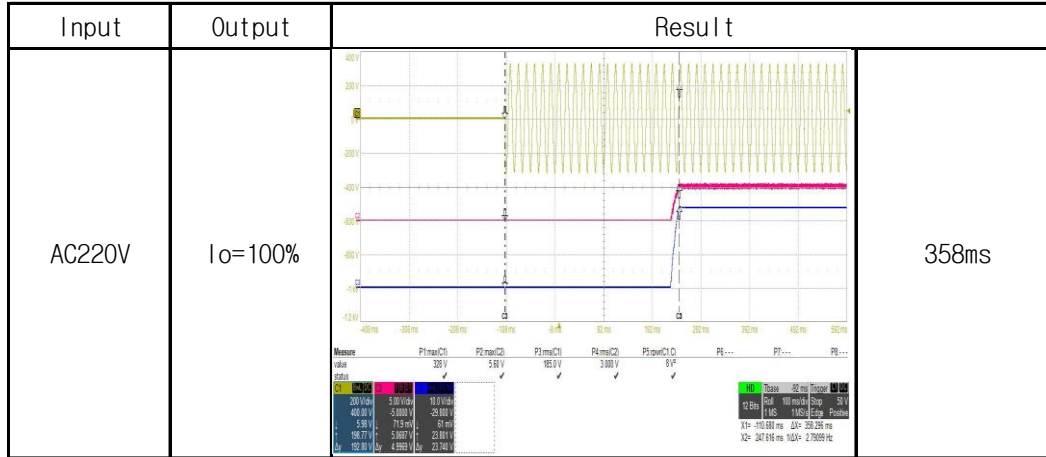
Specification : Ch1. 80mV / Ch2. 150mV



RP50-BHW

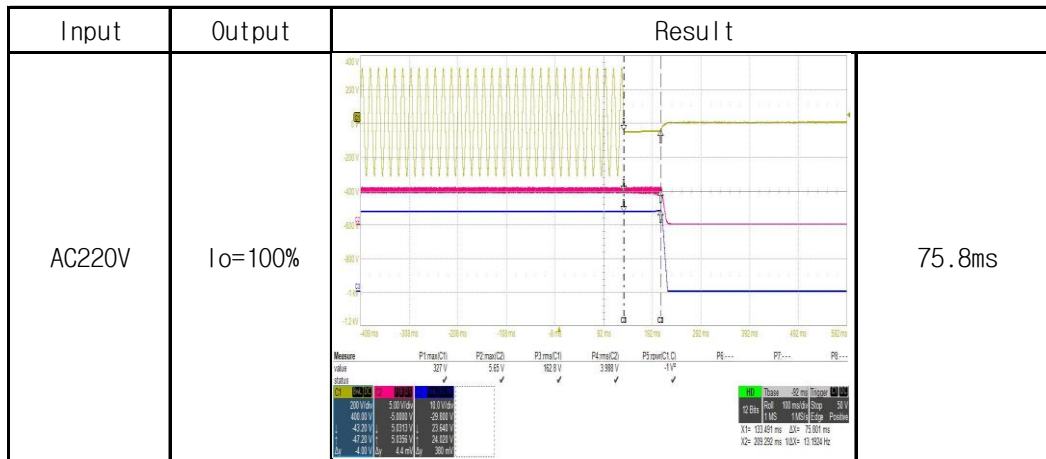
Turn on Time

Specification : 500ms



Hold up Time

Specification : 60ms



Electro Magnetic Compatibility

Item	Standard	Tset Condition	Result
EMI (Conduction/Radiation)	EN55032	AC230V, 50Hz, Full Load	Class B Pass
Harmonic Current	EN61000-3-2	AC230V, 50Hz, Full Load	Class A Pass
Electrostatic Discharge	EN61000-4-2	AC230V, 50Hz, Full Load Ari : 8kV, Contact : 4kV	Criteria A
Electrical Fast Transient	EN61000-4-4	AC230V, 50Hz, Full Load 2kV	Criteria A
Surge	EN61000-4-5	AC230V, 50Hz, Full Load Line-Line : 2kV Line-PE : 4kV	Criteria A

RP50-DDW

Input Current & Efficiency

Specification : 1.3A / 80% @ AC110V , 0.8A / 80% @ AC220V

I _o		V _{in}	AV85V	AC110V	AC220V	AC264V
		0%	Input Current [A]		0.054	0.052
Efficiency [%]			-	-	-	-
50%	Input Current [A]		0.591	0.474	0.324	0.271
	Efficiency [%]		78.5%	80.4%	78.8%	76.9%
100%	Input Current [A]		0.961	0.954	0.592	0.525
	Efficiency [%]		79.8	81.4	81.8	80.8

Line & Load Regulation

Specification : Line Regulation Ch1. ±60mV / Ch2. ±180mV

Load Regulation Ch1. ±360mV / Ch2. ±360mV

V _{in}			AC85V	AC110V	AC220V	AC264V	Line Regulation [mV]
		0%	CH1		12.02	12.02	12.02
CH2			12.06	12.05	11.96	11.97	100
50%	CH1		12.04	12.05	12.05	12.06	20
	CH2		12.29	12.28	12.24	12.23	60
100%	CH1		12.00	12.00	12.00	12.00	0
	CH2		12.24	12.22	12.18	12.17	70
Load Regulation [mV]	CH1		40	50	50	60	-
	CH2		230	230	280	260	

Leakage Current

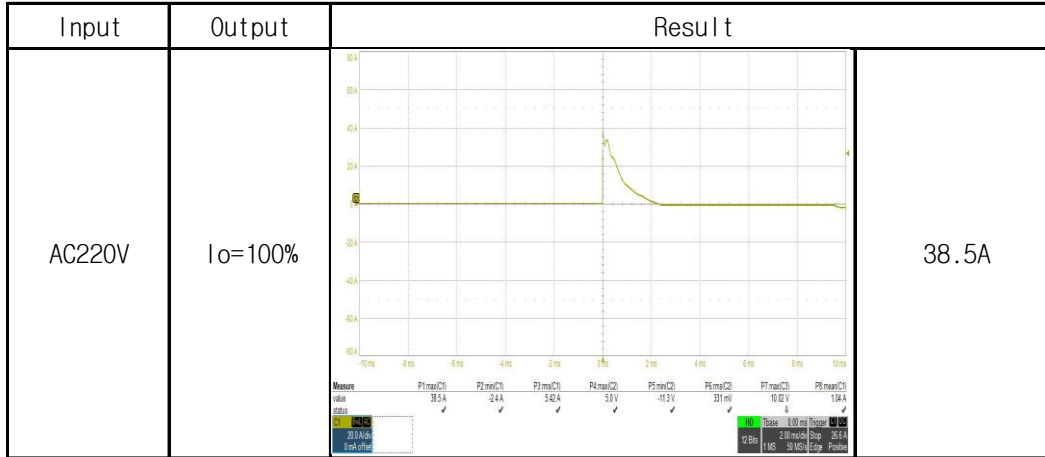
Specification : 2mA

	110V	220V
Line L [mA]	0.21	0.33
Line N [mA]	0.22	0.34

RP50-DDW

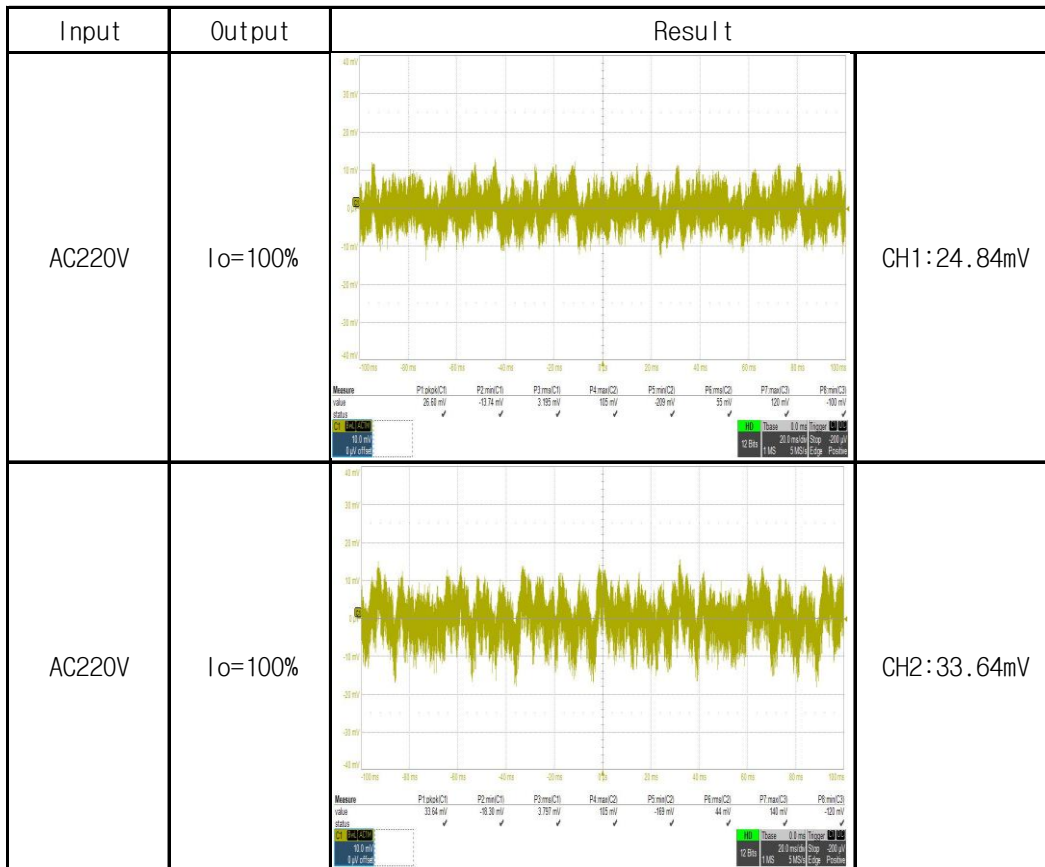
Inrush Current

Specification : 48A



Ripple & Noise

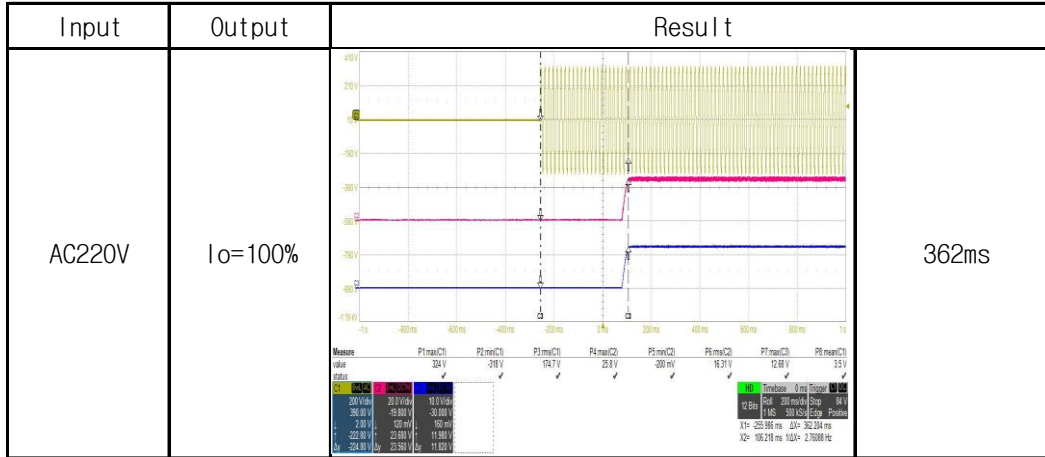
Specification : Ch1. 120mV / Ch2. 120mV



RP50-DDW

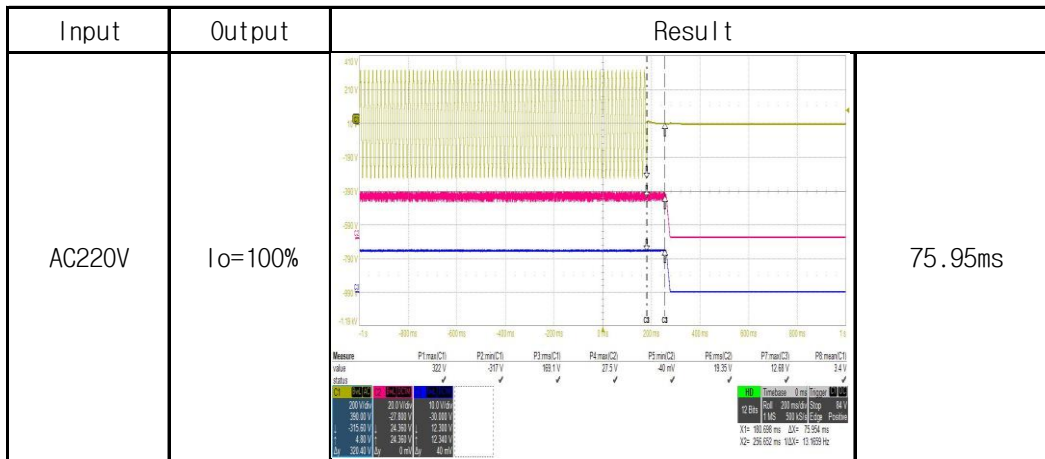
Turn on Time

Specification : 500ms



Hold up Time

Specification : 60ms



Electro Magnetic Compatibility

Item	Standard	Tset Condition	Result
EMI (Conduction/Radiation)	EN55032	AC230V, 50Hz, Full Load	Class B Pass
Harmonic Current	EN61000-3-2	AC230V, 50Hz, Full Load	Class A Pass
Electrostatic Discharge	EN61000-4-2	AC230V, 50Hz, Full Load Ari : 8kV, Contact : 4kV	Criteria A
Electrical Fast Transient	EN61000-4-4	AC230V, 50Hz, Full Load 2kV	Criteria A
Surge	EN61000-4-5	AC230V, 50Hz, Full Load Line-Line : 2kV Line-PE : 4kV	Criteria A

RP50-EEW

Input Current & Efficiency

Specification : 1.3A / 80% @ AC110V , 0.8A / 80% @ AC220V

I _o		V _{in}	AV85V	AC110V	AC220V	AC264V
		0%	Input Current [A]		0.044	0.042
Efficiency [%]			-	-	-	-
50%	Input Current [A]		0.580	0.468	0.324	0.266
	Efficiency [%]		79.8%	81.8%	80.4%	78.4%
100%	Input Current [A]		0.918	0.889	0.601	0.478
	Efficiency [%]		81.1%	82.6%	83.0%	82.3%

Line & Load Regulation

Specification : Line Regulation Ch1. ±75mV / Ch2. ±225mV

Load Regulation Ch1. ±450mV / Ch2. ±450mV

V _{in}			AC85V	AC110V	AC220V	AC264V	Line Regulation [mV]
		0%	CH1		15.04	15.04	15.04
CH2			15.19	15.18	15.04	15.08	150
50%	CH1		14.95	14.96	14.96	14.97	20
	CH2		15.22	15.20	15.10	15.17	120
100%	CH1		15.04	15.03	15.02	15.01	30
	CH2		15.25	15.22	15.19	15.19	60
Load Regulation [mV]	CH1		90	80	80	70	-
	CH2		60	40	150	110	

Leakage Current

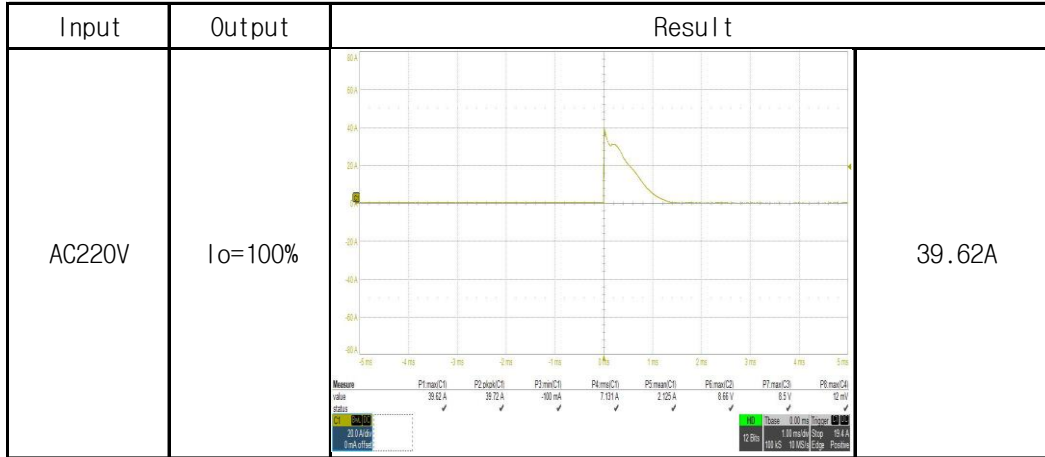
Specification : 2mA

	110V	220V
Line L [mA]	0.20	0.36
Line N [mA]	0.27	0.47

RP50-EEW

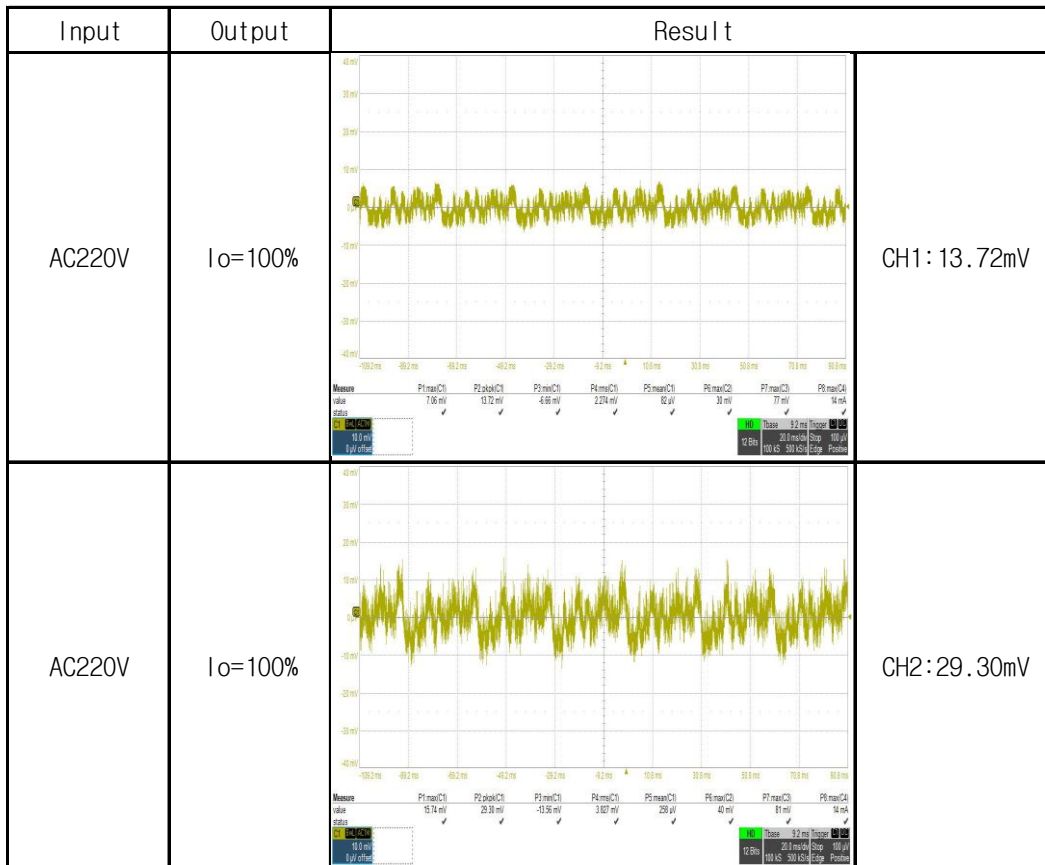
Inrush Current

Specification : 48A



Ripple & Noise

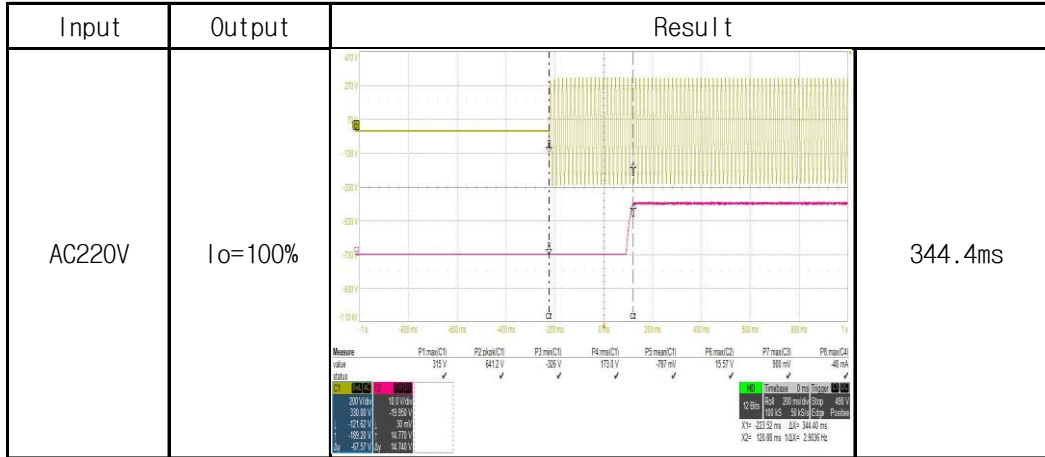
Specification : Ch1. 120mV / Ch2. 120mV



RP50-EEW

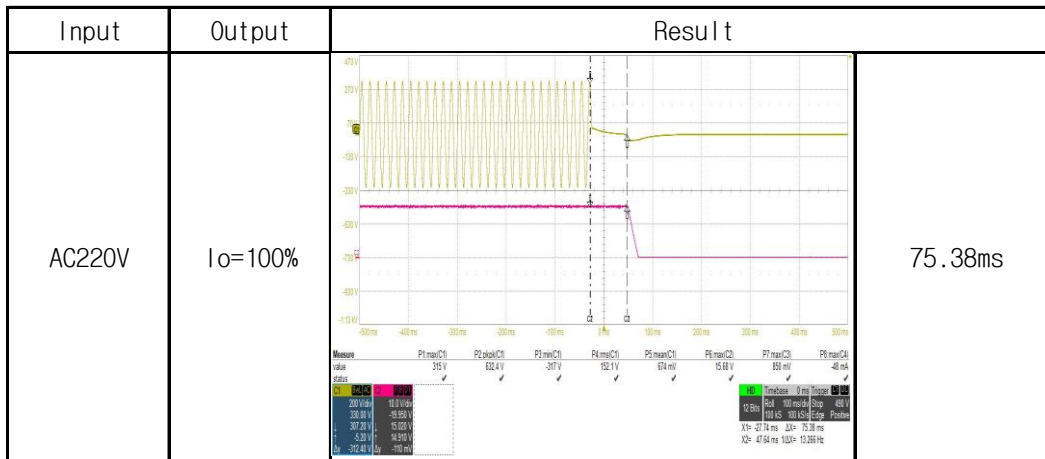
Turn on Time

Specification : 500ms



Hold up Time

Specification : 60ms



Electro Magnetic Compatibility

Item	Standard	Tset Condition	Result
EMI (Conduction/Radiation)	EN55032	AC230V, 50Hz, Full Load	Class B Pass
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Electrostatic Discharge	EN61000-4-2	AC230V, 50Hz, Full Load Ari : 8kV, Contact : 4kV	Criteria A
Electrical Fast Transient	EN61000-4-4	AC230V, 50Hz, Full Load 2kV	Criteria A
Surge	EN61000-4-5	AC230V, 50Hz, Full Load Line-Line : 2kV Line-PE : 4kV	Criteria A