

# Evaluation Data

품 목	SMPS
품 명	RP100-S
Rev. No.	A

**CE CB**

**ORIENT**  
ELECTRONICS

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# RP100-05

## Input Current & Efficiency

Specification : 1.9A / @ AC110V , 1.2A / 86% @ AC220V

I <sub>o</sub>		V <sub>in</sub>	AV85V	AC110V	AC220V	AC264V
		0%	Input Current [A]	0.023	0.029	0.054
	Efficiency [%]	-	-	-	-	
50%	Input Current [A]	0.924	0.854	0.569	0.447	
	Efficiency [%]	-	-	-	-	
100%	Input Current [A]	1.12	1.64	1.101	0.993	
	Efficiency [%]	78.4	81.7	87.8	87.9	

## Line & Load Regulation

Specification : Line Regulation ±25mV

Load Regulation ±50mV

V <sub>in</sub>	AC85V	AC110V	AC220V	AC264V	Line Regulation [mV]
0%	0.01	0.01	0.01	0.02	
50%	0.01	0.01	0.01	0.02	
100%	0.01	0.01	0.01	0.02	
Load Regulation [mV]	11	12	12	11	

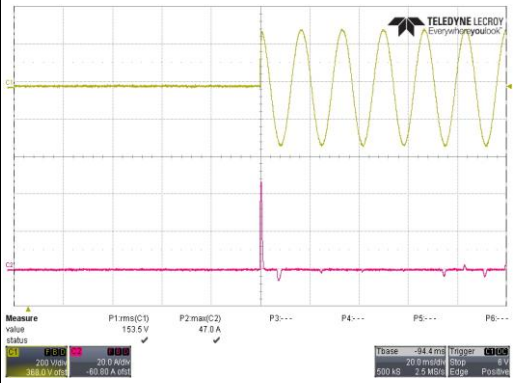
## Leakage Current

Specification : 0.75mA

	110V	220V
Line L [mA]	0.23	0.24
Line N [mA]	0.21	0.24

## Inrush Current

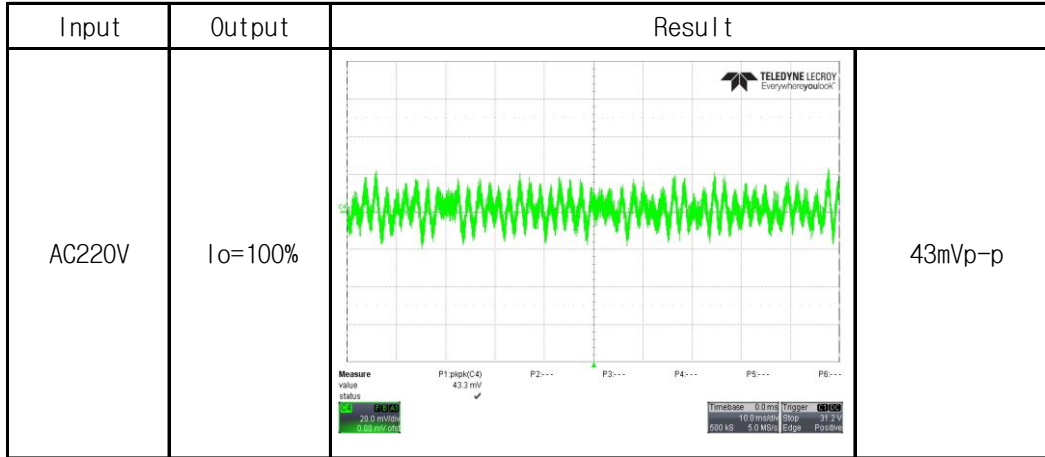
Specification : 50A

Input	Output	Result
AC220V	I <sub>o</sub> =100%	 <p>48A</p>

# RP100-05

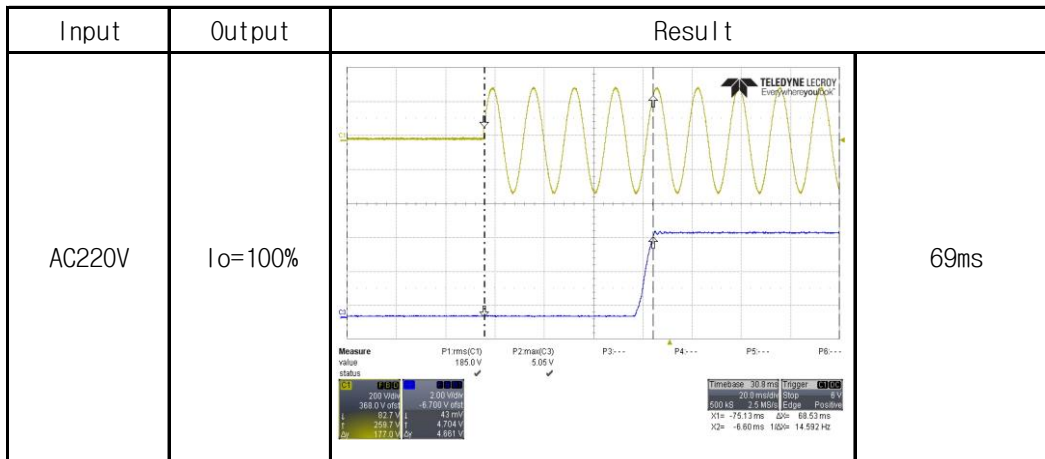
## Ripple & Noise

Specification : 100mVp-p



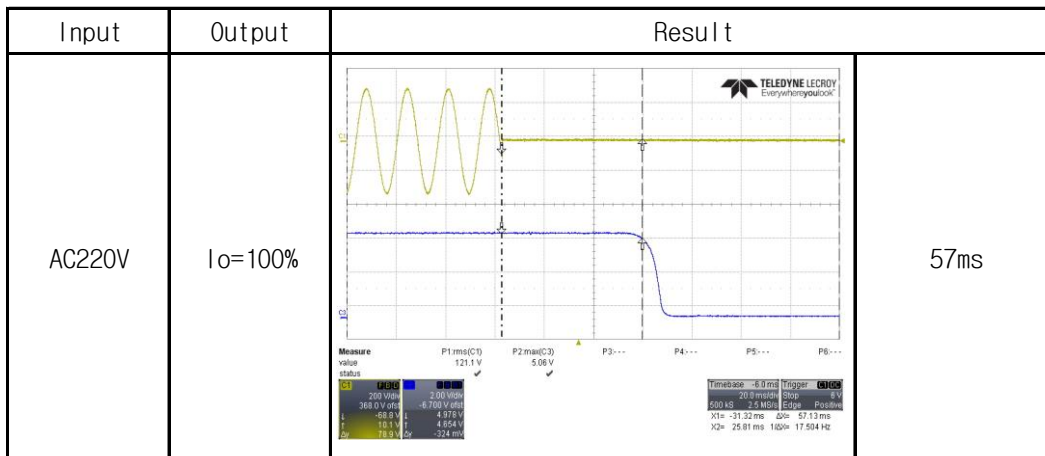
## Turn on Time

Specification : 500ms



## Hold up Time

Specification : 55ms



# RP100-05

## 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

# RP100-12

## Input Current & Efficiency

Specification : 1.9A / @ AC110V , 1.2A / 88% @ AC220V

Io		Vin	AV85V	AC110V	AC220V	AC264V
		0%	Input Current [A]	0.023	0.029	0.054
	Efficiency [%]	-	-	-	-	
50%	Input Current [A]	0.945	0.921	0.571	0.485	
	Efficiency [%]	-	-	-	-	
100%	Input Current [A]	1.87	1.76	1.01	0.973	
	Efficiency [%]	82.2	84.6	89.1	89.9	

## Line & Load Regulation

Specification : Line Regulation  $\pm 60\text{mV}$

Load Regulation  $\pm 60\text{mV}$

Vin	AC85V	AC110V	AC220V	AC264V	Line Regulation [mV]
0%	0.01	0.01	0.022	0.022	
50%	0.01	0.01	0.022	0.022	
100%	0.01	0.01	0.022	0.022	
Load Regulation [mV]	0.24	0.24	0.25	0.24	

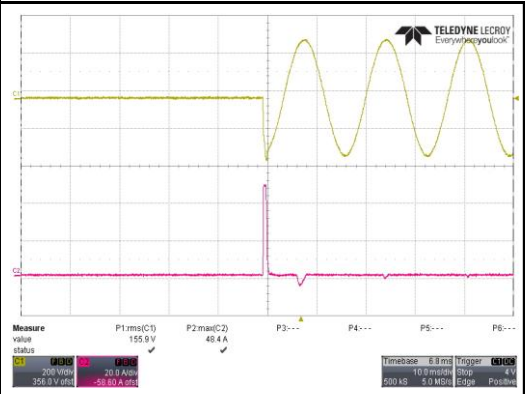
## Leakage Current

Specification : 0.75mA

	110V	220V
Line L [mA]	0.23	0.22
Line N [mA]	0.23	0.22

## Inrush Current

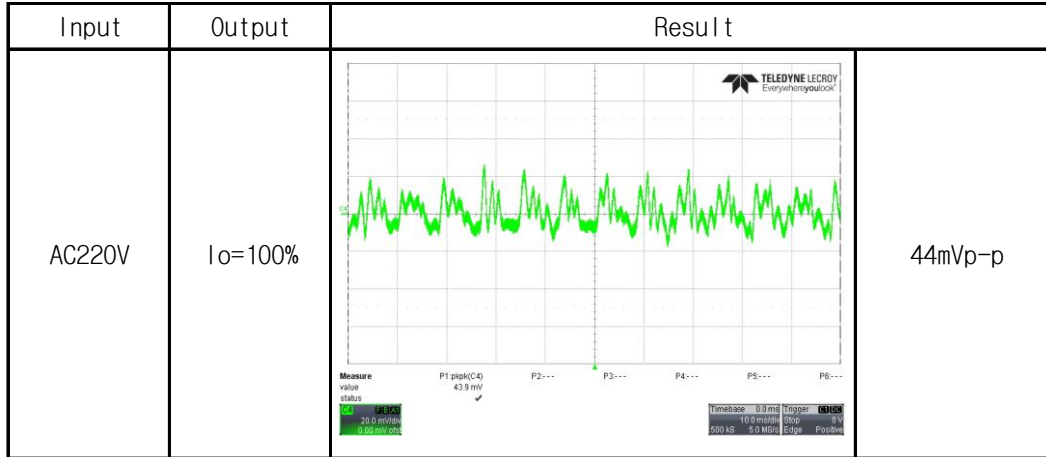
Specification : 50A

Input	Output	Result
AC220V	Io=100%	 <p>48A</p>

# RP100-12

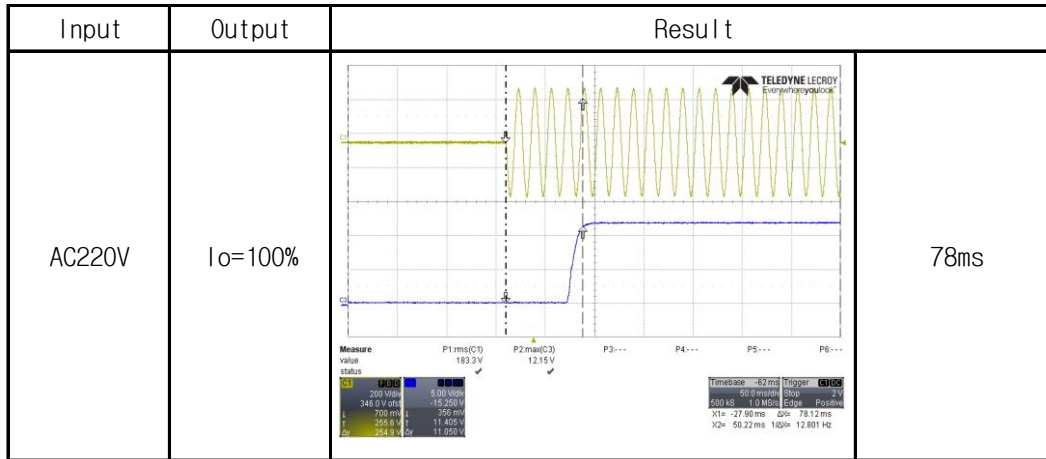
## Ripple & Noise

Specification : 120mVp-p



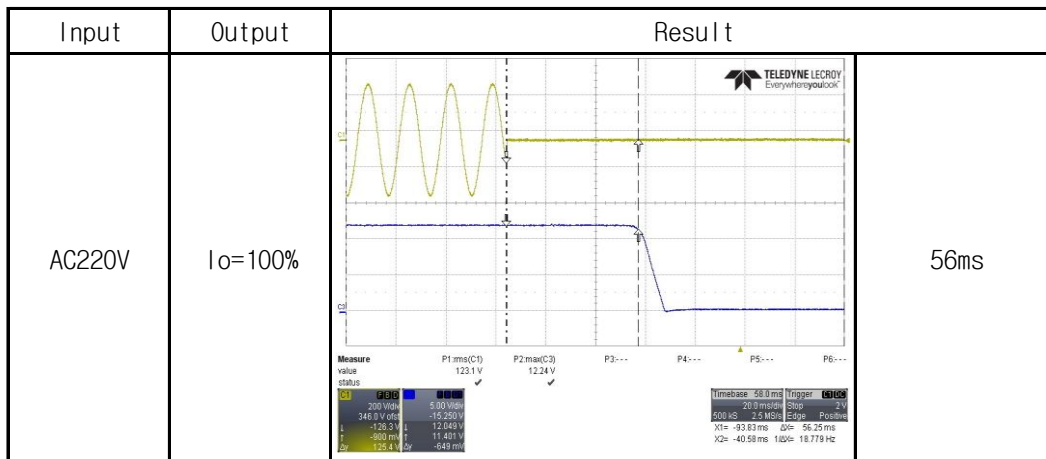
## Turn on Time

Specification : 500ms



## Hold up Time

Specification : 55ms



# RP100-12

## 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



# RP100-24

## Input Current & Efficiency

Specification : 1.9A / @ AC110V , 1.2A / 90% @ AC220V

Io		Vin	AV85V	AC110V	AC220V	AC264V
		0%	Input Current [A]	0.025	0.03	0.054
	Efficiency [%]	-	-	-	-	
50%	Input Current [A]	0.924	0.948	0.589	0.534	
	Efficiency [%]	-	-	-	-	
100%	Input Current [A]	1.85	1.8	1.15	1.03	
	Efficiency [%]	84.6	87.7	92.1	91.8	

## Line & Load Regulation

Specification : Line Regulation  $\pm 60\text{mV}$

Load Regulation  $\pm 60\text{mV}$

Vin	AC85V	AC110V	AC220V	AC264V	Line Regulation [mV]
0%	0.01	0.01	0.022	0.022	
50%	0.01	0.01	0.022	0.022	
100%	0.01	0.01	0.022	0.022	
Load Regulation [mV]	0.14	0.14	0.15	0.14	

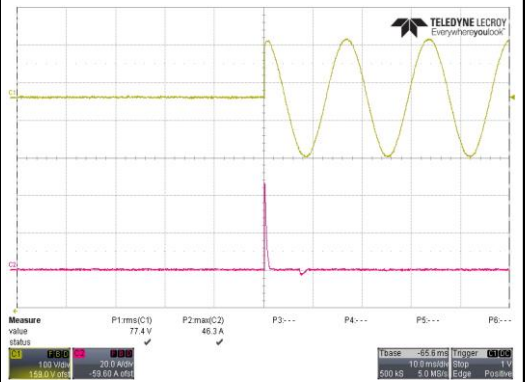
## Leakage Current

Specification : 0.75mA

	110V	220V
Line L [mA]	0.2	0.21
Line N [mA]	0.2	0.21

## Inrush Current

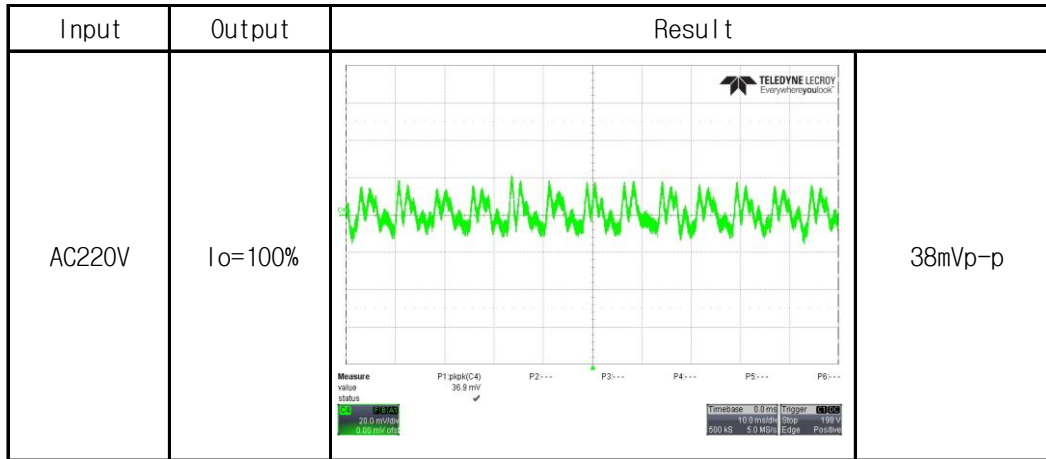
Specification : 50A

Input	Output	Result
AC220V	Io=100%	 <p>48A</p>

# RP100-24

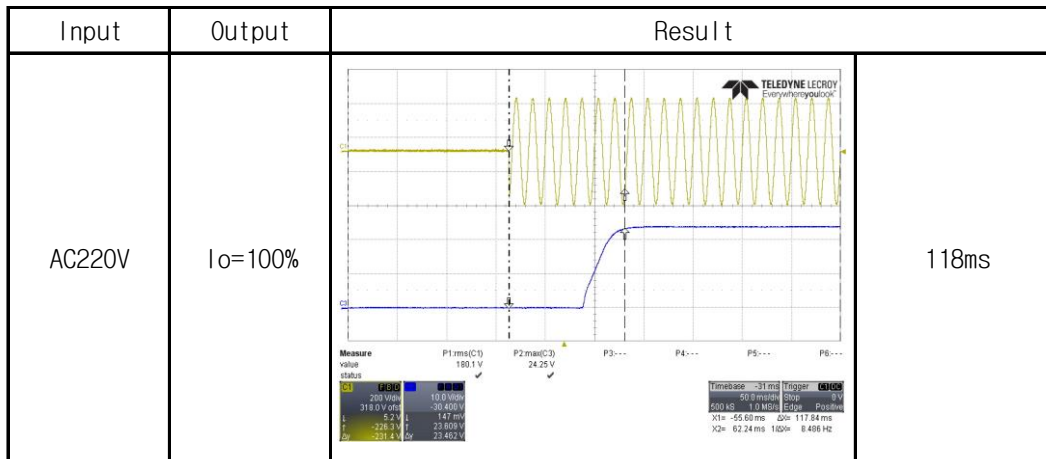
## Ripple & Noise

Specification : 135mVp-p



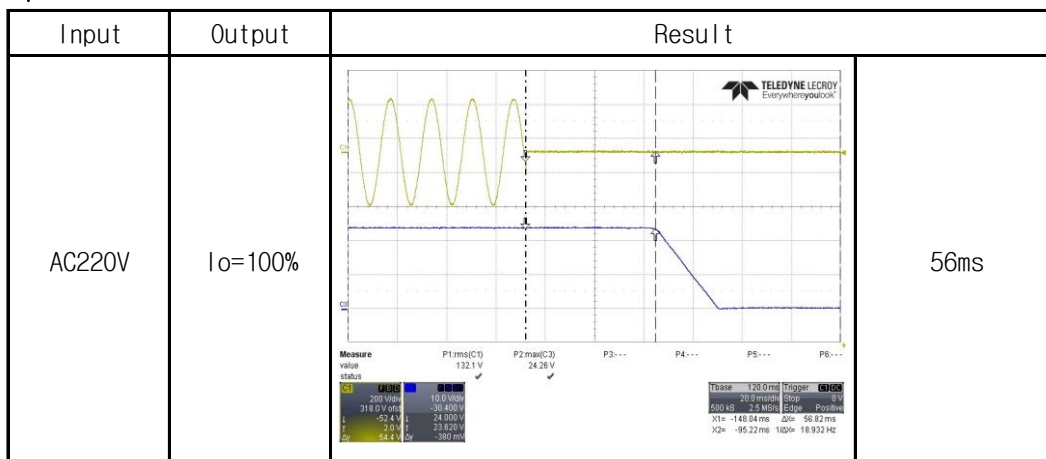
## Turn on Time

Specification : 500ms



## Hold up Time

Specification : 55ms



# RP100-24

## 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

# RP100-48

## Input Current & Efficiency

Specification : 1.9A / @ AC110V , 1.2A / 91% @ AC220V

Io		Vin	AV85V	AC110V	AC220V	AC264V
		0%	Input Current [A]	0.025	0.031	0.055
	Efficiency [%]	-	-	-	-	
50%	Input Current [A]	0.945	0.921	0.571	0.485	
	Efficiency [%]	-	-	-	-	
100%	Input Current [A]	1.89	1.83	1.15	1.01	
	Efficiency [%]	84.8	87.6	92.1	91.7	

## Line & Load Regulation

Specification : Line Regulation  $\pm 240\text{mV}$

Load Regulation  $\pm 240\text{mV}$

Vin	AC85V	AC110V	AC220V	AC264V	Line Regulation [mV]
0%	0.01	0.01	0.022	0.022	
50%	0.01	0.01	0.022	0.022	
100%	0.01	0.01	0.022	0.022	
Load Regulation [mV]	0.8	0.8	0.82	0.82	

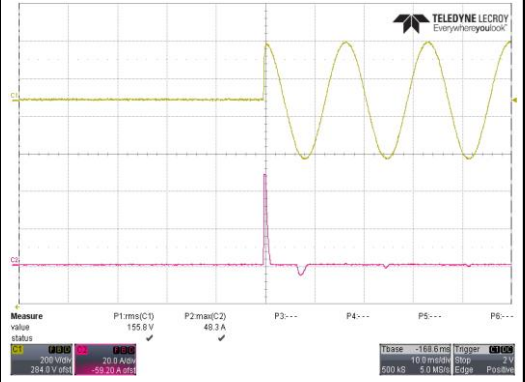
## Leakage Current

Specification : 0.75mA

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

## Inrush Current

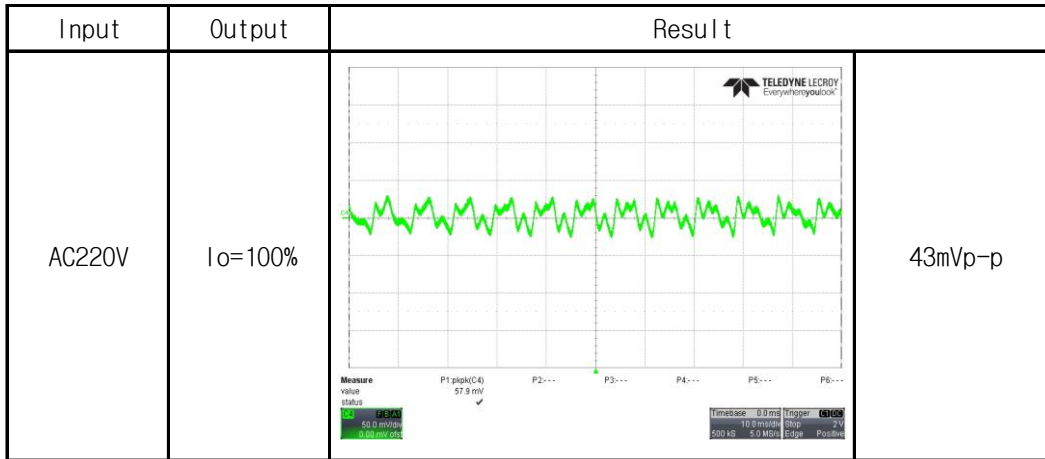
Specification : 50A

Input	Output	Result
AC220V	Io=100%	 <p>48A</p>

# RP100-48

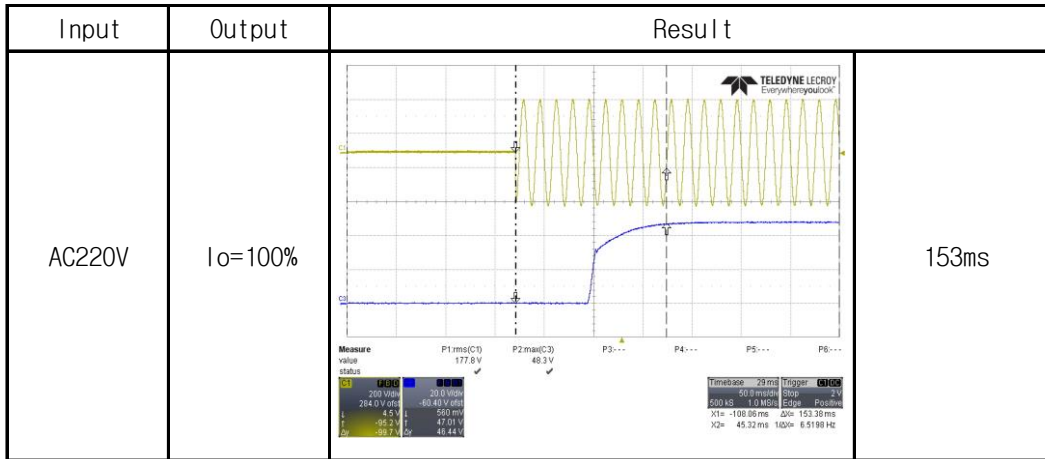
## Ripple & Noise

Specification : 200mVp-p



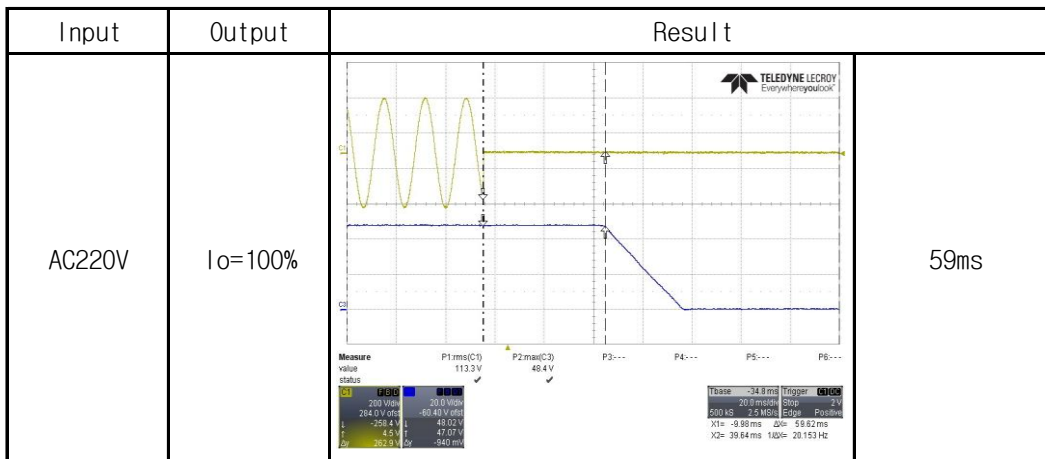
## Turn on Time

Specification : 500ms



## Hold up Time

Specification : 55ms



# RP100-48

## 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