CUSTOMER :

APPROVAL SHEET

Item	:	Switching Power Supply
Code Number	:	
Model	:	LDP50W-12V
Customer Model	:	
Revision Number	:	Rev 1.0
Issue Data	:	2012. 12. 04.
Condition	:	1.
		2.
		3.

Designed	Checked	Checked	Approval

Reference

Written	Checked	Approval

[주]엔씨엘이디

(주) 엔 씨 엘 이 디

우)134-859 서울시 강동구 암사동 500-1 미래빌딩 4층

#4F, Mirae B/D 500-1, 134-859 Amsa-dong Gangdong-gu Seoul, Korea

TEL : 82-2-474-8581 FAX : 82-2-429-8581

SMPS Module Specification LDP50W-12V

1.1 Input Characteristics

AC input voltage rating	220Vac
AC input voltage range	210Vac ~ 230Vac
AC input frequency range	60Hz
Input current	300 mA Max.
Input Power	33W Max.
Power factor	0.5 Min
Efficiency	80% Min

1.2 Output Characteristics

Output Voltage	12.0V
Output Tolerance	±6%
Min. load current	0A
Max. load current	2.50A
Output Power	30W

1.3 Performance Specifications

Load Regulation	±6%

1.4 Protection Features

Over Current Protection	Output shut down with auto-recovery
Short Circuit Protection	Output shut down with auto-recovery
Over Voltage or Load Protection	Output shut down with auto-recovery

1.5 Environments

Operating Temperature	-20℃ to +50℃
Storage Temperature	-30℃ to +70℃
Operating Humidity	20% to 90% R.H.
Storage Humidity	0% to 95% R.H.

1.6 Dielectric Withstand Voltage (Hi-Pot)

condition : non operating

Test Point : primary to secondary	3.0KVac, 10㎃, 3Sec

1.7 Insulation Resistance

condition : non operating

Test Point : primary to secondary	Greater than 100㏁ at 500 VDC

1.8 Reset After Shut Down

If the power supply latches into fold back or shut down state due to a fault condition on its outputs (over current or short circuit), the power supply sharp return to normal operation only after fault has been removed.

2 Performance Evaluation

This session presents the test results of SMPS module up to data. Results on inrush

current and safety test are not included and will be added when they become available. Overall, the module meets design specifications.

2.1 Input Characteristics

2.1. 1 Input current and Standby power

The module was tested at different input voltages (from 210Vac to 230Vac)

Standby power at no load

Input Voltage	210V/60Hz	220V/60Hz	230V/60Hz
Pin (mW)	2.70W	3.10W	3.20W

Input current at full load

Input Voltage	210V/60Hz	220V/60Hz	230V/60Hz
Input Current (A)	278mA	272mA	271mA

Efficiency

Input Voltage	210V/60Hz	220V/60Hz	230V/60Hz
Input Power (W)	31.2W	32.2W	33.0W
Output Power (W)	28W	30W	31W
Power factor	0.53	0.52	0.55
Efficiency (%)	90%	92%	92%

2.2 Output Characteristics

2.2.1 Load Regulation

Input Voltage	Output Voltage (V)		
	Min Load	Nor. Load	Max Load
210V/60Hz	–	–	11.32V
220V/60Hz	–	–	11.83V
230V/60Hz	–	–	12.35V

CUSTOMER :

APPROVAL SHEET

Item	:	Switching Power Supply
Code Number	:	
Model	:	LDP100W-12V
Customer Model	:	
Revision Number	:	Rev 1.0
Issue Data	:	2012. 12. 04.
Condition	:	1.
		2.
		3.

Designed	Checked	Checked	Approval

Reference

Written	Checked	Approval

NC LED
[주]엔씨엘이디

(주) 엔 씨 엘 이 디

우)134-859 서울시 강동구 암사동 500-1 미래빌딩 4층

#4F, Mirae B/D 500-1, 134-859 Amsa-dong Gangdong-gu Seoul, Korea

TEL : 82-2-474-8581 FAX : 82-2-429-8581

SMPS Module Specification LDP100W-12V

1.1 Input Characteristics

AC input voltage rating	220Vac
AC input voltage range	210Vac ~ 230Vac
AC input frequency range	60Hz
Input current	500 mA Max.
Input Power	66W Max.
Power factor	0.5 Min
Efficiency	80% Min

1.2 Output Characteristics

Output Voltage	12.0V
Output Tolerance	±8%
Min. load current	0A
Max. load current	5.00A
Output Power	60W

1.3 Performance Specifications

Load Regulation	±8%

1.4 Protection Features

Over Current Protection	Output shut down with auto-recovery
Short Circuit Protection	Output shut down with auto-recovery
Over Voltage or Load Protection	Output shut down with auto-recovery

1.5 Environments

Operating Temperature	-20℃ to +50℃
Storage Temperature	-30℃ to +70℃
Operating Humidity	20% to 90% R.H.
Storage Humidity	0% to 95% R.H.

1.6 Dielectric Withstand Voltage (Hi-Pot)

condition : non operating

Test Point : primary to secondary	3.0KVac, 10㎃, 3Sec

1.7 Insulation Resistance

condition : non operating

Test Point : primary to secondary	Greater than 100㏁ at 500 VDC

1.8 Reset After Shut Down

If the power supply latches into fold back or shut down state due to a fault condition on its outputs (over current or short circuit), the power supply sharp return to normal operation only after fault has been removed.

2 Performance Evaluation

This session presents the test results of SMPS module up to data. Results on inrush

current and safety test are not included and will be added when they become available. Overall, the module meets design specifications.

2.1 Input Characteristics

2.1. 1 Input current and Standby power

The module was tested at different input voltages (from 210Vac to 230Vac)

Standby power at no load

Input Voltage	210V/60Hz	220V/60Hz	230V/60Hz
Pin (mW)	2.50W	2.70W	3.00W

Input current at full load

Input Voltage	210V/60Hz	220V/60Hz	230V/60Hz
Input Current (A)	495mA	489mA	484mA

Efficiency

Input Voltage	210V/60Hz	220V/60Hz	230V/60Hz
Input Power (W)	59.3W	62.8W	61.2W
Output Power (W)	54W	58W	59W
Power factor	0.55	0.55	0.55
Efficiency (%)	92%	92%	96%

2.2 Output Characteristics

2.2.1 Load Regulation

Input Voltage	Output Voltage (V)		
	Min Load	Nor. Load	Max Load
210V/60Hz	–	–	11.08V
220V/60Hz	–	–	11.68V
230V/60Hz	–	–	12.25V