

접 수 번 호 : 24-086069-01-1
(Receipt No.)



안 전 인 증 서

Safety Certificate

안 전 인 증 번 호 : SU10509-23003A
(Certificate No.)

제 조 업 자/수 입 업 자 명 : SuZhou MEAN WELL Technology Co., Ltd.
(Manufacturer/importer)

주 소 : No.269, ChangPing Road, Huangdai Town, Xiangcheng District,
(Address) Suzhou, China

제 품 명 : 직류전원장치(Switching Power Supply)
(Product)

기 본 모 델 명 : NPB-360-12TB
(Basic Model)

파 생 모 델 명 : See the attachment 2
(Series Model)

정격/안전기준상의 모델구분 : Input: 100-240 Vac, 50/60 Hz, 4.5 A;
(Rating) Output: 14.4 Vdc/ 20.0 A;

시 험 기 준 : KC62368-1(2021-08)
(Standard)

본 인증서는 제 조 국 명 : 중국
제 조 업 자 명 : SuZhou MEAN WELL Technology Co., Ltd.
제조공장의 주소 : No.269, ChangPing Road, Huangdai Town, Xiangcheng District, Suzhou, China
의 제품에만 해당함

「전기용품 및 생활용품 안전관리법 시행규칙」 제9조제2항, 제4항, 제10조제2항 또는 제15조제2항에 따라 안전인증서를 발급합니다.

We Issue This Safety Certificate for the above appliances in accordance with the Article 9(2), 9(4), 10(2) or 15(2) of the Enforcement Rule of the Electrical Appliances and Consumer Products Safety Control Act.

2025 년 03 월 05 일
Year month day

한국산업기술시험원장
KOREA TESTING LABORATORY



※ 이 인증서는 「전기용품 및 생활용품 안전관리법 시행규칙」에 따른 제품의 안전성 확인에 한정된 것이며, 그 밖의 다른 법률이 적용되는 제품의 경우에는 해당 법률에 따라 추가로 인증·허가 등을 받아야 합니다.

첨부서류

1. 전기용품의 안전관리부품 및 재질목록(List of Critical Components)
2. 기본모델·파생모델의 내용 (Descriptions of the basic and series model)
3. 안전인증의 변경 현황 (Revisions Status)

안전인증 및 자율안전확인을 받은 자의 유의사항

Notification for recipient (license holder) of Safety Certification and Confirmation Letter of Declaration

1. 본 인증서 또는 신고증명서는 기재된 제조공장에서 생산된 제품으로서 적용된 안전기준에 적합한 경우에 한하여 유효합니다. (This certificate or confirmation letter of declaration is valid only when the product meets the applied safety standard(s) and is manufactured from the manufacturing factory that appears on this certificate.)
2. 안전인증 또는 안전확인 마크는 본래의 의미와 다르게 사용자가 오해를 일으킬 수 있는 방법으로 광고, 카탈로그 등에 사용하면 인증정지 또는 취소의 사유가 됩니다. (Termination or cancellation of the certification may occur if the actual meaning of this safety certification mark(KC-mark) or Confirmation Letter of Declaration mark(KC-mark) is misled to the public by false advertisement on a overstated catalog of the product.)
3. 다음과 같은 사유가 발생할 경우에는 사유가 발생한 날로부터 15일 이내에 안전인증기관에 안전인증 또는 안전확인 변경 신청을 하여 안전인증서 또는 안전확인신고 증명서를 재교부 받아야 합니다. (In case of the following events, this safety certificate or Confirmation Letter of Declaration shall be reapplied within 15 days from the events and reissued for revision.)
 - 1) 제조업자, 수입업자, 주소 등 인증서 기재내용의 변경 (Revision in contents of the certificate such as factory name, importer, factory address, etc)
 - 2) 파생모델의 추가, 변경 또는 삭제 (Adds, changes, or removals of derivative(minor series) model)
 - 3) 안전관리부품의 변경 또는 추가 (Adds or changes in critical components list)
 - 4) 인증서 또는 신고증명서의 분실 또는 훼손 (Losses or damages to this certificate or confirmation letter of declaration)
4. 안전인증 또는 안전확인을 받은 자는 다음 사항을 이행하여야 합니다. (The recipient (license holder) of safety certification (KC-mark) or confirmation letter of declaration shall comply with the followings.)
 - 1) 안전인증표시 등 인증요건의 유지 관리 (Maintaining and managing the marking of safety certification and other certification requirements)
 - ※ 안전인증을 받기 이전 또는 정지, 취소된 이후 생산된 제품에 안전 표시를 하면 법에 의거 처벌을 받게 됨 (It will be punished by the Act if the certification mark is used before the issue (or after suspension or cancellation) of the certification)
 - 2) 자체검사의 실시 및 그 기록관리 (Self Product Verification and record keeping)
 - ※ 안전인증을 받은 자는 제품검사를 철저히 실시하여 제품의 품질이 안전기준에 미달되지 않도록 유의 (Recipients (license holder) of the safety certification (KC-mark) shall conduct products inspection strictly for products to comply with the safety standard.)
5. 안전인증을 받은 자는 전기용품 및 생활용품 안전관리법 제7조 1항 및 동법 시행령 제9조에 의거 2년에 1회 정기검사를 받아야 합니다. (Recipients (license holder) of the safety certification (KC-mark) shall receive routine (regular) factory inspection once every two years according to the Electrical Appliances and Consumer products Safety Control Act article 7(1) and article 9 of Enforcement decree of the same Act.)

(연락처: 인증융합센터, Tel 055-791-3400, 3401)
(Contact point: Certification Evaluation Center Tel: +82 55 791 3400, 3401)

□ 첨부 1 : 전기용품의 안전관리부품 및 재질목록
List of Critical Components

부품명(회로기호) Component(Part no.)	제조사(상표명) Manufacturer(Brand)	모델명(형식) Model(Type)	정격 또는 특성 Rating or Characteristics	인증마크 Tested by
Metal chassis	Interchangeable	Interchangeable	SGCC for appliance inlet side and output side panel, min. 1.0 mm thickness. Aluminum for the unit bodies, min. 1.6 mm thickness. Three pieces of construction secured together by screws.	--
PCB	Interchangeable	Interchangeable	V-1 or better, min. 130 °C	--
AC inlet	Tecx-Unions technology Corp	TU-301-S, TU-301-SP	250 Vac, 10 A, 70 °C, C14 type	ENEC
Power Switch	Chily Precision Industrial Co Ltd	3024	Rated 16(8) A, 250 Vac, 85 °C	ENEC
(Alternate)	Chily Precision Industrial Co Ltd	3010	10(4) A, 250 VAC, T85, 1E4 cycles	ENEC
Fuse (FS1)	Conquer Electronics Co., Ltd.	MST	T6.3 A, 250 Vac	VDE
(Alternate)	Suzhou Walter Electronic Co. Ltd.	2010	T6.3 A, 250 Vac	VDE
Varistor (ZNR1) (Optional)	Thinking Electronic Industrial Co., Ltd.	TVR10471	300 Vac, 385 Vdc, 105 °C (Flame class of body coating complied with V-0)	VDE
(Alternate)	Thinking Electronic Industrial Co., Ltd.	TVR10471-V	300 Vac, 385 Vdc, 105 °C (Flame class of body coating complied with V-0)	TUV
(Alternate)	Thinking Electronic Industrial Co., Ltd.	TVR10471-D	300 Vac, 385 Vdc, 105 °C (Flame class of body coating complied with V-0)	VDE
(Alternate)	Thinking Electronic Industrial Co., Ltd.	TVR10471-M	300 Vac, 385 Vdc, 125 °C (Flame class of body coating complied with V-0)	VDE

부품명(회로기호) Component(Part no.)	제조사(상표명) Manufacturer(Brand)	모델명(형식) Model(Type)	정격 또는 특성 Rating or Characteristics	인증마크 Tested by
(Alternate)	Joyin Co., Ltd.	JVT10S471K	300 Vac, 385 Vdc, 125 °C (Flame class of body coating complied with V-0)	VDE
(Alternate)	Guangdong Huiwan Electronics, Technology Co., Ltd.	V-471K-10DEH	300 Vac, 385 Vdc, 125 °C (Flame class of body coating complied with V-0)	VDE
X-Cap (C1) (Optional)	KEMET ELECTRONICS ITALIA SRL	R.46	Rated max. 1.0 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Liow Gu Electronics Industry Co., Ltd	GS-L	Rated max. 1.0 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Ultra Tech Xiphi Enterprise Co. Ltd.	HQX	Rated max. 1.0 uF, min. 250 V, 110 °C, X2 type.	VDE
(Alternate)	Hua Jung Components Co Ltd	MKP	Rated max. 1.0 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Carli Electronics, Co., Ltd.	MPX	Rated max. 1.0 uF, min. 250 V, min. 100 °C, X2 type.	VDE
(Alternate)	Yangzhou Nissei Electronics Co Ltd	MP1	Rated max. 1.0 uF, min. 250 V, min. 100 °C, X2 type.	VDE
(Alternate)	Joey Electronics (Dong Guan) Co., Ltd.	MPX	Rated max. 1.0 uF, min. 250 V, 105 °C, X2 type.	VDE
X-Cap (C2) (Optional)	KEMET ELECTRONICS ITALIA SRL	R.46	Rated max. 0.68 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Liow Gu Electronics Industry Co., Ltd	GS-L	Rated max. 0.68 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Ultra Tech Xiphi Enterprise Co. Ltd.	HQX	Rated max. 0.68 uF, min. 250 V, 110 °C, X2 type.	VDE
(Alternate)	Hua Jung Components Co Ltd	MKP	Rated max. 0.68 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Carli Electronics, Co., Ltd.	MPX	Rated max. 0.68 uF, min. 250 V, min. 100 °C, X2 type.	VDE

부품명(회로기호) Component(Part no.)	제조사(상표명) Manufacturer(Brand)	모델명(형식) Model(Type)	정격 또는 특성 Rating or Characteristics	인증마크 Tested by
(Alternate)	Yangzhou Nissei Electronics Co Ltd	MP1	Rated max. 0.68 uF, min. 250 V, min. 100 °C, X2 type.	VDE
(Alternate)	Joey Electronics (Dong Guan) Co., Ltd.	MPX	Rated max. 0.68 uF, min. 250 V, 105 °C, X2 type.	VDE
Bleeder Resistor (R1, R2, R3, R4) (Optional, when C1 and C2 are optional used)	Interchangeable	Interchangeable	Each rated max. 200 kΩ , 1/4 W	--
Y-Cap (C3, C4, C7, C8) (Optional)	Murata Mfg. Co., Ltd.	KX	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	TDK Corporation	CD (miniature series)	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	Walsin Technology Corp.	AH	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	Walsin Technology Corp.	AS	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	Xiamen Wanming Electronics Co., Ltd.	HJ	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	VISHAY Electronic GmbH	VY1 Series	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	Guangdong Huiwan Electronics Technology Co Ltd	AR	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
Y-Cap (C31, C32) (Optional)	Murata Mfg. Co., Ltd.	KX	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
(Alternate)	TDK Corporation	CD (miniature series)	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
(Alternate)	Walsin Technology Corp.	AH	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE

부품명(회로기호) Component(Part no.)	제조사(상표명) Manufacturer(Brand)	모델명(형식) Model(Type)	정격 또는 특성 Rating or Characteristics	인증마크 Tested by
(Alternate)	Walsin Technology Corp.	AS	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
(Alternate)	Xiamen Wanming Electronics Co., Ltd.	HJ	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
(Alternate)	VISHAY Electronic Gmbh	VY1 Series	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
(Alternate)	Guangdong Huiwan Electronics Technology Co Ltd	AR	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
Relay (RY1)	Tyco Electronics (Shenzhen) Co., Ltd.	OJE-SS-112LMH	Rated 8 A, 277 Vac, 105 °C (Coil insulation: Class A)	TUV
(Alternate)	Tyco Electronics (Shenzhen) Co., Ltd.	OJ-SH-112LMH	Rated 8 A, 277 Vac, 105 °C (Coil insulation: Class A)	TUV
(Alternate)	Tyco Electronics (Shenzhen) Co., Ltd.	OJE-SH-112LMHF	Rated 8 A, 277 Vac, 105 °C (Coil insulation: Class A)	TUV
(Alternate)	Xiamen Hongfa, Electroacoustic Co., Ltd.	HF32FVG12HSTF	Rated 10 A, 277 Vac, 105 °C (Coil insulation: Class A)	VDE
(Alternate)	Xiamen Hongfa, Electroacoustic Co., Ltd.	HF32FVG12HSLTF	Rated 8 A, 277 Vac, 105 °C (Coil insulation: Class A)	VDE
(Alternate)	Tyco Electronics (Shenzhen) Co., Ltd.	OJ-SH-112LMH2	Rated 8 A, 277 Vac, 105 °C	TUV
Photo coupler (U3, U4)	COSMO Electronics Corporation	K1010	Reinforced insulation	VDE
(Alternate)	Lite-On Technology Corporation	LTV-817, LTV-817M	Reinforced insulation	VDE
(Alternate)	Sharp Corp., Electronic Components Group	PC123	Reinforced insulation	VDE
(Alternate)	CT Micro International Corporation	CT817B(V)(M)-HG	Reinforced insulation	VDE

부품명(회로기호) Component(Part no.)	제조사(상표명) Manufacturer(Brand)	모델명(형식) Model(Type)	정격 또는 특성 Rating or Characteristics	인증마크 Tested by
Choke (LF1) (Optional)	Mean Well Enterprises Co., Ltd.	TR-889	Min. 130 °C.	--
Choke (LF2) (Optional)	Mean Well Enterprises Co., Ltd.	TR-894	Min. 130 °C.	--
Choke (LF3) (Optional)	Mean Well Enterprises Co., Ltd.	TR-548	Min. 130 °C.	--
Choke (L1) (Optional)	Mean Well Enterprises Co., Ltd.	TR-5211	Min. 130 °C.	--
Transformer (T1)	Mean Well Enterprises Co., Ltd.	TF-5689A	Class B.	--
Transformer (T1)	Mean Well Enterprises Co., Ltd.	TF-5690A	Class B.	--
Transformer (T1)	Mean Well Enterprises Co., Ltd.	TF-5691A	Class B.	--
DC Fan	Yen Sun Technology Corp.	FD124010EBN-CAV	Rated 12 Vdc, min. 8.71 CFM	TUV
(Alternate)	Guangdong Shenghui Technology Co., LTD	CHA4012BH-10B	Rated 12 Vdc, 0.1 A, min. 8.415 CFM	TUV
External plastic enclosure	Interchangeable	Interchangeable	Min. V-1.	UL

☐ 유의사항 (Attention) :

- 안전관리부품은 전기적인 안전에 직접적인 영향을 주는 부품으로서 안전인증기관이 정기공장검사 시 확인 관리 하는 사항입니다. 따라서 상기목록에 기재된 사항을 변경하거나 또는 복수등재를 원하시는 경우는 안전인증기관에 인증변경신청을 하여야 합니다.

As the "Critical components" are parts in directly related with safety, these components shall be checked during a factory inspection by the certification body. In case of applying multiple listing or changing the items above, the certification revision shall be applied.

- 인증변경신청 없이 임의로 변경하는 경우는, 전기용품 및 생활용품 안전관리법 시행규칙 제 21 조제 1 항 또는 제 38 조제 1 항 규정에 의한 안전인증 취소 혹은 안전확인신고 효력상실 사유가 됨을 유의하시기 바랍니다.

The Safety Certification will be cancelled under the Article 21(1), 38(1) of the Enforcement Rule of the Electrical appliances and Consumer Products Safety Control Act if the contents of the Certification is altered without our authorization.

□ 첨부 2 : 기본모델 · 파생모델의 내용
Description of the basic and series model

파생모델명 Derivative model	기본모델과의 차이점 Differences between the basic and derivative model(s)
NPB-360-12AD1	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 14.4 Vdc, 20.0 A
NPB-360-12XLR	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 14.4 Vdc, 20.0 A
NPB-360-24TB	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 28.8 Vdc, 12 A
NPB-360-24AD1	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 28.8 Vdc, 12 A
NPB-360-24XLR	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 28.8 Vdc, 12 A
NPB-360-48TB	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 57.6 Vdc, 6 A
NPB-360-48AD1	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 57.6 Vdc, 6 A
NPB-360-48XLR	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 57.6 Vdc, 6 A

제품특기사항 및 시험조건
Remarks & Test conditions

1. Review Ref. No.: 23-025502-01-2
 - UL Taiwan Ref. No.: 4790808256.1
2. Product Description: Switching Power Supply
 - Measured Power Consumption: 326 W
 - Insulation Class: Class I
 - Protection against Ingress of water: IPX0
 - Mass of Equipment: 1.03 kg (for output cable type) /
0.97 kg (for terminal block type)

☐ 본 제품의 검토내용에 관하여 문의하실 사항이 있으시면 아래 연락처로 문의하시기 바랍니다.
검토담당자 / 연락처 : 인증사업본부 인증융합센터 장 재용 / 055-791-3305
☐ If you have any question on product review, please contact the person below :
Job holder: Certification Business Division, Certification Convergence Center, J.Y.Jang / +82 55 791 3305
FP511-05-00

☐ 첨부 3 : 안전인증의 변경 현황
Revisions Status

변경발급 내용
Contents of Certificate Revisions

- 1st Rev.) Revision as below (24-086069-01-1 : 2025.03.05.)
- Addition of alternate component: Power Switch, Relay (RY1)
 - Revised Manufacture name of DC Fan:
Zhao Qing Sheng Hui Electronic Technology Co., Ltd. → Guangdong Shenghui
Technology Co., LTD
 - CB Certificate Ref. No.: NL-114821 (DEKRA)
 - CB Test Report No.: 4933350.50
(DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou Branch)

FP511-06-00

접 수 번 호 : 23-025502-01-1
(Receipt No.)

안 전 인 증 서

Safety Certificate

안 전 인 증 번 호 : SU10509-23003
(Certificate No.)제 조 업 자/수 입 업 자 명 : SuZhou MEAN WELL Technology Co., Ltd.
(Manufacturer/importer)주 소 : No.269, ChangPing Road, Huangdai Town, Xiangcheng District,
(Address) Suzhou, China제 품 명 : 직류전원장치(Switching Power Supply)
(Product)기 본 모 델 명 : NPB-360-12TB
(Basic Model)파 생 모 델 명 : See the attachment 2
(Series Model)정격/안전기준상의 모델구분 : Input: 100-240 Vac, 50/60 Hz, 4.5 A;
(Rating) Output: 14.4 Vdc/ 20.0 A;시 험 기 준 : KC62368-1(2021-08)
(Standard)

본 인증서는 제 조 국 명 : 중국
제 조 업 자 명 : SuZhou MEAN WELL Technology Co., Ltd.
제 조 공 장 의 주 소 : No.269, ChangPing Road, Huangdai Town, Xiangcheng District, Suzhou, China
의 제품에만 해당함

「전기용품 및 생활용품 안전관리법 시행규칙」 제9조제2항, 제4항, 제10조제2항 또는 제15조제2항에 따라
안전인증서를 발급합니다.

We Issue This Safety Certificate for the above appliances in accordance with the Article 9(2),9(4),10(2)
or 15(2) of the Enforcement Rule of the Electrical Appliances and Consumer Products Safety Control
Act.

2023 년 05 월 03 일
Year month day한국산업기술시험원장
KOREA TESTING LABORATORY

※ 이 인증서는 「전기용품 및 생활용품 안전관리법 시행규칙」에 따른 제품의 안전성 확인에 한정된 것이며, 그 밖의 다른 법률이 적용되는
제품의 경우에는 해당 법률에 따라 추가로 인증·허가 등을 받아야 합니다.

첨부서류

1. 전기용품의 안전관리부품 및 재질목록(List of Critical Components)
2. 기본모델·파생모델의 내용 (Descriptions of the basic and series model)
3. 안전인증의 변경 현황 (Revisions Status)



☐ **첨부 1 : 전기용품의 안전관리부품 및 재질목록**
 List of Critical Components

부품명(회로기호) Component(Part no.)	제조사(상표명) Manufacturer(Brand)	모델명(형식) Model(Type)	정격 또는 특성 Rating or Characteristics	인증마크 Tested by
Metal chassis	Interchangeable	Interchangeable	SGCC for appliance inlet side and output side panel, min. 1.0 mm thickness. Aluminum for the unit bodies, min. 1.6 mm thickness. Three pieces of construction secured together by screws.	--
PCB	Interchangeable	Interchangeable	V-1 or better, min. 130 °C	--
AC inlet	Tecx-Unions technology Corp	TU-301-S, TU-301-SP	250 Vac, 10 A, 70 °C, C14 type	ENEC
Power Switch	Chily Precision Industrial Co Ltd	3024	Rated 16(8) A, 250 Vac, 85 °C	ENEC
Fuse (FS1)	Conquer Electronics Co., Ltd.	MST	T6.3 A, 250 Vac	VDE
(Alternate)	Suzhou Walter Electronic Co. Ltd.	2010	T6.3 A, 250 Vac	VDE
Varistor (ZNR1) (Optional)	Thinking Electronic Industrial Co., Ltd.	TVR10471	300 Vac, 385 Vdc, 105 °C (Flame class of body coating complied with V-0)	VDE
(Alternate)	Thinking Electronic Industrial Co., Ltd.	TVR10471-V	300 Vac, 385 Vdc, 105 °C (Flame class of body coating complied with V-0)	TUV
(Alternate)	Thinking Electronic Industrial Co., Ltd.	TVR10471-D	300 Vac, 385 Vdc, 105 °C (Flame class of body coating complied with V-0)	VDE
(Alternate)	Thinking Electronic Industrial Co., Ltd.	TVR10471-M	300 Vac, 385 Vdc, 125 °C (Flame class of body coating complied with V-0)	VDE



부품명(회로기호) Component(Part no.)	제조사(상표명) Manufacturer(Brand)	모델명(형식) Model(Type)	정격 또는 특성 Rating or Characteristics	인증마크 Tested by
(Alternate)	Joyin Co., Ltd.	JVT10S471K	300 Vac, 385 Vdc, 125 °C (Flame class of body coating complied with V-0)	VDE
(Alternate)	Guangdong Huiwan Electronics, Technology Co., Ltd.	V-471K-10DEH	300 Vac, 385 Vdc, 125 °C (Flame class of body coating complied with V-0)	VDE
X-Cap (C1) (Optional)	KEMET ELECTRONICS ITALIA SRL	R.46	Rated max. 1.0 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Liow Gu Electronics Industry Co., Ltd	GS-L	Rated max. 1.0 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Ultra Tech Xiphi Enterprise Co. Ltd.	HQX	Rated max. 1.0 uF, min. 250 V, 110 °C, X2 type.	VDE
(Alternate)	Hua Jung Components Co Ltd	MKP	Rated max. 1.0 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Carli Electronics, Co., Ltd.	MPX	Rated max. 1.0 uF, min. 250 V, min. 100 °C, X2 type.	VDE
(Alternate)	Yangzhou Nissei Electronics Co Ltd	MP1	Rated max. 1.0 uF, min. 250 V, min. 100 °C, X2 type.	VDE
(Alternate)	Joey Electronics (Dong Guan) Co., Ltd.	MPX	Rated max. 1.0 uF, min. 250 V, 105 °C, X2 type.	VDE
X-Cap (C2) (Optional)	KEMET ELECTRONICS ITALIA SRL	R.46	Rated max. 0.68 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Liow Gu Electronics Industry Co., Ltd	GS-L	Rated max. 0.68 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Ultra Tech Xiphi Enterprise Co. Ltd.	HQX	Rated max. 0.68 uF, min. 250 V, 110 °C, X2 type.	VDE
(Alternate)	Hua Jung Components Co Ltd	MKP	Rated max. 0.68 uF, min. 250 V, 110 °C, X2 type.	ENEC
(Alternate)	Carli Electronics, Co., Ltd.	MPX	Rated max. 0.68 uF, min. 250 V, min. 100 °C, X2 type.	VDE



부품명(회로기호) Component(Part no.)	제조사(상표명) Manufacturer(Brand)	모델명(형식) Model(Type)	정격 또는 특성 Rating or Characteristics	인증마크 Tested by
(Alternate)	Yangzhou Nissei Electronics Co Ltd	MP1	Rated max. 0.68 uF, min. 250 V, min. 100 °C, X2 type.	VDE
(Alternate)	Joey Electronics (Dong Guan) Co., Ltd.	MPX	Rated max. 0.68 uF, min. 250 V, 105 °C, X2 type.	VDE
Bleeder Resistor (R1, R2, R3, R4) (Optional, when C1 and C2 are optional used)	Interchangeable	Interchangeable	Each rated max. 200 kΩ , 1/4 W	--
Y-Cap (C3, C4, C7, C8) (Optional)	Murata Mfg. Co., Ltd.	KX	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	TDK Corporation	CD (miniature series)	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	Walsin Technology Corp.	AH	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	Walsin Technology Corp.	AS	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	Xiamen Wanming Electronics Co., Ltd.	HJ	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	VISHAY Electronic GmbH	VY1 Series	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
(Alternate)	Guangdong Huiwan Electronics Technology Co Ltd	AR	Rated max. 1000 pF, min. 250 V, 125 °C, Y1 type.	VDE
Y-Cap (C31, C32) (Optional)	Murata Mfg. Co., Ltd.	KX	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
(Alternate)	TDK Corporation	CD (miniature series)	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
(Alternate)	Walsin Technology Corp.	AH	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE



부품명(회로기호) Component(Part no.)	제조사(상표명) Manufacturer(Brand)	모델명(형식) Model(Type)	정격 또는 특성 Rating or Characteristics	인증마크 Tested by
(Alternate)	Walsin Technology Corp.	AS	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
(Alternate)	Xiamen Wanming Electronics Co., Ltd.	HJ	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
(Alternate)	VISHAY Electronic Gmbh	VY1 Series	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
(Alternate)	Guangdong Huiwan Electronics Technology Co Ltd	AR	Each rated max. 1500 pF, min. 250 Vac, min. 125 °C. Class Y1	VDE
Relay (RY1)	Tyco Electronics (Shenzhen) Co., Ltd.	OJE-SS-112LMH	Rated 8 A, 277 Vac, 105 °C (Coil insulation: Class A)	TUV
(Alternate)	Tyco Electronics (Shenzhen) Co., Ltd.	OJ-SH-112LMH	Rated 8 A, 277 Vac, 105 °C (Coil insulation: Class A)	TUV
(Alternate)	Tyco Electronics (Shenzhen) Co., Ltd.	OJE-SH-112LMHF	Rated 8 A, 277 Vac, 105 °C (Coil insulation: Class A)	TUV
(Alternate)	Xiamen Hongfa, Electroacoustic Co., Ltd.	HF32FVG12HSTF	Rated 10 A, 277 Vac, 105 °C (Coil insulation: Class A)	VDE
(Alternate)	Xiamen Hongfa, Electroacoustic Co., Ltd.	HF32FVG12HSLTF	Rated 8 A, 277 Vac, 105 °C (Coil insulation: Class A)	VDE
Photo coupler (U3, U4)	GOSMO Electronics Corporation	K1010	Reinforced insulation	VDE
(Alternate)	Lite-On Technology Corporation	LTV-817, LTV-817M	Reinforced insulation	VDE
(Alternate)	Sharp Corp., Electronic Components Group	PC123	Reinforced insulation	VDE
(Alternate)	CT Micro International Corporation	CT817B(V)(M)-HG	Reinforced insulation	VDE
Choke (LF1) (Optional)	Mean Well Enterprises Co., Ltd.	TR-889	Min. 130 °C.	--



부품명(회로기호) Component(Part no.)	제조사(상표명) Manufacturer(Brand)	모델명(형식) Model(Type)	정격 또는 특성 Rating or Characteristics	인증마크 Tested by
Choke (LF2) (Optional)	Mean Well Enterprises Co., Ltd.	TR-894	Min. 130 °C.	--
Choke (LF3) (Optional)	Mean Well Enterprises Co., Ltd.	TR-548	Min. 130 °C.	--
Choke (L1) (Optional)	Mean Well Enterprises Co., Ltd.	TR-5211	Min. 130 °C.	--
Transformer (T1)	Mean Well Enterprises Co., Ltd.	TF-5689A	Class B.	--
Transformer (T1)	Mean Well Enterprises Co., Ltd.	TF-5690A	Class B.	--
Transformer (T1)	Mean Well Enterprises Co., Ltd.	TF-5691A	Class B.	--
DC Fan	Yen Sun Technology Corp.	FD124010EBN-CAV	Rated 12 Vdc, min. 8.71 CFM	TUV
(Alternate)	Zhao Qing Sheng Hui Electronic Technology Co., Ltd.	CHA4012BH-10B	Rated 12 Vdc, 0.1 A, min. 8.415 CFM	TUV
External plastic enclosure	Interchangeable	Interchangeable	Min. V-1.	UL

☐ 유의사항 (Attention) :

1. 안전관리부품은 전기적인 안전에 직접적인 영향을 주는 부품으로서 안전인증기관이 정기공장검사 시 확인 관리 하는 사항입니다. 따라서 상기목록에 기재된 사항을 변경하거나 또는 복수등재를 원하시는 경우는 안전인증기관에 인증변경신청을 하여야 합니다.

As the "Critical components" are parts in directly related with safety, these components shall be checked during a factory inspection by the certification body. In case of applying multiple listing or changing the items above, the certification revision shall be applied.

2. 인증변경신청 없이 임의로 변경하는 경우는, 전기용품 및 생활용품 안전관리법 시행규칙 제 21 조제 1 항 또는 제 38 조제 1 항 규정에 의한 안전인증 취소 혹은 안전확인신고 효력상실 사유가 됨을 유의하시기 바랍니다.

The Safety Certification will be cancelled under the Article 21(1), 38(1) of the Enforcement Rule of the Electrical appliances and Consumer Products Safety Control Act if the contents of the Certification is altered without our authorization.

FP511-04



☐ **첨부 2 : 기본모델 · 파생모델의 내용**

Description of the basic and series model

파생모델명 Derivative model	기본모델과의 차이점 Differences between the basic and derivative model(s)
NPB-360-12AD1	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 14.4 Vdc, 20.0 A
NPB-360-12XLR	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 14.4 Vdc, 20.0 A
NPB-360-24TB	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 28.8 Vdc, 12 A
NPB-360-24AD1	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 28.8 Vdc, 12 A
NPB-360-24XLR	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 28.8 Vdc, 12 A
NPB-360-48TB	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 57.6 Vdc, 6 A
NPB-360-48AD1	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 57.6 Vdc, 6 A
NPB-360-48XLR	It is identical to basic model except for model name, rating, type of output connection, secondary winding of transformer, DC fan. Output: 57.6 Vdc, 6 A



제품특기사항 및 시험조건
 Remarks & Test conditions

1. Review Ref. No.: 23-025502-01-2
 - UL Taiwan Ref. No.: 4790808256.1

2. Product Description: Switching Power Supply
 - Measured Power Consumption: 326 W
 - Insulation Class: Class I
 - Protection against Ingress of water: IPX0
 - Mass of Equipment: 1.03 kg (for output cable type) /
 0.97 kg (for terminal block type)

□ 본 제품의 검토내용에 관하여 의문사항이 있으시면 아래 연락처로 문의하시기 바랍니다.

검토 담당자 : 고객지원본부 인증융합평가센터 장 재용 / 02-8601-137

□ *If you have any question on product review, please contact the person below :*

Job holder: Customer Support Division, Certification Convergence Evaluation Center, J.Y. Jang / +82 2 860-1137

FP511-05

□ 첨부 3 : 안전인증의 변경 현황

Revisions Status

변경발급 내용
 Contents of Certificate Revisions

Not applicable

FP511-06



☐ 첨부 : 제품사진
Photographs

Front View for Model: NPB-360-12XLR, NPB-360-24XLR, NPB-360-48XLR



Front View for Model: NPB-360-12AD1, NPB-360-24AD1, NPB-360-48AD1



※ 위 마크는 추후 전자확인증 대조 프로그램에서 원본대조시 사용되는 2D코드입니다.

Front View for Model: NPB-360-12TB, NPB-360-24TB, NPB-360-48TB



Rear Side View for Model: NPB-360-12XLR, NPB-360-24XLR, NPB-360-48XLR, NPB-360-12AD1, NPB-360-24AD1, NPB-360-48AD1



※ 위 마크는 추후 전자확인증 대조 프로그램에서 원본대조시 사용되는 2D코드입니다.