

Form



Product Service

Data form for critical components and material information

Applicant name and address..... :	Guangdong Huasheng Electronic Technology Co., Ltd. 118# Dongyuan Road, Shipai Town, 523350 Dongguan City, Guangdong Province, PEOPLE'S REPUBLIC OF CHINA
Manufacturer name and address . :	Same as applicant
Name and address of factory / factories..... :	Same as applicant
Project-No./Report-No. :	64.140.22.02712.02
Test item description..... :	LED Driver
Model/Type reference	HS12A-xxxxyy-AG, HS12A-xxxxyy-AB, HS12A- xxxxyy-CG, HS,12B-xxxxyy-CG, HS12B-xxxxyy-CB, HS12U-050yyy-AG, HS12U-050yyy-AB
Device type	☐ component / ☐ sub-assembly / ☒ equipment / ☐ system

Ratings	Input: 220-240VAC, 50/60Hz, 0.4A Max. Output: See model list for details
Connection to electrical supply..... :	☐ N/A ☐ Permanent / ☐ Detachable cord set / ☐ Non detachable cord set / ☒ Direct plug-in / ☐ Battery operated / ☐ Others:
Overvoltage category	☐ I / ☒ II / ☐ III / ☐ IV / ☐ N/A
Pollution degree	☐ 1 / ☒ 2 / ☐ 3 / ☐ 4 / ☐ N/A
Class of protection..... :	☐ Class I (PE connected) ☒ Class II (isolated) ☐ Class III ☐ Others: ☐ N/A
Product with functional earthing :	☐ Yes ☒ N/A
Environmental conditions / Maximum ambient temperature (°C)..... :	ta=40°C, tc=75°C

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Revision / Version: 00
Date: 2024-08-16

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TÜV SÜD Certification and Testing (China) Co., Ltd.
Guangzhou Branch
5F& 8F East, Communication Building, 163 Pingyun Rd,
Huangpu West Ave. Guangzhou, Guangdong 510656
Name of Project Handler: Kenly Wu

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Equipment mobility / Classification of installation and use..... :	☐ transportable / ☒ portable / ☐ stationary / ☐ mobile / ☐ fixed / ☐ permanently installed / ☐ hand-held / ☐ body-worn / ☐ building-in / ☐ moveable / ☐ Others:
Operating conditions :	☒ Continuous / ☐ Short-time / ☐ Intermittent
Overall size of equipment (mm) :	Refer to TRF photo documentation
Mass of equipment (kg)..... :	HS12A-xxxxyyy-AG: Approx. 87g (with output cord switch), Approx. 77g (without output cord switch); HS12A-xxxxyyy-AB: Approx. 103g (with output cord switch), Approx. 71g (without output cord switch); HS12A-xxxxyyy-CG: Approx. 77g (with output cord switch), Approx. 67g (without output cord switch); HS12B-xxxxyyy-CG: Approx. 85g (with output cord switch), Approx. 75g (without output cord switch); HS12B-xxxxyyy-CB: Approx. 110g (with output cord switch), Approx. 80g (without output cord switch); HS12U-050yyy-AG: Approx. 47g (with output cord switch); HS12U-050yyy-AB: Approx. 53g
Degree of ingress protection (IEC 60529, UL 50 / UL 50 E) :	IP20
Noise emission [dB(A)]..... :	N/A
Vibration [m/s ²]	N/A
Connection to hydraulic power :	N/A
Connection to pneumatic power... :	N/A
Connection to water installation ... :	N/A
Description of special features :	N/A

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Additional information for Laser equipment, classification according to IEC/EN 60825-1: ☒ N/A					
Type:		Wavelength:		Output power:	
Class:		Pulse duration:			
Data communication ports: ☒ N/A					
Wired ports		☒ N/A ☐ USB ☐ LAN ☐ DALI ☐ Other:			
Wireless ports		☒ N/A ☐ Wifi ☐ Bluetooth ☐ NFC ☐ 4G/LTE ☐ 5G ☐ Other:			
Data Storage/ Processing		☒ N/A ☐ Local ☐ Cloud			

Additional IEC 60601-1 / EN 60601-1 / ANSI/AAMI ES60601-1 / CAN/CSA-C22.2 No. 60601-1: ☒ N/A	
Applied part type	☐ B ☐ BF ☐ CF ☐ Defibrillation-Proof ☐ No AP
Software Version.....	

General product information and other remarks:	
Main label / Warning Markings:	LED Driver MODEL:HS12A-060200-AG INPUT:220-240V~ 50/60Hz 0.4A Max OUTPUT:6.0V==2.0A,12.0W ta:40°C tc:75°C •tc LED moduel Use only Constant Voltage     MADE IN CHINA YYWW Manufacturer address: 118# Dongyuan Road,Shipai Town, Dongguan City,Guangdong Province,China Guangdong Huasheng Electronic Technology Co.,Ltd LED Driver MODEL:HS12B-060200-CG INPUT:220-240V~ 50/60Hz 0.4A Max OUTPUT:6.0V==2.0A,12.0W ta:40°C tc:75°C •tc LED moduel Use only Constant Voltage     MADE IN CHINA YYWW Manufacturer address: 118# Dongyuan Road,Shipai Town, Dongguan City,Guangdong Province,China Guangdong Huasheng Electronic Technology Co.,Ltd

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	LED Driver MODEL:HS12U-050200-AG INPUT:220-240V~ 50/60Hz 0.4A Max OUTPUT:5.0V==2.0A,10.0W ta:40°C tc:75°C •tc LED moduel Use only Constant Voltage      MADE IN CHINA YYWW Manufacturer address: 118# Dongyuan Road,Shipai Town, Dongguan City,Guangdong Province,China Guangdong Huasheng Electronic Technology Co.,Ltd LED Driver MODEL:HS12A-120100-CG INPUT:220-240V~ 50/60Hz 0.4A Max OUTPUT:12.0V==1.0A,12.0W ta:40°C tc:75°C •tc LED moduel Use only Constant Voltage      MADE IN CHINA YYWW Manufacturer address: 118# Dongyuan Road,Shipai Town, Dongguan City,Guangdong Province,China Guangdong Huasheng Electronic Technology Co.,Ltd
Description of model differences:	Refer to TRF general product information
General information / Intended use:	Refer to TRF general product information
Protective earth connection:	Refer to TRF photo documentation
Drawing(s) / Picture(s):	Refer to TRF photo documentation

Model List:

Model	Rated output		
	Voltage range (VDC)	Current range (A)	Max. Power (W)
HS12U-050yyy-AG, HS12U-050yyy-AB	5.0	0.01-2.0	10.0
HS12A-xxxyyy-AG, HS12A-xxxyyy-AB	5.0-9.0	0.01-2.0	12.0
	9.1-17.0	0.01-1.25	15.0
	17.1-30.0	0.01-0.7	12.0
HS12B-xxxyyy-CG, HS12B-xxxyyy-CB, HS12A-xxxyyy-CG	5.0-9.0	0.01-2.0	12.0
	9.1-17.0	0.01-1.33	12.0
	17.1-30.0	0.01-0.7	12.0
Remark: 1). xxx=050-300 stands for rated output voltage range 5.0-30.0VDC with step of 0.1V; 2). yyy=010-200 stands for rated output current 0.01-2.0A with step of 0.01A;			

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Critical components and material information:

Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard No. and Edition year	Mark(s) of conformity and file number
Components related to electrical safety:					
Plastic enclosure	SABIC INNOVATIVE PLASTICS US L L C	940(f1)(gg*)	V-0, 120°C, min. 1.5mm thickness	UL 94, UL 746C IEC/EN 61347-1 IEC/EN 61347-2-13	UL E121562 Tested with appliance
(Alternative)	SABIC INNOVATIVE PLASTICS US L L C	953(f1)	V-0, 120°C, min. 1.5mm thickness	UL 94, UL 746C IEC/EN 61347-1 IEC/EN 61347-2-13	UL E121562, Tested with appliance
(Alternative)	Chi Mei Corporarion	PC-6600(Y)(f1)(a)	V-0, 120°C, min. 1.5mm thickness	UL 94, UL 746C IEC/EN 61347-1 IEC/EN 61347-2-13	UL E56070, Tested with appliance
Plug holer / plug pin sleeving	SABIC INNOVATIVE PLASTICS US L L C	940(f1)(gg*)	V-0, 120°C	UL 94, UL 746C IEC/EN 61347-1 IEC/EN 61347-2-13	UL E121562 Tested with appliance
Output wire	DONGGUAN DONGLONG COMMUNICAT ION MATERIALS CO LTD	2468, 2464, 1185	Min. 80°C, 300VAC, VW-1, Min. 24AWG	UL 758	UL E189858
(Alternative)	DONGGUAN MENGCHANG ELECTRONIC PRODUCTS CO LTD	2468, 2464, 1185	Min. 80°C, 300VAC, VW-1, Min. 24AWG	UL 758	UL E504888

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Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard No. and Edition year	Mark(s) of conformity and file number
(Alternative)	Dongguan City Zhide Electronics Technology Co Ltd	2468, 2464	Min. 80°C, 300VAC, VW-1, Min. 24AWG	UL 758	UL E472439
Plastic material of the output connector	FOSHAN NANHAI POLMA ENGINEERING PLASTICS CO LTD	PC-1025	PC, V-0, 80°C	UL 94, UL 746C IEC/EN 61347-1 IEC/EN 61347-2-13	UL E241821 Tested with appliance
Cord switch (optional)	Dongguan Ubill Electrical Co., Ltd.	ZH-304	250V, 2A, 1E4, T55, 850°C glow wire test	IEC/EN 61058-1	DEKRA ENEC 35-103203
(Alternative)	Dongguan Ubill Electrical Co., Ltd.	ZH-317	250V, 2A, 1E4, T55, 850°C glow wire test	IEC/EN 61058-1	DEKRA ENEC 35-103412
(Alternative)	Dongguan Xianghui Elec. Engineering Material Co. Ltd.	XH-317	250V, 2A, 1E4, T55, 850°C glow wire test	IEC/EN 61058-1	DEKRA ENEC 35-101432
PCB	CHEERFUL PLASTIC ELECTRONIC PRODUCTS	02	V-0, 130°C	UL 94, UL 796 IEC/EN 61347-1 IEC/EN 61347-2-13	UL E199724 Tested with appliance
(Alternative)	DONGGUAN CITY HENGJIE ELECTRONIC CO LTD	B	V-0, 130°C	UL 94, UL 796 IEC/EN 61347-1 IEC/EN 61347-2-13	UL E354097 Tested with appliance
(Alternative)	DONGGUAN CITY XINRAN ELECTRONIC CO LTD	XR-V002, XR-F003	V-0, 130°C	UL 94, UL 796 IEC/EN 61347-1 IEC/EN 61347-2-13	UL E330704 Tested with appliance

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Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard No. and Edition year	Mark(s) of conformity and file number
(Alternative)	HUIZHOU ZHENGHUA ELECTRONIC S CO LTD	ZH-2, ZH-3, ZH-D	V-0, 130°C	UL 94, UL 796 IEC/EN 61347-1 IEC/EN 61347-2-13	UL E318724 Tested with appliance
(Alternative)	DONGGUAN HUATUO ELECTRONIC CO LTD	YK-02, YK-03, YK-04	V-0, 130°C	UL 94, UL 796 IEC/EN 61347-1 IEC/EN 61347-2-13	UL E347659 Tested with appliance
(Alternative)	DONG GUAN CHEUNG HING (PCB) CO LTD	CH8B, CH-8	V-0, 130°C	UL 94, UL 796 IEC/EN 61347-1 IEC/EN 61347-2-13	UL E150742 Tested with appliance
(Alternative)	RUIBO ELECTRONIC TECHNOLOGY CO LTD	RB-1, RB-D, RB-S	V-0, 130°C	UL 94, UL 796 IEC/EN 61347-1 IEC/EN 61347-2-13	UL E348932 Tested with appliance
(Alternative)	KINGBOARD LAMINATES HOLDINGS LTD	KB-5150	V-0, 130°C	UL 94 IEC/EN 61347-1 IEC/EN 61347-2-13	UL E123995 Tested with appliance
(Alternative)	Shenzhen Quanzhida Technology Co., Ltd.	QZD-1, QZD-2	V-0, 130°C	UL 94 IEC/EN 61347-1 IEC/EN 61347-2-13	UL E523879 Tested with appliance
(Alternative)	Ganzhou Shengxin Circuit Technology Co., Ltd.	SX-1, SX-2, SX-3	V-0, 130°C	UL 94 IEC/EN 61347-1 IEC/EN 61347-2-13	UL E355344 Tested with appliance

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Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard No. and Edition year	Mark(s) of conformity and file number
Fusible resistor (F1)	Anhui Changsheng Electronics Co., Ltd	RXF21-1W	3.3 ohm, 1W	UL1412 IEC/EN 61347-1, IEC/EN 61347-2-13	UL E306095 Tested with appliance
(Alternative)	XIAMEN KOMING ELECTRONIC S CO LTD	RXF-1W	3.3 ohm, 1W	UL1412 IEC/EN 61347-1, IEC/EN 61347-2-13	UL E321729 Tested with appliance
(Alternative)	Shimeng Electronics (Huizhou) Co Ltd	FKN	3.3 ohm, 1W	UL1412 IEC/EN 61347-1, IEC/EN 61347-2-13	UL E339430 Tested with appliance
Y Capacitors (CY1) (Optional)	Haohua Electronic Co.	CT 7	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40003902
(Alternative)	Yinan Don's Electronic Component Co Ltd	CT81	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 135256
(Alternative)	Dongguan City Dersonic Electronic Co., Ltd	CD series	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40040406
(Alternative)	DongGuan Vicktee Electronics Co., Ltd	CD series	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40051180
(Alternative)	South China Electronic Co., Ltd.	CY	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40045823

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Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard No. and Edition year	Mark(s) of conformity and file number
(Alternative)	JYA-NAY CO., LTD.	JN series	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	TÜV RH R 50232059
(Alternative)	Dongguan QinHong (QNR) Electronic Technology Co., LTD	CT7 series	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40046285
(Alternative)	Welson Industrial Co., Ltd.	WD	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40016157
(Alternative)	Dongguan Cigu Electronic Technology Co., Ltd	CD series	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40043434
(Alternative)	Shenzhen Teruixiang Electronic Co, Ltd.	TY-Series (TYE; TYF)	Max. 2200pF, 400Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40031733
(Alternative)	TDK Corporation	CD	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40029780
(Alternative)	Dongguan Easy-gather Electronic Co., Ltd.	DCF	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40022942
(Alternative)	Xiangtai Electronics (Shenzhen) Co., Ltd.	YO-series	Max. 2200pF, 400Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40036880
(Alternative)	Dongguan Weiqing Electronic Co., Ltd.	WD series	Max. 2200pF, 400Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40050021

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Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard No. and Edition year	Mark(s) of conformity and file number
(Alternative)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	CD-Series	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40025754
(Alternative)	Success Electronics Co., Ltd.	SE	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40020002
(Alternative)	Success Electronics Co., Ltd.	SB	Max. 2200pF, min. 250Vac, 125°C, Y1 type	IEC/EN 60384-14	VDE 40020001
Inductor (L1)	Guangdong Huasheng Electronic Technology Co., Ltd.	DR6*10	Min. 3.0mH, min. 130°C	IEC/EN 61347-1, IEC/EN 61347-2-13	Tested with appliance
Transformer (T1) (for models HS12U-050yyy-AG, HS12U-050yyy-AB, HS12B-xxxyyy-CG, HS12B-xxxyyy-CB, HS12A-xxxyyy-CG)	Guangdong Huasheng Electronic Technology Co., Ltd.	HS12A-T-1A (for output voltage 5.0-9.0V); HS12A-T-2A (for output voltage 9.1-17.0V); HS12A-T-3A (for output voltage 17.1-30.0V)	Class B	IEC/EN 61347-1, IEC/EN 61347-2-13	Tested with appliance

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Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard No. and Edition year	Mark(s) of conformity and file number
Transformer (T1) (for models HS12A-xxxxxyy-AG, HS12A-xxxxxyy-AB)	Guangdong Huasheng Electronic Technology Co., Ltd.	HS12A-T-1A (for output voltage 5.0-9.0V); HS12A-T-4A (for output voltage 9.1-17.0V); HS12A-T-3A (for output voltage 17.1-30.0V)	Class B	IEC/EN 61347-1, IEC/EN 61347-2-13	Tested with appliance
- Triple insulation wire	Dah Jin Technology Co., Ltd.	TLW-B	Reinforced insulation, 130°C	IEC/EN 62368-1	VDE 40008834
(Alternative)	Shanghai Lucky Trade Co., Ltd.	TIW-B	Reinforced insulation wire, 130°C	IEC/EN 62368-1	VDE 40023686
- Bobbin	CHANG CHUN PLASTICS CO LTD	T375J(G5)(G6)	Phenolic, V-0, 150°C, min. 0.45mm Thickness	UL 94, UL 746C	UL E59481
- Magnet wire	DONG GUAN YIDA INDUSTRIAL CO LTD	2UEW	Min.130°C	UL 1446	UL E344055
(Alternative)	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEW/U@	Min.130°C	UL 1446	UL E201757
- Insulation tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT-280B	130°C	UL 510	UL E165111

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- Varnish	SUZHOU TAIHU ELECTRIC ADVANCED MATERIAL CO LTD	ET-90(a), T-1168(a), T-4260(a)	130°C	UL 1446	UL E228349
- Insulation tube	CHANGYUAN ELECTRONIC S GROUP CO LTD	CB-TT-S	200°C, VW-1	UL 224	UL E180908
Components related to chemical safety:					
PAHs evaluation has been conducted and the relevant report was incorporated in TRF					
Supplementary information: 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039. 2) License available upon request.					

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Routine Test (Safety, Security, ...):

☐ N/A, ☐ No requirement in standard, ☐ Non certification mark project

Model/Type reference:	Tests performed (name of test and test clause):	Test Details:	Test Points:	Test Values:
HS12A-xxxxyy-AG, HS12A-xxxxyy-AB, HS12A-xxxxyy-CG, HS12B-xxxxyy-CG, HS12B-xxxxyy-CB, HS12U-050yyy-AG, HS12U-050yyy-AB	Annex K of EN 61347-1:2015/A1:2021	See below	See below	See below

Test Details:

☒ Dielectric Strength

☐ Ground Continuity

☐ Insulation Resistance

☐ Leakage Current

☐ Touch Current

☐ Polarity

☐ Other:

☐ Verification that the tested software version no. will be installed in the test object (see critical component/software section)

☐ Verification that the listed components of the critical component section are unchanged (includes all kind of critical components e. g. components with functional safety functions)

Test Points:

BI: L/N – Chassis

RI: L/N – Secondary

AC-Inlet – Chassis
and/or Plug – Chassis / Earthing
terminal

BI: L/N – Chassis

RI: L/N – Secondary

Ground - PE

Test Values / Limit(s):

Vac / Vdc 1s

3000 Vac / Vdc 1s

A; $t \geq 1$ s;

$R < 0.1 \text{ Ohm } (\Omega)$

Vdc

$R > 2 \text{ MOhm } (M\Omega)$

s

Vdc

s

mA

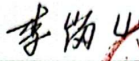
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Signature of the Certification Holder:

Name, seal and signature of Certificate Holder:	Mr. Sky Li  
Date:	2024-08-16