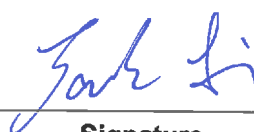


Certificate No. R 50334512 0001-0002 Our Reference 02-lijack-17050844 003 Appendix No. 1

## Constructional Data Form (CDF) for Electrical Appliances

Page 1 of 6

License holder Full address	Energy Recovery Products (Zhuhai) Co., Ltd. No. 8, Pingdong Road 2, Nanping Science Park, Zhuhai, Guangdong, P.R. China
Manufacturer Full address	Energy Recovery Products (Zhuhai) Co., Ltd. No. 8, Pingdong Road 2, Nanping Science Park, Zhuhai, Guangdong, P.R. China
Kind of Lamp controlgear	Built-in LED driver
Designation:	See model list
Rated Voltage:	220-240VAC
Frequency:	50/60Hz
Rated output power:	See model list
Rated output voltage:	See model list
Maximum load:	N/A
Minimum load:	N/A
Short-winding protection	Non-inherently short circuit proof
Classification	Built-in LED driver
Protection-class	N/A
IP - Protection	N/A
tc - information	90°C
ta - information	N/A
Primary - connection	Lead wire
Secondary - connection	Lead wire
Weight	--
Additional informations	--



Certificate  
No.

R 50334512

0001-  
0002

Our Reference

02-lijack-17050844 003

Appendix No. 1

**Constructional Data Form (CDF) for Electrical Appliances**

Page 2 of 6

Model list:

Series	Model	Output current range (mA)	Max Output voltage (Vdc)	Max. output power
ESS	ESS010A-XXXX-VV-YYYY-ZZZZZ	150-1100	60	10W
	ESS015A-XXXX-VV-YYYY-ZZZZZ	200-1100	60	15W
	ESS020A-XXXX-VV-YYYY-ZZZZZ	200-1100	60	20W
	ESS030A-XXXX-VV-YYYY-ZZZZZ	300-1100	60	30W
ESM	ESM010A-XXXX-VV-YYYY-ZZZZZ	150-1400	60	10W
	ESM020A-XXXX-VV-YYYY-ZZZZZ	200-1400	60	20W
	ESM030A-XXXX-VV-YYYY-ZZZZZ	300-1400	60	30W
	ESM040A-XXXX-VV-YYYY-ZZZZZ	400-1400	60	40W
	ESM050A-XXXX-VV-YYYY-ZZZZZ	500-1400	60	48W
		500-1200	60	50W
ESP	ESP010A-XXXX-VV-YYYY-ZZZZZ	150-1400	60	10W
	ESP020A-XXXX-VV-YYYY-ZZZZZ	200-1400	60	20W
	ESP030A-XXXX-VV-YYYY-ZZZZZ	300-1400	60	30W
	ESP040A-XXXX-VV-YYYY-ZZZZZ	400-1400	60	40W
	ESP050A-XXXX-VV-YYYY-ZZZZZ	500-1400	60	48W
		500-1200	60	50W

1. A= W or E, for marketing purpose only, products are the same.  
2. XXXX = 4 digits, means output current in mA, and current step is 50mA.  
3. VV= 2 digits, means max. rated output voltage.  
4. YYYY: Y =0~9, A~Z or blank, for marketing purpose only, products are the same.  
5. ZZZZ: Z =0~9, A~Z or blank, for marketing purpose only, products are the same.

Certificate No. R 50334512 0001-0002 Our Reference 02-lijack-17050844 003 Appendix No. 1

**Constructional Data Form (CDF) for Electrical Appliances**

Page 3 of 6

**Critical Components**

Material: e.g. external enclosure, PCB, closed-end connector, sleeves, cord anchorage etc

Components with winding: e.g. motor, transformer, magnetic coil etc.

Other components: e.g. switch, thermostat, heater, plug, internal wire, capacitor, relay, varistor etc.

Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
For ESP series and ESM series					
Fuse	Cooper Bussmann LLC	SS-5H	1A, 300V	IEC/EN 60127-1, IEC/EN 60127-3	VDE 40031800
Alt.	Conquer	MST	1A, 300V	IEC/EN 60127-1, IEC/EN 60127-3	VDE 40017118
Varistor	Thinking Electronic Industrial Co., Ltd.	TVR07511-D	320V, 85°C	IEC 61051-1 IEC 61051-2	VDE 40036061
NTC	Thinking Electronic Industrial Co., Ltd.	SCK10103M	--	--	TUV R 50050155
Optocoupler	Lite-On Technology Corporation	LTV-817	Cr.=5,0mm Cl.=5,0mm Dti.=0,4mm T=115°C	EN 60747-5-2 EN 60950-1 EN60065	VDE 40015248
Input wire	FOSHAN ZHUO SHENG GREEN WIRE CO LTD	1430	105°C, 18AWG	--	UL E251755 +Test with appliance
Output wire	FOSHAN ZHUO SHENG GREEN WIRE CO LTD	1430	105°C, 18AWG	--	UL E251755 +Test with appliance
Y-cap.	Jyh Chung Electronic Co., Ltd.	JD332M	AC 400V, 3300pF, 125°C	IEC/EN 60384- 14	VDE 137027
Y-cap.	Jyh Chung Electronic Co., Ltd.	JD102M	AC 400V, 1000pF, 125°C	IEC/EN 60384- 14	VDE 137027

**Certificate No.** R 50334512    0001-0002    **Our Reference** 02-lijack-17050844 003    **Appendix No.** 1

**Constructional Data Form (CDF) for Electrical Appliances**

Page 4 of 6

**Critical Components**

Material: e.g. external enclosure, PCB, closed-end connector, sleeves, cord anchorage etc  
 Components with winding: e.g. motor, transformer, magnetic coil etc.  
 Other components: e.g. switch, thermostat, heater, plug, internal wire, capacitor, relay, varistor etc.

Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
For ESS series					
Fuse	Cooper Bussmann LLC	SS-5H	1A, 300V	IEC/EN 60127-1, IEC/EN 60127-3	VDE 40031800
Alt.	Conquer	MST	1A, 300V	IEC/EN 60127-1, IEC/EN 60127-3	VDE 40017118
Varistor	Thinking Electronic Industrial Co., Ltd.	TVR07511-D	320V, 85°C	IEC 61051-1 IEC 61051-2	VDE 40036061
X-cap.	Xiamen Faratronic Co. Ltd.	MKP62	AC 305V, 0.1µF, 110°C	IEC/EN 60384- 14	VDE 40000358
Y-cap.	Jyh Chung Electronic Co., Ltd.	JY472M	AC 400V, 4700pF, 125°C	IEC/EN 60384- 14	VDE 137027
NTC	Thinking Electronic Industrial Co., Ltd.	SCK10103M	--	--	TUV R 50050155
Optocoupler	Lite-On Technology Corporation	LTV-817	Cr.=5,0mm Cl.=5,0mm Dti.=0,4mm T=115°C	EN 60747-5-2 EN 60950-1 EN 60065	VDE 40015248
Input wire	FOSHAN ZHUO SHENG GREEN WIRE CO LTD	1430	105°C, 18AWG	--	UL E251755 +Test with appliance
Output wire	FOSHAN ZHUO SHENG GREEN WIRE CO LTD	1430	105°C, 18AWG	--	UL E251755 +Test with appliance

For all models

Certificate  
No.

R 50334512

0001-  
0002

Our Reference

02-lijack-17050844 003

Appendix No. 1

**Constructional Data Form (CDF) for Electrical Appliances**

Page 5 of 6

**Critical Components**

Material: e.g. external enclosure, PCB, closed-end connector, sleeves, cord anchorage etc

Components with winding: e.g. motor, transformer, magnetic coil etc.

Other components: e.g. switch, thermostat, heater, plug, internal wire, capacitor, relay, varistor etc.

Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Potting	DONGGUAN ZHAOSHUN SILICONE NEW MATERIAL TECHNOLOGY CO LTD	ZS-GF	Silicone, V-0, 105°C	--	UL E329120 +Test with appliance
PCB	ZHUHAI XINHENG TIAN ELECTRON CO LTD	XHT-M	V-0, 130°C	--	UL E471390 +Test with appliance
Alt.	ZHUHAISHI HAIXIANG ELECTRONIC CO LTD	HX-M-1	V-0, 130°C	--	UL E339169 +Test with appliance
Plastic enclosure	Sabic	Lexan 945	V-0, 130°C	--	UL E45329 +Test with appliance
Bobbin	SUMITOMO BAKELITE CO LTD	PM-9820 or PM- 9630	Phenolic, V-0, 150°C	--	UL E41429 +Test with appliance
Alt.	CHANG CHUN PLASTICS CO LTD	T200HF	Phenolic, V-0, 150°C.	--	UL E59481 +Test with appliance
Primary winding	NEW ENGLAND WIRE TECHNOLOGIES CORP	FEP	155°C min.	--	UL E231977 +Test with appliance
Alt.	FURUKAWA ELECTRIC CO LTD	TEX-F	155°C	--	UL E206440 +Test with appliance

Certificate  
No.

R 50334512

0001-  
0002

Our Reference

02-lijack-17050844 003

Appendix No. 1

## Constructional Data Form (CDF) for Electrical Appliances

Page 6 of 6

## Critical Components

Material: e.g. external enclosure, PCB, closed-end connector, sleeves, cord anchorage etc

Components with winding: e.g. motor, transformer, magnetic coil etc.

Other components: e.g. switch, thermostat, heater, plug, internal wire, capacitor, relay, varistor etc.

Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Alt.	FURUKAWA ELECTRIC CO LTD	TEX-B	130°C	—	UL E206440 +Test with appliance
Secondary winding	Great Leoflon Industrial Co., Ltd	TRW(B)	130°C	--	VDE 136581
Tape	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350T-1	130°C	—	UL E17385 +Test with appliance
Varnish	SUZHOU TAIHU ELECTRIC ADVANCED MATERIAL CO LTD	T-4260(a)	155°C	—	UL E228349 +Test with appliance
Alt.	JOHN C DOLPH CO	BC-359	130°C	—	UL E317427 +Test with appliance

2016-03-10

Date

Jack Li

Name



Signature