

Features

- Low THD, 10% Max up to 240 Vac
- Compact Metal Case with Excellent Thermal Performance
- Input Surge Protection: DM 4kV, CM 6kV
- High Reliability & Long Lifetime: 84,000 Hrs. at 70°C Case Temperature
- IUVP
- IP67
- SELV Output
- 5 Year Warranty



Description

The EUC-026SxxxSVM000x series is a 26W, constant-current IP67 LED driver that operates from 90-305 Vac input with excellent power factor and THD feature. It is created for many lighting applications including low bay, tunnel and street, etc. The high efficiency of these drivers and compact metal case enable them to run cooler, significantly improving reliability and extending product life. To ensure trouble-free operation, protection is provided against input surge, input under voltage, output over voltage, short circuit, and over temperature.

Models

Output Current	Input Voltage Range(1)	Output Voltage Range	Max. Output Power	Typical Efficiency (2)	Typical Power Factor		Model Number (3)(4)
					120 Vac	220 Vac	
350 mA	90 ~ 305 Vac/ 127 ~ 250 Vdc	37 ~ 74 Vdc	26 W	88.5%	0.99	0.96	EUC-026S050SVM0003
500 mA	90 ~ 305 Vac/ 127 ~ 250 Vdc	26 ~ 52 Vdc	26 W	88.0%	0.99	0.96	EUC-026S070SVM0004
600 mA	90 ~ 305 Vac/ 127 ~ 250 Vdc	22 ~ 43 Vdc	26 W	88.0%	0.99	0.96	EUC-026S070SVM0002
700 mA	90 ~ 305 Vac/ 127 ~ 250 Vdc	20 ~ 37 Vdc	26 W	87.0%	0.99	0.96	EUC-026S070SVM

- Notes:** (1) Certified input voltage range: 120-240Vac or 127-250Vdc.
 (2) Measured at 100% load and 220 Vac input.
 (3) SELV output.
 (4) For BIS models please click here see the: [BIS Models List](#).

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input AC Voltage	90 Vac	-	305 Vac	
Input DC Voltage	127 Vdc	-	250 Vdc	
Input Frequency	47 Hz	-	63 Hz	
Leakage Current	-	-	0.70 mA	IEC 60598-1; 240Vac/ 60Hz

Input Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
Input AC Current	-	-	0.35 A	Measured at 100% load and 120 Vac input.
	-	-	0.25 A	Measured at 100%load and 220 Vac input.
Inrush Current(I ² t)	-	-	0.09 A ² s	At 220Vac input, 25°C cold start, duration= 296 μs, 10%I _{pk} -10%I _{pk} . See Inrush Current Waveform for the details.
Power Factor	0.90	-	-	120-277Vac, 50-60Hz, 75%-100% Load (19.5~26W)
THD	-	-	15%	
THD	-	-	10%	120-240Vac, 50-60Hz, 75%-100% Load (19.5~26W)

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Current Tolerance	-8%lo	-	8%lo	At 100%load condition
Total Output Current Ripple (pk-avg)	-	50%lo	75%lo	At 100%load condition
Startup Overshoot Current	-	5%lo	10%lo	At 100%load condition
No Load Output Voltage	-	-	100 V	
EUC-026S050SVM0003	-	-	67 V	
EUC-026S070SVM0004	-	-	67 V	
EUC-026S070SVM0002	-	-	67 V	
Line Regulation	-	-	±5.0%	Measured at 100%load
Load Regulation	-	-	±5.0%	
Turn-on Delay Time	-	1.5 s	2.0 s	Measured at 120Vac input, 75%-100%Load.
	-	1.0 s	1.5 s	Measured at 220Vac input, 75%-100%Load.
Temperature Coefficient of I _{omax}	-	0.08%/°C	-	Case temperature = 0°C ~ T _c max

General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency at 120 Vac input:				Measured at 100%load and steady-state temperature in 25°C ambient. (Efficiency will be about 1.0% lower if measured immediately after startup.)
EUC-026S050SVM0003	87.0%	88.0%	-	
EUC-026S070SVM0004	86.0%	87.0%	-	
EUC-026S070SVM0002	86.0%	87.0%	-	
Efficiency at 220 Vac input:				Measured at 100%load and steady-state temperature in 25°C ambient. (Efficiency will be about 1.0% lower if measured immediately after startup.)
EUC-026S050SVM0003	87.5%	88.5%	-	
EUC-026S070SVM0004	87.0%	88.0%	-	
EUC-026S070SVM0002	87.0%	88.0%	-	
EUC-026S070SVM	86.0%	87.0%	-	

General Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
Efficiency at 277 Vac input: EUC-026S050SVM0003 EUC-026S070SVM0004 EUC-026S070SVM0002 EUC-026S070SVM	86.5% 86.0% 86.0% 85.5%	87.5% 87.0% 87.0% 86.5%	- - - -	Measured at 100%load and steady-state temperature in 25°C ambient. (Efficiency will be about 1.0% lower if measured immediately after startup.)
MTBF	-	1610,000 Hours	-	Measured at 220Vac input, 80%Load and 25°C ambient temperature (MIL-HDBK-217F)
Lifetime	-	84,000 Hours	-	Measured at 120Vac input, 80%Load and 70°C case temperature; See lifetime vs. Tc curve for the details
Operating Case Temperature for Safety Tc_s	-40 °C	-	+85 °C	
Operating Case Temperature for Warranty Tc_w	-40 °C	-	+75 °C	Case temperature for 5 years warranty. Humidity: 10% RH to 95% RH.
Storage Temperature	-40 °C	-	+85 °C	Humidity: 5% RH to 95% RH
Dimensions Inches (L x W x H) Millimeters (L x W x H)	3.15 x 2.52 x 1.26 80 x 64 x 32			With mounting ear 3.82 x 2.52 x 1.26 97 x 64 x 32
Net Weight	-	330 g	-	

Safety & EMC Compliance

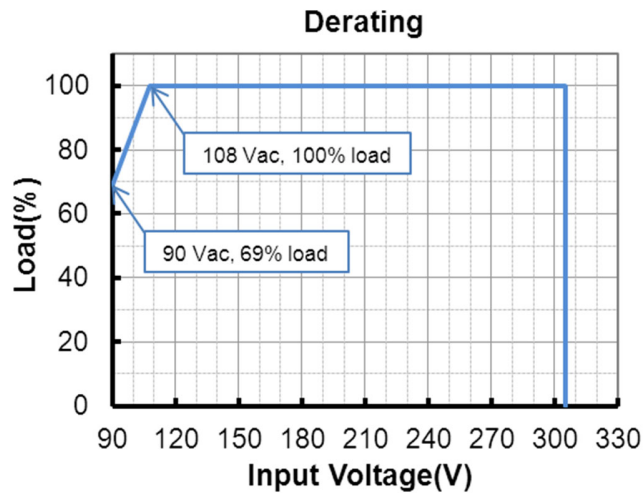
Safety Category	Standard
ENEC & CE	EN 61347-1, EN 61347-2-13
CCC	GB 19510.1, GB 19510.14
CB	IEC 61347-1, IEC 61347-2-13
KS	KS C 7655
BIS	IS 15885(PART2/SEC13)
NOM	NOM-058-SCFI
EMI Standards	Notes
EN IEC 55015/GB/T 17743 ⁽¹⁾	Conducted emission Test & Radiated emission Test
EN IEC 61000-3-2/GB 17625.1	Harmonic current emissions
EN 61000-3-3	Voltage fluctuations & flicker
EMS Standards	Notes
EN 61000-4-2	Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge
EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS
EN 61000-4-4	Electrical Fast Transient / Burst-EFT

Safety & EMC Compliance (Continued)

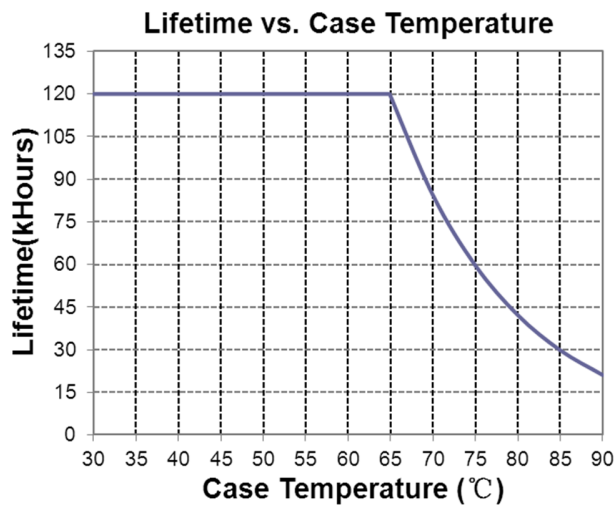
EMS Standards	Notes
EN 61000-4-5	Surge Immunity Test: AC Power Line: Differential Mode 4 kV, Common Mode 6 kV
EN 61000-4-6	Conducted Radio Frequency Disturbances Test-CS
EN 61000-4-8	Power Frequency Magnetic Field Test
EN 61000-4-11	Voltage Dips
EN 61547	Electromagnetic Immunity Requirements Applies To Lighting Equipment

Note: (1) This LED driver meets the EMI specifications above, but EMI performance of a luminaire that contains it depends also on the other devices connected to the driver and on the fixture itself.

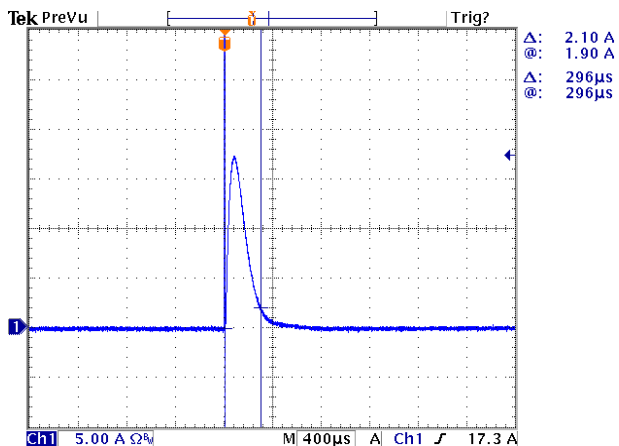
Derating



Lifetime vs. Case Temperature

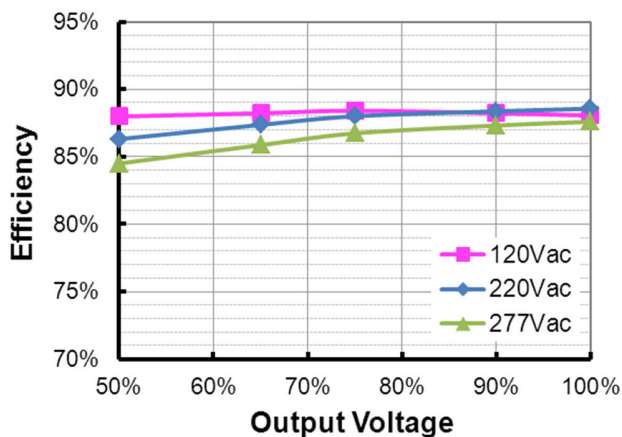


Inrush Current Waveform

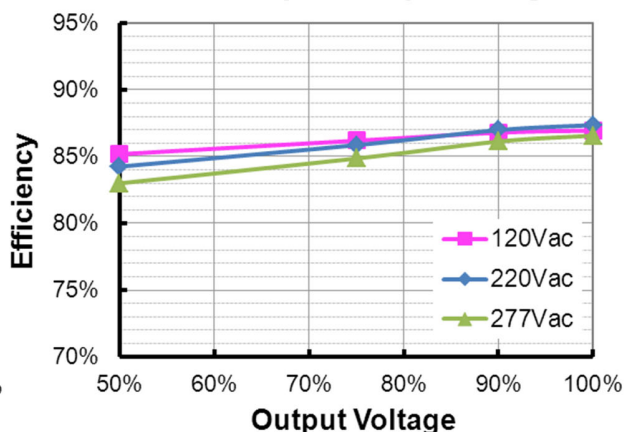


Efficiency vs. Load

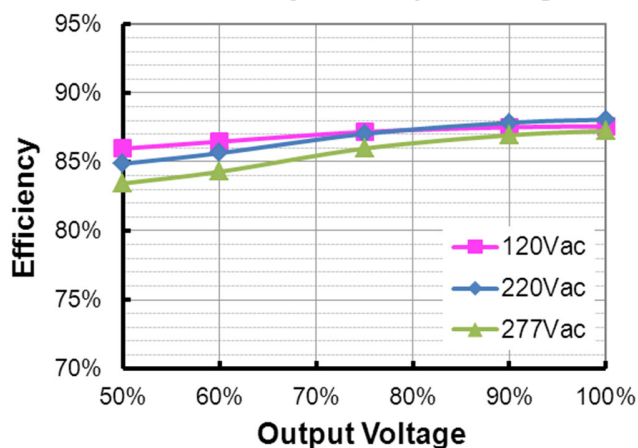
EUC-026S050SVM0003($I_o=350\text{mA}$)
Efficiency vs. Output Voltage



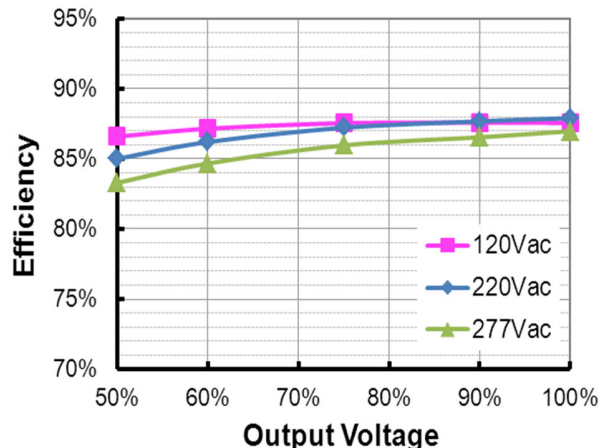
EUC-026S070SVM($I_o=700\text{mA}$)
Efficiency vs. Output Voltage



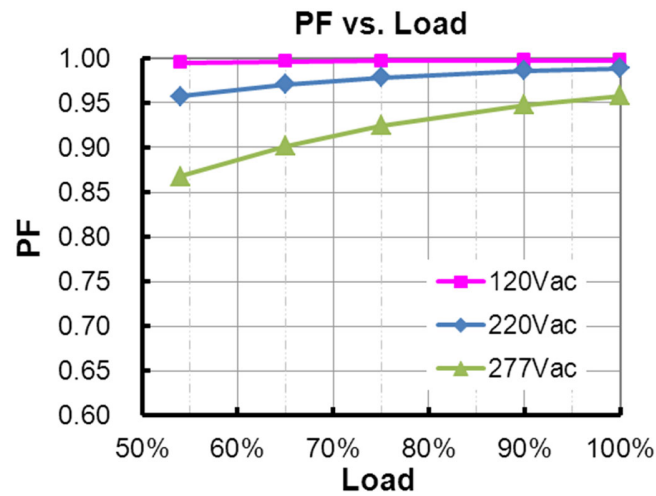
EUC-026S070SVM0002($I_o=600\text{mA}$)
Efficiency vs. Output Voltage



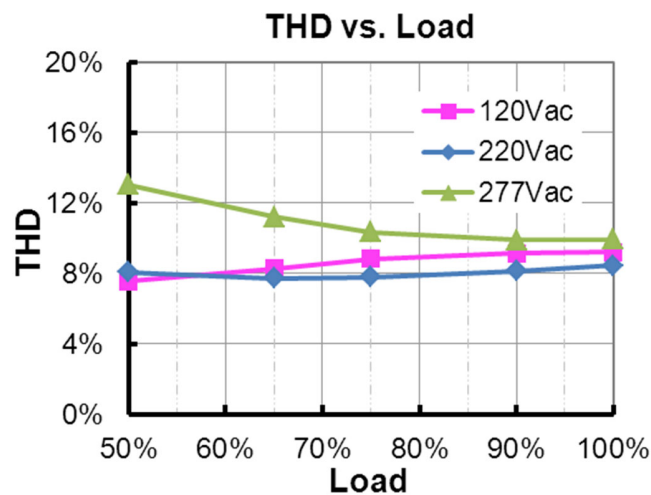
EUC-026S070SVM0004($I_o=500\text{mA}$)
Efficiency vs. Output Voltage



Power Factor



Total Harmonic Distortion



Protection Functions

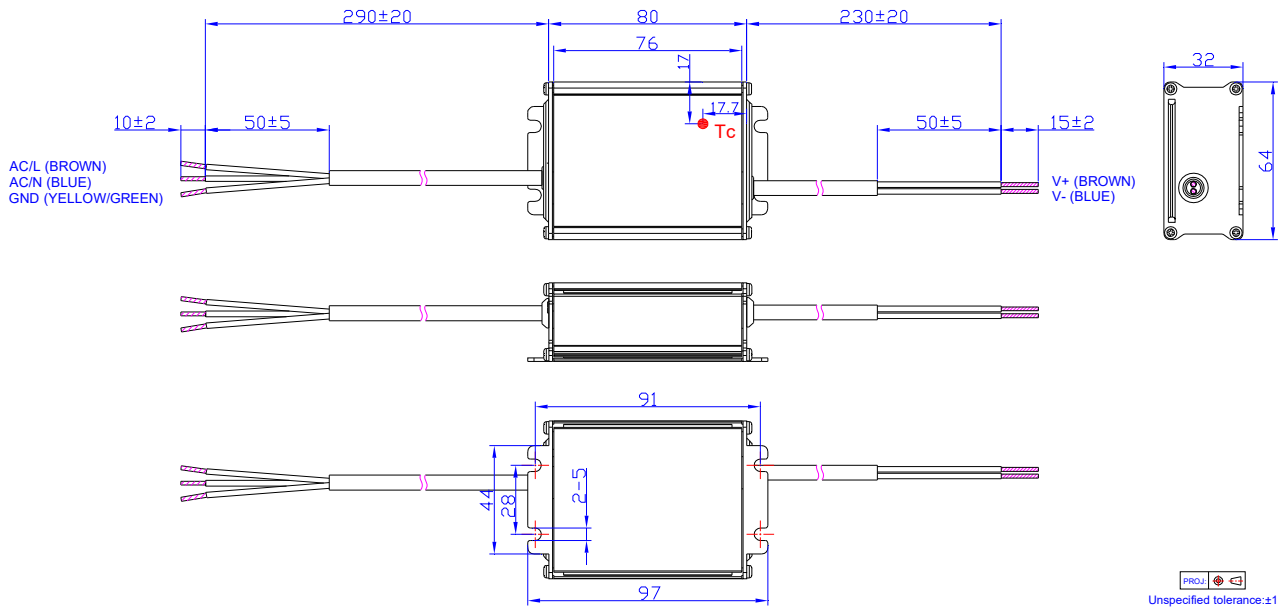
Parameter	Notes
Over Voltage Protection	Limits output voltage at no load and in case the normal voltage limit fails.
Short Circuit Protection	Auto Recovery. No damage shall occur when any output operating in a short circuit condition. The power supply shall be self-recovery when the fault condition is removed.
Over Temperature Protection	Decreases output current. Returning to normal after over temperature is removed.
Input Under Voltage Protection	Auto Recovery. Turn off the output when the input voltage falls below 80±10V. And the driver will restart when the input voltage exceeds 85±10V.

Mechanical Outline

EUC-026SxxxSVM000x

INPUT (VDE H05RN-F 3*1.0mm² ϕ 7.2)

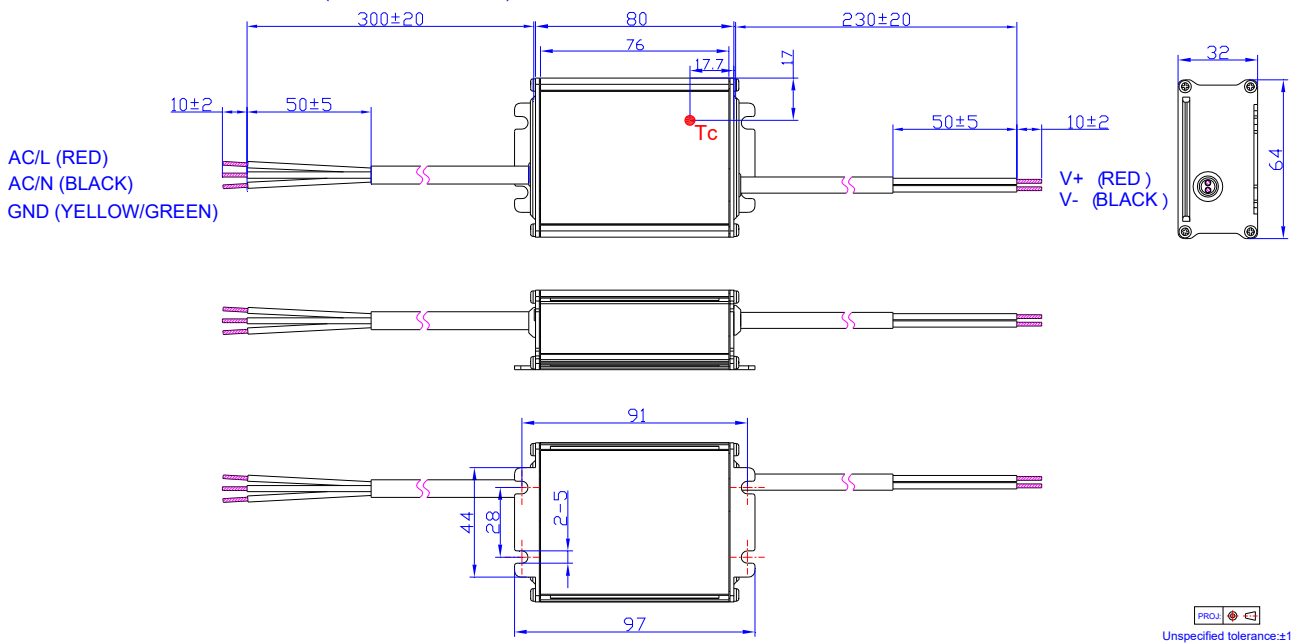
OUTPUT (VDE H05RN-F 2*1.0mm² ϕ 6.8)



EUC-026SxxxSVM300x

INPUT (BIS 3*1.0mm² ϕ 7.25)

OUTPUT (BIS 2*1.0mm² ϕ 6.85)



RoHS Compliance

Our products comply with reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU, calling for the elimination of lead and other hazardous substances from electronic products.

Revision History

Change Date	Rev.	Description of Change		
		Item	From	To
2016-07-04	A	Datasheet Release	/	/
2016-12-26	B	Input Voltage Range(Vac)	108 ~ 305 Vac	90 ~ 305 Vac
		Input Voltage Range(Vdc)	127 ~ 300 Vdc	Deleted
		Model Number - EUC-026S070SVM(Io=700mA)	EUC-026S070SVM0000	EUC-026S070SVM
		Total Output Current Ripple	Total Output Current Ripple (pk-pk) Max.= 150%Io	Total Output Current Ripple (pk-avg) Max.= 75%Io
		Derating Curve	/	Added
2017-03-21	C	Features	/	Updated
		Description	/	Updated
		MTBF	Min.=600,000Hours	Typ.= 1610,000 Hours
		Protection Functions - Input Under Voltage Protection	/	Added
2019-03-19	D	ENEC	/	Added
		Description	/	Updated
		Input Specifications- Power Factor/THD	50-60Hz	Added
		Safety &EMC Compliance	/	Updated
2020-09-18	E	Features	Input Surge Protection: 4kV line-line, 6kV line-earth	Input Surge Protection: DM 4kV, CM 6kV
		Features	Suitable for Independent Use and Class I Luminaires	Deleted
		Features	Waterproof(IP67)	IP67
		BIS certificate	/	Added
		NOM certificate	/	Added
		Independent symbol	/	Added
		Notes of models - (4) For BIS models please click here see the: BIS Models List .	/	Added
		General Specifications - Humidity	/	Updated
		Safety &EMC Compliance	BIS	Added
		Safety &EMC Compliance	NOM	Added
		Mechanical Outline - EUC-026SxxxSVM300x	/	Added
		RoHS Compliance	/	Updated
		Format	/	Updated

Revision History (Continued)

Change Date	Rev.	Description of Change		
		Item	From	To
2021-08-19	F	Models	Input Voltage Range	Updated
		Models	Notes: (1)	Updated
		Input Specifications	Input DC Voltage	Added
2024-05-16	G	Product Photograph	/	Updated
		TUV logo	/	Deleted
		Safety & EMC Compliance	/	Updated