

ELEMENT EM FIT SELV

Linear / Area Constant Current – Non dimmable



Areas of application

- Linear and area lighting
- Shop lighting
- Industry lighting
- Offices, Public buildings, Supermarkets
- Suitable for luminaires of protection class I and II

Product family benefits

- Small housing design
- Flexible current setting (DIPswitch – 4 currents)
- Enhanced safety due to overload, overtemperature, short-circuit protection
- High efficiency
- Long lasting and high reliability
- High light quality due to low ripple current

Product family features

- Line frequency: 50 Hz | 60 Hz
- Supply voltage: 220...240 V
- Lifetime: up to 50,000 h (temperature at T_c max. = -10 °C, max 10% failure rate)
- SELV driver
- Wide output voltage range
- Fixed output (no dimming)

Technical data

Electrical data

Product description	Nominal input voltage	Mains frequency	Input voltage AC	Current set	Power factor λ	
EM FIT 18/220...240/350 CS L	220...240 V	50/60 Hz	198...264 V	DipSwitch	0.95 ¹⁾	
EM FIT 40/220...240/800 CS L	220...240 V	50/60 Hz	198...264 V	DipSwitch	0.95 ¹⁾	
EM FIT 60/220...240/1A2 CS L	220...240 V	50/60 Hz	198...264 V	DipSwitch	0.95 ¹⁾	
EM FIT 75/220...240/1A6 CS L	220...240 V	50/60 Hz	198...264 V	DipSwitch	0.95 ¹⁴⁾	
Product description	Efficiency in full-load		Device power loss	Inrush current	Max. ECG no. on circuit breaker 10 A (B)	Max. ECG no. on circuit breaker 10 A (C)
EM FIT 18/220...240/350 CS L	84 % ²⁾		3.4 W ³⁾	35 A ⁴⁾	30	50
EM FIT 40/220...240/800 CS L	87 % ²⁾		6.1 W ³⁾	45 A ¹⁰⁾	14	24
EM FIT 60/220...240/1A2 CS L	88 % ²⁾		7.7 W ³⁾	50 A ¹²⁾	13	19
EM FIT 75/220...240/1A6 CS L	89 % ²⁾		9.7 W ³⁾	60 A ¹⁵⁾	7	12
Product description	Max. ECG no. on circuit breaker 16 A (B)	Max. ECG no. on circuit breaker 16 A (C)	Max. ECG no. on circuit breaker 25 A (B)	Max. ECG no. on circuit breaker 25 A (C)	Surge capability (L/N-Ground)	
EM FIT 18/220...240/350 CS L	48	80	75	125	2 kV ⁵⁾	
EM FIT 40/220...240/800 CS L	23	39	36	61	2 kV ⁵⁾	
EM FIT 60/220...240/1A2 CS L	20	30	32	47	2 kV ⁵⁾	
EM FIT 75/220...240/1A6 CS L	12	20	18	31	2 kV ⁵⁾	
Product description	Surge capability (L-N)	Nominal output voltage	Nominal output current	Output PSTLM		
EM FIT 18/220...240/350 CS L	1 kV	27...51 V ⁶⁾	200 / 250 / 300 / 350 mA ⁷⁾	≤1		
EM FIT 40/220...240/800 CS L	1 kV	27...51 V ¹¹⁾	500 / 600 / 700 / 800 mA ⁷⁾	≤1		
EM FIT 60/220...240/1A2 CS L	1 kV	27...51 V ¹³⁾	900 / 1050 / 1100 / 1200 mA ⁷⁾	≤1		
EM FIT 75/220...240/1A6 CS L	1 kV	27...51 V ¹⁶⁾	1300 / 1400 / 1500 / 1600 mA ⁷⁾	≤1		
Product description	Output SVM		Nominal output power	Maximum output power		U-OUT (working voltage)
EM FIT 18/220...240/350 CS L	≤0.4		5.4...17.85 W	17.8 W		< 60 V
EM FIT 40/220...240/800 CS L	≤0.4		13.5...40.8 W	40.8 W		< 60 V

Product family datasheet

Product description	Output SVM	Nominal output power	Maximum output power	U-OUT (working voltage)
EM FIT 60/220...240/1A2 CS L	≤0.4	24.3...61.2 W	61.2 W	< 60 V
EM FIT 75/220...240/1A6 CS L	≤0.4	35.1...81.6 W	81.6 W	< 60 V

Product description	Galvanic isolation	Output current tolerance	Total harmonic distortion	Output ripple current (100 Hz)
EM FIT 18/220...240/350 CS L	SELV	±7.5 %	< 20 % ⁸⁾	< 10 % ⁹⁾
EM FIT 40/220...240/800 CS L	SELV	±7.5 %	< 20 % ⁸⁾	< 10 % ⁹⁾
EM FIT 60/220...240/1A2 CS L	SELV	±7.5 %	< 20 % ⁸⁾	< 10 % ⁹⁾
EM FIT 75/220...240/1A6 CS L	SELV	±7.5 %	< 20 % ⁸⁾	< 10 % ⁹⁾

1) Full load at 230 V/50 Hz
2) at 230 V, 50 Hz
3) At 230 V
4) $t_{width} = 80 \mu s$ typical (measured at 50 % I_{peak})
5) L/N – PE acc to EN 61547 Clause 5.7
6) At 200/250 mA output current / At 300/350 mA output current
7) ±7.5%
8) At full load, 230 V, 50 Hz / see graphs
9) Ripple average at 100 Hz
10) $t_{width} = 130 \mu s$ typical (measured at 50 % I_{peak})
11) At 500/600/700/800 mA output current
12) $t_{width} = 140 \mu s$ typical (measured at 50 % I_{peak})
13) At 900/1050/1100/1200 mA output current
14) Half load at 230 V/50 Hz
15) $t_{width} = 190 \mu s$ typical (measured at 50 % I_{peak})
16) At 1300/1400/1500/1600 mA output current

Dimensions & weight

Product description	Mounting hole spacing, length	Product weight	Cable cross-section, input side	Cable cross-section, output side	Wire preparation length, input side
EM FIT 18/220...240/350 CS L	200.0 mm	140.00 g	0.5...1.5 / 0.75...1.5 mm ² ¹⁾	0.5...1.5 / 0.75...1.5 mm ² ¹⁾	7...8 mm
EM FIT 40/220...240/800 CS L	200.0 mm	140.00 g	0.5...1.5 / 0.75...1.5 mm ² ¹⁾	0.5...1.5 / 0.75...1.5 mm ² ¹⁾	7...8 mm
EM FIT 60/220...240/1A2 CS L	270.0 mm	190.00 g	0.5...1.5 / 0.75...1.5 mm ² ¹⁾	0.5...1.5 / 0.75...1.5 mm ² ¹⁾	7...8 mm
EM FIT 75/220...240/1A6 CS L	270.0 mm	210.00 g	0.5...1.5 / 0.75...1.5 mm ² ¹⁾	0.5...1.5 / 0.75...1.5 mm ² ¹⁾	7...8 mm

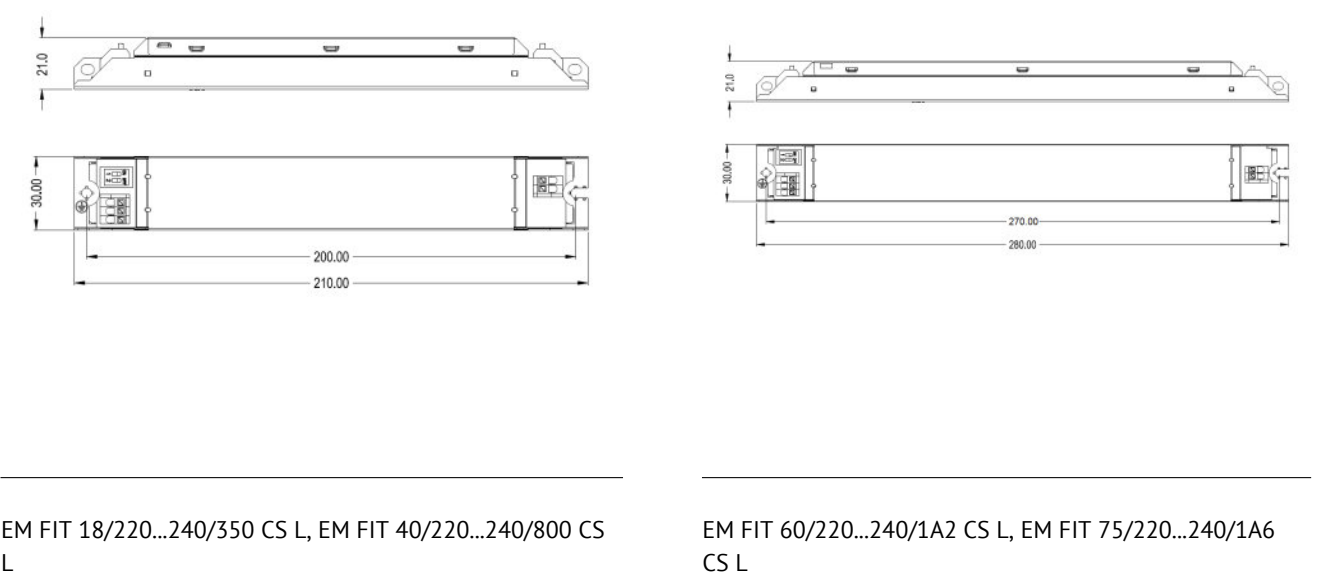
Product description	Width	Length	Wire preparation length, output side	Height
EM FIT 18/220...240/350 CS L	30.0 mm	210.0 mm	7...8 mm	21.0 mm

Product family datasheet

Product description	Width	Length	Wire preparation length, output side	Height
EM FIT 40/220...240/800 CS L	30.0 mm	210.0 mm	7...8 mm	21.0 mm
EM FIT 60/220...240/1A2 CS L	30.0 mm	280.0 mm	7...8 mm	21.0 mm
EM FIT 75/220...240/1A6 CS L	30.0 mm	280.0 mm	7...8 mm	21.0 mm

1) Solid or flexible leads

Product line drawing



Colors & materials

Product description	Casing material
EM FIT 18/220...240/350 CS L	Metal
EM FIT 40/220...240/800 CS L	Metal
EM FIT 60/220...240/1A2 CS L	Metal
EM FIT 75/220...240/1A6 CS L	Metal

Temperatures & operating conditions

Product description	Ambient temperature range	Maximum temperature at tc test point	Max.housing temperature in case of fault	Temperature range at storage
EM FIT 18/220...240/350 CS L	-20...+50 °C	65 °C	110 °C	-40...+85 °C
EM FIT 40/220...240/800 CS L	-20...+50 °C	75 °C	110 °C	-40...+85 °C
EM FIT 60/220...240/1A2 CS L	-20...+50 °C	75 °C	110 °C	-40...+85 °C
EM FIT 75/220...240/1A6 CS L	-20...+50 °C	75 °C	110 °C	-40...85 °C

Product description	Permitted rel. humidity during operation
EM FIT 18/220...240/350 CS L	5...90 % ¹⁾
EM FIT 40/220...240/800 CS L	5...90 % ¹⁾
EM FIT 60/220...240/1A2 CS L	5...90 % ¹⁾
EM FIT 75/220...240/1A6 CS L	5...90 % ¹⁾

¹⁾ Non-condensing

Lifespan

Product description	ECG lifetime
EM FIT 18/220...240/350 CS L	35000 / 50000 h ¹⁾
EM FIT 40/220...240/800 CS L	35000 / 50000 h ²⁾
EM FIT 60/220...240/1A2 CS L	35000 / 50000 h ²⁾
EM FIT 75/220...240/1A6 CS L	35000 / 50000 h ²⁾

¹⁾ At maximum T_c = 65°C / 10% failure rate / At maximum T_c = 60°C / 10% failure rate

²⁾ At maximum T_c = 75°C / 10% failure rate / At maximum T_c = 65°C / 10% failure rate

Additional product data

Product description	Encapsulated
EM FIT 18/220...240/350 CS L	No
EM FIT 40/220...240/800 CS L	No
EM FIT 60/220...240/1A2 CS L	No
EM FIT 75/220...240/1A6 CS L	No

Capabilities

Product description	Dimmable	Overheating protection	Overload protection
EM FIT 18/220...240/350 CS L	No	Automatic reversible	Automatic reversible
EM FIT 40/220...240/800 CS L	No	Automatic reversible	Automatic reversible
EM FIT 60/220...240/1A2 CS L	No	Automatic reversible	Automatic reversible
EM FIT 75/220...240/1A6 CS L	No	Automatic reversible	Automatic reversible

Product family datasheet

Product description	Short-circuit protection	No-load proof	Intended for no-load operation	Max. cable length to lamp/LED module
EM FIT 18/220...240/350 CS L	Automatic reversible	Yes	No	2.0 m ¹⁾
EM FIT 40/220...240/800 CS L	Automatic reversible	Yes	No	2.0 m ¹⁾
EM FIT 60/220...240/1A2 CS L	Automatic reversible	Yes	No	2.0 m ¹⁾
EM FIT 75/220...240/1A6 CS L	Automatic reversible	Yes	No	2.0 m ¹⁾

Product description	Suitable for fixtures with prot. class	Number of channels
EM FIT 18/220...240/350 CS L	I	1
EM FIT 40/220...240/800 CS L	I	1
EM FIT 60/220...240/1A2 CS L	I	1
EM FIT 75/220...240/1A6 CS L	I	1

¹⁾ Output wires must be routed as close as possible to each other

Programming

Product description	Programming device
EM FIT 18/220...240/350 CS L	DIPswitch
EM FIT 40/220...240/800 CS L	DIPswitch
EM FIT 60/220...240/1A2 CS L	DIPswitch
EM FIT 75/220...240/1A6 CS L	DIPswitch

Certificates & standards

Product description	Approval marks – approval	Standards	Type of protection
EM FIT 18/220...240/350 CS L	CE / CCC / EAC / ENEC / RCM / UKCA	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 61000-3-2/Acc. to IEC 61547/CISPR 15/EN 55015	IP20
EM FIT 40/220...240/800 CS L	CE / ENEC / RCM / EAC / CCC / UKCA	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 61000-3-2/Acc. to IEC 61547/CISPR 15/EN 55015	IP20
EM FIT 60/220...240/1A2 CS L	CE / CCC / EAC / ENEC / RCM / UKCA	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 61000-3-2/Acc. to IEC 61547/CISPR 15/EN 55015	IP20
EM FIT 75/220...240/1A6 CS L	CE / CCC / ENEC / RCM / EAC / UKCA	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 61000-3-2/Acc. to IEC 61547/CISPR 15/EN 55015	IP20

Logistical data

Product description	Commodity code
EM FIT 18/220...240/350 CS L	85044083900
EM FIT 40/220...240/800 CS L	85044083900
EM FIT 60/220...240/1A2 CS L	85044083900
EM FIT 75/220...240/1A6 CS L	85044083900

Environmental information
Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)

Product description	Date of Declaration	Primary Article Identifier	Candidate List Substance 1
EM FIT 18/220...240/350 CS L	19-05-2023	4062172219976	Lead
EM FIT 40/220...240/800 CS L	19-05-2023	4062172219990	Lead
EM FIT 60/220...240/1A2 CS L	19-05-2023	4062172220019	Lead
EM FIT 75/220...240/1A6 CS L	19-05-2023	4062172220033	Lead

Product family datasheet

Product description	CAS No. of substance 1	Safe Use Instruction	Declaration No. in SCIP database
EM FIT 18/220...240/350 CS L	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	5329cfb5-aa6f-4d34-9df0-915b226f9303
EM FIT 40/220...240/800 CS L	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	dc1ea54e-bbf5-4186-9177-3f36ddfe210d
EM FIT 60/220...240/1A2 CS L	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	50125d52-0a48-4ca7-9471-2eb660ca0396
EM FIT 75/220...240/1A6 CS L	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	39ca20a0-60fd-4c7b-8120-5af2ddea52d9

Application advice

For more detailed application information and graphics please see product datasheet.

Sales and Technical Support

— Sales and Technical Support www.osram.com

Download Data

File	
	User instruction ELEMENT LED Power Supply
	Certificates OT constant current EAC DE PA01 B 34987 21 071221
	Certificates EM FIT CS L CB NL 74845 071221
	Certificates EM FIT CS L&D CS L ENEC 35 120653 071221
	Certificates EM FIT 18 CS L CCC 2021171002004173 071221
	Certificates NSW27964 2 certificate of EM FIT CS L
	Certificates EM FIT 40 CS L CCC 2021171002004174 071221
	Certificates EM FIT 60 75 CS L CCC 2021171002004191 071221

Product family datasheet

Ecodesign regulation information:

Intended for use with LED modules.
The forward voltage of the LED light source shall be within the defined operating window of the control gear in all operating conditions including dimming if applicable.

Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centres and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved and materials are recycled.

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172219976	EM FIT 18/220...240/350 CS L	Shipping carton box 20	375 mm x 250 mm x 75 mm	7.03 dm ³	3234.00 g
4062172219990	EM FIT 40/220...240/800 CS L	Shipping carton box 20	375 mm x 250 mm x 75 mm	7.03 dm ³	3234.00 g
4062172220019	EM FIT 60/220...240/1A2 CS L	Shipping carton box 20	375 mm x 320 mm x 75 mm	9.00 dm ³	4379.00 g
4062172220033	EM FIT 75/220...240/1A6 CS L	Shipping carton box 20	375 mm x 320 mm x 75 mm	9.00 dm ³	4779.00 g

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.