

EV CONNECTION CENTRES

SP-M1b3t-R-SPD | IP-M1b3t-R-SPD

Dedicated single-phase connection and protection for 7.4 kW EV charging

IET:01 M1b3t

TYPE A RCBO

TYPE 2 SPD



SP enclosure

IP41



IP enclosure

IP65

The matt:e SP-M1b3t-R-SPD and IP-M1b3t-R-SPD provide a simple, dedicated connection point for a single-phase EV charger. Built-in IET:01 M1b3t PEN fault protection enables connection to a PME earthing facility without installing an earth electrode.

Ideal for cross-pavement charging and vehicle-to-everything (V2X) installations.

Protection and installation benefits

- **IET:01 M1b3t PEN fault protection**
for PME-connected EV charging
- **No earth electrode required**
avoiding disruptive groundworks
- **Simple wire-in, wire-out connection**
for straightforward installation
- **Type A RCBO and Type 2 SPD**
integrated in one enclosure
- **Reduced risk around buried services**
with no electrode installation
- **One 7.4 kW single-phase EV charger**
dedicated connection capacity

SPECIFICATION & COMPLIANCE

SP-M1b3t-R-SPD | IP-M1b3t-R-SPD

Single-phase EV connection centres with IET:01 M1b3t protection

DESCRIPTION	DECLARED SPECIFICATION	STANDARD / BASIS
PRODUCT AND ASSEMBLY		
Product references	SP-M1b3t-R-SPD IP-M1b3t-R-SPD	matt:e product designation
Application	Dedicated connection centre for one 7.4 kW single-phase EV charge point	Product specification
Supply / poles	230 V AC, 50 Hz; 1P + N + PE	MTE/A 11-100M1b3t data
Rated load current	40 A	MTE/G 15-40 C40A RCBO
Enclosure protection	SP model: IP41 (indoor) IP model: IP65 (indoor/outdoor)	SP declared rating / WISKA 1312 R/W
SP enclosure dimensions	302.2 × 234.84 × 124.42 mm (W × H × D)	SPCC12 dimensional drawing
IP enclosure model / capacity	WISKA Indubox 1312 R/W; 12 modules	WISKA order no. 10104677
IP enclosure dimensions	270 × 250 × 160 mm (L × W × H)	WISKA 1312 R/W data
IP enclosure construction	Thermoplastic/polycarbonate; RAL 7035; halogen-free	WISKA 1312 R/W data
IP enclosure impact / temperature	IK08; -5 °C to +85 °C; glow-wire test 650 °C	WISKA 1312 R/W data
Certification marking	UKCA, CE	Component documentation
Warranty	1 year	matt:e product documentation
PEN FAULT PROTECTION		
Protection method	IET:01:2024 Category M1b3t PEN fault protection	IET:01:2024 M1b3t
Voltage operating window	184 V to 262.2 V	MTE/A 11-100M1b3t instructions
Protective conductor trip current	21 mA	IET:01:2024 M1b3t
Conductors disconnected on fault	Line, neutral and protective conductor	MTE/A 11-100M1b3t instructions
Start-up monitoring delay	Approximately 20 seconds	MTE/A 11-100M1b3t instructions
Reset after detected fault	Manual reset; reconnection only when conditions are safe	MTE/A 11-100M1b3t instructions
Reset after complete power failure	Automatic after voltage is restored and remains within limits for 20 seconds	MTE/A 11-100M1b3t instructions
Impulse withstand voltage Uimp	10 kV	MTE/A 11-100M1b3t data
Ambient temperature	-25 °C to +40 °C	MTE/A 11-100M1b3t data
TYPE A RCBO		
RCBO standard	BS EN 61009-1	MTE/G 15 series data
Rated current / characteristic	40 A, Type C (5 In to 10 In)	MTE/G 15-40 C40A
Residual current protection	30 mA, Type A	MTE/G 15-40 C40A
Rated short-circuit capacity Icn	6 kA at 230 V	BS EN 61009-1 component data
Rated insulation / impulse voltage	Ui 440 V; Uimp 4 kV	MTE/G 15-40 C40A
Mechanical / electrical life	20,000 / 10,000 operations	MTE/G 15-40 C40A
TYPE 2 SURGE PROTECTIVE DEVICE		
SPD classification	Type 2 / Class II, 1 + NPE	IEC 61643-11
Nominal voltage Un	230 V AC, 50/60 Hz	MTE/S 15 series data
Maximum continuous voltage Uc	MOV: 275 V AC; GDT: 255 V AC	MTE/S 15 series data
Nominal / maximum discharge current	In 20 kA; Imax 40 kA (8/20 µs)	MTE/S 15 series data
Voltage protection level Up	L-PE: 1.5 kV; N-PE: 1.3 kV	MTE/S 15 series data
Response time	≤ 25 ns	MTE/S 15 series data
Short-circuit withstand capability	50 kA with stated maximum mains-side protection	MTE/S 15 series data
Temporary overvoltage characteristic	335 V / 5 s withstand; 440 V / 120 min safe failure	MTE/S 15 series data
Status indication	Green: operational; Red: replace	MTE/S 15 series data

Specifications compiled from the supplied matt:e component documentation. Final assembly declaration and technical file remain controlling documents.

UK DECLARATION OF CONFORMITY

Electrical equipment for Great Britain

Document reference	MTE-DoC-SP-IP-M1b3t-R-SPD-01
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1. MANUFACTURER

Company: matt:e Ltd

Address: Unit 1 Langley Brook Business Park, Middleton, Tamworth, B78 2BP, United Kingdom

2. PRODUCT IDENTIFICATION

Product references: SP-M1b3t-R-SPD and IP-M1b3t-R-SPD

Description: Single-phase EV connection centres, 230 V AC, 50 Hz, rated 40 A, incorporating IET:01 M1b3t PEN fault protection, a 40 A / 30 mA Type A RCBO and a Type 2 surge protective device.

Enclosures: SP version - IP41; IP version - IP65.

3. DECLARATION

This declaration of conformity is issued under the sole responsibility of the manufacturer. The products identified above are declared to conform to the relevant requirements of the following United Kingdom legislation, when installed and used in accordance with the manufacturer's instructions.

Safety	The Electrical Equipment (Safety) Regulations 2016
EMC	The Electromagnetic Compatibility Regulations 2016

4. STANDARDS AND TECHNICAL SPECIFICATIONS APPLIED

Area	Standard / specification
Assembly	BS EN IEC 61439-1:2021 - Low-voltage switchgear and controlgear assemblies: General rules
Assembly	BS EN IEC 61439-7:2023 - Assemblies for specific applications, including electric vehicle charging stations
PEN protection	IET 01:2024, Category M1b3t - Open PEN detection devices for EV charging applications
Protective device	BS EN 60898-1:2019 and BS EN 63024:2018
RCBO	BS EN 61009-1 - Residual current operated circuit-breakers with integral overcurrent protection
SPD	IEC 61643-11 - Low-voltage surge protective devices connected to AC low-voltage power systems
EMC	BS EN IEC 55014-1:2021; BS EN IEC 61000-4-11:2020; BS EN 61000-4-8:2020; BS EN 61000-4-6:2014; BS EN 61000-4-4:2012; BS EN 61000-4-5:2014+A1:2017; BS EN 61000-4-3:2020; BS EN 61000-4-16:2016; BS EN 61000-4-2:2009; BS EN 61000-4-13:2020+A2:2016

5. AUTHORISED SIGNATORY

Signed for and on behalf of matt:e Ltd

Name: Richard Winter

Position: Director

Place of issue: Tamworth, England

Signature



Date: 4 September 2026