Eve Single

General

Model name	Article no.
S-line	
Eve Single S-line, 1 phase, type 2 socket	904460503
Eve Single S-line, 1 phase, type 2 socket shutters	904460505
Eve Single S-line, 1 phase, LED, charging cable	904460507
Pro-line	
Eve Single Pro-line, 1 phase, display, type 2 socket	904460003
Eve Single Pro-line, 1 phase, display, type 2 socket shutters	904460005
Eve Single Pro-line, 1 phase, display, charging cable	904460007
Eve Single Pro-line, 3 phase, display, type 2 socket	904460023
Eve Single Pro-line, 3 phase, display, type 2 socket shutters	904460025
Eve Single Pro-line, 3 phase, display, charging cable	904460027

Specifications of Eve Single product lines

Specification	S-line	Pro-line
1 phase	✓	✓
3 phase	-	✓
RFID card reader	-	✓
RGB LED	✓	-
Display	-	✓
Energy meter	Default	MID certified
Eichrecht support	-	-
Earth leakage circuit breakers	-	-
Max. 6mA DC detection	✓	✓
Short-circuit protection	-	-
Mobile network communication	-	✓
Ethernet/LAN dedicated network connection	✓	✓

S-line and Pro-line specifications

Specification	S-line	Pro-line
Operation	Plug & Charge authorisation Central system Third-party apps	Plug & Charge authorisation RFID authorisation Central system Third-party apps
Display	-	3.5" TFT colour display, 320 x 240 pixels
RFID card reader	-	RFID (NFC) ISO/IEC 14443A/B, MiFare Classic 13.56 MHz, DESFire Maximum length: 7 bytes
Mobile network possibilities	-	GPRS
Energy meter	Default, without MID certification	MID certified
Status indication	RGB LED	Integrated in the display

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General product specifications

Number of outlets	1
Types of outlets	Fixed cable Type 2 socket, in accordance with IE62196-2 Type 2 socket shutters, in accordance with IEC62196-2, ed. 2
Supported power systems	TN-S, TN-C-S, TT, IT *
Nominal output voltage (+/- 10%)	230V, 1-phase products 400V (3x230V), 3-phase products
Maximum design current	32A per phase
Maximum design power	7.4kW, 1-phase products 22kW, 3-phase products
Connection clamps	Cable gland, clamping range for 14-25.5mm cable thickness Cable clamps on input filter block. Range: • 10mm^2 per vein: solid (VD) wire • Max. 6mm^2 per vein: stranded (VDS) wire with ferrules
Activation relay	Integrated, simultaneous activation Extra safety relay in series
Overcurrent protection	Integrated in firmware; shutdown at: 105% after 1,000 seconds; 110% after 100 seconds; 120% after 10 seconds; 150% after 2 seconds.
Residual current protection	Integrated 6mA DC leakage current detection Response time: 1-5 seconds
Available in- and outputs	RJ45 (Ethernet/LAN) RJ11 (active load balancing)

Communication and protocols

Controller	Central unit for charging currents and communication
Vehicle communication	Mode 3 in accordance with IEC 61851-1 ed. 3 (2017)
Internet/networking possibilities	Mobile network communication, Ethernet/LAN
Communication protocol Central System	OCPP 1.5 (JSON), OCPP 1.6 (JSON)
Supported RJ45 protocols	OCPP TCP/IP
Supported RJ11 protocols	DSMR 4.0-4.2 and SMR5.0 (P1 port) I/O for supporting external relay
Modbus (Master)	TCP/IP

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Information safety

SIM card	Mini SIM card APN username and password
Central System authentication	TLS 1.2 x509 2048/4096 bit root certificate
EVSE authentication	HTTP Basic authentication, with or without TLS
Remote console access (SSH, telnet)	Not supported
Diagnostic files	Encryption: AES 128 bit
Firmware update files	Encrypted and digitally signed Encryption: SHA256 hash (pkcs1/PSS padding with 2048 RSA key) Signature: RSA public key 2048 bit
EVSE Interal Flash	AES 128 bit (erased when read)
Root certificate	Installed in the factory, update through UpdateFirmwire file

Available memory

Charge passes	Local list: approx. 800 charge passes (via the Backend) White list: approx. 1,200 charge passes (local)
Transaction database	Approx. 1,500 transactions (of 4u with 15min Wh-metering values)
Logging for diagnostics	Approx. 45,000 lines

User circumstances

Operating temperature	-25°C - 40°C
Relative atmospheric humidity	5 - 95 %
Electrical safety class	I
Degree of protection (casing)	IP55
IK protection (mechanical impact)	IK10
Stand-by use	S-line: approx. 3.5 - 3.8W Pro-line: approx. 3.9 – 4.1W

Casing

Type	Wall-mounted unit
Mounting options	Wall mounting or mounting post (accessory)
Material	Polycarbonate, UV resistant and flame retardant
Colour	RAL9016 (Traffic White): front side RAL 7043 (Traffic Grey B): rear
Locking	Torx T20 screws
Dimensions (H x W x D)	
Casing	370 x 240 x 130mm
Packaging (models with socket)	460 x 315 x 250mm
Packaging (models with charging cable)	480 x 340 x 360mm
Weight	
Casing	Approx. 4 kg
Total, incl. packaging	Approx. 4.5 kg

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Installation instructions

Input: minimal recommended cable diameters (based on assumed max. 50m cable length)	1-phase 3.7kW charging, 16A per phase: 3 x 4 mm^2. 3-phase 2kW charging, 16A per phase: 5 x 4 mm^2. 1-phase 7.4kW charging, 32A per phase: 3 x 6 mm^2. 3-phase 22kW charging, 32A per phase: 5 x 6 mm^2.	
Short-circuit protection	With breaker circuits: 1-phase 16A (3.7kW): 1 x 20A, 1P, type B or C 3-phase 16A (11kW): 1 x 20A, 3P, type B or C 1-phase 32A (7.4kW): 1 x 40A, 1P, type B or C 3-phase 32A (22kW): 1 x 40A, 3P, type B or C	With fuses: 1-phase 16A (3.7kW): 1 x 20A gG 3-phase 16A (11kW): 3 x 20A gG 1-phase 32A (7.4kW): 1. x 35A gG 3-phase 32A (22kW): 3 x 35A gG
Residual current protection (possibly i.c.w. circuit breakers)	Earth leakage circuit breakers: 30mA type A or B, 4P 3.7kW/11kW charging: minimum 20A 7.4kW/22kW charging: 40A	
Nominal input voltage	• V_{L1-N}: 230V (+/-10%) • V_{L2-N}: 230V (+/-10%) • V_{L3-N}: 230V (+/-10%) • V_{L1-L2}: 400V (+/-10%) • V_{L1-L3}: 400V (+/-10%) • V_{L2-L3}: 400V (+/-10%) • V_{PE-N}: ≈ 0V	
Nominal frequency	50 Hz	
Grounding	TN system: PE cable TT system: separately installed grounding electrode < 100 Ohm spreading resistance)	

External protection according to EV/ZE-Ready

IEC 61000-4-16 or IEC 61543

	Level 3		Level 4	
Frequency range	Cont. test Vrms (V)	Current (mA)	Cont. test Vrms (V)	Current (mA)
1 kHz - 1,5 kHz	1	6,6	3	20
1,5 kHz - 15 kHz	1-10	6,6-66	3-30	20-200
15 kHz - 150 kHz	10	66	30	200

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Optional factory settings

Description	Options
Authorisation	Plug & Charge RFID* (only Pro-line)
Maximum charging current	16A 32A*
Smart Charge options (see Appendix B)	Off Active load balancing (P1)* Smart Charging Network*
Own logo in display (only Pro-line)	Off (Alfen logo) On (your own logo)
Languages supported (only Pro-line)	English, Dutch, German, French, Spanish, Portuguese, Italian, Norwegian, Swedish, Finnish
User availability if temporarily offline (only Pro-line)	Accept all RFID passes Only valid passes in database Not available
Action if plug is released on vehicle side	Stop transactions and release the plug Pause charging until cable plugged back in
Choice of management system	Stand alone, ICU Connect* Other options*
Communication through *	GPRS UTP/LAN (only Pro-line) Autodetect (only Pro-line)

Accessories

Mounting post	Art. 803873023-ICU
Dole dimensions (H x W x D)	1.850 x 94 x 94mm
Wall-mount dimensions (H x W x D)	348 x 196 x 3mm
Material	Electro-galvanised steel, fine-structure powder coating
Colour	RAL 7043 (Traffic Grey B)
Packaging (H x W x D)	1.905 x 235 x 150 mm
Weight	12 kg
Type 1 charging cable, 5m, 1 phase, up to 32A (7.4kW)	Art. 203100301-ICU
Type 2 charging cable, 5m, 1 phase, up to 32A (7.4kW)	Art. 203100306-ICU
Type 1 charging cable, 8m, 1 phase, up to 32A (7.4kW)	Art. 203100302-ICU
Type 2 charging cable, 8m, 1 phase, up to 32A (7.4kW)	Art. 203100303-ICU
Type 2 charging cable, 5m, 3 phase, up to 32A (22kW)	Art. 203100304-ICU
Type 2 charging cable, 8m, 3 phase, up to 32A (22kW)	Art. 203100305-ICU
Extra RFID card	Art. 203120010-ICU

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OPMERKINGEN

The settings marked with a * may result in additional costs when purchasing your charging station. The default settings are always mentioned first. For more information about the options, please contact your sales representative