MvM
CHARGING

ELECTRIC CAR CHARGING SYSTEMS

www.mvmcharging.com

COMPANY PROFILE

MVM Charging is a company established in 2022 with a strong commitment to environmental sustainability. Our primary focus lies in the specialization of electric vehicle charging stations.

We are actively advancing our brand journey by incorporating cutting-edge charging technologies and promoting the wide□spread adoption of electric vehicles, with the ultimate goal of con□tributing to a better world.

MvM
CHARGING

THE CONTENT

CHARGING METHODS

There are 4 different standards accepted for electrical vehicle charging systems.

AC ON - BOARD

It is the name given to the system which the vehicle is controlling the current with the BMS (Battery Management System) on it.

1. **AC ON - BOARD**
   For Europe: IEC 62196-2
2. **AC ON - BOARD**
   For USA: SAE J1772

DC OFF - BOARD

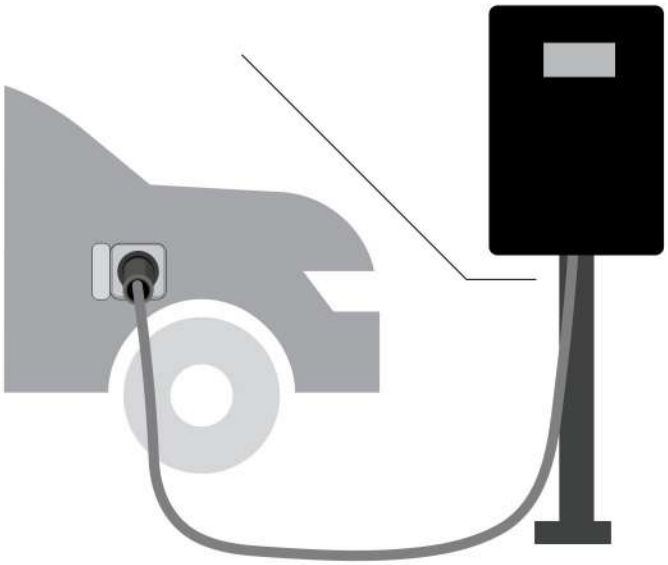
It is the system that the electricity is transferred directly to the battery without any current control system on the vehicle.

3. **DC OFF - BOARD**
   For Far East and Japan: CHAdeMO
4. **DC OFF - BOARD**
   For EU: CSS Combo and IEC - 62196-2

EV STATION TYPES

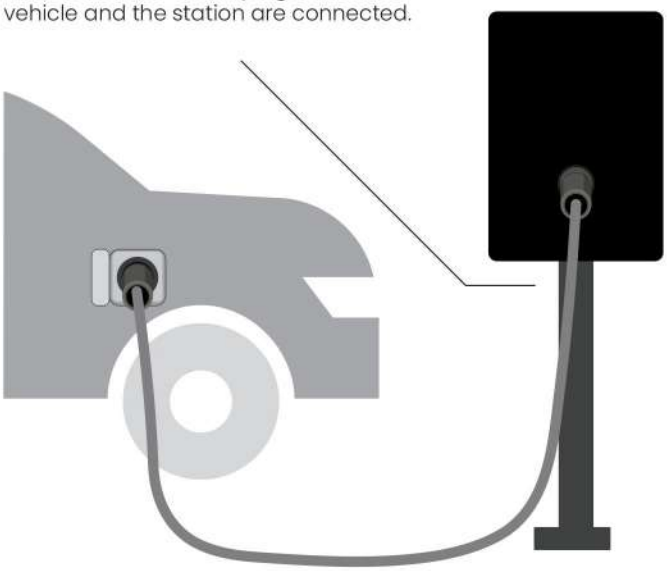
MODE C

The charging cable is connected to the station.



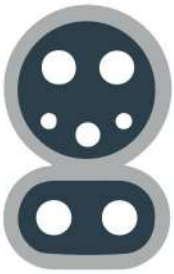
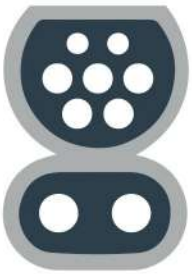
MODE A

The station does not have a charging cable. With the Cable set (plug+connector), the vehicle and the station are connected.



CHARGING STANDARDS

Electrical vehicle charging socket standards are different in various parts of the world.

	AC	DC
North America	 J1772 (TYPE 1)	 CCS 1
Japan	 J1772 (TYPE 1)	 CHAdeMO
Europe and rest of the world	 IEC 62196-2 (TYPE 2)	 CCS 2
China	 GB/T	 GB/T

EV CHARGING STATION

It is designed for individual use. You can easily install it anywhere you can use it at home, workplace and individually, and you can charge your vehicle.

TECHNICAL PARAMETERS

Maximum Power	7.4 kW	11 kW	22 kW
Phase	Mono Phase	Three Phase	
Assembly	Wall or straight surfaces		
Degrees of IP	IP 54		
Rated Voltage	200/250 V. AC	380/415 V. AC	
Rated Current	16A / 32A		
Operation Temp.	-40°C / +55°C		
Housing Material	PC + ABS		

LIGHT FUNCTIONS

- **Green -** Main supply is connected
- **Blue (Weak) -** Ready to charge
- **Blue (Bright) -** EV is detected
- **Blue (Flashing) -** EV is being charged
- **Red -** Fault

PROTECTION SYSTEMS

- **Over Temperature Protection**
- **Over Current Protection**
- **Low Voltage Protection**
- **Surge Protection**
- **Residual Current Protection**
- **Error Warning Protection**
- **RCD AC 30mA + DC 6mA**

ARTICLE NUMBERS

MODE C

3532-125-0601	7,4 kW Monophase Charging Station
3516-335-0601	11 kW Threephase Charging Station
3532-345-0601	22 kW Threephase Charging Station

MODE A

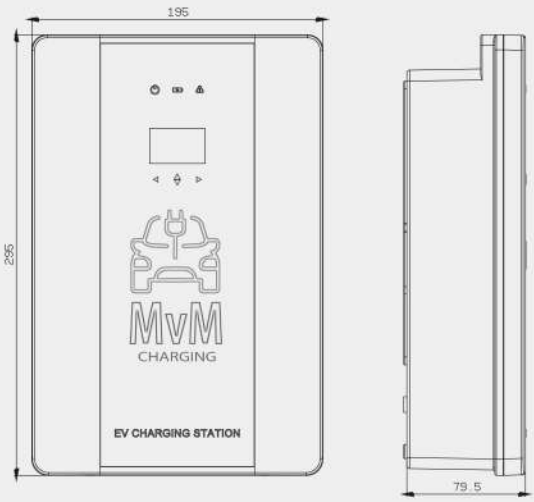
3532-500-0300	7,4 kW Monophase Charging Station
3516-600-0300	11 kW Threephase Charging Station
3532-600-0300	22 kW Threephase Charging Station

DIMENSIONAL DRAWINGS

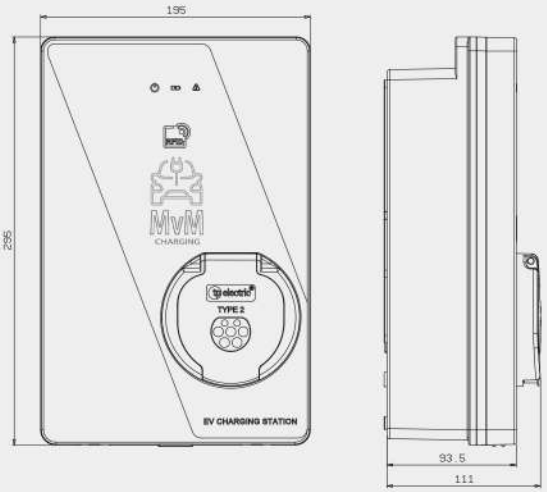
Thanks to its small size, it does not take up much space. So you can easily install it in your garage or car park.

For Assembly Instructions: Please read our user manual.

Mode C



Mode A



ACCESSORIES FOR STATION

You can choose some accessories to use the charging station in different environments.

E.g.: If you are unable to mount the station on a wall, a pedestal is recommended.

1. PEDESTAL

2. CABLE HOLDER

3. CONNECTOR HOLDER

ARTICLE NUMBERS

ACCESSORIES

3500-000-0300	PEDESTAL
3590-001-0300	CABLE HOLDER
3590-002-0300	CONNECTOR HOLDER

MOBILE EV CHARGERS

The power is with you with mobile chargers that allow you to charge your vehicle anywhere.

TECHNICAL PARAMETERS

Maximum Power	3.7 kW	7.4 kW	11 kW	22 kW
Phase	Mono Phase		Three Phase	
Using Type	Mobile			
Degrees of IP	IP 67			
Rated Voltage	200/250 V. AC		380/415 V. AC	
Rated Current	16A / 32A			
Operation Temp.	-40°C / +55°C			
Housing Material	PA6 30%GF			
Cable Length	5 meters			
Cable Type	Type 2			
Humidity Resist.	95%			
Warning Notice	Red Led			

PROTECTION SYSTEMS

- **Over Temperature Protection**
- **Over Current Protection**
- **Low Voltage Protection**
- **Surge Protection**
- **Residual Current Protection**
- **Error Warning Protection**

LIGHT FUNCTIONS

- **Green -** Main supply is connected
- **Blue (Weak) -** Ready to charge
- **Blue (Bright) -** EV is detected
- **Blue (Flashing) -** EV is being charged
- **Red -** Fault
- **Red (Flashing) -** Fault caused by heating

CAUSES OF FAULTS

If the red light is constantly on, it may be one of the three errors below.

Earth Fault, CP or temperature rise

Below Steps Happen If Temperature Exceeds 55 Degrees

1- Red light flashes (every 0.5ms)

2- Pauses charging until the temperature drops to 45 degrees

3- This situation is repeated 4 times

4- After 3 times failure red light flashes in every 0,1 seconds. If this happens you must check your electrical connections.

3,7 kW MOBILE CHARGER

Article Number: 3516-415-0600

Ampere: 6A - 16A

Voltage: 200/250 V AC

Input Frequency: 50/60 Hz

Dimensions

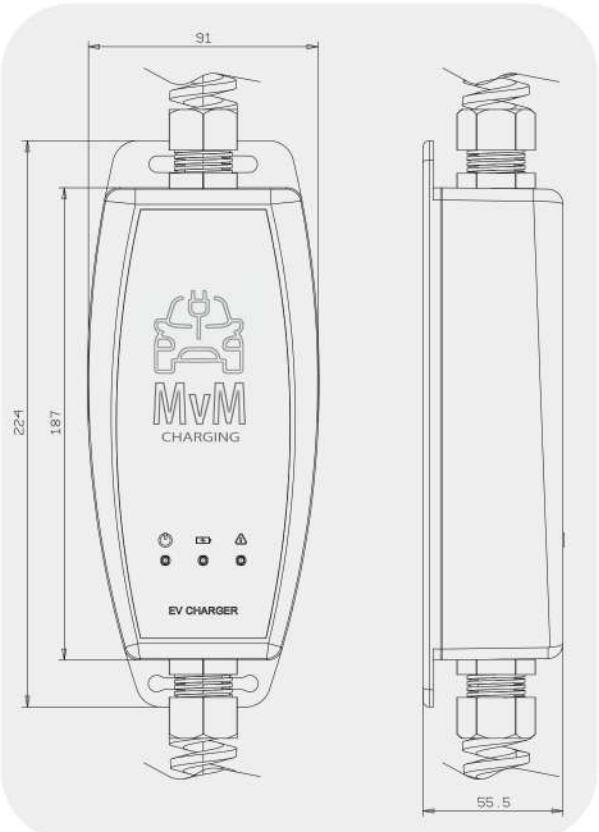
Width: 91

Height: 224

Depth:55,5

Weight: Approximately 2,5 kg

DIMENSIONAL DRAWINGS



Energy Input
Schuko Plug

Energy Output
Type 2 MonoPhase Connector

7,4 kW MOBILE CHARGER

Article Number: 3532-425-0600

Ampere: 6A - 32A

Voltage: 200/250 V AC

Input Frequency: 50/60 Hz

Dimensions

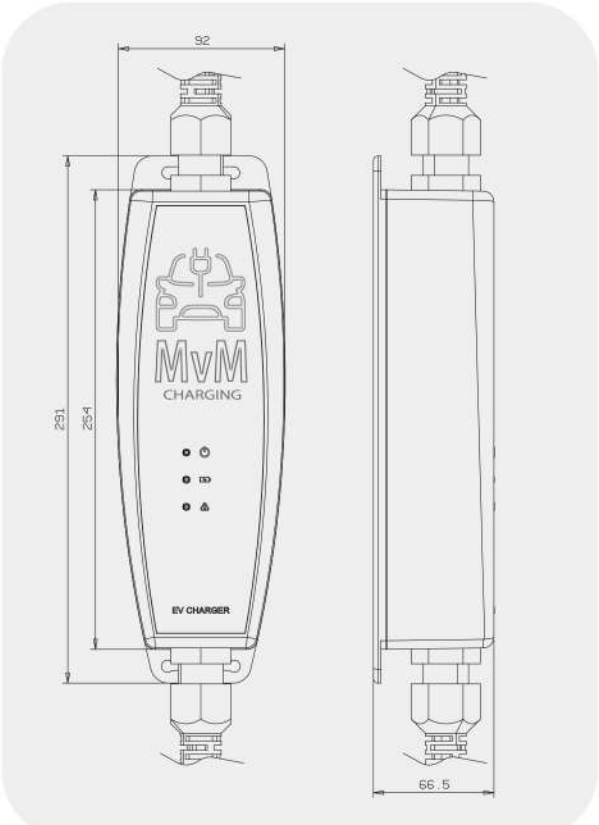
Width: 92

Height: 254

Depth:66,5

Weight: Approximately 3,75 kg

DIMENSIONAL DRAWINGS



Energy Input
3x32A CEE Norm Plug

Energy Output
Type 2 ThreePhase Connector

11 kW MOBILE CHARGER

Article Number: 3516-435-0600

Ampere: 6A - 16A

Voltage: 380/415 V AC

Input Frequency: 50/60 Hz

Dimensions

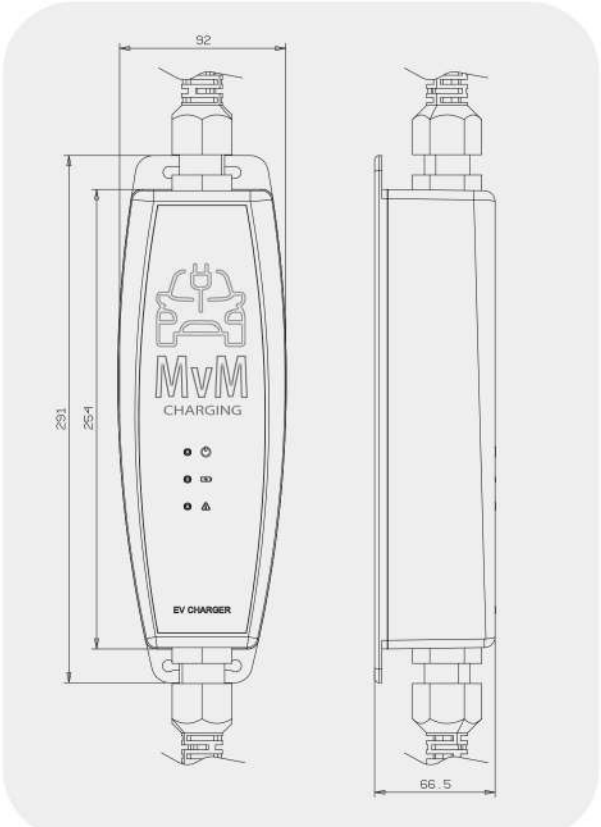
Width: 92

Height: 254

Depth:66,5

Weight: Approximately 3,75 kg

DIMENSIONAL DRAWINGS



Energy Input
5x16A CEE Norm Plug

Energy Output
Type 2 ThreePhase Connector

22 kW MOBILE CHARGER

Article Number: 3532-445-0600

Ampere: 6A - 32A

Voltage: 380/415 V AC

Input Frequency: 50/60 Hz

Dimensions

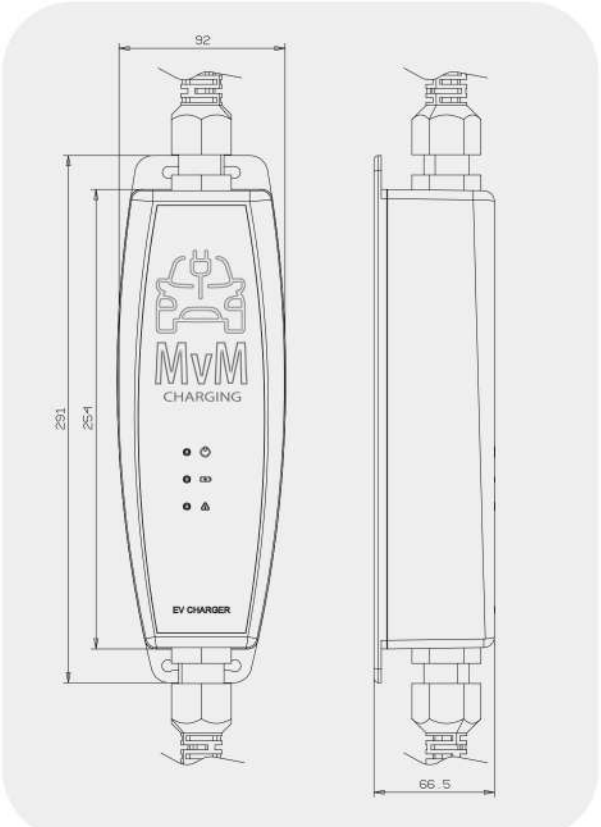
Width: 92

Height: 254

Depth:66,5

Weight: Approximately 4,3 kg

DIMENSIONAL DRAWINGS



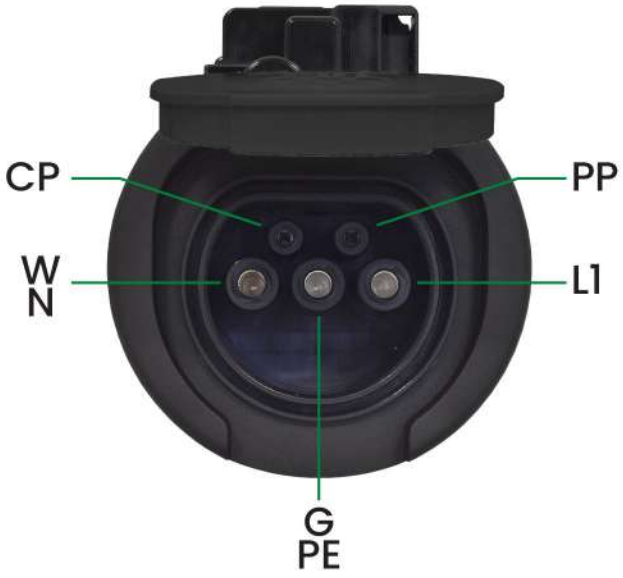
Energy Input
5x32A CEE Norm Plug

Energy Output
Type 2 ThreePhase Connector

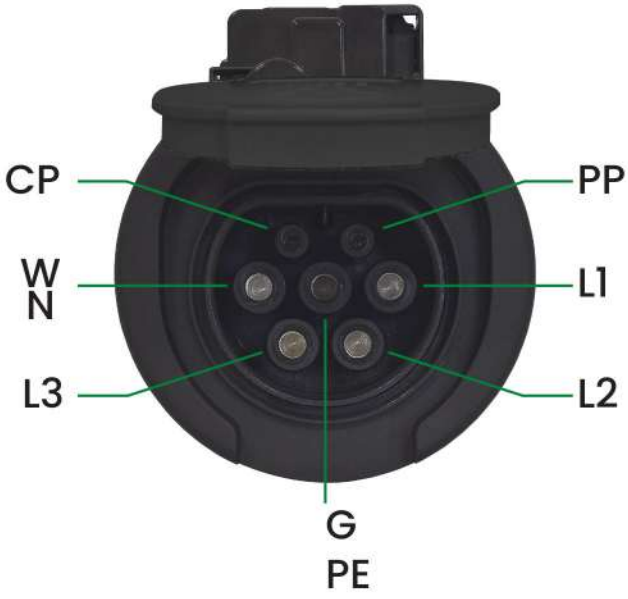
EV CHARGING SOCKET (VERSION 1)

- IP 54 Protection Class
- Compatible with AC ON-Board charging system (MODE-3)
- Compliant with IEC 62196-1/2 IEC 61851-1 Standards
- Type 2 (European Norm)
- Pack. Unit: 1 Pcs
- Ambient Operating Temperature: -30°C / +50°C

MONO PHASE



THREE PHASE



ARTICLE NUMBERS

MONO PHASE

3500-110-0300	16A GT CAR CHARGER SOCKET MONO PHASE
3500-115-0300	32A GT CAR CHARGER SOCKET MONO PHASE
3500-117-0300	63A GT CAR CHARGER SOCKET MONO PHASE

THREE PHASE

3500-310-0300	16A GT CAR CHARGER SOCKET THREE PHASE
3500-315-0300	32A GT CAR CHARGER SOCKET THREE PHASE
3500-317-0300	63A GT CAR CHARGER SOCKET THREE PHASE

TECHNICAL PARAMETERS

TECHNICAL INFORMATIONS

Number of Poles:	2P+PE+PP+CP / 3P+N+PE+PP+CP
Rated Current:	16A-32A-63A (CP,PP) 2A
Rated Voltage:	250/480V (CP,PP) 30V
Insulation Voltage:	500V
Mean Time to Failure:	10.000 (No-load Operation)

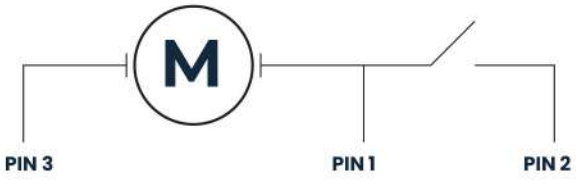
DESIGN

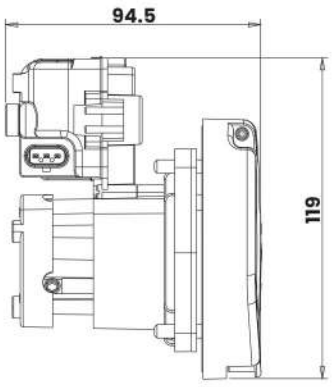
Contacts:	Copper Berylium + Silver Plated Brass ($CuBe^2$)
Contact Plating:	3 µm Silver Plated
Ral Code:	RAL 9005
Enclosure Color:	Black
Enclosure Material:	PA6/Strengthened thermo-shape material

ACTUATOR - INTERLOCKING SYSTEM

Pole Configuration	3p / PIN 1 "red" (+/-) PIN 2 "blue" (Feedback Signal) PIN 3 "black" (+/-)
Nominal Voltage	12V dc
Operation Voltage	9V + 15,5V dc
Max. Current Consumption	3,2A (Worst Case)
No Load Current	≤ 250mA
Actuating Time	40ms < t < 200ms (Voltage and operating temperature depending, not applicable for continuous power supply)
Stability of Stop Position	≤6°C (With hot-wired motor)
Operating Temp. Range	-30°C + 50°C
Lifetime	60.000 Switching Cycles in Total

FUNCTION	PIN 1	PIN 2
Unlocking	-	+
Interlocking	+	-





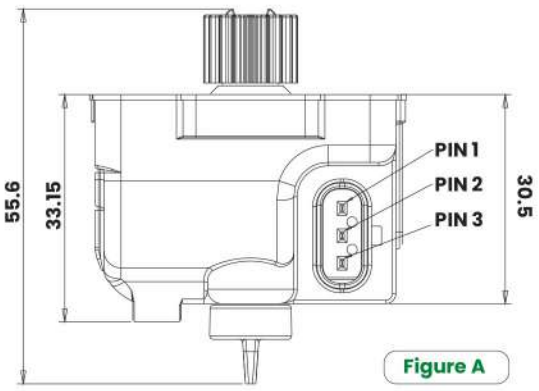


Figure A

TORQUE VALUES	CRIMP VALUES
Terminals PP, CP	0,8 Nm (By allen screw)
Terminals L1, L2, L3, N, PE	1,2 Nm (By slotted head screw)
Assembly Nuts	2,0 Nm (Metric 5 Nut)

Cable Stripping Length

CURRENT	PHASE		CROSS SECTION	1 PHASE	3 PHASE
16A	1	3	5x2,5 + 2x0,5	L1, N, PE: 18 CP, PP: 10	L1, L2, L3, N, PE: 18 CP, PP: 10
32A	1	3	5x6 + 2x0,5	L1, N, PE: 18 CP, PP: 10	L1, L2, L3, N, PE: 18 CP, PP: 10
63A	1	3	5x16 + 2x0,5	L1, N, PE: 18 CP, PP: 10	L1, L2, L3, N, PE: 18 CP, PP: 10

1- Unscrew to the cover (1) from the charging socket body (5) by removing the nuts (6)

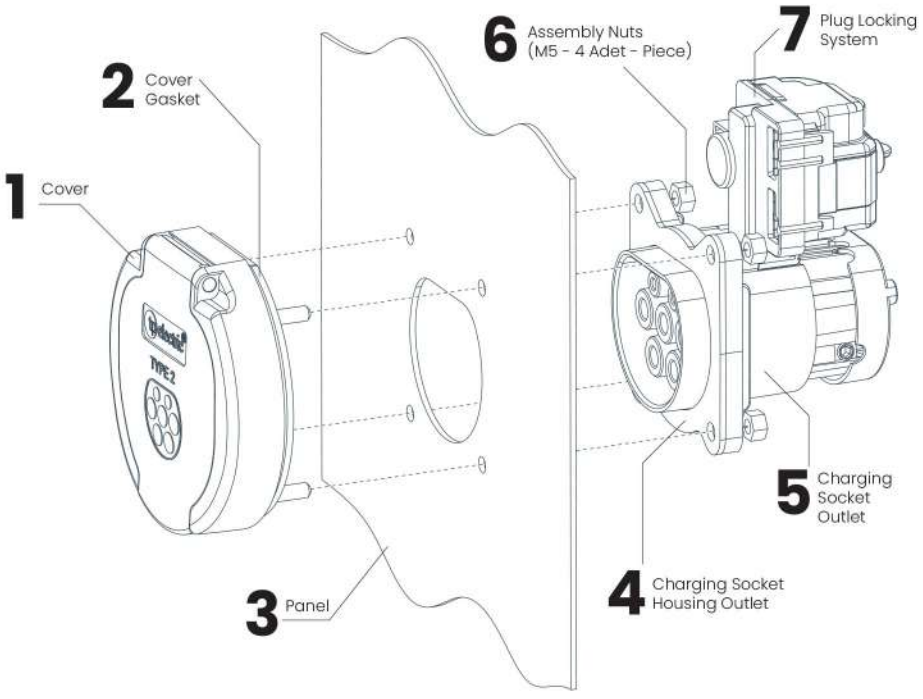
2- Make the hole in the panel (3) according to one of the drilling drawings in Figure B or B-1.

3- Insert the conductors in the marked terminal openings in the contact carrier (mainly: L1= Brown / L2= Black / L3= Grey / N=Blue / PE= Green-Yellow / CP= Red / PP=White) It's recommended to use isolated ferrules. Torque values are given in above.

4- Place the cover (1) with the cover gasket (2) on the panel (3).

5- Fix the charging socket body (5) with the charging socket body gasket (4) to the cover (1) from the inside of the panel (3) with the nuts (6).

6- Connect the motor of the locking system according to Figure A.



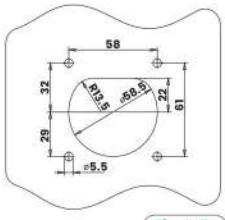


Figure B

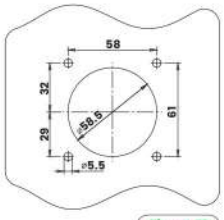


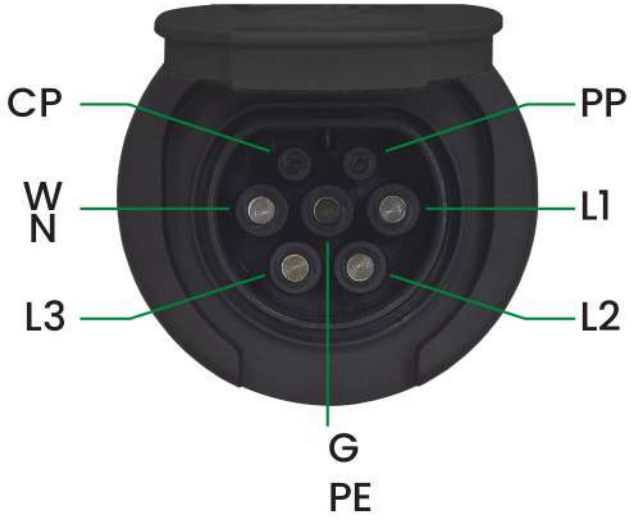
Figure B1

EV CHARGING SOCKET (VERSION 2)

- IP 54 Protection Class
- Compatible with AC ON-Board charging system (MODE-3)
- Compliant with IEC 62196-1/2 IEC 61851-1 Standards
- Type 2 (European Norm)
- Pack. Unit: 1 Pcs
- Ambient Operating Temperature: -30°C / +50°C

MONO PHASE

THREE PHASE



ARTICLE NUMBERS

MONO PHASE

3500-111-0300	16A GT CAR CHARGER SOCKET MONO PHASE
3500-116-0300	32A GT CAR CHARGER SOCKET MONO PHASE
3500-118-0300	63A GT CAR CHARGER SOCKET MONO PHASE

THREE PHASE

3500-311-0300	16A GT CAR CHARGER SOCKET THREE PHASE
3500-316-0300	32A GT CAR CHARGER SOCKET THREE PHASE
3500-318-0300	63A GT CAR CHARGER SOCKET THREE PHASE

TECHNICAL PARAMETERS

TECHNICAL INFORMATIONS

Number of Poles:	2P+PE+PP+CP / 3P+N+PE+PP+CP
Rated Current:	16A-32A-63A (CP,PP) 2A
Rated Voltage:	250/480V (CP,PP) 30V
Insulation Voltage:	500V
Mean Time to Failure:	10.000 (No-load Operation)

DESIGN

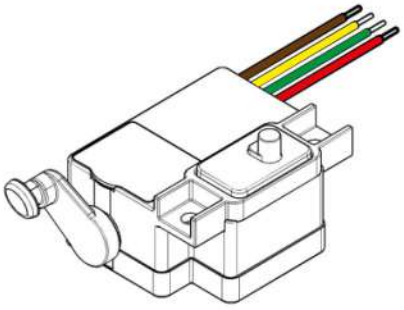
Contacts:	Copper Berylium + Silver Plated Brass ($CuBe^2$)
Contact Plating:	3 µm Silver Plated
Ral Code:	RAL 9005
Enclosure Color:	Black
Enclosure Material:	PA6/Strengthened thermo-shape material

MOTOR

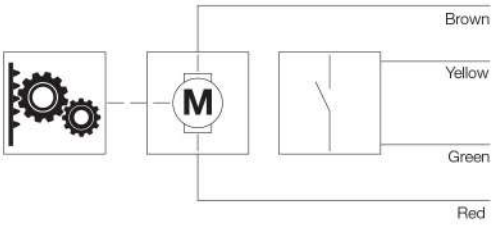
Operating Voltage	9 ~ 16 V dc
Nominal Voltage	14 V dc
Operating Temperature	-40°... +90°
Max. Locking / Unlocking Time	< 600 ms
Cable Length	500 mm
IP level	IP 69
Lifetime	100.000 Cycles
Self Locking Function	Avaliable
Freewheel Function for Emergency Release	Avaliable
Max. Current Consumption	9 ~ 16 V dc

OUTPUT SIGNAL

Unlocking	∞ k Ω
Locking	0 k Ω



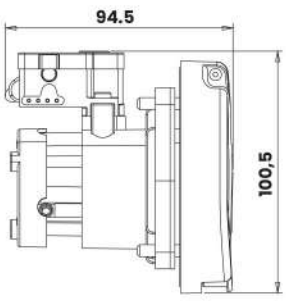
MOTOR CONNECTION

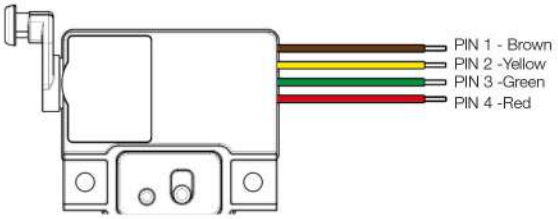


Motor Contact	- PIN 1	Brown
Positions Feedback	K1 - PIN 2	Yellow
Positions Feedback	K2 - PIN 3	Green
Motor Contact	+ PIN 4	Red

Locking motor has 4 wires and needs to be connected as follows:

B: Yellow **R:** Green + Brown **W:** Red





TORQUE VALUES	CRIMP VALUES
Terminals PP, CP	0,8 Nm (By allen screw)
Terminals L1, L2, L3, N, PE	1,2 Nm (By slotted head screw)
Assembly Nuts	2,0 Nm (Metric 5 Nut)

Cable Stripping Length

CURRENT	PHASE		CROSS SECTION	1 PHASE	3 PHASE
16A	1	3	5x2,5 + 2x0,5	L1, N, PE: 18 CP, PP: 10	L1, L2, L3, N, PE: 18 CP, PP: 10
32A	1	3	5x6 + 2x0,5	L1, N, PE: 18 CP, PP: 10	L1, L2, L3, N, PE: 18 CP, PP: 10
63A	1	3	5x16 + 2x0,5	L1, N, PE: 18 CP, PP: 10	L1, L2, L3, N, PE: 18 CP, PP: 10

1- Unscrew to the cover (1) from the charging socket body (5) by removing the nuts (6)

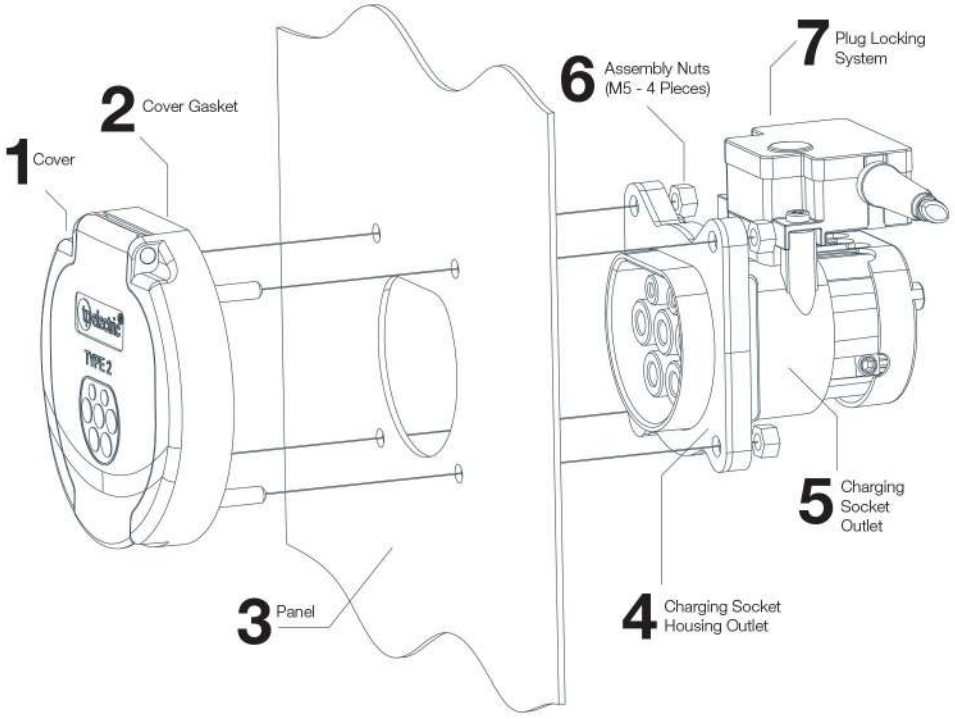
2- Make the hole in the panel (3) according to one of the drilling drawings in Figure A or A-1.

3- Insert the conductors in the marked terminal openings in the contact carrier (mainly: L1= Brown / L2= Black / L3= Grey / N=Blue / PE= Green-Yellow / CP= Red / PP=White) It's recommended to use isolated ferrules. Torque values are given in Table-1.

4- Place the cover (1) with the cover gasket (2) on the panel (3).

5- Fix the charging socket body (5) with the charging socket body gasket (4) to the cover (1) from the inside of the panel (3) with the nuts (6).

6- Connect the motor of the locking system according to Figure B.



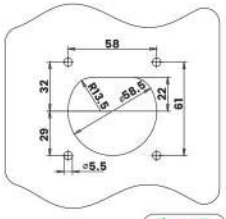


Figure B

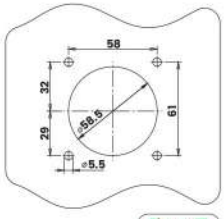


Figure B1

EV CHARGING CABLE SETS

- IP 44 Protection Class
- 5 and 8 meters cable options
- Compliant for Mode 3 charge system
- Type 2 (European Norm)

	MONO PHASE	THREE PHASE
PLUG		 
CONNECTOR		 

ARTICLE NUMBERS

MONO PHASE

3520-155-0600	20A EV Charge Set (Connector)(5 mt Cable)
3520-158-0600	20A EV Charge Set (Connector)(8 mt Cable)
3520-165-0600	20A EV Charge Set (Plug+Connector) (5mt Cable)
3520-168-0600	20A EV Charge Set (Plug+Connector) (8mt Cable)
3532-155-0600	32A EV Charge Set (Connector)(5 mt Cable)
3532-158-0600	32A EV Charge Set (Connector)(8 mt Cable)
3532-165-0600	32A EV Charge Set (Plug+Connector) (5mt Cable)
3532-168-0600	32A EV Charge Set (Plug+Connector) (8mt Cable)

THREE PHASE

3520-355-0600	20A EV Charge Set (Connector) (5 mt Cable)
3520-358-0600	20A EV Charge Set (Connector) (8 mt Cable)
3520-365-0600	20A EV Charge Set (Plug+Connector) (5mt Cable)
3520-368-0600	20A EV Charge Set (Plug+Connector) (8mt Cable)
3532-355-0600	32A EV Charge Set (Connector) (5 mt Cable)
3532-358-0600	32A EV Charge Set (Connector) (8 mt Cable)
3532-365-0600	32A EV Charge Set (Plug+Connector) (5mt Cable)
3532-368-0600	32A EV Charge Set (Plug+Connector) (8mt Cable)

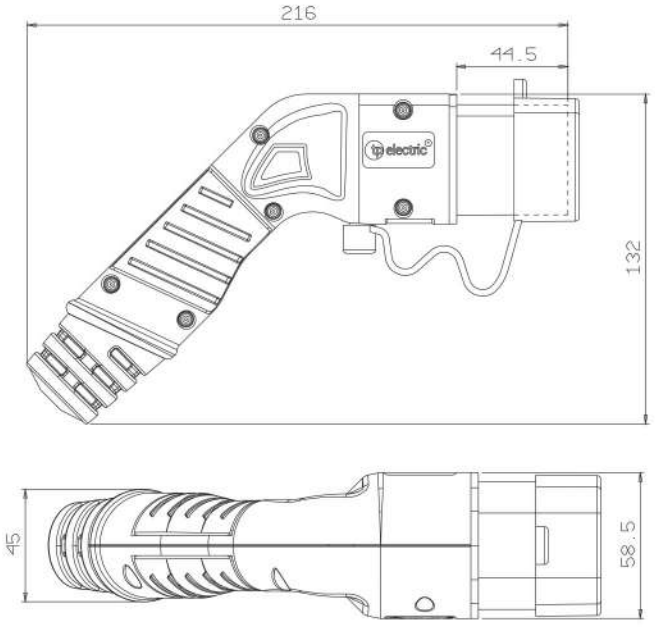
OPTIONS

CONNECTOR

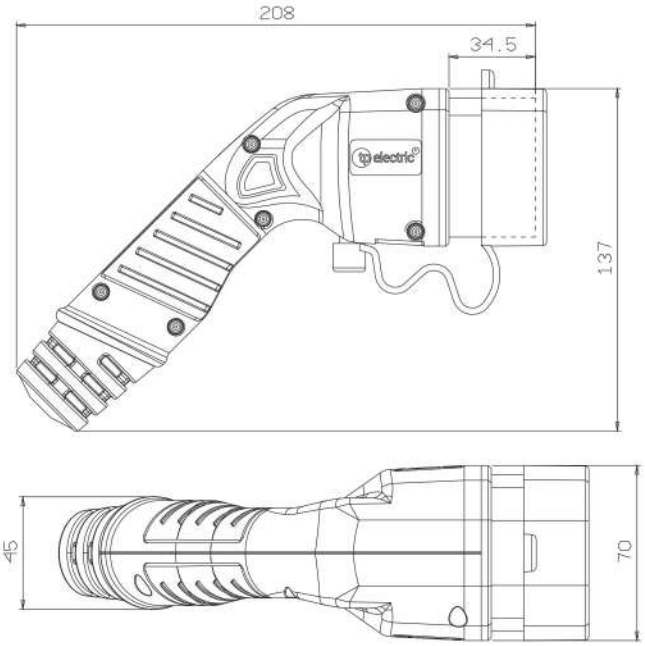
PLUG + CONNECTOR

DIMENSIONAL DRAWINGS

PLUG



CONNECTOR



CABLE INFORMATIONS

CHARGING CABLES FOR ELECTRIC VEHICLES

(According to EN 50620)

CABLE INFORMATIONS

CONDUCTOR	
Material:	Bare annealed copper.
Construction:	Circular, flexible, according to EN 60228 class 5.
INSULATION	
Material:	Halogen free compound type EVI-2 according to EN 50620
IDENTIFICATION	
3 Core + pilot:	blue – brown – yellow/green + white
5 Core+ pilot:	blue – brown - black - grey - yellow/green + white

3G 2,5 mm² + 1x0,5 mm²
3G 6 mm² + 1x0,5 mm²

5G 2,5 mm² + 1x0,5 mm²
5G 6 mm² + 1x0,5 mm²

Pitch: < 20 x Ø -over assembling.

1 Phase, 20A, max. Capacity up to: 3,7 kW

Resistance:	680 Ω in charging plug & connector
Cable Variant:	3x2.5 + 1x0.5 mm²
Cable Colour:	Black
Cable Ø:	11 mm

3 Phase, 20A, max. Capacity up to: 11 kW

Resistance:	680 Ω in charging plug & connector
Cable Variant:	5G2.5 + 1x0.5 mm²
Cable Colour:	Black
Cable Ø:	13 mm

1 Phase, 32A, max. Capacity up to: 7,4 kW

Resistancae:	220 Ω in charging plug & connector
Cable Variant:	3G6 + 1x0.5 mm²
Cable Colour:	Black
Cable Ø:	14 mm

3 Phase, 32A, max. Capacity up to: 22 kW

Resistance:	220 Ω in charging plug & connector
Cable Variant:	5G6 + 1x0.5 mm²
Cable Colour:	Black
Cable Ø:	17 mm

SUMMARY TABLE

CHARGING UNITS

		Mode A			Mode C		
GENERAL INFORMATIONS	Reference No	3532-500-0300	3532-600-0300	3516-600-0300	3532-125-0601	3516-335-0601	3532-345-0601
	Maximum Power	7,4 kW	11 kW	22 kW	7,4 kW	11 kW	22 kW
	Phase	Mono Phase	Three Phase	Three Phase	Mono Phase	Three Phase	Three Phase
	Rated Voltage	200/250V AC	400V AC	400V AC	200/250V AC	400V AC	400V AC
	Rated Current	32A	16A	32A	32A	16A	32A
	Socket Type	Type 2	Type 2	Type 2	Type 2	Type 2	Type 2
	Dimensions	195 x 295 x 79,5	195 x 295 x 79,5	195 x 295 x 79,5	195 x 295 x 79,5	195 x 295 x 79,5	195 x 295 x 79,5
	Weight	Approx. 3 kg	Approx. 3 kg	Approx. 3 kg	Approx. 3,7 kg	Approx. 3,7 kg	Approx. 3,8 kg
	Degree of IP	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
	LCD Screen	-	-	-	Avaliable	Avaliable	Avaliable
	Housing Mat.	PC + ABS	PC + ABS	PC + ABS	PC + ABS	PC + ABS	PC + ABS
	Cable Length	-	-	-	5 Meters	5 Meters	5 Meters
	Cable Type	-	-	-	Type 2	Type 2	Type 2
	Warning Notice	Red Led	Red Led	Red Led	Red Led	Red Led	Red Led
OPERATING	Temperature	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C
	Humidity Resist.	95%	95%	95%	95%	95%	95%
	Altitude	0 - 2.000 m.	0 - 2.000 m.	0 - 2.000 m.	0 - 2.000 m.	0 - 2.000 m.	0 - 2.000 m.
STORAGE	Temperature	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C
	Humidity Resist.	95%	95%	95%	95%	95%	95%
	Altitude	0 - 5.000 m.	0 - 5.000 m.	0 - 5.000 m.	0 - 5.000 m.	0 - 5.000 m.	0 - 5.000 m.

MOBILE CHARGERS




		MOBILE CHARGERS			
GENERAL INFORMATIONS	Reference No	3516-415-0600	3532-425-0600	3516-435-0600	3532-445-0600
	Maximum Power	3,7 kW	7,4 kW	11 kW	22 kW
	Phase	Mono Phase	Mono Phase	Three Phase	Three Phase
	Rated Voltage	200/250V AC	200/250V AC	400V AC	400V AC
	Rated Current	16A	32A	16A	32A
	Socket Type	Type 2	Type 2	Type 2	Type 2
	Dimensions	91 x 224 x 55,5	91 x 254 x 66,5	92 x 254 x 66,5	92 x 254 x 66,5
	Weight	Approx. 2,5 kg	Approx. 3,75 kg	Approx. 3,75 kg	Approx. 4,3 kg
	Degree of IP	IP 67	IP 67	IP 67	IP 67
	Degree of IK	IK 10	IK 10	IK 10	IK 10
	Housing Mat.	PA6 30%GF	PA6 30%GF	PA6 30%GF	PA6 30%GF
	Cable Length	5 Meters	5 Meters	5 Meters	5 Meters
	Cable Type	Type 2	Type 2	Type 2	Type 2
	Warning Notice	Red Led	Red Led	Red Led	Red Led
OPERATING	Temperature	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C
	Humidity Resist.	95%	95%	95%	95%
	Altitude	0 - 2.000 m.	0 - 2.000 m.	0 - 2.000 m.	0 - 2.000 m.
STORAGE	Temperature	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C
	Humidity Resist.	95%	95%	95%	95%
	Altitude	0 - 5.000 m.	0 - 5.000 m.	0 - 5.000 m.	0 - 5.000 m.

MvM CHARGING

Let's Reduce
Carbon Footprint

MADE IN TÜRKİYE MADE IN

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