

AMTRON®

Professional+ TC 22

For charging electric vehicles in semi-public and public areas



MENNEKES
Elektrotechnik GmbH & Co. KG

Aloys-Mennekes-Straße 1
57399 Kirchhundem
GERMANY

www.MENNEKES.org

Equipment features

General

- Mode 3 charging (IEC 61851-1)
- Plugs and sockets according to IEC 62196-2
- Maximum charging power: 44 kW
- Connection: 1-phase / 3-phase
- Max. charging power configurable by qualified electrician
- MENNEKES installation box
 - Simplified assembly
 - Possible preassembly
- Calibrated energy meter, readable from outside (MID-compliant for three-phase supply network connection only)
- LED status indicator
- Unlocking function in case of power failure
- Type 2 charging socket with hinged lid
- Enclosure made of Plastic
- Color: light gray (RAL 7035)
- Multi-function button
 - Switch the residual current device and the circuit breaker back on again from the outside
 - Switch the residual current device back on again from the outside
 - Check the residual current device for damage from the outside

User web interface (for EV drivers)

- Monitoring of charging processes
- Data export of all charging processes in CSV format
- Whitelist for RFID card management

Authorisation options

- Autostart (without authorisation)
- RFID (ISO / IEC 14443 A)
 - Compatible with MIFARE classic and MIFARE DESFire
- Via a backend system

Networking options

- Connection to a network via LAN / Ethernet (RJ45)
- Networking multiple products via LAN / Ethernet (RJ45)
- Loop-through of up to 50 charging points via the integrated switch

Options for connecting to a backend system

- Via the integrated wireless modem (2G (GSM) / 3G (UMTS) / 4G (LTE))
 - Micro-SIM card required
- Via LAN / Ethernet (RJ45) and an external router
- Support for OCPP 1.5s, OCPP 1.6s and OCPP 1.6j communication protocols

Options for local load management

- Reduction of the charging current via an external control signal (downgrade)
- Reduction of the charging current via an external control signal (downgrade) of the upstream, external energy meter type Siemens PAC2200
- Static load management
- Dynamic load management for up to 100 charging points (phase exact)
- Reduction of the charging current in case of uneven phase load (unbalanced load limitation)
- Local blackout by connecting an external Modbus TCP energy meter

Options for connecting to an external energy management system (EMS)

- Via Modbus TCP
- Via EEBus
- Dynamic control of the charging current via an OCPP system (smart charging)

Integrated protective devices

- DC residual current monitoring > 6 mA with tripping characteristics in accordance with IEC 62955
- Residual Current Device type A
- Circuit breaker
- Shunt release, in order to disconnect the charging point voltage from the mains in case of a fault (welded load contact, welding detection)

Technical data

AMTRON® Professional+ TC 22		151802402
Max. charging power Mode 3 [kW]	Charging point 1	22
	Charging point 2	22
Connection	Charging point 1	1-phase / 3-phase
	Charging point 2	1-phase / 3-phase
Rated current I_{nA} [A]		63
Rated current of a Mode 3 I_{nC} charging point [A]		32
Rated voltage U_N [V] AC $\pm 10\%$		230 / 400
Rated frequency f_N [Hz]		50
Max. back-up fuse [A]		100
Rated insulation voltage U_i [V]		500
Rated impulse withstand voltage U_{imp} [kV]		4
Conditional rated short-circuit current I_{CC} [kA]		10
Rated diversity factor RDF		1
Types of system earthing		TN/TT
EMC classification		A+B
Protection class		I
IP rating		IP54
Overvoltage category		III
Mechanical impact protection		IK10
Contamination rating		3
Installation		open air
Stationary / Mobile		fixed
Use (according to IEC 61439-7)		ACSEV
External design		wall mounting
Dimensions H x W x D [mm]		539 x 492 x 235
Weight [g]		14000
Standard		IEC 61851, IEC 61439-7

The specific standards according to which the product was tested can be found in the declaration of conformity for the product.

Technical data

Permissible ambient conditions

	Min.	Max.
Ambient temperature [°C]	-25	40
Average temperature over 24 hours period [°C]		35
Altitude [m above sea level]		2000
Relative humidity [%]		95

Protective devices

Personal protection (RC)	40 / 0,03A, 4p, type A
Load safety (LS)	C-32A, 3p+N, 10kA
Control fuse (LS)	B-6A, 2p, 10kA

Technical data

Supply line terminal strip

Number of terminals	5x2	
Conductor material	Aluminium, Copper	
	Min.	Max.
Clamping range - rigid [mm ²]	2.5	25
Clamping range - flexible [mm ²]	-	-
Clamping range with ferrule [mm ²]	1.5	16
Tightening torque [Nm]	2.5	2.5

Downgrade input terminals

Number of terminals	3	
Coil voltage [V]	230	
	Min.	Max.
Clamping range - rigid [mm ²]	0.14	4
Clamping range - flexible [mm ²]	0.14	2.5
Clamping range with ferrule [mm ²]	0.14	2.5
Tightening torque [Nm]	-	-

Dimensional drawing



Example

