MENNEKES
MY POWER CONNECTION

CATALOGUE

UK

INDUSTRIAL PLUGS AND SOCKETS

„I'm proud to work for a company that treats everyone with dignity and respect and operates free from pretence or deceit. Integrity, honesty and sincerity are at the heart of everything we do."

Chris Stockdale, Managing Director MENNEKES UK

„Local service, availability, competence, excellent products and the desire to provide tailored solutions are MENNEKES's factors for success in international markets. This is what we provide in over 80 countries worldwide."

Karsten Hauck, Head of International Sales

„We accelerate our company's internationalisation through close cooperation with our customers all over the world. Client-oriented operations and efficient processes lead to the best service and help us reach our goals with our partners."

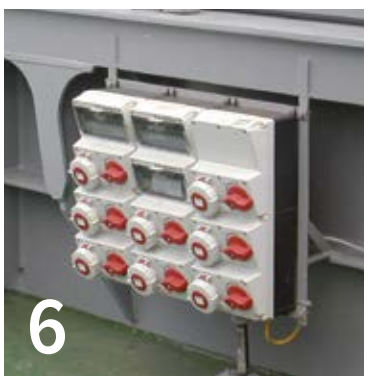
Anne Schnieder-Sievers, Team Leader Customer Services Europe

MENNEKES

MY POWER CONNECTION

We like to communicate with you. Do you have special requests and requirements? Talk to us, we like to give you advice and will provide individual solutions for you.

Content



„I am proud to be able to continue this tradition in the third generation.“

Christopher Mennekes, General Management Director

MENNEKES –
The company.

When my grandfather, Aloys Mennekes, received his Master Electrician's certificate in 1935, he surely was not aware of what would develop from his commitment to electrical engineering. At that time, he knew only one thing: he wanted to put his ideas into practice and manufacture his own products.

As you leaf through the pages of this catalogue, you get a feeling of how strongly this initial entrepreneurial desire continues to design us today. The variety of the products on display clearly shows that we still have great pleasure in converting our ideas into new products. But marketable ideas are rarely generated behind closed doors. As specialists, we therefore develop individual solutions together with our customers. Hence our product portfolio today consists of more than 10,000 customised products, far more than we can show in this catalogue.

Since it was founded over 80 years ago, MENNEKES has been a wholly owned family business, responsibly managed by members of the owning family throughout. Responsibility for the Company also means responsibility for the people who are at the heart of our thinking and actions at MENNEKES. Through their awareness of the values of diligence, reliability and loyalty, they constitute an important cornerstone of the Company.

I am proud to be able to continue this tradition in the third generation.

These are fascinating times for the preservation of tradition because, due to the digital revolution, many things are going to change in the next decade. In this world flooded with information, MENNEKES wants to be a point of reference on which our customers can rely for quality, safety and functionality. We say with confidence: Our brand is a promise.

Thank you for believing this promise and thus supporting our business philosophy.

Christopher Mennekes
General Management Director

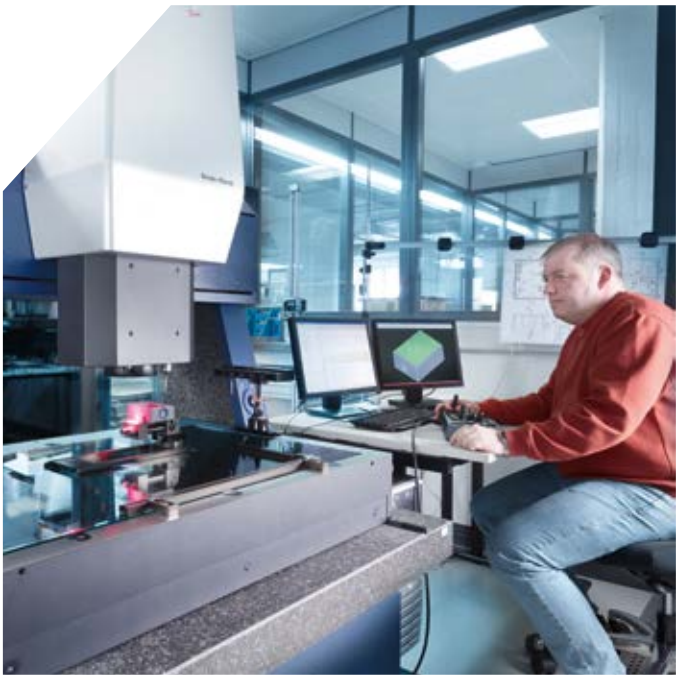
Aloys Mennekes (center) with apprentice and journeymen on their way to work

Plugs and sockets for toughest conditions

Family Mennekes (from left): Petra and Walter, Daniela and Christopher and Michael and Steffen

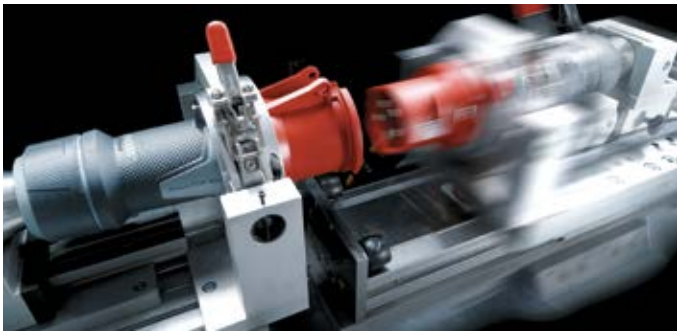
1

Quality –
Tested under extreme conditions.



When a MENNEKES product leaves our factory, it has already survived the harshest testing. In our test lab it is exposed to cold, heat, dust and water over and over again. Only the products that withstand these tests are worthy of the name MENNEKES. Our products are of course certified to national and international standards by recognised institutions. Like the MENNEKES company itself:
Our international quality management system is certified to DIN EN ISO 9001.

Independent test organizations certify that our products offer the highest levels of safety, quality and trouble free use.




ZERTIFIKAT

CERTIFICATE

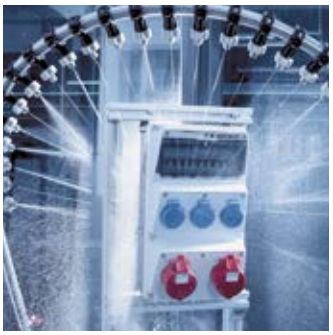
für stückgeprüfte Qualität nach DIN EN 61439.

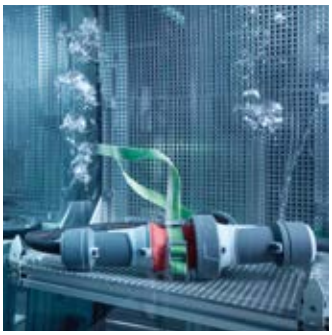
for individually tested quality according to IEC 61439.

MENNEKES
MY POWER CONNECTION

Hiermit bestätigen wir, dass diese Steckdosen-Kombination einer Stückprüfung unterzogen wurde.
Herewith we confirm that this receptacle combination has passed a routine test.

Der MENNEKES-Sicherheitstest berücksichtigt nicht nur die elektrischen Prüfanforderungen nach DIN EN 61439, sondern beinhaltet darüber hinaus auch eine allpolige Hochspannungsprüfung.
The MENNEKES safety test not just include the requirements for electrical tests acc. to IEC 61439 but also a high voltage test for all poles.





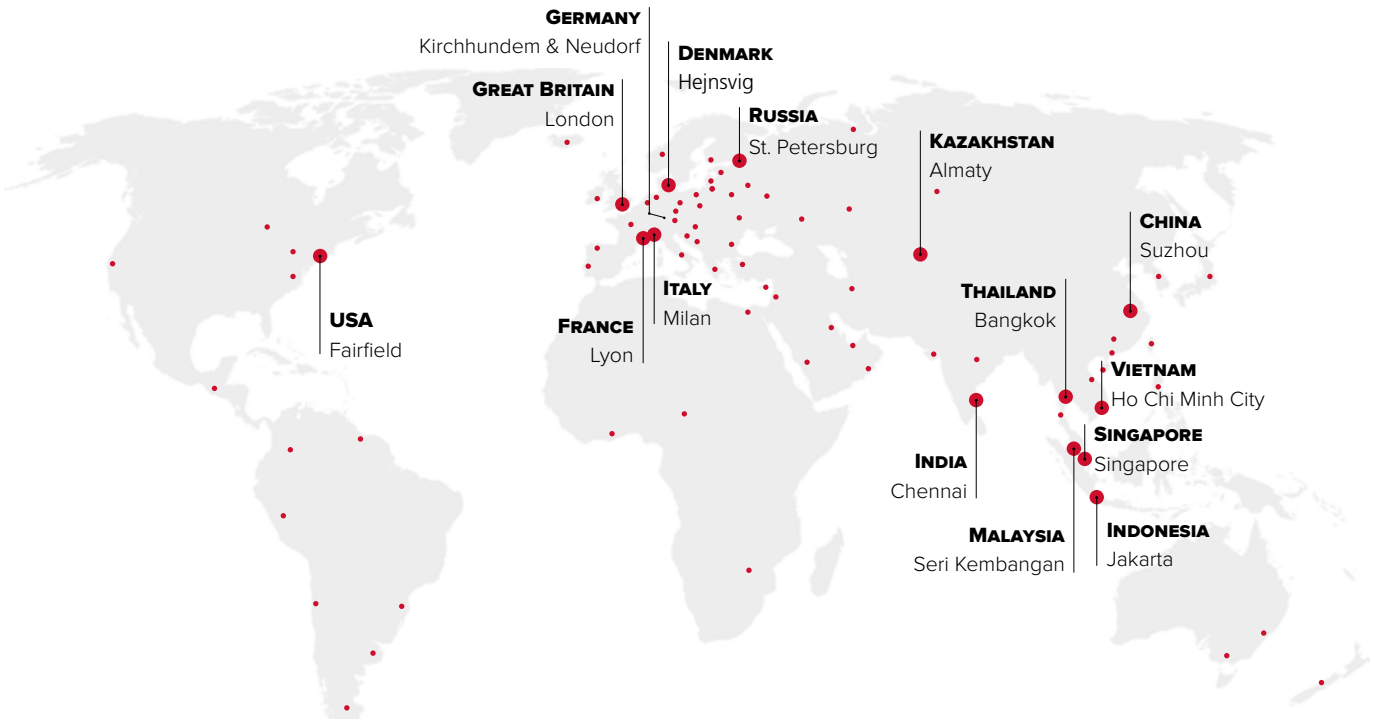
Only the combination of first-class raw materials and advanced manufacturing processes guarantee a premium product. This is why we use only first-grade plastics which are processed by a highly skilled workforce in state-of-the-art production facilities to create certified MENNEKES products.

We guarantee the high quality standard of our products by our own test laboratory. This laboratory is approved and will be used for product tests of our products to get test marks acc. to DIN EN 60309 by approval authorities like the VDE etc.

Regionally rooted –
At home around the world.

Everywhere, close to the customer: Our domestic market, Germany, is supported from our corporate headquarters in Kirchhundem, as well as by sales agencies and our own field service team. With our subsidiaries and sales offices, we are represented by our own employees in the most important international growth markets.

You must be able to rely on MENNEKES. This is and remains the motivation of our 1,200 employees worldwide. It is they who, through their efforts on a daily basis, demonstrate the commitment to the MENNEKES brand.



Subsidiaries:
- Great Britain
- USA
- China
- Singapore
- Italy
- France
- Russia
- India

Representative Offices:
- Thailand
- Indonesia
- Malaysia
- Kazakhstan
- Denmark
- Vietnam

Commercial agencies:
- 15 in Germany
- 29 in Europe
- 46 outside of Europe

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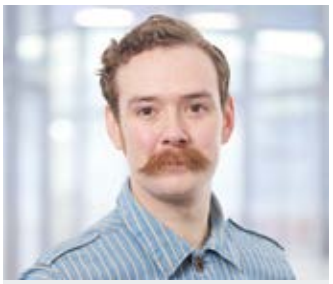

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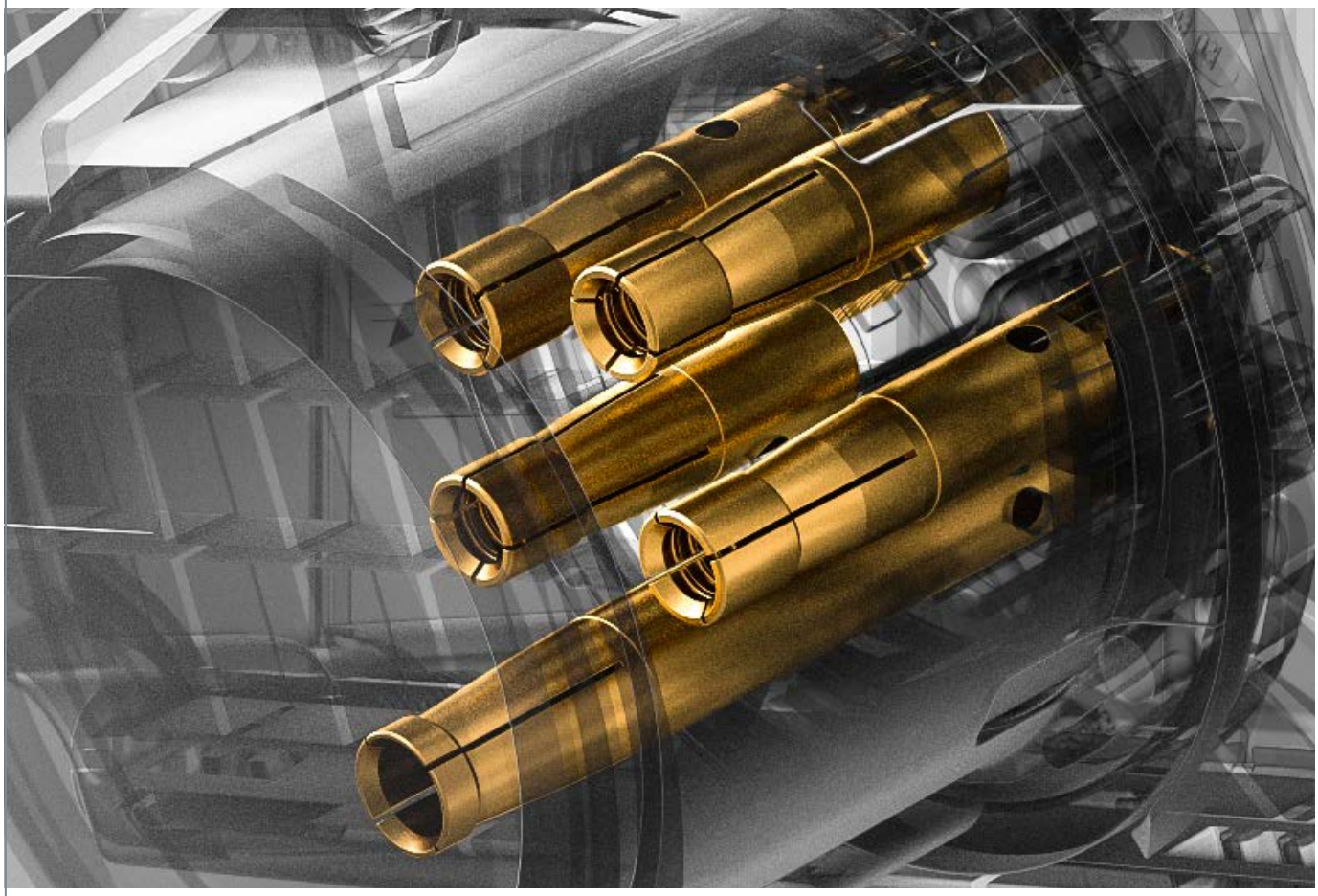
About us –
Regional Sales Areas.

X-CONTACT

The future is now.
The new generation of contact sleeves.



As a specialist for plugs and sockets MENNEKES is known all over the world for setting standards. In the past few years, we dealt intensively with current requirements of the electric mobility and automotive sectors. We used the know-how gained to develop a completely new contact sleeve solution for industrial connectors and sockets: X-CONTACT

Better contact

It is important to achieve the best possible balance between a safe contact closure and ease of insertion. We have successfully implemented this with X-CONTACT in an entirely new way.
This technology is already used in our PowerTOP Xtra plugs and connectors in 16 to 125 A and our DUO wall mounted socket in 16 and 32 A.

Due to a completely new manufacturing process, the X-CONTACT sleeve has resilient properties based solely on its material characteristics, without the need to use any additional spring elements. Thanks to the shape of the X-CONTACT sleeve, a particularly safe contact closure can be achieved.

Less effort

The special design of the X-CONTACT reduces the effort of insertion and withdrawal by up to 50 %. An advantage that simplifies work processes and improves safety especially with high electrical currents. With X-CONTACT, MENNEKES creates a safe contact closure and easy handling at a new, equally high level.

But how does X-CONTACT achieve these benefits even with currents of 63 A or 125 A? A glance into the opening of an X-CONTACT sleeve reveals the intelligent functional principle: the X-shaped slot and groove in the inner wall provides four advantages of the new design:
innovative, simple, durable and safe. We call it the X principle.

In our 63 and 125 A wall mounted and panel mounted sockets and our DUO wall mounted sockets in 16 and 32 A.

X-CONTACT INSIDE

Innovative

Due to the slotted sleeves with their resilient material properties, X-CONTACT is the simplest possible mechanical solution: the plug pin simply expands the opening of the resilient contact sleeve, which reduces the force needed to connect and disconnect the plug by up to 50 %.
X-CONTACT – intelligently innovative!

Simple

In practice, X-CONTACT simplifies work processes. The connection is easier to handle when compared to conventional contact sleeves.
X-CONTACT – simply brilliant!

Durable

Even in cases when the plug is connected and disconnected frequently, there are no signs of wear and the sleeve material remains fatigue-proof in the long term even after rough handling. Due to the quality of the new sleeves, contamination and surface corrosion is automatically removed by connecting and disconnecting.
X-CONTACT – lasting solution!

Safe

A higher degree of safety of handling is provided by the easier connection and disconnection. The groove within the inner wall in connection with the resilient material of the contact sleeves provides for a safe contact closure.
X-CONTACT – double safety!

Get more information on the new generaton of contact sleeves at:
www.mennekes.co.uk/x-contact

TwinCONTACT
The swift connection.

Looking for quick and easy connection?
You can't miss the MENNEKES TwinCONTACT – a spring terminal in a newly designed socket. Remove the insulation, insert the conductors, and you're done. The contact is safely in place and it is even approved as a connection terminal – undo the conductor, that's all it takes. Press the red button and remove the conductor – this is our concept of convenient and time-saving handling.

2

Colour-coded terminals for unmistakable connections.

Suitable for solid conductors and flexible conductors (with end sleeve for strands, crimped so as to be gas-tight or ultrasonically welded).
Cond. cross section:
at 16 A: 1.5 - 4.0 mm^2
at 32 A: 2.5 - 10.0 mm^2

Sockets
with screw terminals.

Removable cover for easy access to wiring space.

All contact screws face the same way. Open terminals.
Terminals visible through slits.

DUO wall mounted socket

Fuse protection, switched and interlocked.

NEW

Machines and systems operate day and night, conveyor belts run without pause and cranes work nonstop to lift and carry materials weighing tons. Everywhere there's a need for safe reliable power in order to work smoothly and cost-effectively.

Practical mounting plate
The mounting plate is removable for easy cable installation. The socket and switch disconnector are on the mounting plate and come prewired. You can also easily remove the mounting plate with the socket and switch as a single unit at any time, for example to place them on a firm surface for maintenance work.

Practical aperture with hinged lid
For comfortable use and reliable operation without mishaps: the sockets hinged cap is easy to open and close. It opens upward instead of toward the wall. This prevents collisions with connected cables and cable glands.

Lockout/tagout padlock for additional protection
Do you need to play it absolutely safe? The selector knob of every DUO wall mounted sockets switch has a hole for attaching your own lockout/tagout padlock. This gives you added safety by preventing the switch from being unintentionally turned on when a plug is in the socket. The result is complete safety, for example for carrying out maintenance tasks.

Sockets – Wall mounted, with screw terminals

to DIN VDE 0623, EN 60309-2. Highly resistant to chemicals. Other voltages and frequencies available on request.
For drawings and dimensions see page 100 - 111. Products with pilot contact available on request.

Wall mounted socket
external fixing

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 463

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		27001				
16	4			27002	27003		
16	5			27004			
32	3		27005				
32	4			27006	27007		
32	5			27008			

Wall mounted socket
internal fixing, 4 p and 5 p sockets the enclosure can be turned 180°

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 209

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	100	101	102		2169	2241
16	4	103	104	105	106	107	
16	5	109	110	111	2000		2199

Wall mounted socket
internal fixing, enclosure base can be turned 180°, sockets are designed for adding an auxiliary contact switch

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 43

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	4	3030	3034	1418	3032	3035	3028
16	5	3141	3045	1419	3043	3046	3039
32	3	1420	1421	1422		3139	3134
32	4	1423	1424	1425	1426	1427	1428
32	5	1555	1556	1557	3152	3154	3149

Wall mounted socket
X-CONTACT, suitable for through wiring, internal fixing, enclosure base can be turned 180°

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 213

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	1136A	1137A				
63	4		1140A	1141A	1142A		
63	5		1144A	1145A			

Wall mounted socket
highly resistant to chemicals, with 2 external fixing points, enclosure base can be turned 180°, sockets are designed for adding an auxiliary contact switch

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 622

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	9300	9301	9302			
16	4	9320	9321	9322	9323		
16	5		9341	9342			
32	3	9350	9351	9352			
32	4	9370	9371	9372	9373		
32	5	9380	9381	9382			

Wall mounted socket
X-CONTACT, internal fixing, enclosure base can be turned 180°, with 6 fixing points to accommodate special terminals

IP67
Std. Pack. Qty: 5
Drawing: 1 MB 112

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	856	128A	129A			
63	4	130A	131A	132A	133A		
63	5	134A	135A	136A	2007A		

Sockets – Wall mounted, with screw terminals

to DIN VDE 0623, EN 60309-2. Highly resistant to chemicals. Other voltages and frequencies available on request.
For drawings and dimensions see page 100 - 111. Products with pilot contact available on request.

Wall mounted socket
X-CONTACT, highly resistant to chemicals, highly heat resistant contact carrier, nickel plated contacts

IP67
Std. Pack. Qty: 5
Drawing: 1 MB 112

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	4			3773			
63	5			3774			

Wall mounted socket
X-CONTACT

IP67
Std. Pack. Qty: 3
Drawing: 1 MB 162

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
125	4	137	138	139	140		
125	5		142	143	2139		

2

High resistance to chemicals
High quality plastics.

For use in industrial premises or places of work where the use of chemicals or other aggressive substances makes it necessary to use other plastic materials, MENNEKES offers products with increased stability against fuel, oil and grease, diluted acids and alkali, cleaner and the most aqueous salt solutions. These products are marked in the catalogue with . Products made of AMELAN (grey RAL 7000 or light grey RAL 7035) combine high mechanical, thermal and electrical properties with excellent dimensional stability and resistance to chemicals and are fit for action in chemical plants, in refineries, in the food processing industry, in washdown areas and so on.

High resistance to:
- sea water
- detergents
- edible fat
- aqueous soap solution
- caustic soda
- motor oils
- milk
- caustic potash
- fruit juices
- diesel oil
- gasoline
- aqueous ammonia solution

Sockets – Wall mounted, screwless, with TwinCONTACT

to DIN VDE 0623, EN 60309-2. Highly resistant to chemicals. Other voltages and frequencies available on request.
For drawings and dimensions see page 100 - 111. Products with pilot contact available on request.

Wall mounted socket
screwless, with TwinCONTACT,
external fixing

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 463

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	1340	1341				
16	4		1342	1343	1344		
16	5			31			
32	3	1345	1346				
32	4		1347	1348	1349		
32	5			32			

Wall mounted socket
screwless, with TwinCONTACT,
suitable for through wiring, internal fixing, 4 p and 5 p sockets the enclosure base can be turned 180°

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 209

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	1719	1720	1721			
16	4		1723	1724	1725		1727
16	5		1730	3331			

Wall mounted socket
screwless, with TwinCONTACT,
suitable for through wiring,
internal fixing, enclosure base can be turned 180°

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 43

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	4	1750	1751	418	1752	1753	1754
16	5	1755	1756	419	1757		
32	3	1851	420	1852			
32	4		1856	421	1857	1858	1859
32	5	1860	1861	422	1862		1864

Wall mounted socket
screwless, with TwinCONTACT, highly resistant to chemicals, suitable for through wiring, with 2 external fixing points, sockets are designed for adding an auxiliary contact switch, enclosure base can be turned 180°

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 622

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	9104	9105	9106			
16	4	9120	9121	9122	9123	9124	9125
16	5	9140	9141	9142			
32	3	9150	9151	9152			
32	4		9171	9172	9173	9174	
32	5	9180	9181	9182			

Double Box
screwless, with TwinCONTACT,
CEE and socket SCHUKO®
in one enclosure

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 622

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	5			1649			

Double Box
screwless, with TwinCONTACT,
CEE and socket SCHUKO®
in one enclosure, with fuse holder, max. 10 A H, also available with French/Belgian, Danish and Swiss standards

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 354

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	5			1650			
32	5			1651			

Sockets – Wall mounted, switched and interlocked or fused

to DIN VDE 0623, EN 60309-2. Highly resistant to chemicals. Other voltages and frequencies available on request.
For drawings and dimensions see page 100 - 111. Products with pilot contact available on request.

NEW

Wall mounted socket
screw terminals, pre-wired for installation, X-CONTACT, switched, mechanical DUO-interlock, 3 pole switch, sockets can be padlocked

IP44
Std. Pack. Qty: 1
Drawing: 1 MB 713

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	5601304G	5601306G				
16	4		5601409G	5601406G	5601407G		
16	5			5601506G	5601507G		
32	3	5603304G	5603306G				
32	4	5603404G	5603409G	5603406G	5603407G		
32	5		5603509G	5603506G	5603507G		

Wall mounted socket
X-CONTACT, switched, with mechanical DUO-interlock

IP44
Std. Pack. Qty: 1
Drawing: 1 MB 234

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3		6571				
63	4		5955A	5956A	5957A		
63	5			5959A			

Wall mounted socket
switched, with mechanical DUO-interlock

IP44
Std. Pack. Qty: 1
Drawing: 1 MB 550

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	7602	7603				
16	4		7604	7605			
16	5			7607			
32	3		7612				
32	4		7613	7614			
32	5			7616			

NEW

Wall mounted socket
screw terminals, pre-wired for installation, X-CONTACT, switched, mechanical DUO-interlock, 3 pole switch, sockets can be padlocked

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 714

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	5602304G	5602306G				
16	4			5602406G	5602407G		
16	5			5602506G			
32	3	5604304G	5604306G				
32	4		5604409G	5604406G	5604407G		
32	5		5604509G	5604506G			

NEW

Wall mounted socket R
screw terminals, pre-wired for installation, X-CONTACT, highly resistant to chemicals, switched, mechanical DUO-interlock, highly heat resistant contact carrier, nickel plated contacts, 3 pole switch, sockets can be padlocked

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 714

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		5802306G				
16	4			5802406G			
16	5			5802506G			
32	3		5804306G				
32	4			5804406G			
32	5			5804506G			

Wall mounted socket
X-CONTACT,
switched, with mechanical DUO-interlock

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 180

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	5925A	5911A				
63	4		5109A	5110A	5111A		
63	5		5112A	5113A	5759A		

Sockets – Wall mounted, switched and interlocked or fused

to DIN VDE 0623, EN 60309-2. Highly resistant to chemicals. Other voltages and frequencies available on request.
For drawings and dimensions see page 100 - 111.

Wall mounted socket
X-CONTACT, highly resistant to chemicals, highly heat resistant contact carrier, nickel plated contacts, with mechanical DUO-interlock

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 180

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	4			7289			
63	5			7290			

Wall mounted socket
X-CONTACT, switched, with mechanical DUO-interlock

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 177

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
125	3		7000				
125	4		5887A	5691A	5690A		
125	5		5888A	5692A			

Wall mounted socket
switched, with mechanical DUO-interlock

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 551

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	7620	7621				
16	4			7624	7625		
16	5			7626			
32	3	7628	7629				
32	4		7633	7634	7635		
32	5			7636			

Sockets – Wall mounted, switched and interlocked or fused

to DIN VDE 0623, EN 60309-2. Highly resistant to chemicals. Other voltages and frequencies available on request.
For drawings and dimensions see page 100 - 111. Products with pilot contact available on request.

Wall mounted socket
highly resistant to chemicals, highly heat resistant contact carrier, nickel plated contacts, switched, with mechanical DUO-interlock, DIN-rail

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 181/620

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		7394				
16	4			7291ZA			
16	5			7292			
32	5			7294			

Wall mounted socket
X-CONTACT, highly resistant to chemicals, highly heat resistant contact carrier, nickel plated contacts, switched, with mechanical DUO-interlock, DIN-rail

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 181/620

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	4			7295			
63	5			7296			

Wall mounted socket
protected by 1 RCD 30 mA

IP44
Std. Pack. Qty: 1
Drawing: 1 MB 168

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	7123	7125				
16	4			7126			
16	5			7312			
32	3		7469				
32	4			7127			
32	5			7313			

Wall mounted socket
protected by 1 RCD 30 mA

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 378

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		7148				
16	5			7150			
32	5			7152			

Wall mounted socket
protected by 1 “C”-type MCB

IP44
Std. Pack. Qty: 1
Drawing: 1 MB 531

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		910253				

Wall mounted socket
protected by 1 RCD 30 mA
and 1 “C”-type MCB

IP44
Std. Pack. Qty: 1
Drawing: 1 MB 521

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	5			920958			
32	4			920961			
32	5			920962			

Sockets – Wall mounted, switched and interlocked or fused

to DIN VDE 0623, EN 60309-2. Highly resistant to chemicals. Other voltages and frequencies available on request.
For drawings and dimensions see page 100 - 111. Products with pilot contact available on request.

Wall mounted socket
protected by 1 RCD 30 mA

IP44
Std. Pack. Qty: 1
Drawing: 1 MB 531/ 1 MB 521

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		910244				
16	5			920838			
32	3	920845					

Wall mounted socket
protected by 1 RCD 30 mA
and 1 “C”-type MCB

IP44
Std. Pack. Qty: 1
Drawing: 1 MB 531/ 1 MB 521

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	910245	910584				
16	5			920860			
32	4			920863			

Wall mounted socket
switched, with mechanical
DUO-interlock,
protected by 1 RCD 30 mA

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 521

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	921380	922452				
16	4			922517			
16	5			922453			
32	3	922519	921442				
32	4			922518			
32	5			922218			

Wall mounted socket
switched, with mechanical
DUO-interlock,
protected by 2 RCD´s 30 mA

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 522

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		931539				
32	3		934285				
32	5			932285			

Wall mounted socket
protected by 1 RCD 30 mA

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 521

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	920700	920649				
16	4			920791			
16	5			920278			
32	3		921160				

Wall mounted socket
highly resistant to chemicals,
protected by 1 RCD 30 mA

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 521

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		920821				
16	5			923275			
32	3		923276				
32	4			923297			

Sockets – Wall mounted, switched and interlocked or fused

to DIN VDE 0623, EN 60309-2. Highly resistant to chemicals. Other voltages and frequencies available on request.
For drawings and dimensions see page 100 - 111. Products with pilot contact available on request.

Wall mounted socket
X-CONTACT,
protected by 1 RCD 30 mA

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 521

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3		920666				
63	4			920668			
63	5			920670			

Wall mounted socket
switched, with mechanical DUO-interlock, protected by 1 RCD 30 mA

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 181/620

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	7393UK	7245UK				
16	4			7246UK			
16	5			7247UK			
32	3	7434	7470UK				
32	4			7248UK			
32	5			7249UK			

Wall mounted socket
switched, with mechanical DUO-interlock, protected by 1 RCD 30 mA and 1 "K"-type MCB

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 181/620

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		7252				
16	4			7253			
16	5			7254UK			
32	4			7255			
32	5			7256UK			

Wall mounted socket
X-CONTACT,
switched, with mechanical DUO-interlock, protected by 1 RCD 30 mA

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 181/620

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3		7260				
63	4			7250			
63	5			7251			

Wall mounted socket
X-CONTACT,
switched, with mechanical DUO-interlock, protected by 1 RCD 30 mA and 1 "K"-type MCB

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 181/620

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	4			7257			
63	5			7258			

Wall mounted socket
X-CONTACT,
switched, with mechanical DUO-interlock, protected by 1 RCD 30 mA, add-on equipment is required to install a padlock

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 177

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
125	5			5692AM			

Sockets – Cepex

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Wall mounted socket Cepex
grey, amend index YA to part number for version without rubber gland

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 312

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	4101	4102				
16	4		4254	4103	4104		
16	5			4105			
32	3	4106	4107				
32	4			4108			
32	5			4110			

2

Wall mounted socket Cepex
grey, with labelling field

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 317

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		4132				
16	4			4133			
16	5			4135			
32	3		4137				
32	4			4138			
32	5			4140			

Panel mounted socket Cepex
pearl white

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 315

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	4111	4112				
16	4		4233	4113	4114		
16	5			4115			
32	3	4116	4117				
32	4			4118	4119		
32	5			4120			

Flush mounted socket Cepex
pearl white, with flush mounted installation box

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 336

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		4122				
16	4			4123			
16	5			4125			
32	3		4127				
32	4			4128			
32	5			4130			

Cepex double socket
grey, amend index YA to part number for version without rubber gland

IP44
Std. Pack. Qty: 5/4
Drawing: 1 MB 350

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		4219				
16	4			4220			
16	5			4204			
32	3		4224				
32	5			4226			

N.B.: All above mentioned types are available in three designs and with SCHUKO® insert:
– with smooth cover
– with labelling field
– with labelling field and lockable cover
Also available with data port inserts. For products see page 77.
Distance frame on request.
Cepex range panel sockets rated 16 A and 32 A have the same dimensions.
It is, therefore, possible to interchange single or 3 phase sockets on a 2-gang enclosure to suit your own requirements.

Sockets – Panel mounted, with screw terminals

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.
Products with pilot contact available on request.

Panel mounted socket
flange 75 x 75 mm, straight

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 464

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	1365	1366	1367		3054	3055
16	4	1388	1389	1390	1391	1392	1393
16	5	1384	1386	1385	3057	3059	3060
32	3	1394	1395	1396			
32	4		1398	1399	1400	1401	1402
32	5	3449	3454	3451	3452	3455	3447

Panel mounted socket
X-CONTACT,
flange 107 x 110 mm, straight

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 211

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	1260A	1261A				
63	4		1247A	1248A	1249A		
63	5			1252A			

Panel mounted socket
flange 16 A, 3 p: 73.5 x 64 mm,
16 A, 4 + 5 p, 32 A: 100 x 92 mm,
inclination 20°, 32 A: sockets
optional fitted with auxiliary contact

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 260

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	1462	1463	1464		3186	3187
16	4	1465	1466	1467	1468	1469	1470
16	5	1471	1472	1473	3188	3189	3190
32	3	1491	1492	1493		3201	3202
32	4	1494	1495	1496	1497	1486	1487
32	5	1498	1499	1500	3191	3192	3193

Panel mounted socket
X-CONTACT,
flange 110 x 106 mm,
inclination 20°

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 297

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	1146A	1147A	1148A			
63	4	1149A	1150A	1151A	1152A		
63	5	1153A	1154A	1155A			

Panel mounted socket
standard flange,
dimensions 85 x 85 mm,
20° inclination

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 453

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	3031	3036				
16	4			3072	3074		
16	5			3093			
32	3	3110	3112				
32	4		3140	3136	3114		
32	5			3153			

Panel mounted socket
miniflange: 68 x 62 mm,
inclination 20°

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 472

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	858	857				

Sockets – Panel mounted, with screw terminals

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.
Products with pilot contact available on request.

Panel mounted socket
flange 16 A: 75 x 75 mm,
32 A: 85 x 75 mm, straight

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 141

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	217A	218A	219A			
16	4		221A	222A	223A	224A	
16	5	226A	227A	228A			
32	3	229A	230A	231A			
32	4	232A	233A	234A	235A	236A	
32	5		239A	240A			

Panel mounted socket
flange 16 A, 3 p: 73.5 x 64 mm,
16 A, 4 + 5 p, 32 A: 100 x 92 mm,
inclination 20°, 32 A sockets
optional fitted with auxiliary contact

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 251

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	1474	1475	1476			
16	4	1477	1478	1479	1480	1481	
16	5		1484	1485			
32	3	1501	1502	1503			
32	4	1504	1505	1506	1507		
32	5		1490	1551			

Panel mounted socket
standard flange dimensions
85 x 85 mm, inclination 20°,
optional fitted with auxiliary contact

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 452

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	903	905				
16	4			1081	1082		
16	5			1103			
32	3	3197	3200				
32	4			3254	3256		
32	5			3524			

Panel mounted socket
X-CONTACT,
flange 63 A: 107 x 100 mm,
125 A: 130 x 130 mm, straight

IP67
Std. Pack. Qty: 5
Drawing: 1 MB 212/258

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	1263A	1264A	1265A			
63	4		1123A	1124A	1125A		
63	5		1127A	1128A			
125	3		3380				
125	4	1455	1456	1457	1458		
125	5		1460	1461	3283		

Panel mounted socket
X-CONTACT,
flange 63 A: 110 x 106 mm,
inclination 20°,
125 A: 114 x 110 mm,
inclination 15°

IP67
Std. Pack. Qty: 5
Drawing: 1 MB 298/601

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	2179A	2180A	2181A			
63	4	203A	204A	205A	206A		
63	5	207A	208A	209A	3507		
125	3		3575				
125	4		211A	212A	213A		
125	5		215A	216A			

Auxiliary contact
for standard sockets
and panel mounted
sockets 16 A and 32 A

Std. Pack. Qty: 10

Part no.
41000

Sockets – Panel mounted, screwless, with TwinCONTACT

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Panel mounted socket
screwless, with TwinCONTACT,
flange 75 x 75 mm, straight

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 464

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	1667	1668	1669			1671
16	4	1672	1673	1674	1675	1676	1677
16	5	1678	1679	3385	1680		1682
32	3	1786	1787	1788			
32	4		1790	1791	1792	1793	1794
32	5	1795	1796	1797	1798		1800

Panel mounted socket
screwless, with TwinCONTACT,
flange 16 A, 3 p: 73.5 x 64 mm,
16 A, 4 + 5 p, 32 A: 100 x 92 mm,
inclination 20°, 32 A: optional fitted
with auxiliary contact

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 465

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	1631	1632	1633			1635
16	4		1637	1638	1639	1640	1641
16	5	1642	1643	3473	1644		1646
32	3	1733	1734	1735			1737
32	4		1739	1740	1741	1742	1743
32	5	1744	1745	1746	1747		1749

Panel mounted socket
screwless, with TwinCONTACT,
standard flange dimensions
85 x 85 mm, 20° inclination,
optional fitted with auxiliary contact

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 519

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	3004	3008				
16	4			3048	3049		
16	5			3070			
32	3	3124	3126				
32	4			3155	3157		
32	5			3171			

Panel mounted socket
screwless, with TwinCONTACT,
miniflange: 55 x 55 mm, straight

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 426

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	1618	1619				

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Panel mounted socket
screwless, with TwinCONTACT,
flange: 16 A: 75 x 75 mm,
32 A: 85 x 75 mm, straight

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 467

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	1707	1708	1709			
16	4	1710	1711	1712	1713	1714	
16	5	1716	1717	1131			
32	3	1809	1810				
32	4		1813	1814	1815		
32	5	1818	1819	1820			

2

Panel mounted socket
screwless, with TwinCONTACT,
flange: 16 A, 3 p: 73.5 x 64 mm,
16 A, 4 + 5 p, 32 A: 100 x 92 mm,
inclination 20°, 32 A: optionally fitted
with auxiliary contact

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 466

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	1700	1701	1702			
16	4		1703	1704	1705	1706	
16	5			3485			
32	3	1801	1802	1803			
32	4		1804	1805	1806		
32	5			1808			

Panel mounted socket
screwless, with TwinCONTACT,
standard flange dimensions
85 x 85 mm, inclination 20°,
optionally fitted with auxiliary contact

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 520

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		1168				
16	4			1169	1171		
16	5			1173			
32	3	3566	3573				
32	4			3581	3587		
32	5			3590			

Auxiliary contact
for standard sockets
and panel mounted
sockets 16 A and 32 A

Std. Pack. Qty: 10

Part no.
41000

Auxiliary contact.

Function: Change-over contact = NC/NO
Connected load: 16 A (4 A)*/ ~ 250 V
10 A (3 A)*/ ~ 400 V
* for inductive or motor load

Sockets – Panel mounted sockets, switched and interlocked

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Panel mounted socket
switched, with mechanical DUO-interlock

IP44
Std. Pack. Qty: 1
Drawing: 5 MB 59

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	7502	7503				
16	4			7505			
16	5			7507			
32	3		7512				
32	5			7516			

Panel mounted socket
switched, with mechanical DUO-interlock

IP67
Std. Pack. Qty: 1
Drawing: 5 MB 57

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	7520	7521				
16	4		7523	7524	7525		
16	5			7526			
32	3	7530	7531				
32	4			7534	7535		
32	5			7536			

Our PowerTOP Xtra Family from 16 to 125 A.
Plugs and sockets for all applications.

In industrial applications, in mining, in railway and transport companies, in ports, harbors, shipyards and campgrounds: in all of these situations and many more, it's imperative to safely and reliably distribute electricity in challenging or harsh conditions. As specialists for plugs and sockets, we've packed our formidable CEE know-how into a top-notch product family for you. The PowerTOP Xtra plugs and connectors are available in 16, 32, 63, and 125 A versions. Many of them have been proving themselves in practice in a wide variety of work environments worldwide for years. All PowerTOP Xtra connectors feature our ingenious X-CONTACT contact sleeve technology.

PowerTOP Xtra: plugs and connectors for professional electricians!

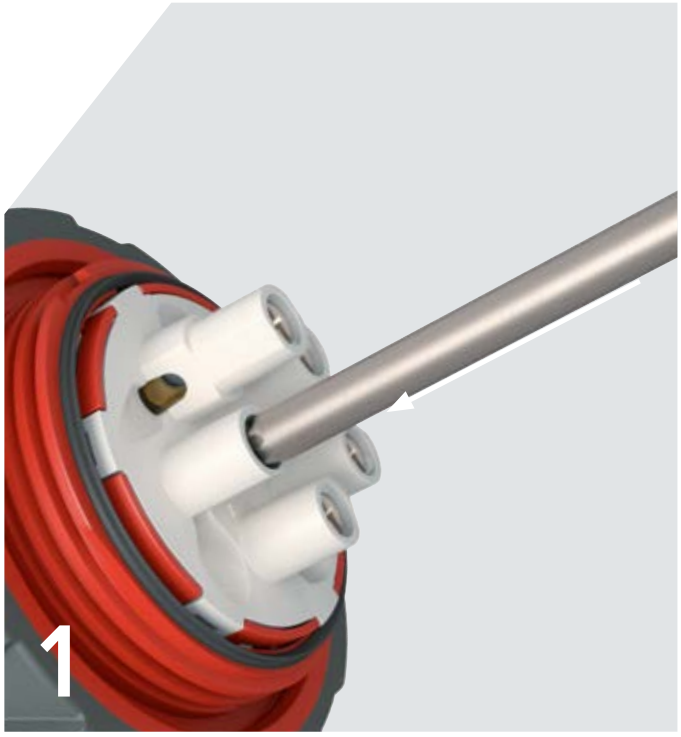
PowerTOP Xtra is a complete product family with solutions for every application area. In this regard plugs and connectors 16 A and 32 A have been completely reworked and optimized in every detail!

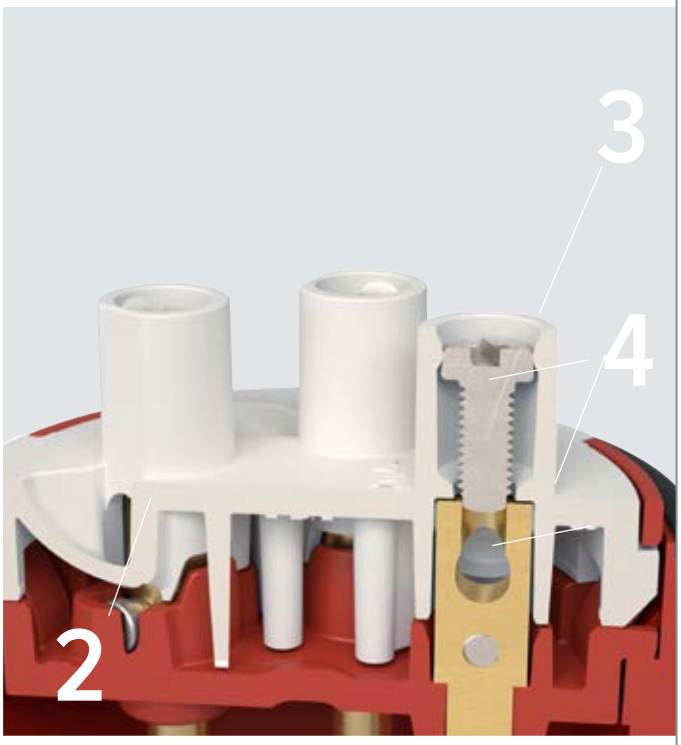
The new members of the PowerTOP Xtra family bring four success factors from professionals for professionals:

- **Ergonomically optimized design**
- **Simplified assembly**
- **Easier and safer connection**
- **Effortless connecting and disconnecting with X-CONTACT**

Easier and safer connection with ErgoCONTACT.

All products of the PowerTOP Xtra family are available with screw terminals. We've developed them further to create our easy-to-use ErgoCONTACT connection technology for 16 and 32 A plugs and connectors. They enable easy, secure and time-saving installation.





1

Ergonomically effective installation

With ErgoCONTACT, you insert the screwdriver from the top instead of from the side. This makes it easier to achieve the required torque and the pressure is applied directly from the grip. All of the screws point in the same direction. This saves time, because it's no longer necessary to rotate the front part in your hand in order to tighten the contact screws of the individual poles one after the other.

2

Conductor insertion

Curved conductor guidance channels easily and securely move the conductor ends into the contacts.

3

Guide collar

The screw trajectory is additionally supported by a guide collar which prevents slide-off and minimises the danger of injury.

4

Captive combination head screw

Each contact has only one screw: a captive combination head screw that is permanently integrated in the guide collar in the factory and can be turned using either a Phillips or a flathead screwdriver. Since only one screw has to be set for each contact, installation is easy and time-saving.

X-CONTACT

The new generation of contact sleeves.

X-CONTACT®

Better contact
Due to a completely new manufacturing process, the X-CONTACT sleeve has resilient properties based solely on its material characteristics, without the need to use any additional spring elements. Thanks to the shape of the X-CONTACT sleeve, a particularly safe contact closure can be achieved.

3

Less effort!
The special design of the X-CONTACT reduces the effort of insertion and withdrawal by up to 50%. An advantage that simplifies work processes and improves safety especially with high electrical currents. With X-CONTACT, MENNEKES creates a safe contact closure and easy handling at a new, equally high level.
Learn more about the new generation of contact sleeves at:
www.mennekes.co.uk/x-contact

The X principle

Easy handling meets safe connections.

Innovative

Slotted sleeves with their resilient material properties reduces the force needed to connect and disconnect the plug by up to 50 %.

X-CONTACT – intelligently innovative!

Simple

The connection is easier to handle when compared to conventional contact sleeves.

X-CONTACT – simply brilliant!

Durable

No signs of wear, permanently fatigue-proof and self-cleaning by connecting and disconnecting.

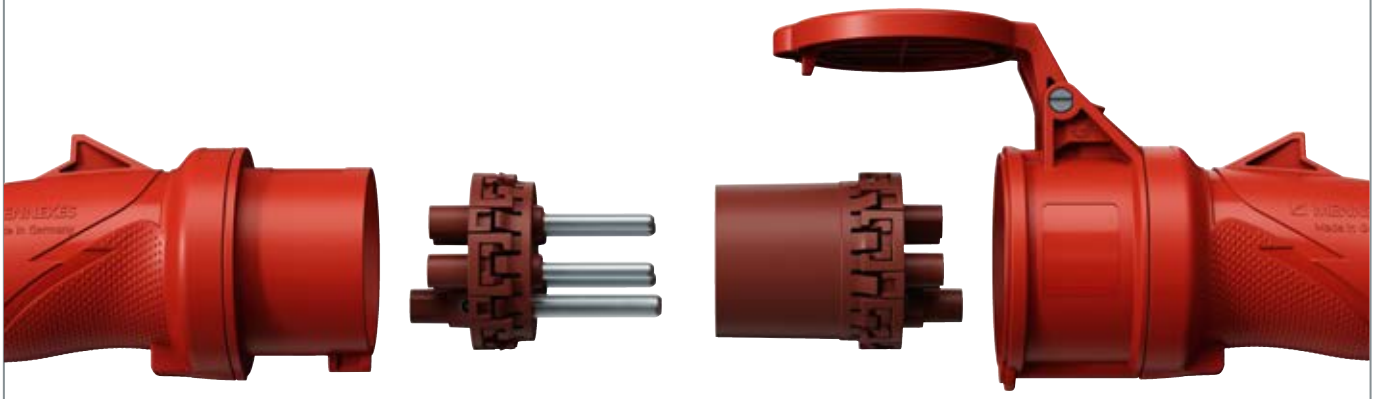
X-CONTACT – lasting solution!

Safe

A higher degree of safety of handling – for a safe contact closure.

X-CONTACT – double safety!

AM-TOP and PowerTOP Xtra
for use in corrosive environments.



Highly heat resistant contact carrier and nickel plated contacts.
These appliances are guaranteed to be resistant to corrosive environments: High humidity, salt or acidic air, corrosive gases and vapours. Accordingly, they are mainly used **in the food processing industry, breweries, dairies, farms, market gardens and wineries.**

3

AM-TOP
Phase inverter plug 16 A and 32 A.

If three phase equipment rotates in the wrong direction the phase inverter plug solves the problem rapidly and safely. Release the lock with a screw-driver and turn the insulating element in which the two phase pins are fitted. Done - the motor will rotate in the correct direction. Two outer conductors rotatable through 180°.

Angled plug VarioTOP
Ergonomic. Practical. Safe.

The first CEE angled plug with cable entry rotating up to 60° to the left or to the right.

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request.

Plug PowerTOP Xtra with ErgoCONTACT

ergonomic enclosure design with nubbed grip zones, rubberised cable gland with sealing, strain relief and protection against kinking, thread lock and safety slide, area for self-adhesive labels

IP54
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		13502				
16	4			13506			
16	5		13509	13510	13511		
32	3		13513				
32	4			13516			
32	5		13519	13520			

Plug AM-TOP

single part body

IP44
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	247		249		2168	2271
16	4	250	251		253	254	255
16	5					2189	2243
32	3	259		261		2195	2341
32	4	262	263		265	266	267
32	5				2015	2244	2178

Plug PowerTOP Xtra S

screwless, with insulation displacement technology, ergonomic enclosure design with nubbed grip zones, rubberised cable gland with sealing, strain relief and protection against kinking, thread lock and safety slide

IP54
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		13521				
16	5			13522			
32	5			13523			

Plug PowerTOP Xtra R

rubberised grip area, highly heat resistant contact carrier, frame terminals, nickel plated contacts, cable gland and sealing, strain relief and protection against kinking

IP54
Std. Pack. Qty: 5

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	13101	13102				
63	4		13105	13106	13107		
63	5		13111	13112			

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request.

Angled plug VarioTOP
cable entry hood rotating up to 60° to the left or the right,
3981 and 3980: in colour code
3983 and 3982: in electric grey

IP44
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	5		3981	3980			
16	5		3983	3982			

Angled plug
with grommet

IP44
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	1410	1411				
16	4		891	315			
32	3	3312	3306				
32	4		3646	3987			
32	5		3424	3266			

3

Plug AM-TOP
single part body, cable gland and sealing, strain relief and protection against kinking

IP67
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	277	278	279			
16	4	280	281	282	283	284	285
16	5	286	287	288			
32	3	289	290	291			
32	4	292	293	294	295	296	297
32	5	298	299	300			

Plug PowerTOP
with external cable grip, highly heat resistant contact carrier and nickel plated contacts

IP67
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	3794	3796	3799			
16	4	3807	3811	3809	3810		
16	5	3819	3823	3821			
32	3	3829	3830	3832			
32	4		3844	3841	3842		
32	5	3851	3855	3853			

Plug PowerTOP Xtra R with ErgoCONTACT
highly heat resistant contact carrier, nickel plated contacts, ergonomic enclosure design with nubbed grip zones, rubberised cable gland with sealing, thread lock and safety slide

IP54
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	5	13561	13562	13563	13564	13565	13567
32	5	13582	13583	13584	13585	13586	13587

Plug PowerTOP Xtra R
rubberised grip area, highly heat resistant contact carrier, frame terminals, nickel plated contacts, cable gland and sealing, strain relief and protection against kinking

IP67
Std. Pack. Qty: 5

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	13201	13202	13203			
63	4	13204	13205	13206	13207	13208	13209
63	5	13210	13211	13212	13213		13214
125	3	13215	13216				
125	4	13217	13218	13219	13220		
125	5	13223	13224	13225	13226		13227

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Wall mounted inlet
for internal and external fixing,
for hinged lids for retrofit see
part no. 41482 and 41489

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 213

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	843	844				

Wall mounted inlet
with hinged lid, for internal
and external fixing

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 212

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	846	847				

Wall mounted inlet
for external fixing,
for hinged lids for retrofit see
part no. 41482 and 41489

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 221

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	4			800			
16	5			801			
32	3		802				
32	4			803			
32	5			804			

Wall mounted inlet
enclosure base with stamped recess
for quick cutting out

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 32

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	331	332	333			
16	4	334	335	336	337	921	922
16	5	340	341	342	2359	2668	2400
32	3	343	344	345			
32	4		347	348	349		
32	5	352	353	354	2386		

Wall mounted inlet
for a suitable watertight protective
cover for 63 A see part no. 40434

IP67
Std. Pack. Qty: 5/3
Drawing: 2 MB 36

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	1216	1107	1217			
63	4	355	356	357	358		
63	5	359	360	361			
125	4	362	363	364	365		
125	5		367	368			

Hinged lid
for retrofitting for wall mounted inlets

Std. Pack. Qty: 10

Description	Part no.
for part no. 843 and 844	41482
for part no. 800, 801 and 3517	41489

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Panel mounted inlet
16 A: flange 66 x 66 mm, fixing distance 52 x 52 mm, 32 A: flange 72 x 72 mm, fixing distance 60 x 60 mm, a retaining nose to hold the hinged lid of the connector must be provided by the customer in order to ensure satisfactory locking

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 68

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	5			1408			
32	5			1409			

Panel mounted inlet
flange 75 x 75 mm, fixing distance: 60 x 60 mm, a retaining nose to hold the hinged lid of the connector must be provided by the customer in order to ensure satisfactory locking

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 68/853

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	5			853			

3

Panel mounted inlet
nickel plated contacts, a retaining nose to hold the hinged lid of the connector must be provided by the customer in order to ensure satisfactory locking

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 173/2

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		812				
16	4		837	813	814		
16	5			815			
32	3		817				
32	4		838	819	820		
32	5			821			

Panel mounted inlet
highly heat resistant contact carrier, nickel plated contacts, a retaining nose to hold the hinged lid of the connector must be provided by the customer in order to ensure satisfactory locking

IP44
Std. Pack. Qty: 5
Drawing: 2 MB 155

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3		1981				
63	4		1984	1982	824		
63	5			1688			

Panel mounted inlet
nickel plated contacts, a retaining nose to hold the hinged lid of the connector must be provided by the customer in order to ensure satisfactory locking

IP67
Std. Pack. Qty: 10
Drawing: 2 MB 187/2

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	825	826				
16	4		839	827	828		
16	5			829			
32	3	830	831				
32	4		840	832	833		
32	5			834			

Panel mounted inlet
highly heat resistant contact carrier, nickel plated contacts, 63 A: a retaining nose to hold the hinged lid of the connector must be provided by the customer in order to ensure satisfactory locking

IP67
Std. Pack. Qty: 5
Drawing: 2 MB 166

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	835	836				
63	4		3704	3656	3657		
63	5			3658			
125	3		3665				
125	4		3413	3583	3600		
125	5			1983			

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Panel mounted inlet

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 73

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	4	371	372	373			
16	5			379			
32	3	380	381				
32	4	383	384	385	386		
32	5		390	391			

Panel mounted inlet
with hinged lid

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 43

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	4	392	393	394	395		
16	5	398	399	400			
32	3	401	402	403			
32	4		405	406	407		
32	5	410	411	412			

Phase sequence test plug
to VDE 0413, part 7,
DIN-EN 61557-7

IP44
Std. Pack. Qty: 5

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	4		3527	3458	3459		
16	5		3231	1414			
32	4		3528	3460	3461		
32	5		3232	1415			
63	4		3420	1436	3917		
63	5			1437			

Phase sequence test plug

Enables safe control of the direction of the rotating field for CEE sockets.

According to VDE 0100-550 part 4.7 rotary current sockets must be connected such that a right-hand rotating field is achieved - the sockets seen from front in clockwise direction.

The test plug differs from a standard plug by its transparent enclosure indicating a right-hand or left-hand rotating field or a missing phase by means of two control lamps.

Correct rotating field: Green lamp lights up.

Incorrect rotating field: Red lamp lights up.

Phase missing: Both lamps light up.

The control lamps inside the transparent enclosure are arranged so as to be perfectly visible from all sides.

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request.

Phase inverter plug AM-TOP
single part body, cable gland and sealing, strain relief and protection against kinking

IP44
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	4		338	339			
16	5		318	319			
32	4		396	397			
32	5		321	322			

Phase inverter plug AM-TOP
single part body

IP67
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	4		3338	3339			
16	5			325			
32	4		3340	3341			
32	5		327	328			

3

Protective cover
for IP67 inlets and plugs

Std. Pack. Qty: 50

Description	Part no.
16 A, 3 p	40784
16 A, 4 p	40778
16 A, 5 + 7 p	40785
32 A, 3 + 4 p	40841
32 A, 5 + 7 p	40786
63 A, 3, 4 + 5 p	40787
125 A, 3, 4 + 5 p	40788

Plug guard
prevents insertion of the plug that unauthorised persons cannot use appliances or installations

Std. Pack. Qty: 1

Part no.
41416

Plug guard.

Fits all CEE-plugs, panel mounted and wall mounted inlets from 16 A, 3 p up to 125 A, 5 p (not suitable for low voltage).

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Wall mounted phase inverter inlet

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 32

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	4		3342	3343			
16	5			2511			
32	4		3345	3346			
32	5		3347	2478			

Panel mounted phase inverter inlet

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 73

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	4			855			
16	5			329			
32	4			3368			
32	5		913	330			

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. Products with pilot contact available on request.

Connector PowerTOP Xtra with ErgoCONTACT

X-CONTACT, ergonomic enclosure design with nubbed grip zones, rubberised cable gland with sealing, strain relief and protection against kinking, thread lock and safety slide, area for self-adhesive labels

IP54
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		14502				
16	4			14506			
16	5		14509	14510	14511		
32	3		14513				
32	4			14516			
32	5		14519	14520			

Connector AM-TOP

single part body

IP44
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	509		511		2441	2517
16	4	512	513		515	516	517
16	5					2193	2495
32	3	521		523		2196	2674
32	4	524	525		527	528	529
32	5	530	531			2245	2493

3

Connector PowerTOP Xtra

X-CONTACT,
rubberised grip area, frame terminals, cable gland and sealing

IP54
Std. Pack. Qty: 5

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	14101	14102				
63	4		14105	14106	14107		
63	5		14111	14112			

Angled Connector

with grommet

IP44
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3		1438				

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. Products with pilot contact available on request.

Hanging connector PowerTOP
with highly heat resistant contact carrier, cable gland and external cable grip, hanging clip

IP44
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	5			3778			
32	5			3999			

Connector PowerTOP
with external cable grip and highly heat resistant contact carrier

IP67
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	3859	3860	3862			
16	4		3873	3871	3872		
16	5	3879	3883	3881			
32	3	3887	3888	3891			
32	4		3899	3897	3898		
32	5		3909	3907			

Connector AM-TOP
single part body, cable gland and sealing, strain relief and protection against kinking

IP67
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	3	539	540	541			
16	4	542	543	544	545	546	
16	5	548	549	550			
32	3	551	552	553			
32	4	554	555	556	557	558	
32	5	560	561	562			

Connector PowerTOP Xtra R with ErgoCONTACT
X-CONTACT, ergonomic enclosure design with nubbed grip zones, highly heat resistant contact carrier, nickel plated contacts, rubberised cable gland with sealing, strain relief and protection against kinking

IP54
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	5	14561	14562	14563		14565	14567
32	5	14582		14584	14585	14586	14587

Connector PowerTOP Xtra
X-CONTACT, rubberised grip area, highly heat resistant contact carrier, frame terminals, cable gland and sealing, strain relief and protection against kinking

IP67
Std. Pack. Qty: 5

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
63	3	14201	14202	14203			
63	4	14204	14205	14206	14207	14208	14209
63	5	14210	14211	14212	14213		14214
125	3	14215	14216				
125	4	14217	14218	14219	14220		
125	5	14223	14224	14225	14226		14227

Hanging clip
for PowerTOP plugs and connectors

Std. Pack. Qty: 100

Description	Part no.
for 16 A, 3 to 5 p and 32 A, 3 + 4 p	15453000
for 32 A, 5 p	15452000

Success in series.

A new approach to combination units. Extensively configurable combination units in six different sizes – the AMAXX range by MENNEKES. With an appealing and unique design in many variations for almost all applications.

The AMAXX combination with five segments completes the program. We also feature largescale combination units with all known AMAXX advantages.

AMAXX Supporter – AMAXX combination and mounting unit
Our mounting unit AMAXX Supporter allows you to use our wall mounted AMAXX receptacle combinations as a hanging combination unit. This way you effectively reach more areas of your factory or plant. The mounting unit has appropriate drill holes for front and back mounting of AMAXX combinations in 260 x 225 mm or 390 x 225 mm. The Supporter can selectively be fitted with a pressurised air outlet and the respective maintenance unit, making it an individually equipped supply station and a cost-efficient solution.

AMAXX s is the combination unit for restricted installation in widths and depths. It can be optionally attached on the side or swivel-mounted.

The smallest AMAXX combination unit with one segment rounds off the program. It is available in protection type IP44 and IP67 as well as from 16 A, 3-pole up to 32 A, 5-pole and as AMAXX DUO switched and interlocked.

The space-saver AMAXX s
AMAXX s is the optimum solution for restricted spaces. Besides mounting on the rear, you can also mount it on the right or the left thanks to the optionally available attachment set. Or you opt for the variant that can be swivelled by 90 degrees on the left or the right for even more comfortable application.

AMAXX combination units by MENNEKES combine energy and data in one product family and have been highly successful for many years.

MENNEKES offers the right combination for each requirement: from the smallest AMAXX combination unit with one segment, through the largest with five segments to the suspended combination unit. Fully configurable in six different enclosure dimensions and as always in an attractive design. AMAXX by MENNEKES provides the electrician with almost infinite combination possibilities.

Variety of versions.

- Protection type: IP44 and IP67.
- Enclosure made of high-quality plastic or AMELAN in aggressive atmospheres with high resistance to chemicals as well as highly heat resistant contact carrier and nickel plated contacts.
- Colours: bottom part black, top part grey (grey RAL 7035 (IP44) or yellow RAL 1021 available on request).
- Equipped with: CEE sockets from 16 A, 3 p up to 63 A, 5 p, grounding-type sockets in acc. with many national standards, DUO sockets switched and interlocked from 16 A, 3 p up to 32 A, 5 p as well as fuse elements.

4

You can rely on it.

MENNEKES quality: tested and certified.
Like all other MENNEKES combinations, the AMAXX products are also subject to the extensive MENNEKES quality control. Each AMAXX combination unit is thoroughly tested and certified prior to delivery.

ZERTIFIKAT

MENNEKES
MY POWER CONNECTION

CERTIFICATE

für stückgeprüfte Qualität nach DIN EN 61439.

for individually tested quality according to IEC 61439.

Hiermit bestätigen wir, dass diese Steckdosen-Kombination einer Stückprüfung unterzogen wurde.
Herewith we confirm that this receptacle combination has passed a routine test.

Der MENNEKES-Sicherheitstest berücksichtigt nicht nur die elektrischen Prüfanforderungen nach DIN EN 61439, sondern beinhaltet darüber hinaus auch eine allpolige Hochspannungsprüfung.
The MENNEKES safety test not just include the requirements for electrical tests acc. to IEC 61439 but also a high voltage test for all poles.

Dietmar Löcker
Bereichsleiter Qualität / Division Manager Quality

MENNEKES
Elektrotechnik GmbH & Co. KG
Aloys-Mennekes-Straße 1
57399 KIRCHHUNDEM / GERMANY

Phone: +49 2723 41-1
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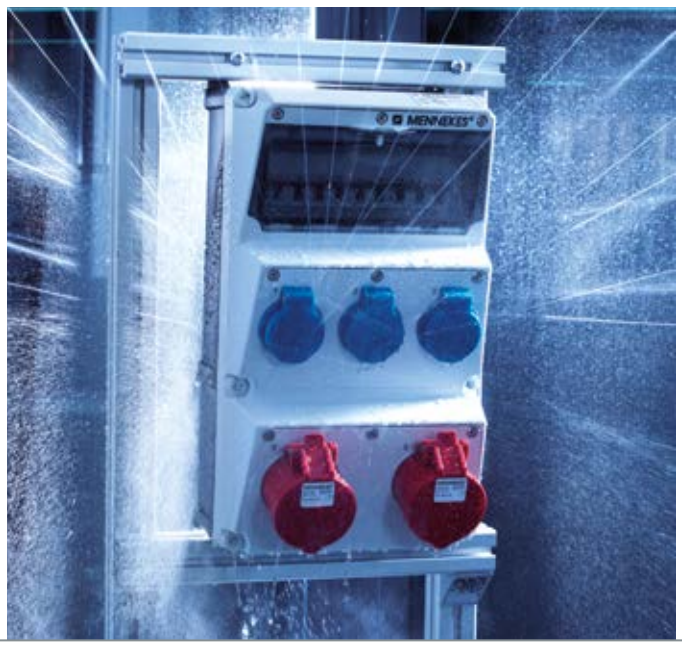
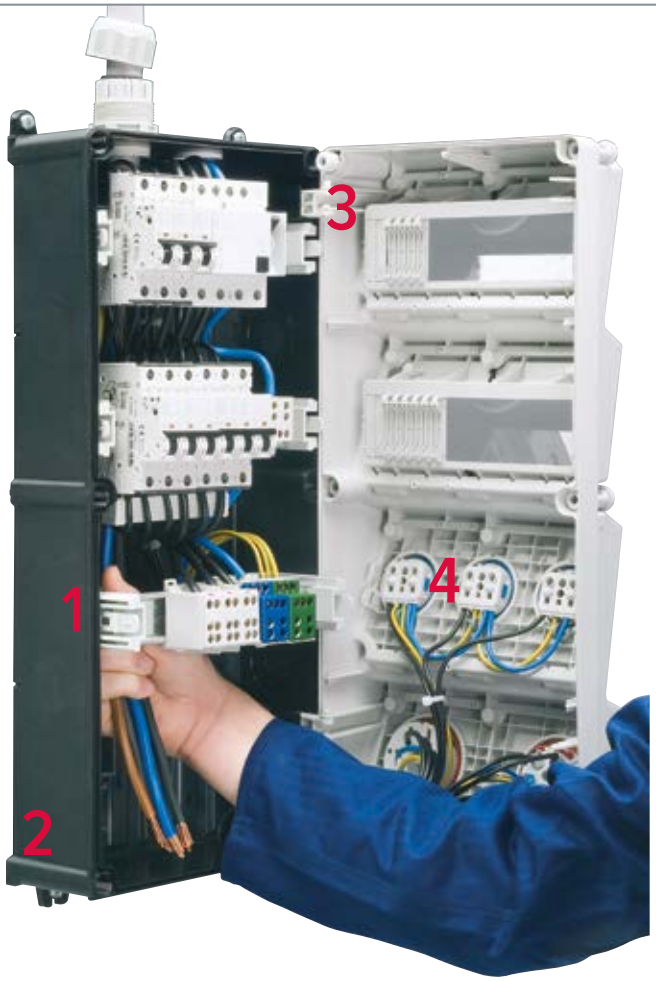
www.MENNEKES.de





Sophisticated details.

1 **Liftable DIN rails.**
Liftable DIN rails and a large, smooth wiring space significantly ease the insertion as well as connection of large cables.

2 **One-man installation.**
Shorter installation times with the new, user-friendly external fixing.

3 **Hinged cover.**
The hinged cover, which opens to one side, eases connection work.

4 **Ready for application.**
All combinations are pre-wired for installation and tested for electric safety and quality.

- Generally angled insertion direction, also with sockets SCHUKO®

- Keeps both hands free because inspection windows fold downwards

- Especially fast opening and closing of the enclosure due to captive double-threaded cover screws

- Window can be locked with a padlock, enclosure can be lead sealed

Standard for low voltage switchgear and control gear assemblies - IEC 61439.

The standard IEC 61439 replaces IEC 60439 and describes the design and test specifications for low voltage switchgear and control gear assemblies. The new standard has implications for the distribution of electrical energy in industry, domestic electrical installations and on construction sites.

In the future two main standards will be required for each design of a low voltage switchgear and control gear assembly:
- the basic standard that is referenced as „Part 1“ in the specific standards;
- the applicable parts 2 to 7 of the switchgear and control gear assembly standard that deals with the particularities of the application.

The demands imposed on combination units that must be classified as a switchgear and control gear assembly have changed. Structure and manner of verification have been redefined.

In the Service tab on pages 94 to 97 you will find additional information, excerpts from the standard for low voltage switchgear and control gear assemblies - IEC 61439, and a listing of the agreements between manufacturers of the switchgear and control gear assemblies and users.

What has changed with the switchgear standard – IEC 61439 and what are the benefits for the MENNEKES customer?

- **Product safety**
  In the future, all low voltage switchgear and control gear assemblies must be tested in accordance with IEC 61439. The requirement of design verification is new. Design verification replaces the type test. MENNEKS combination units are subjected to additional standard-compliant routine tests. The outgoing circuits are individually loaded with the respective rated current.

  Your advantage: This guarantees an even higher standard of safety.

- **Clear documentation**
  Significant rating plate – clearly defined mandatory information, such as rated diversity factor RDF (previously: simultaneity factor).

  Your advantage: The main technical product information is visible on the rating plate at a glance.

- **Clear specifi cations**
  Requests for a custom solution require clearly defined specifications by the user (such as installation site, ambient temperatures, etc.). Your advantage: You get a need-based solution by MENNEKES tailored to the specific application.

- **Distinction:**
  Original manufacturer manufacturer If a product is modified on site, the company in question is considered to be the manufacturer. In this case a new verification and documentation are required from this company.

  Your advantage: For combination units that are prewired for installation, MENNEKES is the original manufacturer and manufacturer and therefore bears the complete product responsibility.

Example – rating plate

I_{nA} Rated current of the switchgear and control gear assembly

U_n Rated voltage

f_n Rated frequency

RDF Rated diversity factor

I_{cc} Conditional rated short-circuit current

Protection class

IP Ingress protection

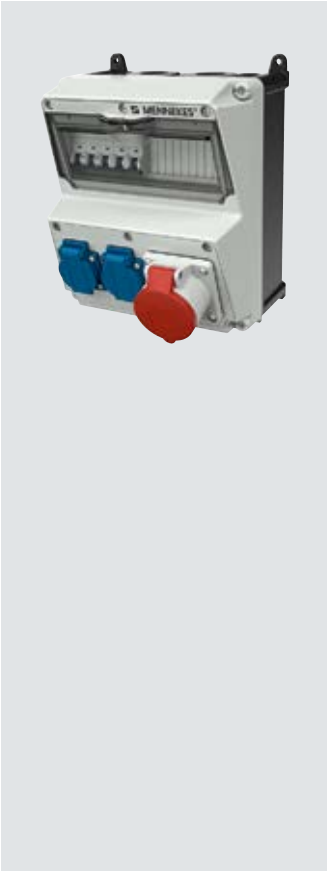
Combination units – Wall mounted, AMAXX

Pre-wired for installation (except part no. 910214 and 910394), IP44, enclosure front cover light grey RAL 7035, hinged to the side (except enclosure size 130 x 225 mm and 650 x 112.5 mm). Fusing behind a transparent cover. For drawings and dimensions see page 109 - 110.

CEE sockets	CEE sockets	CEE sockets	CEE sockets
	2 CEE 16 A, 3 p, 110 V		1 CEE 16 A, 5 p, 400 V
CEE sockets	**CEE sockets**	**CEE sockets**	**CEE sockets**
		2 CEE 16 A, 3 p, 230 V	
Sockets British standard	**Sockets British standard**	**Sockets British standard**	**Sockets British standard**
3 x 13 A, 2 p+E, 230 V			2 x 13 A, 2 p+E, 230 V
Fusing	**Fusing**	**Fusing**	**Fusing**
1 RCD 40 A, 4 p, 0.03 A 3 MCB´s 13 A, 1 p, C			1 RCD 40 A, 4 p, 0.03 A 1 MCB 16 A, 3 p, C 2 MCB´s 13 A, 1 p, C
Connection	**Connection**	**Connection**	**Connection**
For 1 cable up to 5 x 10 mm^2	For 2 cables up to 3 x 4 mm^2	For 2 cables up to 3 x 4 mm^2	For 1 cable up to 5 x 10 mm^2
Connection and load values	**Connection and load values**	**Connection and load values**	**Connection and load values**
Pre-fuse max. 63 A InA 39 A RDF 1			Pre-fuse max. 63 A InA 28 A RDF 0.95
Enclosure size	**Enclosure size**	**Enclosure size**	**Enclosure size**
260 x 225 mm (H x W)	130 x 225 mm (H x W)	130 x 225 mm (H x W)	260 x 225 mm (H x W)
Part no.	**Part no.**	**Part no.**	**Part no.**
921015	**910214**	**910394**	**920286**

Combination units – Wall mounted, AMAXX

Pre-wired for installation, IP44, enclosure front cover light grey RAL 7035, hinged to the side (except enclosure size 130 x 225 mm and 650 x 112.5 mm). Fusing behind a transparent cover. For drawings and dimensions see page 109 - 110.



CEE sockets
1 CEE 16 A, 5 p, 400 V

CEE sockets

Sockets British standard
2 x 13 A, 2 p+E, 230 V

Fusing
1 MCB 16 A, 3 p, C
2 MCB´s 13 A, 1 p, C

Connection
For 1 cable up to 5 x 10 mm²

Connection and load values
Pre-fuse max. 63 A
InA 29 A
RDF 1

Enclosure size
260 x 225 mm (H x W)

Part no.
920464

CEE sockets
2 CEE 16 A, 5 p, 400 V
Sockets, switched, with mechanical DUO-interlock

CEE sockets

Sockets British standard

Fusing
2 MCB´s 16 A, 3 p, C

Connection
For 1 cable up to 5 x 10 mm²

Connection and load values
Pre-fuse max. 100 A
InA 32 A
RDF 1

Enclosure size
390 x 225 mm (H x W)

Part no.
931227

CEE sockets
1 CEE 16 A, 5 p, 400 V

CEE sockets

Sockets British standard
2 x 13 A, 2 p+E, 230 V

Fusing
1 RCD 40 A, 4 p, 0.03 A
1 MCB 16 A, 3 p, C
1 MCB 13 A, 1 p, C

Connection
For 1 cable up to 5 x 10 mm²

Connection and load values
Pre-fuse max. 63 A
InA 29 A
RDF 1

Enclosure size
650 x 112.5 mm (H x W)

Part no.
960043

CEE sockets
2 CEE 16 A, 5 p, 400 V

CEE sockets

Sockets British standard

Fusing
1 RCD 40 A, 4 p, 0.03 A
1 MCB 16 A, 3 p, C

Connection
For 1 cable up to 5 x 10 mm²

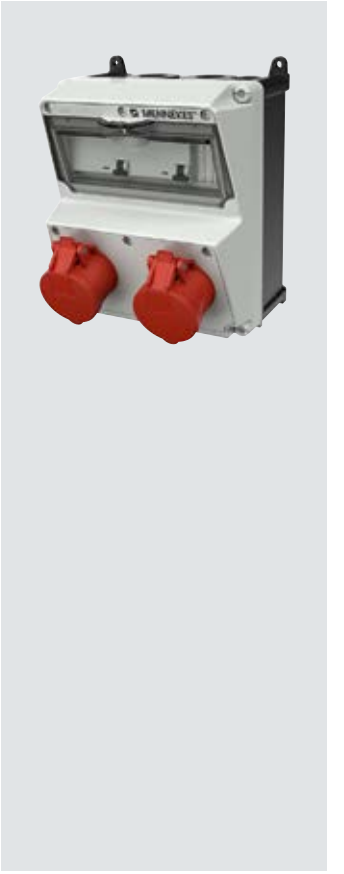
Connection and load values
Pre-fuse max. 63 A
InA 16 A
RDF 1

Enclosure size
260 x 225 mm (H x W)

Part no.
920860

Combination units – Wall mounted, AMAXX

Pre-wired for installation, IP44, enclosure front cover light grey RAL 7035, hinged to the side (except enclosure size 130 x 225 mm and 650 x 112.5 mm). Fusing behind a transparent cover. For drawings and dimensions see page 109 - 110.



CEE sockets
2 CEE 16 A, 5 p, 400 V
CEE sockets
Sockets British standard
Fusing
2 RCD´s 40 A, 4 p, 0.03 A
Connection
For 1 cable up to 5 x 10 mm²
Connection and load values
Pre-fuse max. 16 A InA 16 A RDF 1
Enclosure size
260 x 225 mm (H x W)
Part no.
920851

CEE sockets
1 CEE 32 A, 5 p, 400 V 1 CEE 16 A, 5 p, 400 V
CEE sockets
Sockets British standard
2 x 13 A, 2 p+E, 230 V
Fusing
1 RCD 40 A, 4 p, 0.03 A 1 MCB 32 A, 3 p, C 1 MCB 16 A, 3 p, C 2 MCB´s 13 A, 1 p, C
Connection
For 1 cable up to 5 x 16 mm²
Connection and load values
Pre-fuse max. 40 A InA 40 A RDF 0.85
Enclosure size
390 x 225 mm (H x W)
Part no.
931234

CEE sockets
1 CEE 63 A, 5 p, 400 V 1 CEE 32 A, 5 p, 400 V 1 CEE 16 A, 5 p, 400 V
CEE sockets
Sockets British standard
2 x 13 A, 2 p+E, 230 V
Fusing
1 RCD 63 A, 4 p, 0.03 A 1 MCB 32 A, 3 p, C 1 MCB 16 A, 3 p, C 2 MCB´s 13 A, 1 p, C
Connection
For 1 cable up to 5 x 16 mm²
Connection and load values
Pre-fuse max. 63 A InA 63 A RDF 0.65
Enclosure size
520 x 225 mm (H x W)
Part no.
941137

Combination units – Wall mounted, AMAXX

Pre-wired for installation, IP67, enclosure front cover light grey RAL 7035, hinged to the side (except enclosure size 130 x 225 mm and 650 x 112.5 mm). Fusing behind a transparent cover. For drawings and dimensions see page 109 - 110.

CEE sockets

CEE sockets
2 CEE 16 A, 3 p, 230 V

Sockets British standard

Fusing

Connection
For 1 cable up to 3 x 10 mm²

Connection and load values

Enclosure size
130 x 225 mm (H x W)

Part no.
910355

CEE sockets
2 CEE 16 A, 3 p, 110 V

CEE sockets

Sockets British standard

Fusing
1 RCD 25 A, 2 p, 0.03 A

Connection
For 1 cable up to 3 x 10 mm²

Connection and load values
Pre-fuse max. 16 A
InA 25 A
RDF 1

Enclosure size
260 x 225 mm (H x W)

Part no.
920700

CEE sockets

CEE sockets
2 CEE 16 A, 3 p, 230 V

Sockets British standard

Fusing
1 RCD 25 A, 2 p, 0.03 A
1 MCB 16 A, 1 p, C

Connection
For 1 cable up to 3 x 10 mm²

Connection and load values
Pre-fuse max. 63 A
InA 16 A
RDF 1

Enclosure size
260 x 225 mm (H x W)

Part no.
920714

CEE sockets

CEE sockets
2 CEE 16 A, 3 p, 230 V

Sockets British standard

Fusing
1 RCD 25 A, 2 p, 0.03 A

Connection
For 1 cable up to 3 x 10 mm²

Connection and load values
Pre-fuse max. 16 A
InA 25 A
RDF 1

Enclosure size
260 x 225 mm (H x W)

Part no.
920649

Combination units – Wall mounted, AMAXX

Pre-wired for installation, IP67, enclosure front cover light grey RAL 7035, hinged to the side (except enclosure size 130 x 225 mm and 650 x 112.5 mm). Fusing behind a transparent cover. For drawings and dimensions see page 109 - 110.

CEE sockets

2 CEE 32 A, 5 p, 400 V
Sockets, switched, with mechanical DUO-interlock
2 CEE 16 A, 5 p, 400 V

CEE sockets

Sockets British standard

Fusing

1 RCD 63 A, 4 p, 0.03 A
2 MCB´s 32 A, 3 p, C
1 MCB 16 A, 3 p, C

Connection

For 1 cable up to 5 x 16 mm²

Connection and load values

Pre-fuse max. 63 A
InA 58 A
RDF 0.6

Enclosure size

260 x 225 mm (H x W)

Part no.

900946

Combination units – Accessories, wall mounted

Accessories for AMAXX combination units.

AMAXX standard cable glands

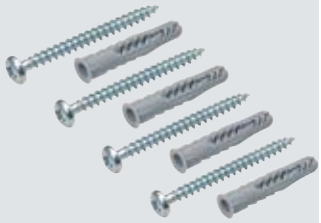
deep black RAL 9005

M 20 - for cable from 6-13 mm
IP44: **Part no. 990607**
IP67: **Part no. 990611**

M 25 - for cable from 9-17 mm
IP44: **Part no. 990610**

M 32 - for cable from 13-21 mm
IP44: **Part no. 990608**
IP67: **Part no. 990612**

M 40 - for cable from 14-28 mm
IP67: **Part no. 990609**



AMAXX screw set

consisting of
4 screws 6 x 70 mm
Pozidrive size 3, steel galvanized and
4 dowels 8 x 50 mm, for concrete, porous concrete, solid brick, perforated brick

Part no. 990606

AMAXX attachment set

for lateral installation of AMAXX s combinations, for mounting either on the left or right hand side
(set of 2 for 1 combination)

Part no. 990620

AMAXX support/carrier frame

signal yellow RAL 1003, suitable for AMAXX combination units with the sizes:
260 x 225 mm,
390 x 225 mm and
520 x 225 mm
for wall mounting in protection type IP67 or as mobile combination units with carrying handle and with feeder cable in protection type IP44 and IP67

Part no. 15696

4

AMAXX membrane cable glands

deep black RAL 9005,
incl. blanking plug

M 25 - for cable from 9-17 mm
Part no. 990623

M 32 - for cable from 13-21 mm
Part no. 990625

M 40 - for cable from 16-28 mm
Part no. 990627

Selection chart for membrane cable glands

AMAXX combination units	Standard cable entries	Recommandation of usage membrane cable gland*	
with 1 segment Enclosure: 130 x 225 mm (H x W)	top: 2 x M 25 2 x M 20 bottom: 2 x M 25 2 x M 20	1 x M 25	alternative: 1 x M 20
with 2 segments Enclosure: 230 x 225 mm (H x W)	top: 2 x M 32 2 x M 20 bottom: 2 x M 32 2 x M 20	1 x M 32	alternative: 2 x M 20
with 3 segments Enclosure: 390 x 225 mm (H x W)	top: 2 x M 40 2 x M 20 bottom: 2 x M 40 2 x M 20	1 x M 40	alternative: 2 x M 20
with 4 segments Enclosure: 520 x 225 mm (H x W)	top: 2 x M 40 2 x M 20 bottom: 2 x M 40 2 x M 20	1 x M 40 and 1 x M 20	alternative: 3 x M 20
with 5 segments Enclosure: 650 x 225 mm (H x W)	top: 2 x M 40 2 x M 20 bottom: 2 x M 40 2 x M 20	1 x M 40 and 2 x M 20	alternative: 4 x M 20

*** At least required for the following ambient conditions:**
Reduction of the ambient temperature by 45 °C through 10-minutes of heavy rain (enclosure, e.g heated to 60 °C through sunlight, subsequent cloudburst with water temperature of 15 °C).
If temperature differentials are greater/less, accordingly more or fewer membrane cable glands must be used.

Combination units – Wall mounted, AMAXX

Highly resistant to chemicals made of AMELAN, pre-wired for installation, IP44 and IP67, enclosure front cover grey RAL 7000, hinged to the side (except enclosure size 130 x 225 mm and 650 x 112.5 mm).
Fusing behind a transparent cover. For drawings and dimensions see page 109 - 110.

CEE sockets
1 CEE 32 A, 5 p, 400 V 1 CEE 16 A, 5 p, 400 V
CEE sockets
Sockets British standard
3 x 13 A, 2 p+E, 230 V
Fusing
1 RCD 63 A, 4 p, 0.03 A 1 MCB 32 A, 3 p, C 1 MCB 16 A, 3 p, C 3 MCB´s 13 A, 1 p, C
Connection
For 1 cable up to 5 x 16 mm²
Connection and load values
Pre-fuse max. 63 A InA 63 A RDF 0.75
Enclosure size
520 x 225 mm (H x W)
Part no.
941142

CEE sockets
CEE sockets
2 CEE 16 A, 3 p, 230 V
Sockets British standard
Fusing
1 RCD 25 A, 2 p, 0.03 A
Connection
For 1 cable up to 3 x 10 mm²
Connection and load values
Pre-fuse max. 63 A InA 63 A RDF 0.75
Enclosure size
260 x 225 mm (H x W)
Part no.
920821

CEE sockets
1 CEE 32 A, 5 p, 400 V
CEE sockets
Sockets British standard
Fusing
1 RCD 40 A, 4 p, 0.03 A
Connection
For 1 cable up to 5 x 10 mm²
Connection and load values
Pre-fuse max. 32 A InA 63 A RDF 0.75
Enclosure size
260 x 225 mm (H x W)
Part no.
921024

Combination units – Suspended, Supporter

Mounting unit made from light metal.
Installation according to ingress protection classes IP44 and IP67 available.

Mounting unit

Hangable mounting unit, made from light metal, with holes for front and rearinstallation of sockets and combination units
2 enclosures 260 x 225 mm
2 enclosures 390 x 225 mm
dimensions (H x D x W):
535 x 233 x 348 mm
colour:
grey (RAL 9006)

Part no. 18444

Pneumatic maintenance unit

¼“ pre-assembled
inlet pressure max. 16 bar,
1 oil mist lubricator,
water separator 0 - 10 bar,
pressure reducer with pressure gauge,
1 quick coupling ¼“,
connection: 1 threaded nozzle of 9 mm

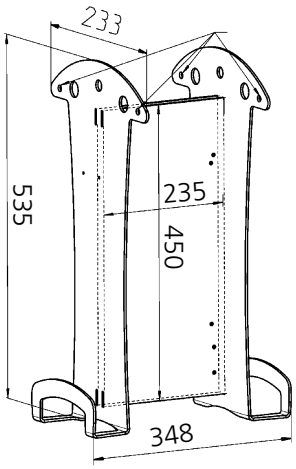
Part no. 18431

Pneumatic connection

single,
1 quick coupling ¼“,
connection: 1 hreaded nozzle of 9 mm

Part no. 18430

4



Drilled holes to accommodate the 4 round steel chains which are held together with a 6 mm karbiner.
With holes for front and rearinstallation for AMAXX combination units
260 x 225 mm or
390 x 225 mm.

1 MB 451

Power distributor for electricity and pressurised air. A fast and cost-efficient solution with individual configuration with combination units and compressed air equipment.

Includes a 350 mm chain set for ceiling installation.

Combination units – DELTA-BOX

Pre-wired for installation, IP44[1] / 67 [1] Regarding portable combination units in IP44 please see page 99 for further information.
With cable grip and installed hanging hook. Other combination units on request. Dimensions page 111.

Fitted with
3 CEE 16 A, 5 p, 400 V

Fusing

Connection
For 1 cable up to 5 x 10 mm²

Connection and load values

Protection type
IP44

Part no.
92917

Fitted with
3 CEE 32 A, 5 p, 400 V

Fusing

Connection
For 1 cable up to 5 x 10 mm²

Connection and load values

Protection type
IP44

Part no.
90839

Fitted with
1 CEE 16 A, 5 p, 400 V
3 SCHUKO® 16 A, 230 V

Fusing
1 RCD 25 A, 2 p, 0.03 A

Connection
For 1 cable up to 5 x 10 mm²

Connection and load values

Protection type
IP44

Part no.
92658

Fitted with
2 CEE 16 A, 5 p, 400 V
1 CEE 16 A, 5 p, 400 V

Fusing

Connection
For 1 cable up to 5 x 10 mm²

Connection and load values

Protection type
IP44

Part no.
92893

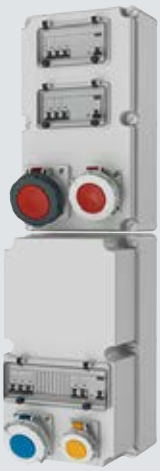
4

DELTA-BOX
the classic unit.

With cable grip. Each DELTA-BOX comes with a suspension bracket.
Available in IP44, IP67 and IP68.

Combination units – Wall mounted combination units

Pre-wired for installation, IP44 / 45, enclosure front cover light grey RAL 7035, Fusing behind a transparent cover. For drawings and dimensions see page 107.



CEE sockets
1 CEE 63 A, 5 p, 400 V 1 CEE 32 A, 5 p, 400 V
CEE sockets
1 CEE 32 A, 3 p, 230 V
CEE sockets
1 CEE 16 A, 3 p, 100-130 V
Fusing
1 RCD 63 A, 4 p, 0.03 A 1 RCD 40 A, 4 p, 0.03 A 1 RCD/MCB 32 A, 1 p+N, C, 0.03 A 1 RCD 25 A, 2 p, 0.03 A 1 MCB 63 A, 3 p, C 1 MCB 32 A, 3 p, C 1 MCB 10 A, 1 p, D 1 MCB 10 A, 2 p, C 1 Single-Phase Transformer 230V/110V (55-0-55V) 1.8KVA
Connection
For 1 cable up to 5 x 35 mm²
Connection and load values
Enclosure size
460 x 260 mm (H x W)
Part no.
8063261

CEE sockets
1 CEE 32 A, 5 p, 400 V
CEE sockets
1 CEE 16 A, 3 p, 230 V
CEE sockets
1 CEE 16 A, 3 p, 100-130 V
Fusing
1 RCD 40 A, 4 p, 0.03 A 1 RCD 25 A, 2 p, 0.03 A 1 RCD 25 A, 2 p, 0.03 A 1 MCB 32 A, 3 p, C 1 MCB 16 A, 2 p, C 1 MCB 16 A, 1 p, C 1 MCB 10 A, 1 p, D 1 Switch Disconnector 63 A, 3 p 1 Single-Phase Transformer 230V/110V (55-0-55V) 1.8KVA
Connection
For 1 cable up to 5 x 16 mm²
Connection and load values
Pre-fuse max. 63 A InA 42 A RDF 0.75
Enclosure size
460 x 260 mm (H x W)
Part no.
8067864

Combination units – Socket strips

Pre-wired for installation, IP44[1] / 67 [1]Regarding portable combination units in IP44 please see page 99 for further information.
Other combinations on request. For drawings and dimensions see page 111.

Fitted with
3 CEE 16 A, 5 p, 400 V

Fusing
1 RCD 0.03 A

Connection
For 1 cable up to 5 x 10 mm²

Connection and load values

Protection type
IP44

Part no.
95472

Fitted with
2 CEE 16 A, 5 p, 400 V
1 SCHUKO® 16 A, 230 V

Fusing

Connection
For 1 cable up to 5 x 10 mm²

Connection and load values

Protection type
IP44

Part no.
96703

Fitted with
3 CEE 16 A, 3 p, 110 V

Fusing

Connection
For 1 cable up to 3 x 10 mm²

Connection and load values

Protection type
IP44

Part no.
96227

Fitted with
3 CEE 16 A, 3 p, 230 V

Fusing

Connection
For 1 cable up to 3 x 10 mm²

Connection and load values

Protection type
IP44

Part no.
96489

4

Socket strips
the versatile units.

Suspendable, portable or for wall mounting. Pre-wired for installation.
With cable gland. Available in IP44.

EverGUM
Flexible safety.

With the EverGUM range MENNEKES provide a solid rubber alternative to enclosures in plastics and sheet steel. This is an alternative which is suitable for the most diverse environments, especially when there is likely to be exposure to rough handling or aggressive cleaning agents. These products can also be supplied to conform to the standards of other European countries.

The outstanding advantages:

- Resistant to weather and ageing
- High dimensional stability and precision
- Good resistance to acids and alkalis
- High dieletric strength and creep resistance

The allround power-packages for mobile use in industry, craft and trade. They can accept quite a knock – neither their design nor their function will be impaired. Additional benefit: they are stackable which allows space-saving storage.

Tested safety, EverGUM details.
The closed lower side of the enclosure with a ground clearance of 77 mm prevents ingress of water. The panel mounted sockets can be replaced from outside. Hinged cover provided with stainless steel quick release clips. MCB's and in RCD´s are immediately accessible after opening the lid. All energised parts even with the lid open are covered so that they are contact safe – in accordance with BGV A3. Screw or padlock offers additional safety.

Socket strip EverGUM.
Window size for six or eight modules for vertical installation.

Combination units – EverGUM

Pre-wired for installation, IP44[1)] [1)] Regarding portable combination units in IP44 please see page 99 for further information.
Fusing behind a transparent cover. Colour: signal yellow. Other variations with CEE sockets 3, 4 or 5 pole and with grounding-type sockets of French/Belgian, British, Swiss and US-standards on request. Dimensions page 111.

Fitted with
3 CEE 16 A, 5 p, 400 V

Fusing

Connection
2 m H07RN-F5G2.5 with
CEE-plug 16 A, 5 p, 400 V

Connection and load values

Protection type
IP44

Part no.
70029

Fitted with
1 CEE 32 A, 3 p, 230 V
4 CEE 16 A, 3 p, 230 V

Fusing
1 RCD/MCB 32 A, 1 p+N, C, 0.03 A
4 MCB´s 16 A, 1 p, C

Connection
1 Inlet 32 A, 3 p, 230 V

Connection and load values
Pre-fuse max. 32 A
InA 32 A
RDF 1

Protection type
IP44

Part no.
7420224

Stainless steel
surface mounted and flush mounted combination units.

Safe. Practical. Timelessly elegant.
- Protection type IP43 or IP44 with closed door, even when plugs are inserted
- The cable guard aperture is sufficiently dimensioned for leading through cables
- Safety lock protects against unauthorised access

CombiTOWER
Outdoors and indoors.

Short routes to your energy source for industry, workshops, assembly shops, loading platforms, etc.

4

Power posts
Rugged. Vandalism-proof.

Steel power posts provide a safe means of energy supply, protection against car-crossing. Hot-dip galvanised and powder coated. Available in various sizes.

Combination units – Stainless steel

CombiTOWER from stainless steel (material 1.4301), material 1.4571 on request.
For drawings and dimensions see page 111.

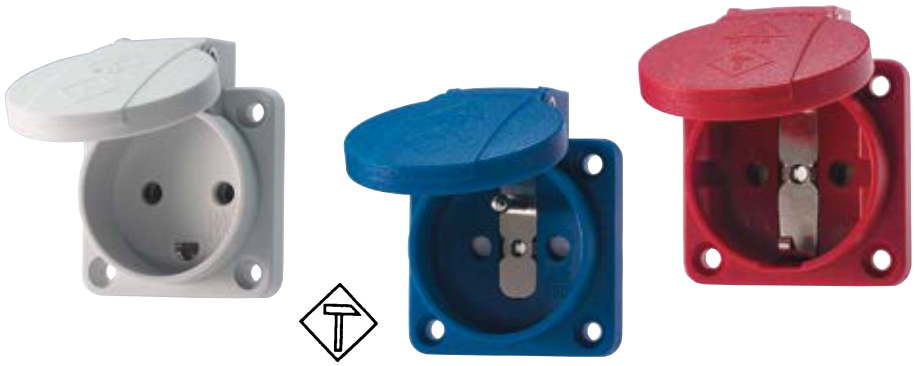
Title
CombiTOWER
Fitted with
with removable cover, painted signal yellow (RAL 1003) or bright finish.
Part no. for AMAXX enclosures 260 x 225 mm, 390 x 225 mm and 520 x 225 mm * Part no. for AMAXX enclosures 650 x 225 mm
Enclosure size
1043 x 254.5 x 250 mm (H x W x D)
Part no.
15679 / * 15739 yellow **15678 / * 15738** bright finish

Title
CombiTOWER
Fitted with
with lockable door and removable cover, painted signal yellow (RAL 1003) or bright finish
Part no. for AMAXX enclosures 260 x 225 mm, 390 x 225 mm and 520 x 225 mm * Part no. for AMAXX enclosures 650 x 225 mm
Enclosure size
1043 x 254 x 415 mm (H x W x D)
Part no.
15681 / * 15741 yellow **15680 / * 15740** bright finish

SCHUKO®

Plugs and sockets for harsh conditions.

SCHUKO® by MENNEKES with the hammer symbol.
Acc. to VDE 0105 part 115. Made of high-grade plastic. Acc. to VDE 0620 for harsh conditions. Application amongst others in agriculture or at construction sites. Resistant against oil, grease and fuel. Long lasting due to high resistance against abrasion and breaking strenght. Durable due to resistance against embrittlement.



Panel mounted sockets SCHUKO® with front gasket for portable units.

The attachment sockets SCHUKO® with sealing collars, from MENNEKES comply with the requirements in the new standard, IEC 620-1.

With the hinged lid closed, they satisfy the requirements for the IP54 degree of protection in every position.

Even with the compatible IP44 plug, plugged-in, the IP44 protection rating is ensured regardless of the operating position

Product advantages:

- retention of the installation dimensions and conditions
- conversion without problems
- flange sealing made of thermoplastic elastomer (TPE)
- captive due to two components technology
- safe against accidental actuation with a finger or the back of the hand according to IEC 60529
- optionally screw or plug-in terminals
- with hammer symbol for toughest conditions
- also available with flange dimensions 75 x 75 mm for cable ducts and flush mounted boxes

SCHUKO®. Pressure watertight.
Whether fixed or mobile: in the event of flooding or water jets, pressure watertight plugs and sockets are the first choice. Protection type IP68.

Special plugs and sockets – SCHUKO® and grounding-type

SCHUKO® to DIN 49440-1, 2 p+E, 230 V. Other versions available on request. For drawings and dimensions see page 100 - 111.

Panel mounted socket SCHUKO®
with hinged lid, 3 plug-in terminals or 3 screw terminals as connecting terminals for 1.5 - 2.5 mm²

IP54
Std. Pack. Qty: 100/20
Drawing: 1 MB 410

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
grey	16	230		11010	11030
blue	16	230		11011	11031
black	16	230		11012	11032
red	16	230		11013	11033
grey	16	230	✓	11060	
blue	16	230	✓	11061	11081

Panel mounted socket SCHUKO® with front gasket
with hinged lid, 3 plug-in terminals or 3 screw terminals as connecting terminals for 1.5 - 2.5 mm²

IP54
Std. Pack. Qty: 100
Drawing: 1 MB 586

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
grey	16	230		11310	11330
blue	16	230		11311	11331
black	16	230		11312	11332
red	16	230		11313	11333

Panel mounted socket SCHUKO®
without hinged lid, 3 plug-in terminals or 3 screw terminals as connecting terminals for 1.5 - 2.5 mm²

IP20
Std. Pack. Qty: 100
Drawing: 1 MB 450

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
blue	16	230		11511	11531
black	16	230		11512	11532
blue	16	230	✓	11561	11581

Wall mounted socket SCHUKO®
with hinged lid, 3 plug-in terminals as connecting terminals for 1.5 - 2.5 mm², sockets can be linked in a row vertically. Slide on top, slot on bottom of enclosure

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 27/30

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
grey	16	230		10081	
blue	16	230		10082	
black	16	230		10083	

Wall mounted socket grounding-type
French/Belgian system (NF) with hinged lid, 3 plug-in terminals as connecting terminals for 1.5 - 2.5 mm², sockets can be linked in a row vertically. Slide on top, slot on bottom of enclosure

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 27/30

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
blue	16	230	✓	10092	

Panel mounted socket grounding-type
French/Belgian system (NF), with hinged lid, 3 plug-in terminals or 3 screw terminals as connecting terminals for 1.5 - 2.5 mm²

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 410

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
grey	16	230		11110	
blue	16	230		11111	11131
grey	16	230	✓	11160	11180
blue	16	230	✓	11161	11181
black	16	230	✓	11162	11182

Special plugs and sockets – SCHUKO® and grounding-type

SCHUKO® to DIN 49440-1, 2 p+E, 230 V. Other versions available on request. For drawings and dimensions see page 100 - 111.

Panel mounted socket grounding-type
French/Belgian system (NF), without hinged lid, 3 plug-in terminals or 3 screw terminals as connecting terminals for 1.5 - 2.5 mm²

IP20
Std. Pack. Qty: 100/20
Drawing: 1 MB 450

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
blue	16	230	✓	11611	
blue	16	230		11661	11681

Panel mounted socket grounding-type
British standard, with hinged lid and seal; flange 50 x 50 mm, fixing holes 38 x 38 mm

IP44
Std. Pack. Qty: 20
Drawing: 1 MB 584

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
blue	13	230	✓		10718

Panel mounted socket grounding-type
British standard, matching cover frame, with hinged lid and seal

IP44
Std. Pack. Qty: 20
Drawing: 1 MB 422

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
black	13	230	✓		10713

Panel mounted socket NEMA
USA and Canada, with hinged lid

IP44
Std. Pack. Qty: 20
Drawing: 1 MB 421

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
blu	15	125			10087

Plug SCHUKO®
with combined PE-conductor acc. to German and French/Belgian standards, with grommet, for cables up to 3 x 2.5 mm² up to H07RN-F

IP44
Std. Pack. Qty: 20

Colour	Ampere	Voltage	Part no.
grey	16	230	10749
black	16	230	10754
orange	16	230	10837
blue	16	230	10838
red	16	230	10839
yellow	16	230	10840
green	16	230	10841

Connector SCHUKO®
with grommet and lid for cables up to 3 x 2.5 mm² up to H07RN-F

IP44
Std. Pack. Qty: 10

Colour	Ampere	Voltage	Part no.
grey	16	230	10751
black	16	230	10755
orange	16	230	10842
blue	16	230	10843
red	16	230	10844
yellow	16	230	10845
green	16	230	10846

Special plugs and sockets – SCHUKO® and grounding-type

to DIN 49442/43 and DIN VDE 0620. Other versions available on request. For drawings and dimensions see page 100 - 111.

Wall mounted socket SCHUKO®
with hinged bayonet lock lid

IP68
Std. Pack. Qty: 10
Drawing: 1 MB 347

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
blue / grey	16	230			10863

Panel mounted socket SCHUKO® or NF
with hinged bayonet lock lid, rectangular flange, four fixing holes or two stamped recesses for quick perforation

IP68
Std. Pack. Qty: 10
Drawing: 1 MB 627

Colour	Ampere	Voltage	with shutter	plug-in terminals	screw terminals
blue / grey	16	230		17002	17006
blue / grey	16	230	✓		17014

Plug SCHUKO®
combined PE-conductor acc. to German and French/Belgian standards, with bayonet ring, with protective cap attached by a strap, for cables up to 3 x 2.5 mm², up to H07RN-F

IP68
Std. Pack. Qty: 10

Colour	Ampere	Voltage	plug-in terminals	screw terminals
blue / grey	16	230		10828

Connector SCHUKO®
with bayonet lock lid attached by a strap, for cables up to 3 x 2.5 mm², up to H07RN-F

IP68
Std. Pack. Qty: 10

Colour	Ampere	Voltage	plug-in terminals	screw terminals
blue / grey	16	230		10833

7 pole

For multifunctional applications.

These 7 pole plugs and sockets provide solutions where there are multifunctional requirements in industry, farming and commerce.

This number of poles provides solutions in the following fields:

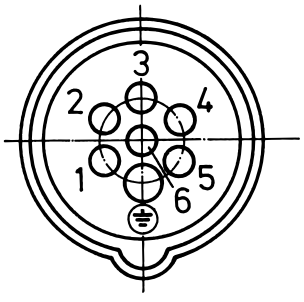
- Star-delta start-up
- Closed loop control
- Open loop control
- Monitoring
- Detection and alarms
- Clearing alarms
- Electrical interlocking

Position of ground contact tube with respect to polarisation keyway, designated by clockface position for 6 p + ⏚, 16 A and 32 A.

5

Frequency Hz	Rated operating voltage V	Position of ground contact
100 to 300	above 50	10
above 300 to 500	above 50	2
50	110	4
	230	9
	400	6
	500	7
50	220 to 240 downstream from isolating transformer	12

6 p+ ⏚



6 p+ ⏚

Special plugs and sockets – 7 pole

to DIN VDE 0623-1, EN 60309-1. Colour: light grey and/or colour code. Highly resistant to chemicals. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Wall mounted socket
with highly heat resistant contact carrier, nickel plated contacts, internal fixing, enclosure base can be turned 180°

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 43/257

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz
16	7	733	734	1035
32	7	735	736	1040

Wall mounted socket
highly resistant to chemicals, highly heat resistant contact carrier, nickel plated contacts, 2 external fixings, enclosure can be turned 180°

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 622

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz
16	7	9530	9531	9532
32	7	9590	9591	9592

Wall mounted socket
switched, mechanical DUO-interlock, highly heat resistant contact carrier, nickel plated contacts, 6 pole switch with 2 auxiliary contacts (1 NO and 1 NC), sockets can be padlocked

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 382

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz
16	7		7306	
32	7		7307	

Panel mounted socket
highly heat resistant contact carrier, nickel plated contacts, 20° inclination

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 260

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz
16	7	737	738	1045
32	7	739	740	1050

Panel mounted socket
highly heat resistant contact carrier, nickel plated contacts, 20° inclination

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 251

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz
16	7	2883	2459	2296
32	7	3775	2317	2212

Plug AM-TOP
highly heat resistant contact carrier, nickel plated contacts, single part body, cable gland and sealing, strain relief and protection against kinking

IP44
Std. Pack. Qty: 10

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz
16	7	741	742	1055
32	7	743	744	1060

Special plugs and sockets – 7 pole

to DIN VDE 0623-1, EN 60309-1. Colour: light grey and/or colour code. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Plug AM-TOP
highly heat resistant contact carrier, nickel plated contacts, single part body, cable gland and sealing, strain relief and protection against kinking

IP67
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	7		3776	3777	3913		
32	7		2405	2324	2213		

Wall mounted inlet
highly heat resistant contact carrier, nickel plated contacts

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 147

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	7			2166			
32	7			2167			

Panel mounted inlet
highly heat resistant contact carrier, nickel plated contacts

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 71

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	7		749	750	1075		
32	7		751	752	1080		

Panel mounted inlet
highly heat resistant contact carrier, nickel plated contacts, with protective cap

IP67
Std. Pack. Qty: 10
Drawing: 2 MB 203

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	7			3914			
32	7			3915			

Connector AM-TOP
with highly heat resistant contact carrier, nickel plated contacts, single part body, cable gland and sealing, strain relief and protection against kinking

IP44
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	7		745	746	1065		
32	7		747	748	1070		

Connector AM-TOP
highly heat resistant contact carrier, nickel plated contacts, single part body, cable gland and sealing, strain relief and protection against kinking

IP67
Std. Pack. Qty: 10

A	P	110 V 50 a. 60 Hz	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	500 V 50 a. 60 Hz	>50 - 500 V 100-300 Hz	>50 - 500 V 300-500 Hz
16	7		3783	3916	3784		
32	7		2406	2255	2460		

5

Special plugs and sockets – 600 V to 690 V

to DIN VDE 0623-1, EN 60309-1. Colour: grey

Plug PowerTOP Xtra R with ErgoCONTACT

screw terminals ErgoCONTACT, highly heat resistant contact carrier, nickel plated contacts, ergonomic enclosure design with nubbed grip areas, rubberised cable gland with sealing, thread lock and safety slide

IP54
Std. Pack. Qty: 10

A	P	600 - 690 V 50 a. 60 Hz
16	5	13599
32	5	13610

Connector PowerTOP Xtra R with ErgoCONTACT

screw terminals ErgoCONTACT, X-CONTACT, highly heat resistant contact carrier, nickel plated contacts, ergonomic enclosure design with nubbed grip areas, rubberised cable gland with sealing

IP54
Std. Pack. Qty: 10

A	P	600 - 690 V 50 a. 60 Hz
16	5	14599

Plug PowerTOP Xtra R

screw terminals, highly heat resistant contact carrier, nickel plated contacts, rubberised grip area, cable gland and sealing, enclosure with thread lock and safety slide, strain relief and protection against kinking

IP67
Std. Pack. Qty: 10

A	P	600 - 690 V 50 a. 60 Hz
63	4	13236
63	5	13237
125	4	13238
125	5	13239

Special plugs and sockets – Special 1 h clock position

to DIN VDE 0623-1, EN 60309-1. Colour: grey

Plug PowerTOP Xtra R with ErgoCONTACT

screw terminals ErgoCONTACT, highly heat resistant contact carrier, nickel plated contacts, ergonomic enclosure design with nubbed grip areas, rubberised cable gland with sealing, thread lock and safety slide

IP54

Std. Pack. Qty: 10

A	P	50 - 500 V
16	5	13597
32	5	13609

Connector PowerTOP Xtra R with ErgoCONTACT

screw terminals ErgoCONTACT, X-CONTACT, highly heat resistant contact carrier, nickel plated contacts, ergonomic enclosure design with nubbed grip areas, rubberised cable gland with sealing

IP54

Std. Pack. Qty: 10

A	P	50 - 500 V
16	5	14597
32	5	14609

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

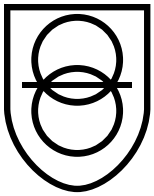
Low voltages.

When portable electric appliances are used in environments where conductive materials are present and where movement is restricted, they must be operated at low voltage or they must be electrically isolated, e.g. in or on boilers, containers, pipework systems, steel scaffolding or similar installations. The same applies to rooms containing exposed conductive materials. Portable lamps must be operated at low voltage.

Stationary appliances may be operated at a safe low voltage or they may be electrically isolated, e.g. lamps installed temporarily for maintenance purposes, cleaning or other types of work, which are connected to the power supply by means of movable cables. Only use tools of protection type II or III. Also, lamps for barrels and movable lamps for ovens must be operated at low voltage.

Furthermore, low voltage 25 V AC should be used for all mobile appliances without insulation which are used on animals, e.g. shears, milking machines, etc.

Requirements on plugs and sockets for low voltages.
Plugs and sockets must be different from those used at other voltages and must not be provided with an earth contact (VDE 0100 part 410:1997-01).



Wall mounted socket

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 294

A	P	20 - 25 V 50 a. 60 Hz	40 - 50 V 50 a. 60 Hz	20 - 25 V 40 - 50 V 100-200 Hz	20 - 25 V 40 - 50 V ⎓
16	2	1825	1831		1829
16	3	1832	1837	1835	
32	2	1838	1844		1842
32	3	1845	1850	1848	

Wall mounted socket

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 137

A	P	20 - 25 V 50 a. 60 Hz	40 - 50 V 50 a. 60 Hz	20 - 25 V 40 - 50 V 100-200 Hz	20 - 25 V 40 - 50 V ⎓
16	2	577	578		583
16	3	584	585	586	
32	2	590	591		596
32	3	597	598	599	

Special plugs and sockets – For low voltage

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Panel mounted socket
flange 55 x 55 mm, straight

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 136

A	P	20 - 25 V 50 a. 60 Hz	40 - 50 V 50 a. 60 Hz	20 - 25 V 40 - 50 V 100-200 Hz	20 - 25 V 40 - 50 V ⎓
16	2	603	604		609
16	3	610	611	612	
32	2	616	617		622
32	3	623	624	625	

Panel mounted socket
flange 75 x 75 mm, straight

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 292

A	P	20 - 25 V 50 a. 60 Hz	40 - 50 V 50 a. 60 Hz	20 - 25 V 40 - 50 V 100-200 Hz	20 - 25 V 40 - 50 V ⎓
16	2	1602	1603		2617A
16	3	1657	1661	1823	
32	2	1693	3290		2488A
32	3	1594		1579	

Panel mounted socket
flange 68 x 62 mm, 20° inclination

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 231

A	P	20 - 25 V 50 a. 60 Hz	40 - 50 V 50 a. 60 Hz	20 - 25 V 40 - 50 V 100-200 Hz	20 - 25 V 40 - 50 V ⎓
16	2	1270	2855		2841
16	3	2845	1272	2860	
32	2	1271	2864		2869
32	3	2870	1273	2852	

Panel mounted socket
20° inclination

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 236

A	P	20 - 25 V 50 a. 60 Hz	40 - 50 V 50 a. 60 Hz	20 - 25 V 40 - 50 V 100-200 Hz	20 - 25 V 40 - 50 V ⎓
32	3			2837	

5

Special plugs and sockets – For low voltage

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 100 - 111.

Plug
with cable gland

IP44
Std. Pack. Qty: 10

A	P	20 - 25 V 50 a. 60 Hz	40 - 50 V 50 a. 60 Hz	20 - 25 V 40 - 50 V 100-200 Hz	20 - 25 V 40 - 50 V ⎓
16	2	655A	656A		661A
16	3	662A	663A	664A	
32	2	668A	669A		674A
32	3	675A	676A	677A	

Wall mounted inlet

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 160

A	P	20 - 25 V 50 a. 60 Hz	40 - 50 V 50 a. 60 Hz	20 - 25 V 40 - 50 V 100-200 Hz	20 - 25 V 40 - 50 V ⎓
16	2	1955	1961		1959
16	3	1962	1967	1965	
32	2	1968	1974		1972
32	3	1975	1980	1978	

Connector
with cable gland

IP44
Std. Pack. Qty: 10

A	P	20 - 25 V 50 a. 60 Hz	40 - 50 V 50 a. 60 Hz	20 - 25 V 40 - 50 V 100-200 Hz	20 - 25 V 40 - 50 V ⎓
16	2	707A	708A		713A
16	3	714A	715A	716A	
32	2	720A	721A		726A
32	3	727A	728A	729A	

Special plugs and sockets – Isolating transformer 12 h

Color: grey. Other voltages and frequencies on request.

Plug PowerTOP Xtra R with ErgoCONTACT

screw terminals ErgoCONTACT, highly heat resistant contact carrier, nickel plated contacts, ergonomic enclosure design with nubbed grip areas, rubberised cable gland with sealing, thread lock and safety slide

IP54

Std. Pack. Qty: 10

A	P	Isolating transformer
16	5	13601
32	5	13613

Connector PowerTOP Xtra R with ErgoCONTACT

screw terminals ErgoCONTACT, X-CONTACT, highly heat resistant contact carrier, nickel plated contacts, ergonomic enclosure design with nubbed grip areas, thread lock and safety slide

IP54

Std. Pack. Qty: 10

A	P	Isolating transformer
16	5	14601

5

160 A - 600 A

Heavy duty versions for industry.

The heavy duty range supplements the plugs and sockets currently covered by EN 60309-2, making available rated currents of 160 A - 600 A and rated voltages of up to 1000 V. Their design is based on the following standard: EN 60309-1.

- Shock hazard protected using contact covers on sockets and connectors
- Surface protection against corrosive environment for contacts
- Mechanical lock and electrical lock with fuse protection for specific heavy duty sockets

Visit our website to explore our entire range of heavy duty products for 160 A - 600 A.

You can find our heavy duty versions on our website:
www.MENNEKES.co.uk/heavydutyversions

Protection type IP44.
The right choice for control stations, storage areas, laboratories, airports, production lines, etc. Cepex data port sockets are operated with standard patch cables and can be combined with Cepex sockets CEE and/or SCHUKO®. For wall-/panel mounting or installation in cable ducts.

Cepex data port sockets.

1 The bottom part of the enclosure can be turned by 180 degrees, which allows cable insertion from above or below without additional work.

2 Protection type IP44 with closed cover or with plug inserted.

3 Suitable for double RJ45 ports, Cat. 3 to Cat. 7 and manufacturerindependent RJ45 Keystones. Openings according to IEC 60603-7.

4 Lockable even with connected cables. The safety lock prevents unauthorized access.

5 Visible labeling field.

Simple:
All types are equipped with a membrane gland fitting M 25 for two cables 3-9 mm.
Simply push in the cable – done!

Extra:
A metric cable gland M 25 / 2 x 8 is optionally available.

Title
Network enclosure AMAXX
Fitted with
2 Cepex enclosures (part no.: 4345G) prepared for 4 RJ45 connection modules, type E-DAT module or OpDAT module LC or ST (brand BTR - Not in scope of supply)
Cable entry: 2 x M 25 at the top (closed), 2 x M 25 at the bottom (closed) and 2 x M 20 top and bottom (closed)
Network enclosure AMAXX also available with 1 Cepex enclosure (part no.: 25104, 25104GE)
Enclosure size
130 x 225 mm (H x W)
Part no.
25102GE yellow **25102** light grey

Special plugs and sockets – Energy and data

Colours: light grey (RAL 7035), pure white (RAL 9010), grey (RAL 9006), deep black (RAL 9005). For drawings and dimensions see page 100 - 111.

Cepex enclosure, light grey
as wall mounted socket, for installation of RJ45 data port sockets, 2 keys, identical lock: Part no. + Index “G“

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 313

Brand	Type	Data module	Part no.
AMP	Twist	—	4350 [1]
AMP	Jack	2 x 41457	4360
AMP	CO Plus	—	4370 *
BTR	E-DAT module	2 x 41455	4340 [3]
Rutenbeck	iso-8/8 Up0S	1 x 41492	4320
TKM	KDMF	1 x 41452	4300 [1]
Reichle & De-Massari	Module Real 10	2 x 25056	4375 [2]

Cepex enclosure, light grey
as panel mounted socket, for installation of RJ45 data port sockets, 2 keys, identical lock: Part no. + Index “G“

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 305

Brand	Type	Data module	Part no.
AMP	Twist	—	4352 [1]
AMP	Jack	2 x 41457	4362
AMP	CO Plus	—	4372 *
BTR	E-DAT module	2 x 41455	4342 [3]
Rutenbeck	iso-8/8 Up0S	1 x 41492	4322
TKM	KDMF	1 x 41452	4302 [1]
Reichle & De-Massari	Module Real 10	2 x 25056	4377 [2]

Cepex enclosure, pure white
as panel mounted socket, for installation of RJ45 data port sockets, 2 keys, identical lock: Part no. + Index “G“

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 305

Brand	Type	Data module	Part no.
AMP	Twist	—	4354 [1]
AMP	Jack	2 x 41457	4364
AMP	CO Plus	—	4374 *
BTR	E-DAT module	2 x 41455	4344 [3]
Rutenbeck	iso-8/8 Up0S	1 x 41492	4324
TKM	KDMF	1 x 41452	4304 [1]

Cepex enclosure, grey
as panel mounted socket, for installation of RJ45 data port sockets, 2 keys, identical lock: Part no. + Index “G“

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 305

Brand	Type	Data module	Part no.
Rutenbeck	iso-8/8 Up0S		4326

Cepex enclosure, deep black
as panel mounted socket, for installation of RJ45 data port sockets, 2 keys, identical lock: Part no. + Index “G“

IP44
Std. Pack. Qty: 5
Drawing: 1 MB 305

Brand	Type	Data module	Part no.
BTR	Module E-DAT	2 x 41455	4345 [3]
Rutenbeck	iso-8/8 Up0S	1 x 41492	4367
Reichle & De-Massari	Module Real 10	2 x 25056	4378 [2]

[1] Cepex enclosures also suited for data modules of Telegärtner (AMJ 45 Up/O, cat.6a) and Nexans (LANmark-6 Snap-in Connector with fixing ring Modular Outlet 50).

[2] Cepex enclosures also suited for the connection modules Telegärtner (AMJ/UMJ cat.6+, Setec (XKJ), Corning (FutureCOM S10TENe Keystone), Dätwyler (KS-T6A, MS-K, PS-GG45), Rutenbeck (UM real cat.6a, A), LEONI MegaLine, Keystone.

[3] Cepex enclosures also suited for LEONI MegaLine.

* The data inserts/modules AMP CO Plus are not part of the MENNEKES delivery program!

Overview of mounting options for RJ45 modules in empty Cepex enclosures.

RJ45 modules and Keystones			Cepex panel mounted socket																Cepex surface-mounted socket						
Brand	Type	Part no. data module	Part no. enclosure Light grey (RAL 7035)							Part no. enclosure Pure white (RAL 9010)						Part no. enclo-sure Deep black (RAL 9005)			Part no. enclosure Grey (RAL 9006)	Part no. enclosure Light grey (RAL 7035)						
			4302	4322	4342	4352	4362	4372	4377*	4304	4324	4344	4354	4364	4374	4345	4367	4378*	4326	4300	4320	4340	4350	4360	4370	4375*
AMP	**Jack**	**41557**					●							●										●		
AMP	CO Plus							●							●										●	
Telegärtner	AMJ 45 Up/O		●			●				●										●			●			
Telegärtner	AMJ/UMJ module								●									●								●
Nexans	LANmark connector		●			●				●			●							●			●			
BTR	**E-DAT module**	**41455**			●							●				●						●				
Rutenbeck	**iso-8/8 UP0S**	**41492**		●							●						●		●		●					
Rutenbeck	UM real								●									●								●
TKM	**KDMF**	**41452**	●							●										●						
Reichle & De-Massari	**Module Real 10**	**25056**							●									●								●
Setec	XKJ								●									●								●
Corning	FutureCom								●									●								●
Dätwyler	KS-T6A								●									●								●
LEONI	MegaLine				●				●			●				●		●				●				●

* Keystones

Our keystone-variations can be fitted with **supplier independent** modules. Beside RJ45 modules a large variety of electrical and optical connections for data transmission can be fitted.

5

Data module

BTR, type: RJ45 connection module 270° (type E-DAT module 8(8) jack cat.6), suitable for Cepex data port sockets, part no. 4340, 4342, 4344, 4355, strain relief per locking clip directly on the stuffer cap

Std. Pack. Qty: 20

Part no.
41455

Data module

AMP, type: RJ45 connection module (type Cat.6 SL Jack), suitable for Cepex data port sockets, part no. 4360 and versions

Std. Pack. Qty: 12

Part no.
41457

Data module

Reichle & De-Massari, type: data port sockets insert Real 10, Cat.6, screened, including frame for snap-in, suitable for Cepex data port sockets, Part no. 4375 and versions

Std. Pack. Qty: 10

Part no.
25056

Data module

Rutenbeck, type: data port insert 2 x RJ45, Cat.6a, (type UP0S), suitable for Cepex data port sockets, Part no. 4320 and versions

Std. Pack. Qty: 10

Part no.
41492

Data module

TKM, type: data port insert 2 x RJ45, Cat.6, (type KDMF), suitable for Cepex data port sockets, Part no. 4300 and versions

Std. Pack. Qty: 10

Part no.
41452

Data module

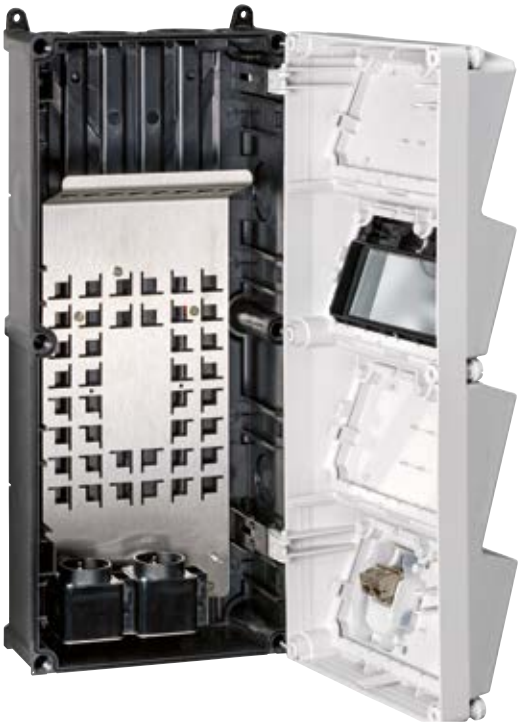
RJ45 connection module, type E-DAT module, connector 8(8) 90°, Cat.6 (recommended for improved cable routing), for Cepex data port sockets

Std. Pack. Qty: 10

Part no.
25042

Protection type IP44.
Pre-wired for installation, enclosure front cover light grey RAL 7035, yellow (GE) RAL 1021 also available on request. Enclosure hinged to the side.

MENNEKES network distributor.



With the new industrial network distributor from the AMAXX family, MENNEKES offers a product for the expansion of network solutions.

By using a robust plastic enclosure, the installation of standard network components is possible in more demanding environments, such as those that prevail in trade and industry, with regard to protection class, mechanical influences or similar factors.

Existing networks can thus be quickly expanded, while smaller networks can easily be rebuilt. The user can act freely in the selection of active network components and Keystones. Hence the preferred switches or routers can be easily and safely attached to the integrated mounting plate. The patch panel for mounting up to eight Keystones can be equipped with RJ45 sockets or other inserts.

Two SCHUKO® sockets integrated into the enclosure are used for the power supply of the active network components. Another advantage for the user: After the power supply has been connected by the qualified electrician, the further equipping and manipulation of the enclosure can be performed by laymen in the field of electrical technology.

Fitted with

Patch and mounting panel with threaded ground bolt M 6 for the optional connection of an external ground conductor

2 SCHUKO® sockets for the power supply of active network components

1 Cepex data port socket (deep black RAL 9005) with 2 RJ45 right angle connector modules for direct connection of patch cables

4 Velcro connectors for fastening installed components on the base plate

2 screw fittings M 40 with multiple seal, 6 openings for a cable diameter of 6-9 mm including 5 each blanking plugs

1 screw fitting M 20

1 screw set

Enclosure size

520 x 225 mm (H x W)

Part no.

25405

AMAXX cable gland set

enclosed with each media distributor
Deep black RAL 9005,
2 screw fittings M 40
2 multiple seals with
6 openings for a cable diameter of 6-9 mm
including each 5 blind plugs
1 screw fitting M 20

Velcro connector

enclosed with each media distributor
Set of 4 Velcro connectors for fastening installed components on the base plate

Plugs and sockets for reefer containers

On ships and in terminals.

AM-TOP plugs and connectors.
Stable enclosure consisting of one part. The teeth on the cable gland secure a safe grip and protect against loosening. The cable gland serves as an anti-bend protection for the cables at the same time.

Wall mounted sockets, switched and interlocked.
Sockets with the patented, mechanical DUO-interlocking ensure that the socket can only be switched when inserting a plug.

Combination units with sockets, switched and interlocked.

380-440V

32 A

3 h

3 p+ ⏚

Special plugs and sockets – For reefer containers

Ground contact at 3 o'clock position conforming to DIN VDE 0623, EN 60309-2. Highly resistant to chemicals.
Other versions available on request. For drawings and dimensions see page 100 - 111.

Wall mounted socket
highly resistant to chemicals, with highly heat resistant contact carrier and nickel plated contacts

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 622

A	P	380 - 440 V 50 a. 60 Hz
32	4	9562

NEW

Wall mounted socket R
with highly heat resistant contact carrier and nickel plated contacts, switched, with mechanical DUO-interlock

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 714

A	P	380 - 440 V 50 a. 60 Hz
32	4	5704403G

Wall mounted socket
with highly heat resistant contact carrier and nickel plated contacts, switched, with mechanical DUO-interlock and DIN rail, protected by 1 RCD 30 mA

IP67
Std. Pack. Qty: 2
Drawing: 1 MB 181/620

A	P	380 - 440 V 50 a. 60 Hz
32	4	5946AN

Panel mounted socket
with highly heat resistant contact carrier and nickel plated contacts, flange 85 x 75 mm, straight

IP67
Std. Pack. Qty: 10
Drawing: 1 MB 141

A	P	380 - 440 V 50 a. 60 Hz
32	4	2123A

Plug AM-TOP
with highly heat resistant contact carrier and nickel plated contacts, with screw terminals and single part body

IP67
Std. Pack. Qty: 10

A	P	380 - 440 V 50 a. 60 Hz
32	4	2175B

Phase sequence test plug
earthing contact in the 3 o'clock position, conforming to VDE 0413 part 7

IP44
Std. Pack. Qty: 5

A	P	380 - 440 V 50 a. 60 Hz
32	4	3718

5

Special plugs and sockets – For reefer containers

Ground contact at 3 o'clock position conforming to DIN VDE 0623, EN 60309-2.
Other versions available on request. For drawings and dimensions see page 100 - 111.

Panel mounted inlet
with highly heat resistant contact carrier and nickel plated contacts, with hinged lid

IP67
Std. Pack. Qty: 10
Drawing: 2 MB 40

A	P	380 - 440 V 50 a. 60 Hz
32	4	2692

Connector AM-TOP
with highly heat resistant contact carrier and nickel plated contacts, with screw terminals and single part body

IP67
Std. Pack. Qty: 10

A	P	380 - 440 V 50 a. 60 Hz
32	4	2177A

Protective cap
for plugs 32 A, 4 p

Std. Pack. Qty: 10

Part no.
40841

Houlder
for plugs 32 A, 4 p

Std. Pack. Qty: 10

Part no.
41342

5

Special plugs and sockets – For reefer containers

Protection type IP67.
Ground contact at 3 o'clock position conforming to DIN VDE 0623, EN 60309-2. Other versions available on request. Sockets switched, with mechanical DUO-interlock with highly heat resistant contact carrier and nickel plated contacts. For drawings and dimensions see page 109 - 110..
It is self - evident for us to offer customized solutions which are especially made for your demand. Please contact us!

AIDAbella, Jos. L. Meyer-Werft, Papenburg, Germany

CEE sockets

3 CEE 32 A, 4 p, 380-440 V, 3 h
For reefer containers, switched, with mechanical DUO-interlock

CEE sockets

Sockets British standard

Fusing

3 MCB's 32 A, 3 p, C
1 earth bolt M 10, V2A

Connection

For 1 cable up to 5 x 25 mm²

Connection and load values

Pre-fuse max. 100 A
I_{nA} 58 A
RDF 0.6

Enclosure size

520 x 225 mm (H x W)

Part no.

940027

Jos. L. Meyer-Werft, Papenburg, Germany

5

to DIN EN 60309-2, colour: bronze-green RAL 6031-F9. Other voltages and frequencies available on request.
For drawings and dimensions see page 100 - 111.

Defence Equipment Standard 96919 and 96926.

MENNEKES TM plugs and sockets, colour bronze-green RAL 60301, have been designed to stand up to especially tough conditions. TM plugs and sockets in accordance with VG 96919 or VG 96926 are suitable for use at ambient temperatures from -35 °C to +60 °C. At ambient temperatures over +40 °C the rated current must be reduced.

Panel mounted socket TM
highly heat resistant contact carrier, nickel plated contacts, straight, (form AS)
63 A: X-CONTACT

IP67
Std. Pack. Qty: 10/5
Drawing: 1 MB 217/1

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	440 V- 460 V 60 Hz	>50 - 500 V >300-500 Hz
16	3	**22928** AS013			
16	5		**20458** AS001	**23163** AS003	**23175** AS004
32	3	**23293A** AS042			
32	5		**20459** AS005		**23176** AS008
63	5		**20460** AS009	**23165** AS011	**23177** AS012

Panel mounted socket TM
X-CONTACT, highly heat resistant contact carrier, nickel plated contacts, straight, (form AS)

IP67
Std. Pack. Qty: 5
Drawing: 1 MB 212/258

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	440 V- 460 V 60 Hz	>50 - 500 V >300-500 Hz
125	5		**23432** AS014		

Panel mounted socket TM
highly heat resistant contact carrier, nickel plated contacts, 20° inclination, (form BS)
63 A: X-CONTACT

IP67
Std. Pack. Qty: 10/5
Drawing: 1 MB 474

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	440 V- 460 V 60 Hz	>50 - 500 V >300-500 Hz
16	3	**24630** BS017			
16	5		**24640** BS001		**24643** BS004
32	3	**24730** BS042			
32	5		**24740** BS005		
63	5		**24840** BS009		

Panel mounted socket TM
X-CONTACT, highly heat resistant contact carrier, nickel plated contacts, 15° inclination, (form BS)

IP67
Std. Pack. Qty: 5
Drawing: 1 MB 339

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	440 V- 460 V 60 Hz	>50 - 500 V >300-500 Hz
125	5		**22189A** BS013		

Special plugs and sockets – TM for military purpose

to DIN EN 60309-2, colour: bronze-green RAL 6031-F9. Other voltages and frequencies available on request.
For drawings and dimensions see page 100 - 111.

Plug AM-TOP TM
highly heat resistant contact carrier, nickel plated contacts, with protective cap, (form CP)

IP67
Std. Pack. Qty: 10

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	440 V- 460 V 60 Hz	>50 - 500 V >300-500 Hz
16	3	**24660** CP017			
16	5	**24671** CP002	**24670** CP001	**24672** CP003	
32	3	**24760** CP042			
32	5		**24770** CP005	**24772** CP007	**24773** CP008

Plug PowerTOP Xtra TM
rubberised grip area, frame terminals, highly heat resistant contact carrier, nickel plated contacts, cable gland and sealing, strain relief and protection against kinking, enclosure with thread lock, two safety slides, with protective cap, (form CP)

IP67
Std. Pack. Qty: 5

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	440 V- 460 V 60 Hz	>50 - 500 V >300-500 Hz
63	5		**24870** CP009		**24873** CP012
125	5		**24970** CP013		**24973** CP016

Panel mounted inlet TM
highly heat resistant contact carrier, nickel plated contacts, with protective cap, (form BP)

IP67
Std. Pack. Qty: 10/5
Drawing: 2 MB 62/1

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	440 V- 460 V 60 Hz	>50 - 500 V >300-500 Hz
16	3	**24210** BP013			
16	5		**20461** BP001		
32	3	**23249** BP042			
32	5		**20462** BP005		
63	5		**20463** BP009		

Panel mounted inlet TM
highly heat resistant contact carrier, nickel plated contacts, with protective cap, (form AP)

IP67
Std. Pack. Qty: 5
Drawing: 2 MB 206

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	440 V- 460 V 60 Hz	>50 - 500 V >300-500 Hz
125	5		**23433**		

Connector AM-TOP TM
highly heat resistant contact carrier, nickel plated contacts, with protective cap, (form DS)

IP67
Std. Pack. Qty: 10

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	440 V- 460 V 60 Hz	>50 - 500 V >300-500 Hz
16	3	**24675** DS017			
16	5	**24686** DS002	**24685** DS001	**24687** DS003	
32	3	**24775** DS042			
32	5		**24785** DS005	**24787** DS007	**24788** DS008

Connector PowerTOP Xtra TM
X-CONTACT,
rubberised grip area, frame terminals, highly heat resistant contact carrier, nickel plated contacts, cable gland and sealing, strain relief and protection against kinking, enclosure with thread lock, two safety slides, with protective cap, (form DS)

IP67
Std. Pack. Qty: 5

A	P	230 V 50 a. 60 Hz	400 V 50 a. 60 Hz	440 V- 460 V 60 Hz	>50 - 500 V >300-500 Hz
63	5		**24885** DS009		**24888** DS012
125	5		**24985** DS013		**24988** DS016

5

Special plugs and sockets – Camping

For drawings and dimensions see page 100 - 111.

Wall mounted socket with TwinCONTACT

screwless spring terminal, external fixing

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 463

Description	Part no.
16 A, 3 p, 230 V	1341

Panel mounted socket

with eyelet, 20° inclination,
flange: 68 x 62 mm,
fixing hole spacing: 47 x 47 mm

IP44
Std. Pack. Qty: 10
Drawing: 1 MB 456

Description	Part no.
16 A, 3 p, 230 V	851
Plug with eyelet 16 A, 3 p, 230 V, for panel mounted socket 851	852

Plug ProTOP

cable gland and sealing, strain relief and protection against kinking, enclosure with thread lock and safety slide

IP44
Std. Pack. Qty: 10

Description	Part no.
16 A, 3 p, 230 V	13502

Built-in Plug

nickel plated contacts

IP44
Std. Pack. Qty: 10
Drawing: 2 MB 70

Description	Part no.
16 A, 3 p, 230 V, Lid: electric grey	8001
16 A, 3 p, 230 V, Lid: black	8008
Counter frame for built-in plugs CaraCONTACT 8001 and 8008	40744

Connector ProTOP

cable gland and sealing, strain relief and protection against kinking, enclosure with thread lock and safety slide

IP44
Std. Pack. Qty: 10

Description	Part no.
16 A, 3 p, 230 V	14502

Angled connector

with grommet

IP44
Std. Pack. Qty: 10

Description	Part no.
16 A, 3 p, 230 V	1438

Special plugs and sockets – Switch disconnectors made of AMELAN

Disconnecting property in acc. with EN 60947 (up to 690 V). Finger protection in acc. with DIN 57106 / VDE 0106 T.100. Products with additional aux.contact (1 x NO and 1 x NC). For drawings and dimensions see page 100 - 111.

Switch disconnector
rigid enclosures, ample space for wiring, padlocking facilities, excellent switching capacity, open terminals and captive terminal screws

IP67
Std. Pack. Qty: 1
Drawing: 1 MB 412/3

Rated Current Ampere	Poles	Auxiliary contact	BS Motor rating AC3/440 V kilowatt	Part no.
25	3		7,5	52241
25	3	✓	7,5	52242
40	3		18,5	52243
40	3	✓	18,5	52244
80	3		30.0	52245
80	3	✓	30.0	52246

Characteristics switch disconnector								
			without aux. contact	with aux. contact	without aux. contact	with aux. contact	without aux. contact	with aux. contact
Part numbers			**52241**	**52242**	**52243**	**52244**	**52245**	**52246**
Rated operational voltage U_e								
IEC / EN / VDE / SEV			690 V		690 V		690 V	
Main switch: Isol. voltage up to			690 V		690 V		690 V	
Rated continuous current I_u								
IEC / EN / VDE			25 A		40 A		80 A	
Rated operational current I_e								
IEC / EN			25 A		40 A		80 A	
Rated operational current at 50 up to 60 Hz								
AC-23A	IEC / EN / VDE							
	3 phase	220-240 V	5.5 kW		11.0 kW		18.5 kW	
	3 pole	380-440 V	11.0 kW		22.0 kW		18.5 kW	
		600-690 V	11.0 kW		18.5 kW		30.0 kW	
AC-3	IEC / EN / VDE							
	3 phase	220-240 V	4.0 kW		7.5 kW		15.0 kW	
	3 pole	380-440 V	7.5 kW		18.5 kW		30.0 kW	
		600-690 V	7.5 kW		15.0 kW		30.0 kW	
Rated breaking capacity								
AC-23 A / AC-3 motor switch		220-240 V	220 A		350 A		550 A	
		380-440 V	220 A		350 A		550 A	
		600-690 V	135 A		190 A		285 A	
Maximum fuse size (gL)			35 A		63 A		80 A	
Terminal cross section								
Single / multiple wire		min.	1.0 mm²		4.0 mm²		6.0 mm²	
		max.	6.0 mm²		16.0 mm²		35.0 mm²	
Fine-strand wire with sleeve		min.	0.75 mm²		2.5 mm²		6.0 mm²	
		max.	4.0 mm²		10.0 mm²		25.0 mm²	

Characteristics auxiliary contacts					
Part numbers			**52242**	**52244**	**52246**
Auxiliary module			500 V	690 V	690 V
Rated operational voltage U_e					
Rated continuous current I_u			16 A	16 A	16 A
Rated operational current I_e		220-240 V			
AC-15A	IEC / EN	380-440 V	2.5 A / 1.5 A	6 A / 3 A	6 A / 4 A
Terminal cross section					
Single / multiple wire		min.	1.0 mm²	1.0 mm²	1.0 mm²
Fine-strand wire with sleeve		max.	1.5 mm²	2.5 mm²	2.5 mm²

5

Hinged window
without protective cover,
with knurled screws,
frame colour electric grey,
window smoked glass

IP44
Std. Pack. Qty: 100

Description	Part no.
2 modules	40444
5 modules 40871 without springs to close window automatically	40871

Hinged window
without protective cover,
with knurled screws,
frame colour electric grey,
window smoked glass

IP44
Std. Pack. Qty: 50

Description	Part no.
5 modules without springs to close window automatically	40243

Hinged window
without protective cover,
with knurled screws,
frame colour electric grey,
window smoked glass

IP67
Std. Pack. Qty: 50

Description	Part no.
6 modules	40985
8 modules	40978
12 modules	40980

Hinged window
without protective cover,
with knurled screws,
frame colour black,
window smoked glass

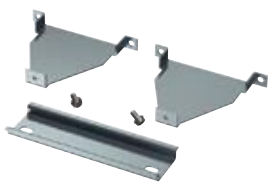
IP67
Std. Pack. Qty: 50

Description	Part no.
6 modules	40985ZB
8 modules	40978ZA
12 modules	40980ZC

Hinged window
without protective cover,
with knurled screws,
frame colour electric grey,
window smoked glass

IP67
Std. Pack. Qty: 50

Description	Part no.
6 modules	40986
8 modules	40979
12 modules	40981



Installation kit
for hinged window with protective cover, for fitting modules in doors and enclosure covers

Std. Pack. Qty: 10

Description	Part no.
for 6 modules for hinged window 40986	41431
for 8 modules for hinged window 40979	41432
for 12 modules for hinged window 40981	41433

BMW motorcycle plant, Berlin – Germany

AIDAbella, Jos. L. Meyer Werft, Papenburg – Germany

Formula 1 circuit, Manama – Bahrain

Constitution, Heerema Marine Contractors – Netherland

Port of Salalah – Oman

Container Terminal, Le Havre – France

Container Terminal, Altenwerder – Germany

Yas Marina Circuit, (Formula 1 Race Course), Abu Dhabi – UAE

Shanghai International Circuit, (Formula 1 Race Course), Shanghai – China

Brunnenmarkt, (Market Square), Vienna – Austria

KORDSA GLOBAL A.S., Industrial Yarn and Cord Factory, Izmit – Turkey

Bauernmarkt, (Market Square), Hannover – Germany

Service – Regulations and standards

While correct to the best of our knowledge, the information we provide with respect to laws and regulations is in no way binding. Such information is provided purely by way of assistance and makes no claim to completeness. The nature and composition of our appliances are exclusively as quoted in the product description to which the part numbers refer directly.

Installation guidelines

It is best to proceed carefully with the installation and the use of electrical devices. The valid directives and standards, as well as the legal accident prevention regulations must be complied with. The installer is responsible for compliance with the respective regulations.

MENNEKES CEE plugs and sockets conform to the following standards and regulations:
IEC 60309-1
IEC 60309-2
EN 60309-1
EN 60309-2
IEC 60309-1/VDE 0623 part 1
IEC 60309-2/VDE 0623 part 2

Applications

CEE plugs and sockets can and, under certain circumstances, must be used in industry, in commerce, in agriculture, in parks, in damp and wet environments, outdoors, on building sites, in caravans, on boats and yachts, on camp sites, for dockside power supply installations (marinas), on works premises where there is a fire hazard, at markets and fairground booths and for trailers and mobile homes.

Using CEE plugs and sockets will usually enable the planners and builders of electrical installations to comply with the „regulations for the construction of low voltage systems as per DIN VDE 0100".

Enclosure material

Plastic material

MENNEKES generally uses high-grade plastic material with the following excellent properties: Excellent electrical insulation, break-proof, wearresistant, abrasion-resistant, dimensionally stable, self-extinguishing, heat-resistant, cold-resistant, stabilised against aging, resistant to seawater, oil, and petrol. For use in industrial premises or place of work where the use of chemicals or other aggressive substances makes it necessary to use other plastic materials, MENNEKES offers products with increased stability against fuel, oil and grease, diluted acids and alkali, cleaner and the most aqueous salt solutions. These products are marked in the catalogue with . Products made of this plastic combine high mechanical, thermal and electrical properties with excellent dimensional stability and resistance to chemicals and are fit for action in chemical plants, in refineries, in the food processing industry, in washdown areas and so on.

Solid rubber

Solid rubber blends are preferably used wherever products are exposed to high mechanical and/or chemical loads. Solid rubber excels by its outstanding dimensional stability; it is largely resistant to acid and lye and has a high resistance to breakdown and leakage current. Products made from solid rubber blends, e.g. MENNEKES EverGUM, are resistant to weather and ageing. Under UV radiation, colour pigments may fade with time. This is inevitable even to the latest state of the art yet it does not compromise the function in any way.

Stainless steel

Our high-quality stainless steel products are ideally suited for continuous use in buildings and outdoors. There is a potential risk of corrosion in open air and indoor swimming pools, in coastal regions, offshore and in industrial areas with high air pollution. Subject to location and climatic conditions discoloration and corrosion can arise. Through specific cleaning and maintenance procedures, impairments of the surface can be reduced or avoided. In particularly aggressive ambient conditions we recommend the use of special stainless steels or coating the surfaces to further increase corrosion resistance.

Contact material, small parts

Female and male contacts are made of brass; screws, springs, etc. are made of rust-proof material or surface-coated steel.

Characteristics of CEE plugs and sockets

MENNEKES CEE plugs and sockets are distinguished by the following features, which keep maintenance costs to a minimum:

- Easy to install
- Wiring space easily accessible
- Power screwdrivers can be used for installation
- Mostly fitted with Pozidriv screws (size 2)
- High contact pressure
- Low effort required for insertion and withdrawal
- Low transition resistance
- Easy-to-grip plugs

Application

CEE plugs and sockets with operating voltages up to 1000 V DC or AC, frequencies up to 500 Hz and rated currents up to 800 A, including plugs and sockets for low voltage systems have become the standard all over the world. Basically suitable for indoor and outdoor applications in industry, they are also used on building sites, farms, commercial premises, for caravans, mobile homes, boats, yachts and in households. CEE plugs and sockets are polarised and non-reversible.

Ambient temperature

CEE plugs and sockets are suitable for ambient temperatures between -25 °C up to +40 °C.

Low voltage directive 2014/35/EU

CEE plugs and sockets are subject to the EC low voltage directive and must therefore be provided with the CE mark to ensure free traffic of goods within the EU. A manufacturer's declaration is available on request.

Service – Regulations and standards

Declaration of Conformity

Current plugs and sockets have been tested by the VDE Test and Certification Institute in Offenbach, Germany. Furthermore, various other certificates from international inspection authorities have been obtained. A copy of test certificates is available on request.
The CE mark is not a compliance mark. MENNEKES CEE plugs and sockets satisfy the requirements specified in the low voltage directive and the device and/or the packaging bears the „CE“ mark „CE“ .

Cable glands

Metric	Typical sealing area	Typical capacity of terminal
M 12	2.5 - 6.5 mm	3.0 - 6.5 mm
M 16	2.5 - 8.0 mm	3.5 - 8.0 mm
M 20	5.0 - 12.0 mm	6.0 - 12.0 mm
M 25	9.0 - 18.0 mm	12.0 - 18.0 mm
M 32	14.0 - 25.0 mm	17.0 - 25.0 mm
M 40	18.0 - 32.0 mm	20.0 - 32.0 mm
M 50	24.0 - 38.0 mm	26.0 - 38.0 mm
M 63	30.0 - 44.0 mm	30.0 - 44.0 mm

Standard for low voltage switchgear and control gear assemblies - IEC 61439

The standard, IEC 61439, replaces IEC 60439 and describes the design and the test specifications for low voltage switchgear and control gear assemblies. The new standard has influence on the distribution of electrical energy in industry, the domestic electrical installation and on construction sites.

In 2012, the restructuring and revision of the safety requirements for low voltage switchgear was finalized with publication of the standard, IEC 61439-1:2012. The preceding standard, IEC 60439-1 will be replaced by IEC 61439-1:2012. The former Standard IEC 60439 was replaced by IEC 61439-1:2012 in September 2014. For all switchgear assemblies comissioned after this date, planning and documentation must be in accordance with IEC 61439-1: 2012 and its parts.

The purpose of this standard is the harmonisation of most of the general regulations and requirements for low voltage switchgear and control gear assemblies to achieve uniform requirements and verifications for switchgear and control assemblies and to avoid the necessity of verifications in accordance with other standards. All requirements of the different switchgear and control gear assemblies have been combined in this fundamental standard, together with topics of broad interest and application, e.g heating, insulation properties, etc.

In the future two main standards will be required for each design of a low voltage switchgear and control gear assembly:
- The basic standard that is referenced as „Part 1“ in the specific standards;
- The applicable parts 2 to 7 of the switchgear and control gear assembly standard that deals with the particularities of the application.

The IEC 61439 consists of the following parts:

IEC ...	
61439-1: General definitions	
61439-2: Power switchgear and control gear assemblies (PSC switchgear combinations)	
61439-3: Installation distributor for operation by laymen (DBO)	
61439-4: Special requirements for construction power distributors (BV)	
61439-5: Switchgear combinations in public power distribution networks	
61439-6: Busbar trunking systems (busways)	
61439-7: Switchgear combinations for specific applications such as marinas, campsites, marketplaces, charging stations for electric vehicles	
IEC TR 61439-0: Guide for the specification of switchgear and controlgear assemblies	

Requirements in this standard, which are object of an agreement between manufacturer of the switchgear and control gear assemblies and user, are summarized on page 97 - 99. This listing facilitates provision of information concerning basic conditions and supplemental user definitions.

Design verification

Additionally to the type verification, the producer has to provide an article proof which guarantees a correct set-up acc. to the norm, excludes material failures and the compliance with electrical safety requirements.

Definition – „original manufacturer“ and „manufacturer of the switchgear and control gear assembly“

Original manufacturer
Organisation / enterSockets that executed the original design and the associated verifications in accordance with the standard.

Manufacturer of the switchgear and control gear assembly
Organisation that completes a device and assembles it into a functional unit. The manufacturer is responsible for piece verification and thus for the product (Declaration of Conformity).

Significance for MENNEKES products:
For pre-wired devices MENNEKES is simultaneously the original manufacturer and the manufacturer. The responsibility and provision of verifications rest with us. We cannot declare partially wired devices that we manufacture as standard compliant. In this case the „finishing entity“ becomes the manufacturer and must declare conformity. It is required to forward information to this organisation so that the device ultimately can get a „Declaration of Conformity“.Heating

Heating

The max. ambient temperature is +40 °C.
The average value of the ambient temperature over a period of 24 hours must not be higher than +35 °C.
The verification of heating can be provided through various methods. Through testing of the switchgear and control gear combination, or through derivation of a known reference, and through an expert assessment, e.g in accordance with applicable design rules. Regardless of the method that is selected to determine the heat and thus the maximum current load of the combination, compliance with the appropriate temperature limit values must be ensured.
The switchgear and control gear assembly and its electrical circuits must be capable of bearing their rated currents under defined conditions and the rated values of the components, their suitability and application must be taken into account, without exceeding limit values specified in IEC 61439-1 Table 6, Part 1. The limit temperatures in table 6 apply for the average ambient temperature of +35 °C.
▶ The limit temperatures of the installed equipment must be taken into account!

Heating – replacement of components

A device/component may only be replaced through a similar, identically constructed device a of a series other than the series used in the verification, if the power loss, and thus the heating of the connections is less than or equal to that of the device that is being replaced.

Load of the largest electric circuit and of all outgoing circuits individually with rated current

The requirement of IEC 61439 is, that all electric circuits must be individually capable to carry their rated current, without exceeding temperature limit values in the process. If additional power circuits are added, a rated load factor can be set.

Rated values I_{nA}, I_{nc}, RDF

• Rated current of a switchgear and controlgear assembly I_{nA}
Rated current that can be distributed by a switchgear and controlgear assembly without exceeding the specified excess temperatures of the various

• Rated current of a main circuit I_{nc}
Rated current that a main circuit can carry if it is the only circuit in a bay of a switchgear assembly that carries a current.

• Rated load factor RDF
Value calculated by dividing the rated operational current of the outgoing main circuit Ing by the rated current Inc of the same outgoing main circuit. main circuit, where Ing and Inc are determined from tests.

Table 101 from IEC 61439-3 Values for assumed load

Number of outgoing circuits	Assumed load factor
2 and 3	0.8
4 and 5	0.7
6, up to and including 9	0.6
10 (and more)	0.5

This table provides guide values, if in doubt the manufacturer‘s specification always applies.

MENNEKES standard values in accordance with Table C of IEC 61439

The information below represents specified standard values for MENNEKES catalogue assemblies. If there are deviations from this standard or in the case of special project planning, appropriate coordination must take place beforehand between user and manufacturer. These agreements must be arranged between MENNEKES and the user / customer during the quotation phase (prior to production and prior to sale).
The table below is a „blank“ that is applicable for approximately 98 % of the MENNEKES devices. Special project planning is not covered by the specifications, and must be separately disclosed by the user prior to project planning. In these special cases, it is required that additional details be considered with the aid of the standards cited and their product sub-standards (see Section 7.2, in Part 1).

Characteristic	Standard value	Normative option	MENNEKES standard
System according to type of earth connection	Design in accordance with the local requirements	TT / TN-C / TN-C-S / IT / TN-S	TN / TT
Rated voltage	In accordance with local installation conditions	max. 1000 V AC or 1500 V DC	400 V AC
Transient overvoltages	determined through the electrical system	Overvoltage category I / II / III / IV	Kat. III / plugs and sockets Kat. II
Occasional overvoltages	min. rated voltage + 1200 V	See Table 8 + 9 or 10 for the values	1890 V (AC)
Rated frequency	In accordance with local installation conditions	DC / 50 Hz / 60 Hz	50 Hz
Short circuit resistance	determined through the system	N + PE max 60 % of the outer conductor values	I_{cc} max. ≤ 10 kA
SCPD in the supply	In accordance with local installation conditions	yes / no	no
Coordination between shortcircuit protection devices inside or outside of the switchgear and control gear assembly	In accordance with local installation conditions	present / install / integrate	Item-dependent

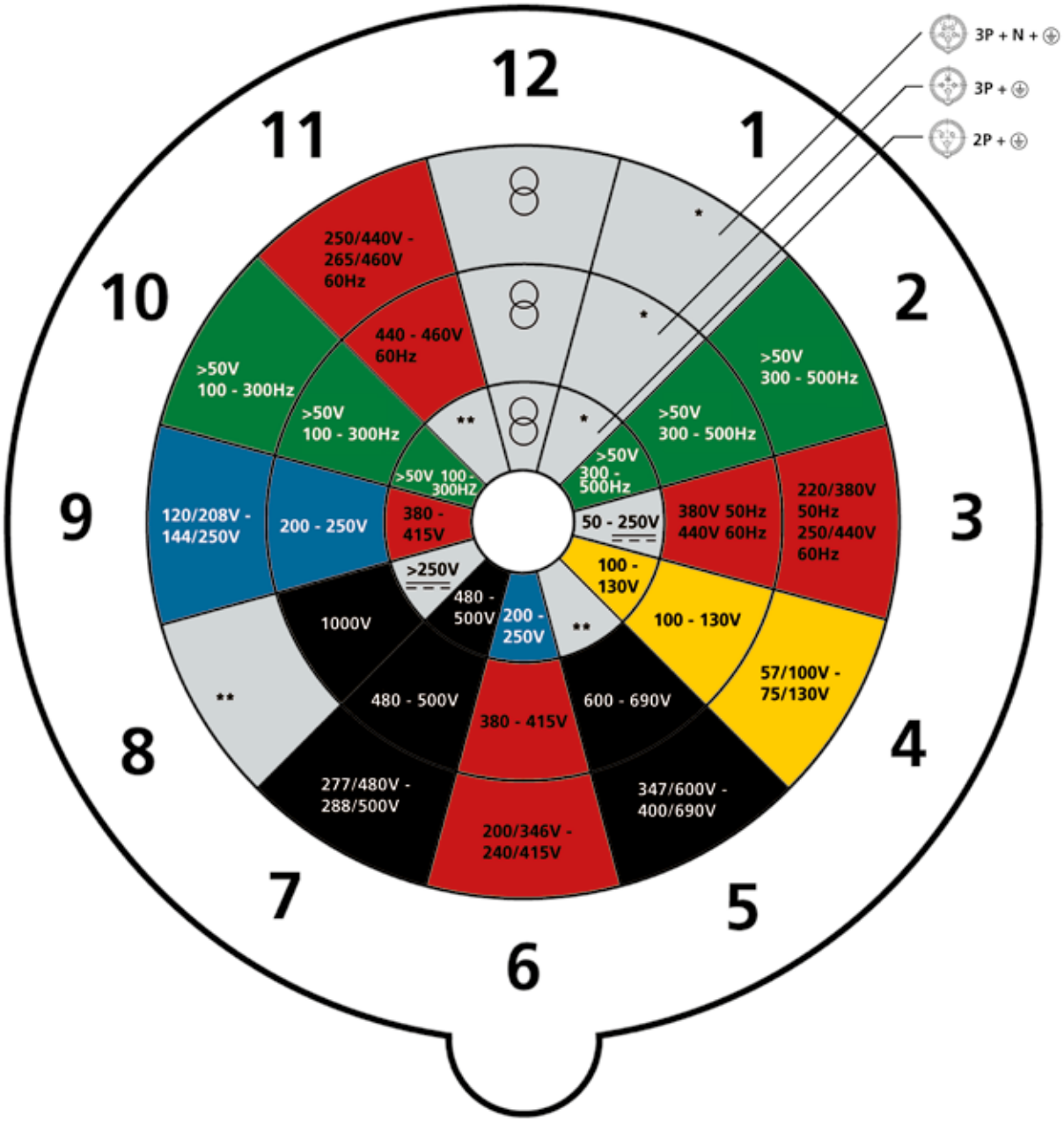
Characteristic	Standard value	Normative option	MENNEKES standard
Information of loads that could possibly contribute to short-circuit current	No loads are permitted that could possibly contribute to the shortcircuit current	none	none
Type of protection against electric shock – basic protection	Basic protection	Comply with local requirements	Basic protection
Type of protection against electric shock – earth fault protection	Protection against indirect contact / comply with local requirements	Automatic disconnection of the power supply / protective separation / Double or reinforced insulation	Item-dependent
Installation site	Execution of the manufacturer	Indoors / outdoors	Item-dependent
Protection type	Indoors min. IP 2x / outdoors min. IP23	IP xx (A-D)	IP44
Protection against mechanical effects		if necessary specification of the IK code (IEC 62208)	Information on request
Resistance to UV radiation		Required for enclosures in outdoor installation	Information on request
Resistance to corrosion	For indoor and outdoor installation	yes / no	Item-dependent
Ambient temperature limit values	Indoors: min. -5 °C Outdoors: min. -25 °C High limit (both): +40 °C max. average value (24 h): +35 °C	none	Standard values! see product for deviations
Maximum relative humidity	indoor: 95 % at -5 °C to +30 °C 70 % at +35 °C 57 % at +40 °C Outdoor: 100 % at -25 °C to +27 °C 60 % at 35 °C 46 % at 40 °C	indoor: 95 % at -5 °C to +30 °C 70 % at +35 °C 57 % at +40 °C Outdoor: 100 % at -25 °C to +27 °C 60 % at 35 °C 46 % at 40 °C	Standard values! see product for deviations
Pollution degree	Industrial environment 3	1, 2, 3, 4	3
Altitude	≤ 2000 m	Pay attention to the factors	≤ 2000 m
EMC environment	A or B	A / B	B
Special operating conditions (vibration, Ex-area, strong magnetic fields or contamination)	No particular conditions	none	Not defined!
External structural design	in accordance with manufacturer‘s specifications	Open / closed / standing / in-wall installation & on-wall installation / console	closed
Mobile or stationary	stationary	yes / no	Item-dependent
Dimensions and masses	in accordance with manufacturer‘s specifications	none	Item-dependent
Type of conductors introduced from outside	in accordance with manufacturer‘s specifications	Cables / busbar trunking systems	Cables
Materials of the conductors introduced from the outside	Copper	Copper / aluminum	Copper
Cross-sections of the outer conductors, PE, N & PEN conductors	As specified in the standard	none	none
Special requirements imposed on the marking of connections	in accordance with manufacturer‘s specifications	none	Manufacturer execution
Requirements imposed on storage & transport (type of transport, deviating ambient conditions, max. dimensions, packaging requirements)	Standard of the manufacturer	none	Information on request
Operability (access, activation rights, disconnect)	Easy reachability	Authorized persons, ordinary persons, etc.	Item-dependent
Requirements imposed on accessibility for operation, inspection, maintenance or extension	Inspection, component replacement, extension, maintenance, etc. only by specialized persons (requirement)	none	Inspection, replacement, extension, maintenance, etc. only through specialized persons
Separation of the outgoing electric circuits	in accordance with manufacturer‘s specifications	Individually / in groups / all	Item-dependent
Type of interior subdivision	in accordance with manufacturer‘s specifications	Form 1, 2, 3, 4	none

Characteristic	Standard value	Normative option	MENNEKES standard
Maximum total load current to be supplied by the assembly (from which the rated current of the assembly InA (A) will be determined)	Manufacturers standard; in accordance with the application	none	Item-dependent
Cross-section ratio between outer conductor and N*	Ø ≤ 16 mm² = 100 % Ø > 16 mm² = 50 % (min. 16 mm²)	For currents in N to 50 % of the outer conductors, otherwise a special agreement is necessary!	Outer conductor = neutral conductor cross-section

* MENNEKES designs the size of the Neutral conductor accordingly to the max. allowed current for the phases. For special operating conditions (see IEC 61439, section 7.2 and IEC 61439-1 supplement 1, section 13.5) which relate to the ratio of neutral conductor to outer conductor (alternating current consumption with very low and different cosφ or excessive harmonics in the supply voltage or load current) can lead to a different size relation between neutral conductor to external conductor. This must be announced by the user.

Clock positions acc. to EN 60309-2:1999 + A1:2007 + A2:2012, Series I (Europe)

Position of ground contact sleeve with respect to major keyway for various voltages and frequencies. The colour codes correspond to the nominal voltage.



* For nominal operating voltages and/or frequencies not covered otherwise and for special applications
** Clock positions not used.

Colour coding

If the rated operating voltage is indicated by a colour coding in addition to compulsory markings, such colour coding must be in accordance with IEC 60309-1:2013-02, table 2:

Rated operating voltage and frequency	Colour code	RAL*
100 to 130 V	yellow	1021
200 to 250 V	blue	5007
380 to 480 V	red	3013
500 to 1.000 V	black	9005
above 60 to 500 Hz	green	6010

* RAL determined by MENNEKES, as in EN 60309-1:2013

CEE plugs and sockets for rated operating voltages above 50 V

Position of the earth contact

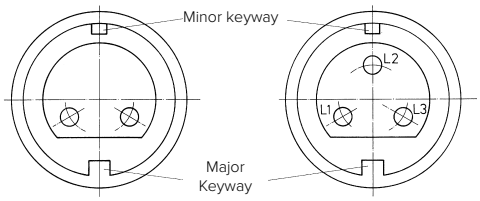
Plugs and sockets with rated voltages above 50 V must have an earth contact. To prevent incorrect insertion, a nose on the plug fits into a keyway in the socket, thus ensuring that the earth contact pin or tube is correctly positioned in accordance with the required electrical standard. The earth contact positions for the various frequencies and voltages are assigned a clockface position, in accordance with table 104 taken from EN 60309-2:1999 + A1:2007 + A2:2012 (see below).

CEE plugs and sockets for rated voltages of up to 50 V (low voltage)

Since no earth contact is required in plugs and sockets of rated voltage up to 50 V, two keyways instead of one are provided the collar. They are accordingly termed the major and minor keyways. The major keyway is always in the 6 o'clock position. Depending on voltages and frequencies, the minor keyway is always in accordance with table 103 taken from EN 60309-2 (VDE 0623-2): 2013-01, standard sheet 2-VIII (and in the following drawings).

Drawing: sockets and connectors U = 40 to 50 V, 50 to 60 Hz, minor keyway in 12 o'clock position

16/32 A



Arrangement of the minor keyway (major keyway 6 o'clock) for various voltages and frequencies using clockface positions in accordance with table 103 taken from EN 60309-2:1999 + A1:2007 + A2:2012

Rated operating voltage V	Frequency Hz	Clockface position of keyway (major keyway = 6 o´clock)
20 to 25	50 and 60	no minor keyway
40 to 50	50 and 60	12
20 to 25 and 40 to 50	100 to 200	4
	300	2
	400	3
	> 400 to 500	11
	DC	10
25	DC*	8 *for portable electrical incubators – use with 12 V or 24 V direct-current voltage in ambulances or helicopters.

Positions 1 and 9 are reserved for future standards. For design reasons, positions 5, 6 and 7 are not available for use.

Colour coding

If the rated operating voltage is indicated by a colour coding in addition to compulsory markings, such colour coding must be in accordance with IEC 60309-1:2013, table 2:

Rated operating voltage	Colour code	RAL*
20 to 25 V	violet	4001
40 to 50 V	white	7035

* RAL determined by MENNEKES, as in EN 60309-1:1999 no specification is provided for.

Interlocks and breaking capacity

Plugs and sockets without an interlock must have an adequate breaking capacity, i.e. it must be possible to insert and withdraw plugs in the manner specified and as often as specified. After testing they must exhibit no damage that would impair further use, and the holes for the plug contacts must not show any significant sign of damage. Sockets and connectors that do not meet the test requirements for breaking capacity and service characteristics must be fitted with an interlock. An interlock is a mechanical or electrical device which ensures that voltage is only applied to the contacts of a plug once they have been inserted into a socket or connector as intended, which prevents a plug being withdrawn with the power switched on or which makes contacts voltage-free before disconnecting. A distinction is made between interlocked plugs and sockets with
- mechanical interlocks
- electrical interlocks.

In the case of sockets and connectors ≥ 63/60 A, EN 60309-2 requires that a distinction is made between products used with or without interlocks. As MENNEKES plugs and sockets have adequate breaking capacity, standard ≥ 63/60 A versions are fitted with short contact tubes without pilot contact. In the 63 A and 125 A versions, the short contact tubes meet the finger-touch requirements of IEC 60529. Sockets and connectors 63/60 A for electrical interlocking are fitted with long contact tubes and pilot contact for leading and lagging. The interlock makes up for the lack of finger-touch safety.

Plugs and sockets with mechanical interlocks

Mechanical interlocks for plugs and sockets with a rated operating voltage greater than 50 V must conform to EN 60309-2:2013, standard sheet 2-V. The mechanical switch of a mechanically interlocked socket or connector must not be operational until the proper plug has been inserted. Built-in switches for mechanical interlocking of switched AC sockets must have a breaking capacity conforming at least to IEC 60947-3 (VDE 0660 part 107), utilisation category AC 22. The breaking capacity must be suitable for the appliance connected.

Plugs and sockets with electrical interlocks

In the case of plugs and sockets ≥ 63/60 A with a rated operating voltage greater than 50 V intended for electrical interlocking (part no. + index „P“), a built-in pilot contact can be used to switch off power to a socket or connector. The requisite switch can either be provided in the socket or on the corresponding circuit distribution board. In the case of sockets with an integrated auxiliary switch fitted behind the pilot tube, the switch is triggered by the pilot pin of the plug. The advantage of this solution is that the pilot tube itself is not live (PCS interlock).

Plugs and sockets for isolating and switching purposes

In accordance with IEC 0100-460, each electrical circuit must be capable of being disconnected from all active conductors of the power supply. This also applies for every piece of electrical equipment, which must be capable of being disconnected from the power supply via an installed or assigned switch. For the term, „disconnect“, the term „isolate“ is also used. As a rule, electrical equipment must be disconnected from the power grid for mechanical and electrical maintenance tasks. According to DIN VDE 0100-537, plugs and sockets isolating all conductors are suitable for the disconnection of power for maintenance purposes if they are able to switch off the load current in the electrical equipment in question. A plug and socket connection is a simple way of satisfying the requirement for „visible isolation“.

Shock hazard protection

Shock hazard protection must be achieved in accordance with EN 60309-1:2013, section 9 by designing plugs and sockets in such a way that, when engaged properly, no live parts of sockets, connectors, plugs and inlets are exposed so that they may be touched.

It must also be impossible to establish a connection of plugs and connectors while any of the contacts are exposed to touch.

Neutral contact tubes and pilot contacts of sockets and connectors are deemed to be live parts.

Protection type

Plugs and sockets used to be classified according to the degree of protection against the entry of moisture:

– splashproof → drop in a triangle

– watertight → 2 drops

Today, complete IP protection according to IEC 60529, EN 60529 is specified for plugs and sockets, as they are tested in line with this standard.

IP44 = Protection from solid bodies with a diameter ≥ 1 mm, splashproof
IP67 = Protection from dust ingress, protection against temporary immersion

Information on IP protection (IP code) can be found in IEC 60529:2014-09 (VDE 0470 part 1).

Having been properly installed, sockets and connectors must provide the degree of protection defined by the rating, whether the plug is inserted or not.

The protection type for plugs and inlets only applies if they are in contact with the matching piece of the connector or with a fixed cover, if applicable.

CEE plugs and sockets must be IP44 or IP67. CEE plugs and sockets with rated currents of 100/125 A must be IP67.

100/125 A sockets that are fastened to an enclosure or form a structural unit with the enclosure can be IP44.

For sockets IP67, a bayonet system has been adopted as the standard in order to simplify their use especially under rough working conditions.

IP44 or IP67 is indicated on the appliances.

Notice for the use of mobile power distribution boxes:

Please consider when using SCHUKO® sockets that due to the construction the degree of protection is achieved only when the lid is closed. Otherwise the ingress of water at the ground contact area may not be prevented (see DIN VDE 0620-1 and DIN 49440 et sqq.)

Degree of protection of SCHUKO® plugs and sockets. Standard change of DIN VDE 620.

For use in mobile devices, in accordance with the current specifications, attachment sockets that satisfy the IP X4 degree of protection requirements with closed flip-lid cover and with a plugged-in plug in every operating position. Before the standard change in February 2010, the IP X4 degree of protection was considered as fulfilled if the conditions are satisfied with vertical install position of the sockets. For sockets for stationary implementation, this also continues to be the case.

Important application instructions concerning the change in the standard.

- The latest amendment of IEC 620 (March 2013) makes a distinction in the case of IP X4 SCHUKO® sockets, between stationary and mobile implementation conditions
- SCHUKO® IP X4 sockets for stationary and mobile implementation conditions differ in their design (mobile with additional sealing collar, stationary unchanged).
- SCHUKO® IP X4 connectors, like mobile SCHUKO® IP X4 sockets likewise have a supplemental sealing collar.

Attention!

- SCHUKO® plugs > IP X4 (in accordance with DIN 49442, resistant to pressurised water) when plugged into mobile IP X4 SCHUKO® sockets or connectors do not achieve adequate contacting due to the design and thus they must not be operated with such sockets!
- The same applies for AC adapters and angled right angle plugs < IP X4!
- On the appropriate SCHUKO® sockets or connectors this circumstance is presented with an engraved right angle SCHUKO® plug with IP X4 mark.

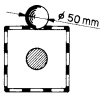
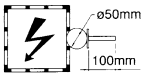
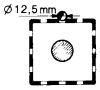
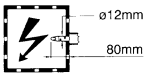
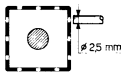
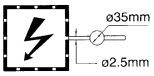
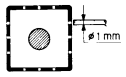
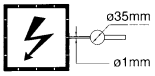
Before processing, ensure that the SCHUKO® articles at hand correspond to the implementation conditions for which they are intended.

Notice for the use of mobile power distribution boxes with RJ45 data sockets:

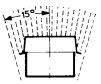
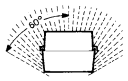
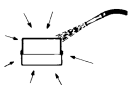
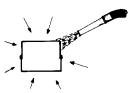
The installed data sockets without lid have a degree of protection of IP20 which is reducing the degree of the whole unit accordingly.

IP protection types for enclosures in accordance with IEC 60529, EN 60529, IEC 60529 (VDE 0470 part 1)

1st number of the code:
Protection against the ingress of foreign bodies and shock hazard protection.

Code	Description			
	Enclosure protected against ingress of:	Test	Protection against contact with:	Test
0				
1	Solid body larger than 50 mm	 Gauge plug diameter Ø 50 mm	Back of hand	 Gauge probe diameter Ø 50 mm
2	Solid body larger than12.5 mm	 Gauge plug diameter Ø 12.5 mm	Finger	 Jointed metal finger
3	Solid body larger than 2.5 mm	 Gauge plug diameter Ø 2.5 mm	Tool	 Gauge probe diameter Ø 2.5 mm
4	Solid body larger than 1 mm	 Gauge plug diameter Ø 1 mm	Wire	 Gauge probe diameter Ø 1 mm
5	Dust in harmful quantities	 Talc		
6	Dust overall	 Talc		

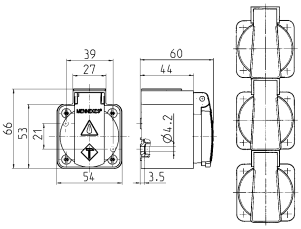
2nd number of the code:
Protection against the ingress of moisture

Code	Description	
	Enclosure protected against ingress of:	Test
0		
1	Drop of water falling vertically	
2	Drop of water falling vertically on enclosure inclined by up to 15°	
3	Water spray	
4	Splash water	
5	Water jet	
6	Strong water jet	
7	Temporary immersion	
8	Continuous immersion	By arrangement between manufacturer and user. Extra severe test conditions as compared to code 7
9	Water at high pressure and steam cleaning	

Service – Drawings and dimensions

The sizes for the entries on the drawings can be different to the real existing entry sizes. Subject to modification and amendments without prior notice. Errors and omissions excepted.

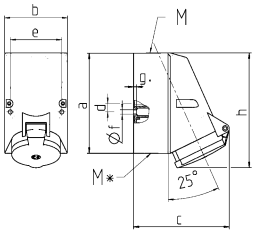
1 MB 27/30



Drawing
1 MB 27/30

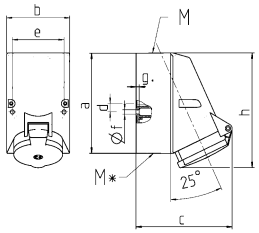
Dim. in mm

1 MB 43



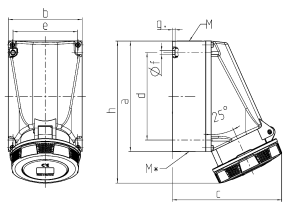
Drawing	Amp.	16		32		
1 MB 43	Poles	4	5	3	4	5
Dim. in mm	a	128	128	128	128	128
	b	84	84	84	84	84
	c	122	124	136	136	138
	d	11	11	11	11	11
	e	68	68	68	68	68
	f	5.3	5.3	5.3	5.3	5.3
	g.	4	4	4	4	4
	h	144	145	158	158	160
	M	25	25	32	32	32
	M*	2x25 (blind) to be cut out		2x25 (blind) to be cut out		
Max. cable diam. (mm)		18	18	18/25	18/25	18/25
Terminal for cond. cross section (mm²) min.-max.		–4	–4	–10	–10	–10

1 MB 43/257



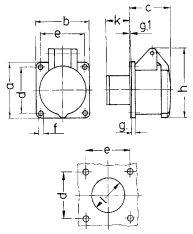
Drawing	Amp.	16			32		
1 MB 43_257	Poles	4	5/7		3	4	5/7
Dim. in mm	a	128	128		128	128	128
	b	84	84		84	84	84
	c	122	124		136	136	138
	d	11	11		11	11	11
	e	68	68		68	68	68
	f	5.3	5.3		5.3	5.3	5.3
	g.	4	4		4	4	4
	h	144	145		158	158	160
	M	25	25		32	32	32
	M*	2x25 (blind) to be cut out			2x25 (blind) to be cut out		
Max. cable diam. (mm)		18	18		18/25	18/25	18/25
Terminal for cond. cross section (mm²) min.-max.		1.5 –4	1.5 –4		2.5 –10	2.5 –10	2.5 –10

1 MB 112



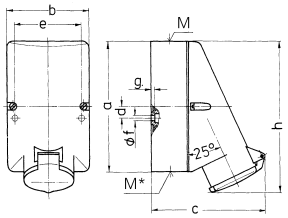
Drawing	Amp.	63		
1 MB 112	Poles	3	4	5
Dim. in mm	a	170	170	170
	b	118	118	118
	c	175	175	175
	d	134.5	134.5	134.5
	e	103	103	103
	f	6.1	6.1	6.1
	g.	6	6	6
	h	219	219	219
	M	40	40	40
	M*	2x40 (blind) to be cut out		
Max. cable diam. (mm)		27	27	27
Terminal for cond. cross section (mm²) min.-max.		6 –25	6 –25	6 –25

1 MB 136



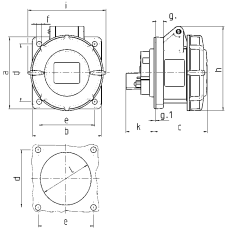
Drawing	Amp.	16		32	
1 MB 136	Poles	2	3	2	3
Dim. in mm	a	55	55	55	55
	b	55	55	55	55
	c	44	44	44	44
	d	45	45	45	45
	e	45	45	45	45
	f	4.2	4.2	4.2	4.2
	g.	8	8	8	8
	g.1	2	2	2	2
	h	67	67	67	67
	k	22	22	22	22
	l	34	34	34	34
Terminal for cond. cross		4	4	4	4
section (mm²) min.-max.		–10	–10	–10	–10

1 MB 137



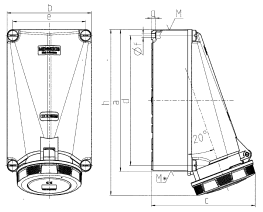
Drawing	Amp.	16		32	
1 MB 137	Poles	2	3	2	3
Dim. in mm	a	128	128	128	128
	b	84	84	84	84
	c	120	120	120	120
	d	11	11	11	11
	e	68	68	68	68
	f	5.3	5.3	5.3	5.3
	g.	4	4	4	4
	h	146	146	146	146
	M	25	25	32	32
	M*	2x25 (blind) to be cut out		2x25 (blind) to be cut out	
Max. cable diam. (mm)		18	18	25	25
Terminal for cond. cross		4	4	4	4
section (mm²) min.-max.		–2x6	–10	–2x6	–10

1 MB 141



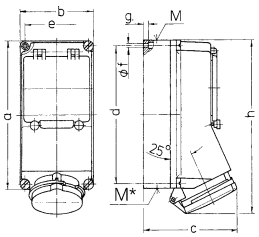
Drawing	Amp.	16			32		
1 MB 141	Poles	3	4	5	3	4	5
Dim. in mm	a	75	75	75	85	85	85
	b	75	75	75	75	75	75
	c	60	61	61	70	70	72
	d	60	60	60	60	60	60
	e	60	60	60	60	60	60
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	8	8	8	8	8	8
	g.1	2	2	2	2	2	2
	h	83	88	95	99	99	105
	i	78	85	96	103	103	110
	k	31	32	32	39	39	39
	l	43	52	54	58	58	65
Terminal for cond. cross		1.5	1.5	1.5	2.5	2.5	2.5
section (mm²) min.-max.		–4	–4	–4	–10	–10	–10

1 MB 162



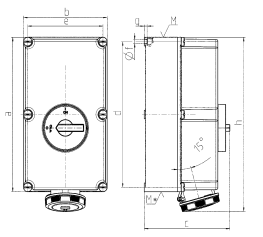
Drawing	Amp.	125	
1 MB 162	Poles	4	5
Dim. in mm	a	264	264
	b	163	163
	c	200	200
	d	240	240
	e	140	140
	f	8.1	8.1
	g	8	8
	h	306	306
	M	50	50
	M*	50	50
Max. cable diam. (mm)		38	38
Terminal for cond. cross		25	25
section (mm²) min.-max.		–35	–35

1 MB 168



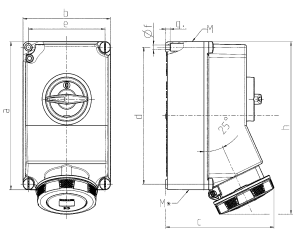
Drawing	Amp.	16			32		
1 MB 168	Poles	3	4	5	3	4	5
Dim. in mm	a	225	225	225	225	225	225
	b	118	118	118	118	118	118
	c	141	141	141	146	146	146
	d	208	208	208	208	208	208
	e	101	101	101	101	101	101
	f	6.3	6.3	6.3	6.3	6.3	6.3
	g.	8	8	8	8	8	8
	h	250	252	254	264	264	264
	M	1x25 and 1x32			1x25 and 1x32		
	M*	2x25	2x25	2x25	2x25	2x25	2x25
Max. cable diam. (mm)		25	25	25	25	25	25
Terminal for cond. cross		1.5	1.5	1.5	2.5	2.5	2.5
section (mm²) min.-max.		–4	–4	–4	–10	–10	–10

1 MB 177



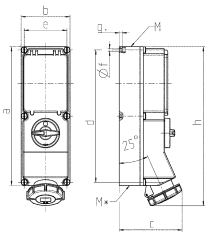
Drawing	Amp.	125		
1 MB 177	Poles	3	4	5
Dim. in mm	a	460	460	460
	b	260	260	260
	c	270	270	270
	d	434	434	434
	e	234	234	234
	f	11	11	11
	g.	9	9	9
	h	519	519	519
	M	63	63	63
	M*	2x63	2x63	2x63
Max. cable diam. (mm)		44	44	44
Terminal for cond. cross		25	25	25
section (mm²) min.-max.		–70	–70	–70

1 MB 180



Drawing	Amp.	63		
1 MB 180	Poles	3	4	5
Dim. in mm	a	260	260	260
	b	160	160	160
	c	198	198	198
	d	240	240	240
	e	140	140	140
	f	8.1	8.1	8.1
	g.	8	8	8
	h	303	303	303
	M	40	40	40
	M*	2 x 40	2 x 40	2 x 40
Max. cable diam. (mm)		27	27	27
Terminal for cond. cross		6	6	6
section (mm²) min.-max.		–25	–25	–25

1 MB 181/620



Drawing	Amp.	16			32		63	
1 MB 181/620	Poles	3	4	5	4	5	4	5
Dim. in mm	a	364	364	364	364	364	460	460
	b	134	134	134	134	134	180	180
	c	160	162	163	168	168	202	202
	d	347	347	347	347	347	440	440
	e	117	117	117	117	117	160	160
	f	6.3	6.3	6.3	6.3	6.3	8.1	8.1
	g.	8	8	8	8	8	8	8
	h	391	395	398	408	411	505	505
	M	32/40	32/40	32/40	32/40	32/40	40	40
	M*	2x32	2x32	2x32	2x32	2x32	2x40	2x40
Max. cable diam. (mm)		27	27	27	27	27	27	27
Terminal for cond. cross		1.5	1.5	1.5	2.5	2.5	6	6
section (mm²) min.-max.		–4	–4	–4	–10	–10	–25	–25

Service – Drawings and dimensions

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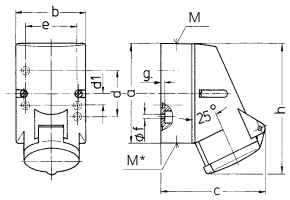
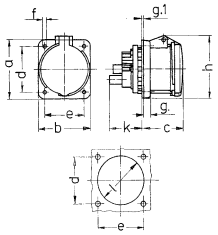
1 MB 209



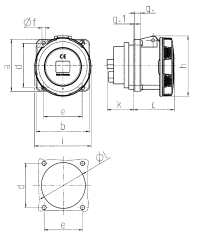
Drawing	Amp.	16		
1 MB 209	Poles	3	4	5
Dim. in mm	a	87	100	100
	b	64	75	75
	c	99	110	113
	d	40	–	–
	d1	–	11	11
	e	50	59	59
	f	4.5	5	5
	g.	4	4	4
	h	115	125	128
	M	20	20	20
	M*	M20 (blind) to be cut out		
Max. cable diam. (mm)		15	15	15
Terminal for cond. cross section (mm²) min.-max.		—4	—4	—4

1 MB 211



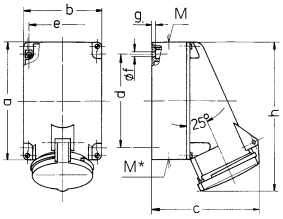
Drawing	Amp.	63		
1 MB 211	Poles	3	4	5
Dim. in mm	a	107	107	107
	b	100	100	100
	c	80	80	80
	d	85	85	85
	e	77	77	77
	f	6	6	6
	g.	12	12	12
	g.1	2	2	2
	h	113	113	113
	k	55	55	55
	l	88	88	88
Terminal for cond. cross section (mm²) min.-max.		6 —25	6 —25	6 —25

1 MB 212/258



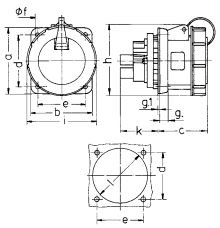
Drawing	Amp.	63			125	
1 MB 212/258	Poles	3	4	5	4	5
Dim. in mm	a	107	107	107	130	130
	b	100	100	100	130	130
	c	81	81	81	119	119
	d	85	85	85	104	104
	e	77	77	77	104	104
	f	6	6	6	6.5	6.5
	g	12	12	12	18	18
	g.1	2	2	2	2	2
	h	117	117	117	129	129
	i	113	113	113	126	126
	k	55	55	55	43	43
	l	88	88	88	95	95
Terminal for cond. cross section (mm²) min.-max.		6 —25	6 —25	6 —25	25 —70	25 —70

1 MB 213



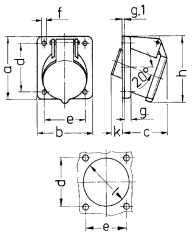
Drawing	Amp.	63		
1 MB 213	Poles	3	4	5
Dim. in mm	a	170	170	170
	b	118	118	118
	c	164	164	164
	d	134.5	134.5	134.5
	e	103	103	103
	f	6.1	6.1	6.1
	g.	6	6	6
	h	216	216	216
	M	40	40	40
	M*	2xM40 (blind) to be cut out		
Max. cable diam. (mm)		32	32	32
Terminal for cond. cross section (mm²) min.-max.		6 —25	6 —25	6 —25

1 MB 217/1



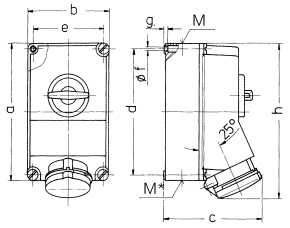
Drawing	Amp.	16		32		63
1 MB 217/1	Poles	3	5	3	5	5
Dim. in mm	a	75	75	85	85	107
	b	75	75	75	75	100
	c	60	60	67	73	82
	d	60	60	60	60	85
	e	60	60	60	60	77
	f	5.5	5.5	5.5	5.5	6.5
	g.	8	8	8	8	12
	g.1	2	2	2	2	2
	h	81	95	95	106	115
	i	70	88	94	102	114
	k	26	27	34	34	55
	l	52	57	58	65	88
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	2.5 —10	2.5 —10	6 —25

1 MB 231



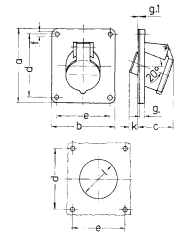
Drawing	Amp.	16		32	
1 MB 231	Poles	2	3	2	3
Dim. in mm	a	68	68	68	68
	b	62	62	62	62
	c	42	42	42	42
	d	53	53	53	53
	e	47	47	47	47
	f	4.5	4.5	4.5	4.5
	g.	8	8	8	8
	g.1	2	2	2	2
	h	72	72	72	72
	k	32	32	32	32
	l	55	55	55	55
Terminal for cond. cross section (mm²) min.-max.		4 —10	4 —10	4 —10	4 —10

1 MB 234



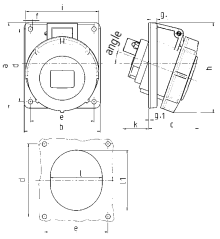
Drawing	Amp.	63		
1 MB 234	Poles	3	4	5
Dim. in mm	a	264	264	264
	b	163	163	163
	c	192	192	192
	d	240	240	240
	e	140	140	140
	f	8.1	8.1	8.1
	g.	8	8	8
	h	300	300	300
	M	40	40	40
	M*	2x40	2x40	2x40
Max. cable diam. (mm)		27	27	27
Terminal for cond. cross section (mm²) min.-max.		6 —25	6 —25	6 —25

1 MB 236



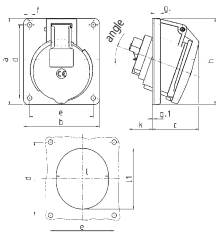
Drawing	Amp.	32
1 MB 236	Poles	3
Dim. in mm	a	100
	b	92
	c	42
	d	85
	e	77
	f	5.1
	g.	8
	g.1	2
	k	31
	l	60
Terminal for cond. cross section (mm²) min.-max.		4 —10

1 MB 251



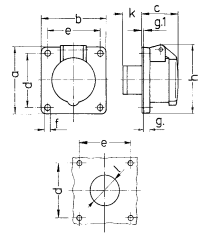
Drawing	Amp.	16			32		
1 MB 251	Poles	3	4	5	3	4	5
Dim. in mm	a	73.5	100	100	100	100	100
	b	64	92	92	92	92	92
	c	52	60	62	64	64	66
	d	60	85	85	85	85	85
	e	52	77	77	77	77	77
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	8	8	8	8	8	8
	g.1	2	2	2	2	2	2
	h	84	100	105	109	109	113
	i	78	85	96	103	103	110
	k	43	32	32	53	53	45
	l	52	55	65	67	67	72
	l1	60	63	72	82	82	85
	α	20°	20°	20°	20°	20°	20°
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —10	2.5 —10	2.5 —10

1 MB 260



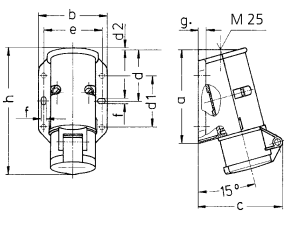
Drawing	Amp.	16			32		
1 MB 260	Poles	3	4	5	3	4	5
Dim. in mm	a	73.5	100	100	100	100	100
	b	64	92	92	92	92	92
	c	50	59	58	62	62	61
	d	60	85	85	85	85	85
	e	52	77	77	77	77	77
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	7	8	8	8	8	8
	g.1	2	2	2	2	2	2
	h	79	100	100	103	103	106
	k	44	34	34	54	54	49
	l	52	55	65	67	67	72
	l1	60	63	72	82	82	85
	α	20°	20°	20°	20°	20°	20°
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —10	2.5 —10	2.5 —10

1 MB 292



Drawing	Amp.	16		32	
1 MB 292	Poles	2	3	2	3
Dim. in mm	a	75	75	75	75
	b	75	75	75	75
	c	44	44	44	44
	d	60	60	60	60
	e	60	60	60	60
	f	5.5	5.5	5.5	5.5
	g.	8	8	8	8
	g.1	2	2	2	2
	h	77	77	77	77
	k	22	22	22	22
	l	34	34	34	34
Terminal for cond. cross section (mm²) min.-max.		4 —10	4 —10	4 —10	4 —10

1 MB 294

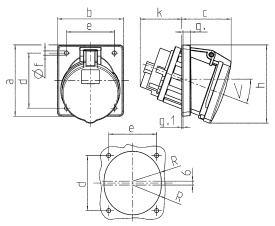


Drawing	Amp.	16		32	
1 MB 294	Poles	2	3	2	3
Dim. in mm	a	96	96	96	96
	b	73	73	73	73
	c	90	90	90	90
	d	53	53	53	53
	d1	52	52	52	52
	d2	2	2	2	2
	e	62	62	62	62
	f	5.3	5.3	5.3	5.3
	g	8	8	8	8
	h	129	129	129	129
Terminal for cond. cross section (mm²) min.-max.		4 —10	4 —10	4 —10	4 —10

Service – Drawings and dimensions

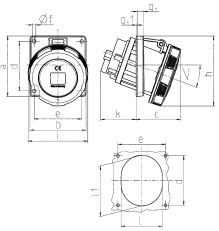
The sizes for the entries on the drawings can be different to the real existing entry sizes. Subject to modification and amendments without prior notice. Errors and omissions excepted.

1 MB 297



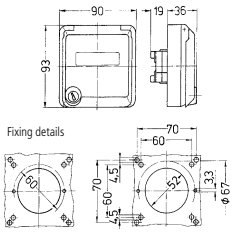
Drawing	Amp.	63		
1 MB 297	Poles	3	4	5
Dim. in mm	a	110	110	110
	b	106	106	106
	c	82	82	82
	d	85	85	85
	e	77	77	77
	f	6.5	6.5	6.5
	g.	12	12	12
	g.1	2	2	2
	h	122	122	122
	k	69	69	69
	R	46	46	46
	α	20°	20°	20°
Terminal for cond. cross section (mm²) min.-max.		6 —25	6 —25	6 —25

1 MB 298/601



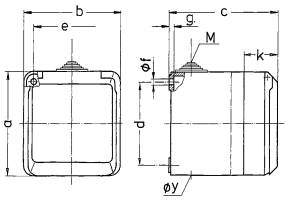
1 MB 298	Amp.	63			125		
1 MB 601	Poles	3	4	5	3	4	5
Dim. in mm	a	110	110	110	114	114	114
	b	106	106	106	110	110	110
	c	85	85	85	75	75	75
	d	85	85	85	90	90	90
	e	77	77	77	90	90	90
	f	6.2	6.2	6.2	6.2	6.2	6.2
	g.	12	12	12	13	13	13
	g.1	2	2	2	2	2	2
	h	128	128	128	133	133	133
	i	113	113	113	126	126	126
	k	67	67	67	103	103	103
	l	92	92	92	94	94	94
	l1	98	98	98	107	107	107
	<	20°	20°	20°	15°	15°	15°
Terminal for cond. cross section (mm²) min.-max.		6 —25	6 —25	6 —25	25 70	25 70	25 70

1 MB 305



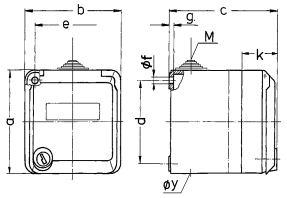
Drawing	
1 MB 305	
Dim. in mm	

1 MB 312



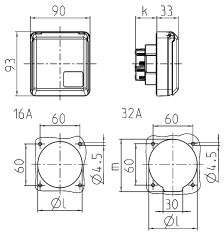
Drawing	Amp.	16			32		
1 MB 312	Poles	3	4	5	3	4	5
Dim. in mm	a	93	93	93	93	93	93
	b	90	90	90	90	90	90
	c	87	87	87	99	99	99
	d	75	75	75	75	75	75
	e	73	73	73	73	73	73
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	4.2	4.2	4.2	4.2	4.2	4.2
	k	33	33	33	33	33	33
	y	25.5	25.5	25.5	25.5	25.5	25.5
	M	25x1.5	25x1.5	25x1.5	25x1.5	25x1.5	25x1.5
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

1 MB 313



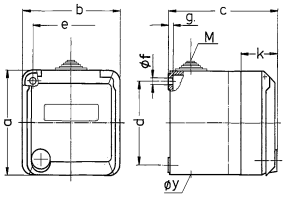
Drawing	Amp.	16			32		
1 MB 313	Poles	3	4	5	3	4	5
Dim. in mm	a	93	93	93	93	93	93
	b	90	90	90	90	90	90
	c	90	90	90	102	102	102
	d	75	75	75	75	75	75
	e	73	73	73	73	73	73
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	4.2	4.2	4.2	4.2	4.2	4.2
	k	36	36	36	36	36	36
	y	25.5	25.5	25.5	25.5	25.5	25.5
	M	25x1.5	25x1.5	25x1.5	25x1.5	25x1.5	25x1.5
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

1 MB 315



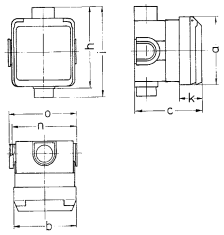
Drawing	Amp.	16			32		
1 MB 315	Poles	3	4	5	3	4	5
Dim. in mm	k	32	32	32	48	48	48
	l	50	60	67	65	65	73
	m	-	-	-	70	70	76
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

1 MB 317



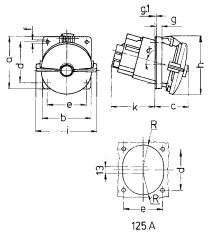
Drawing	Amp.	16			32		
1 MB 317	Poles	3	4	5	3	4	5
Dim. in mm	a	93	93	93	93	93	93
	b	90	90	90	90	90	90
	c	88	88	88	100	100	100
	d	75	75	75	75	75	75
	e	73	73	73	73	73	73
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	4.2	4.2	4.2	4.2	4.2	4.2
	k	34	34	34	34	34	34
	y	25.5	25.5	25.5	25.5	25.5	25.5
	M	25x1.5	25x1.5	25x1.5	25x1.5	25x1.5	25x1.5
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

1 MB 336



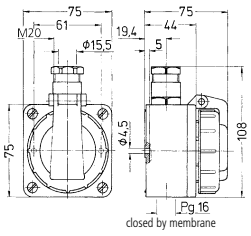
Drawing	Amp.	16			32		
1 MB 336	Poles	3	4	5	3	4	5
Dim. in mm	a	93	93	93	93	93	93
	b	90	90	90	90	90	90
	c	95	95	95	95	95	95
	h	111	111	111	111	111	111
	i	124	124	124	124	124	124
	k	33	33	33	33	33	33
	n	91	91	91	91	91	91
	o	95	95	95	95	95	95
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

1 MB 339



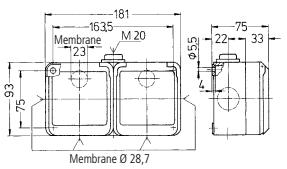
Drawing	Amp.	125	
1 MB 339	Poles	4	5
Dim. in mm	a	114	114
	b	110	110
	c	85	85
	d	90	90
	e	90	90
	f	6.2	6.2
	g.	13	13
	g.1	2	2
	h	135	135
	i	135	135
	k	103	103
	R	47	47
	α	15°	15°
Terminal for cond. cross section (mm²) min.-max.		25 70	25 70

1 MB 347



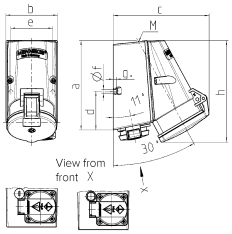
Drawing	
1 MB 347	
Dim. in mm	

1 MB 350



Drawing	Amp.	16		
1 MB 350	Poles	3	4	5
Dim. in mm				
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4

1 MB 354



Drawing	Amp.	16	32
1 MB 354	Poles	4	5
Dim. in mm	a	141	141
	b	84	84
	c	136	140
	d	61	61
	e	68	68
	f	5.5	5.5
	g.	5	5
	h	142	145
	M	25	25
Max. cable diam. (mm)		18	18
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	2.5 —10

Service – Drawings and dimensions

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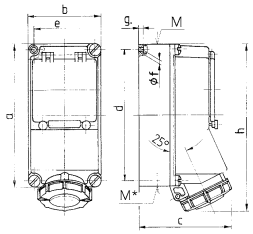
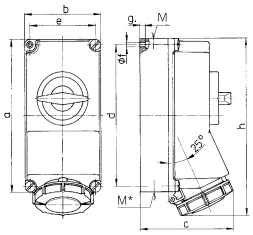
1 MB 378



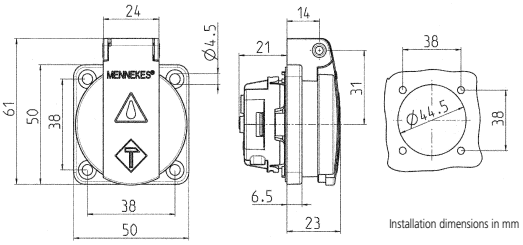
Drawing	Amp.	16			32	
1 MB 378	Poles	3	4	5	4	5
Dim. in mm	a	225	225	225	225	225
	b	118	118	118	118	118
	c	144	146	147	152	153
	d	208	208	208	208	208
	e	101	101	101	101	101
	f	6.3	6.3	6.3	6.3	6.3
	g.	8	8	8	8	8
	h	252	255	259	268	274
	M	1x25 and 1x32			1x25 and 1x32	
	M*	2x25	2x25	2x25	2x25	2x25
Max. cable diam. (mm)		25	25	25	25	25
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —10	2.5 —10

1 MB 382



Drawing	Amp.	16	32
1 MB 382	Poles	7	7
Dim. in mm	a	225	225
	b	118	118
	c	147	153
	d	208	208
	e	101	101
	f	6.3	6.3
	g.	8	8
	h	259	274
	M	1x25 and 1x32	1x25 and 1x32
	M*	2x25	2x25
Max. cable diam. (mm)		25	25
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	2.5 —10

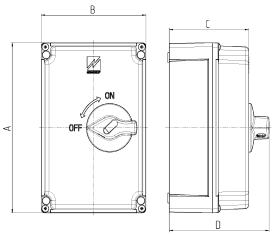
1 MB 410



Drawing
1 MB 410

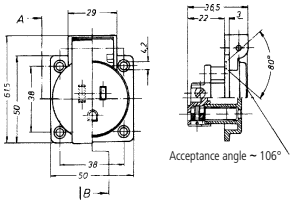
Dim. in mm

1 MB 412/3



Drawing	Amp.	25	40	80
1 MB 412/3	Pole	3/3+HS	3/3+HS	3/3+HS
Dim. in mm	A	170	263	263
	B	118	168.5	168.5
	C	98	130	130
	D	131	161	161

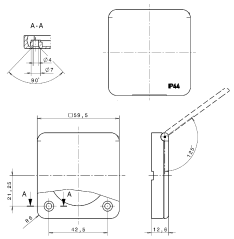
1 MB 421



Drawing
1 MB 421

Dim. in mm

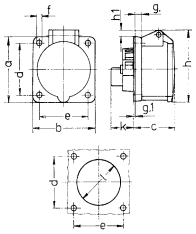
1 MB 422



Drawing
1 MB 422

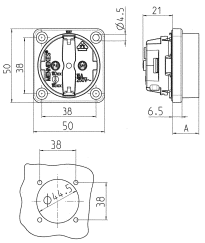
Dim. in mm

1 MB 426



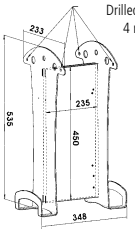
Drawing	Amp.	16
1 MB 426	Poles	3
Dim. in mm	a	55
	b	55
	c	54
	d	45
	e	45
	f	5.5
	g.	8
	g.1	2
	h	70
	h1	12
	k	28
	l	47
Terminal for cond. cross section (mm²) min.-max.		1.5 —4

1 MB 450



Drawing	Dim. A
1 MB 450	
Dim. in mm	
SCHUKO	18.3
French/Belgian standards	15.8
Danish standards	15.8

1 MB 451



Drilled holes to accommodate the 4 round steel chains which are held together with a 6 mm karabiner

With holes for front and rearinstallation for enclosures

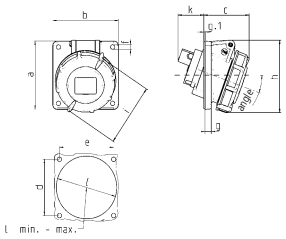
260 x 225 mm or
390 x 172 mm

Part no. 18444

Drawing
1 MB 451

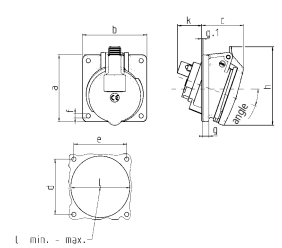
Dim. in mm

1 MB 452



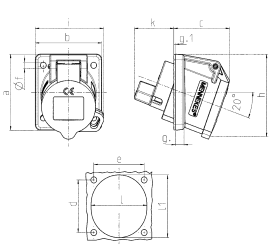
Drawing	Amp.	16			32		
1 MB 452	Poles	3	4	5	3	4	5
Dim. in mm	a	85	85	85	85	85	85
	b	85	85	85	85	85	85
	c	57	59	60	68	68	72
	d	70	70	70	70	70	70
	e	70	70	70	70	70	70
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g	8	8	8	8	8	8
	g.1	2	2	2	2	2	2
	h	87	91	99	105	105	110
	i	78	85	96	103	103	110
	k	39	34	33	53	53	41
	l min.	57	64	70	78	78	78
	l max.	78	78	78	78	78	78
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —10	2.5 —10	2.5 —10

1 MB 453



Drawing	Amp.	16			32		
1 MB 453	Poles	3	4	5	3	4	5
Dim. in mm	a	85	85	85	85	85	85
	b	85	85	85	85	85	85
	c	53	57	57	60	60	67
	d	70	70	70	70	70	70
	e	70	70	70	70	70	70
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g	8	8	8	8	8	8
	g.1	2	2	2	2	2	2
	h	89	96	101	103	103	110
	k	39	34	33	53	53	41
	l min.	57	64	70	78	78	78
	l max.	78	78	78	78	78	78
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —10	2.5 —10	2.5 —10

1 MB 456

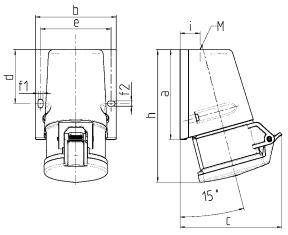


Drawing	Amp.	16
1 MB 456	Poles	3
Dim. in mm	a	68
	b	62
	c	52
	d	47
	e	47
	Øf	5.5
	g.	8
	g.1	1.5
	h	74
	i	64
	k	37
	l	52
	l1	56
Terminal for cond. cross section (mm²) min.-max.		1.5 —4

Service – Drawings and dimensions

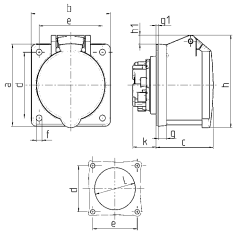
The sizes for the entries on the drawings can be different to the real existing entry sizes. Subject to modification and amendments without prior notice. Errors and omissions excepted.

1 MB 463



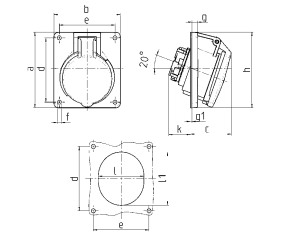
Drawing	Amp.	16			32		
1 MB 463	Poles	3	4	5	3	4	5
Dim. in mm	a	95	93	92.5	102	102	102
	b	73.5	87.5	87.5	94	94	94
	c	93	107.5	110	115.5	115.5	119.5
	d	55.5	55.5	55.5	62	62	62
	e	61	76	76	84	84	84
	f1	5.3	5.3	5.3	5.1	5.1	5.1
	f2	5.3	5.3	5.3	5.1	5.1	5.1
	h	139	139	136.5	160	160	156.5
	i	19.8	21.5	21.5	26.5	26.5	26.5
	M	M20x	M25x	M25x	M25x	M32x	M32x
		1.5	1.5	1.5	1.5	1.5	1.5
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

1 MB 464



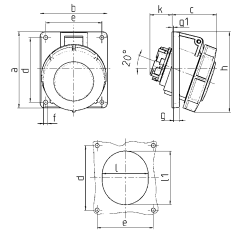
Drawing	Amp.	16			32		
1 MB 464	Poles	3	4	5	3	4	5
Dim. in mm	a	75	75	75	75	75	75
	b	75	75	75	75	75	75
	c	53	53	54	64	64	64
	d	60	60	60	60	60	60
	e	60	60	60	60	60	60
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	8	8	8	8	8	8
	g.1	2	2	2	2	2	2
	h	75	80	85	89	89	95
	h1		5	8	10	10	12
	k	22	22	22	28	28	28
	l	43	52	57	60	60	64
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

1 MB 465



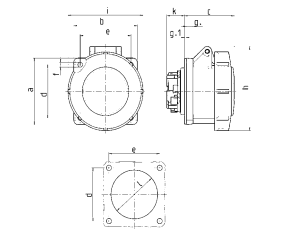
Drawing	Amp.	16			32		
1 MB 465	Poles	3	4	5	3	4	5
Dim. in mm	a	73.5	100	100	100	100	100
	b	64	92	92	92	92	92
	c	52	58	58	61	61	60
	d	60	85	85	85	85	85
	e	52	77	77	77	77	77
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	7	8	8	8	8	8
	g.1	2	2	2	2	2	2
	h	79	100	100	103	103	105
	k	31	31	31	44	44	54
	l	52	55	65	70	70	73
	l1	60	63	72	82	82	85
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

1 MB 466



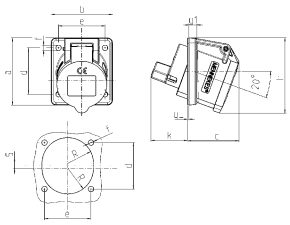
Drawing	Amp.	16			32		
1 MB 466	Poles	3	4	5	3	4	5
Dim. in mm	a	73.5	100	100	100	100	100
	b	64	92	92	92	92	92
	c	52	60	62	66	66	66
	d	60	85	85	85	85	85
	e	52	77	77	77	77	77
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	7	8	8	8	8	8
	g.1	2	2	2	2	2	2
	h	84	100	106	109	109	113
	k	31	31	31	44	44	54
	l	52	55	65	70	70	73
	l1	60	63	72	82	82	85
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

1 MB 467



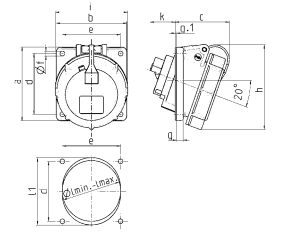
Drawing	Amp.	16			32		
1 MB 467	Poles	3	4	5	3	4	5
Dim. in mm	a	75	75	75	85	85	85
	b	75	75	75	75	75	75
	c	60	61	61	69	69	72
	d	60	60	60	60	60	60
	e	60	60	60	60	60	60
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	8	8	8	8	8	8
	g.1	2	2	2	2	2	2
	h	83	88	95	99	99	105
	i	78	85	96	103	103	110
	k	21	21	21	28	28	38
	l	43	52	54	60	60	65
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

1 MB 472



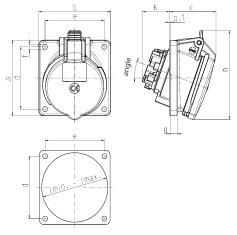
Drawing	Amp.	16
1 MB 472	Poles	3
Dim. in mm	a	68
	b	62
	c	52
	d	47
	e	47
	f	5.5
	g.	8
	g.1	1.5
	h	76
	k	37
Terminal for cond. cross section (mm²) min.-max.		1.5 —4

1 MB 474



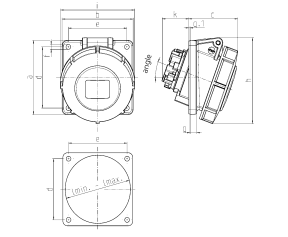
Drawing	Amp.	16		32		63
1 MB 474	Pole	3	5	3/4	5	3/4/5
Dim. in mm	a	85	85	85	85	114
	b	85	85	85	85	114
	c	71	65	65	80	98
	d	70	70	70	70	90
	e	70	70	70	70	90
	f	5.5	5.5	5.5	5.5	5.5
	g	8	8	8	8	12
	g.1	2	2	2	2	2
	h	92	98	101	115	135
	i	70	87	94	101	112
	k	39	33	53	53	70
	l min.	57	70	78	78	92
	l max.	78	78	78	78	105
	l1	—	—	—	—	105
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	2.5 —10	2.5 —10	6 —25

1 MB 519



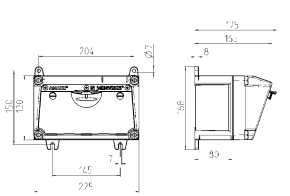
Drawing	Amp.	16			32		
1 MB 519	Poles	3	4	5	3	4	5
Dim. in mm	a	85	85	85	85	85	85
	b	85	85	85	85	85	85
	c	52	57	55	61	60	66
	d	70	70	70	70	70	70
	e	70	70	70	70	70	70
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g	8	8	8	8	8	8
	g.1	2	2	2	2	2	2
	h	86	96	100	96	104	110
	k	31	32	33	43	44	48
	l min.	57	64	70	78	78	78
	l max.	76	76	76	78	78	78
	∂	20	20	20	20	20	20
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —10	2.5 —10	2.5 —10

1 MB 520



Drawing	Amp.	16			32		
1 MB 520	Poles	3	4	5	3	4	5
Dim. in mm	a	85	85	85	85	85	85
	b	85	85	85	85	85	85
	c	56	59	59	64	64	71
	d	70	70	70	70	70	70
	e	70	70	70	70	70	70
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g	8	8	8	8	8	8
	g.1	2	2	2	2	2	2
	h	87	91	99	103	103	110
	i	78	85	89	103	103	106
	k	32	32	33	44	44	49
	l min.	57	64	70	78	78	78
	l max.	76	76	76	78	78	78
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

1 MB 523



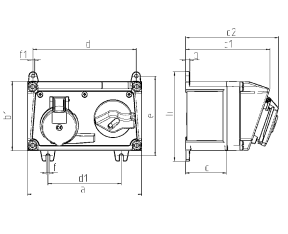
Drawing 1 MB 531

Depth dimensions at various fittings.

Sockets	Degrees	Depth
SCHUKO®16A, 230 V	IP 44	175 mm
	IP 67	194 mm
CEE 16A, 3p, 230V	IP 44	204 mm
	IP 67	205 mm
CEE 16A, 5p, 400V	IP 44	209 mm
	IP 67	213 mm
CEE 32A, 5p, 400V	IP 44	221 mm
	IP 67	227 mm
CEE 63A, 5p, 400V	IP 44	248 mm
	IP 67	248 mm

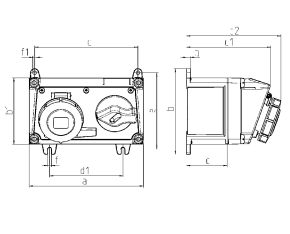
Cable entries: closed for cut out. 2 x M 25 each on top and bottom, 2 x M 20 each on top and bottom for cut out.

1 MB 550



Drawing	Amp.	16			32		
1 MB 550	Poles	3	4	5	3	4	5
Dim. in mm	a	225	225	225	225	225	225
	b	168	168	168	168	168	168
	b1	130	130	130	130	130	130
	c	80	80	80	80	80	80
	c1	166	166	166	166	166	166
	c2	182	183	183	193	193	193
	d	204	204	204	204	204	204
	d1	145	145	145	145	145	145
	e	150	150	150	150	150	150
	f	7	7	7	7	7	7
	f1	Ø7	Ø7	Ø7	Ø7	Ø7	Ø7
	g	8	8	8	8	8	8

1 MB 551

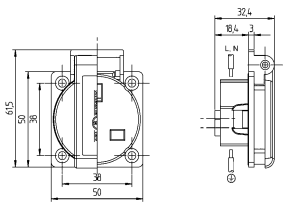


Drawing	Amp.	16			32		
1 MB 551	Poles	3	4	5	3	4	5
Dim. in mm	a	225	225	225	225	225	225
	b	168	168	168	168	168	168
	b1	130	130	130	130	130	130
	c	80	80	80	80	80	80
	c1	166	166	166	166	166	166
	c2	182	185	186	197	197	198
	d	204	204	204	204	204	204
	d1	145	145	145	145	145	145
	e	150	150	150	150	150	150
	f	7	7	7	7	7	7
	f1	Ø7	Ø7	Ø7	Ø7	Ø7	Ø7
	g	8	8	8	8	8	8

Service – Drawings and dimensions

The sizes for the entries on the drawings can be different to the real existing entry sizes. Subject to modification and amendments without prior notice. Errors and omissions excepted.

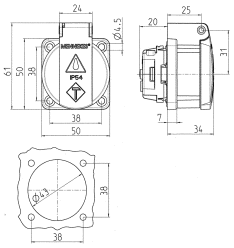
1 MB 584



Drawing
1 MB 584

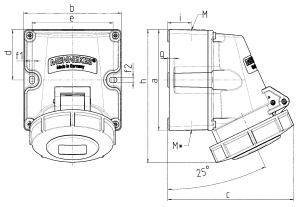
Dim. in mm

1 MB 586



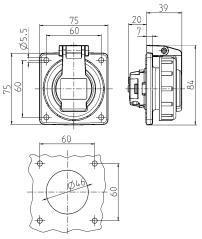
Drawing
1 MB 586

1 MB 622



Drawing	Amp.	16			32		
1 MB 622	Poles	3	4	5	3	4	5
Dim. in mm	a	100	100	100	100	100	100
	b	101	101	101	109	109	109
	c	117	125	131	157	157	160
	d	50	50	50	50	50	50
	e	84	84	84	92	92	92
	f1	5.3	5.3	5.3	5.3	5.3	5.3
	f2	5.3	5.3	5.3	5.3	5.3	5.3
	g	6.5	6.5	6.5	6.5	6.5	6.5
	h	131	131	132	148	148	148
	i	24.7	24.7	24.7	27.5	27.5	27.5
	M	25 (optional M20)			32 (optional M25)		
	M*	2x25 (blind) to be cut out			2x25 (blind) to be cut out		
Max. cable diam. (mm)		18 (M25) and 15 (M20)			25 (M32) and 18 (M25)		
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —6	2.5 —6	2.5 —6

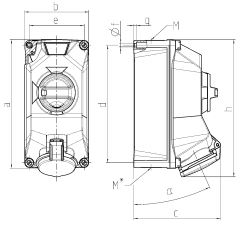
1 MB 627



Drawing
1 MB 627

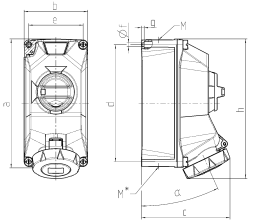
Dim. in mm

1 MB 713



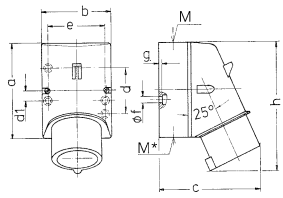
Drawing	Amp.	16			32		
1 MB 713	Poles	3	4	5	3	4	5
Dim. in mm	a	225	225	225	225	225	225
	b	118	118	118	118	118	118
	c	160	160	160	162	162	162
	d	208	208	208	208	208	208
	e	101	101	101	101	101	101
	f	6.4	6.4	6.4	6.4	6.4	6.4
	g.	5	5	5	5	5	5
	h	238	244	243	249	249	250
	α	25			25		
	M	1x25 and 1x32			1x25 and 1x32		
	M*	2x25	2x25	2x25	2x25	2x25	2x25
Max. cable diam. (mm)		25	25	25	25	25	25
Terminal for cond. cross section (mm²) min.-max.		2.5 —10	2.5 —10	2.5 —10	2.5 —10	2.5 —10	2.5 —10

1 MB 714



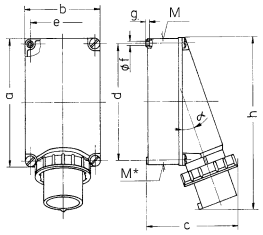
Drawing	Amp.	16			32		
1 MB 714	Poles	3	4	5	3	4	5
Dim. in mm	a	225	225	225	225	225	225
	b	118	118	118	118	118	118
	c	163	163	165	168	168	169
	d	208	208	208	208	208	208
	e	101	101	101	101	101	101
	f	6.4	6.4	6.4	6.4	6.4	6.4
	g.	5	5	5	5	5	5
	h	241	245	249	252	252	255
	α	25			25		
	M	1x25 and 1x32			1x25 and 1x32		
	M*	2x25	2x25	2x25	2x25	2x25	2x25
Max. cable diam. (mm)		25	25	25	25	25	25
Terminal for cond. cross section (mm²) min.-max.		2.5 —10	2.5 —10	2.5 —10	2.5 —10	2.5 —10	2.5 —10

2 MB 32



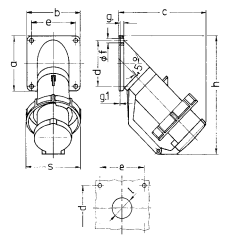
Drawing	Amp.	16			32		
2 MB 32	Poles	3	4	5	3	4	5
Dim. in mm	a	87	100	100	128	128	128
	b	64	75	75	84	84	84
	c	93	106	110	133	133	135
	d	40	—	—	—	—	—
	d1	—	10.5	10.5	11	11	11
	e	50.5	59	59	68	68	68
	f	4,5	5	5	5.3	5.3	5.3
	g.	4	4	4	4	4	4
	h	122	133	135	169	169	170
	M	20	20	20	32	32	32
	M*	1x20 (blind) to be cut out			2x25 (blind) to be cut out		
Max. cable diam. (mm)		15	15	15	18/25	18/25	18/25
Terminal for cond. cross section (mm²) min.-max.		1 —2.5	1 —2.5	1 —2.5	2.5 —6	2.5 —6	2.5 —6

2 MB 36



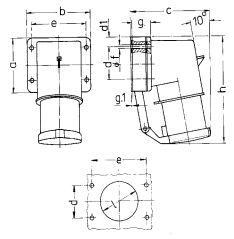
Drawing	Amp.	63			125	
2 MB 36	Poles	3	4	5	4	5
Dim. in mm	a	170	170	170	264	264
	b	118	118	118	163	163
	c	171	171	171	205	205
	d	134.5	134.5	134.5	240	240
	e	103	103	103	140	140
	f	6,1	6,1	6,1	8,1	8,1
	g.	6	6	6	8	8
	h	250	250	250	355	355
	M	40	40	40	50	50
	M*	2x40	2x40	2x40	50	50
	α	25°	25°	25°	20°	20°
Max. cable diam. (mm)		27	27	27	38	38
Terminal for cond. cross section (mm²) min.-max.		6 —16	6 —16	6 —16	16 —35	16 —35

2 MB 40



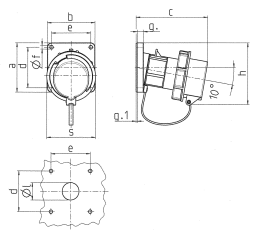
Drawing	Amp.	16	32			63	
2 MB 40	Poles	5	3	4	5	4	5
Dim. in mm	a	85	85	85	85	114	114
	b	85	85	85	85	114	114
	c	141	141	141	144	180	180
	d	70	70	70	70	90	90
	e	70	70	70	70	90	90
	f	6.2	6.2	6.2	6.2	6.2	6.2
	g.	6	6	6	6	6	6
	g.1	2	2	2	2	2	2
	h	181	181	181	188	242	242
	s	86	93	93	100	113	113
	l	30	30	30	30	40	40
Terminal for cond. cross section (mm²) min.-max.		1 —2.5	2.5 —6	2.5 —6	2.5 —6	4 —16	4 —16

2 MB 43



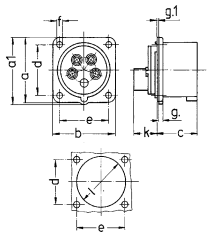
Drawing	Amp.	16		32		
2 MB 43	Poles	4	5	3	4	5
Dim. in mm	a	85	85	75	75	75
	b	85	85	90	90	90
	c	104	106	115	115	117
	d	64	64	45	45	45
	d1	10	10	13	13	13
	e	64	64	78	78	78
	f	5.5	5.5	5.5	5.5	5.5
	g.	27	27	27	27	27
	g.1	2	2	1	1	1
	h	140	140	150	150	150
	l	50	50	55	55	55
Terminal for cond. cross section (mm²) min.-max.		1 —2.5	1 —2.5	2.5 —6	2.5 —6	2.5 —6

2 MB 62/1



Drawing	Amp.	16		32		63
2 MB 62/1	Poles	3	5	3	5	5
Dim. in mm	a	85	85	85	85	106
	b	85	85	85	85	101
	c	128	128	129	135	152
	d	70	70	70	70	85
	e	70	70	70	70	77
	f	6.3	6.3	6.3	6.3	6.5
	g.	11	11	11	11	12
	h	105	107	108	111	130
	s	70	86	92	101,5	114
Terminal for cond. cross section (mm²) min.-max.		1 —2.5	1 —2.5	2.5 —6	2.5 —6	4 —10

2 MB 68



Drawing	Amp.	16	32
2 MB 68	Poles	5	5
Dim. in mm	a	66	72
	a1	69	78
	b	66	72
	c	43	52
	d	52	60
	e	52	60
	f	4.5	4.5
	g.	4.5	4.5
	g.1	2	2
	k	27	32
	l	59	63
Terminal for cond. cross section (mm²) min.-max.		1 —2.5	2.5 —6

Service – Drawings and dimensions

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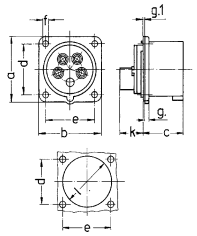
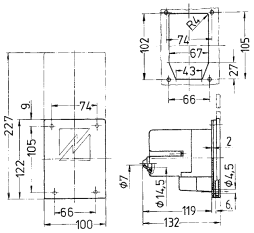
2 MB 68/853



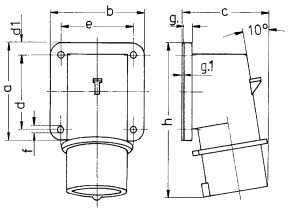
Drawing	Amp.	16
2 MB 68/853	Poles	5
Dim. in mm	a	75
	b	75
	c	42
	d	60
	e	60
	f	5.5
	g.	7.3
	g.1	2
	k	13
	l	52
Terminal for cond. cross section (mm²) min.-max.		1 —2.5

2 MB 70



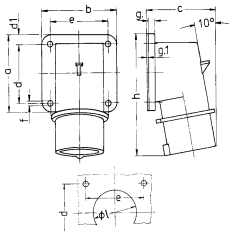
Drawing
2 MB 70
Dim. in mm

2 MB 71



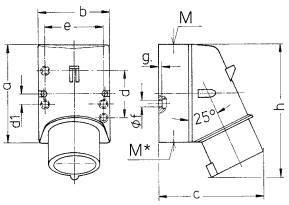
Drawing	Amp.	16	32
2 MB 71	Poles	7	7
Dim. in mm	a	85	75
	b	85	90
	c	79	90
	d	64	45
	d1	10	13
	e	64	78
	f	5.5	5.5
	g.	6	6
	g.1	2	2
	h	129	138
Terminal for cond. cross section (mm²) min.-max.		1 —2.5	2.5 —6

2 MB 73



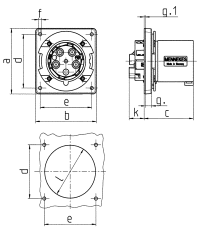
Drawing	Amp.	16		32		
2 MB 73	Poles	4	5	3	4	5
Dim. in mm	a	85	85	75	75	75
	b	85	85	90	90	90
	c	75	79	87	87	90
	d	64	64	45	45	45
	d1	10	10	13	13	13
	e	64	64	78	78	78
	f	5.5	5.5	5.5	5.5	5.5
	g.	6	6	6	6	6
	g.1	2	2	2	2	2
	h	129	129	137	137	138
	l	50	50	55	55	55
Terminal for cond. cross section (mm²) min.-max.		1 —2.5	1 —2.5	2.5 —6	2.5 —6	2.5 —6

2 MB 147



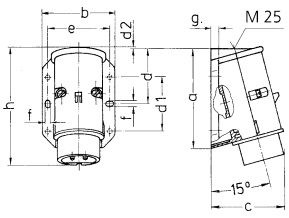
Drawing	Amp.	16	32
2 MB 147	Poles	7	7
Dim. in mm	a	100	128
	b	75	84
	c	110	135
	d	—	—
	d1	10.5	11
	e	59	68
	f	5	5.3
	g.	4	4
	h	135	170
	M	20	32
	M*	20 (blind) to be cut out	2x25 (blind) to be cut out
Max. cable diam. (mm)		15	18
Terminal for cond. cross section (mm²) min.-max.		1 —2.5	2.5 —4

2 MB 155



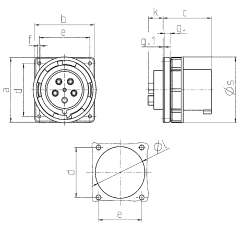
Drawing	Amp.	63		
2 MB 155	Poles	3	4	5
Dim. in mm	a	110	110	110
	b	106	106	106
	c	86	86	86
	d	90	90	90
	e	90	90	90
	f	5.5	5.5	5.5
	g.	12	12	12
	g.1	2	2	2
	k	28	28	28
	l	88.5	88.5	88.5
Terminal for cond. cross section (mm²) min.-max.		6 —16	6 —16	6 —16

2 MB 160



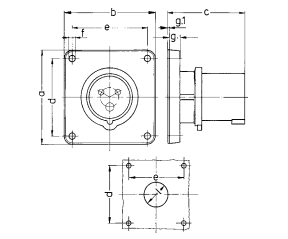
Drawing	Amp.	16		32	
2 MB 160	Poles	2	3	2	3
Dim. in mm	a	96	96	96	96
	b	73	73	73	73
	c	74	74	74	74
	d	53	53	53	53
	d1	52	52	52	52
	d2	2	2	2	2
	e	62	62	62	62
	f	5.3	5.3	5.3	5.3
	g.	8	8	8	8
	h	116	116	116	116
Terminal for cond. cross section (mm²) min.-max.		4 —10	4 —10	4 —10	4 —10

2 MB 166



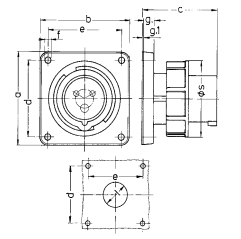
Drawing	Amp.	63			125		
2 MB 166	Poles	3	4	5	3	4	5
Dim. in mm	a	110	110	110	130	130	130
	b	106	106	106	130	130	130
	c	86	86	86	112	112	112
	d	90	90	90	104	104	104
	e	90	90	90	104	104	104
	f	5.5	5.5	5.5	6.5	6.5	6.5
	g.	12	12	12	18	18	18
	g.1	2	2	2	2	2	2
	k	28	28	28	28	28	28
	l	88.5	88.5	88.5	98	98	98
	s	113	113	113	132	132	132
Terminal for cond. cross section (mm²) min.-max.		6 —16	6 —16	6 —16	25 —70	25 —70	25 —70

2 MB 173/2



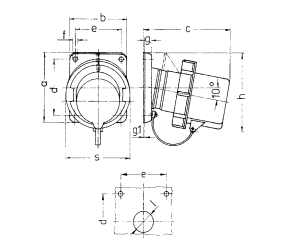
Drawing	Amp.	16			32		
2 MB 173/2	Poles	3	4	5	3	4	5
Dim. in mm	a	85.7	85.7	85.7	85.7	85.7	85.7
	b	85.7	85.7	85.7	85.7	85.7	85.7
	c	72	72	72	90	90	90
	d	69.5	69.5	69.5	69.5	69.5	69.5
	e	69.5	69.5	69.5	69.5	69.5	69.5
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	11	11	11	11	11	11
	g.1	2	2	2	2	2	2
	l	32	36	36	47	47	47
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —10	2.5 —10	2.5 —10

2 MB 187/2



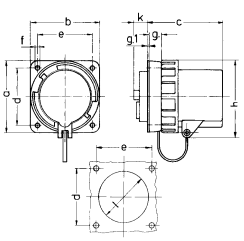
Drawing	Amp.	16			32		
2 MB 187/2	Poles	3	4	5	3	4	5
Dim. in mm	a	85.7	85.7	85.7	85.7	85.7	85.7
	b	85.7	85.7	85.7	85.7	85.7	85.7
	c	72	72	72	90	90	90
	d	69.5	69.5	69.5	69.5	69.5	69.5
	e	69.5	69.5	69.5	69.5	69.5	69.5
	f	5.5	5.5	5.5	5.5	5.5	5.5
	g.	11	11	11	11	11	11
	g.1	2	2	2	2	2	2
	l	32	36	47	47	47	47
	s	71	79	89	94	94	102
Terminal for cond. cross section (mm²) min.-max.		1.5 —4	1.5 —4	1.5 —4	2.5 —10	2.5 —10	2.5 —10

2 MB 203



Drawing	Amp.	16	32
2 MB 203	Poles	7	7
Dim. in mm	a	85	85
	b	85	85
	c	132	137
	d	70	70
	e	70	70
	f	6.3	6.3
	g.	11	11
	g.1	2	2
	h	107	111
	s	86	102
	l	30	30
Terminal for cond. cross section (mm²) min.-max.		1 —2.5	2.5 —6

2 MB 206



Drawing	Amp.	125
2 MB 206	Poles	5
Dim. in mm	a	130
	b	130
	c	120
	d	104
	e	104
	f	6.5
	g.	18
	g.1	2
	h	131
	k	28
	l	98
Terminal for cond. cross section (mm²) min.-max.		25 —70

Service – Drawings and dimensions

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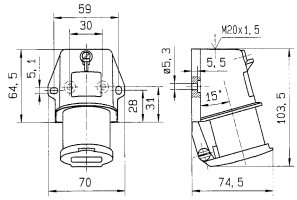
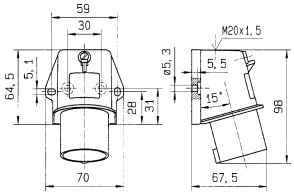
2 MB 212



Drawing
2 MB 212

Dim. in mm

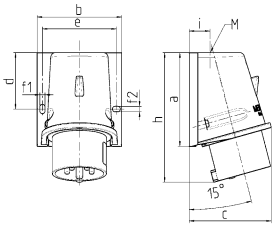
2 MB 213



Drawing
2 MB 213

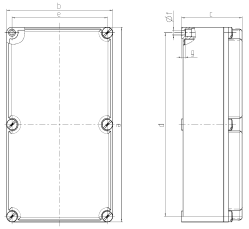
Dim. in mm

2 MB 221



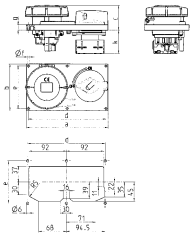
Drawing 2 MB 221	Amp. Poles	16 4	16 5	32 3	32 4	32 5
Dim. in mm	a	92.5	92.5	102	102	102
	b	87	87	94	94	94
	c	84.5	84.5	94	94	94
	d	55.5	55.5	62	62	62
	e	76	76	84	84	84
	f1	5.3	5.3	5.3	5.3	5.3
	f2	5.3	5.3	5.3	5.3	5.3
	h	128	128	146	146	146
	i	21.5	21.5	26	26	26
	M	25x1.5	25x1.5	25x1.5	25x1.5	32x1.5

5 MB 30



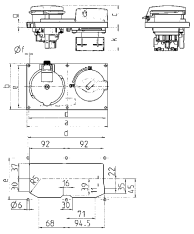
Drawing 5 MB 30	Typ	10186 / 10188	10189	10441 / 10442
Dim. in mm	a	460	460	460
	b	260	260	180
	c	150	228	148
	d	434	434	440
	e	234	234	160
	f	11	11	8,1
	g	9	9	8

5 MB 57



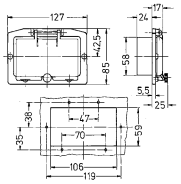
Drawing 5 MB 57	Amp. Poles	16 3	16 4	16 5	32 3	32 4	32 5
Dim. in mm	a	200	200	200	200	200	200
	b	110	110	110	110	110	110
	c	47	50	51	59	59	60
	d	190	190	190	190	190	190
	e	100	100	100	100	100	100
	f	5	5	5	5	5	5
	g	13	13	13	13	13	13
	k max.	56	56	56	56	56	56

5 MB 59



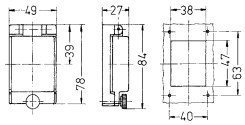
Drawing 5 MB 59	Amp. Poles	16 3	16 4	16 5	32 3	32 4	32 5
Dim. in mm	a	200	200	200	200	200	200
	b	110	110	110	110	110	110
	c	46	49	46	56	56	53
	d	190	190	190	190	190	190
	e	100	100	100	100	100	100
	f	5	5	5	5	5	5
	g	13	13	13	13	13	13
	k max.	56	56	56	56	56	56

6 MB 2 / 5 TE



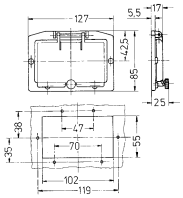
Part no. 40243 / Draw. 6 MB 2 / 5 modules

6 MB 3 / 2 TE



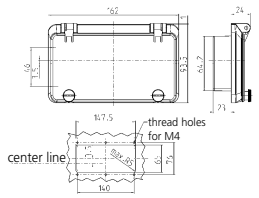
Part no. 40444 / Draw. 6 MB 3 / 2 modules

6 MB 4 / 5 TE



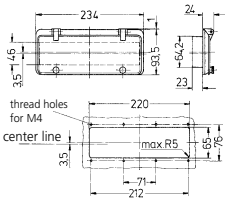
Part no. 40871 / Draw. 6 MB 4 / 5 modules

6 MB 12 / 8 TE



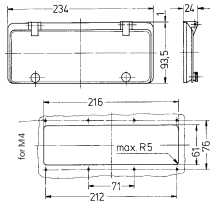
Part no. 40979ZA / Draw. 6 MB 12 / 8 modules

6 MB 13 / 12 TE



Part no. 40981ZE / Draw. 6 MB 13 / 12 modules

6 MB 14 / 12 TE

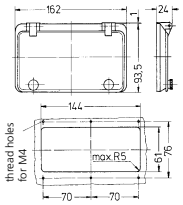


Part no. 40980 / Draw. 6 MB 14 / 12 modules

Service – Drawings and dimensions

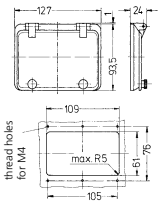
The sizes for the entries on the drawings can be different to the real existing entry sizes. Subject to modification and amendments without prior notice. Errors and omissions excepted.

6 MB 15 / 8 TE



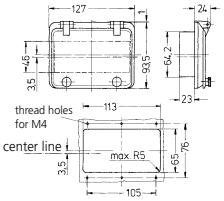
Part no. 40978 / Draw. 6 MB 15 / 8 modules

6 MB 16 / 6 TE



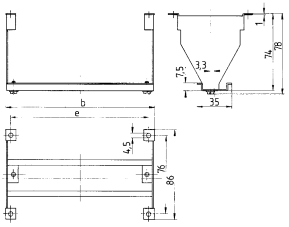
Part no. 40985 / Draw. 6 MB 16 / 6 modules

6 MB 17 / 6 TE



Part no. 40986ZA / Draw. 6 MB 17 / 6 modules

6 MB 18



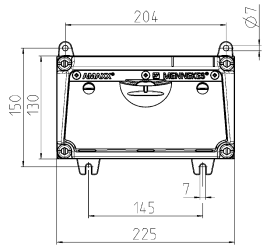
Drawing 6 MB 18				
Number of spacing modules		6	8	12
Dim. in mm	b	115	150	222
	e	105	140	212

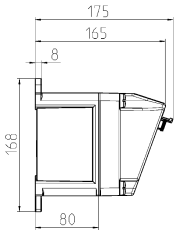
Service – Drawings and dimensions

The sizes for the entries on the drawings can be different to the real existing entry sizes. Subject to modification and amendments without prior notice. Errors and omissions excepted.

AMAXX. Combination units.

AMAXX with 1 segment



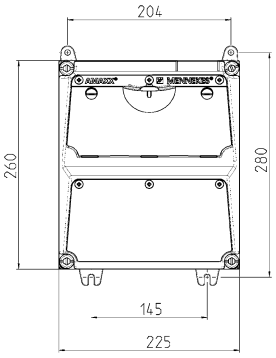


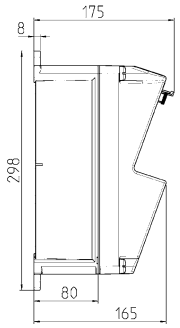
1 MB 531

Depth dimensions of the AMAXX enclosures with 1, 2, or 3 segments and various fittings.

Sockets	IP-degrees	Depth
SCHUKO® 16 A, 230 V	IP44	175 mm
	IP67	194 mm
CEE 16 A, 3 p, 230 V	IP44	204 mm
	IP67	205 mm
CEE 16 A, 5 p, 400 V	IP44	209 mm
	IP67	213 mm
CEE 32 A, 5 p, 400 V	IP44	221 mm
	IP67	227 mm
CEE 63 A, 5 p, 400 V	IP44	248 mm
	IP67	248 mm

AMAXX with 2 segments





1 MB 521

Cable entries: closed for cut out.

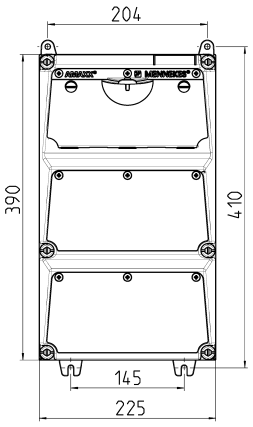
single enclosure 130 mm x 225 mm:
2 x M 25 on top and bottom

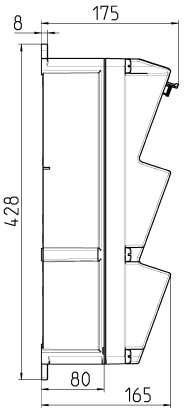
double enclosure 260 mm x 225 mm:
2 x M 32 on top and bottom

triple enclosure 390 mm x 225 mm:
2 x M 40 on top and bottom

For all enclosures: 2 x M 20 on top and bottom for cut out.

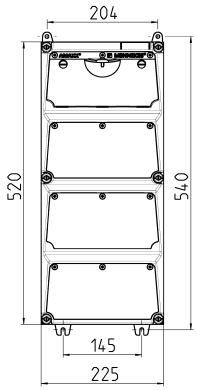
AMAXX with 3 segments

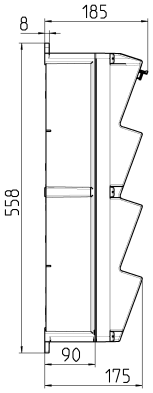




1 MB 522

AMAXX with 4 segments





1MB523

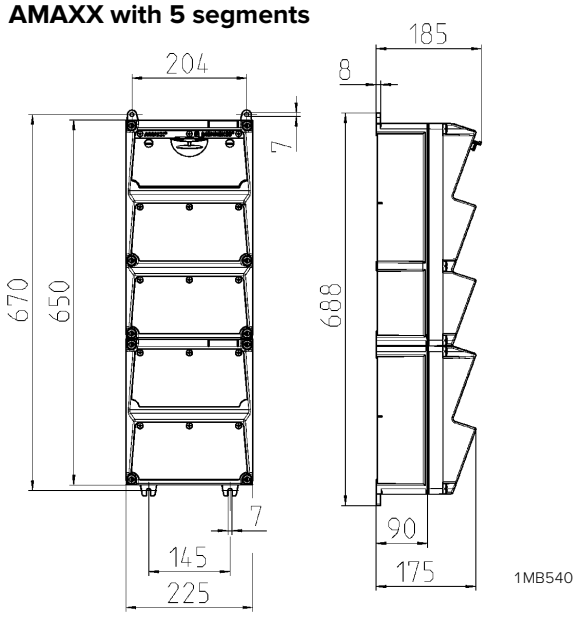
Depth dimensions of the AMAXX enclosures with 4 or 5 segments and various fittings.

Sockets	IP-degrees	Depth
SCHUKO® 16 A, 230 V	IP44	186 mm
	IP67	208 mm
CEE 16 A, 3 p, 230 V	IP44	216 mm
	IP67	220 mm
CEE 16 A, 5 p, 400 V	IP44	222 mm
	IP67	226 mm
CEE 32 A, 5 p, 400 V	IP44	231 mm
	IP67	236 mm
CEE 63 A, 5 p, 400 V	IP44	260 mm
	IP67	260 mm

The sizes for the entries on the drawings can be different to the real existing entry sizes. Subject to modification and amendments without prior notice. Errors and omissions excepted.

AMAXX. Combination units.

AMAXX with 5 segments



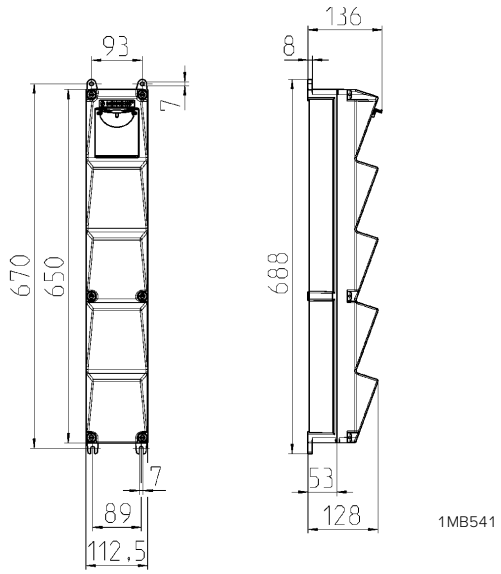
1MB540

Cable entries: closed for cut out.

quadruple enclosure 520 mm x 225 mm :
quintuple enclosure 650 mm x 225 mm :
2 x M 40 on top and bottom

For both enclosures: 2 x M 20 on top and bottom for cut out.

AMAXX s with 5 segments



1MB541

Depth dimensions of the AMAXX s enclosures
with 5 segments and various fittings.

Sockets	IP-degrees	Depth
SCHUKO® 16 A, 230 V	IP44	140 mm
	IP67	157 mm
CEE 16 A, 3 p, 230 V	IP44	170 mm
	IP67	169 mm
CEE 16 A, 5 p, 400 V	IP44	172 mm
	IP67	174 mm
CEE 32 A, 5 p, 400 V	IP44	182 mm
	IP67	188 mm

Cable entries: closed for cut out.

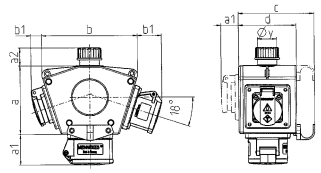
AMAXX s 650 mm x 112,5 mm:
1 x M 25 each on top and bottom or
1 x M 32 each on top and bottom

Additionally: 1 x M 20 each on top and bottom to cut out.

Service – Drawings and dimensions

The sizes for the entries on the drawings can be different to the real existing entry sizes. Subject to modification and amendments without prior notice. Errors and omissions excepted.

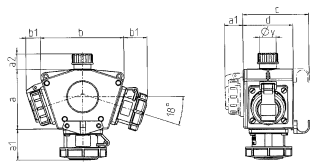
3 MB 44



3 MB 44			
Pos.	**Receptacles**	**IP-degrees**	**Dim.**
a			114.0 mm
a1	SCHUKO®, 16 A, 230 V	IP 44	max. 30.0 mm
a1	CEE 16 A, 3 p, 230 V	IP 44	52.7 mm
a1	CEE 16 A, 5 p, 400 V	IP 44	50.5 mm
a1	CEE 32 A, 5 p, 400 V	IP 44	64.0 mm
a2			30.0 mm
b			160.0 mm
b1	SCHUKO®, 16 A, 230 V	IP 44	max. 18.0 mm
b1	CEE 16 A, 3 p, 230 V	IP 44	42.0 mm
b1	CEE 16 A, 5 p, 400 V	IP 44	40.0 mm
b1	CEE 32 A, 5 p, 400 V	IP 44	53.2 mm
c			133.0 mm
d			97.0 mm
y			17.0 mm

Cable entry: 1 x with gland diameter,
Ø 17 mm or 27 mm

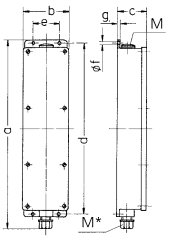
3 MB 45



3 MB 45			
Pos.	**Receptacles**	**IP-degrees**	**Dim.**
a			114.0 mm
a1	SCHUKO®, 16 A, 230 V	IP 68	35.0 mm
a1	CEE 16 A, 3 p, 230 V	IP 67	56.3 mm
a1	CEE 16 A, 5 p, 400 V	IP 67	59.0 mm
a2			30.0 mm
b			160.0 mm
b1	SCHUKO®, 16 A, 230 V	IP 44	24.0 mm
b1	CEE 16 A, 3 p, 230 V	IP 44	44.3 mm
b1	CEE 16 A, 5 p, 400 V	IP 44	47.0 mm
c			133.0 mm
d			97.0 mm
y			17.0 mm

Cable entry: 1 x with gland diameter,
Ø 17 mm or 27 mm

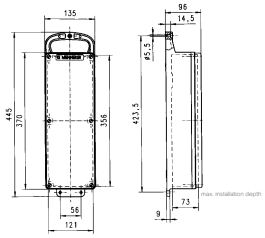
5 MB 35



Drawing 5 MB 35		
Dim. in mm	**a**	401
	b	97
	c	63
	d	364
	e	56
	f	5.5
	g.	4
	M	25
	M*	25

Enclosure size: 401 x 97 mm
Cable entry: 1 x M 20 plugged at the top,
1 x M 20 with gland at the bottom

5 MB 44

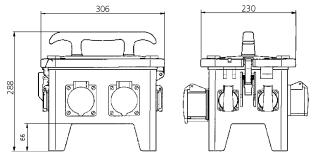


Drawing
5 MB 44

Dim. in mm

Enclosure size: 445 x 135 mm

5 MB 48a

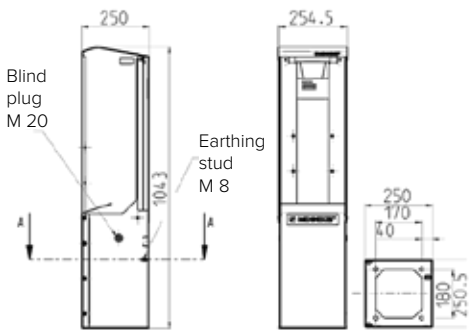


Drawing
5 MB 48a

Dim. in mm

Enclosure size: 300 x 230 x 287.5 mm

1 MB 517

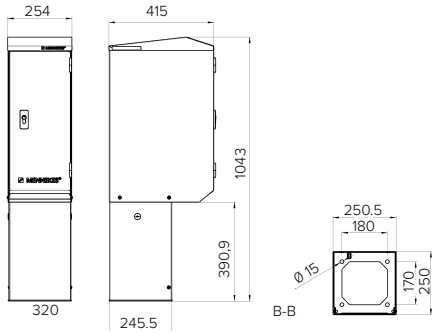


Drawing
1 MB 517

Dim. in mm

for part no.
15678 and 15679

1 MB 518



Drawing
1 MB 518

Dim. in mm

for part no.
15680 and 15681

Service – Index of part numbers

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