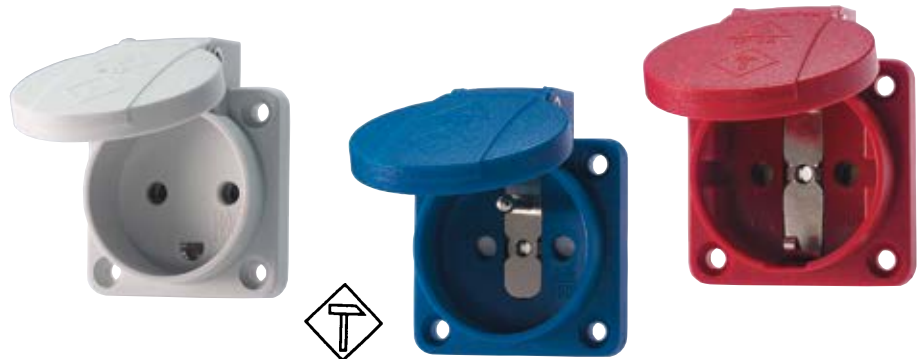


SCHUKO®

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 strength. Durable due to resistance against embrittlement.



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

The attachment receptacles 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 IP 54 degree of protection in every position.

Even with the compatible IP 44 plug, plugged-in, the IP 44 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 receptacles are the first choice. Protection type IP 68.





Products with extended versions and special devices – 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 105 - 117.


| | | | | | | |
|---|---------------|---------------|----------------|---------------------|--------------------------|------------------------|
|  <p>Panel mounted receptacle SCHUKO® with hinged lid, 3 plug-in terminals or 3 screw terminals as connecting terminals for 1.5 - 2.5 mm²</p> <p>IP 54 Std. Pack. Qty: 100/20 Drawing: 1 MB 410</p> | 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 |

| | | | | | | |
|--|---------------|---------------|----------------|---------------------|--------------------------|------------------------|
|  <p>Panel mounted receptacle SCHUKO® with front gasket with hinged lid, 3 plug-in terminals or 3 screw terminals as connecting terminals for 1.5 - 2.5 mm²</p> <p>IP 54 Std. Pack. Qty: 100 Drawing: 1 MB 586</p> | 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 |

| | | | | | | |
|--|---------------|---------------|----------------|---------------------|--------------------------|------------------------|
|  <p>Panel mounted receptacle SCHUKO® without hinged lid, 3 plug-in terminals or 3 screw terminals as connecting terminals for 1.5 - 2.5 mm²</p> <p>IP 20 Std. Pack. Qty: 100 Drawing: 1 MB 450</p> | 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 |


| | | | | | | |
|---|---------------|---------------|----------------|---------------------|--------------------------|------------------------|
|  <p>Wall mounted receptacle SCHUKO® with hinged lid, 3 plug-in terminals as connecting terminals for 1.5 - 2.5 mm², receptacles can be linked in a row vertically. Slide on top, slot on bottom of enclosure</p> <p>IP 44 Std. Pack. Qty: 10 Drawing: 1 MB 27/30</p> | Colour | Ampere | Voltage | with shutter | plug-in terminals | screw terminals |
| | grey | 16 | 230 | | 10081 | |
| | blue | 16 | 230 | | 10082 | |
| | black | 16 | 230 | | 10083 | |

| | | | | | | |
|---|---------------|---------------|----------------|---------------------|--------------------------|------------------------|
|  <p>Wall mounted receptacle grounding-type French/Belgian system (NF) with hinged lid, 3 plug-in terminals as connecting terminals for 1.5 - 2.5 mm², receptacles can be linked in a row vertically. Slide on top, slot on bottom of enclosure</p> <p>IP 44 Std. Pack. Qty: 10 Drawing: 1 MB 27/30</p> | Colour | Ampere | Voltage | with shutter | plug-in terminals | screw terminals |
| | blue | 16 | 230 | ✓ | 10092 | |

| | | | | | | |
|--|---------------|---------------|----------------|---------------------|--------------------------|------------------------|
|  <p>Panel mounted receptacle 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</p> <p>IP 44 Std. Pack. Qty: 10 Drawing: 1 MB 410</p> | 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 |

Products with extended versions and special devices – 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 105 - 117.



Panel mounted receptacle 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

IP 20
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 receptacle grounding-type
British standard, with hinged lid and seal; flange 50 x 50 mm, fixing holes 38 x 38 mm

IP 44
Std. Pack. Qty: 20
Drawing: 1 MB 584

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




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

IP 44
Std. Pack. Qty: 20
Drawing: 1 MB 422

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


5



Panel mounted receptacle NEMA
USA and Canada, with hinged lid

IP 44
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

IP 44
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

IP 44
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 |

Products with extended versions and special devices – SCHUKO® and grounding-type


to DIN 49442/43 and DIN VDE 0620. Other versions available on request. For drawings and dimensions see page 105 - 117.



Wall mounted receptacle SCHUKO®
with hinged bayonet lock lid

IP 68
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 receptacle SCHUKO® or NF
with hinged bayonet lock lid, rectangular flange, four fixing holes or two stamped recesses for quick perforation

IP 68
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 |
| NF | | | | | |
| blue / grey | 16 | 230 | ✓ | 17060 | 17064 |
| | | | | | |



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

IP 68
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

IP 68
Std. Pack. Qty: 10

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

7 pole

For multifunctional applications.



5

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

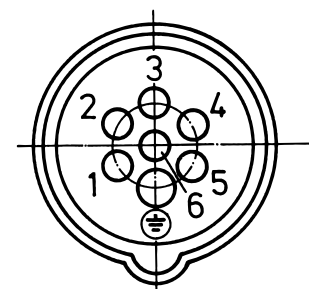
This number of poles provides solutions in the following fields:

- 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.


| 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 +

Products with extended versions and special devices – 7 pole


to DIN VDE 0623-1, EN 60309-1. Colour: electric grey and/or colour code.  Highly resistant to chemicals. Other voltages and frequencies available on request. For drawings and dimensions see page 105 - 117.



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

IP 44
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 receptacle
highly resistant to chemicals, highly heat resistant contact carrier, nickel plated contacts, 2 external fixings, enclosure can be turned 180°

IP 67
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 receptacle
switched, mechanical DUO-interlock, highly heat resistant contact carrier, nickel plated contacts, 6 pole switch with 2 auxiliary contacts (1 NO and 1 NC), receptacles can be padlocked

IP 67
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 |
|---------------------|---|----------------------|----------------------|----------------------|
| with 6 pole switch: | | | | |
| 16 | 7 | | 7306 | |
| 32 | 7 | | 7307 | |
| with 3 pole switch: | | | | |
| 16 | 7 | | 5785 | |
| 32 | 7 | | 6106 | |



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

IP 44
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 receptacle
highly heat resistant contact carrier, nickel plated contacts, 20° inclination

IP 67
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


IP 44
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 |


Products with extended versions and special devices – 7 pole


to DIN VDE 0623-1, EN 60309-1. Colour: electric grey and/or colour code. Other voltages and frequencies available on request.
For drawings and dimensions see page 105 - 117.


| | | | | | |
|--|----------|----------|-----------------------------|-----------------------------|-----------------------------|
|  <p>Plug AM-TOP highly heat resistant contact carrier, nickel plated contacts, single part body, cable gland and sealing, strain relief and protection against kinking</p> <p>IP 67 Std. Pack. Qty: 10</p> | A | P | 230 V 50 a. 60 Hz | 400 V 50 a. 60 Hz | 500 V 50 a. 60 Hz |
| | 16 | 7 | 3776 | 3777 | 3913 |
| | 32 | 7 | 2405 | 2324 | 2213 |

| | | | | | |
|--|----------|----------|-----------------------------|-----------------------------|-----------------------------|
|  <p>Wall mounted inlet highly heat resistant contact carrier, nickel plated contacts</p> <p>IP 44 Std. Pack. Qty: 10 Drawing: 2 MB 147</p> | A | P | 230 V 50 a. 60 Hz | 400 V 50 a. 60 Hz | 500 V 50 a. 60 Hz |
| | 16 | 7 | | 2166 | |
| | 32 | 7 | | 2167 | |

| | | | | | |
|---|----------|----------|-----------------------------|-----------------------------|-----------------------------|
|  <p>Panel mounted inlet highly heat resistant contact carrier, nickel plated contacts</p> <p>IP 44 Std. Pack. Qty: 10 Drawing: 2 MB 71</p> | A | P | 230 V 50 a. 60 Hz | 400 V 50 a. 60 Hz | 500 V 50 a. 60 Hz |
| | 16 | 7 | 749 | 750 | 1075 |
| | 32 | 7 | 751 | 752 | 1080 |

| | | | | | |
|--|----------|----------|-----------------------------|-----------------------------|-----------------------------|
|  <p>Panel mounted inlet highly heat resistant contact carrier, nickel plated contacts, with protective cap</p> <p>IP 67 Std. Pack. Qty: 10 Drawing: 2 MB 203</p> | A | P | 230 V 50 a. 60 Hz | 400 V 50 a. 60 Hz | 500 V 50 a. 60 Hz |
| | 16 | 7 | 3779 | 3914 | 3780 |
| | 32 | 7 | 3781 | 3915 | 3782 |


| | | | | | |
|--|----------|----------|-----------------------------|-----------------------------|-----------------------------|
|  <p>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</p> <p>IP 44 Std. Pack. Qty: 10</p> | A | P | 230 V 50 a. 60 Hz | 400 V 50 a. 60 Hz | 500 V 50 a. 60 Hz |
| | 16 | 7 | 745 | 746 | 1065 |
| | 32 | 7 | 747 | 748 | 1070 |


| | | | | | |
|---|----------|----------|-----------------------------|-----------------------------|-----------------------------|
|  <p>Connector AM-TOP highly heat resistant contact carrier, nickel plated contacts, single part body, cable gland and sealing, strain relief and protection against kinking</p> <p>IP 67 Std. Pack. Qty: 10</p> | A | P | 230 V 50 a. 60 Hz | 400 V 50 a. 60 Hz | 500 V 50 a. 60 Hz |
| | 16 | 7 | 3783 | 3916 | 3784 |
| | 32 | 7 | 2406 | 2255 | 2460 |


5


Products with extended versions and special devices – For low voltage


to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 105 - 117.


| | | | | | | | | |
|---|--------------------------------|---|----------|----------|---------------------------------|---------------------------------|--|---|
|  | Wall mounted receptacle | | 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 | | | |
| | | | | | | | | |
| IP 44 Std. Pack. Qty: 10 Drawing: 1 MB 294 | | | | | | | | |

| | | | | | | | | |
|---|--------------------------------|---|----------|----------|---------------------------------|---------------------------------|--|---|
|  | Wall mounted receptacle | | 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 | | | |
| | | | | | | | | |
| IP 44 Std. Pack. Qty: 10 Drawing: 1 MB 137 | | | | | | | | |

| | | | | | | | | |
|--|--|---|----------|----------|---------------------------------|---------------------------------|--|---|
|  | Panel mounted receptacle flange 55 x 55 mm, straight | | 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 | | | |
| | | | | | | | | |
| IP 44 Std. Pack. Qty: 10 Drawing: 1 MB 136 | | | | | | | | |


| | | | | | | | | |
|---|--|---|----------|----------|---------------------------------|---------------------------------|--|---|
|  | Panel mounted receptacle flange 75 x 75 mm, straight | | 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 | 1595 | 1579 | | | |
| | | | | | | | | |
| IP 44 Std. Pack. Qty: 10 Drawing: 1 MB 292 | | | | | | | | |


| | | | | | | | | |
|---|---|---|----------|----------|---------------------------------|---------------------------------|--|---|
|  | Panel mounted receptacle flange 68 x 62 mm, 20° inclination | | 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 | | | |
| | | | | | | | | |
| IP 44 Std. Pack. Qty: 10 Drawing: 1 MB 231 | | | | | | | | |


| | | | | | | | | |
|---|--|---|----------|----------|---------------------------------|---------------------------------|--|---|
|  | Panel mounted receptacle 20° inclination | | 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 | | |
| | | | | | | | | |
| IP 44 Std. Pack. Qty: 10 Drawing: 1 MB 236 | | | | | | | | |

Products with extended versions and special devices – For low voltage

to DIN VDE 0623, EN 60309-2. Other voltages and frequencies available on request. For drawings and dimensions see page 105 - 117.

| | | | | | | |
|---|----------|----------|---------------------------------|---------------------------------|--|---|
|  <p>Plug with cable gland</p> <p>IP 44 Std. Pack. Qty: 10</p> | 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 | |
| | | | | | | |

| | | | | | | |
|--|----------|----------|---------------------------------|---------------------------------|--|---|
|  <p>Wall mounted inlet</p> <p>IP 44 Std. Pack. Qty: 10 Drawing: 2 MB 160</p> | 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 | |
| | | | | | | |

| | | | | | | |
|---|----------|----------|---------------------------------|---------------------------------|--|---|
|  <p>Connector with cable gland</p> <p>IP 44 Std. Pack. Qty: 10</p> | 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 | |
| | | | | | | |

5 Low voltages.

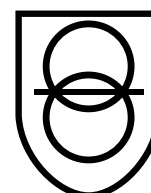
When portable electric appliances are used in environments where conductive materials are present and where movement is restricted, they must be operated at low voltage or they must be electrically isolated, e.g. in or on boilers, containers, pipework systems, steel scaffolding or similar installations. 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).



200 A - 400 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 200 A, 250 A and 400 A and rated voltages of up to 1000 V.

Their design is based on the following standards: IEC 309-1, EN 60309-1, DIN VDE 0623, part 1.



Shock hazard protected using contact covers.

Contact bushings on receptacles and connectors are fitted with covers which positively prevent getting into contact with live bushings. Shockhazard protected in accordance with IEC 309-1 / EN 60309-1.



Mechanical lock.

For mobile consumers of rated current > 125 A we have included a heavy duty range with 200 A, 250 A and 400 A in our programme. This can be supplied for rated voltages of 230 V to 1000 V and seawater resistant.

The heavy duty range is suitable for use in very harsh conditions, e.g. building sites:

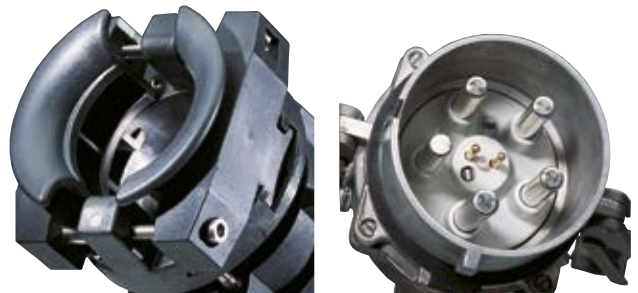
- drilling rigs
- drilling and conveying systems
- tunnel construction
- quarries
- gravel pits
- strip mining
- container terminals and crane connections in harbours
- airports
- for versatile power supply at large-scale indoor and outdoor events
- power supply to market places
- seawater resistant design are available on request



Connection terminals in plugs and sockets 200 A for conductor cross sections of 70 to 150 mm², 250 A and 400 A for conductor cross sections of 70 to 185 mm² or with flexible conductors, and 70 to 240 mm² with single or multiple strand conductors.

Surface protection for contacts.

Contacts 200 A up to 400 A are protected against corrosive atmosphere by silver plating. Contacts (250 A and 400 A) are accessible from the front side so that there is no need to undo the connection cable when exchanging damaged parts.



Plugs, connectors, inlets and wall mounted receptacles are supplied with flared bushings for cables of diameter 45 to 65 mm. The outside cable grip facilitates connection.

Two pilot contacts are a standard fitting in all plugs and sockets. The pilot contacts lag when the plug is inserted and lead when it is withdrawn. If required, plugs and sockets can be electrically interlocked.


Products with extended versions and special devices – 200 A up to 400 A


Design based on IEC 309-1, EN 60309-1, DIN VDE 0623 part 1. Other voltages and frequencies available on request.
For drawings and dimensions see page 105 - 117.


| | | | |
|--|----------|----------|-----------------------------|
|  <p>Wall mounted receptacle with cable gland, seawater resistant design available on request</p> <p>IP 67 Std. Pack. Qty: 1 200 A Drawing: 1 MB 385 250 + 400 A Drawing: 1 MB 389/1</p> | A | P | 400 V 50 a. 60 Hz |
| | 200 | 4 | 75221 |
| | 200 | 5 | 75226 |
| | 250 | 4 | 75021 |
| | 250 | 5 | 75111 |
| | 400 | 4 | 75026 |
| | 400 | 5 | 75116 |
|  <p>Wall mounted receptacle switched, mechanical interlock, seawater resistant design available on request</p> <p>IP 55 Std. Pack. Qty: 1 200 A Drawing: 1 MB 386 250 + 400 A Drawing: 1 MB 403/2</p> | A | P | 400 V 50 a. 60 Hz |
| | 200 | 4 | 75231 |
| | 200 | 5 | 75236 |
| | 250 | 4 | 75031 |
| | 250 | 5 | 75121 |
| | 400 | 4 | 75036 |
| | 400 | 5 | 75126 |
|  <p>Wall mounted receptacle switched, electrical interlock, seawater resistant design available on request</p> <p>IP 55 Std. Pack. Qty: 1 200 A Drawing: 1 MB 387 250 + 400 A Drawing: 1 MB 404/2</p> | A | P | 400 V 50 a. 60 Hz |
| | 200 | 4 | 75271 |
| | 200 | 5 | 75276 |
| | 250 | 4 | 75437 |
| | 250 | 5 | 75441 |
| | 400 | 4 | 75174 |
| | 400 | 5 | 75448 |
|  <p>Panel mounted receptacle seawater resistant design available on request</p> <p>IP 67 Std. Pack. Qty: 1 200 A Drawing: 1 MB 384 250 + 400 A Drawing: 1 MB 388/1</p> | A | P | 400 V 50 a. 60 Hz |
| | 200 | 4 | 75241 |
| | 200 | 5 | 75246 |
| | 250 | 4 | 75041 |
| | 250 | 5 | 75131 |
| | 400 | 4 | 75046 |
| | 400 | 5 | 75136 |
|  <p>Panel mounted receptacle 15° inclination, seawater resistant design available on request</p> <p>IP 67 Std. Pack. Qty: 1 200 A Drawing: 1 MB 636 250 + 400 A Drawing: 1 MB 637</p> | A | P | 400 V 50 a. 60 Hz |
| | 200 | 4 | 75053 |
| | 200 | 5 | 75058 |
| | 250 | 4 | 75063 |
| | 250 | 5 | 75068 |
| | 400 | 4 | 75073 |
| | 400 | 5 | 75078 |
|  <p>Plug with cable gland, seawater resistant design available on request</p> <p>IP 67 Std. Pack. Qty: 1</p> | A | P | 400 V 50 a. 60 Hz |
| | 200 | 4 | 75201 |
| | 200 | 5 | 75206 |
| | 250 | 4 | 75001 |
| | 250 | 5 | 75091 |
| | 400 | 4 | 75006 |
| | 400 | 5 | 75096 |


Products with extended versions and special devices – 200 A up to 400 A

Design based on IEC 309-1, EN 60309-1, DIN VDE 0623 part 1. Other voltages and frequencies available on request.
For drawings and dimensions see page 105 - 117.

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|  <p>Inlet with cable gland, seawater resistant design are available on request</p> <p>IP 67 Std. Pack. Qty: 1 200 A Drawing: 2 MB 197 250 + 400 A Drawing: 2 MB 200/1</p> | A | P | 400 V 50 a. 60 Hz |
| | 200 | 4 | 75251 |
| | 200 | 5 | 75256 |
| | 250 | 4 | 75172 |
| | 250 | 5 | 75173 |
| | 400 | 4 | 75389 |
| | 400 | 5 | 75398 |

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|  <p>Panel mounted inlet seawater resistant design are available on request</p> <p>IP 67 Std. Pack. Qty: 1 200 A Drawing: 2 MB 196 250 + 400 A Drawing: 2 MB 199/1</p> | A | P | 400 V 50 a. 60 Hz |
| | 200 | 4 | 75261 |
| | 200 | 5 | 75266 |
| | 250 | 4 | 75284 |
| | 250 | 5 | 75287 |
| | 400 | 4 | 75291 |
| | 400 | 5 | 75295 |

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|  <p>Panel mounted inlet 15° inclination, seawater resistant design are available on request</p> <p>IP 67 Std. Pack. Qty: 1 200 A Drawing: 2 MB 247 250 + 400 A Drawing: 2 MB 248</p> | A | P | 400 V 50 a. 60 Hz |
| | 200 | 4 | 75311 |
| | 200 | 5 | 75316 |
| | 250 | 4 | 75321 |
| | 250 | 5 | 75326 |
| | 400 | 4 | 75331 |
| | 400 | 5 | 75336 |

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|  <p>Connector with cable gland, seawater resistant design are available on request</p> <p>IP 67 Std. Pack. Qty: 1</p> | A | P | 400 V 50 a. 60 Hz |
| | 200 | 4 | 75211 |
| | 200 | 5 | 75216 |
| | 250 | 4 | 75011 |
| | 250 | 5 | 75101 |
| | 400 | 4 | 75016 |
| | 400 | 5 | 75106 |