



VDE AND GENERAL ELECTRICIAN'S TOOLS



Innovation is
our mission!

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VDE AND GENERAL ELECTRICIAN'S TOOLS



- Routine tested in accordance to DIN EN 60900 / IEC 60900:2004 submitted to 10 000V dielectric strength
- Insulated protected two component handle with ergonomic handle design
- Soft, yellow component with micro structured surface
- Blade made out of S2 special steel - continuous hardened, phosphated and completely insulated

Handle colour: Yellow / red



- Routine tested in accordance to DIN EN 60900 / IEC 60900:2004 submitted to 10 000V dielectric strength
- Insulated protected two component handle with ergonomic hand protection
- Forged and tempered
- Head chrome plated, PTFE coating
- Precise machined, oil hardened and tempered
- Cutting edges inductively hardened
- Special quenched and tempered steel

Handle colour: Yellow / red



- Routine tested in accordance to DIN EN 60900 / IEC 60900:2004 submitted to 10 000V dielectric strength
- Two tone layer insulated protection with ergonomic hand protection
- Supported by the directive BGV A3 (VBG-4)
- Faulty isolation layer becomes visible by the yellow layer shining through
- Forged and tempered
- Head chrome plated
- Precise machined, oil hardened and tempered
- Cutting edges inductively hardened
- Special quenched and tempered steel

Handle colour: red



Identification standards



- For technical materials and ready- finished products according to GPSG (the Equipment and Product Safety Act).
- The marking stands for the security of the product with regards to electrical, mechanical, thermal, toxic, radiological and other endangering applications.
- Documents the conformity with VDE regulations and/or European and/or international valid standards.



- All tools with double triangle marking are tested on 10 000 V piece by piece and approved with 10 fold security for 1000 V.

AC 1000V
IEC 60900:2004

- Is equivalent to DIN EN 60900 / IEC 60900:2004
- The international standard which describes the construction of insulated tools in detail (e.g., insulation, thickness). Furthermore individual tests (piece by piece tests) as well as series and random check tests are defined therein.
- Manufactured and examined for working processes at voltages up to AC 1000 V and DC 1500 V

Individual testing (piece by piece) of safety tools

Insulated tools VDE/EN/IEC 60900 : In 2004 are manufactured to the newest regulations (determinations) of national and international standards from high quality materials and checked. If other safety precautions are required, they offer the greatest possible protection for working processes up to voltages of AC 1.000 V and DC 1.500 V



Voltage test

Insulated tools are examined individually (piece by piece). All tools with the identification mark are checked with AC 10.000 V and are admitted for 1.000 V. Safety is thereby guaranteed to multiple of 10!



Cold impact test

The toughness of the PVC material is checked by an impact weight while the tools are cooled down to -25°C. Afterwards no tears or damages may exist.



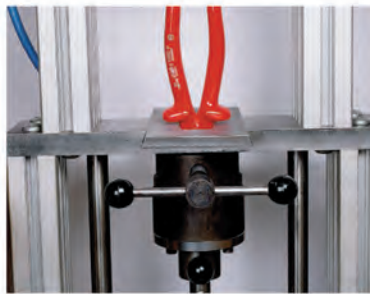
Testing of the electric insulation resistance

After 24 hours of underwater storage the tools with AC 10.000 V are tested for three minutes while simultaneously testing for current leakage is measured. For the duration of the test no breakdown of the insulation is accepted.



Pressure test

At a pressure load of 20 N•m and a temperature of 70°C no penetration of the insulation is allowed at test voltage of AC 5.000 V



Testing of the adhesive power of the PVC coating

After being stored for 168 hours at 70°C the adhesive strength of the PVC coating on the pliers is checked with a tensile force of 500 N•m. After this test the insulation must still be remain snug and firm against the body.



Testing of flame resistance

In order to avoid any risk of fire hazard, the insulation material is made from flame resistant and self-extinguishing PVC material.

Handle variants

2 Component safety handle in accordance to IEC 60900



- Consists of a soft component for the gripping zone and a slightly harder component for the movement zone.
- A protection zone to the head side offers safe holding while pushing.
- All tools are admitted to 10 000 V testing piece by piece, with 10 fold security for 1 000 V. Approved for:
AC 1000 V
DC 1500 V
- Is equivalent DIN EN 60900 and normal VDE

Two tone repeated protection insulated in accordance to IEC 60900:2004



- Handle with inserted safety system supported by the directive BGV A3 (VBG-4). Before starting to work a sight test on externally recognizable losses must take place.
- Faulty isolation layer becomes visible by the yellow layer appearing
- All tools are admitted to 10 000 V testing piece by piece, with 10 fold security for 1 000 V.
Approved for: AC 1000 V DC 1500
- Is equivalent DIN EN 60900 and normal VDE



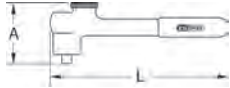
The following insulated tools are specially tuned for working on power supply lines. Some lines could have up to 1000 volts flowing through them, enough to cause severe physical injuries with normal tools, which could cause death.

Therefore the use of insulated tools on power supply lines is a strict requirement.

TORQUE WRENCHES

Insulated pre set torque wrench

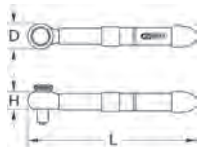
- Actuation accuracy: $\pm 3\%$ tolerance from the set value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - With a fixed adjustable value
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard



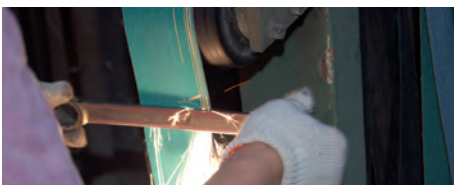
| | ■ | N-m | A mm | L mm | ⚡ | ⚙️ |
|----------|------|------|------|-------|-------|-----|
| 117.3922 | 3/8" | 5-35 | 78.0 | 210.0 | 1000V | 420 |
| 117.1001 | 1/2" | 5-35 | 78.0 | 250.0 | 1000V | 420 |

Insulated mini torque wrench with reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



| | ■ | N-m | D mm | H mm | L mm | ⚡ | ⚙️ |
|----------|------|------|------|------|-------|-------|-----|
| 117.1400 | 1/4" | 2-12 | 40.0 | 41.0 | 200.0 | 1000V | 400 |
| 117.1402 | 1/4" | 5-25 | 40.0 | 41.0 | 200.0 | 1000V | 420 |
| 117.1184 | 3/8" | 5-25 | 40.0 | 42.0 | 200.0 | 1000V | 440 |
| 117.1185 | 1/2" | 5-25 | 40.0 | 42.0 | 200.0 | 1000V | 440 |



Insulated torque wrench with reversible ratchet head

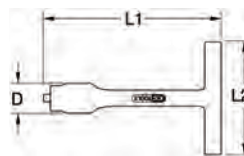
- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in N-m divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



| | ■ | N-m | H mm | L mm | ⚡ | ⚙️ |
|----------|------|--------|------|-------|-------|------|
| 117.3805 | 3/8" | 2-27 | 51.0 | 280.0 | 1000V | 0.92 |
| 117.3810 | 3/8" | 5-50 | 51.0 | 370.0 | 1000V | 1.07 |
| 117.1301 | 1/2" | 2-27 | 61.0 | 280.0 | 1000V | 0.93 |
| 117.1300 | 1/2" | 5-50 | 61.0 | 370.0 | 1000V | 1.10 |
| 117.1302 | 1/2" | 20-100 | 61.0 | 460.0 | 1000V | 1.20 |
| 117.1303 | 1/2" | 40-220 | 61.0 | 530.0 | 1000V | 1.30 |

Insulated pre set torque limiter with T-grip handle

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - with a fixed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



| | ■ | N-m | D mm | L mm | I mm | ⚡ | ⚙️ |
|----------|------|-----|------|-------|-------|-------|-----|
| 117.3806 | 3/8" | 12 | 36.5 | 270.0 | 165.0 | 1000V | 540 |
| 117.3807 | 3/8" | 18 | 36.5 | 270.0 | 165.0 | 1000V | 540 |
| 117.3808 | 3/8" | 25 | 36.5 | 270.0 | 165.0 | 1000V | 540 |

Insulated pre set torque limiter

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - With a fixed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



| | □ | ■ | N-m | D1 mm | D2 mm | L mm | ⚡ | ⚙️ |
|----------|------|------|-----|-------|-------|------|-------|-----|
| 117.3802 | 3/8" | 3/8" | 12 | 23.0 | 27.5 | 92.0 | 1000V | 310 |
| 117.3803 | 3/8" | 3/8" | 18 | 23.0 | 27.5 | 92.0 | 1000V | 310 |
| 117.3804 | 3/8" | 3/8" | 25 | 23.0 | 27.5 | 92.0 | 1000V | 310 |

SPANNERS

Insulated adjustable spanner

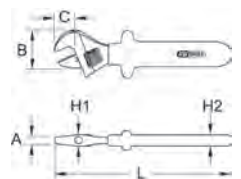
- In accordance to DIN 3117
- Insulated handle to IEC 60900
- Jaw 15° offset
- Swedish type design
- With mm scale
- Matt finish
- Chrome vanadium



| | ■ | A mm | B mm | C mm | H1 mm | H2 mm | L mm | ⚡ | ⚙️ |
|----------|------|------|------|------|-------|-------|-------|-------|-----|
| 117.1250 | 24.0 | 12.0 | 55.0 | 30.0 | 8.0 | 14.0 | 200.0 | 1000V | 310 |
| 117.1253 | 30.0 | 14.0 | 77.0 | 40.0 | 14.0 | 19.0 | 250.0 | 1000V | 540 |
| 117.1254 | 34.0 | 17.5 | 78.0 | 48.0 | 17.5 | 18.0 | 300.0 | 1000V | 830 |

Insulated adjustable spanner

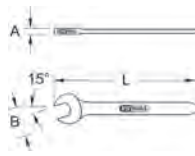
- In accordance to DIN 3117
- Insulated handle to IEC 60900
- Jaw 15° offset
- Swedish type design
- With mm scale
- Matt finish
- Burnished
- Chrome vanadium



| | ■ | A mm | B mm | C mm | H1 mm | H2 mm | L mm | ⚡ | ⚙️ |
|----------|----|------|------|------|-------|-------|-------|-------|-----|
| 117.4270 | 27 | 13.0 | 57.5 | 20.0 | 13.0 | 18.5 | 210.0 | 1000V | 345 |
| 117.4271 | 31 | 15.0 | 68.5 | 30.0 | 15.0 | 20.0 | 260.0 | 1000V | 530 |
| 117.4272 | 34 | 17.5 | 79.0 | 36.0 | 17.5 | 23.0 | 315.0 | 1000V | 800 |

Insulated open ended spanner

- In accordance to DIN 7446
- Insulated handle to IEC 60900
- Jaw 15° offset
- Chrome vanadium



| | mm | A mm | B mm | L mm | ⚡ | U |
|----------|----|------|------|-------|---|-----|
| 117.1506 | 6 | 12.0 | 23.5 | 70.1 | ⚡ | 30 |
| 117.1507 | 7 | 12.0 | 25.0 | 77.0 | ⚡ | 30 |
| 117.1508 | 8 | 12.5 | 27.2 | 84.0 | ⚡ | 30 |
| 117.1509 | 9 | 12.5 | 29.2 | 90.0 | ⚡ | 40 |
| 117.1510 | 10 | 13.0 | 31.2 | 97.0 | ⚡ | 40 |
| 117.1511 | 11 | 13.4 | 33.3 | 104.0 | ⚡ | 50 |
| 117.1512 | 12 | 13.5 | 35.2 | 110.0 | ⚡ | 50 |
| 117.1513 | 13 | 13.9 | 37.4 | 117.0 | ⚡ | 70 |
| 117.1514 | 14 | 14.2 | 39.5 | 124.0 | ⚡ | 80 |
| 117.1515 | 15 | 14.4 | 41.2 | 130.0 | ⚡ | 90 |
| 117.1516 | 16 | 14.7 | 42.7 | 137.0 | ⚡ | 120 |
| 117.1517 | 17 | 14.9 | 44.5 | 144.0 | ⚡ | 120 |
| 117.1518 | 18 | 15.2 | 46.7 | 150.0 | ⚡ | 120 |
| 117.1519 | 19 | 15.4 | 48.7 | 157.0 | ⚡ | 150 |
| 117.1522 | 22 | 16.2 | 54.9 | 174.0 | ⚡ | 190 |
| 117.1524 | 24 | 16.7 | 58.4 | 190.0 | ⚡ | 300 |
| 117.1527 | 27 | 17.4 | 63.7 | 210.0 | ⚡ | 390 |
| 117.1530 | 30 | 18.1 | 69.8 | 230.0 | ⚡ | 510 |
| 117.1532 | 32 | 18.4 | 65.8 | 244.0 | ⚡ | 550 |



Insulated ratchet ring spanner

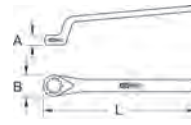
- FlankTraction profile
- In accordance to DIN 7446
- Insulated handle to DIN 60900
- Straight form
- Exact gearing with 72 teeth
- Chrome vanadium



| | mm | A mm | B mm | L mm | ⚡ | U |
|----------|----|------|------|-------|---|------|
| 117.4206 | 6 | 6.7 | 14.4 | 126.0 | ⚡ | 0.03 |
| 117.4207 | 7 | 6.9 | 17.2 | 137.0 | ⚡ | 0.04 |
| 117.4208 | 8 | 6.9 | 17.2 | 140.0 | ⚡ | 0.04 |
| 117.4209 | 9 | 7.3 | 19.2 | 150.0 | ⚡ | 0.04 |
| 117.4210 | 10 | 7.7 | 21.2 | 159.0 | ⚡ | 0.06 |
| 117.4211 | 11 | 8.1 | 22.2 | 165.0 | ⚡ | 0.06 |
| 117.4212 | 12 | 8.6 | 23.2 | 172.0 | ⚡ | 0.08 |
| 117.4213 | 13 | 9.0 | 25.2 | 178.0 | ⚡ | 0.09 |
| 117.4214 | 14 | 9.4 | 28.2 | 191.0 | ⚡ | 0.12 |
| 117.4215 | 15 | 9.8 | 29.2 | 200.0 | ⚡ | 0.13 |
| 117.4216 | 16 | 10.3 | 31.2 | 208.0 | ⚡ | 0.16 |
| 117.4217 | 17 | 10.7 | 32.2 | 226.0 | ⚡ | 0.19 |
| 117.4218 | 18 | 11.1 | 33.2 | 237.0 | ⚡ | 0.23 |
| 117.4219 | 19 | 11.6 | 34.2 | 248.0 | ⚡ | 0.25 |
| 117.4221 | 21 | 13.4 | 40.4 | 274.0 | ⚡ | 0.36 |
| 117.4222 | 22 | 13.4 | 40.4 | 290.0 | ⚡ | 0.34 |
| 117.4224 | 24 | 14.9 | 46.4 | 323.0 | ⚡ | 0.49 |
| 117.4227 | 27 | 15.9 | 52.4 | 331.0 | ⚡ | 0.61 |
| 117.4228 | 30 | 17.4 | 59.2 | 389.0 | ⚡ | 0.90 |
| 117.4229 | 32 | 17.9 | 62.4 | 415.0 | ⚡ | 1.10 |
| 117.4230 | 34 | 17.9 | 62.4 | 460.0 | ⚡ | 1.25 |

Insulated ring spanner, offset

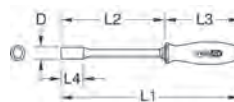
- FlankTraction profile
- In accordance to DIN 7447
- Insulated handle to IEC 60900
- Ring head 75° offset
- Chrome vanadium



| | mm | A mm | B mm | L mm | ⚡ | U |
|----------|----|------|------|-------|---|-----|
| 117.1306 | 6 | 6.1 | 13.6 | 160.0 | ⚡ | 55 |
| 117.1307 | 7 | 6.7 | 12.6 | 160.0 | ⚡ | 55 |
| 117.1308 | 8 | 7.1 | 14.0 | 170.0 | ⚡ | 60 |
| 117.1309 | 9 | 7.4 | 15.5 | 170.0 | ⚡ | 65 |
| 117.1310 | 10 | 7.8 | 17.0 | 170.0 | ⚡ | 80 |
| 117.1311 | 11 | 8.1 | 18.4 | 180.0 | ⚡ | 90 |
| 117.1312 | 12 | 10.2 | 19.9 | 190.0 | ⚡ | 100 |
| 117.1313 | 13 | 10.9 | 21.3 | 190.0 | ⚡ | 110 |
| 117.1314 | 14 | 11.3 | 22.8 | 210.0 | ⚡ | 160 |
| 117.1315 | 15 | 11.9 | 24.1 | 215.0 | ⚡ | 170 |
| 117.1316 | 16 | 12.2 | 25.7 | 220.0 | ⚡ | 200 |
| 117.1317 | 17 | 12.6 | 27.1 | 225.0 | ⚡ | 250 |
| 117.1318 | 18 | 13.2 | 28.6 | 230.0 | ⚡ | 270 |
| 117.1319 | 19 | 13.6 | 30.1 | 240.0 | ⚡ | 290 |
| 117.1322 | 22 | 13.9 | 34.4 | 260.0 | ⚡ | 320 |
| 117.1324 | 24 | 15.4 | 36.2 | 280.0 | ⚡ | 490 |
| 117.1327 | 27 | 16.4 | 40.4 | 295.0 | ⚡ | 540 |
| 117.1330 | 30 | 17.4 | 44.4 | 310.0 | ⚡ | 580 |
| 117.1332 | 32 | 18.4 | 47.4 | 330.0 | ⚡ | 590 |

Insulated Socket Screwdriver

- 6 point
- In accordance to DIN 7445
- Insulated to IEC 60900
- Chrome vanadium



| | mm | D mm | L1 mm | L2 mm | L3 mm | L4 mm | ⚡ | U |
|----------|-----|------|-------|-------|-------|-------|---|-----|
| 117.1177 | 3 | 10.0 | 215.0 | 125.0 | 90.0 | 37.0 | ⚡ | 65 |
| 117.1178 | 3,5 | 10.0 | 215.0 | 125.0 | 90.0 | 37.0 | ⚡ | 70 |
| 117.1179 | 4 | 10.0 | 215.0 | 125.0 | 90.0 | 37.0 | ⚡ | 70 |
| 117.1181 | 4,5 | 10.0 | 215.0 | 125.0 | 90.0 | 37.0 | ⚡ | 70 |
| 117.1235 | 5 | 11.5 | 215.0 | 125.0 | 90.0 | 37.0 | ⚡ | 75 |
| 117.1182 | 5,5 | 15.5 | 215.0 | 125.0 | 90.0 | 37.0 | ⚡ | 70 |
| 117.1236 | 6 | 12.5 | 215.0 | 125.0 | 90.0 | 37.0 | ⚡ | 75 |
| 117.1237 | 7 | 14.5 | 225.0 | 125.0 | 100.0 | 37.0 | ⚡ | 115 |
| 117.1238 | 8 | 15.5 | 225.0 | 125.0 | 100.0 | 37.0 | ⚡ | 115 |
| 117.1239 | 9 | 16.5 | 225.0 | 125.0 | 100.0 | 37.0 | ⚡ | 155 |
| 117.1240 | 10 | 17.0 | 225.0 | 125.0 | 100.0 | 37.0 | ⚡ | 120 |
| 117.1241 | 11 | 19.5 | 235.0 | 125.0 | 110.0 | 37.0 | ⚡ | 160 |
| 117.1242 | 12 | 20.5 | 235.0 | 125.0 | 110.0 | 37.0 | ⚡ | 170 |
| 117.1243 | 13 | 21.5 | 235.0 | 125.0 | 110.0 | 37.0 | ⚡ | 170 |
| 117.1244 | 14 | 23.5 | 235.0 | 125.0 | 110.0 | 37.0 | ⚡ | 170 |
| 117.1247 | 17 | 26.5 | 235.0 | 125.0 | 110.0 | 37.0 | ⚡ | 190 |



Insulated socket screwdriver set

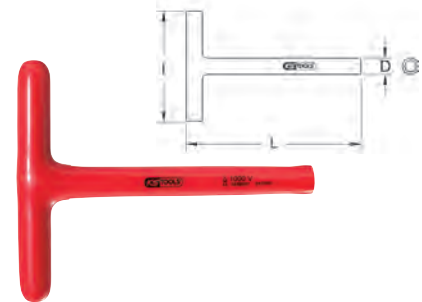
- 6 point
- In accordance to DIN 7445
- Insulated handle to IEC 60900
- Chrome vanadium



| 117.1255 | 5 pcs | 5,5 - 7 - 8 - 10 - 13 mm | 630 |
|----------|-------|--------------------------|-----|
|----------|-------|--------------------------|-----|

Insulated T-grip socket spanner

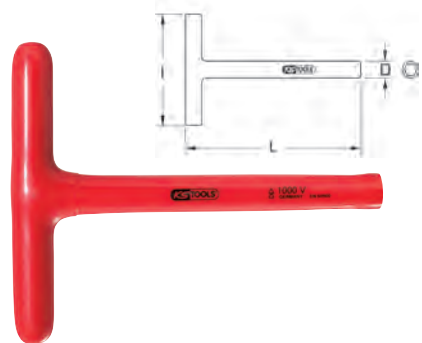
- 6 point
- In accordance to DIN 7440
- Insulated handle to IEC 60900
- For use of especially long threaded bolts
- Made from precision steel tube
- Chrome vanadium



| | mm | D mm | I mm | L mm | ⚡ | U |
|----------|----|------|-------|-------|---|-----|
| 117.1771 | 10 | 17.0 | 165.0 | 175.0 | ⚡ | 320 |
| 117.1772 | 11 | 19.0 | 165.0 | 175.0 | ⚡ | 380 |
| 117.1773 | 12 | 19.0 | 165.0 | 175.0 | ⚡ | 370 |
| 117.1774 | 13 | 20.0 | 165.0 | 175.0 | ⚡ | 370 |
| 117.1775 | 14 | 24.0 | 165.0 | 175.0 | ⚡ | 370 |
| 117.1776 | 16 | 26.0 | 165.0 | 175.0 | ⚡ | 420 |
| 117.1777 | 17 | 26.0 | 165.0 | 175.0 | ⚡ | 430 |
| 117.1778 | 18 | 29.0 | 165.0 | 175.0 | ⚡ | 460 |
| 117.1779 | 19 | 30.0 | 165.0 | 175.0 | ⚡ | 440 |
| 117.1781 | 20 | 32.0 | 165.0 | 175.0 | ⚡ | 460 |
| 117.1782 | 22 | 33.0 | 165.0 | 175.0 | ⚡ | 570 |
| 117.1783 | 24 | 35.0 | 165.0 | 175.0 | ⚡ | 590 |

Insulated T-grip socket spanner, long

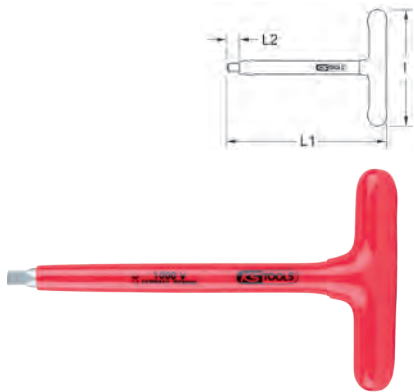
- 6 point
- In accordance to DIN 7440
- Insulated handle to IEC 60900
- For use of especially long threaded bolts
- Made from precision steel tube
- Chrome vanadium



| | mm | D mm | I mm | L mm | ⚡ | U |
|----------|----|------|-------|-------|---|-----|
| 117.1725 | 8 | 17.0 | 165.0 | 300.0 | ⚡ | 350 |
| 117.1726 | 10 | 20.0 | 165.0 | 300.0 | ⚡ | 380 |
| 117.1727 | 11 | 20.0 | 165.0 | 300.0 | ⚡ | 430 |
| 117.1728 | 12 | 20.0 | 165.0 | 300.0 | ⚡ | 430 |
| 117.1729 | 13 | 20.0 | 165.0 | 300.0 | ⚡ | 420 |
| 117.1730 | 14 | 23.0 | 165.0 | 300.0 | ⚡ | 440 |
| 117.1731 | 17 | 28.0 | 165.0 | 300.0 | ⚡ | 520 |
| 117.1732 | 19 | 32.0 | 165.0 | 300.0 | ⚡ | 590 |
| 117.1733 | 22 | 33.0 | 165.0 | 300.0 | ⚡ | 690 |
| 117.1734 | 24 | 33.5 | 165.0 | 300.0 | ⚡ | 780 |

Insulated T-grip socket spanner

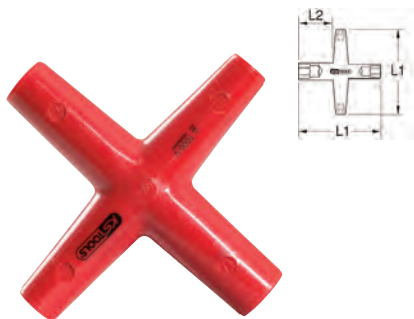
- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- Chrome vanadium



| | ■ | I mm | L1 mm | L2 mm | ⚡ | ⚖ |
|----------|------|-------|-------|-------|-------|-----|
| 117.3919 | 1/4" | 92.0 | 160.0 | 8.0 | 1000V | 115 |
| 117.3920 | 3/8" | 155.0 | 200.0 | 11.0 | 1000V | 350 |
| 117.3921 | 1/2" | 155.0 | 200.0 | 15.0 | 1000V | 490 |

Insulated four way spanner

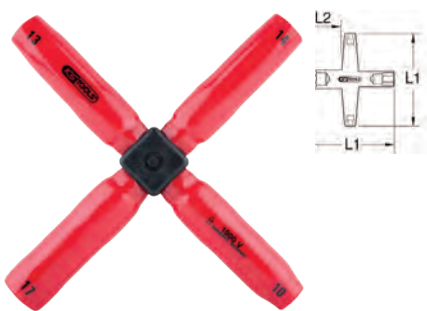
- 6 point
- Insulated handle to IEC 60900
- No contact between the steel hexagon drive
- Made from impact resistant plastic
- Chrome vanadium



| | ■ | L1 mm | L2 mm | ⚡ | ⚖ |
|----------|-------------|-------|-------|-------|-----|
| 117.1701 | 10x11x12x13 | 140.0 | 55.0 | 1000V | 230 |
| 117.1702 | 10x11x13x17 | 140.0 | 55.0 | 1000V | 230 |
| 117.1704 | 10x12x14x17 | 140.0 | 55.0 | 1000V | 230 |
| 117.1705 | 10x13x14x17 | 140.0 | 55.0 | 1000V | 230 |
| 117.1706 | 11x12x13x17 | 140.0 | 55.0 | 1000V | 230 |
| 117.1707 | 11x13x14x17 | 140.0 | 55.0 | 1000V | 230 |
| 117.1708 | 13x17x19x22 | 140.0 | 55.0 | 1000V | 340 |
| 117.1709 | 14x17x19x22 | 140.0 | 55.0 | 1000V | 340 |

Insulated four way spanner

- Hexagonal
- Insulated handle to IEC 60900
- No contact between the steel hexagonal inserts
- Made from impact-resistant plastic
- Centre cross reinforced with hard fibre
- Chrome vanadium

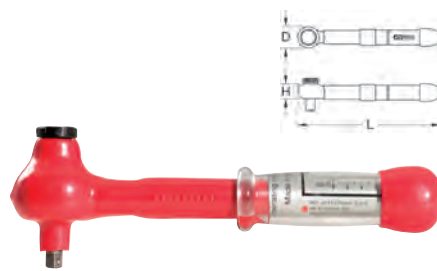


| | ■ | L1 mm | L2 mm | ⚡ | ⚖ |
|----------|-------------|-------|-------|-------|-----|
| 117.1720 | 10x13x14x17 | 220.0 | 92.0 | 1000V | 430 |

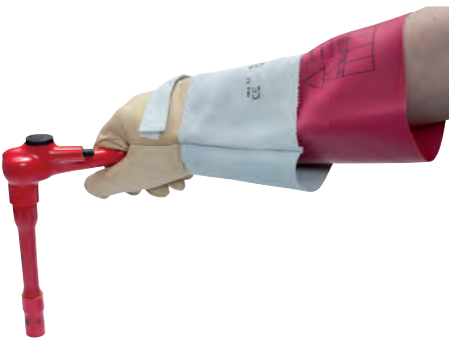
1/4" PROGRAM

Insulated mini torque wrench with reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard

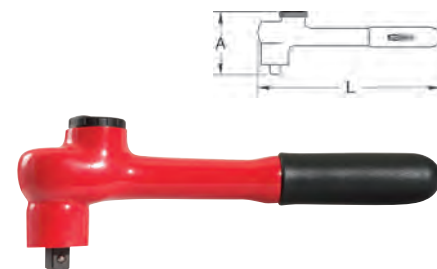


| | ■ | N·m | D mm | H mm | L mm | ⚡ | ⚖ |
|----------|------|------|------|------|-------|-------|-----|
| 117.1400 | 1/4" | 2-12 | 40.0 | 41.0 | 200.0 | 1000V | 400 |
| 117.1402 | 1/4" | 5-25 | 40.0 | 41.0 | 200.0 | 1000V | 420 |



Insulated reversing ratchet

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium



| | ■ | A mm | L mm | ⚡ | ⚖ |
|----------|------|------|-------|-------|-----|
| 117.1401 | 1/4" | 54.5 | 141.0 | 1000V | 128 |

Insulated extension

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium



| | ■ | L mm | ⚡ | ⚖ |
|----------|------|-------|-------|----|
| 117.1451 | 1/4" | 50.0 | 1000V | 40 |
| 117.1452 | 1/4" | 75.0 | 1000V | 45 |
| 117.1453 | 1/4" | 100.0 | 1000V | 56 |
| 117.1454 | 1/4" | 150.0 | 1000V | 68 |

Insulated socket

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



| | ■ | D1 mm | D2 mm | L mm | ⚡ | ⚖ |
|----------|----|-------|-------|------|-------|----|
| 117.1404 | 4 | 16.0 | 10.0 | 37.0 | 1000V | 12 |
| 117.1405 | 5 | 16.5 | 11.5 | 37.0 | 1000V | 12 |
| 117.1406 | 6 | 16.5 | 12.0 | 37.0 | 1000V | 12 |
| 117.1407 | 7 | 16.5 | 13.5 | 37.0 | 1000V | 15 |
| 117.1408 | 8 | 16.5 | 15.5 | 37.0 | 1000V | 15 |
| 117.1409 | 9 | 16.5 | 16.5 | 37.0 | 1000V | 16 |
| 117.1410 | 10 | 16.5 | 17.5 | 37.0 | 1000V | 18 |
| 117.1411 | 11 | 16.5 | 20.0 | 37.0 | 1000V | 18 |
| 117.1412 | 12 | 16.5 | 21.0 | 37.0 | 1000V | 24 |
| 117.1413 | 13 | 16.5 | 22.0 | 37.0 | 1000V | 26 |
| 117.1414 | 14 | 16.5 | 24.0 | 37.0 | 1000V | 29 |

Insulated bit socket for hexagon screws

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive adaptor to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



| | ■ | D mm | L mm | ⚡ | ⚖ |
|----------|---|------|------|-------|----|
| 117.1415 | 3 | 16.5 | 44.0 | 1000V | 13 |
| 117.1416 | 4 | 16.5 | 44.0 | 1000V | 13 |
| 117.1417 | 5 | 16.5 | 44.0 | 1000V | 14 |
| 117.1418 | 6 | 16.5 | 44.0 | 1000V | 15 |
| 117.1419 | 8 | 16.5 | 44.0 | 1000V | 19 |

Insulated bit holder

- Insulated handle to IEC 60900
- Internal square drive adaptor to DIN 3120 / ISO 1174 with ball reception
- With magnet
- For bits to DIN 3126 / C 6,3
- Chrome vanadium



| | □ | ○ | D1 mm | D2 mm | L mm | ⚡ | ⚖ |
|----------|------|------|-------|-------|------|-------|-----|
| 117.1420 | 1/4" | 1/4" | 16.0 | 16.5 | 40.0 | 1000V | 240 |



1/4" SETS

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



| | ⚖ |
|----------|---|
| 117.1877 | 22 pcs Insulated socket wrench set 1.60 |
| 1 x | 1/4" |
| 4 x | 1/4": 50 - 75 - 100 - 150 mm |
| 1 x | 1/4" |
| 1 x | 1/4" |
| 10 x | 1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm |
| 5 x | 1/4": 3 - 4 - 5 - 6 - 8 mm |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



| | ⚖ |
|----------|---|
| 117.1876 | 21 pcs Insulated socket wrench set 1.00 |
| 1 x | 1/4": 5 - 25 Nm |
| 3 x | 1/4": 75 - 100 - 150 mm |
| 2 x | 1/4" |
| 5 x | 1/4": 6 - 8 - 10 - 13 - 14 mm |
| 3 x | 1/4": 5 - 6 - 8 mm |
| 3 x | 1/4": 4 - 5,5 - 6,5 mm |
| 2 x | 1/4": PH1 - PH2 |
| 2 x | 1/4": PZ1 - PZ2 |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium

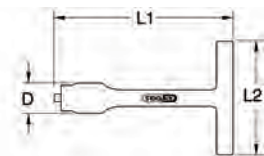


| | ⚖ |
|----------|---|
| 117.1878 | 21 pcs Insulated socket wrench set 1.90 |
| 1 x | 1/4": 5 - 25 Nm |
| 4 x | 1/4": 50 - 75 - 100 - 150 mm |
| 1 x | 1/4" |
| 10 x | 1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm |
| 5 x | 1/4": 3 - 4 - 5 - 6 - 8 mm |

3/8" PROGRAM

Insulated pre set torque limiter with T-grip handle

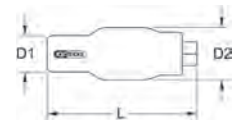
- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - with a fixed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



| | ■ | N-m | D mm | L mm | l mm | ⚡ | ⚖ |
|----------|------|-----|------|-------|-------|-------|-----|
| 117.3806 | 3/8" | 12 | 36.5 | 270.0 | 165.0 | 1000V | 540 |
| 117.3807 | 3/8" | 18 | 36.5 | 270.0 | 165.0 | 1000V | 540 |
| 117.3808 | 3/8" | 25 | 36.5 | 270.0 | 165.0 | 1000V | 540 |

Insulated pre set torque limiter

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly palpable release signal when the desired torque is achieved
- It is not possible to over-tighten the set value
- Without scale - With a fixed adjustable value
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



| | □ | ■ | N-m | D1 mm | D2 mm | L mm | ⚡ | ⚖ |
|----------|------|------|-----|-------|-------|------|-------|-----|
| 117.3802 | 3/8" | 3/8" | 12 | 23.0 | 27.5 | 92.0 | 1000V | 310 |
| 117.3803 | 3/8" | 3/8" | 18 | 23.0 | 27.5 | 92.0 | 1000V | 310 |
| 117.3804 | 3/8" | 3/8" | 25 | 23.0 | 27.5 | 92.0 | 1000V | 310 |

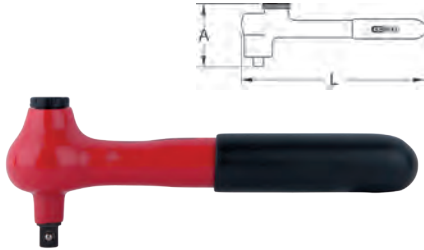


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Insulated pre set torque wrench

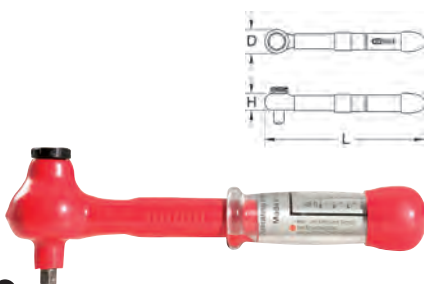
- Actuation accuracy: $\pm 3\%$ tolerance from the set value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - With a fixed adjustable value
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard



| | 3/8" | N-m | A mm | L mm | ⚡ | ⚙ |
|----------|------|------|------|-------|-------|-----|
| 117.3922 | 3/8" | 5-35 | 78.0 | 210.0 | 1000V | 420 |

Insulated mini torque wrench with reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Ergonomic designed handle provides secure transmission of the torque
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



| | 3/8" | N-m | D mm | H mm | L mm | ⚡ | ⚙ |
|----------|------|------|------|------|-------|-------|-----|
| 117.1184 | 3/8" | 5-25 | 40.0 | 42.0 | 200.0 | 1000V | 440 |

Insulated torque wrench with reversible ratchet head

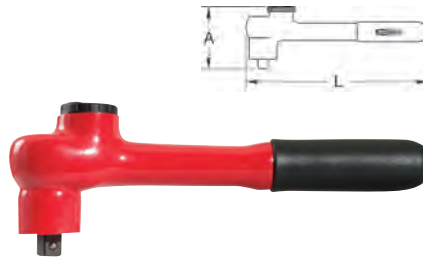
- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in N·m divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



| | 3/8" | N-m | H mm | L mm | ⚡ | ⚙ |
|----------|------|------|------|-------|-------|------|
| 117.3805 | 3/8" | 2-27 | 51.0 | 280.0 | 1000V | 0.92 |
| 117.3810 | 3/8" | 5-50 | 51.0 | 370.0 | 1000V | 1.07 |

Insulated reversing ratchet

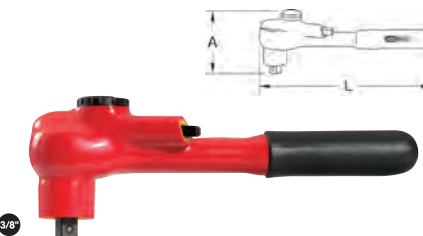
- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium



| | 3/8" | A mm | L mm | ⚡ | ⚙ |
|----------|------|------|-------|-------|-----|
| 117.3801 | 3/8" | 73.0 | 200.0 | 1000V | 350 |

Insulated reversing ratchet

- Square drive adaptor to DIN3120 / ISO 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- Secure locking function on the square drive
- Chrome vanadium



| | 3/8" | A mm | L mm | ⚡ | ⚙ |
|----------|------|------|-------|-------|-----|
| 117.3800 | 3/8" | 78.0 | 205.0 | 1000V | 370 |

Insulated extension

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium



| | 3/8" | L mm | ⚡ | ⚙ |
|----------|------|-------|-------|-----|
| 117.3851 | 3/8" | 125.0 | 1000V | 140 |
| 117.3852 | 3/8" | 250.0 | 1000V | 280 |

Insulated extension with screw adjustment

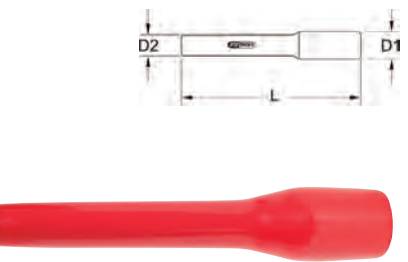
- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With screw adjustment on the square drive
- Chrome vanadium



| | 3/8" | L mm | ⚡ | ⚙ |
|----------|------|-------|-------|-----|
| 117.3823 | 3/8" | 125.0 | 1000V | 140 |
| 117.3825 | 3/8" | 250.0 | 1000V | 280 |

Insulated bit holder

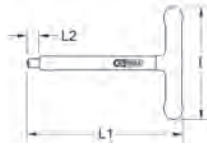
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- With magnet
- For bits to DIN 3126 / C 6,3
- Chrome vanadium



| | 3/8" | 1/4" | D1 mm | D2 mm | L mm | ⚡ | ⚙ |
|----------|------|------|-------|-------|-------|-------|-----|
| 117.3811 | 3/8" | 1/4" | 25.0 | 13.0 | 125.0 | 1000V | 165 |
| 117.3812 | 3/8" | 1/4" | 25.0 | 13.0 | 250.0 | 1000V | 250 |

Insulated T-grip socket spanner with screw adjustment

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- With screw adjustment
- Chrome vanadium



| | 3/8" | I mm | L1 mm | L2 mm | ⚡ | 🔒 |
|----------|------|-------|-------|-------|-------|-----|
| 117.3820 | 3/8" | 165.0 | 200.0 | 15.0 | 1000V | 250 |

Insulated socket

- 12 point
- FlankTraction profile
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



| | mm | mm | D1 mm | D2 mm | L mm | ⚡ | 🔒 |
|----------|----|--------|-------|-------|------|-------|----|
| 117.3831 | 6 | | 23.0 | 14.0 | 48.0 | 1000V | 30 |
| 117.3832 | 7 | | 23.0 | 15.0 | 48.0 | 1000V | 30 |
| 117.3833 | 8 | | 23.0 | 16.0 | 48.0 | 1000V | 30 |
| 117.3834 | 9 | | 23.0 | 17.0 | 48.0 | 1000V | 35 |
| 117.3835 | 10 | | 23.0 | 19.5 | 48.0 | 1000V | 35 |
| 117.3836 | 11 | | 23.0 | 19.5 | 48.0 | 1000V | 35 |
| 117.3837 | 12 | | 23.0 | 20.5 | 48.0 | 1000V | 40 |
| 117.3838 | 13 | | 23.0 | 23.0 | 48.0 | 1000V | 40 |
| 117.3839 | 14 | | 23.0 | 23.5 | 48.0 | 1000V | 40 |
| 117.3840 | 15 | | 23.0 | 26.0 | 48.0 | 1000V | 45 |
| 117.3841 | 16 | | 23.0 | 26.5 | 48.0 | 1000V | 45 |
| 117.3842 | 17 | | 23.0 | 28.0 | 48.0 | 1000V | 50 |
| 117.3843 | 18 | | 23.0 | 30.0 | 48.0 | 1000V | 50 |
| 117.3844 | 19 | | 23.0 | 30.0 | 48.0 | 1000V | 60 |
| 117.3845 | 20 | | 23.0 | 32.0 | 48.0 | 1000V | 60 |
| 117.3846 | 21 | | 23.0 | 33.5 | 48.0 | 1000V | 60 |
| 117.3847 | 22 | | 23.0 | 37.5 | 48.0 | 1000V | 60 |
| 117.3813 | 23 | | 22.5 | 34.0 | 48.0 | 1000V | 65 |
| 117.3848 | 24 | | 23.0 | 38.5 | 48.0 | 1000V | 60 |
| 117.1020 | | 1/4" | 22.0 | 13.0 | 48.0 | 1000V | 30 |
| 117.1021 | | 5/16" | 22.0 | 15.5 | 48.0 | 1000V | 30 |
| 117.1022 | | 3/8" | 22.0 | 19.0 | 48.0 | 1000V | 35 |
| 117.1023 | | 7/16" | 22.0 | 20.0 | 48.0 | 1000V | 35 |
| 117.1024 | | 1/2" | 22.0 | 23.0 | 48.0 | 1000V | 40 |
| 117.1025 | | 9/16" | 22.0 | 24.5 | 48.0 | 1000V | 40 |
| 117.1026 | | 5/8" | 22.0 | 26.5 | 48.0 | 1000V | 45 |
| 117.1027 | | 11/16" | 22.0 | 29.0 | 48.0 | 1000V | 50 |
| 117.1028 | | 3/4" | 22.0 | 30.0 | 48.0 | 1000V | 60 |
| 117.1029 | | 13/16" | 22.0 | 32.0 | 48.0 | 1000V | 60 |
| 117.1030 | | 7/8" | 22.0 | 36.0 | 48.0 | 1000V | 60 |
| 117.1031 | | 15/16" | 22.0 | 37.0 | 48.0 | 1000V | 65 |

Insulated socket, deep

- FlankTraction profile
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



| | Profile | mm | D1 mm | D2 mm | L mm | ⚡ | 🔒 |
|----------|---------|----|-------|-------|------|-------|-----|
| 117.1090 | ○ | 10 | 22.0 | 18.0 | 80.0 | 1000V | 60 |
| 117.1091 | ○ | 11 | 22.0 | 19.5 | 80.0 | 1000V | 60 |
| 117.1092 | ○ | 12 | 22.0 | 21.0 | 80.0 | 1000V | 70 |
| 117.1093 | ○ | 13 | 22.0 | 23.0 | 80.0 | 1000V | 70 |
| 117.1094 | ○ | 14 | 22.0 | 24.0 | 80.0 | 1000V | 80 |
| 117.1095 | ○ | 15 | 22.0 | 26.0 | 80.0 | 1000V | 80 |
| 117.1096 | ○ | 16 | 22.0 | 27.0 | 80.0 | 1000V | 110 |
| 117.1097 | ○ | 17 | 22.0 | 28.0 | 80.0 | 1000V | 110 |
| 117.3881 | ○ | 18 | 22.0 | 29.5 | 80.0 | 1000V | 145 |
| 117.1097 | ○ | 17 | 22.0 | 28.0 | 80.0 | 1000V | 110 |
| 117.3882 | ○ | 19 | 22.0 | 30.5 | 80.0 | 1000V | 180 |
| 117.3883 | ○ | 22 | 22.0 | 34.5 | 80.0 | 1000V | 180 |
| 117.3884 | ○ | 24 | 22.0 | 37.5 | 80.0 | 1000V | 185 |

Insulated socket, extra deep

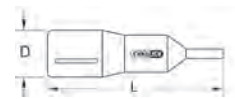
- 12 point
- FlankTraction profile
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Insulated handle to IEC 60900
- Chrome vanadium



| | mm | D1 mm | D2 mm | L mm | ⚡ | 🔒 |
|----------|----|-------|-------|-------|-------|-----|
| 117.3853 | 10 | 23.0 | 19.0 | 135.0 | 1000V | 180 |
| 117.3854 | 11 | 23.0 | 20.0 | 135.0 | 1000V | 185 |
| 117.3855 | 12 | 23.0 | 22.0 | 135.0 | 1000V | 200 |
| 117.3856 | 13 | 23.0 | 22.0 | 135.0 | 1000V | 210 |
| 117.3857 | 14 | 23.0 | 26.0 | 135.0 | 1000V | 220 |
| 117.3858 | 17 | 23.0 | 29.0 | 135.0 | 1000V | 240 |
| 117.3859 | 19 | 23.0 | 31.0 | 135.0 | 1000V | 260 |
| 117.3860 | 22 | 23.0 | 35.0 | 135.0 | 1000V | 280 |

Insulated bit socket for hexagon screws

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



| | mm | D mm | L mm | ⚡ | 🔒 |
|----------|----|------|------|-------|----|
| 117.1735 | 4 | 22.0 | 54.0 | 1000V | 40 |
| 117.1736 | 5 | 22.0 | 54.0 | 1000V | 40 |
| 117.1737 | 6 | 22.0 | 54.0 | 1000V | 40 |
| 117.1738 | 8 | 22.0 | 54.0 | 1000V | 40 |

Insulated bit socket, long

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



| | mm | D mm | L mm | ⚡ | 🔒 |
|----------|----|------|-------|-------|-----|
| 117.3861 | 4 | 23.0 | 82.0 | 1000V | 45 |
| 117.3862 | 5 | 23.0 | 82.0 | 1000V | 50 |
| 117.3863 | 6 | 23.0 | 82.0 | 1000V | 50 |
| 117.3864 | 8 | 23.0 | 82.0 | 1000V | 65 |
| 117.3865 | 10 | 23.0 | 82.0 | 1000V | 80 |
| 117.3866 | 12 | 23.0 | 82.0 | 1000V | 85 |
| 117.3867 | 4 | 23.0 | 116.0 | 1000V | 70 |
| 117.3868 | 5 | 23.0 | 116.0 | 1000V | 75 |
| 117.3869 | 6 | 23.0 | 116.0 | 1000V | 76 |
| 117.3870 | 8 | 23.0 | 116.0 | 1000V | 75 |
| 117.3871 | 10 | 23.0 | 116.0 | 1000V | 80 |
| 117.3872 | 12 | 23.0 | 116.0 | 1000V | 85 |
| 117.3873 | 5 | 23.0 | 270.0 | 1000V | 100 |
| 117.3874 | 6 | 23.0 | 270.0 | 1000V | 100 |
| 117.3875 | 5 | 23.0 | 270.0 | 1000V | 115 |
| 117.3876 | 6 | 23.0 | 270.0 | 1000V | 120 |
| 117.3877 | 8 | 23.0 | 270.0 | 1000V | 140 |
| 117.3878 | 10 | 23.0 | 270.0 | 1000V | 170 |

Insulated bit socket for Spline(XZN®) screws

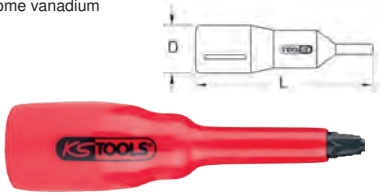
- Spline(XZN®)
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120/ISO 1174 with ball reception
- Burnished
- Chrome vanadium



| | mm | D mm | L mm | ⚡ | 🔒 | |
|----------|------|------|------|------|-------|----|
| 117.3893 | 3/8" | M8 | 23.0 | 95.0 | 1000V | 85 |
| 117.3894 | 3/8" | M10 | 23.0 | 95.0 | 1000V | 90 |
| 117.3895 | 3/8" | M12 | 23.0 | 95.0 | 1000V | 95 |

Insulated bit socket for PZ screws

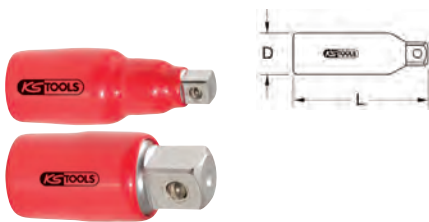
- PZ
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



| | | D mm | L mm | ⚡ | 🔒 |
|----------|------|---------|---------|-------|----|
| 117.1739 | PZ 1 | 22.0 | 95.0 | 1000V | 60 |
| 117.1740 | PZ 2 | 22.0 | 95.0 | 1000V | 65 |
| 117.1741 | PZ 3 | 22.0 | 95.0 | 1000V | 70 |

Insulated reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Matt chrome
- Chrome vanadium



| | □ | ■ | D mm | L mm | ⚡ | 🔒 |
|----------|------|------|---------|---------|-------|-----|
| 117.1189 | 1/4" | 3/8" | 17.0 | 39.0 | 1000V | 60 |
| 117.3885 | 3/8" | 1/2" | 23.0 | 52.0 | 1000V | 80 |
| 117.1190 | 3/8" | 1/4" | 22.0 | 86.0 | 1000V | 60 |
| 117.1285 | 1/2" | 3/8" | 20.0 | 75.0 | 1000V | 220 |

3/8" SETS

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



| | | D mm | L mm | ⚡ | 🔒 |
|----------|--------|--|---------|---|------|
| 117.1882 | 16 pcs | Insulated socket wrench set | | | 3.80 |
| 1 x | | 3/8" | | | |
| 2 x | | 3/8": 125 - 250 mm | | | |
| 1 x | | 3/8" | | | |
| 8 x | | 3/8": 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm | | | |
| 3 x | | 3/8": 5 - 6 - 8 mm | | | |
| 1 x | | 25 Nm | | | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



| | | D mm | L mm | ⚡ | 🔒 |
|----------|--------|--|---------|---|------|
| 117.1850 | 16 pcs | Insulated socket wrench set | | | 4.00 |
| 1 x | | 3/8" | | | |
| 2 x | | 3/8": 125 - 250 mm | | | |
| 1 x | | 3/8" | | | |
| 8 x | | 3/8": 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm | | | |
| 3 x | | 3/8": 5 - 6 - 8 mm | | | |
| 1 x | | 3.5 mm | | | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



| | | D mm | L mm | ⚡ | 🔒 |
|----------|--------|-----------------------------|---------|---|------|
| 117.1885 | 16 pcs | Insulated socket wrench set | | | 3.40 |
| 1 x | | 3/8" | | | |
| 2 x | | 3/8": 125 - 250 mm | | | |
| 3 x | | 3/8": 13 - 17 - 19 mm | | | |
| 4 x | | 3/8": 5 - 6 - 8 - 10 mm | | | |
| 1 x | | 3/8": 5 mm | | | |
| 1 x | | 2.5 mm | | | |
| 2 x | | 5 - 6 mm | | | |
| 1 x | | Ø 25mm | | | |
| 1 x | | 160 mm | | | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



| | | D mm | L mm | ⚡ | 🔒 |
|----------|--------|---------------------------------|---------|---|------|
| 117.1881 | 14 pcs | Insulated socket wrench set | | | 3.87 |
| 1 x | | 3/8": 5 - 50 Nm | | | |
| 2 x | | 3/8": 125 - 250 mm | | | |
| 5 x | | 3/8": 10 - 13 - 14 - 17 - 19 mm | | | |
| 5 x | | 3/8": 4 - 5 - 6 - 8 - 10 mm | | | |
| 1 x | | 3/8": 95 - 150 mm | | | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



| | | D mm | L mm | ⚡ | 🔒 |
|----------|--------|--------------------------------|---------|---|------|
| 117.1888 | 13 pcs | Insulated socket wrench set | | | 2.40 |
| 1 x | | 3/8" | | | |
| 2 x | | 3/8": 125 - 250 mm | | | |
| 1 x | | 3/8" | | | |
| 5 x | | 3/8": 8 - 10 - 13 - 17 - 19 mm | | | |
| 4 x | | 3/8": 4 - 5 - 6 - 8 mm | | | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



3/8"

| | | | | kg |
|----------|--------|--------------------------------|------|----|
| 117.1886 | 13 pcs | Insulated socket wrench set | 2.40 | |
| 1 x | | 3/8" | | |
| 2 x | | 3/8": 125 - 250 mm | | |
| 1 x | | 3/8" | | |
| 5 x | | 3/8": 8 - 10 - 13 - 17 - 19 mm | | |
| 4 x | | 3/8": 4 - 5 - 6 - 8 mm | | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



3/8"

| | | | | kg |
|----------|--------|--------------------------------|------|----|
| 117.1887 | 11 pcs | Insulated socket wrench set | 1.80 | |
| 1 x | | 3/8" | | |
| 1 x | | 3/8": 125 mm | | |
| 5 x | | 3/8": 8 - 10 - 13 - 17 - 19 mm | | |
| 4 x | | 3/8": 4 - 5 - 6 - 8 mm | | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



3/8"

| | | | | kg |
|----------|--------|--------------------------------|------|----|
| 117.1889 | 11 pcs | Insulated socket wrench set | 1.75 | |
| 1 x | | 3/8" | | |
| 1 x | | 3/8": 125 mm | | |
| 5 x | | 3/8": 8 - 10 - 13 - 17 - 19 mm | | |
| 4 x | | 3/8": 4 - 5 - 6 - 8 mm | | |

1/2" PROGRAM

Insulated pre set torque wrench

- Actuation accuracy: $\pm 3\%$ tolerance from the set value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - With a fixed adjustable value
- Tool holder female hexagon 6 point to DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789 national standard



1/2"

| | | N·m | A mm | L mm | | |
|----------|------|------|------|-------|--|-----|
| 117.1001 | 1/2" | 5-35 | 78.0 | 250.0 | | 420 |

Insulated torque wrench with reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1,000 V and DC 1500 V
- Actuation accuracy: $\pm 3\%$ tolerance of the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in N·m divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- With exact gearing 30 teeth ratchet mechanism
- Torque setting is quick and easy using the locking knob in the handle end
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Individually marked with serial number - unique product identification
- Includes test certificate in accordance with DIN EN ISO 6789:2003 national standard



1/2"

| | | N·m | H mm | L mm | | |
|----------|------|--------|------|-------|--|------|
| 117.1301 | 1/2" | 2-27 | 61.0 | 280.0 | | 0.93 |
| 117.1300 | 1/2" | 5-50 | 61.0 | 370.0 | | 1.10 |
| 117.1302 | 1/2" | 20-100 | 61.0 | 460.0 | | 1.20 |
| 117.1303 | 1/2" | 40-220 | 61.0 | 530.0 | | 1.30 |

Insulated reversing ratchet

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium



1/2"

| | | A mm | L mm | | |
|----------|------|------|-------|--|-----|
| 117.1201 | 1/2" | 90.0 | 245.0 | | 700 |

Insulated reversing ratchet

- Square drive adaptor to DIN3120 / ISO 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- Secure locking function on the square drive
- Special tool steel



1/2"

| | | A mm | L mm | | |
|----------|------|------|-------|--|-----|
| 117.1200 | 1/2" | 88.0 | 245.0 | | 750 |

Insulated extension

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium



1/2"

| | ■ | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-----|
| 117.1251 | 1/2" | 125.0 | 1000V | 225 |
| 117.1252 | 1/2" | 250.0 | 1000V | 370 |

Insulated extension with screw adjustment

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 250 mm with locking screw at the outer square
- 125 mm with locking screw also for connected Hex, Torx, XZN sockets tought the extension by the inner square
- With screw adjustment on the square drive
- Chrome vanadium



1/2"

| | ■ | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-----|
| 117.1202 | 1/2" | 125.0 | 1000V | 210 |
| 117.1203 | 1/2" | 250.0 | 1000V | 415 |

Insulated extension

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- With frictional contact square drive with locking device
- Chrome vanadium



1/2"

| | ■ | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-----|
| 117.1229 | 1/2" | 125.0 | 1000V | 205 |
| 117.1231 | 1/2" | 250.0 | 1000V | 375 |

Insulated T-grip socket spanner with screw adjustment

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- With screw adjustment
- Chrome vanadium



1/2"

| | ■ | I mm | L1 mm | L2 mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-------|-------|-----|
| 117.1205 | 1/2" | 165.0 | 200.0 | 15.0 | 1000V | 490 |

Insulated socket

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



1/2"

| | ⚙️ | mm | D1 mm | D2 mm | L mm | ⚡ | ⚙️ |
|----------|----|------|-------|-------|------|-------|-----|
| 117.1208 | 8 | 26.0 | 17.0 | 55.0 | 65 | 1000V | 65 |
| 117.1209 | 9 | 26.0 | 19.0 | 55.0 | 65 | 1000V | 65 |
| 117.1210 | 10 | 26.0 | 20.0 | 55.0 | 70 | 1000V | 70 |
| 117.1211 | 11 | 26.0 | 21.0 | 55.0 | 75 | 1000V | 75 |
| 117.1212 | 12 | 26.0 | 22.0 | 55.0 | 75 | 1000V | 75 |
| 117.1213 | 13 | 26.0 | 23.5 | 55.0 | 75 | 1000V | 75 |
| 117.1214 | 14 | 26.0 | 25.0 | 55.0 | 80 | 1000V | 80 |
| 117.1215 | 15 | 26.0 | 26.0 | 55.0 | 80 | 1000V | 80 |
| 117.1216 | 16 | 26.0 | 26.5 | 55.0 | 85 | 1000V | 85 |
| 117.1217 | 17 | 26.0 | 28.5 | 55.0 | 90 | 1000V | 90 |
| 117.1218 | 18 | 26.0 | 31.0 | 55.0 | 85 | 1000V | 85 |
| 117.1219 | 19 | 26.0 | 31.5 | 55.0 | 100 | 1000V | 100 |
| 117.1220 | 20 | 26.0 | 33.0 | 55.0 | 100 | 1000V | 100 |
| 117.1221 | 21 | 26.0 | 34.5 | 55.0 | 120 | 1000V | 120 |
| 117.1222 | 22 | 26.0 | 35.0 | 55.0 | 120 | 1000V | 120 |
| 117.1223 | 23 | 26.0 | 36.0 | 55.0 | 125 | 1000V | 125 |
| 117.1224 | 24 | 26.0 | 37.0 | 55.0 | 140 | 1000V | 140 |
| 117.1226 | 26 | 26.0 | 39.0 | 61.0 | 175 | 1000V | 175 |
| 117.1227 | 27 | 26.0 | 41.0 | 61.0 | 195 | 1000V | 195 |
| 117.1228 | 28 | 26.0 | 44.0 | 61.0 | 190 | 1000V | 190 |
| 117.1230 | 30 | 26.0 | 46.0 | 61.0 | 230 | 1000V | 230 |
| 117.1232 | 32 | 26.0 | 49.5 | 61.0 | 280 | 1000V | 280 |

Insulated socket, long

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



1/2"

| | ⚙️ | mm | D1 mm | D2 mm | L mm | ⚡ | ⚙️ |
|----------|----|------|-------|-------|------|-------|-----|
| 117.1333 | 8 | 26.0 | 19.0 | 94.0 | 105 | 1000V | 105 |
| 117.1334 | 10 | 26.0 | 21.0 | 94.0 | 110 | 1000V | 110 |
| 117.1335 | 11 | 26.0 | 21.0 | 94.0 | 130 | 1000V | 130 |
| 117.1336 | 12 | 26.0 | 22.0 | 94.0 | 145 | 1000V | 145 |
| 117.1337 | 13 | 26.0 | 23.5 | 94.0 | 145 | 1000V | 145 |
| 117.1338 | 14 | 26.0 | 25.5 | 94.0 | 145 | 1000V | 145 |
| 117.1339 | 15 | 26.0 | 27.0 | 94.0 | 145 | 1000V | 145 |
| 117.1340 | 16 | 26.0 | 28.0 | 94.0 | 160 | 1000V | 160 |
| 117.1341 | 17 | 26.0 | 29.0 | 94.0 | 180 | 1000V | 180 |
| 117.1342 | 18 | 26.0 | 30.0 | 94.0 | 190 | 1000V | 190 |
| 117.1343 | 19 | 26.0 | 30.5 | 94.0 | 210 | 1000V | 210 |
| 117.1344 | 21 | 26.0 | 35.0 | 94.0 | 215 | 1000V | 215 |
| 117.1345 | 22 | 26.0 | 35.5 | 94.0 | 230 | 1000V | 230 |
| 117.1346 | 23 | 26.0 | 36.0 | 94.0 | 235 | 1000V | 235 |
| 117.1347 | 24 | 26.0 | 39.0 | 94.0 | 250 | 1000V | 250 |
| 117.1348 | 27 | 26.0 | 42.0 | 94.0 | 390 | 1000V | 390 |
| 117.1349 | 30 | 26.0 | 46.5 | 94.0 | 420 | 1000V | 420 |
| 117.1350 | 32 | 26.0 | 48.5 | 94.0 | 460 | 1000V | 460 |

Insulated socket

- 12 point
- FlankTraction profile
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



1/2"

| | ⚙️ | D1 mm | D2 mm | L mm | ⚡ | ⚙️ |
|----------|--------|-------|-------|------|-------|-----|
| 117.1351 | 5/16" | 26.0 | 18.0 | 55.0 | 1000V | 70 |
| 117.1352 | 3/8" | 26.0 | 19.5 | 55.0 | 1000V | 70 |
| 117.1353 | 7/16" | 26.0 | 21.0 | 55.0 | 1000V | 75 |
| 117.1354 | 15/32" | 26.0 | 21.5 | 55.0 | 1000V | 75 |
| 117.1355 | 1/2" | 26.0 | 24.5 | 55.0 | 1000V | 75 |
| 117.1356 | 9/16" | 26.0 | 25.0 | 55.0 | 1000V | 80 |
| 117.1357 | 5/8" | 26.0 | 26.5 | 55.0 | 1000V | 85 |
| 117.1358 | 11/16" | 26.0 | 29.0 | 55.0 | 1000V | 90 |
| 117.1359 | 25/32" | 26.0 | 29.5 | 55.0 | 1000V | 85 |
| 117.1361 | 3/4" | 26.0 | 30.0 | 55.0 | 1000V | 100 |
| 117.1362 | 13/16" | 26.0 | 34.5 | 55.0 | 1000V | 110 |
| 117.1363 | 7/8" | 26.0 | 35.5 | 59.0 | 1000V | 120 |
| 117.1364 | 15/16" | 26.0 | 38.0 | 59.0 | 1000V | 140 |
| 117.1368 | 1" | 26.0 | 39.5 | 59.0 | 1000V | 175 |
| 117.1369 | 1.1/8" | 26.0 | 45.0 | 59.0 | 1000V | 190 |
| 117.1367 | 1.1/4" | 26.0 | 49.0 | 59.0 | 1000V | 280 |



Insulated socket, extra deep

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



1/2"

| | ⚙️ | D1 mm | D2 mm | L mm | ⚡ | ⚙️ |
|----------|----|-------|-------|-------|-------|-----|
| 117.1371 | 13 | 26.0 | 23.5 | 145.0 | 1000V | 250 |
| 117.1372 | 14 | 26.0 | 25.5 | 145.0 | 1000V | 260 |
| 117.1373 | 17 | 26.0 | 29.0 | 145.0 | 1000V | 280 |
| 117.1374 | 19 | 26.0 | 30.5 | 145.0 | 1000V | 295 |
| 117.1375 | 22 | 26.0 | 35.5 | 145.0 | 1000V | 310 |
| 117.1376 | 24 | 26.0 | 29.0 | 145.0 | 1000V | 330 |
| 117.1377 | 27 | 26.0 | 42.0 | 145.0 | 1000V | 350 |
| 117.1378 | 30 | 26.0 | 46.5 | 145.0 | 1000V | 380 |
| 117.1379 | 32 | 26.0 | 48.5 | 145.0 | 1000V | 410 |

Insulated socket, extra deep

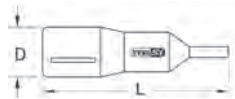
- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



| | mm | D1 mm | D2 mm | L mm | ⚡ | kg |
|----------|----|-------|-------|-------|-------|-----|
| 117.1381 | 13 | 26.0 | 23.5 | 255.0 | 1000V | 485 |
| 117.1382 | 14 | 26.0 | 25.5 | 255.0 | 1000V | 500 |
| 117.1383 | 17 | 26.0 | 29.0 | 255.0 | 1000V | 530 |
| 117.1384 | 19 | 26.0 | 30.5 | 255.0 | 1000V | 550 |
| 117.1385 | 22 | 26.0 | 35.5 | 255.0 | 1000V | 580 |
| 117.1386 | 24 | 26.0 | 39.0 | 255.0 | 1000V | 605 |
| 117.1387 | 27 | 26.0 | 42.0 | 255.0 | 1000V | 635 |
| 117.1388 | 30 | 26.0 | 46.5 | 255.0 | 1000V | 660 |
| 117.1389 | 32 | 26.0 | 48.5 | 255.0 | 1000V | 670 |

Insulated bit socket

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



| | mm | D mm | L mm | ⚡ | kg |
|----------|----|------|------|-------|-----|
| 117.1151 | 4 | 26.0 | 95.0 | 1000V | 80 |
| 117.1152 | 5 | 26.0 | 95.0 | 1000V | 80 |
| 117.1153 | 6 | 26.0 | 95.0 | 1000V | 85 |
| 117.1154 | 8 | 26.0 | 95.0 | 1000V | 95 |
| 117.1155 | 10 | 26.0 | 95.0 | 1000V | 105 |
| 117.1156 | 12 | 26.0 | 95.0 | 1000V | 125 |
| 117.1157 | 14 | 26.0 | 95.0 | 1000V | 170 |
| 117.1158 | 17 | 26.0 | 95.0 | 1000V | 185 |
| 117.1159 | 19 | 26.0 | 95.0 | 1000V | 195 |

Insulated bit socket, long

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



| | mm | D mm | L mm | ⚡ | kg |
|----------|----|------|-------|-------|-----|
| 117.1161 | 4 | 26.0 | 118.0 | 1000V | 95 |
| 117.1162 | 5 | 26.0 | 118.0 | 1000V | 100 |
| 117.1163 | 6 | 26.0 | 118.0 | 1000V | 100 |
| 117.1164 | 8 | 26.0 | 118.0 | 1000V | 110 |
| 117.1165 | 10 | 26.0 | 118.0 | 1000V | 110 |
| 117.1166 | 12 | 26.0 | 118.0 | 1000V | 160 |

Insulated bit socket, extra long

- Hexagon socket
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Burnished
- Chrome vanadium



| | mm | D mm | L mm | ⚡ | kg |
|----------|----|------|-------|-------|-----|
| 117.1171 | 5 | 26.0 | 156.0 | 1000V | 110 |
| 117.1172 | 6 | 26.0 | 156.0 | 1000V | 110 |
| 117.1173 | 5 | 26.0 | 267.0 | 1000V | 125 |
| 117.1174 | 6 | 26.0 | 267.0 | 1000V | 145 |
| 117.1175 | 8 | 26.0 | 267.0 | 1000V | 155 |
| 117.1176 | 10 | 26.0 | 267.0 | 1000V | 190 |

Insulated reducing adaptor

- In accordance to DIN 3123 / ISO 3316
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- Matt chrome
- Chrome vanadium



| | mm | D mm | L mm | ⚡ | kg | |
|----------|------|------|------|------|-------|-----|
| 117.1285 | 1/2" | 3/8" | 20.0 | 75.0 | 1000V | 220 |

1/2" SETS

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



| | mm | D mm | L mm | ⚡ | kg |
|----------|--------|-----------------------------|--|---|------|
| 117.1883 | 15 pcs | Insulated socket wrench set | | | 4.00 |
| 1 x | | | 1/2" | | |
| 2 x | | | 1/2": 125 - 250 mm | | |
| 1 x | | | 1/2" | | |
| 8 x | | | 1/2": 10 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm | | |
| 3 x | | | 1/2": 5 - 6 - 8 mm | | |

Insulated socket set

- In accordance to DIN 7448 / 7434 / 7449
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120
- In durable plastic storage case



| | mm | D mm | L mm | ⚡ | kg |
|----------|-------|----------------------|-------------------------------------|---|------|
| 117.0600 | 9 pcs | Insulated socket set | | | 2.07 |
| 1 x | | | 270 mm | | |
| 7 x | | | 10 - 13 - 14 - 16 - 17 - 19 - 21 mm | | |
| 1 x | | | 125 mm | | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case



| | mm | D mm | L mm | ⚡ | kg |
|----------|--------|-----------------------------|--|---|------|
| 117.1860 | 16 pcs | Insulated socket wrench set | | | 4.50 |
| 1 x | | | 1/2" | | |
| 2 x | | | 1/2": 125 - 250 mm | | |
| 1 x | | | 1/2" | | |
| 8 x | | | 1/2": 10 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm | | |
| 3 x | | | 1/2": 5 - 6 - 8 mm | | |
| 1 x | | | 3,5 mm | | |

3/4" PROGRAM

Insulated reversing ratchet

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7449
- Insulated handle to IEC 60900
- With reversible 32-teeth ratchet head
- With frictional contact square drive with locking device
- Chrome vanadium



3/4"

| | 3/4" | A mm | L mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|------|
| 117.1187 | 3/4" | 111.5 | 500.0 | 1000V | 2.00 |

Insulated socket

- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3124 / ISO 1174 with ball reception
- Chrome vanadium



3/4"

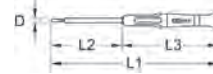
| | mm | D1 mm | D2 mm | L mm | ⚡ | Ⓜ |
|----------|----|-------|-------|------|-------|-----|
| 117.3930 | 19 | 38.0 | 26.0 | 68.0 | 1000V | 200 |
| 117.3931 | 21 | 38.0 | 39.0 | 68.0 | 1000V | 210 |
| 117.3932 | 22 | 38.0 | 40.0 | 70.0 | 1000V | 230 |
| 117.3933 | 24 | 38.0 | 43.0 | 70.0 | 1000V | 230 |
| 117.3934 | 26 | 38.0 | 45.0 | 72.0 | 1000V | 240 |
| 117.3935 | 27 | 38.0 | 47.0 | 72.0 | 1000V | 270 |
| 117.3936 | 28 | 38.0 | 48.0 | 72.0 | 1000V | 290 |
| 117.3937 | 30 | 38.0 | 50.0 | 74.0 | 1000V | 310 |
| 117.3938 | 32 | 38.0 | 52.0 | 74.0 | 1000V | 320 |
| 117.3939 | 36 | 38.0 | 58.0 | 82.0 | 1000V | 460 |
| 117.3940 | 38 | 38.0 | 60.0 | 82.0 | 1000V | 500 |
| 117.3941 | 41 | 38.0 | 62.0 | 82.0 | 1000V | 540 |
| 117.3942 | 46 | 38.0 | 70.0 | 82.0 | 1000V | 630 |
| 117.3943 | 50 | 38.0 | 75.0 | 82.0 | 1000V | 750 |
| 117.3944 | 55 | 38.0 | 82.0 | 88.0 | 1000V | 860 |
| 117.3945 | 60 | 38.0 | 90.0 | 88.0 | 1000V | 910 |



SCREWDRIVERS

Insulated precision screwdriver for slotted screws

- Slotted
- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blades made from special steel



| | D mm | L1 mm | L2 mm | L3 mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|----|
| 500.6138 | 1,5 | 140.0 | 40.0 | 100.0 | 1000V | 10 |
| 500.6139 | 1,8 | 160.0 | 60.0 | 100.0 | 1000V | 10 |
| 500.6140 | 2,0 | 160.0 | 60.0 | 100.0 | 1000V | 15 |
| 500.6141 | 2,5 | 175.0 | 75.0 | 100.0 | 1000V | 15 |
| 500.6142 | 3,0 | 175.0 | 75.0 | 100.0 | 1000V | 15 |

Insulated precision screwdriver for phillips screws PH

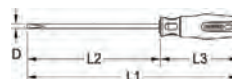
- PH
- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blades made from special steel



| | | L1 mm | L2 mm | L3 mm | ⚡ | Ⓜ |
|----------|-------|-------|-------|-------|-------|----|
| 500.6136 | PH 00 | 175.0 | 75.0 | 100.0 | 1000V | 15 |
| 500.6137 | PH 0 | 175.0 | 75.0 | 100.0 | 1000V | 15 |

ERGOTORQUE® VDE screwdriver for slotted screws

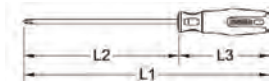
- Slotted
- In accordance to DIN 5264 / DIN ISO 2380
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel



| | D mm | L1 mm | L2 mm | L3 mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|-----|
| 117.0502 | 2,5 | 155.0 | 75.0 | 80.0 | 1000V | 32 |
| 117.0504 | 3,0 | 180.0 | 100.0 | 80.0 | 1000V | 35 |
| 117.0506 | 3,5 | 180.0 | 100.0 | 80.0 | 1000V | 38 |
| 117.0508 | 4,0 | 180.0 | 100.0 | 80.0 | 1000V | 41 |
| 117.0512 | 5,5 | 230.0 | 125.0 | 105.0 | 1000V | 92 |
| 117.0514 | 6,5 | 255.0 | 150.0 | 105.0 | 1000V | 111 |
| 117.0516 | 8,0 | 290.0 | 175.0 | 115.0 | 1000V | 164 |
| 117.0518 | 10,0 | 315.0 | 200.0 | 115.0 | 1000V | 230 |

ERGOTORQUE® VDE screwdriver for phillips screws PH

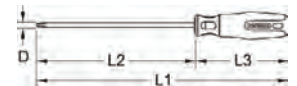
- PH
- In accordance to DIN 7438 / DIN ISO 8764
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel



| | | L1 mm | L2 mm | L3 mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|-----|
| 117.0522 | PH 0 | 140.0 | 60.0 | 80.0 | 1000V | 32 |
| 117.0524 | PH 1 | 185.0 | 80.0 | 105.0 | 1000V | 38 |
| 117.0526 | PH 2 | 205.0 | 100.0 | 105.0 | 1000V | 95 |
| 117.0528 | PH 3 | 265.0 | 150.0 | 115.0 | 1000V | 152 |

ERGOTORQUE® VDE screwdriver for Phillips screws PZ

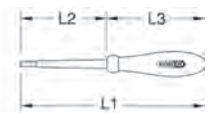
- PZ
- In accordance to DIN 7438 / DIN ISO 8764
- Insulated to IEC 60900
- With two component handle
- Burnished tip
- S2 special steel



| | | L1 mm | L2 mm | L3 mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|-----|
| 117.0532 | PZ 0 | 140.0 | 60.0 | 80.0 | 1000V | 32 |
| 117.0534 | PZ 1 | 185.0 | 80.0 | 105.0 | 1000V | 38 |
| 117.0536 | PZ 2 | 205.0 | 100.0 | 105.0 | 1000V | 95 |
| 117.0538 | PZ 3 | 265.0 | 150.0 | 115.0 | 1000V | 152 |

Insulated hexagon screwdriver

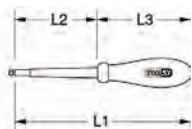
- Hexagon
- In accordance to DIN 7439
- Insulated to IEC 60900
- Burnished tip
- Chrome vanadium



| | mm | L1 mm | L2 mm | L3 mm | ⚡ | Ⓜ |
|----------|-----|-------|-------|-------|-------|-----|
| 117.1631 | 1,5 | 135.0 | 57.0 | 77.0 | 1000V | 16 |
| 117.1632 | 2,0 | 135.0 | 57.0 | 77.0 | 1000V | 18 |
| 117.1633 | 2,5 | 165.0 | 78.0 | 83.0 | 1000V | 34 |
| 117.1634 | 3,0 | 165.0 | 74.0 | 85.0 | 1000V | 36 |
| 117.1635 | 4,0 | 165.0 | 76.0 | 85.0 | 1000V | 43 |
| 117.1636 | 5,0 | 170.0 | 71.0 | 75.0 | 1000V | 67 |
| 117.1637 | 6,0 | 205.0 | 108.0 | 95.0 | 1000V | 83 |
| 117.1638 | 8,0 | 205.0 | 97.0 | 105.0 | 1000V | 116 |

Insulated screwdriver for internal TX screws

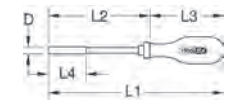
- TX
- Insulated to IEC 60900
- Burnished tip
- Special steel



| | | L1 mm | L2 mm | L3 mm | ⚡ 1000V | ⚙️ |
|----------|-----|----------|----------|----------|------------|----|
| 117.0551 | T10 | 170.0 | 80.0 | 90.0 | 1000V | 27 |
| 117.0552 | T15 | 170.0 | 80.0 | 90.0 | 1000V | 28 |
| 117.0553 | T20 | 190.0 | 100.0 | 90.0 | 1000V | 36 |
| 117.0554 | T25 | 190.0 | 100.0 | 90.0 | 1000V | 61 |
| 117.0555 | T27 | 205.0 | 115.0 | 90.0 | 1000V | 74 |
| 117.0556 | T30 | 205.0 | 115.0 | 90.0 | 1000V | 93 |

Insulated bit screwdriver with magazine

- Insulated to IEC 60900
- With magnet
- For bits to DIN 3126 - C 6,3
- Chrome vanadium



1/4"

| | ⚡ 1000V | D mm | L1 mm | L2 mm | L3 mm | L4 mm | ⚡ 1000V | ⚙️ |
|----------|------------|---------|----------|----------|----------|----------|------------|-----|
| 117.1625 | 1/4" | 12.5 | 230.0 | 120.0 | 110.0 | 50.0 | 1000V | 170 |

SCREWDRIVER-SETS

Insulated precision screwdriver set

- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blade made of chrome vanadium
- In durable ABS storage case



| | ⚡ 1000V | ⚙️ |
|----------|------------|---|
| 500.6165 | 7 pcs | Insulated precision screwdriver set 310 |
| 2 x | + | PH 0 - PH 00 |
| 5 x | - | 1,5 - 1,8 - 2,0 - 2,5 - 3,0 mm |

ERGOTORQUE® VDE screwdriver set

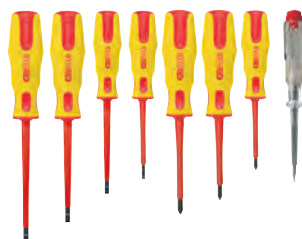
- In accordance to DIN 5264 / 7437 / 7438 / 8764
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel



| | ⚡ 1000V | ⚙️ |
|----------|------------|-------------------------------------|
| 117.0540 | 5 pcs | ERGOTORQUE® VDE screwdriver set 200 |
| 1 x | + | PH1 |
| 3 x | - | 2,5 - 4,0 - 5,5 mm |
| 1 x | - | 3,0 mm |

ERGOTORQUE® VDE screwdriver set

- In accordance to DIN 5264 / 7437 / 7438 / 8764
- Insulated to IEC 60900
- Two component handle
- Burnished tip
- S2 special steel



| | ⚡ 1000V | ⚙️ |
|----------|------------|-------------------------------------|
| 117.0550 | 8 pcs | ERGOTORQUE® VDE screwdriver set 430 |
| 3 x | + | PH0 - PH1 - PH2 |
| 4 x | - | 2,5 - 4,0 - 5,5 - 6,5 mm |
| 1 x | - | 3,0 mm |

ERGOTORQUE® VDE screwdriver display

- Insulated to IEC 60900
- Two component handle
- Includes voltage tester
- Burnished tip
- Blades made from S2 special steel
- In display stand



| | ⚡ 1000V | ⚙️ |
|----------|------------|--|
| 117.0560 | 120 pcs | ERGOTORQUE® VDE screwdriver display 6,75 |
| 50 x | - | 5 x 2,5 - 5 x 3,0 - 5 x 3,5 - 5 x 4,0 10 x 5,5 - 10 x 6,5 - 5 x 8,0 - 5 x 10,0 mm |
| 20 x | - | 3,0 mm |
| 25 x | + | 5 x PH0 - 5 x PH1 - 10 x PH2 - 5 x PH3 |
| 25 x | + | 5 x PZ0 - 5 x PZ1 - 10 x PZ2 - 5 x PZ3 |

KEY WRENCHES

Insulated T-grip socket spanner

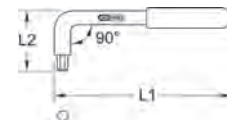
- Insulated to IEC 60900
- With magnet
- For bits to DIN 3126 - C 6,3
- Chrome vanadium



| | ⚡ 1000V | D mm | L mm | I mm | ⚡ 1000V | ⚙️ |
|----------|------------|---------|---------|---------|------------|-----|
| 117.1743 | 1/4" | 14.0 | 120.0 | 110.0 | 1000V | 185 |
| 117.1744 | 1/4" | 14.0 | 160.0 | 110.0 | 1000V | 248 |
| 117.1745 | 1/4" | 14.0 | 250.0 | 165.0 | 1000V | 310 |

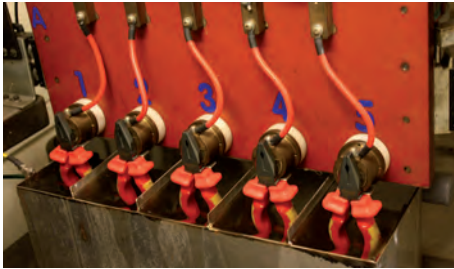
Insulated angled hexagon screwdriver

- Hexagon
- In accordance to DIN 7439
- Insulated handle to IEC 60900
- Specially for cable branch clamp ring
- Matt chrome
- Chrome vanadium



| | ⚡ 1000V | ⚙️ |
|----------|------------|----------------------|
| 117.1601 | 3 | 130.0 24.0 1000V 20 |
| 117.1602 | 4 | 120.0 40.0 1000V 25 |
| 117.1603 | 5 | 140.0 47.0 1000V 45 |
| 117.1604 | 6 | 140.0 50.0 1000V 60 |
| 117.1605 | 8 | 150.0 50.0 1000V 110 |
| 117.1606 | 10 | 235.0 51.0 1000V 230 |
| 117.1607 | 12 | 265.0 60.0 1000V 350 |





Insulated socket spanner

- Square drive adaptor to DIN 3120 / 1174 with ball lock
- In accordance to DIN 7436
- Insulated handle to IEC 60900
- With screw adjustment
- Chrome vanadium

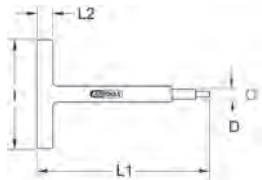


1/2"

| | 1/2" | L1 mm | L2 mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-------|-----|
| 117.1403 | 1/2" | 280.0 | 70.0 | 1000V | 470 |

Insulated T-grip hexagon box spanner

- Hexagon socket
- Insulated handle to IEC 60900
- Extremely versatile
- Burnished
- Chrome vanadium

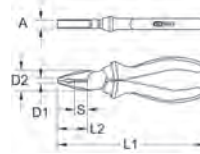


| | ⚙️ | I mm | D mm | L1 mm | L2 mm | ⚡ | ⚙️ |
|----------|----|-------|------|-------|-------|-------|-----|
| 117.1671 | 3 | 65.0 | 5.0 | 120.0 | 17.5 | 1000V | 80 |
| 117.1672 | 3 | 65.0 | 5.0 | 115.0 | 18.5 | 1000V | 140 |
| 117.1673 | 4 | 65.0 | 10.0 | 115.0 | 19.0 | 1000V | 85 |
| 117.1674 | 4 | 104.0 | 15.0 | 146.0 | 22.0 | 1000V | 145 |
| 117.1675 | 4 | 64.0 | 10.0 | 185.0 | 18.0 | 1000V | 150 |
| 117.1676 | 4 | 94.0 | 13.0 | 235.0 | 19.0 | 1000V | 168 |
| 117.1677 | 5 | 65.0 | 11.0 | 116.0 | 20.0 | 1000V | 85 |
| 117.1678 | 5 | 105.0 | 15.0 | 148.0 | 21.0 | 1000V | 250 |
| 117.1679 | 5 | 65.0 | 10.0 | 185.0 | 18.0 | 1000V | 150 |
| 117.1681 | 5 | 105.0 | 15.0 | 235.0 | 20.0 | 1000V | 168 |
| 117.1682 | 6 | 90.0 | 11.0 | 105.0 | 20.0 | 1000V | 110 |
| 117.1683 | 6 | 105.0 | 15.0 | 145.0 | 21.0 | 1000V | 250 |
| 117.1684 | 6 | 65.0 | 11.0 | 185.0 | 19.0 | 1000V | 150 |
| 117.1742 | 6 | 105.0 | 8.0 | 250.0 | 20.0 | 1000V | 168 |
| 117.1685 | 8 | 105.0 | 15.0 | 145.0 | 21.0 | 1000V | 260 |
| 117.1686 | 8 | 160.0 | 13.0 | 182.0 | 22.0 | 1000V | 325 |
| 117.1687 | 8 | 100.0 | 17.0 | 235.0 | 22.0 | 1000V | 360 |
| 117.1688 | 10 | 160.0 | 15.0 | 185.0 | 20.0 | 1000V | 390 |
| 117.1689 | 10 | 160.0 | 15.0 | 235.0 | 20.0 | 1000V | 420 |
| 117.1691 | 10 | 160.0 | 15.0 | 285.0 | 20.0 | 1000V | 450 |
| 117.1692 | 11 | 160.0 | 15.0 | 185.0 | 20.0 | 1000V | 400 |
| 117.1693 | 12 | 160.0 | 16.0 | 185.0 | 20.0 | 1000V | 420 |
| 117.1694 | 13 | 160.0 | 16.0 | 185.0 | 21.0 | 1000V | 450 |
| 117.1695 | 14 | 160.0 | 17.0 | 185.0 | 21.0 | 1000V | 490 |
| 117.1696 | 17 | 160.0 | 20.0 | 185.0 | 21.0 | 1000V | 640 |

PLIERS

ERGOTORQUE® VDE combination pliers

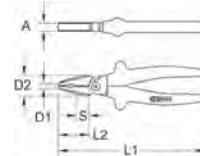
- In accordance to DIN ISO 5748
- Wrap around insulation to IEC 60900
- With two component handle
- Suitable for wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-------|-------|------|-------|-----|
| 117.1111 | 10.0 | 6.0 | 24.0 | 162.5 | 35.0 | 2.4 | 1000V | 310 |
| 117.1112 | 11.0 | 7.0 | 27.0 | 180.0 | 38.5 | 2.5 | 1000V | 380 |
| 117.1113 | 12.0 | 7.0 | 30.0 | 205.0 | 42.5 | 3.0 | 1000V | 400 |

CLASSIC 1000V high leverage combination pliers

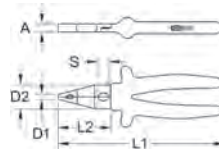
- In accordance to DIN / ISO 5746
- Insulated handle to IEC 60900
- Also suitable for hard wire
- Extra heavy execution
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-------|-------|------|-------|-----|
| 117.1278 | 8.5 | 6.0 | 25.0 | 160.0 | 36.5 | 13.0 | 1000V | 230 |
| 117.1275 | 11.0 | 7.5 | 28.0 | 185.0 | 40.0 | 16.5 | 1000V | 290 |
| 117.1276 | 11.5 | 8.0 | 28.0 | 205.0 | 43.0 | 18.0 | 1000V | 390 |
| 117.1279 | 13.0 | 8.0 | 35.0 | 250.0 | 53.0 | 21.5 | 1000V | 570 |

CLASSIC 1000V combination pliers

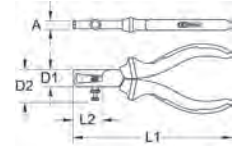
- In accordance to DIN / ISO 5244
- Insulated handle to IEC 60900
- With coated working head
- Also suitable for hard wire
- Extra heavy execution
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-------|-------|------|-------|-----|
| 117.1711 | 16.0 | 8.0 | 30.0 | 185.0 | 38.0 | 16.0 | 1000V | 280 |
| 117.1712 | 16.0 | 8.5 | 32.5 | 205.0 | 44.0 | 18.5 | 1000V | 350 |

ERGOTORQUE® VDE cable stripper

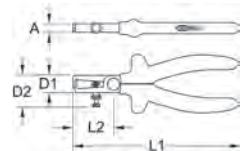
- In accordance to DIN / ISO 5232
- Wrap around insulation to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-------|-------|-------|-----|
| 117.1114 | 10.0 | 17.5 | 31.5 | 160.0 | 36.0 | 1000V | 210 |

CLASSIC 1000V wire strippers

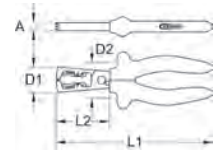
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-------|-------|-------|-----|
| 117.1271 | 9.5 | 18.5 | 31.5 | 160.0 | 44.0 | 1000V | 180 |

CLASSIC 1000V wire strippers

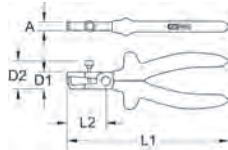
- Insulated handle to IEC 60900
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm²
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | Replacement blades | ⚙️ |
|----------|------|-------|-------|-------|-------|--------------------|-----|
| 117.1272 | 10.5 | 28.5 | 47.5 | 160.0 | 20.0 | 117.1258 | 220 |

CLASSIC 1000V wire strippers

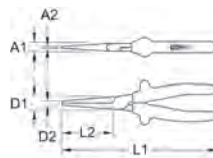
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- Coated working head
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | | |
|----------|------|-------|-------|-------|-------|--|-----|
| 117.1713 | 11.0 | 18.5 | 20.0 | 160.0 | 34.0 | | 180 |

CLASSIC 1000V drawing pliers

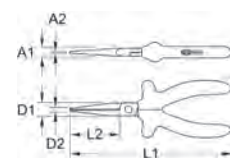
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With flat and smooth gripping jaws
- Rounded edges
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | |
|----------|-------|-------|-------|-------|-------|-------|-----|
| 117.1280 | 7.5 | 6.5 | 17.0 | 4.5 | 200.0 | 65.0 | 220 |

CLASSIC 1000V flat pliers

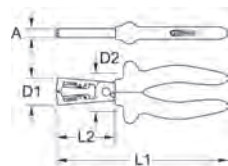
- In accordance to DIN 5745
- Insulated handle to IEC 60900
- With long jaws
- Serrated execution
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | | |
|----------|-------|-------|-------|-------|-------|-------|--|-----|
| 117.1289 | 8.5 | 5.5 | 15.0 | 3.5 | 160.0 | 50.0 | | 210 |

CLASSIC 1000V wire strippers

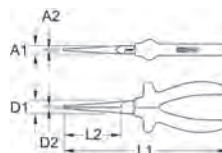
- Insulated handle to IEC 60900
- Multifunctional wire strippers
- Self-adjusting
- With replaceable knives
- For wires from 0.5 - 5.0 mm²
- With cutting holes for separating cables and wires
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | | |
|----------|------|-------|-------|-------|-------|--|-----|
| 117.1225 | 10.0 | 24.0 | 40.0 | 185.0 | 61.0 | | 260 |

CLASSIC 1000V drawing pliers

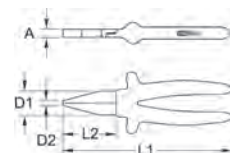
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- With flat and smooth gripping jaws
- Rounded edges
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | | |
|----------|-------|-------|-------|-------|-------|-------|--|-----|
| 117.1714 | 7.5 | 6.5 | 19.0 | 4.5 | 200.0 | 65.0 | | 220 |

CLASSIC 1000V flat pliers

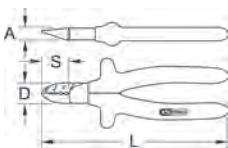
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- Short and powerful jaws
- Serrated execution
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | | |
|----------|------|-------|-------|-------|-------|--|-----|
| 117.1298 | 9.0 | 17.0 | 4.5 | 160.0 | 34.0 | | 200 |

CLASSIC 1000V electrical side cutters

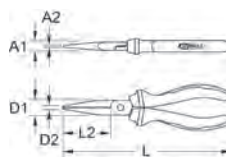
- Insulated handle to DIN / EN 60900
- For cutting, stripping and crimping
- Wire strippers for wires from 1,5 mm² + 2,5 mm²
- For crimping of insulated cable lugs with Ø 1,5 mm + 2,5 mm
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D mm | L mm | S mm | | |
|----------|------|------|-------|------|--|-----|
| 117.1281 | 10.5 | 22.0 | 175.0 | 27.0 | | 320 |

ERGOTORQUE® VDE flat pliers

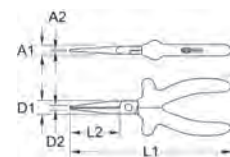
- In accordance to DIN / ISO 5745
- Wrap around insulation to IEC 60900
- With two component handle
- Serrated execution
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | | |
|----------|-------|-------|-------|-------|-------|-------|--|-----|
| 117.1125 | 9.0 | 3.8 | 18.0 | 3.0 | 165.0 | 49.5 | | 210 |

CLASSIC 1000V flat pliers

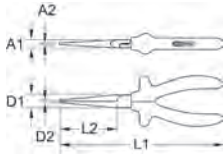
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Short and powerful jaws
- Serrated execution
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | | |
|----------|-------|-------|-------|-------|-------|-------|--|-----|
| 117.1715 | 11.0 | 11.0 | 19.0 | 5.0 | 160.0 | 36.0 | | 190 |

CLASSIC 1000V long jaw flat pliers

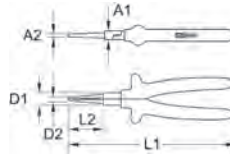
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With long jaws
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | ⚡ | 🛡️ |
|----------|-------|-------|-------|-------|-------|-------|-------|-----|
| 117.1299 | 7.0 | 8.5 | 16.0 | 4.0 | 160.0 | 51.0 | 1000V | 210 |

CLASSIC 1000V round pliers

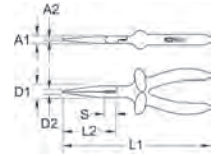
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With round, short and strong jaws
- With smooth tips
- Serrated execution
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | ⚡ | 🛡️ |
|----------|-------|-------|-------|-------|-------|-------|-------|-----|
| 117.1297 | 10.0 | 3.5 | 14.0 | 6.0 | 160.0 | 33.0 | 1000V | 180 |

CLASSIC 1000V long nosed pliers

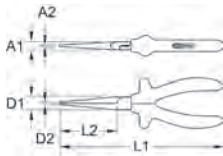
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Long jaws
- Suitable for soft and medium hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | 🛡️ |
|----------|-------|-------|-------|-------|-------|-------|------|-------|-----|
| 117.1717 | 10.0 | 3.5 | 17.5 | 4.0 | 160.0 | 55.0 | 10.0 | 1000V | 180 |
| 117.1718 | 10.5 | 3.5 | 18.0 | 5.0 | 200.0 | 74.0 | 14.0 | 1000V | 230 |

CLASSIC 1000V long jaw flat pliers

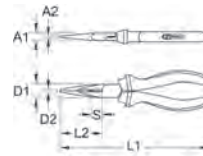
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- With long jaws
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | ⚡ | 🛡️ |
|----------|-------|-------|-------|-------|-------|-------|-------|-----|
| 117.1716 | 13.0 | 7.5 | 18.5 | 4.5 | 160.0 | 50.0 | 1000V | 130 |

ERGOTORQUE® VDE long nosed pliers

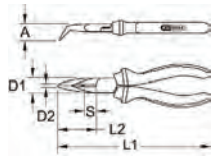
- In accordance to DIN / ISO 5745
- Wrap around insulation to IEC 60900
- With two component handle
- Long jaws
- Suitable for medium and hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | 🛡️ |
|----------|-------|-------|-------|-------|-------|-------|------|-------|-----|
| 117.1117 | 9.0 | 2.9 | 18.0 | 3.2 | 165.0 | 48.0 | 2.5 | 1000V | 177 |
| 117.1118 | 11.0 | 3.5 | 22.0 | 4.5 | 208.0 | 69.0 | 2.5 | 1000V | 291 |

ERGOTORQUE® VDE long nosed pliers, curved

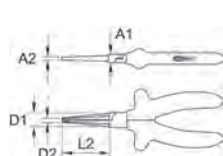
- In accordance to DIN / ISO 5745
- Wrap around insulation to IEC 60900
- With two component handle
- Curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | 🛡️ |
|----------|------|-------|-------|-------|-------|------|-------|-----|
| 117.1120 | 9.0 | 18.0 | 3.2 | 165.0 | 48.0 | 2.5 | 1000V | 210 |
| 117.1121 | 11.0 | 22.0 | 5.0 | 208.0 | 70.0 | 2.5 | 1000V | 310 |

CLASSIC 1000V long jaw round pliers

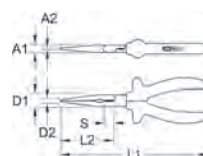
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With round and long jaws
- With smooth tips
- Serrated execution
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | ⚡ | 🛡️ |
|----------|-------|-------|-------|-------|-------|-------|-------|-----|
| 117.1290 | 9.0 | 2.5 | 14.0 | 5.5 | 160.0 | 47.5 | 1000V | 205 |

CLASSIC 1000V long nosed pliers

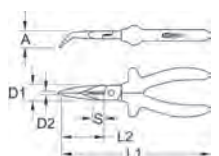
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- Long jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A1 mm | A2 mm | D1 mm | D2 mm | L1 mm | L2 mm | ⚡ | 🛡️ |
|----------|-------|-------|-------|-------|-------|-------|-------|-----|
| 117.1291 | 9.5 | 2.5 | 16.0 | 4.0 | 200.0 | 74.0 | 1000V | 230 |
| 117.1293 | 9.0 | 2.0 | 15.5 | 3.0 | 160.0 | 55.0 | 1000V | 170 |

CLASSIC 1000V long nosed pliers, curved

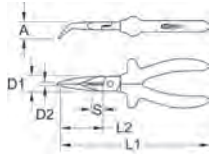
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- Curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | 🛡️ |
|----------|------|-------|-------|-------|-------|------|-------|-----|
| 117.1292 | 9.5 | 17.0 | 4.0 | 200.0 | 78.0 | 14.0 | 1000V | 210 |
| 117.1294 | 9.5 | 15.5 | 4.0 | 160.0 | 51.0 | 11.0 | 1000V | 170 |

CLASSIC 1000V long nosed pliers, curved

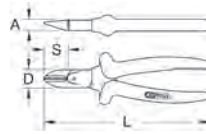
- In accordance to DIN / ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Curved jaws
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|------|-------|-----|
| 117.1719 | 12.0 | 5.0 | 19.0 | 200.0 | 79.0 | 14.0 | 1000V | 220 |

CLASSIC 1000V side cutters

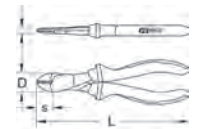
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- For soft and hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D mm | L mm | S mm | ⚡ | Ⓜ |
|----------|------|------|-------|------|-------|-----|
| 117.1277 | 11.0 | 21.5 | 160.0 | 24.0 | 1000V | 270 |
| 117.1288 | 11.0 | 21.5 | 180.0 | 24.0 | 1000V | 330 |

ERGOTORQUE® VDE high leverage side cutters

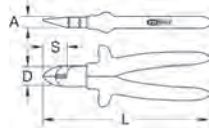
- In accordance to DIN / ISO 5749
- Wrap around insulation to IEC 60900
- With two component handle
- For all types of wire
- Requires light expenditure of energy
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D mm | L mm | S mm | ⚡ | Ⓜ |
|----------|------|------|-------|------|-------|-----|
| 117.1115 | 12.0 | 30.0 | 175.0 | 22.5 | 1000V | 330 |
| 117.1116 | 12.5 | 30.0 | 200.0 | 22.5 | 1000V | 370 |

CLASSIC 1000V lead sealing pliers

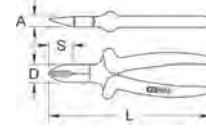
- Insulated handle to DIN / EN 60900
- With interchangeable clamping inserts
- Combined with side cutter
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D mm | L mm | S mm | ⚡ | Ⓜ |
|----------|------|------|-------|------|-------|-----|
| 117.1268 | 10.0 | 20.0 | 160.0 | 15.0 | 1000V | 220 |

CLASSIC 1000V side cutters

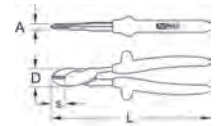
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- Working head coated
- For soft and hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D mm | L mm | S mm | ⚡ | Ⓜ |
|----------|------|------|-------|------|-------|-----|
| 117.1721 | 26.0 | 25.5 | 160.0 | 22.0 | 1000V | 230 |
| 117.1722 | 27.0 | 27.0 | 180.0 | 25.0 | 1000V | 330 |

CLASSIC 1000V high leverage side cutter

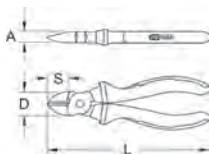
- In accordance to DIN / ISO 5749
- Insulated handle to IEC 60900
- For all types of wire
- Especially for the line construction
- Requires light expenditure of energy
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D mm | L mm | S mm | ⚡ | Ⓜ |
|----------|------|------|-------|------|-------|-----|
| 117.1282 | 12.0 | 26.0 | 180.0 | 21.0 | 1000V | 320 |
| 117.1283 | 12.5 | 29.0 | 205.0 | 24.0 | 1000V | 370 |
| 117.1284 | 13.5 | 33.0 | 260.0 | 30.0 | 1000V | 580 |

ERGOTORQUE® VDE diagonal side cutters

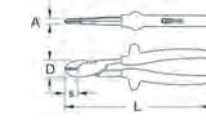
- In accordance to DIN / ISO 5749
- Wrap around insulation to IEC 60900
- With two component handle
- For soft and medium wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D mm | L mm | S mm | ⚡ | Ⓜ |
|----------|------|------|-------|------|-------|-----|
| 117.1119 | 10.0 | 20.0 | 156.0 | 20.0 | 1000V | 210 |

CLASSIC 1000V high leverage side cutter

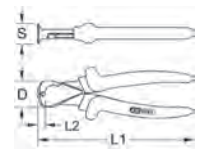
- In accordance with DIN/ISO 5749
- Insulated handle to IEC 60900
- For all types of wire
- Especially for overhead line construction
- Low energy requirement
- 40% power saving
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | A mm | D mm | L mm | S mm | ⚡ | Ⓜ |
|----------|------|------|-------|------|-------|-----|
| 117.1234 | 12.0 | 28.5 | 200.0 | 25.0 | 1000V | 380 |

CLASSIC 1000V cutting pliers

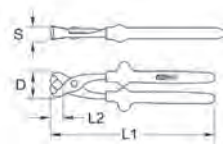
- In accordance to DIN / ISO 5748
- Insulated handle to IEC 60900
- For soft and hard wire
- Inductively hardened precision cutting edges
- Matt chrome
- Special tool steel



| | D mm | L mm | L2 mm | S mm | ⚡ | Ⓜ |
|----------|------|-------|-------|------|-------|-----|
| 117.1198 | 30.0 | 160.0 | 6.5 | 23.0 | 1000V | 280 |

CLASSIC 1000V rabitz pliers

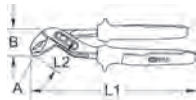
- Insulated handle to DIN / EN 60900
- For soft wire
- For the cutting and twisting of tie wire
- Inductively hardened precision cutting edges
- Phosphate finish
- Special tool steel



| | D mm | L1 mm | L2 mm | S mm | ⚡ 1000V | ⚖️ kg |
|----------|---------|----------|----------|---------|------------|----------|
| 117.1204 | 36.0 | 250.0 | 16.0 | 25.0 | ⚡ 1000V | 480 |

ERGOTORQUE® VDE water pump pliers

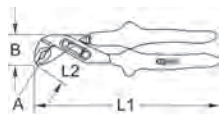
- In accordance to DIN / ISO 8976
- Wrap around insulation to IEC 60900
- With two component handle
- Toothed gripping surfaces
- Substantial through joint
- Optimum power transfer
- With grooved adjustment
- With zip fastener
- With inductively hardened handle areas
- Phosphate finish
- Special tool steel



| | A mm | B mm | L1 mm | L2 mm | ⚡ 1000V | ⚖️ kg |
|----------|---------|---------|----------|----------|------------|----------|
| 117.2000 | 33.0 | 42.0 | 240.0 | 32.0 | ⚡ 1000V | 420 |

CLASSIC 1000V water pump pliers

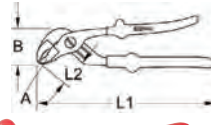
- In accordance to DIN / ISO 8976
- Insulated handle to IEC 60900
- Toothed gripping surfaces
- Substantial through joint
- Optimum power transfer
- With grooved adjustment
- With zip fastener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



| | A mm | B mm | L1 mm | L2 mm | ⚡ 1000V | ⚖️ kg |
|----------|---------|---------|----------|----------|------------|----------|
| 117.1273 | 39.0 | 35.0 | 240.0 | 51.0 | ⚡ 1000V | 350 |
| 117.1274 | 65.0 | 47.0 | 300.0 | 65.0 | ⚡ 1000V | 690 |

CLASSIC 1000V water pump pliers

- In accordance to DIN / ISO 8976
- Insulated handle to IEC 60900
- Toothed gripping surfaces
- Heavy execution
- Through flexible head with flat-die thread rolling
- Optimum power transfer
- With zip fastener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



| | A mm | B mm | L1 mm | L2 mm | ⚡ 1000V | ⚖️ kg |
|----------|---------|---------|----------|----------|------------|----------|
| 117.1207 | 54.0 | 56.0 | 260.0 | 35.0 | ⚡ 1000V | 560 |

PLIER SETS

ERGOTORQUE® VDE plier set

- Wrap around insulation to IEC 60900
- With two component handle
- Matt chrome
- Special tool steel



| | | ERGOTORQUE® VDE plier set | ⚖️ kg |
|----------|-------|------------------------------|----------|
| 117.1100 | 4 pcs | | 1.44 |
| 1 x | | 150 mm | |
| 1 x | | 175 mm | |
| 1 x | | 200 mm | |
| 1 x | | 250 mm | |

CLASSIC 1000V plier set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel



| | | CLASSIC 1000V plier set | ⚖️ kg |
|----------|-------|----------------------------|----------|
| 117.1700 | 4 pcs | | 1.55 |
| 1 x | | 150 mm | |
| 1 x | | 175 mm | |
| 1 x | | 200 mm | |
| 1 x | | 250 mm | |

ERGOTORQUE® VDE plier set

- Wrap around insulation to IEC 60900
- With two component handle
- Matt chrome
- Special tool steel



| | | ERGOTORQUE® VDE plier set | ⚖️ kg |
|----------|-------|------------------------------|----------|
| 117.1110 | 3 pcs | | 0.93 |
| 1 x | | 175 mm | |
| 1 x | | 165 mm | |
| 1 x | | 150 mm | |

CLASSIC 1000V plier set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel



| | | CLASSIC 1000V plier set | ⚖️ kg |
|----------|-------|----------------------------|----------|
| 117.1710 | 3 pcs | | 0.82 |
| 1 x | | 185 mm | |
| 1 x | | 200 mm | |
| 1 x | | 160 mm | |

ERGOTORQUE® VDE plier set

- Wrap around insulation to IEC 60900
- With two component handle
- Matt chrome
- Chrome vanadium



| | | ERGOTORQUE® VDE plier set | ⚖️ kg |
|----------|-------|------------------------------|----------|
| 117.1160 | 4 pcs | | 1.20 |
| 1 x | | 200 mm | |
| 1 x | | 160 mm | |
| 1 x | | 180 mm | |
| 1 x | | 160 mm | |

CLASSIC 1000V plier set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel



| | | | |
|-----------------|-------|-------------------------|------|
| 117.1760 | 4 pcs | CLASSIC 1000V plier set | 0.95 |
| 1 x | | 200 mm | |
| 1 x | | 160 mm | |
| 1 x | | 185 mm | |
| 1 x | | 160 mm | |

ERGOTORQUE® VDE plier and screwdriver set

- Wrap around insulation to IEC 60900
- With two component handle
- Matt chrome / burnished
- Special tool steel



| | | | |
|-----------------|-------|---|------|
| 117.1170 | 5 pcs | ERGOTORQUE® VDE plier and screwdriver set | 0.86 |
| 1 x | | 200 mm | |
| 1 x | | 160 mm | |
| 2 x | | 4 - 5,5 mm | |
| 1 x | | PH2 | |

ERGOTORQUE® VDE plier and screwdriver set

- Wrapped and insulated handle to IEC 60900
- Pliers dip insulated
- Screwdrivers with two component handle
- Matt chrome / burnished
- Special tool steel



| | | | |
|-----------------|-------|---|------|
| 117.1770 | 5 pcs | ERGOTORQUE® VDE plier and screwdriver set | 0.69 |
| 1 x | | 200 mm | |
| 1 x | | 160 mm | |
| 2 x | | 4 - 5,5 mm | |
| 1 x | | PH2 | |

CLASSIC 1000V electronic set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel



| | | | |
|-----------------|-------|------------------------------|-----|
| 117.1104 | 9 pcs | CLASSIC 1000V electronic set | 930 |
| 1 x | | 115 mm | |
| 1 x | | 115 mm | |
| 1 x | | 115 mm | |
| 1 x | | 115 mm | |
| 1 x | | 115 mm | |
| 1 x | | 115 mm | |
| 1 x | | 145 mm | |
| 1 x | | 145 mm | |
| 1 x | | 175 mm | |

ERGOTORQUE® VDE plier and screwdriver set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel



| | | | |
|-----------------|--------|---|------|
| 117.1875 | 10 pcs | ERGOTORQUE® VDE plier and screwdriver set | 2000 |
| 1 x | | 185 mm | |
| 1 x | | 160 mm | |
| 1 x | | 160 mm | |
| 1 x | | 160 mm | |
| 1 x | | 3,0 mm | |
| 4 x | | 2,5 - 4 - 5 - 6 mm | |
| 1 x | | PH1 | |

CLASSIC 1000V plier set

- Insulated handle to IEC 60900
- Matt chrome
- Special tool steel

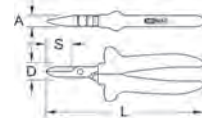


| | | | |
|-----------------|-------|-------------------------|------|
| 117.1873 | 6 pcs | CLASSIC 1000V plier set | 2.50 |
| 1 x | | 185 mm | |
| 1 x | | 160 mm | |
| 1 x | | 200 mm | |
| 1 x | | 200 mm | |
| 1 x | | 160 mm | |
| 1 x | | 260 mm | |

CABLE CUTTING

CLASSIC 1000V electrical shear

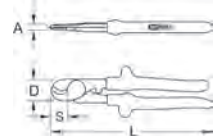
- Insulated handle to IEC 60900
- Only suitable for copper and aluminium wire
- For the cutting of thin wires and sheet metals
- Matt chrome
- Special tool steel



| | | | | | | |
|-----------------|------|------|-------|------|-------|-----|
| | A mm | D mm | L mm | S mm | | |
| 117.1206 | 9,0 | 14,0 | 180,0 | 38,0 | 1000V | 170 |

CLASSIC 1000V cable shear

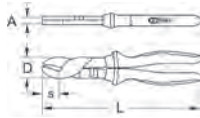
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm²
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



| | | | | | | | | |
|-----------------|------|-------------------------------|------|------|-------|------|-------|-----|
| | Ø mm | Cutting ratio mm ² | A mm | D mm | L mm | S mm | | |
| 117.4277 | 6,0 | 22,0 | 11,0 | 24,0 | 160,0 | 15,0 | 1000V | 235 |
| 117.4278 | 10,0 | 38,0 | 13,0 | 29,0 | 210,0 | 18,0 | 1000V | 370 |
| 117.4279 | 20,0 | 60,0 | 15,0 | 32,0 | 250,0 | 26,0 | 1000V | 600 |

ERGOTORQUE® VDE cable shear

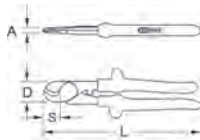
- Wrap around insulation to IEC 60900
- For lead cable up to max. Ø 50 mm²
- For squeeze free cutting of and on more wiry copper and aluminium cables
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- With two component handle
- Special tool steel



| | Ø mm | A mm | D mm | L mm | S mm | ⚡ | 🔩 |
|----------|------|------|------|-------|------|---|-----|
| 117.1122 | 10,0 | 10,8 | 24,5 | 162,0 | 15,0 | ⚡ | 180 |
| 117.1123 | 12,5 | 13,0 | 29,0 | 208,0 | 17,5 | ⚡ | 270 |
| 117.1124 | 15,0 | 13,5 | 45,0 | 235,0 | 31,0 | ⚡ | 550 |

CLASSIC 1000V cable shear

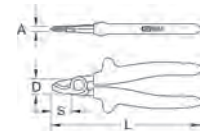
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm²
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



| | Ø mm | Cutting ratio mm ² | A mm | D mm | L mm | S mm | ⚡ | 🔩 |
|----------|------|-------------------------------|------|------|-------|------|------------|-----|
| 117.1269 | 15,0 | 50,0 | 13,5 | 38,0 | 240,0 | 25,0 | ⚡ 1000V | 455 |

CLASSIC 1000V single handed cable shear

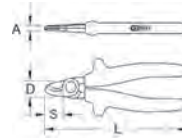
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm²
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



| | Ø mm | Cutting ratio mm ² | A mm | D mm | L mm | S mm | ⚡ | 🔩 |
|----------|------|-------------------------------|------|------|-------|------|------------|-----|
| 117.1107 | 15,0 | 50,0 | 10,0 | 23,5 | 165,0 | 24,0 | ⚡ 1000V | 250 |
| 117.1108 | 20,0 | 60,0 | 12,0 | 28,5 | 205,0 | 27,0 | ⚡ 1000V | 350 |

CLASSIC 1000V single handed cable shear

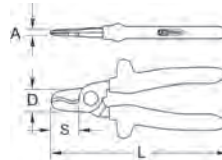
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Extremely versatile
- No bruising, slight shaping of the cable
- With precision screw joint
- Suitable for wire up to 16 mm²
- Suitable for multi strand wire up to 25 mm²
- Suitable for ultra wire up to 50 mm²
- Not suited for steel wire and hard pulled copper cables
- Special tool steel



| | Ø mm | A mm | D mm | L mm | S mm | ⚡ | 🔩 |
|----------|------|------|------|-------|------|------------|-----|
| 117.1286 | 15,0 | 12,0 | 25,0 | 160,0 | 20,0 | ⚡ 1000V | 250 |

CLASSIC 1000V single handed cable shear

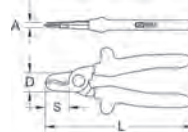
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With after adjustable screw joint
- With zip fastener
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel



| | Ø mm | Cutting ratio mm ² | A mm | D mm | L mm | S mm | ⚡ | 🔩 |
|----------|------|-------------------------------|------|------|-------|------|------------|-----|
| 117.1287 | 17,0 | 35,0 | 15,0 | 27,0 | 165,0 | 25,0 | ⚡ 1000V | 240 |

CLASSIC 1000V single handed cable shear

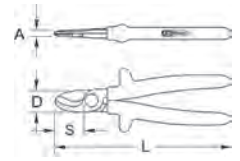
- Insulated handle to IEC 60900
- With coated working head
- For and on multi strand copper and aluminium cable
- With after adjustable screw joint
- With zip fastener
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel



| | Ø mm | Cutting ratio mm ² | A mm | D mm | L mm | S mm | ⚡ | 🔩 |
|----------|------|-------------------------------|------|------|-------|------|------------|-----|
| 117.1103 | 17,0 | 35,0 | 13,0 | 31,0 | 165,0 | 20,5 | ⚡ 1000V | 280 |
| 117.1109 | 20,0 | 50,0 | 18,0 | 33,5 | 210,0 | 34,0 | ⚡ 1000V | 400 |

CLASSIC 1000V single handed cable shear

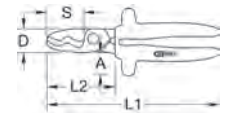
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Extremely versatile
- Suitable for wire up to 25 mm²
- Suitable for multi-strand wire up to 50 mm²
- Suitable for ultra wire up to 70 mm²
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel



| | Ø mm | A mm | D mm | L mm | S mm | ⚡ | 🔩 |
|----------|------|------|------|-------|------|---|-----|
| 117.1259 | 22,0 | 18,0 | 31,0 | 215,0 | 32,0 | ⚡ | 360 |

CLASSIC 1000V two cut cable shear

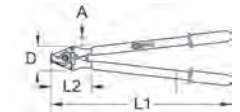
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Precision blade for easy and clean cut
- With before and after cut
- With after adjustable screw joint
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



| | Ø mm | Cutting ratio mm ² | A mm | D mm | L1 mm | L2 mm | S mm | ⚡ | 🔩 |
|----------|------|-------------------------------|------|------|-------|-------|------|------------|-----|
| 117.1270 | 20,0 | 50,0 | 13,5 | 33,0 | 200,0 | 83,0 | 48,0 | ⚡ 1000V | 365 |

Insulated cable shear

- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- With interchangeable cutter head
- Knife head made out of special alloyed steel
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



| | Ø mm | Cutting ratio mm ² | A mm | D mm | L1 mm | L2 mm | Replacement outer head | ⚡ | 🔩 |
|----------|------|-------------------------------|------|------|-------|-------|------------------------|------------|------|
| 117.1260 | 26,0 | 150,0 | 16,0 | 80,0 | 600,0 | 80,0 | 117.1258 | ⚡ 1000V | 2,70 |
| 117.1261 | 33,0 | 180,0 | 17,0 | 86,0 | 700,0 | 105,0 | 117.1263 | ⚡ 1000V | 3,30 |

Storage pouch for insulated cable shears

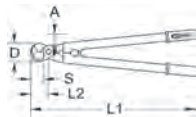
- From black synthetic leather
- For storage and protection of insulated cable shears



| | L mm | B mm | | |
|----------|---------|----------|-----------------------|-----|
| 117.1262 | 650.0 | 95 - 190 | → 117.1260 + 117.1261 | 200 |

Insulated cable shear

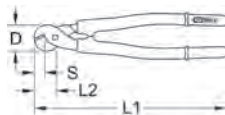
- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- Clean cut through new cutting edge geometry
- With after adjustable screw joint
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



| Ø | Cutting ratio mm ² | A mm | D mm | L1 mm | L2 mm | S mm | ⚡ | kg |
|----------|----------------------------------|---------|---------|----------|----------|---------|------|------|
| 117.1264 | 27,0 | 150,0 | 15,0 | 59,0 | 500,0 | 58,0 | 37,0 | 1,48 |

Insulated cable shear

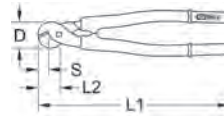
- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- Clean cut through new cutting edge geometry
- With after adjustable screw joint
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



| | Cutting ratio mm ² | D mm | L1 mm | L2 mm | S mm | ⚡ | kg |
|----------|----------------------------------|---------|----------|----------|---------|-------|------|
| 117.4281 | 95,0 | 58,0 | 310,0 | 35,0 | 25,0 | 1000V | 0,82 |
| 117.4282 | 150,0 | 66,0 | 460,0 | 41,0 | 30,0 | 1000V | 1,40 |
| 117.4283 | 325,0 | 90,0 | 600,0 | 55,0 | 46,0 | 1000V | 2,50 |
| 117.4284 | 500,0 | 90,0 | 800,0 | 75,0 | 54,0 | 1000V | 3,80 |

Insulated wire cable shear

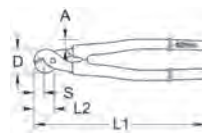
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Requires light expenditure of energy
- Matt chrome
- Special tool steel



| | Cutting edge steel mm ² | Cutting edge wire mm ² | D mm | L1 mm | L2 mm | S mm | ⚡ | kg |
|----------|--|---|---------|----------|----------|---------|-------|------|
| 117.4285 | 7,0 | 60,0 | 58,0 | 310,0 | 30,0 | 20,0 | 1000V | 0,95 |
| 117.4286 | 10,0 | 100,0 | 66,0 | 450,0 | 34,0 | 21,0 | 1000V | 1,40 |
| 117.4287 | 14,0 | 150,0 | 91,0 | 600,0 | 45,0 | 24,0 | 1000V | 2,60 |

Insulated wire cable shear

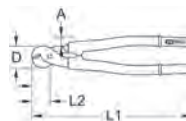
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Requires light expenditure of energy
- Matt chrome
- Special tool steel



| Ø | Cutting ratio mm ² | A mm | D mm | L1 mm | L2 mm | S mm | Replacement cutter head | ⚡ | kg |
|----------|----------------------------------|---------|---------|----------|----------|---------|----------------------------|-------|------|
| 117.1266 | 20,0 | 120,0 | 19,0 | 90,0 | 600,0 | 84,0 | 117.1267 | 1000V | 1,80 |

Insulated wire cable shear

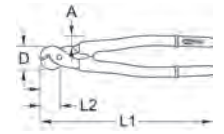
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Requires light expenditure of energy
- Matt chrome
- Special tool steel



| D | Cutting ratio mm ² | A mm | L1 mm | L2 mm | ⚡ | kg | |
|----------|----------------------------------|---------|----------|----------|------|-------|------|
| 117.4280 | 35 - 50 | 500,0 | 30,0 | 800,0 | 80,0 | 1000V | 3,90 |

Insulated steel wire shear

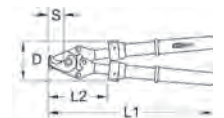
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Requires light expenditure of energy
- Matt chrome
- Special tool steel



| | Cutting edge steel mm ² | Cutting edge wire mm ² | D mm | A mm | L1 mm | L2 mm | ⚡ | kg |
|----------|--|---|---------|---------|----------|----------|-------|------|
| 117.1101 | 9,0 | 16,0 | 54,0 | 37,0 | 700,0 | 45,0 | 1000V | 2,40 |

Insulated cable shear, telescopic handle

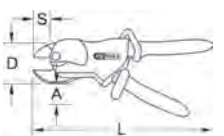
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With telescopic handle
- With interchangeable cutter head
- Requires light expenditure of energy
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



| Ø | Cutting ratio mm ² | D mm | L1 mm | L2 mm | S mm | Replacement cutter head | ⚡ | kg | |
|----------|----------------------------------|---------|----------|----------|---------|----------------------------|----------|-------|------|
| 117.1233 | 31,0 | 185,0 | 82,0 | 360-520 | 63,0 | 35,0 | 117.2234 | 1000V | 2,00 |

Insulated single handed ratchet cable shear

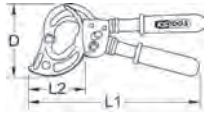
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Working head coated
- Automatic reserve through spring return
- Cutting edge process can be interrupted in every position
- Matt chrome
- Special tool steel



| A | D | L | S | ⚡ | kg | |
|----------|------|------|-------|------|-------|------|
| 117.1245 | 40,0 | 80,0 | 290,0 | 35,0 | 1000V | 1,00 |
| 117.1246 | 40,0 | 85,0 | 310,0 | 40,0 | 1000V | 1,15 |

Insulated ratchet cable shear

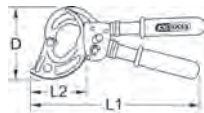
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With double supported eccentric drive
- Almost break proof gearing
- Thin cutting steel sheet casing
- With ratchet function
- Not suitable for hardened steel wire
- Phosphate finish
- Special tool steel



| | Ø mm | Cutting ratio mm ² | D mm | L1 mm | L2 mm | ⚡ | kg |
|----------|------|-------------------------------|-------|-------|-------|-------|------|
| 117.1248 | 62,0 | 840,0 | 150,0 | 400,0 | 90,0 | 1000V | 2.20 |
| 117.1249 | 80,0 | 1000,0 | 190,0 | 530,0 | 110,0 | 1000V | 3.15 |

Insulated ratchet cable shear

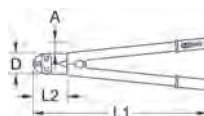
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With double supported eccentric drive
- Almost break proof gearing
- Thin cutting steel sheet casing
- With ratchet function
- Not suitable for hardened steel wire
- Phosphate finish
- Special tool steel



| | Ø mm | Ø mm | D mm | L1 mm | L2 mm | kg |
|----------|------|------|-------|-------|-------|------|
| 117.1102 | 52,0 | 25,0 | 135,0 | 310,0 | 110,0 | 0.94 |

Insulated bolt cutter

- Insulated handle to IEC 60900
- With steel tube legs and eccentric adjustment
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Inductively hardened precision cutting edges
- Phosphate finish
- Special tool steel

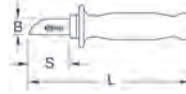


| | A mm | D mm | L1 mm | L2 mm | Replacement cutter head | ⚡ | kg |
|----------|------|------|-------|-------|-------------------------|-------|------|
| 117.1256 | 8,0 | 79,0 | 610,0 | 115,0 | 117.1257 | 1000V | 2.70 |

ELECTRICIAN'S KNIVES

Insulated cable knife

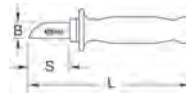
- Insulated to IEC 60900
- With durable and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ | kg |
|----------|------|------|-------|-------|-----|
| 117.1295 | 18.5 | 50,0 | 210,0 | 1000V | 105 |

Insulated cable knife

- Insulated to IEC 60900
- With two component handle
- With durable and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ | kg |
|----------|------|------|-------|-------|----|
| 117.1397 | 16.7 | 53,0 | 205,0 | 1000V | 90 |

Insulated cable knife

- Insulated to IEC 60900
- With durable, part insulated and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ | kg |
|----------|------|------|-------|-------|-----|
| 117.1390 | 18.5 | 50,0 | 210,0 | 1000V | 115 |

Insulated cable knife

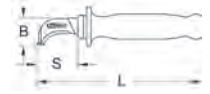
- Insulated to IEC 60900
- With two component handle
- With durable, part insulated and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ | kg |
|----------|------|------|-------|-------|-----|
| 117.1304 | 20.3 | 53,0 | 205,0 | 1000V | 100 |

Insulated cable knife with hook blade

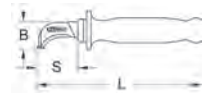
- Insulated to IEC 60900
- With durable blade
- Hook shaped cutting edge
- For slitting and stripping cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ | kg |
|----------|------|------|-------|-------|-----|
| 117.1296 | 28.0 | 40,0 | 200,0 | 1000V | 100 |

Insulated cable knife with hook blade

- Insulated to IEC 60900
- With two component handle
- With durable blade
- Hook shaped cutting edge
- For slitting and stripping cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ | kg |
|----------|------|------|-------|-------|----|
| 117.1331 | 30,0 | 47,0 | 200,0 | 1000V | 90 |

Insulated dismantling knife

- Insulated to IEC 60900
- With durable and straight blade
- Hook shaped cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ | kg |
|----------|------|------|-------|-------|----|
| 117.1391 | 19,0 | 35,0 | 182,0 | 1000V | 95 |

Insulated dismantling knife

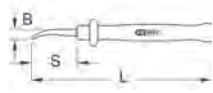
- Insulated to IEC 60900
- With two component handle
- With durable and straight blade
- Hook shaped cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ | kg |
|----------|------|------|-------|-------|----|
| 117.1305 | 19,0 | 35,0 | 185,0 | 1000V | 90 |

Isolated paper section knife

- Insulated to IEC 60900
- With durable blade
- Hook shaped cutting edge
- Suitable for sector cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ V | ⚖️ g |
|----------|---------|---------|---------|--------|---------|
| 117.1392 | 19.0 | 50.0 | 205.0 | 1000V | 90 |

Insulated cutting knife

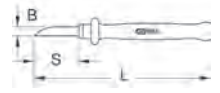
- Insulated to IEC 60900
- With durable blade
- Hook shaped and part isolated cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ V | ⚖️ g |
|----------|---------|---------|---------|--------|---------|
| 117.1394 | 21.0 | 35.0 | 165.0 | 1000V | 75 |

Insulated cable stripping knife

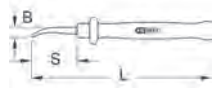
- Insulated to IEC 60900
- With durable blade
- Narrow and straight cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ V | ⚖️ g |
|----------|---------|---------|---------|--------|---------|
| 117.1396 | 11.0 | 50.0 | 200.0 | 1000V | 95 |

Isolated paper section knife

- Insulated to IEC 60900
- With two component handle
- With durable blade
- Hook shaped cutting edge
- Suitable for sector cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ V | ⚖️ g |
|----------|---------|---------|---------|--------|---------|
| 117.1320 | 17.0 | 56.0 | 210.0 | 1000V | 85 |

Insulated cutting knife

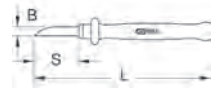
- Insulated to IEC 60900
- With two component handle
- With durable blade
- Hook shaped and part isolated cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ V | ⚖️ g |
|----------|---------|---------|---------|--------|---------|
| 117.1328 | 21.2 | 30.0 | 180.0 | 1000V | 90 |

Insulated cable stripping knife

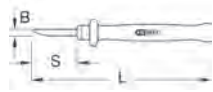
- Insulated to IEC 60900
- With two component handle
- With durable blade
- Narrow and straight cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ V | ⚖️ g |
|----------|---------|---------|---------|--------|---------|
| 117.1360 | 11.0 | 50.0 | 200.0 | 1000V | 85 |

Insulated gutta percha knife

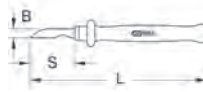
- Insulated to IEC 60900
- With durable blade
- Arched cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ V | ⚖️ g |
|----------|---------|---------|---------|--------|---------|
| 117.1393 | 12.0 | 50.0 | 200.0 | 1000V | 95 |

Insulated cable stripping knife

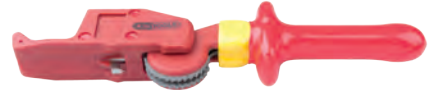
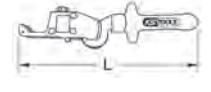
- Insulated to IEC 60900
- With durable blade
- Short and bent cutting edge for fine cable working
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ V | ⚖️ g |
|----------|---------|---------|---------|--------|---------|
| 117.1395 | 13.0 | 45.0 | 195.0 | 1000V | 95 |

Insulated cable sheath cutters

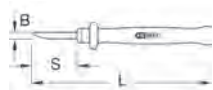
- Insulation according to IEC 60900
- With durable and straight blade
- For stripping all insulation layers from cables
- Replaceable double knife
- Cutting depth adjustable
- Suitable for longitudinal and round cutting



| | L mm | Ø Wire mm | Replacement blades | ⚡ V | ⚖️ g |
|----------|---------|--------------|-----------------------|--------|---------|
| 117.3901 | 240.0 | > 25.0 | 117.3902 | 1000V | 250 |

Insulated gutta percha knife

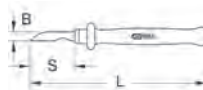
- Insulated to IEC 60900
- With two component handle
- With durable blade
- Arched cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ V | ⚖️ g |
|----------|---------|---------|---------|--------|---------|
| 117.1326 | 12.0 | 50.0 | 250.0 | 1000V | 85 |

Insulated cable stripping knife

- Insulated to IEC 60900
- With two component handle
- With durable blade
- Short and bent cutting edge for fine cable working
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



| | B mm | S mm | L mm | ⚡ V | ⚖️ g |
|----------|---------|---------|---------|--------|---------|
| 117.1329 | 13.0 | 45.0 | 200.0 | 1000V | 85 |

Insulated cable knife with replaceable blade

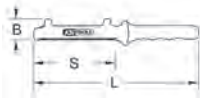
- Insulation according to IEC 60900
- With durable, partially insulated and replaceable blade
- Straight cutting edge
- Safety handle made out of tough elastic and impact-resistant plastic
- With built-in protective cap



| | B mm | S mm | L mm | ⚡ V | Replacement blades | ⚖️ g |
|----------|---------|---------|---------|--------|-----------------------|---------|
| 117.1148 | 21.5 | 45.0 | 189.0 | 1000V | 117.1149 | 66 |

Insulated cable sheath saw

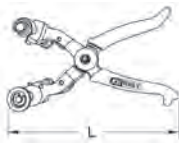
- Insulated handle to IEC 60900
- Solid design
- Adjustable and replaceable saw blade



| | B mm | L mm | S mm | | | |
|----------|---------|---------|---------|----------|-------|-----|
| 117.4273 | 40.0 | 330.0 | 175.0 | 117.4274 | 1000V | 570 |

Insulation stripping pliers

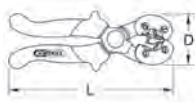
- For cutting and stripping the cable sheath
- Limited cutting depth
- No damage to internal conductor



| | Ø mm | D mm | L mm | | |
|----------|---------|---------|---------|-------|-----|
| 117.1370 | 25-52 | 140.0 | 300.0 | 1000V | 670 |
| 117.1366 | 45-75 | 150.0 | 300.0 | 1000V | 925 |

Insulated insulation stripping pliers

- Insulation according to IEC 60900
- For cutting and stripping the cable sheath
- Limited cutting depth
- No damage to internal conductor



| | Ø mm | D mm | L mm | | |
|----------|---------|---------|---------|-------|-----|
| 117.1365 | 25-52 | 140.0 | 300.0 | 1000V | 690 |

HOLDING DEVICES

Insulated holding device

- Insulated handle to IEC 60900
- For better handling of screw connectors during assembly of sleeves
- Infinitely variable
- Can also be used for streetlights
- For screw connections of 0 - 15 mm



| | mm | L mm | | |
|----------|------|---------|-------|-----|
| 117.1168 | 0-15 | 240.0 | 1000V | 280 |

Insulated holding device

- Insulated handle to IEC 60900
- For better handling of screw connectors during assembly of sleeves
- Infinitely variable
- Can also be used for streetlights
- For screw connections of 15 - 40 mm



| | mm | L mm | | |
|----------|-------|---------|-------|-----|
| 117.1169 | 15-40 | 220.0 | 1000V | 380 |

Insulated holding device

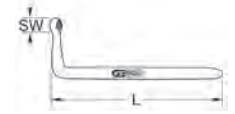
- Insulated handle to IEC 60900
- For better handling of screw connectors during assembly of sleeves
- Infinitely variable
- Can also be used for streetlights
- For screw connections of 25 - 50 mm



| | mm | L mm | | |
|----------|-------|---------|-------|-----|
| 117.1183 | 25-50 | 300.0 | 1000V | 610 |

Insulated holding device

- FlankTraction profile
- Insulated handle to IEC 60900
- Chrome vanadium
- For better handling of screw connectors during assembly of sleeves
- Infinitely variable
- Can also be used for streetlights



| | mm | L mm | | |
|----------|----|---------|-------|-----|
| 117.3960 | 10 | 210.0 | 1000V | 100 |
| 117.3961 | 12 | 210.0 | 1000V | 110 |
| 117.3962 | 13 | 220.0 | 1000V | 110 |
| 117.3963 | 14 | 220.0 | 1000V | 130 |
| 117.3964 | 15 | 220.0 | 1000V | 160 |
| 117.3965 | 16 | 260.0 | 1000V | 220 |
| 117.3966 | 17 | 260.0 | 1000V | 240 |
| 117.3967 | 18 | 260.0 | 1000V | 280 |
| 117.3968 | 19 | 260.0 | 1000V | 290 |
| 117.3969 | 20 | 260.0 | 1000V | 290 |
| 117.3970 | 22 | 280.0 | 1000V | 310 |
| 117.3971 | 24 | 280.0 | 1000V | 360 |

ALIGNING TOOLS

Aligning tool

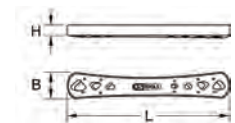
- For sector-shaped conductors
- Made from impact-resistant plastic
- For aligning 3- or 4-wire sector-shaped conductors



| | Conductor | L mm | B mm | | |
|----------|-----------|---------|---------|-------|----|
| 117.3915 | 95-150 | 80.0 | 35.0 | 1000V | 75 |
| 117.3916 | 185-240 | 80.0 | 43.0 | 1000V | 88 |

Aligning tool

- For 50/70/95/150/185/240 mm² sector-shaped conductors
- Made from impact-resistant plastic
- For aligning sector-shaped conductors

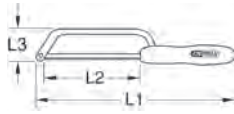


| | L mm | B mm | H mm | | |
|----------|---------|---------|---------|-------|-----|
| 117.1723 | 248.0 | 40.0 | 15.0 | 1000V | 142 |

SAWING

Insulated hacksaw

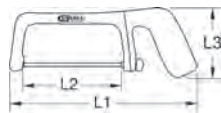
- Insulated handle to IEC 60900
- Frame out of reinforced flat iron 10 x 5 mm
- With insulated handle for tensioning the saw blade



| | L1 mm | L2 mm | L3 mm | 129.6620-24 | 1000V | 225 |
|----------|----------|----------|----------|-------------|-------|-----|
| 117.1321 | 280.0 | 150.0 | 80.0 | 997.1216 | 1000V | 225 |

Insulated hacksaw

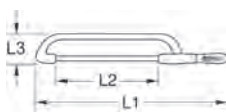
- Insulated handle to IEC 60900
- With plastic screw for tensioning the saw blade



| | L1 mm | L2 mm | L3 mm | 997.1216 | 1000V | 180 |
|----------|----------|----------|----------|----------|-------|-----|
| 117.1265 | 265.0 | 145.0 | 100.0 | 997.1216 | 1000V | 180 |

Isolated metal frame saw, heavy execution

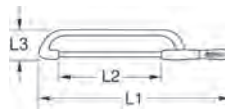
- Insulated handle to IEC 60900
- Frame out of reinforced flat iron 10 x 5 mm
- Heavy execution
- With insulated handle for tensioning the saw blade



| | L1 mm | L2 mm | L3 mm | 129.6620-24 | 1000V | 770 |
|----------|----------|----------|----------|-------------|-------|-----|
| 117.1323 | 520.0 | 330.0 | 130.0 | 129.6620-24 | 1000V | 770 |

Insulated hacksaw

- Insulated handle to IEC 60900
- Heavy execution
- With plastic screw for tensioning the saw blade

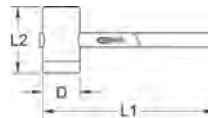


| | L1 mm | L2 mm | L3 mm | 129.6620-24 | 1000V | 700 |
|----------|----------|----------|----------|-------------|-------|-----|
| 117.1325 | 450.0 | 340.0 | 140.0 | 129.6620-24 | 1000V | 700 |

HAMMER

Insulated soft face hammer

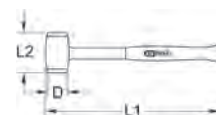
- Insulated to IEC 60900
- Made from plastic
- Without metal parts



| | D mm | L1 mm | L2 mm | 1000V | 325 |
|----------|---------|----------|----------|-------|-----|
| 117.1131 | 55.0 | 300.0 | 82.0 | 1000V | 325 |

Insulated dead blow hammer

- Insulated to IEC 60900
- Shock absorbing effect through steel shot in the head
- Shatterproof and wear resistant
- Polyamid heads interchangeable
- For safer working with less recoil

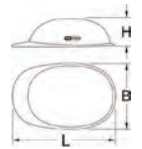


| | D mm | L1 mm | L2 mm | head spare | 1000V | 560 |
|----------|---------|----------|----------|------------|-------|-----|
| 117.1126 | 25.0 | 300.0 | 105.0 | 117.1128 | 1000V | 560 |
| 117.1127 | 35.0 | 310.0 | 115.0 | 117.1129 | 1000V | 790 |

INDUSTRIAL SAFETY

Work protective hardhat

- DIN EN 397
- Special plastic



| | Colour code | L mm | B mm | H mm | 370 |
|----------|-------------|---------|---------|---------|-----|
| 117.1608 | White | 290.0 | 225.0 | 175.0 | 370 |
| 117.1609 | Yellow | 290.0 | 225.0 | 175.0 | 370 |
| 117.1610 | Red | 290.0 | 225.0 | 175.0 | 370 |

Electrician's face shield

- DIN EN 397
- Fault arc tested to DGUV GS-ET-29, test level W(LBP) = 158 kJ (corresponds to prospective test short-circuit current 4 kA/0.5 s) EN 166
- Personal eye protection equipment
- Natural rendering of colours thanks to transparent, non-tinted visor
- Colour rendering index > 90%
- Light transmission: > 88%
- Suitable for standard electrician's hardhat
- Face shield for 117.1608-117.1610



| | Arc fault | 1000V | 195 |
|----------|-----------|-------|-----|
| 117.1780 | class 1 | 1000V | 195 |

Electrician's face shield

- DIN EN 166
- Fault arc tested to DGUV GS-ET-29, test level W(LBP) = 318 kJ (corresponds to prospective test short-circuit current 7 kA/0.5 s) EN 166
- Personal eye protection equipment
- Also fault arc tested to ASTM F2178, ATPV: 7.0 cal/cm²
- Natural rendering of colours thanks to transparent, non-tinted visor
- Colour rendering index > 90%
- Light transmission > 70%
- Suitable for standard electrician's hardhat
- Anti-mist protective gel supplied



| | Arc fault | 1000V | 475 |
|----------|-----------|-------|-----|
| 117.1796 | class 2 | 1000V | 475 |

Carrying bag for work helmet

- Made out of red leather
- With carrying strap



| | B mm | H mm | |
|----------|---------|---------|-----|
| 117.1612 | 500.0 | 480.0 | 500 |

Insulated safety rubber boots

- For working environment of voltages AC 1000 V and DC 1500 V
- In accordance with new standard EN 50321
- With steel bar



| | Size mm | | |
|----------|------------|-------|------|
| 117.1613 | 39 | 1000V | 3.00 |
| 117.1614 | 40 | 1500V | 3.00 |
| 117.1615 | 41 | 1000V | 3.00 |
| 117.1616 | 42 | 1000V | 3.00 |
| 117.1617 | 43 | 1000V | 3.00 |
| 117.1618 | 44 | 1000V | 3.00 |
| 117.1619 | 45 | 1000V | 3.00 |
| 117.1620 | 46 | 1000V | 3.00 |
| 117.1621 | 47 | 1000V | 3.00 |

Under gloves

- Made out of fine mutton cloth



| | L mm | |
|----------|---------|-----|
| 117.1660 | 260.0 | 225 |

Insulated electrical protective glove

- Dielectric latex gloves
- Insulated to DIN EN 60903
- With anatomical fit
- Anti-allergy treated
- With straight edge
- UV-resistant packaging

The use of glove liners is recommended for absorbing skin moisture and for better ventilation.

Attention: Over-gloves are necessary for mechanical protection!



| | Thickness mm | Electrosolt Class | Size mm | L mm | |
|----------|-----------------|----------------------|------------|---------|-----|
| 117.1663 | 1,0 | 0 | 9 | 360.0 | 215 |
| 117.1664 | 1,0 | 0 | 10 | 360.0 | 215 |
| 117.1132 | 2,0 | 1 | 10 | 360.0 | 250 |
| 117.1133 | 2,0 | 3 | 10 | 410.0 | 690 |
| 117.1134 | 2,5 | 4 | 10 | 410.0 | 890 |

Insulated electrical protective glove

- Dielectric latex gloves
- Insulated to DIN EN 60903
- With anatomical fit
- Anti-allergy treated
- With straight edge
- UV-resistant packaging

The use of glove liners is recommended for absorbing skin moisture and for better ventilation.

Attention: Over-gloves are necessary for mechanical protection!



| | Thickness mm | Size mm | Electrosolt Class | L mm | |
|----------|-----------------|------------|----------------------|---------|-----|
| 117.1661 | 1,0 | 9 | 0 | 400.0 | 215 |
| 117.1662 | 1,0 | 10 | 0 | 400.0 | 215 |
| 117.1762 | 2,0 | 10 | 0 | 410.0 | 470 |
| 117.1756 | 1,0 | 9 | 00 | 410.0 | 196 |
| 117.1757 | 1,0 | 10 | 00 | 410.0 | 196 |

Pneumatic electrician protective glove tester

- For the testing of insulated gloves
- Always carry out before starting work



| | D mm | L mm | |
|----------|---------|---------|-----|
| 117.1666 | 110.0 | 140.0 | 800 |

Protection pocket for electricians gloves

- Belt pocket made out of canvas
- For the storage and protection of the electricians gloves



| | B mm | H mm | |
|----------|---------|---------|-----|
| 117.1665 | 180.0 | 200.0 | 200 |

Pull-on gloves for electrician's protective gloves

- Waterproof
- Treated with silicone
- Leather gloves for dielectric gloves
- Velcro fastening on the back of the hand
- Split leather cuff
- For protecting against mechanical risks
- Full-grain calf leather

Caution: This insulating-glove cover is required for mechanical protection (rubbing, cuts, pricks) in conjunction with dielectric gloves!



| | Size mm | L mm | |
|----------|------------|---------|-----|
| 117.1560 | 10 | 320.0 | 175 |

Insulated rubber protective mat

- Tested to VDE 0680/1
- Insulated to DIN EN 60903
- Extensively tear and water resistant
- Particularly suitable for external usage



| | Thickness mm | B mm | L mm | | |
|----------|-----------------|---------|---------|--|-------|
| 117.1651 | 1,0 | 130.0 | 130.0 | | 0.04 |
| 117.1652 | 1,0 | 250.0 | 350.0 | | 0.21 |
| 117.1653 | 1,0 | 500.0 | 500.0 | | 0.43 |
| 117.1654 | 1,0 | 600.0 | 600.0 | | 0.70 |
| 117.1655 | 1,0 | 1000.0 | 1000.0 | | 1.80 |
| 117.1656 | 1,0 | 1200.0 | 1000.0 | | 2.95 |
| 117.1657 | 1,0 | 1000.0 | 10000.0 | | 16.75 |
| 117.1658 | 1,0 | 1200.0 | 10000.0 | | 20.10 |

Insulated rubber protective mat

- Tested to VDE 0680/1
- Insulated to DIN EN 60903
- Extensively tear and water resistant
- Particularly suitable for external usage



| | Thickness mm | B mm | L mm | ⚡ | 🔌 |
|----------|--------------|--------|---------|---|-------|
| 117.1746 | 1,6 | 130,0 | 130,0 | ⚡ | 0,05 |
| 117.1747 | 1,6 | 250,0 | 250,0 | ⚡ | 0,22 |
| 117.1748 | 1,6 | 500,0 | 500,0 | ⚡ | 0,44 |
| 117.1749 | 1,6 | 600,0 | 600,0 | ⚡ | 0,72 |
| 117.1750 | 1,6 | 1000,0 | 1000,0 | ⚡ | 1,90 |
| 117.1751 | 1,6 | 1200,0 | 1200,0 | ⚡ | 3,10 |
| 117.1752 | 1,6 | 1000,0 | 10000,0 | ⚡ | 18,60 |
| 117.1753 | 1,6 | 1200,0 | 10000,0 | ⚡ | 25,60 |

Insulating mat

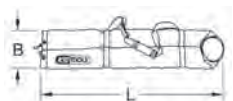
- Insulation in accordance with IEC 61111 Class 2



| | Thickness mm | B mm | L mm | ⚡ | 🔌 |
|----------|--------------|--------|---------|---|-------|
| 117.3819 | 3,0 | 1000,0 | 1000,0 | ⚡ | 4,00 |
| 117.1398 | 3,0 | 1000,0 | 10000,0 | ⚡ | 40,00 |
| 117.1754 | 4,5 | 1000,0 | 1000,0 | ⚡ | 6,00 |
| 117.1755 | 4,5 | 1000,0 | 10000,0 | ⚡ | 60,00 |

Protective bag for insulating mat

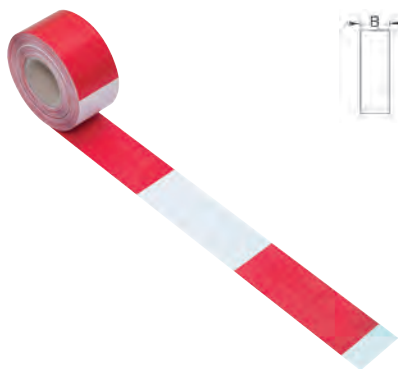
- Made out of red leather
- With carrying strap



| | B mm | L mm | 🔌 |
|----------|-------|--------|-----|
| 117.1399 | 230,0 | 1000,0 | 900 |

Red/white diagonal striped foil barrier tape

- For safeguarding and indicating hazard areas
- In accordance with ASR A1.3 and BGV A8
- High tear resistance
- Block diagonal stripes in red/white
- For outdoor and indoor use
- Polyethylene
- In stable unwinding box



| | B mm | L m | 🔌 |
|----------|------|-------|------|
| 917.3899 | 50,0 | 500,0 | 2,50 |

Hybrid warning sign - flash for working on hybrid and electric vehicles

- Warning against hazardous voltage
- For safety in the workplace
- For outdoor and indoor use
- For company premises and workshops
- Sturdy quality with laminate coating
- Resistant to abrasion and chemicals
- Aluminium/plastic composite



| | Thickness mm | L mm | 🔌 |
|----------|--------------|-------|-----|
| 917.3898 | 5 | 200,0 | 125 |

Hybrid warning sign - switch for working on hybrid and electric vehicles

- Do not switch on, work is currently in progress
- For safety in the workplace
- For outdoor and indoor use
- For company premises and workshops
- Sturdy quality with laminate coating
- Resistant to abrasion and chemicals
- Aluminium/plastic composite



| | Thickness mm | Ø mm | 🔌 |
|----------|--------------|------|-----|
| 917.3897 | 5 | 200 | 125 |

TWEEZERS/MIRRORS

Insulated tweezers, curved

- Insulated handle to IEC 60900
- Wrap insulation
- Chrome vanadium



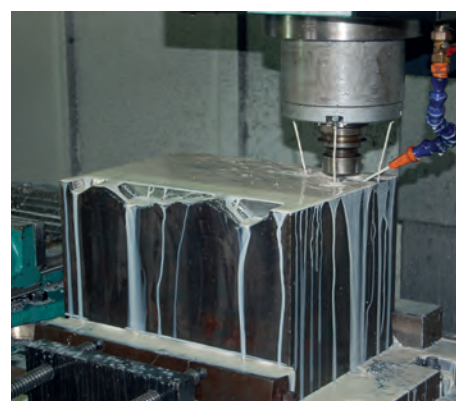
| | B mm | L mm | ⚡ | 🔌 |
|----------|------|-------|---|----|
| 117.1623 | 11,5 | 145,0 | ⚡ | 35 |
| 117.1624 | 15,5 | 200,0 | ⚡ | 72 |

Insulated tweezers, straight

- Insulated handle to IEC 60900
- Wrap insulation
- Chrome vanadium



| | B mm | L mm | ⚡ | 🔌 |
|----------|------|-------|---|----|
| 117.1626 | 11,0 | 130,0 | ⚡ | 30 |
| 117.1627 | 13,5 | 130,0 | ⚡ | 30 |
| 117.1628 | 15,0 | 145,0 | ⚡ | 55 |
| 117.1629 | 15,5 | 200,0 | ⚡ | 72 |



Insulated inspection mirror

- Insulated handle to IEC 60900
- Insulated
- Chrome vanadium



| | D mm | L mm | ⚡ | 🔌 |
|----------|------|-------|---|----|
| 117.1630 | 22,0 | 175,0 | ⚡ | 20 |

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VOLTAGE TESTERS

Test lamp 6 - 24 V

- Test tip protected through a cap
- With shielded crocodile clamp
- Brass



| | L mm | |
|----------|---------|----|
| 550.1504 | 125.0 | 30 |



Voltage tester 3 - 48 V

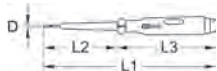
- Universal test instrument for motor vehicle electrics and electronics
- Two light-emitting diodes indicate voltage as well as polarity
- Test tip with push mechanics to tap into the cable
- With shielded crocodile clamp



| | L mm | |
|----------|---------|----|
| 550.1503 | 140.0 | 70 |

Insulated voltage tester 150 - 250 V

- In accordance to DIN / ISO 0680
- Blade nickel plated
- Transparent handle



| | D mm | L1 mm | L2 mm | L3 mm | |
|----------|---------|----------|----------|----------|----|
| 911.2188 | 3.0 | 145.0 | 65.0 | 80.0 | 14 |

Insulated universal voltage tester 6 - 400 V

- In accordance to DIN ISO 0680
- For the professional, multi-stage voltage and polarity test
- For direct and alternating voltage
- With rotating field and phase display



Technical data:

| | |
|---------------------------------------|-----------------------------|
| Readout: | light-emitting diodes/LE |
| Power requirement: | 140 mA |
| Allowable duty cycle: | 30 s |
| Frequency range: | 0 - 100 Hz |
| Protection class: | IP40 |
| AC voltage range alternating voltage: | 12 - 50 - 120 - 230 - 400 V |
| DC voltage range direct voltage: | 12 - 50 - 120 - 230 - 400 V |

| 550.1501 | | 180 |
|----------|--|-----|

Insulated universal voltage tester 12 - 500 V

- In accordance to DIN ISO 0680
- For direct and alternating voltage
- With rotating field and phase display



Technical data:

| | |
|---------------------------------------|-----------------------------|
| Readout: | light-emitting diodes/LE |
| Power requirement: | 140 mA |
| Allowable duty cycle: | 30 s |
| Working temperature: | -5°C up to +50°C |
| Frequency range: | 0 - 100 Hz |
| Protection class: | IP40 |
| AC voltage range alternating voltage: | 12 - 50 - 120 - 230 - 400 V |
| DC voltage range direct voltage: | 12 - 50 - 120 - 230 - 400 V |

| 550.1502 | | 180 |
|----------|--|-----|



Insulated voltage tester double pole 12 - 750 V

- Tested and accredited in accordance with international standard insulated to IEC IEN 61243-3 (DIN VDE 0682-401)
- Voltage class B
- DC and AC voltage shown by LED indicators
- Rotating field and phase displayed on LED display
- Conscious release of a 30 mA of FI-protection switch
- With vibration alarm



Technical data:

| | |
|---------------------------------------|---|
| Readout: | LED/LCD |
| Display level: | 12 - 690 V |
| Power requirement: | 200 mA |
| Allowable duty cycle: | 30 s |
| Frequency range: | 0 - 500 Hz |
| Protection class: | IP64 |
| AC voltage range alternating voltage: | 12 - 50 - 120 - 230 - 400 - 500 - 750 V |
| DC voltage range direct voltage: | 12 - 50 - 120 - 230 - 400 - 500 - 750 V |

| 117.1503 | | 210 |
|----------|--|-----|

Insulated voltage test ball, double-pole, 50 - 1000 V

- Tested and accredited in accordance with international standard
- Insulated to IEC EN 61243-3 (DIN VDE 0682-401)
- Corresponds to EMC requirements in accordance with DIN EN 61326
- DC and AC voltage shown by LED indicators
- Rotating field and phase displayed via LEDs
- With display of rotating field direction (clockwise and anti-clockwise)
- Deliberate tripping of a 30 mA ELCB



| | |
|---------------------------------------|--|
| Readout: | LED/LCD |
| Power requirement: | 300 mA |
| Allowable duty cycle: | 30 s |
| Frequency range: | 0 - 100 Hz |
| Protection class: | IP65 |
| Overvoltage category: | CAT IV 600 V CAT III 1000 V |
| Test voltage: | 6 kV |
| AC voltage range alternating voltage: | 120 - 200 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 850 - 900 - 950 - 1000 V |
| DC voltage range direct voltage: | 120 - 200 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 850 - 900 - 950 - 1000 V |

| 117.4266 | Insulated voltage test ball, double-pole, 50 - 1000 V | 620 |
|----------|---|-----|

Test probe 6-24V DC with 5 meter cable

- Ideal standard lamp with many test functions
- High-speed functional testing without removal of components
- Via toggle switches can be plus or minus given to the probe
- Built in bi-metal short circuit protection
- No protection wear for troubleshooting
- Version with replaceable probe and alligator clip
- For continuity test, self test and fault diagnosis
- Immediate polarity determination by LED display



Technical data:

Cable length: 5 m
 Test probe diameter: 4 mm

| | Application area | Replacement test tip | |
|----------|------------------|----------------------|-----|
| 150.1670 | 6 - 24 V DC | 150.1671 | 500 |

Test probe 6-24V DC with 25 meter cable

- Ideal standard lamp with many test functions
- High speed functional testing without removal of components
- Via toggle switches can be plus or minus given to the probe
- Built in bi metal short circuit protection
- No protection wear for troubleshooting
- Version with replaceable probe and alligator clip
- For continuity test, self test and fault diagnosis
- Immediate polarity determination by LED display



Technical data:

Cable length: 25 m
 Test probe diameter: 4 mm

| | Application area | Replacement test tip | |
|----------|------------------|----------------------|------|
| 150.1655 | 6 - 24 V DC | 150.1671 | 1.26 |

Digital Multimeter incl. test probes

- Solid multimeter with basic measuring functions
- Test lead set with test tip (red/black)
- Central dial switch
- Large LCD with 3 1/2 digit display
- Charge state shown in display
- With base in protective rubber holster

Functions:

- direct current
- DC and AC voltage
- resistance
- diode test (with acoustic signal)
- transistor test
- continuity test (with acoustic signal)
- data hold function



Technical data:

Co-current flow: 10A
 DC voltage: 600 V
 AC voltage: 600 V
 Resistance measurement: 2 megaohm
 Temperature accuracy : 23° C ± 5° C
 Power requirement: 9V block battery
 Fuse protection S1 (fine flow): 200mA/250V
 Storage temperature: -10° to +50° C (14° to 122° F)
 Working temperature: 0° to +40° C (32° to 104° F)

| | B mm | L mm | Depth mm | |
|----------|------|-------|----------|-----|
| 150.1495 | 69.0 | 138.0 | 31 | 245 |

Motor vehicle multimeter

- Specially developed multimeter for working in the motor vehicle area
- Double display (digital and bar chart display)
- 4 test leads for current with test tip / crocodile clip
- Central rotary switch
- Large display
- With integrated safety fuse for the protection of the circuits
- With fold out adjustable foot in protective rubber holster
- Sturdy plastic housing

Functions:

- Continuity test (with acoustic signal)
- Transistor tester
- Diode test (with acoustic signal)
- Capacity
- Frequency measurement
- Data hold function
- Automatic measuring range selection



Technical data:

Co-current flow: 10A
 Alternating current : 10A
 DC voltage: 1000 V
 AC voltage: 700 V
 Resistance measurement: 32 megaohm
 Frequency measurement: 200kHz
 Temperature accuracy : 23° C ± 5° C
 Power requirement: 9V block battery
 Fuse protection S1 (fine flow): 300mA/250V
 Fuse protection S2 (power-test socket) : 10A/250V
 Storage temperature: -10° to +50° C (14° to 122° F)
 Working temperature: 0° to +40° C (32° to 104° F)

| | B mm | L mm | Depth mm | |
|----------|------|-------|----------|-----|
| 150.1480 | 91.0 | 189.0 | 31.5 | 310 |

Multimeter with inductive clamp

- Specially developed multimeter for working in the motor vehicle area
- As well standard functions also ideal for a number of revolution measurements
- Double display (digital and bar chart display)
- 2 test leads for current with test tip / crocodile clip
- 1 test lead for temperature testing
- Ignition timing ascertainment up to 8-cylinder engines possible (Dwell function)
- Digital and bar chart display
- With integrated safety fuse for the protection of the circuits
- In shock-proof rubber protection cover

Functions:

- DC and AC current
- DC and AC voltage
- Dwell
- Resistance
- Frequency
- Diode test
- RPM
- Temperature-automatic shutdown
- Battery condition indicator



Technical data:

Co-current flow: 10A
 Alternating current : 10A
 DC voltage: 1000 V
 AC voltage: 750 V
 Resistance measurement: 32 megaohm
 Frequency measurement: 32kHz
 Speed measurement: 300 - 12000 rpm
 Temperature accuracy : 23° C ± 5° C
 Power requirement: 9V block battery
 Fuse protection S1 (fine flow): 500mA/350V
 Fuse protection S2 (power-test socket) : 10A/250V
 Storage temperature: -20° to +60° C (-4° to 140° F)
 Working temperature: 0° to +50° C (32° to 122° F)
 Temperature measurement: -20°C bis 760°C / -4°F to 1400°F

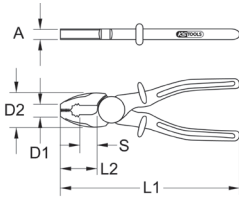
| | B mm | L mm | Depth mm | |
|----------|------|-------|----------|-----|
| 150.2040 | 91.0 | 189.0 | 31.5 | 310 |



PLASTIC PLIERS / CLAMPS

Insulated plastic combination pliers with cutting function

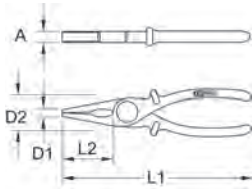
- Insulated to IEC 60900/ IEC60900:2400
- With machined cutting edge
- Made out of extremely durable plastic



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|------|-------|-----|
| 117.1639 | 15.0 | 15.0 | 37.0 | 200.0 | 39.0 | 14.0 | 1000V | 152 |

Insulated plastic flat pliers

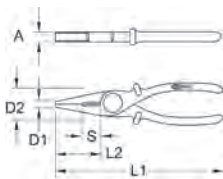
- Insulated to IEC 60900
- Made out of extremely durable plastic



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|-------|-----|
| 117.1640 | 9.0 | 6.0 | 32.0 | 200.0 | 55.0 | 1000V | 106 |

Insulated plastic flat pliers

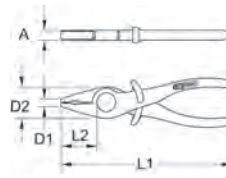
- Insulated to IEC 60900
- With machined cutting edge
- Made out of extremely durable plastic



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|------|-------|-----|
| 117.1641 | 9.0 | 6.0 | 32.0 | 190.0 | 55.0 | 14.0 | 1000V | 108 |

Insulated plastic flat pliers

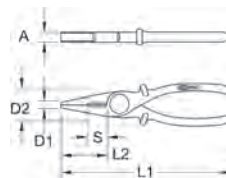
- Insulated to IEC 60900
- Suitable for meter assembly and closure
- Made out of extremely durable plastic



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|-------|----|
| 117.1642 | 11.0 | 10.0 | 38.0 | 180.0 | 37.0 | 1000V | 85 |

Insulated plastic combination pliers

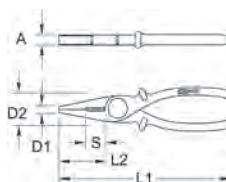
- With two-component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and blocking
- Glass-fibre reinforced plastic
- With soft plastic area on the handle
- For firm hold



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|------|-------|-----|
| 117.1765 | 11.5 | 6.0 | 32.0 | 185.0 | 33.0 | 19.0 | 1000V | 135 |

Insulated plastic combination pliers

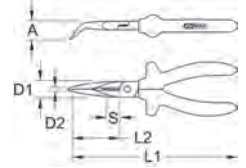
- With two-component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and blocking
- Glass-fibre reinforced plastic
- With soft plastic area on the handle
- For firm hold



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|------|-------|-----|
| 117.1766 | 5.0 | 10.0 | 32.0 | 225.0 | 72.0 | 20.0 | 1000V | 146 |

Insulated plastic combination pliers

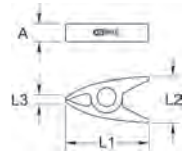
- With two-component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and blocking
- Glass-fibre reinforced plastic
- With soft plastic area on the handle
- For firm hold



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | S mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|------|-------|-----|
| 117.1767 | 5.0 | 10.0 | 32.0 | 230.0 | 110.0 | 20.0 | 1000V | 140 |

Insulated plastic clamp, small

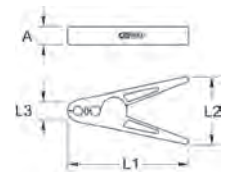
- Insulated to IEC 60900
- Extra small execution
- With inserted steel spring
- For clamping of uncovered cable
- Made from plastic



| | A mm | L1 mm | L2 mm | L3 mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|----|
| 117.1643 | 15.0 | 80.0 | 44.0 | 10.0 | 1000V | 30 |

Insulated plastic clamp, large

- Insulated to IEC 60900
- In large execution
- With inserted steel spring
- For clamping of uncovered cable
- Made from plastic



| | A mm | L1 mm | L2 mm | L3 mm | ⚡ | Ⓜ |
|----------|------|-------|-------|-------|-------|----|
| 117.1644 | 16.0 | 160.0 | 94.0 | 27.0 | 1000V | 70 |

BRUSHES

Insulated dusting brush, straight

- Insulated to IEC 60900
- With hanging hole
- Short execution
- No electric run
- Made from plastic



| | B mm | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|----|
| 117.1645 | 25.0 | 180.0 | 1000V | 11 |

Insulated dusting brush, angled

- Insulated to IEC 60900
- With hanging hole
- Long and angled execution
- No electric run
- Made from plastic



| | B mm | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|----|
| 117.1646 | 25.0 | 400.0 | 1000V | 70 |
| 117.1647 | 37.5 | 400.0 | 1000V | 75 |
| 117.1648 | 50.0 | 400.0 | 1000V | 80 |

PROTECTIVE SLEEVES AND COVERS

Insulated protective sleeve with clamp cap

- Insulated handle to IEC 60900
- For isolating of cable heads and single conductors
- With cross cut cover
- Made out of tough elastic insulating material



| | D mm | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-----|
| 117.4234 | 10.0 | 40.0 | 1000V | 10 |
| 117.4235 | 10.0 | 100.0 | 1000V | 15 |
| 117.4236 | 15.0 | 100.0 | 1000V | 15 |
| 117.4241 | 17.5 | 80.0 | 1000V | 10 |
| 117.4237 | 25.0 | 100.0 | 1000V | 30 |
| 117.4242 | 26.0 | 100.0 | 1000V | 20 |
| 117.4243 | 35.0 | 115.0 | 1000V | 40 |
| 117.4238 | 40.0 | 135.0 | 1000V | 55 |
| 117.4239 | 50.0 | 155.0 | 1000V | 95 |
| 117.4240 | 60.0 | 140.0 | 1000V | 105 |

Insulated protective sleeve

- Insulated handle to IEC 60900
- For isolating of cable heads and single conductors
- Made out of tough elastic insulating material



| | D mm | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|----|
| 117.1784 | 2.0 | 40.0 | 1000V | 1 |
| 117.1785 | 3.0 | 40.0 | 1000V | 1 |
| 117.1786 | 4.0 | 40.0 | 1000V | 2 |
| 117.1787 | 5.0 | 40.0 | 1000V | 4 |
| 117.1788 | 7.0 | 50.0 | 1000V | 5 |
| 117.1789 | 10.0 | 70.0 | 1000V | 8 |
| 117.1790 | 15.0 | 110.0 | 1000V | 16 |
| 117.1791 | 20.0 | 110.0 | 1000V | 19 |
| 117.1792 | 25.0 | 110.0 | 1000V | 28 |
| 117.1793 | 30.0 | 120.0 | 1000V | 35 |
| 117.1794 | 35.0 | 140.0 | 1000V | 48 |
| 117.1795 | 40.0 | 140.0 | 1000V | 55 |

Insulated meter protective sleeve

- Insulated handle to IEC 60900
- For isolating of cable single conductors
- Beveled
- Made out of tough elastic insulating material



| | | D mm | L mm | ⚡ | ⚙️ |
|----------|----|------|------|-------|----|
| 117.4244 | #1 | 12.0 | 80.0 | 1000V | 6 |
| 117.4245 | #2 | 12.0 | 80.0 | 1000V | 6 |
| 117.4246 | #3 | 12.0 | 80.0 | 1000V | 6 |

Slip-on protective sleeve

- Insulated handle to IEC 60900
- For isolating of cable single conductors
- Beveled
- Made out of tough elastic insulating material



| | D mm | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|----|
| 117.4247 | 6.0 | 40.0 | 1000V | 3 |
| 117.4248 | 6.0 | 60.0 | 1000V | 4 |
| 117.4249 | 8.0 | 40.0 | 1000V | 3 |
| 117.4250 | 10.0 | 30.0 | 1000V | 3 |
| 117.4251 | 10.0 | 40.0 | 1000V | 4 |
| 117.4252 | 10.0 | 60.0 | 1000V | 5 |
| 117.4253 | 12.0 | 90.0 | 1000V | 8 |
| 117.4254 | 15.0 | 110.0 | 1000V | 17 |
| 117.4255 | 20.0 | 110.0 | 1000V | 22 |
| 117.4256 | 25.0 | 110.0 | 1000V | 28 |
| 117.4257 | 30.0 | 110.0 | 1000V | 31 |
| 117.4258 | 40.0 | 110.0 | 1000V | 38 |

Slip-on protective sleeve

- Insulated handle to IEC 60900
- For isolating of cable single conductors
- Made out of tough elastic insulating material



| | D mm | B mm | L mm | ⚡ | ⚙️ |
|----------|------|------|-------|-------|----|
| 117.1768 | 30.0 | 60.0 | 140.0 | 1000V | 83 |
| 117.1769 | 40.0 | 80.0 | 140.0 | 1000V | 97 |

Insulated protective cover

- Insulation according to DIN 680-1
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



| | L1 mm | L2 mm | ⚡ | ⚙️ |
|----------|-------|-------|-------|-----|
| 117.1797 | 160.0 | 80.0 | 1000V | 320 |
| 117.1798 | 160.0 | 300.0 | 1000V | 700 |

Insulated protective cover

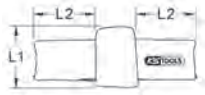
- Insulation according to IEC 60900
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



| | L1 mm | L2 mm | ⚡ | ⚙️ |
|----------|-------|-------|-------|-----|
| 117.1799 | 100.0 | 130.0 | 1000V | 220 |

Insulated protective cover

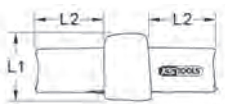
- Insulation according to IEC 60900
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



| | L1 mm | L2 mm | | |
|----------|----------|----------|-------------------|-----|
| 117.4201 | 100.0 | 130.0 | Δ 1000V | 330 |

Insulated protective cover

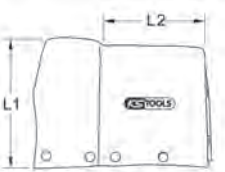
- Insulation according to DIN 680-1
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



| | L1 mm | L2 mm | | |
|----------|----------|----------|-------------------|-----|
| 117.4202 | 160.0 | 80.0 | Δ 1000V | 390 |
| 117.4203 | 160.0 | 220.0 | Δ 1000V | 780 |

Covers for gable insulators

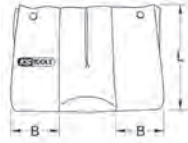
- Insulation according to IEC 60900
- With plastic buttons
- Must also be firmly secured in bad weather
- Complete touch protection including on the underside
- Made from soft weatherproof insulating material
- Also suitable for long-term use



| | L1 mm | L2 mm | | |
|----------|----------|----------|-------------------|-----|
| 117.4204 | 270.0 | 240.0 | Δ 1000V | 820 |

Covers for gable insulators

- Insulation according to IEC 60900
- With plastic buttons
- Must also be firmly secured in bad weather
- Complete touch protection including on the underside
- Made from soft weatherproof insulating material
- Also suitable for long-term use



| | L mm | B mm | | |
|----------|---------|---------|-------------------|-----|
| 117.4205 | 270.0 | 115.0 | Δ 1000V | 750 |

Insulated NH safety attached handle

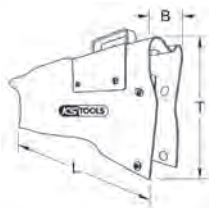
- With contact knife in accordance with DIN 43620 Part 1 of the sizes 00-3
- For low-voltage high-breaking-capacity fuse
- For nominal voltage up to 600V ac voltage



| | L mm | B mm | | |
|----------|---------|---------|-------------------|-----|
| 117.1622 | 380.0 | 225.0 | Δ 1000V | 460 |
| 117.4263 | 445.0 | 225.0 | Δ 1000V | 465 |

Insulated cover for 1 fuse panel

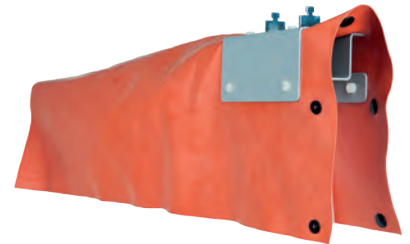
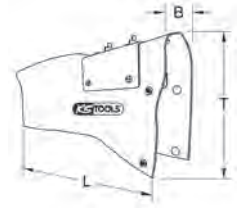
- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0680/1
- 1 suspension device downstream of LVHRC fuse-link L1
- Plastic handle for operation
- Rubber repair tape
- 50 mm projection at the top
- With 5 press studs for extension



| | Thickness mm | B mm | L mm | T mm | | |
|----------|-----------------|---------|---------|---------|-------------------|-----|
| 117.1611 | 1,0 | 85.0 | 760.0 | 195.0 | Δ 1000V | 680 |

Insulated cover for 1 fuse panel

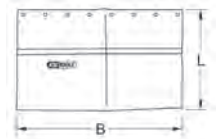
- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0680/1
- 1 suspension device downstream of LVHRC fuse-link L1
- Without plastic handle
- Rubber repair tape
- 50 mm projection at the top
- With 5 press studs for extension



| | Thickness mm | B mm | L mm | T mm | | |
|----------|-----------------|---------|---------|---------|-------------------|-----|
| 117.1659 | 1,0 | 85.0 | 760.0 | 195.0 | Δ 1000V | 680 |

Extension cloth

- Tested to VDE 0680/1
- To extend the cover

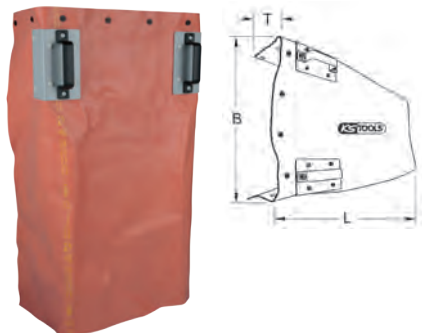


| | Thickness mm | B mm | L mm | | Push buttons | |
|----------|-----------------|---------|---------|-------------------|--------------|-----|
| 117.1690 | 1,0 | 470.0 | 500.0 | Δ 1000V | 5 | 300 |
| 117.1380 | 1,0 | 800.0 | 500.0 | Δ 1000V | 8 | 500 |



Insulated cover for 2 to 4 fuse panels

- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0690/1
- 2 suspension devices downstream of LVHRC fuse-link L1
- 2 plastic handles for operation
- Rubber repair tape
- 50 mm projection at the top
- With 8 press studs for extension



| | Thickness mm | B mm | L mm | T mm | ⚡ | Ⓜ |
|----------|-----------------|---------|---------|---------|-------|------|
| 117.1698 | 1,0 | 430,0 | 760,0 | 195,0 | 1000V | 1,15 |

Insulated cover for 2 to 4 fuse panels

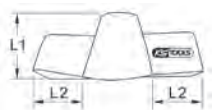
- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0680/1
- 2 suspension devices downstream of LVHRC fuse-link L1
- Without plastic handle
- Rubber repair tape
- 50 mm projection at the top
- With 8 press studs for extension



| | Thickness mm | B mm | L mm | T mm | ⚡ | Ⓜ |
|----------|-----------------|---------|---------|---------|-------|------|
| 117.1699 | 1,0 | 430,0 | 760,0 | 195,0 | 1000V | 1,15 |

Insulated protective cover

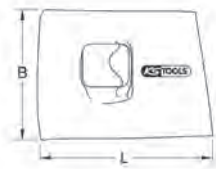
- Insulation according to DIN 680-1
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



| | L1 mm | L2 mm | ⚡ | Ⓜ |
|----------|----------|----------|-------|-----|
| 117.4220 | 140,0 | 100,0 | 1000V | 280 |

LVHRC fuse protective cap

- Made from soft PVC
- Moulded protective cap for covering spring contacts



| | L mm | B mm | ⚡ | Ⓜ |
|----------|---------|---------|-------|-----|
| 117.4225 | 170,0 | 170,0 | 1000V | 115 |
| 117.4226 | 260,0 | 260,0 | 1000V | 190 |

LVHRC fuse protective cap

- Made from soft PVC
- Moulded protective cap for covering 2 spring contacts
- Where LVHRC fuse is used



| | L mm | B mm | ⚡ | Ⓜ |
|----------|---------|---------|-------|-----|
| 117.4223 | 320,0 | 170,0 | 1000V | 350 |

Stranded conductor cover for LV overhead lines

- Complete sheathing of overhead line conductors
- Class 0
- For diameters up to 20 mm



| | L m | D mm | ⚡ | Ⓜ |
|----------|--------|---------|-------|-----|
| 117.4259 | 2,5 | 25,0 | 1000V | 360 |
| 117.4260 | 5,0 | 25,0 | 1000V | 600 |

Assembly handle

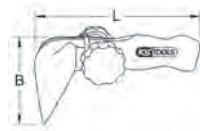
- Assembly handle for stranded conductor covers
- Made from plastic
- Class 0



| | L mm | B mm | ⚡ | Ⓜ |
|----------|---------|---------|-------|-----|
| 117.4261 | 165,0 | 95,0 | 1000V | 150 |

Assembly handle, screw-on

- Assembly handle for stranded conductor covers
- Made from plastic
- Class 0



| | L mm | B mm | ⚡ | Ⓜ |
|----------|---------|---------|-------|-----|
| 117.4262 | 165,0 | 95,0 | 1000V | 150 |

PUNCHES

Insulated punch

- Insulated handle to IEC 60900
- With T-handle
- Burnished
- Chrome vanadium



| | I mm | D mm | L mm | ⚡ | Ⓜ |
|----------|---------|---------|---------|-------|-----|
| 117.1649 | 90,0 | 4,0 | 100,0 | 1000V | 130 |

1
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LED LAMP

Insulated LED-lamp

- Insulated handle to IEC 60900
- For the illumination of cable ducts and switch cabinets
- White illuminant
- Includes AA-Lithium batteries



| | D mm | L mm | Rechargeable battery | ⚡ | ⚙️ |
|----------|------|------|----------------------|-------|----|
| 117.1650 | 19.0 | 90.0 | AA-Lithium | 1000V | 58 |

EXPANSION WEDGES

Plastic expansion wedge

- For working environment of voltage of AC 1000 V and DC 1500 V
- Without flute
- Made from impact resistant plastic



| | L mm | B mm | ⚡ | ⚙️ |
|----------|-------|------|-------|----|
| 117.4267 | 160.0 | 15.0 | 1000V | 60 |

Plastic wedge

- For working environment of voltage of AC 1000 V and DC 1500 V
- With sharp edges
- With large impact head
- Made from impact resistant plastic



| | B mm | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|----|
| 117.1667 | 28.0 | 170.0 | 1000V | 90 |

Plastic expansion wedge

- For working environment of voltage of AC 1000 V and DC 1500 V
- Without flute
- Oval form without sharp edges
- Short execution
- Made from impact resistant plastic



| | B mm | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|----|
| 117.1668 | 30.0 | 150.0 | 1000V | 40 |

Plastic expansion wedge

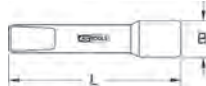
- For working environment of voltage of AC 1000 V and DC 1500 V
- With wide groove for all current cable scissors
- Oval form without sharp edges
- Made from impact resistant plastic



| | B mm | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-----|
| 117.1669 | 20.0 | 170.0 | 1000V | 100 |

Plastic expansion wedge

- For working environment of voltages AC 1000 V and DC 1500 V
- For the assembly of cable branch clamps
- No slipping in the cutting of cable strand
- Made from impact resistant plastic



| | B mm | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|----|
| 117.1670 | 38.0 | 197.0 | 1000V | 55 |

Plastic expansion wedge

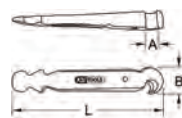
- For working environment of voltage of AC 1000 V and DC 1500 V
- Without flute
- Oval form without edges
- Long execution with large impact head
- Made from impact resistant plastic



| | B mm | L mm | ⚡ | ⚙️ |
|----------|------|-------|-------|-----|
| 117.1680 | 53.0 | 225.0 | 1000V | 225 |

Plastic expansion wedge

- For live work under voltages of AC 1000 V and DC 1500 V
- Specially for assembly of cable branch terminals
- Groove width 22 mm
- Made from impact-resistant plastic
- As an aid for cutting cable wires



| | A mm | L mm | B mm | ⚡ | ⚙️ |
|----------|------|-------|------|-------|-----|
| 117.4268 | 20.0 | 270.0 | 50.0 | 1000V | 170 |

Beading chisels

- For NKBA cables
- 70 mm chamfer
- 30 mm radius
- Made from impact-resistant plastic



| | L mm | B mm | ⚡ | ⚙️ |
|----------|-------|------|-------|----|
| 117.4269 | 140.0 | 25.0 | 1000V | 64 |

FOLDING RULES

Plastic folding rule, white

- Insulated in accordance with IEC 60900:2004
- Made from glass-fibre reinforced plastic
- Without metal parts



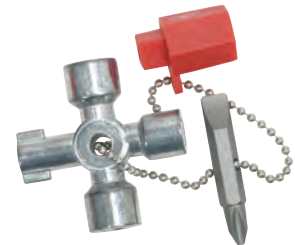
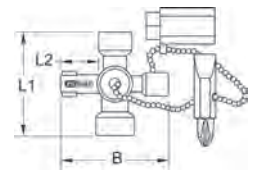
| | L m | ⚡ | ⚙️ |
|----------|-----|-------|----|
| 300.0066 | 1.0 | 1000V | 40 |

UNIVERSAL ENCLOSURE KEYS

Mini universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Die cast zinc

| | |
|---|----------|
| ■ | 6 mm |
| ■ | 7 - 8 mm |
| ▲ | 9 mm |
| ◆ | 3 - 5 mm |
| ⊕ | PH 2 |
| ⊖ | 7 mm |

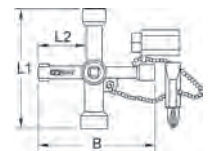


| | B mm | L1 mm | L2 mm | ⚙️ |
|----------|------|-------|-------|-----|
| 130.1010 | 42.0 | 42.0 | 18.0 | 100 |

Universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Heating ventilation key
- Die cast zinc

| | |
|---|----------|
| ■ | 6 mm |
| ■ | 7 - 8 mm |
| ▲ | 7 mm |
| ▲ | 9 mm |
| ◆ | 3 - 5 mm |
| ⊕ | PH 2 |
| ⊖ | 7 mm |

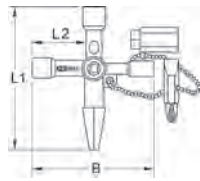


| | B mm | L1 mm | L2 mm | ⚙️ |
|----------|------|-------|-------|-----|
| 130.1015 | 71.0 | 71.0 | 33.0 | 200 |

Universal enclosure key

- With chain
- Bit adaptor for bits to DIN 3126 / C 6,3
- Heating ventilation key
- Die cast zinc

| | |
|--|-----------|
| | 5 mm |
| | 7 mm |
| | 8 mm |
| | 4 - 10 mm |
| | 9 - 10 mm |
| | PH 2 |
| | 7 mm |

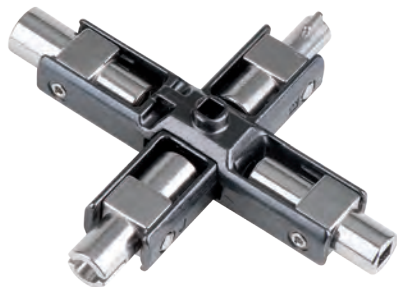
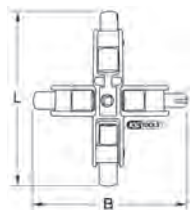


| | B mm | L1 mm | L2 mm | |
|----------|------|-------|-------|-----|
| 130.1020 | 61.0 | 90.0 | 27.0 | 200 |

Universal enclosure key electrical

- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- Fourfold pivot mechanism
- Die cast zinc

| | |
|--|----------|
| | 6 mm |
| | 7 mm |
| | 8 mm |
| | 7 mm |
| | 8 - 9 mm |
| | 3 - 5 mm |
| | 6 mm |

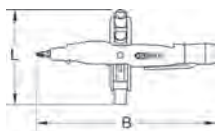


| | B mm | L mm | |
|----------|-------|-------|-----|
| 130.1046 | 100.0 | 113.5 | 200 |

Universal enclosure key electrical

- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- Double pivot mechanism
- Die cast zinc

| | |
|--|----------|
| | 5 mm |
| | 6 mm |
| | 7 - 8 mm |
| | 9 mm |
| | 3 - 5 mm |
| | PH 2 |

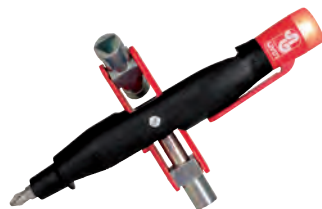
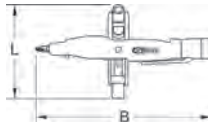


| | B mm | L mm | |
|----------|-------|-------|-----|
| 130.1040 | 140.0 | 100.0 | 120 |

Universal enclosure key with voltage finder 50 - 600 V

- Contactless and optical recognition of alternating current
- On / off switch
- For all common control cabinet-enclosures
- For bits to DIN 3126 / C 6,3
- Includes two batteries 1,5 V LR44 button cell 11,6 x 5,4 mm
- Double pivot mechanism
- Die cast zinc

| | |
|--|----------|
| | 6 mm |
| | 7 - 8 mm |
| | 9 mm |
| | 3 - 5 mm |
| | PH 2 |



Technical data:

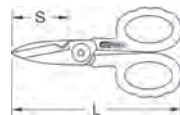
Readout: 1 LED
 Voltage range: 50 - 600 V
 Duty cycle: permanent
 Frequency range: 50 - 60 Hz
 Protection class: EN 61010

| | B mm | L mm | |
|----------|-------|------|-----|
| 130.1045 | 155.0 | 95.0 | 120 |

SHEARS

Universal workshop shear

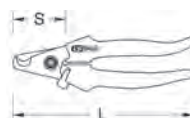
- Robust short shears
- Various applications
- With cable cutter
- Includes belt pouch



| | L mm | S mm | |
|----------|-------|------|-----|
| 118.0060 | 140.0 | 42.0 | 170 |

Universal cable shear

- Self opening
- Safety locking device
- Ergonomic moulded plastic handle
- For soft cable

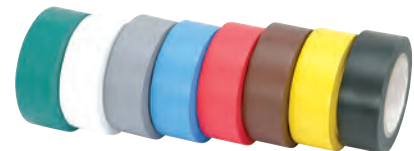
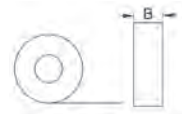


| | Ø mm | L mm | S mm | |
|----------|------|-------|------|-----|
| 118.0073 | 10,0 | 165,0 | 50,0 | 180 |

ELECTRICAL INSULATING TAPE

PVC insulation tape set

- Good resistance to abrasion and corrosion and/or moisture
- High di-electric strength and good mechanical protection
- Excellent ability to adapt to different forms
- Conforms to BS3924
- Temperature resistance of 0°C to +90°
- Multicoloured assortment



| | B mm | L m | |
|----------|-------|------|-----|
| 141.6010 | 8 pcs | 19.0 | 150 |

Self welding repair tape

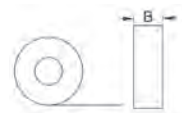
- Excellent weather resistance
- Easy to apply due to high elasticity
- Insulates air and water tight, due to self welding characteristics
- Temperature resistance of -40°C to +90°C
- With a tape thickness of 0,5 mm
- Made from Polyisobutylene tape
- For a range of applications in electrical, plumbing and automotive



| | Colour code | B mm | L m | |
|----------|-------------|------|------|-----|
| 141.6000 | | 18.0 | 10.0 | 100 |
| 141.6001 | | 38.0 | 10.0 | 210 |

Insulated adhesive tape

- For working environment of voltage of AC 1000 V and DC 1500 V
- On a roll



| | Colour code | B mm | L m | | |
|----------|-------------|-------|------|-----|-----|
| 117.4231 | | 52.0 | 10.0 | 105 | 105 |
| 117.4232 | | 102.0 | 10.0 | 190 | 190 |
| 117.4233 | | 102.0 | 10.0 | 190 | 190 |

ELECTRICIANS PEN KNIFE

Electricians pen knife

- Blade folds away
- Sickle blade
- Moulded handle made out of wood
- Rust proof
- Stainless steel



| | B mm | L mm | S mm | g |
|----------|------|-------|------|----|
| 907.2185 | 37,0 | 185,0 | 70,0 | 60 |

Electricians pen knife

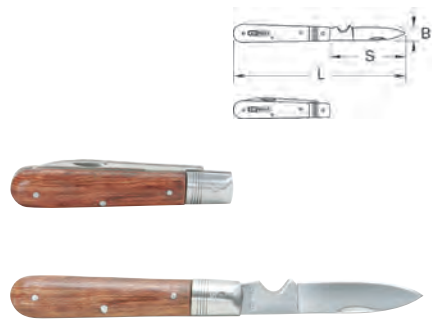
- Blade folds away
- Straight- and sickle blades
- Moulded handle made out of wood
- Rust proof
- Stainless steel



| | B mm | L mm | S mm | g |
|----------|------|-------|------|----|
| 907.2186 | 37,0 | 185,0 | 70,0 | 90 |

Electricians pen knife

- Blade folds away
- Single blade and stripping function
- Moulded handle made out of wood
- Rust proof
- Stainless steel



| | B mm | L mm | S mm | g |
|----------|------|-------|------|----|
| 907.2187 | 15,0 | 195,0 | 85,0 | 60 |

Electricians pen knife

- Blade folds away
- Straight and extra narrow pointed blade
- Moulded handle made out of wood
- Rust proof
- Stainless steel



| | B mm | L mm | S mm | g |
|----------|------|-------|------|----|
| 907.2188 | 19,0 | 198,0 | 90,0 | 60 |

STRIPPING TOOLS

Universal cable knife

- For the slitting and stripping of round cable
- Hook blade for the stripping of insulated and flat cable
- Internal knife with adjustable cutting depth, rotating mouting



| | Ø mm | B mm | L mm | S mm | g |
|----------|------|------|-------|------|-----|
| 907.2184 | 28,0 | 18,0 | 175,0 | 24,0 | 100 |

Stripping tool for coaxial cable

- Round cut
- Safe and portable form
- 3-stage stripping
- For a stripping capacity of 9,4 - 7,5 mm



| | Ø mm ² | L1 mm | L2 mm | g |
|----------|-------------------|-------|-------|----|
| 115.1243 | 7,5 | 90,0 | 18,0 | 50 |

Stripping tool for data cable

- Round cut
- For the stripping of flat and flat oval data cables
- Safety locking device for safe storage



| | Ø mm ² | L1 mm | L2 mm | g |
|----------|-------------------|-------|-------|----|
| 115.1241 | 2,5-12,0 | 105,0 | 72,0 | 40 |

Multifunction stripping tool

- Round- and length cutting function
- Stripping function
- Cutting function
- For the stripping of flexible and large wire
- Safety locking device for safe storage
- Includes replacement knife set



| | Ø mm ² | AWG | L1 mm | L2 mm | g |
|----------|-------------------|-------|-------|-------|----|
| 115.1251 | 0,2-0,8 | 30-20 | 117,0 | 85,5 | 96 |
| 115.1252 | 0,8-2,6 | 20-10 | 117,0 | 85,5 | 96 |

Insulation stripping knife

- For stripping all standard round cables
- Cutting depth can be adjusted exactly to thickness of sheath
- The knife automatically switches from round to longitudinal cutting
- Retaining bracket adjustable
- Complete stripping of insulation



| | Ø mm ² | Ø Wire mm | AWG | L mm | g |
|----------|-------------------|-----------|-------|-------|-----|
| 115.1003 | 0,5-6,0 | 4,0-28,0 | 20-10 | 143,0 | 120 |

Insulation stripping knife

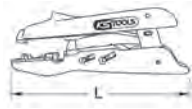
- For stripping external insulation layers
- Stripping insulation from single- and multiple-wire conductors
- Round and longitudinal cutting



| | Ø mm ² | Ø Wire mm | L mm | g |
|----------|-------------------|-----------|-------|-----|
| 115.1007 | 0,5-16,0 | 4,0-12,0 | 137,0 | 105 |

Insulation stripping knife

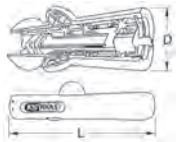
- Basic stripping of insulation from conductors
- The scanning system automatically adapts to the conductor cross-section
- The stranded conductor can then be twisted



| | Ø mm ² | AWG | L mm | g |
|----------|-------------------|-------|-------|-----|
| 115.1001 | 0,5-6,0 | 20-10 | 158,0 | 117 |

Round cable insulation stripper

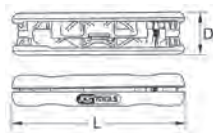
- For round cables and damp-proof cables
- Flush stripping of insulation even in areas that are hard to access, e.g. in ceilings and walls, in junction and distribution boxes and switch cabinets



| | Ø Wire mm | L mm | g |
|----------|-----------|-------|----|
| 115.1006 | 8,0-13,0 | 125,0 | 42 |

Coaxial cable insulation strippers

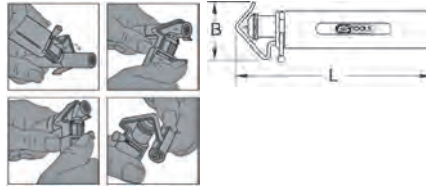
- Gradual stripping of insulation from all coaxial cables with an outer diameter of 4.8 - 7.5 mm
- Equally suitable for flexible cables and 3 x 0.75 mm², 10 mm² and 16 mm² cables



| | Ø Wire mm | L mm | g |
|----------|-----------|-------|----|
| 115.1002 | 4,8-7,5 | 110,0 | 42 |

Universal stripping tool

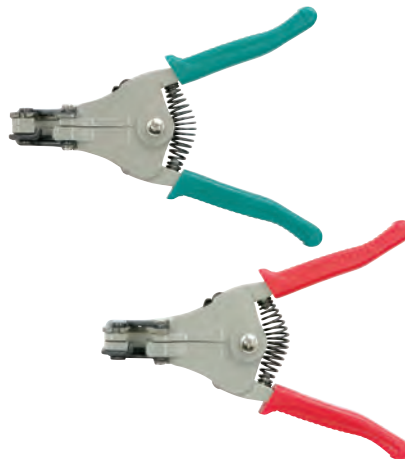
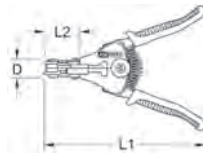
- Round cut and length cutting function
- Suited for spiral cutting of hard insulation
- Variable cut depth adjustment through thumb wheel
- For a maximum insulation strength of up to 4,5 mm



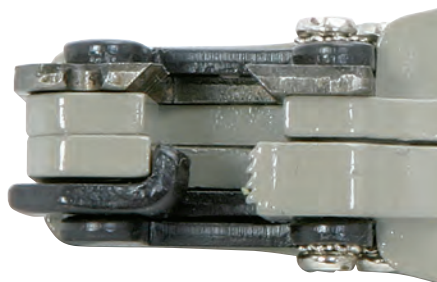
| | Ø mm ² | B mm | L mm | Replacement blades | g |
|----------|-------------------|------|-------|--------------------|-----|
| 115.1256 | 6-25 | 41,0 | 138,0 | 115.1257 | 138 |

Automatic wire stripper

- Plastic handle
- For damage free Stripping
- Durable clamping jaw for the adherence of the wire
- Self closing due to the spring mechanics

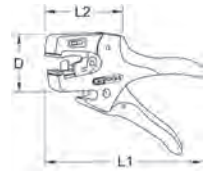


| | Ø mm | AWG | D mm | L1 mm | L2 mm | g |
|----------|---------|---------|------|-------|-------|-----|
| 115.1028 | 0,5-2,0 | 2,0-0,5 | 20,0 | 170,0 | 35,0 | 280 |
| 115.1029 | 1,0-3,2 | 3,2-1,0 | 20,0 | 170,0 | 35,0 | 280 |



Self regulating wire stripper

- Easily interchangeable knife modules
- Cutting function
- Light weight
- Exact adjustment possible for safe stripping
- For damage free stripping
- Length stop for 0,02 - 10,0 mm
- Smooth running mechanics



| | Ø mm ² | AWG | D mm | L1 mm | L2 mm | Replacement lobes | g |
|----------|-------------------|-------|------|-------|-------|-------------------|-----|
| 115.1244 | 0,1-4 | 28-12 | 48,0 | 190,0 | 73,0 | 115.1247 | 130 |
| 115.1245 | 0,02-10 | 34-8 | 48,0 | 190,0 | 73,0 | 115.1246 | 130 |
| 115.1249 | 4-16 | 12-6 | 48,0 | 190,0 | 73,0 | 115.1248 | 130 |

Universal stripping tool

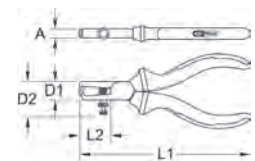
- For insulated cables
- With round cutting and longitudinal cutting function
- Suitable for stripping insulation from damp-proof cables, and for cutting plastic pipes
- Replaceable blade



| | Ø mm ² | g | |
|----------|-------------------|----------|----|
| 117.4275 | 6,0-28,0 | 117.4276 | 60 |

Wire stripper

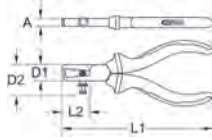
- In accordance to DIN / ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- PVC dipped handle
- For wires from 0,5 - 4,0 mm²
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | g |
|----------|------|-------|-------|-------|-------|-----|
| 115.1314 | 9,0 | 20,5 | 33,0 | 176,0 | 39,0 | 170 |

ERGOTORQUE® wire stripper

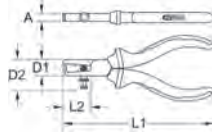
- In accordance to DIN / ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,5 - 4,0 mm²
- Matt Chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | |
|----------|------|-------|-------|-------|-------|-----|
| 115.1014 | 9.0 | 20.5 | 33.0 | 179.0 | 39.0 | 220 |

ERGOTORQUE® VDE cable stripper

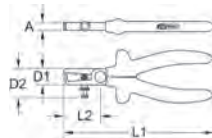
- In accordance to DIN / ISO 5232
- Wrap around insulation to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | |
|----------|------|-------|-------|-------|-------|-----|
| 117.1114 | 10.0 | 17.5 | 31.5 | 160.0 | 36.0 | 210 |

CLASSIC 1000V wire strippers

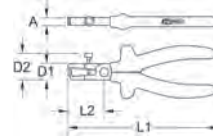
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | |
|----------|------|-------|-------|-------|-------|-----|
| 117.1271 | 9.5 | 18.5 | 31.5 | 160.0 | 44.0 | 180 |

CLASSIC 1000V wire strippers

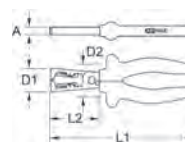
- In accordance to DIN / ISO 5232
- Insulated handle to IEC 60900
- Coated working head
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | |
|----------|------|-------|-------|-------|-------|-----|
| 117.1713 | 11.0 | 18.5 | 20.0 | 160.0 | 34.0 | 180 |

CLASSIC 1000V wire strippers

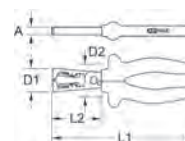
- Insulated handle to IEC 60900
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm²
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | Replacement blades | |
|----------|------|-------|-------|-------|-------|--------------------|-----|
| 117.1272 | 10.5 | 28.5 | 47.5 | 160.0 | 20.0 | 117.1258 | 220 |

CLASSIC 1000V wire strippers

- Insulated handle to IEC 60900
- Multifunctional wire strippers
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm²
- With cutting holes for separating cables and wires
- Matt chrome
- Special tool steel

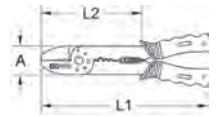


| | A mm | D1 mm | D2 mm | L1 mm | L2 mm | |
|----------|------|-------|-------|-------|-------|-----|
| 117.1225 | 10.0 | 24.0 | 40.0 | 185.0 | 61.0 | 260 |

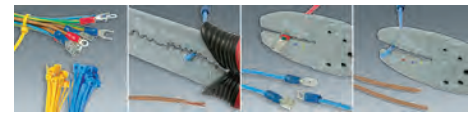
CRIMPING TOOLS

Multifunction pliers for insulated and non insulated cable terminals

- For cable cutting and stripping of wires from 0,75 - 6,0 mm²
- For crimping cable lugs and connectors of 1,5 - 6,0 mm²
- Cutting function
- Two component handle
- Pliers body made of flat steel



| | A mm | L1 mm | L2 mm | |
|----------|------|-------|-------|-----|
| 115.1231 | 40.0 | 220.0 | 130.0 | 230 |



Multifunction crimping plier set

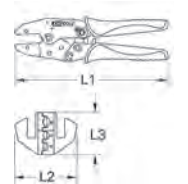
- For insulated and un-insulated cable terminals
- Includes 270 pcs consumables
- For cable cutting and stripping wires from 0,75 - 6,0 mm²
- For crimping cable terminals and connectors from 1,5 - 6,0 mm²
- Cutting function
- Two component handle
- Pliers body made of flat steel
- In durable plastic storage case



| 115.1230 | 270 pcs Multifunction crimping plier set 560 |
|----------|--|

Crimping pliers for non insulated terminals

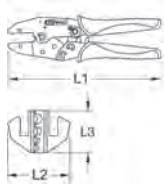
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



| | σ mm ² | AWG | L1 mm | L2 mm | L3 mm | |
|----------|--------------------------|-------------------|-------|-------|-------|--------------|
| 115.1425 | 0,5-1,0;1,5-2,5;4,0-6,0 | 22-18;16-14;12-10 | 220,0 | 50,0 | 34,0 | 115.1415 491 |

Crimping pliers for insulated terminals

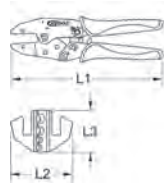
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



| | Ø mm² | AWG | L1 mm | L2 mm | L3 mm | Weight |
|----------|------------------|---------------------|----------|----------|----------|--------------|
| 115.1430 | 1,5/2,5/6,0/10,0 | 20-18/16-14/12-10/8 | 220,0 | 50,0 | 34,0 | 115.1416 487 |

Crimping pliers for pin terminals

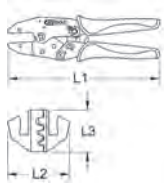
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through Precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



| | Ø mm² | AWG | L1 mm | L2 mm | L3 mm | Weight |
|----------|--------------------------|----------------------|----------|----------|----------|--------------|
| 115.1440 | 0,5/0,75/1,0/1,5/2,5/4,0 | 22/20/18/16-14/12-10 | 220,0 | 50,0 | 34,0 | 115.1418 499 |
| 115.1450 | 6,0/10,0/16,0 | 10/8/6 | 220,0 | 50,0 | 34,0 | 115.1420 499 |

Crimping pliers for spade terminals

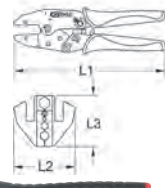
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



| | Ø mm² | AWG | L1 mm | L2 mm | L3 mm | Weight |
|----------|------------------------|-------------------|----------|----------|----------|--------------|
| 115.1435 | 0,5-10/1,5-2,5/4,0/6,0 | 20-18/16-14/12-10 | 220,0 | 50,0 | 34,0 | 115.1417 499 |
| 115.1455 | 2,5/5,0/8,0/10,0 | 14-22/8-6 | 220,0 | 50,0 | 34,0 | 115.1421 505 |

Crimping pliers for coaxial terminals

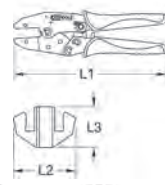
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



| | Ø mm² | AWG | L1 mm | L2 mm | L3 mm | Weight |
|----------|-----------------------|----------------|----------|----------|----------|--------------|
| 115.1445 | 1,7/2,5/5,0/6,4/8,2/3 | RG58/RG59/RG62 | 220,0 | 50,0 | 34,0 | 115.1419 491 |

Crimping pliers for Western terminals

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



| | Ø mm² | AWG | L1 mm | L2 mm | L3 mm | Weight |
|----------|-----------|-------|----------|----------|----------|--------------|
| 115.1460 | RJ22 | 22-24 | 220,0 | 50,0 | 34,0 | 115.1422 500 |
| 115.1465 | RJ11/RJ12 | 22-24 | 220,0 | 50,0 | 34,0 | 115.1423 505 |
| 115.1470 | RJ45 | 22-24 | 220,0 | 50,0 | 34,0 | 115.1424 505 |

Electricians crimping plier set

- Ideal configuration for electricians
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of flat steel



| | Weight |
|----------|---|
| 115.1480 | 3 pcs Electricians crimping plier set 910 |
| 1 x | 220 mm |
| 1 x | Ø 0,5 - 4,0 mm, H |
| 1 x | Ø 1,5 - 10,0 mm, B |

Net working crimping plier set

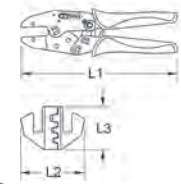
- Ideal configuration for network cabling
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of flat steel



| | Weight |
|----------|---|
| 115.1490 | 5 pcs Net working crimping plier set 1.05 |
| 1 x | 220 mm |
| 1 x | AWG: 22 - 14 - 6 - 8, H |
| 1 x | AWG: 22 - 24, G1 |
| 1 x | AWG: 22 - 24, G2 |
| 1 x | AWG: 22 - 24, G3 |

Crimping plier for Solarlok

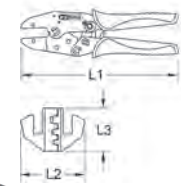
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



| | Ø mm² | AWG | L1 mm | L2 mm | L3 mm | Weight |
|----------|-----------------|---------|----------|----------|----------|--------------|
| 115.1520 | 6,0/4,0/2,5/1,5 | 10 - 15 | 220,0 | 50,0 | 34,0 | 115.1412 483 |

Crimping plier for Multi Connect MC3

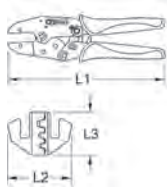
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



| | Ø mm² | AWG | L1 mm | L2 mm | L3 mm | Weight |
|----------|-------------|----------|----------|----------|----------|--------------|
| 115.1521 | 4,0/6,0/2,5 | 12/10/14 | 220,0 | 50,0 | 34,0 | 115.1413 484 |

Crimping plier for Multi Connect MC4

- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



| | Ø mm² | AWG | L1 mm | L2 mm | L3 mm | Weight |
|----------|-----------------|--------------|-------|-------|-------|--------------|
| 115.1522 | 2,5 / 4,0 / 6,0 | 14 / 12 / 10 | 220,0 | 50,0 | 34,0 | 115.1414 490 |

Universal crimping tool set with automatic wire stripper

- Extremely robust and reliable crimping plier
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- In durable plastic storage case
- Two component handle
- Burnished
- Pliers body made of flat steel
- Includes self-closing and damage free automatic wire stripper



| | Weight |
|---|--------|
| 115.1400 8 pcs Universal crimping tool set with automatic wire stripper | 2,37 |
| 1 x 220 mm | |
| 1 x Ø 0,5 - 4,0 mm, H | |
| 1 x Ø 1,5 - 10,0 mm, B | |
| 1 x Ø 0,5 - 6,0 mm, C | |
| 1 x Ø 0,5 - 4,0 mm, D | |
| 1 x RG 58 - RG 71, E | |
| 1 x 1,0 - 3,2 mm | |
| 1 x | |

ELECTRICIAN'S TOOL KITS

Basic electricians tool set

- Ideal starter set
- With aluminium edges
- With carrying handle
- Black leather carrying case



| | Weight |
|---|--------|
| 117.0180 30 pcs Basic electricians tool set | 9,00 |
| 1 x 8 - 28 mm | |
| 1 x | |
| 1 x 300 g | |
| 1 x 1000 g | |
| 1 x Ø 16 mm | |
| 1 x Ø 16 mm | |
| 1 x 40 mm | |
| 1 x # 2 | |
| 1 x 2 m | |
| 1 x | |
| 1 x 400 mm | |
| 1 x 3 mm | |
| 4 x 3,5 - 4 - 5,5 - 6,5 mm | |
| 3 x PH 0 - PH 1 - PH 2 | |
| 1 x 160 mm | |
| 1 x 150 mm | |
| 1 x 175 mm | |
| 1 x 200 mm | |
| 1 x 250 mm | |

Basic electricians tool set

- Ideal starter set
- Carrying handle
- Durable metal case



| | Weight |
|---|--------|
| 117.0181 30 pcs Basic electricians tool set | 8,83 |
| 1 x 8 - 28 mm | |
| 1 x | |
| 1 x 300 g | |
| 1 x 1000 g | |
| 1 x Ø 16 mm | |
| 1 x Ø 16 mm | |
| 1 x 40 mm | |
| 1 x # 2 | |
| 1 x 2 m | |
| 1 x | |
| 1 x 400 mm | |
| 1 x 3 mm | |
| 4 x 3,5 - 4 - 5,5 - 6,5 mm | |
| 3 x PH 0 - PH 1 - PH 2 | |
| 1 x 160 mm | |
| 1 x 150 mm | |
| 1 x 175 mm | |
| 1 x 200 mm | |
| 1 x 250 mm | |

Premium electricians tool set

- Carrying strap and handle
- Durable nylon case



| 117.0190 | | 132 pcs | Premium electricians tool set | 11.21 |
|----------|--|---------|--|-------|
| 1 x | | | 8 - 28 mm | |
| 1 x | | | | |
| 1 x | | | 300 g | |
| 1 x | | | 1000 g | |
| 1 x | | | Ø 16 mm | |
| 1 x | | | Ø 16 mm | |
| 1 x | | | 40 mm | |
| 1 x | | | # 2 | |
| 1 x | | | 2 m | |
| 1 x | | | 6 - 400 V | |
| 1 x | | | | |
| 1 x | | | 400 mm | |
| 1 x | | | | |
| 1 x | | | 1/4": 911.2060 | |
| 1 x | | | 1/4": 918.0640 | |
| 1 x | | | 2.0 - 2.5 - 3.0 - 4.0 - 5.0 - 6.0 - 8.0 - 10.0 mm | |
| 1 x | | | | |
| 1 x | | | 5 m x 19 mm | |
| 1 x | | | 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm | |
| 1 x | | | 8", 200 mm | |
| 1 x | | | 3,0 mm | |
| 4 x | | | 3,5 - 4,0 - 5,5 - 6,5 mm | |
| 3 x | | | PH 0 - PH 1 - PH 2 | |
| 1 x | | | 160 mm | |
| 1 x | | | 150 mm | |
| 1 x | | | 175 mm | |
| 1 x | | | 200 mm | |
| 1 x | | | 200 mm | |
| 1 x | | | 250 mm | |

Premium Max electricians tool set

- Carrying handle
- An extendable pull handle
- Pull handle with locking knob
- Aluminium edges
- Two rollers
- Durable ABS storage case



| 117.0195 | | 195 pcs | Premium Max electricians tool set | 13.20 |
|----------|--|---------|---|-------|
| 1 x | | | 10", 250 mm | |
| 1 x | | | | |
| 1 x | | | | |
| 1 x | | | 1/4": 918.0646 | |
| 1 x | | | 1/4" | |
| 1 x | | | 911.0626 | |
| 1 x | | | 300 g | |
| 1 x | | | 1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm | |
| 1 x | | | 3 m x 19 mm | |
| 1 x | | | 500.7165 | |
| 1 x | | | 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm | |
| 1 x | | | 3 mm | |
| 4 x | | | 3,5 - 4 - 5,5 - 6,5 mm | |
| 3 x | | | PH 0 - PH 1 - PH 2 | |
| 1 x | | | 160 mm | |
| 1 x | | | 150 mm | |
| 1 x | | | 175 mm | |
| 1 x | | | 200 mm | |
| 1 x | | | 200 mm | |
| 1 x | | | 200 mm | |
| 1 x | | | 250 mm | |

Hard shell toolcase, empty

- Strong hard protective case made from impact resistant plastic with hardened aluminium frame
- Document compartment in upper lid
- 2 removable tool boards for individual tool mounting
- Lower case shell is on divisible through internal dividers
- Lockable through two locking fastening catches
- Carrying handle with telescopic removable frame
- Capacity up to 30 kg



| 117.1810-99 | | | Hard shell toolcase, empty | 5.00 |
|-------------|--|--|----------------------------|------|
|-------------|--|--|----------------------------|------|

Toolcase, empty

- Made out of heavy, yellow or red leather
- Carrying strap
- Front and middle wall removable
- Robust execution with toll holders for up to 50 Tools
- And choice of protection
- Fittings chrome



| 117.1820-99 | | | Toolcase, empty | 4.30 |
|-------------|--|--|-----------------|------|
|-------------|--|--|-----------------|------|

Toolcase, empty

- Made out of red leather
- Carrying strap
- Front wall removable
- Durable sheet metal base
- Tool holders for 40 VDE tools and choice of protection
- Specially for meter assembly



| 117.1830-99 | | | Toolcase, empty | 3.40 |
|-------------|--|--|-----------------|------|
|-------------|--|--|-----------------|------|

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



1/4"

| | | kg | |
|----------|--------|---|------|
| 117.1877 | 22 pcs | Insulated socket wrench set | 1.60 |
| 1 x | | 1/4" | |
| 4 x | | 1/4": 50 - 75 - 100 - 150 mm | |
| 1 x | | 1/4" | |
| 1 x | | 1/4" | |
| 10 x | | 1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm | |
| 5 x | | 1/4": 3 - 4 - 5 - 6 - 8 mm | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



1/4"

| | | kg | |
|----------|--------|---|------|
| 117.1878 | 21 pcs | Insulated socket wrench set | 1.90 |
| 1 x | | 1/4": 5 - 25 Nm | |
| 4 x | | 1/4": 50 - 75 - 100 - 150 mm | |
| 1 x | | 1/4" | |
| 10 x | | 1/4": 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 mm | |
| 5 x | | 1/4": 3 - 4 - 5 - 6 - 8 mm | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



3/8"

| | | kg | |
|----------|--------|--|------|
| 117.1850 | 16 pcs | Insulated socket wrench set | 4.00 |
| 1 x | | 3/8" | |
| 2 x | | 3/8": 125 - 250 mm | |
| 1 x | | 3/8" | |
| 8 x | | 3/8": 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm | |
| 3 x | | 3/8": 5 - 6 - 8 mm | |
| 1 x | | 3,5 mm | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



1/4"

| | | kg | |
|----------|--------|-------------------------------|------|
| 117.1876 | 21 pcs | Insulated socket wrench set | 1.00 |
| 1 x | | 1/4": 5 - 25 Nm | |
| 3 x | | 1/4": 75 - 100 - 150 mm | |
| 2 x | | 1/4" | |
| 5 x | | 1/4": 6 - 8 - 10 - 13 - 14 mm | |
| 3 x | | 1/4": 5 - 6 - 8 mm | |
| 3 x | | 1/4": 4 - 5,5 - 6,5 mm | |
| 2 x | | 1/4": PH1 - PH2 | |
| 2 x | | 1/4": PZ1 - PZ2 | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



3/8"

| | | kg | |
|----------|--------|--|------|
| 117.1882 | 16 pcs | Insulated socket wrench set | 3.80 |
| 1 x | | 3/8" | |
| 2 x | | 3/8": 125 - 250 mm | |
| 1 x | | 3/8" | |
| 8 x | | 3/8": 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 mm | |
| 3 x | | 3/8": 5 - 6 - 8 mm | |
| 1 x | | 25 Nm | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



3/8"

| | | kg | |
|----------|--------|-----------------------------|------|
| 117.1885 | 16 pcs | Insulated socket wrench set | 3.40 |
| 1 x | | 3/8" | |
| 2 x | | 3/8": 125 - 250 mm | |
| 3 x | | 3/8": 13 - 17 - 19 mm | |
| 4 x | | 3/8": 5 - 6 - 8 - 10 mm | |
| 1 x | | 3/8": 5 mm | |
| 1 x | | 2,5 mm | |
| 2 x | | 5 - 6 mm | |
| 1 x | | Ø 25mm | |
| 1 x | | 160 mm | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



3/8"

| | | kg | |
|-----------------|--------|---------------------------------|------|
| 117.1881 | 14 pcs | Insulated socket wrench set | 3.87 |
| 1 x | | 3/8": 5 - 50 Nm | |
| 2 x | | 3/8": 125 - 250 mm | |
| 5 x | | 3/8": 10 - 13 - 14 - 17 - 19 mm | |
| 5 x | | 3/8": 4 - 5 - 6 - 8 - 10 mm | |
| 1 x | | 3/8": 95 - 150 mm | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



3/8"

| | | kg | |
|-----------------|--------|--------------------------------|------|
| 117.1886 | 13 pcs | Insulated socket wrench set | 2.40 |
| 1 x | | 3/8" | |
| 2 x | | 3/8": 125 - 250 mm | |
| 1 x | | 3/8" | |
| 5 x | | 3/8": 8 - 10 - 13 - 17 - 19 mm | |
| 4 x | | 3/8": 4 - 5 - 6 - 8 mm | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



3/8"

| | | kg | |
|-----------------|--------|--------------------------------|------|
| 117.1889 | 11 pcs | Insulated socket wrench set | 1.75 |
| 1 x | | 3/8" | |
| 1 x | | 3/8": 125 mm | |
| 5 x | | 3/8": 8 - 10 - 13 - 17 - 19 mm | |
| 4 x | | 3/8": 4 - 5 - 6 - 8 mm | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



3/8"

| | | kg | |
|-----------------|--------|--------------------------------|------|
| 117.1888 | 13 pcs | Insulated socket wrench set | 2.40 |
| 1 x | | 3/8" | |
| 2 x | | 3/8": 125 - 250 mm | |
| 1 x | | 3/8" | |
| 5 x | | 3/8": 8 - 10 - 13 - 17 - 19 mm | |
| 4 x | | 3/8": 4 - 5 - 6 - 8 mm | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



3/8"

| | | kg | |
|-----------------|--------|--------------------------------|------|
| 117.1887 | 11 pcs | Insulated socket wrench set | 1.80 |
| 1 x | | 3/8" | |
| 1 x | | 3/8": 125 mm | |
| 5 x | | 3/8": 8 - 10 - 13 - 17 - 19 mm | |
| 4 x | | 3/8": 4 - 5 - 6 - 8 mm | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case
- Chrome vanadium



1/2"

| | | kg | |
|-----------------|--------|--|------|
| 117.1883 | 15 pcs | Insulated socket wrench set | 4.00 |
| 1 x | | 1/2" | |
| 2 x | | 1/2": 125 - 250 mm | |
| 1 x | | 1/2" | |
| 8 x | | 1/2": 10 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm | |
| 3 x | | 1/2": 5 - 6 - 8 mm | |

Insulated tool kit

- Insulated handle to IEC 60900
- Foam material inserts in durable plastic case
- Special tool steel



| | | | kg |
|----------|--------|-------------------------------------|------|
| 117.1840 | 26 pcs | Insulated tool kit | 5.00 |
| 1 x | | 205 mm | |
| 1 x | | 160 mm | |
| 1 x | | 200 mm | |
| 1 x | | 1/2" | |
| 1 x | | 250 mm | |
| 1 x | | 210 mm | |
| 1 x | | 182 mm | |
| 7 x | | 10 - 11 - 12 - 13 - 14 - 17 - 19 mm | |
| 7 x | | 10 - 11 - 12 - 13 - 14 - 17 - 19 mm | |
| 1 x | | 6 - 400 V | |
| 4 x | | 3,5 - 5,5 - 6,5 - 8,0 mm | |

Insulated socket wrench set

- Insulated handle to IEC 60900
- In durable plastic storage case



| | | | kg |
|----------|--------|--|------|
| 117.1860 | 16 pcs | Insulated socket wrench set | 4.50 |
| 1 x | | 1/2" | |
| 2 x | | 1/2": 125 - 250 mm | |
| 1 x | | 1/2" | |
| 8 x | | 1/2": 10 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm | |
| 3 x | | 1/2": 5 - 6 - 8 mm | |
| 1 x | | 3,5 mm | |

Insulated tool kit

- Insulated handle to IEC 60900
- Plastic case with foam protection material
- Special tool steel



| | | | kg |
|----------|--------|---------------------------------------|------|
| 117.1870 | 20 pcs | Insulated tool kit | 4.50 |
| 1 x | | 205 mm | |
| 1 x | | 160 mm | |
| 1 x | | 200 mm | |
| 1 x | | 180 mm | |
| 1 x | | 160 mm | |
| 1 x | | 160 mm | |
| 1 x | | 6 - 400 V | |
| 3 x | | 8 - 10 - 13 mm | |
| 6 x | | 2,5 - 3,5 - 5,5 - 6,5 - 8,0 - 10,0 mm | |
| 2 x | | PH1 - PH2 | |
| 1 x | | 210 mm | |
| 1 x | | 182 mm | |

Insulated tool kit

- Insulated handle to IEC 60900
- Made out of red leather
- Carrying strap



| | | | kg |
|----------|--------|--------------------|------|
| 117.1872 | 14 pcs | Insulated tool kit | 4.50 |
| 1 x | | 185 mm | |
| 1 x | | 160 mm | |
| 1 x | | 200 mm | |
| 1 x | | 210 mm | |
| 3 x | | 2,5 - 4,0 - 5,5 mm | |
| 4 x | | 7 - 8 - 9 - 10 mm | |
| 1 x | | Gr. 10 | |
| 1 x | | 200 mm | |
| 1 x | | 12 - 750 V | |

Professional electricians tool set

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Made out of red leather
- Carrying strap



| | | | kg |
|----------|--------|---|-------|
| 117.1871 | 55 pcs | Professional electricians tool set | 13.20 |
| 1 x | | 185 mm | |
| 1 x | | 160 mm | |
| 1 x | | 200 mm | |
| 1 x | | 160 mm | |
| 1 x | | 215 mm | |
| 6 x | | 10 - 13 - 14 - 17 - 19 - 22 mm | |
| 6 x | | 10 - 13 - 14 - 17 - 19 - 22 mm | |
| 1 x | | 1/2" | |
| 2 x | | 125 - 250 mm | |
| 1 x | | 1/2" | |
| 9 x | | 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 - 24 mm | |
| 1 x | | 210 mm | |
| 1 x | | 182 mm | |
| 3 x | | 130 x 130 mm | |
| 3 x | | 250 x 350 mm | |
| 3 x | | 500 x 500 mm | |
| 2 x | | 80 mm | |
| 6 x | | 160 mm | |
| 1 x | | Gr. 9 | |
| 1 x | | 260 mm | |
| 4 x | | 2,5 - 4,0 - 5,5 - 6,5 mm | |

Professional electricians tool set

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Made out of red leather
- Carrying strap



| 117.1820 | | | |
|----------|------------------------------------|---|--|
| 30 pcs | Professional electricians tool set | 13.00 | |
| 1 x | | 185 mm | |
| 1 x | | 160 mm | |
| 1 x | | 200 mm | |
| 1 x | | 160 mm | |
| 1 x | | 215 mm | |
| 6 x | | 10 - 13 - 14 - 17 - 19 - 22 mm | |
| 6 x | | 10 - 13 - 14 - 17 - 19 - 22 mm | |
| 1 x | | 1/2" | |
| 2 x | | 125 - 250 mm | |
| 1 x | | 1/2" | |
| 9 x | | 10 - 11 - 12 - 13 - 14 - 17 - 19 - 22 24 mm | |
| 1 x | | 210 mm | |
| 1 x | | 182 mm | |
| 3 x | | 130 x 130 mm | |
| 3 x | | 250 x 350 mm | |
| 3 x | | 500 x 500 mm | |
| 2 x | | 80 mm | |
| 4 x | | 160 mm | |
| 1 x | | Gr. 9 | |
| 1 x | | 260 mm | |
| 4 x | | 2,5 - 4,0 - 5,5 - 6,5 mm | |

Insulated tool kit

- Insulated handle to IEC 60900
- Made out of red leather
- Carrying strap



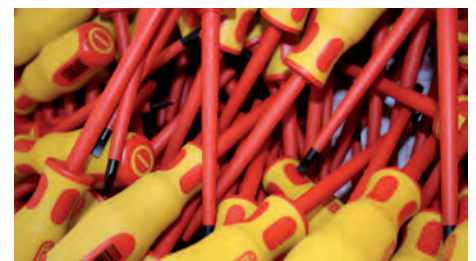
| 117.1830 | | | |
|----------|--------------------|-------------------------------------|--|
| 36 pcs | Insulated tool kit | 9.40 | |
| 1 x | | 205 mm | |
| 1 x | | 160 mm | |
| 1 x | | 200 mm | |
| 1 x | | 160 mm | |
| 7 x | | 10 - 11 - 12 - 13 - 14 - 17 - 19 mm | |
| 7 x | | 10 - 11 - 12 - 13 - 14 - 17 - 19 mm | |
| 1 x | | 3/8" | |
| 2 x | | 8 - 9 mm | |
| 2 x | | 4,0 - 5,5 mm | |
| 1 x | | 210 mm | |
| 1 x | | 182 mm | |
| 1 x | | 130 x 130 x 1,6 mm | |
| 1 x | | 250 x 350 x 1,6 mm | |
| 1 x | | 1000 x 1000 x 1,6 mm | |
| 2 x | | 80 mm | |
| 2 x | | 160 mm | |
| 1 x | | Ø 30 mm | |
| 1 x | | 12 - 750 V | |

Professional electricians tool set

- Insulated handle to IEC 60900
- Robust hard shell toolcase



| 117.1810 | | | |
|----------|------------------------------------|--------------------------------|--|
| 30 pcs | Professional electricians tool set | 9.40 | |
| 1 x | | 185 mm | |
| 1 x | | 160 mm | |
| 1 x | | 200 mm | |
| 1 x | | 200 mm | |
| 1 x | | 160 mm | |
| 1 x | | 160 mm | |
| 1 x | | 180 mm | |
| 2 x | | 5 - 6 mm | |
| 5 x | | 2,5 - 4,0 - 5,5 - 6,5 - 8,0 mm | |
| 2 x | | PH1 - PH2 | |
| 2 x | | PZ1 - PZ2 | |
| 4 x | | 5,5 - 6,0 - 7,0 - 8,0 mm | |
| 1 x | | 210 mm | |
| 1 x | | 175 mm | |
| 1 x | | 215 mm | |
| 1 x | | 12 - 750 V | |
| 1 x | | 380 mm | |
| 1 x | | Gr. 10 | |
| 1 x | | 260 mm | |
| 1 x | | 10 m | |



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