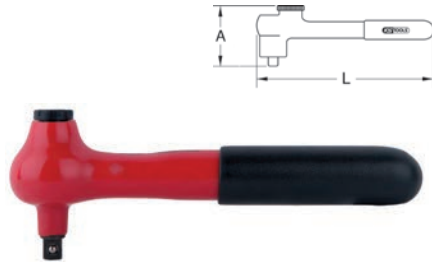


	FROM PAGE
TORQUE WRENCHES WITH PROTECTIVE INSULATION	330
SPANNER WITH PROTECTIVE INSULATION	330
1/4" RANGE WITH PROTECTIVE INSULATION	333
1/4" SETS WITH PROTECTIVE INSULATION	334
3/8" RANGE WITH PROTECTIVE INSULATION	334
3/8" SETS WITH PROTECTIVE INSULATION	338
1/2" RANGE WITH PROTECTIVE INSULATION	339
1/2" SETS WITH PROTECTIVE INSULATION	342
3/4" RANGE WITH PROTECTIVE INSULATION	342
SCREWDRIVERS WITH PROTECTIVE INSULATION	343
SCREWDRIVER SETS WITH PROTECTIVE INSULATION	344
KEY WRENCHES WITH PROTECTIVE INSULATION	344
PLIERS WITH PROTECTIVE INSULATION	345
PLIERS WITH TOOL SAFETY MECHANISM & PROTECTIVE INSULATION	349
PLIERS SETS WITH PROTECTIVE INSULATION	350
CABLE CUTTING	352
ELECTRICIAN'S KNIVES	354
COUNTERHOLDER WITH PROTECTIVE INSULATION	356
ALIGNING TOOLS WITH PROTECTIVE INSULATION	357
SAWS WITH PROTECTIVE INSULATION	357
HAMMER WITH PROTECTIVE INSULATION	357
CABLE PROTECTION	357
INDUSTRIAL SAFETY	358
TWEEZERS & SEARCH MIRROR WITH PROTECTIVE INSULATION	360
VOLTAGE TESTERS	360
PLASTIC PLIERS / CLAMPS WITH PROTECTIVE INSULATION	363
BRUSH WITH PROTECTIVE INSULATION	364
SEALS & HOODS WITH PROTECTIVE INSULATION	365
PUNCH WITH PROTECTIVE INSULATION	367
EX+LED PROTECTED LAMPS	367
EXPANSION WEDGES WITH PROTECTIVE INSULATION	368
FOLDING RULES	368
UNIVERSAL ENCLOSURE KEYS	368
SHEARS	369
ELECTRICAL INSULATING TAPE	370
INSTALLATION TOOLS	370
ELECTRICIANS PEN KNIFE	370
STRIPPING TOOLS	371
CRIMPING TOOLS	373
ELECTRICIAN'S TOOL KITS	375

TORQUE WRENCHES WITH PROTECTIVE INSULATION

Fixed torque wrench with protective insulation

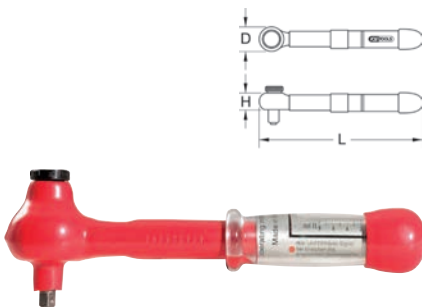
- Actuation accuracy: $\pm 4\%$ tolerance of the set scale value
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- Without scale - with a fixed adjustable value
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



		N-m	A mm	L mm	⚡	U
117.3922	3/8"	5-35	78,0	210,0	1000V	420
117.1001	1/2"	5-35	78,0	250,0	1000V	420

Mini torque wrench with protective insulation and reversible ratchet head

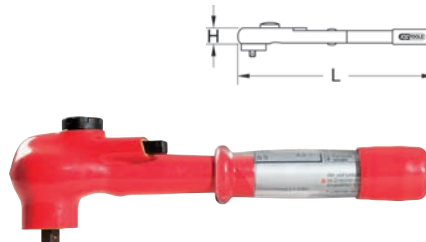
- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy: $\pm 4\%$ tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- 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
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



		N-m	D mm	H mm	L mm	⚡	U
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

Torque wrench with protective insulation and reversible ratchet head

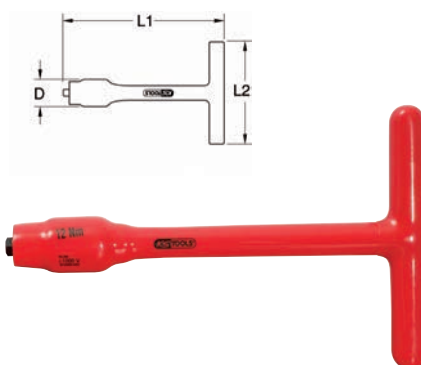
- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy: $\pm 4\%$ tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- Scale in Nm divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- 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
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



		N-m	H mm	L mm	⚡	U
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

Fixed T-handle torque limiter with protective insulation

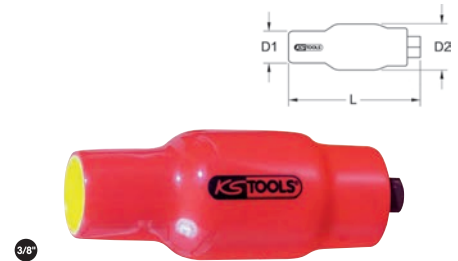
- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- High accuracy
- For controlled fastening in a clockwise direction
- Clearly noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Without scale - with a fixed 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	⚡	U
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

Fixed torque limiter with protective insulation

- 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 noticeable torque release signal through ratchet
- 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		310
117.3803	3/8"	3/8"	18	23,0	27,5	92,0		310
117.3804	3/8"	3/8"	25	23,0	27,5	92,0		310

SPANNER WITH PROTECTIVE INSULATION

Sliding spanner with protective insulation

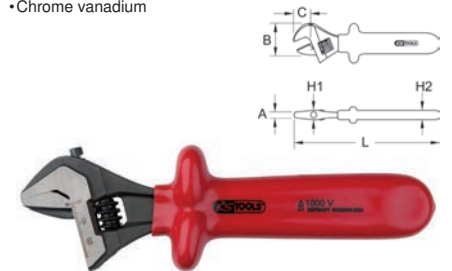
- In accordance to DIN 3117
- Insulated handle to IEC 60900
- Jaw 15° offset
- Swedish type design
- With mm scale
- Matt finish
- Chrome vanadium



	mm	A mm	B mm	C mm	H1 mm	H2 mm	L mm	⚡	U
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

Sliding spanner with protective insulation

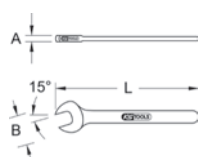
- In accordance to DIN 3117
- Insulated handle to IEC 60900
- Jaw 15° offset
- Swedish type design
- With mm scale
- Matt finish
- Burnished
- Chrome vanadium



	mm	A mm	B mm	C mm	H1 mm	H2 mm	L mm	⚡	U
117.4270	27	13,0	57,5	20,0	13,0	18,5	210,0	1000V	329
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

open-end wrench with protective insulation

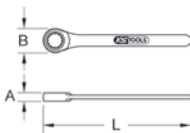
- In accordance to DIN 7446
- Insulated handle to IEC 60900
- Jaw 15° offset
- Chrome vanadium



	mm	A mm	B mm	L mm		
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
117.2208	5/16"	8,0	17,3	120,0		34
117.2209	3/8"	8,8	23,3	108,0		40
117.2251	7/16"	9,9	25,6	115,7		46
117.2252	1/2"	10,7	30,0	136,0		65
117.2253	9/16"	10,6	33,1	145,0		80
117.2254	5/8"	10,2	34,4	156,0		114
117.2255	11/16"	9,7	38,1	170,0		116
117.2256	3/4"	11,1	41,6	173,0		150
117.2257	13/16"	12,7	44,8	186,0		180
117.2258	7/8"	13,2	49,0	193,0		190
117.2259	15/16"	12,7	52,4	215,0		300
117.2261	1"	13,2	59,1	210,0		330

Ratchet ring spanner with protective insulation

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

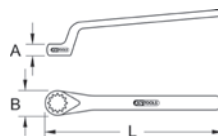


	mm	A mm	B mm	L mm		
117.4206	6	6,7	14,4	126,0		0,03
117.4207	7	6,9	17,2	137,0		0,04
117.4208	8	6,9	17,2	140,0		0,04
117.4209	9	7,3	19,2	150,0		0,04
117.4210	10	7,7	21,2	159,0		0,06
117.4211	11	8,1	22,2	165,0		0,06
117.4212	12	8,6	23,2	172,0		0,08
117.4213	13	9,0	25,2	178,0		0,09
117.4214	14	9,4	28,2	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

	mm	A mm	B mm	L mm		
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
117.2283	5/16"	9,2	18,2	124,0		0,05
117.2284	3/8"	11,2	22,9	141,0		0,05
117.2285	7/16"	11,5	24,4	143,8		0,06
117.2286	1/2"	12,9	27,7	150,0		0,08
117.2287	9/16"	12,2	29,8	164,0		0,09
117.2288	5/8"	13,2	33,9	177,0		0,14
117.2289	11/16"	12,9	34,3	185,0		0,18
117.2291	3/4"	13,7	36,8	205,0		0,21
117.2292	7/8"	16,2	44,2	248,0		0,22
117.2293	15/16"	14,0	50,3	277,0		0,42

Ring spanner with protective insulation, cranked

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

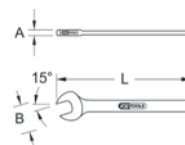


	mm	A mm	B mm	L mm		
117.1306	6	6,1	13,6	160,0		55
117.1307	7	6,7	12,6	160,0		55
117.1308	8	7,1	14,0	170,0		60
117.1309	9	7,4	15,5	170,0		65
117.1310	10	7,8	17,0	170,0		80
117.1311	11	8,1	18,4	180,0		90
117.1312	12	10,2	19,9	190,0		100
117.1313	13	10,9	21,3	190,0		110
117.1314	14	11,3	22,8	210,0		160
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
117.2269	5/16"	7,9	16,6	155,0		60
117.2271	3/8"	7,7	16,6	173,0		80
117.2272	7/16"	10,5	20,3	175,0		86
117.2273	1/2"	10,3	21,7	195,0		110
117.2274	9/16"	10,8	24,5	202,0		160
117.2275	5/8"	11,9	27,2	210,0		204
117.2276	11/16"	12,7	28,4	216,0		260
117.2277	3/4"	13,9	31,0	235,0		294
117.2278	13/16"	12,5	32,0	255,0		300
117.2279	7/8"	15,3	36,0	255,0		320
117.2281	15/16"	15,2	38,5	280,0		500
117.2282	1"	15,1	42,3	280,0		510



Ratchet open-end wrench with protective insulation

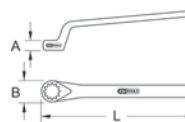
- In accordance to DIN 3113 / ISO 3318
- Insulated handle to IEC 60900
- Jaw 15° offset
- Chrome vanadium



	mm	A mm	B mm	L mm		
117.2262	10	7,1	22,7	105,0		28
117.2263	11	8,2	25,6	115,0		34
117.2264	12	7,7	27,1	127,0		38
117.2265	13	8,5	28,9	135,0		46
117.2266	14	9,3	31,8	145,0		54
117.2267	17	10,7	38,4	160,0		74
117.2268	19	11,8	42,1	175,0		100

Ratchet gear with protective insulation

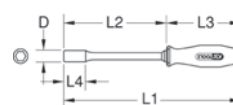
- FlankTraction profile
- Insulated handle to DIN 60900
- Exact gearing with 32 teeth
- extremely stable
- Reversible
- Chrome vanadium



	mm	A mm	B mm	L mm		
117.2294	13x17	44,2	34,2	283,0		0,35
117.2295	17x19	48,1	42,1	287,0		0,58
117.2296	19x24	55,1	51,5	365,0		0,91
117.2297	24x30	63,0	65,0	445,0		1,57

Socket screwdriver with protective insulation

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



	mm	D mm	L1 mm	L2 mm	L3 mm	L4 mm		
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

Tool set with insulated tools

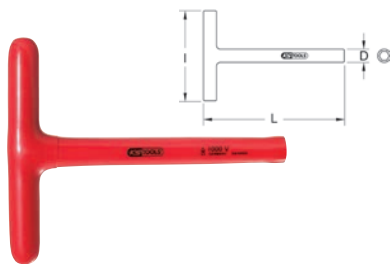
- 6 point
- In accordance to DIN 7445
- Insulated handle to IEC 60900
- Chrome vanadium



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

T-handle socket wrench with protective insulation

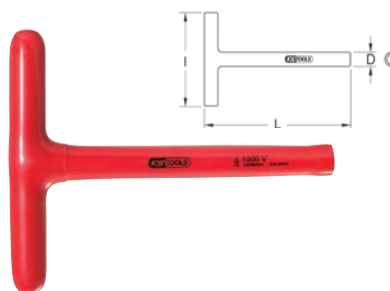
- 6 point
- In accordance to DIN 7440
- Insulated handle to IEC 60900
- For use of especially long threaded bolts
- Made from precision steel tube
- Chrome vanadium



	mm	D mm	I mm	L mm	⚡	U
117.1771	10	17,0	165,0	200,0	1000V	320
117.1772	11	19,0	165,0	200,0	1000V	380
117.1773	12	19,0	165,0	200,0	1000V	370
117.1774	13	20,0	165,0	200,0	1000V	370
117.1775	14	24,0	165,0	200,0	1000V	370
117.1776	16	26,0	165,0	200,0	1000V	420
117.1777	17	26,0	165,0	200,0	1000V	430
117.1778	18	29,0	165,0	200,0	1000V	460
117.1779	19	30,0	165,0	200,0	1000V	440
117.1781	20	32,0	165,0	200,0	1000V	460
117.1782	22	33,0	165,0	200,0	1000V	570
117.1783	24	35,0	165,0	200,0	1000V	590

T-handle socket wrench with protective insulation, 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	1000V	350
117.1726	10	20,0	165,0	300,0	1000V	380

	mm	D mm	I mm	L mm	⚡	U
117.1727	11	20,0	165,0	300,0	1000V	430
117.1728	12	20,0	165,0	300,0	1000V	430
117.1729	13	20,0	165,0	300,0	1000V	420
117.1730	14	23,0	165,0	300,0	1000V	440
117.1731	17	28,0	165,0	300,0	1000V	520
117.1732	19	32,0	165,0	300,0	1000V	590
117.1733	22	33,0	165,0	300,0	1000V	690
117.1734	24	33,5	165,0	300,0	1000V	780

T-handle socket wrench with protective insulation

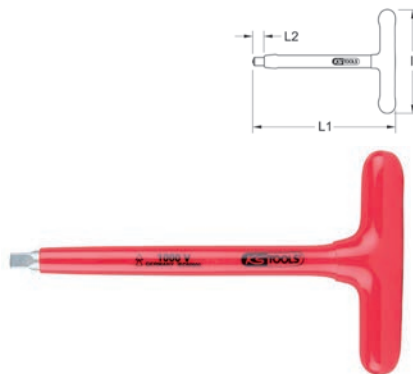
- Insulated to IEC 60900
- Magnetic
- For bits to DIN 3126 - C 6,3
- Chrome vanadium



	mm	D mm	I mm	L mm	⚡	U
117.2422	4	8,1	95,0	210,0	1000V	164
117.2423	5	8,5	95,0	210,0	1000V	166
117.2424	6	11,7	95,0	210,0	1000V	170
117.2425	7	13,5	95,0	210,0	1000V	172
117.2426	8	15,0	95,0	210,0	1000V	173
117.2427	9	11,2	95,0	210,0	1000V	182
117.2428	10	18,0	95,0	210,0	1000V	190
117.2429	11	19,8	95,0	210,0	1000V	200
117.2431	12	19,8	95,0	210,0	1000V	204
117.2432	13	20,5	95,0	210,0	1000V	208
117.2433	14	23,2	95,0	210,0	1000V	224

T-handle socket wrench with protective insulation

- 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	⚡	U
117.3919	1/4"	92,0	160,0	8,0	1000V	151
117.3920	3/8"	155,0	200,0	11,0	1000V	350
117.3921	1/2"	155,0	200,0	15,0	1000V	490

Cross wrench with protective insulation

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



	mm	L1 mm	L2 mm	⚡	U
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

Cross wrench with protective insulation

- 6 point
- Insulated handle to IEC 60900
- No contact between the steel hexagon drive
- Made from impact resistant plastic
- Centre cross reinforced with hard fibre
- Chrome vanadium



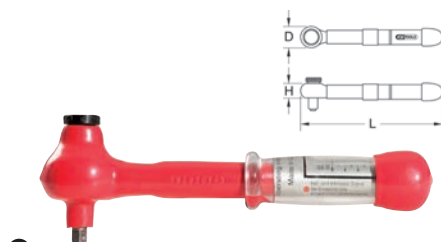
	mm	L1 mm	L2 mm	⚡	U
117.1720	10x13x14x17	220,0	92,0	1000V	430



1/4" RANGE WITH PROTECTIVE INSULATION

Mini torque wrench with protective insulation and reversible ratchet head

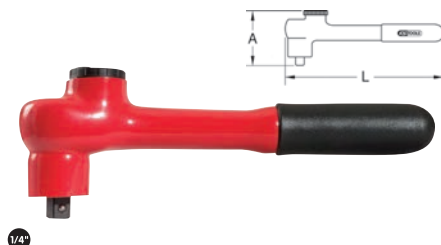
- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy: $\pm 4\%$ tolerance from the set scale value and better
- Precise reading accuracy for a minimum 5.000 tightening cycles
- For controlled fastening in a clockwise direction
- Can untighten without any torque restraint thanks to the anticlockwise latch
- An audible and palpable signal when the desired torque value is achieved
- 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
- Including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



		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

Reversible ratchet with protective insulation

- 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

Extension with protective insulation

- 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

socket with protective insulation

- 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	⚡	⚙
117.1404	4	16,0	10,0	37,0	1000V	14
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

Socket with protective insulation, 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



	mm	D1 mm	D2 mm	L mm	⚡	⚙
117.2341	4	16,5	9,5	55,0	1000V	22
117.2342	5	16,5	9,5	55,0	1000V	24
117.2343	6	16,5	9,5	55,0	1000V	28
117.2344	7	16,5	9,5	55,0	1000V	30
117.2345	8	16,5	9,5	55,0	1000V	31
117.2346	9	16,5	9,5	55,0	1000V	38
117.2347	10	16,5	9,5	55,0	1000V	48
117.2348	11	16,5	9,5	55,0	1000V	57
117.2349	12	16,5	9,5	55,0	1000V	60
117.2351	13	16,5	9,5	55,0	1000V	64
117.2352	14	16,5	9,5	55,0	1000V	78

socket with protective insulation

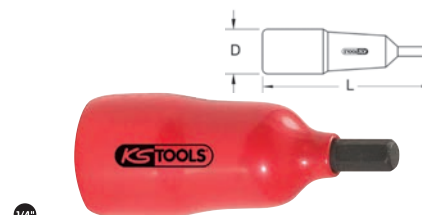
- 6 point
- In accordance to DIN 7448
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- Chrome vanadium



		D1 mm	D2 mm	L mm	⚡	⚙
117.2401	3/16"	16,5	11,7	38,0	1000V	12
117.2402	1/4"	16,5	13,0	38,0	1000V	12
117.2403	5/16"	16,5	15,1	38,0	1000V	15
117.2404	3/8"	16,5	17,8	38,0	1000V	18
117.2405	7/16"	16,5	19,8	38,0	1000V	18
117.2406	1/2"	16,5	21,6	38,0	1000V	26
117.2407	9/16"	16,5	24,0	38,0	1000V	28

Bit socket with protective insulation for hexagon socket 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	⚡	⚙
117.1415	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

Bit socket with protective insulation for Torx screws

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



		D mm	L mm	⚡	⚙
117.2471	T8	15,0	45,0	1000V	13
117.2472	T10	15,0	45,0	1000V	13
117.2473	T15	15,0	45,0	1000V	13
117.2474	T20	15,0	45,0	1000V	14
117.2475	T25	15,0	45,0	1000V	15
117.2476	T27	15,0	45,0	1000V	15
117.2477	T30	15,0	45,0	1000V	19

Bit holder with protective insulation

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



1/4"

			D1 mm	D2 mm	L mm		
117.1420	1/4"	1/4"	16,0	16,5	40,0	1000V	240

1/4" SETS WITH PROTECTIVE INSULATION

Socket-set with insulated tools

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



1/4"

117.1877	22 pcs	Socket-set with insulated tools	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		

Socket-set with insulated tools

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



1/4"

117.1876	21 pcs	Socket-set with insulated tools	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		

Socket-set with insulated tools

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



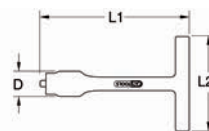
1/4"

117.1878	21 pcs	Socket-set with insulated tools	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" RANGE WITH PROTECTIVE INSULATION

Fixed T-handle torque limiter with protective insulation

- 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 noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Without scale - with a fixed adjustable value
- Can tighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



3/8"

		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

Fixed torque limiter with protective insulation

- 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 noticeable torque release signal through ratchet
- It is not possible to over tighten the set value
- Without scale - with a fixed adjustable value
- Can tighten without any torque restraint thanks to the anticlockwise latch
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock



3/8"

		N-m	D1 mm	D2 mm	L mm		
117.3802	3/8"	12	23,0	27,5	92,0	1000V	310
117.3803	3/8"	18	23,0	27,5	92,0	1000V	310
117.3804	3/8"	25	23,0	27,5	92,0	1000V	310



Fixed torque wrench with protective insulation

- Actuation accuracy: $\pm 4\%$ tolerance of the set scale 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
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards

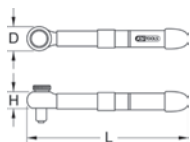


3/8"

		N·m	A mm	L mm	⚡	U
117.3922	3/8"	5-35	78,0	210,0	1000V	420

Mini torque wrench with protective insulation and reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy: $\pm 4\%$ tolerance from 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
- 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
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards

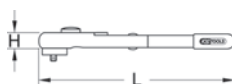


3/8"

		N·m	D mm	H mm	L mm	⚡	U
117.1184	3/8"	5-25	40,0	42,0	200,0	1000V	440

Torque wrench with protective insulation and reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy: $\pm 4\%$ tolerance from 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 Nm divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- 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
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards



3/8"

		N·m	H mm	L mm	⚡	U
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

Reversible ratchet with protective insulation

- 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	⚡	U
117.3801	3/8"	73,0	200,0	1000V	350

Reversible ratchet with protective insulation

- 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	⚡	U
117.3800	3/8"	78,0	205,0	1000V	370

Extension with protective insulation

- 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	⚡	U
117.2301	3/8"	75,0	1000V	85
117.3851	3/8"	125,0	1000V	140
117.3852	3/8"	250,0	1000V	280

Extension with protective insulation and screw locking

- 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	⚡	U
117.3823	3/8"	125,0	1000V	140
117.3825	3/8"	250,0	1000V	280

Bit holder with protective insulation

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



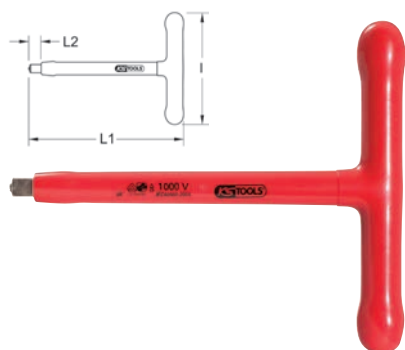
3/8"

		D1 mm	D2 mm	L mm	⚡	U
117.3811	3/8"	1/4"	25,0	125,0	1000V	165
117.3812	3/8"	1/4"	25,0	250,0	1000V	250



T-handle socket wrench with protective insulation and screw lock

- 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

socket with protective insulation

- 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



3/8"




























	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	91
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	31
117.1023	7/16"	22,0	20,0	48,0		1000V	32
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	42
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	91

Socket with protective insulation, long

- 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



3/8"

	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	138
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	213

Socket with protective insulation, extra long

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



3/8"

	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

Torx E socket with protective insulation

- Torx E
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome vanadium



3/8"

		D1 mm	D2 mm	L mm	⚡	🔒
117.2376	E4	23,0	10,8	45,0	1000V	40
117.2377	E5	23,0	12,3	45,0	1000V	40
117.2378	E6	23,0	13,5	45,0	1000V	40
117.2379	E7	23,0	13,7	45,0	1000V	45
117.2381	E8	23,0	15,5	45,0	1000V	45
117.2382	E10	23,0	17,2	45,0	1000V	48
117.2383	E11	23,0	18,0	45,0	1000V	50
117.2384	E12	23,0	19,0	45,0	1000V	50
117.2385	E14	23,0	20,5	45,0	1000V	54
117.2386	E16	23,0	23,1	45,0	1000V	56
117.2387	E18	23,0	25,0	45,0	1000V	58
117.2388	E20	23,0	27,0	45,0	1000V	58

Torx E socket with protective insulation, long

- Torx E
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome vanadium

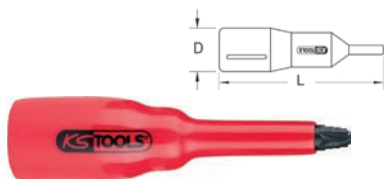


3/8"

		D1 mm	D2 mm	L mm	⚡	🔒
117.2363	E4	23,0	9,4	72,0	1000V	50
117.2364	E5	23,0	10,9	72,0	1000V	50
117.2365	E6	23,0	12,3	72,0	1000V	50
117.2366	E7	23,0	13,1	72,0	1000V	55
117.2367	E8	23,0	14,5	72,0	1000V	55
117.2368	E10	23,0	16,2	72,0	1000V	58
117.2369	E11	23,0	17,0	72,0	1000V	60
117.2371	E12	23,0	18,0	72,0	1000V	60
117.2372	E14	23,0	20,6	72,0	1000V	64
117.2373	E16	23,0	23,0	72,0	1000V	66
117.2374	E18	23,0	24,8	72,0	1000V	68
117.2375	E20	23,0	26,0	72,0	1000V	68

Bit socket with protective insulation for PZ screws

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

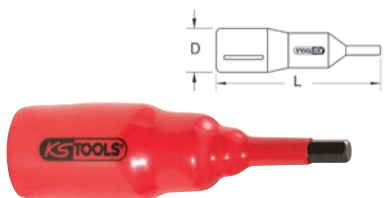


3/8"

		D mm	L mm	⚡	⚙
117.1739	PZ 1	22,0	95,0	1000V	60
117.1740	PZ 2	22,0	95,0	1000V	58
117.1741	PZ 3	22,0	95,0	1000V	70

Bit socket with protective insulation for hexagon socket screws

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



3/8"

	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

Bit socket with protective insulation for hexagon socket screws, long

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



3/8"

	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	180,0	1000V	100
117.3874	6	23,0	180,0	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

Bit socket with protective insulation for Torx screws, short

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



3/8"

		D mm	L mm	⚡	⚙
117.2454	T10	20,0	65,0	1000V	40
117.2455	T15	20,0	65,0	1000V	40
117.2456	T20	20,0	65,0	1000V	45
117.2457	T25	20,0	65,0	1000V	45
117.2458	T27	20,0	65,0	1000V	50
117.2459	T30	20,0	65,0	1000V	55
117.2461	T40	20,0	65,0	1000V	58

Bit socket with protective insulation for Torx screws, long

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

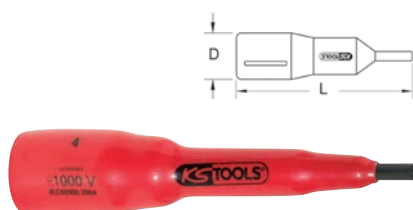


3/8"

		D mm	L mm	⚡	⚙
117.2462	T10	20,0	100,0	1000V	65
117.2463	T15	20,0	100,0	1000V	68
117.2464	T20	20,0	100,0	1000V	70
117.2465	T25	20,0	100,0	1000V	74
117.2466	T27	20,0	100,0	1000V	75
117.2467	T30	20,0	100,0	1000V	78
117.2468	T40	20,0	100,0	1000V	82

Bit socket with protective insulation for multi-tooth (XZN®) screws

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



3/8"

	mm	D mm	L mm	⚡	⚙
117.3893	M8	23,0	95,0	1000V	85
117.3894	M10	23,0	95,0	1000V	90
117.3895	M12	23,0	95,0	1000V	95

Bit holder with protective insulation

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



3/8"

			D mm	L mm	⚡	⚙
117.2313	3/8"	1/4"	55,0	45,0	1000V	34
117.2314	3/8"	8 mm	55,0	50,0	1000V	36

Reducing adapter with protective insulation

- 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 WITH PROTECTIVE INSULATION

Socket-set with insulated tools

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



			kg
117.1882	16 pcs	Socket-set with insulated tools	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	

Socket-set with insulated tools

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



			kg
117.1850	16 pcs	Socket-set with insulated tools	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	

Socket-set with insulated tools

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



3/8"

			kg
117.1885	16 pcs	Socket-set with insulated tools	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	

Socket-set with insulated tools

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



3/8"

			kg
117.1881	14 pcs	Socket-set with insulated tools	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	

Socket-set with insulated tools

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



3/8"

			kg
117.1888	13 pcs	Socket-set with insulated tools	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	

Socket-set with insulated tools

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



3/8"

			kg
117.1886	13 pcs	Socket-set with insulated tools	2,56
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	

Socket-set with insulated tools

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



3/8"

117.1887	11 pcs	Socket-set with insulated tools	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	

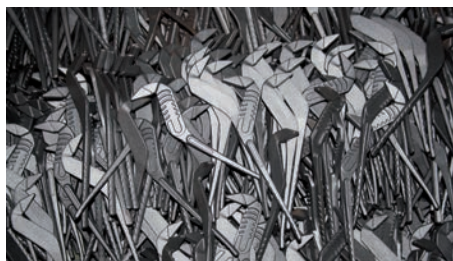
Socket-set with insulated tools

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



3/8"

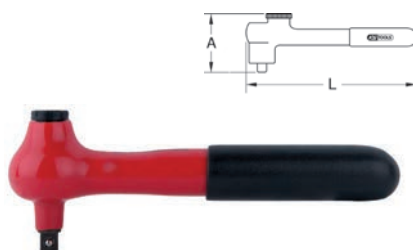
117.1889	11 pcs	Socket-set with insulated tools	1,75
1 x		3/8"	
1 x		3/8": 125 mm	
5 x		3/8": 8 - 10 - 13 - 17 - 19 mm	
4 x		3/8": 4 - 5 - 6 - 8 mm	



1/2" RANGE WITH PROTECTIVE INSULATION

Fixed torque wrench with protective insulation

- Actuation accuracy: $\pm 4\%$ tolerance of the set scale 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
- Hexagon socket holder in accordance with DIN 3126 - E6,3
- Individually marked with serial number - unique product identification
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards

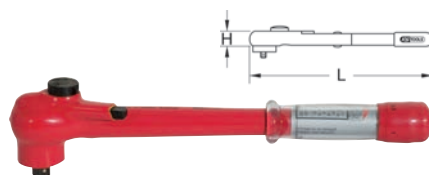


1/2"

117.1001	1/2"	N-m	A mm	L mm	1000V	700
		5-35	78,0	250,0		

Torque wrench with protective insulation and reversible ratchet head

- Insulated handle to IEC 60900
- For working environment of voltages AC 1000 V and DC 1500 V
- Release accuracy: $\pm 4\%$ tolerance from 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 Nm divisions for precise adjustment
- Large vision panel for precise adjustment
- An audible and palpable signal when the desired torque value is achieved
- 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
- including calibration declaration of conformity according to DIN EN ISO 6789:2017(E) - traceable to national standards

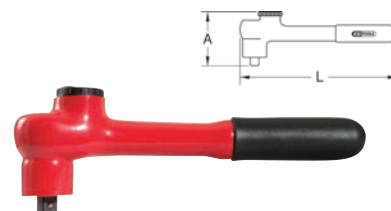


1/2"

117.1301	117.1300	117.1302	117.1303
1/2"	1/2"	1/2"	1/2"
2-27	5-50	20-100	40-220
61,0	61,0	61,0	61,0
280,0	370,0	460,0	530,0
0,93	1,10	1,20	1,30

Reversible ratchet with protective insulation

- 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

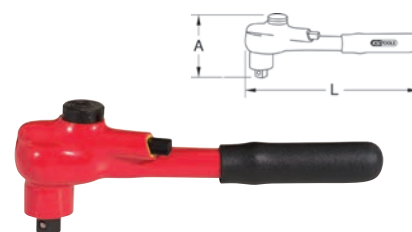


1/2"

117.1201	1/2"	A mm	L mm	1000V	700
		90,0	245,0		

Reversible ratchet with protective insulation

- 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"

117.1200	1/2"	A mm	L mm	1000V	750
		88,0	245,0		

Extension with protective insulation

- 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"

117.2302	117.1251	117.1252
1/2"	1/2"	1/2"
75,0	125,0	250,0
88	212	395



Extension with protective insulation and screw locking

- In accordance to DIN 7434
- Insulated handle to IEC 60900
- Square drive adaptor to DIN 3120 / ISO 1174 with ball lock
- 250mm with screw locking on the outside square
- 125mm with screw locking also from closed hexagon socket, Torx, XZN Sockets from below through the inside square of the extension
- Chrome vanadium



1/2"

	mm	L mm	⚡	U
117.1202	1/2"	125,0	1000V	211
117.1203	1/2"	250,0	1000V	406

Extension with protective insulation

- 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

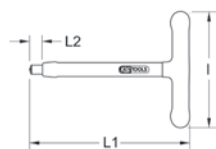


1/2"

	mm	L mm	⚡	U
117.1229	1/2"	125,0	1000V	198
117.1231	1/2"	250,0	1000V	374

T-handle socket wrench with protective insulation and screw lock

- 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"

	mm	L1 mm	L2 mm	L mm	⚡	U
117.1205	1/2"	165,0	200,0	15,0	1000V	490

socket with protective insulation

- 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	⚡	U
117.1208	8	26,0	17,0	55,0	1000V	65
117.1209	9	26,0	19,0	55,0	1000V	65
117.1210	10	26,0	20,0	55,0	1000V	70
117.1211	11	26,0	21,0	55,0	1000V	75
117.1212	12	26,0	22,0	55,0	1000V	75
117.1213	13	26,0	23,5	55,0	1000V	75
117.1214	14	26,0	25,0	55,0	1000V	80
117.1215	15	26,0	26,0	55,0	1000V	80
117.1216	16	26,0	26,5	55,0	1000V	85
117.1217	17	26,0	28,5	55,0	1000V	90
117.1218	18	26,0	31,0	55,0	1000V	85
117.1219	19	26,0	31,5	55,0	1000V	100
117.1220	20	26,0	33,0	55,0	1000V	100
117.1221	21	26,0	34,5	55,0	1000V	120
117.1222	22	26,0	35,0	55,0	1000V	120
117.1223	23	26,0	36,0	55,0	1000V	125
117.1224	24	26,0	37,0	55,0	1000V	140
117.1226	26	26,0	39,0	61,0	1000V	175
117.1227	27	26,0	41,0	61,0	1000V	195
117.1228	28	26,0	44,0	61,0	1000V	190
117.1230	30	26,0	46,0	61,0	1000V	230
117.1232	32	26,0	49,5	61,0	1000V	280

Socket with protective insulation, 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	⚡	U
117.1333	8	26,0	19,0	94,0	1000V	105
117.1334	10	26,0	21,0	94,0	1000V	110
117.1335	11	26,0	21,0	94,0	1000V	130
117.1336	12	26,0	22,0	94,0	1000V	145
117.1337	13	26,0	23,5	94,0	1000V	145
117.1338	14	26,0	25,5	94,0	1000V	145
117.1339	15	26,0	27,0	94,0	1000V	145
117.1340	16	26,0	28,0	94,0	1000V	160
117.1341	17	26,0	29,0	94,0	1000V	180
117.1342	18	26,0	30,0	94,0	1000V	190
117.1343	19	26,0	30,5	94,0	1000V	210
117.1344	21	26,0	35,0	94,0	1000V	215
117.1345	22	26,0	35,5	94,0	1000V	230

	mm	D1 mm	D2 mm	L mm	⚡	U
117.1346	23	26,0	36,0	94,0	1000V	235
117.1347	24	26,0	39,0	94,0	1000V	250
117.1348	27	26,0	42,0	94,0	1000V	390
117.1349	30	26,0	46,5	94,0	1000V	420
117.1350	32	26,0	48,5	94,0	1000V	460

Socket with protective insulation, extra 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	⚡	U
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

Socket with protective insulation, extra 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



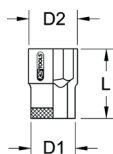
1/2"

	mm	D1 mm	D2 mm	L mm	⚡	U
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



Socket with protective insulation, imperial

- 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

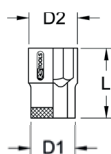


1/2"

		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

Torx E socket with protective insulation

- Torx E
- Insulated handle to IEC 60900
- Internal square drive to DIN 3120 / ISO 1174 with ball reception
- For manual operation
- Chrome vanadium

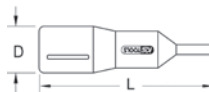


1/2"

		D1 mm	D2 mm	L mm	⚡	⚙
117.2353	E10	23,0	17,0	55,0	1000V	70
117.2354	E11	23,0	20,0	55,0	1000V	70
117.2355	E12	23,0	20,0	55,0	1000V	75
117.2356	E14	23,0	21,0	55,0	1000V	80
117.2357	E16	23,0	24,0	55,0	1000V	85
117.2358	E18	23,0	26,0	55,0	1000V	88
117.2359	E20	23,0	28,0	55,0	1000V	90
117.2361	E22	23,0	29,0	55,0	1000V	100
117.2362	E24	23,0	32,0	55,0	1000V	100

Bit socket with protective insulation for hexagon socket screws

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

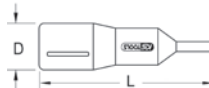


1/2"

	mm	D mm	L mm	⚡	⚙
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

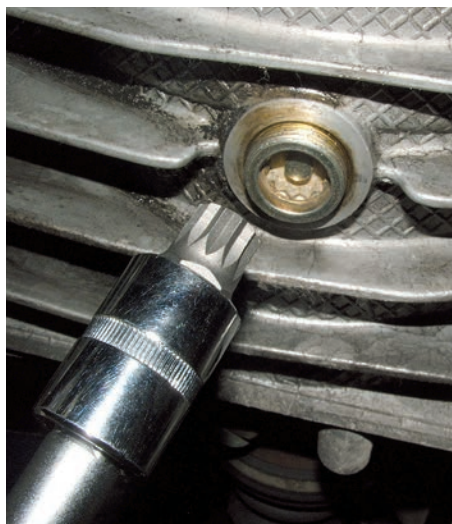
Bit socket with protective insulation for hexagon socket screws, long

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



1/2"

	mm	D mm	L mm	⚡	⚙
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



Bit socket with protective insulation for hexagon socket screws, extra long

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



1/2"

	mm	D mm	L mm	⚡	⚙
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

Bit socket with protective insulation for Torx screws, short

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



1/2"

		D mm	L mm	⚡	⚙
117.2434	T20	25,0	75,0	1000V	70
117.2435	T25	25,0	75,0	1000V	75
117.2436	T27	25,0	75,0	1000V	77
117.2437	T30	25,0	75,0	1000V	78
117.2438	T40	25,0	75,0	1000V	80
117.2439	T45	25,0	75,0	1000V	84
117.2441	T50	25,0	75,0	1000V	90
117.2442	T55	25,0	75,0	1000V	94
117.2443	T60	25,0	75,0	1000V	98

Bit socket with protective insulation for Torx screws, long

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

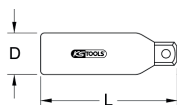


1/2"

		D mm	L mm	⚡	⚙
117.2444	T20	25,0	100,0	1000V	88
117.2445	T25	25,0	100,0	1000V	92
117.2446	T27	25,0	100,0	1000V	94
117.2447	T30	25,0	100,0	1000V	95
117.2448	T40	25,0	100,0	1000V	98
117.2449	T45	25,0	100,0	1000V	100
117.2451	T50	25,0	100,0	1000V	100
117.2452	T55	25,0	100,0	1000V	106
117.2453	T60	25,0	100,0	1000V	114

Reducing adaptor with protective insulation

- 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



1/2" 3/8"

			D mm	L mm	⚡ 1000V	⚙️
117.1285	1/2"	3/8"	20,0	75,0	⚡ 1000V	220

1/2" SETS WITH PROTECTIVE INSULATION

Socket-set with insulated tools

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



1/2"

			⚙️
117.1883	15 pcs	Socket-set with insulated tools	3,99
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	

Socket-set with insulated tools

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



1/2"

			⚙️
117.0600	9 pcs	Socket-set with insulated tools	2,07
1 x		270 mm	
7 x		10 - 13 - 14 - 16 - 17 - 19 - 21 mm	
1 x		125 mm	

Socket-set with insulated tools

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



1/2"

			⚙️
117.1860	16 pcs	Socket-set with insulated tools	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" RANGE WITH PROTECTIVE INSULATION

Reversible ratchet with protective insulation

- 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

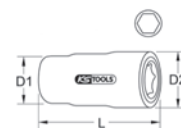


3/4"

		A mm	L mm	⚡ 1000V	⚙️
117.1187	3/4"	111,5	500,0	⚡ 1000V	2,00

socket with protective insulation

- 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



3/4"

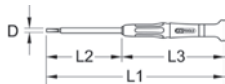
	⚙️ mm	D1 mm	D2 mm	L mm	⚡ 1000V	⚙️
117.3930	19	38,0	26,0	68,0	⚡ 1000V	200
117.3931	21	38,0	39,0	68,0	⚡ 1000V	210
117.3932	22	38,0	40,0	70,0	⚡ 1000V	230
117.3933	24	38,0	43,0	70,0	⚡ 1000V	230
117.3934	26	38,0	45,0	72,0	⚡ 1000V	240
117.3935	27	38,0	47,0	72,0	⚡ 1000V	270
117.3936	28	38,0	48,0	72,0	⚡ 1000V	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 WITH PROTECTIVE INSULATION

Precision screwdriver with protective insulation for slotted screws

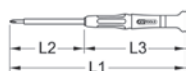
- Slotted
- Insulated to IEC 60900
- Twist end cap
- Colour coding
- Hardened blade
- Burnished tip
- Blades made from special steel



	D mm	L1 mm	L2 mm	L3 mm	⚡	U
500.6138	1,5	132,0	40,0	92,0	1000V	16
500.6139	1,8	132,0	40,0	92,0	1000V	16
500.6140	2,0	132,0	40,0	92,0	1000V	16
500.6141	2,5	152,0	60,0	92,0	1000V	18
500.6142	3,0	152,0	60,0	92,0	1000V	21
500.6143	3,5	152,0	60,0	92,0	1000V	21

Precision screwdriver with protective insulation for Phillips screws PH

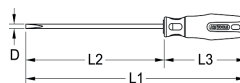
- PH
- Insulated to IEC 60900
- Twist end cap
- Color coding
- Hardened blade
- Burnished tip
- Blades made from special steel



		L1 mm	L2 mm	L3 mm	⚡	U
500.6136	PH 00	132,0	40,0	92,0	1000V	16
500.6137	PH 0	152,0	60,0	92,0	1000V	16
500.6144	PH 1	152,0	60,0	92,0	1000V	21

ERGOTORQUE® VDE screwdriver for slotted screws

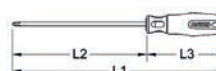
- Slotted
- In accordance to DIN 5264 / DIN ISO 2380
- Insulated to IEC 60900
- Two component handle
- Burnished
- S2 special steel



	D mm	L1 mm	L2 mm	L3 mm	⚡	U
117.0541	2	140,0	60,0	80,0	1000V	30
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
117.0542	4,5	230,0	125,0	105,0	1000V	92
117.0543	4,5	290,0	175,0	115,0	1000V	164
117.0544	4,5	315,0	200,0	115,0	1000V	230
117.0512	5,5	230,0	125,0	105,0	1000V	92
117.0545	5,5	290,0	175,0	115,0	1000V	164
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

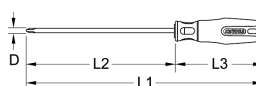
- PH
- In accordance to DIN 7438 / DIN ISO 8764
- Insulated to IEC 60900
- Two component handle
- Burnished
- S2 special steel



		L1 mm	L2 mm	L3 mm	⚡	U
117.0522	PH 0	140,0	60,0	80,0	1000V	32
117.0524	PH 1	185,0	80,0	105,0	1000V	38
117.1521	PH 1	265,0	150,0	115,0	1000V	152
117.0526	PH 2	205,0	100,0	105,0	1000V	95
117.1523	PH 2	315,0	200,0	115,0	1000V	230
117.0528	PH 3	265,0	150,0	115,0	1000V	152
117.1526	PH 4	315,0	200,0	115,0	1000V	230

ERGOTORQUE® VDE screwdriver for pozidriv screws PZ

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



		L1 mm	L2 mm	L3 mm	⚡	U
117.0532	PZ 0	140,0	60,0	80,0	1000V	32
117.0534	PZ 1	185,0	80,0	105,0	1000V	38
117.1533	PZ 1	265,0	150,0	115,0	1000V	152
117.0536	PZ 2	205,0	100,0	105,0	1000V	95
117.1534	PZ 2	315,0	200,0	115,0	1000V	230
117.0538	PZ 3	265,0	150,0	115,0	1000V	152
117.1535	PZ 4	315,0	200,0	115,0	1000V	230

Hexagon socket screwdriver with protective insulation

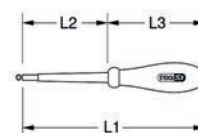
- Hexagon socket
- In accordance to DIN 7439
- Insulated to IEC 60900
- Burnished
- Chrome vanadium



	mm	L1 mm	L2 mm	L3 mm	⚡	U
117.1631	1,5	156,0	75,0	81,0	1000V	16
117.1632	2,0	156,0	75,0	81,0	1000V	18
117.1633	2,5	181,0	100,0	81,0	1000V	34
117.1634	3,0	181,0	100,0	81,0	1000V	36
117.1635	4,0	231,0	125,0	106,0	1000V	43
117.1636	5,0	256,0	150,0	106,0	1000V	67
117.1637	6,0	291,0	175,0	116,0	1000V	83
117.1638	8,0	316,0	200,0	116,0	1000V	116

Insulated screwdriver for internal Torx screws

- Torx
- Insulated to IEC 60900
- Burnished
- Special tool steel



		L1 mm	L2 mm	L3 mm	⚡	U
117.2235	T5	140,0	60,0	80,0	1000V	32
117.2236	T6	140,0	60,0	80,0	1000V	33
117.2237	T7	140,0	60,0	80,0	1000V	33
117.2238	T8	140,0	60,0	80,0	1000V	35
117.2239	T9	140,0	60,0	80,0	1000V	36
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	230,0	125,0	105,0	1000V	86
117.0556	T30	205,0	115,0	90,0	1000V	93
117.0557	T40	290,0	175,0	115,0	1000V	155
117.0558	T45	290,0	175,0	115,0	1000V	163

ERGOTORQUE VDE Screwdriver for square socket screws

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

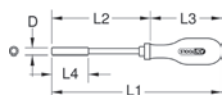


		L1 mm	L2 mm	L3 mm	⚡	U
117.0591	#1	160,0	80,0	80,0	1000V	27
117.0592	#1	255,0	150,0	105,0	1000V	92
117.0593	#2	180,0	100,0	80,0	1000V	41
117.0594	#2	315,0	200,0	115,0	1000V	230
117.0595	#3	265,0	150,0	115,0	1000V	115



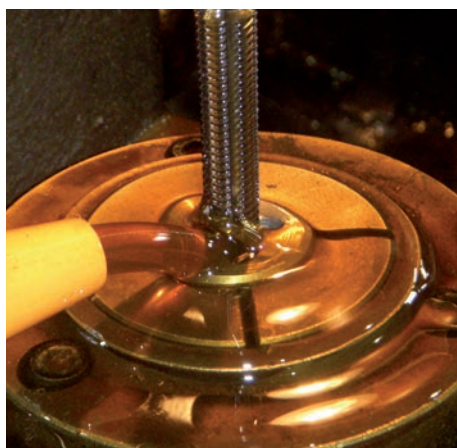
Bit screwdriver with protective insulation and magazine

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



1/4"

		D mm	L1 mm	L2 mm	L3 mm	L4 mm	⚡ V	🔩 mm
117.1625	1/4"	12,5	230,0	120,0	110,0	50,0	1000V	170



SCREWDRIVER SETS WITH PROTECTIVE INSULATION

Precision screwdriver set with protective insulation

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



			🔩 mm
500.6165	7 pcs	Precision screwdriver set with protective insulation	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
- S2 special steel



			🔩 mm
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
- Special tool steel



			🔩 mm
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	

KEY WRENCHES WITH PROTECTIVE INSULATION

T-handle socket wrench with protective insulation

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



		D mm	L mm	I mm	⚡ V	🔩 mm
117.1743	1/4"	14,0	120,0	110,0	1000V	166
117.1744	1/4"	14,0	160,0	110,0	1000V	242
117.1745	1/4"	14,0	250,0	165,0	1000V	310

Allen key with protective insulation

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



		L1 mm	L2 mm	⚡ V	🔩 mm
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

Allen key with protective insulation

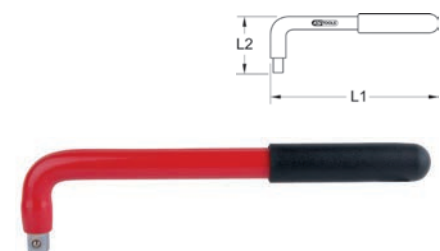
- Hexagon socket
- In accordance to DIN 7439
- Insulated handle to IEC 60900
- Specially for cable branch clamp ring
- Matt chrome
- Chrome vanadium



		L1 mm	L2 mm	⚡ V	🔩 mm
117.2484	1/8"	105,0	34,0	1000V	20
117.2485	5/32"	105,0	38,0	1000V	22
117.2486	3/16"	135,0	41,0	1000V	35
117.2487	7/32"	140,0	46,0	1000V	50
117.2488	1/4"	140,0	47,0	1000V	65
117.2489	5/16"	150,0	51,0	1000V	100
117.2491	3/8"	240,0	56,0	1000V	230
117.2492	1/2"	245,0	59,0	1000V	350

Angle socket wrench with protective insulation

- 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

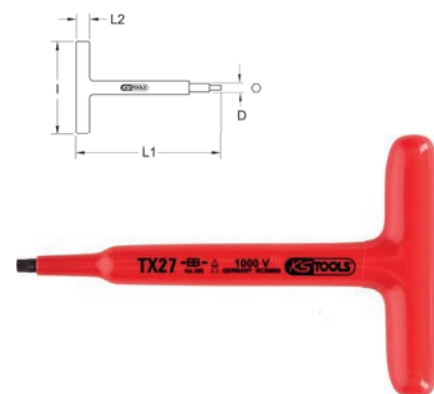


1/2"

		L1 mm	L2 mm	⚡	U
117.1403	1/2"	280,0	70,0	1000V	470

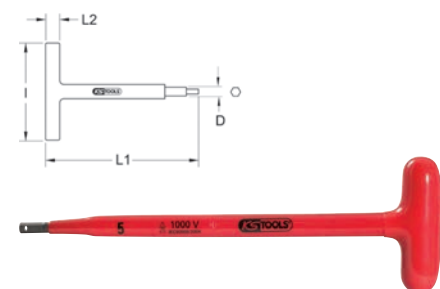
T-Handle Torx L-key with protective insulation

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



T-handle Allen key with protective insulation

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



	mm	I mm	D mm	L1 mm	L2 mm	⚡	U
117.1671	3	65,0	5,0	120,0	17,5	1000V	80
117.1673	4	65,0	10,0	120,0	19,0	1000V	85
117.1674	4	104,0	15,0	160,0	22,0	1000V	145
117.1675	4	64,0	10,0	200,0	18,0	1000V	150
117.1676	4	94,0	13,0	250,0	19,0	1000V	168
117.1677	5	65,0	11,0	120,0	20,0	1000V	85
117.1678	5	105,0	15,0	160,0	21,0	1000V	250
117.1679	5	65,0	10,0	200,0	18,0	1000V	150
117.1681	5	105,0	15,0	250,0	20,0	1000V	168
117.1682	6	90,0	11,0	120,0	20,0	1000V	110
117.1683	6	105,0	15,0	160,0	21,0	1000V	250
117.1684	6	65,0	11,0	200,0	19,0	1000V	150
117.1742	6	105,0	8,0	250,0	20,0	1000V	307
117.1685	8	105,0	15,0	160,0	21,0	1000V	260
117.1686	8	160,0	13,0	200,0	22,0	1000V	325
117.1687	8	100,0	17,0	250,0	22,0	1000V	360
117.1688	10	160,0	15,0	200,0	20,0	1000V	390
117.1689	10	160,0	15,0	250,0	20,0	1000V	420
117.1691	10	160,0	15,0	300,0	20,0	1000V	450
117.1692	11	160,0	15,0	200,0	20,0	1000V	400
117.1693	12	160,0	16,0	200,0	20,0	1000V	420
117.1694	13	160,0	16,0	200,0	21,0	1000V	450
117.1695	14	160,0	17,0	200,0	21,0	1000V	490
117.1696	17	160,0	20,0	200,0	21,0	1000V	640



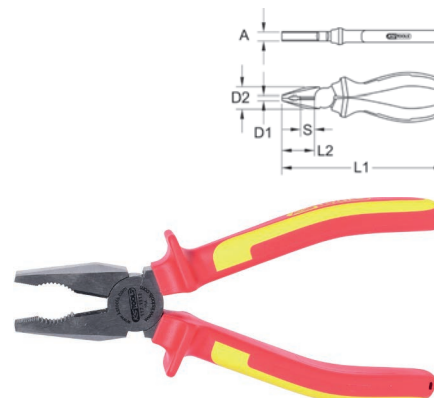
		I mm	D mm	L1 mm	L2 mm	⚡	U
117.2412	T10	63,0	4,0	120,0	13,0	1000V	85
117.2413	T15	63,0	4,0	120,0	13,0	1000V	90
117.2414	T20	103,0	5,0	120,0	13,0	1000V	90
117.2415	T25	103,0	5,0	160,0	15,0	1000V	135
117.2416	T27	103,0	6,0	160,0	15,0	1000V	150
117.2417	T30	103,0	6,0	160,0	15,0	1000V	160
117.2418	T40	103,0	7,0	200,0	15,0	1000V	210
117.2419	T45	103,0	7,0	200,0	15,0	1000V	330
117.2421	T50	103,0	8,0	200,0	15,0	1000V	410



PLIERS WITH PROTECTIVE INSULATION

ERGOTORQUE® VDE combination pliers

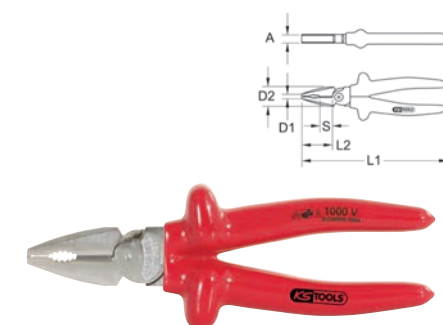
- In accordance to DIN ISO 5748
- Wrap around insulation to IEC 60900
- Two component handle
- Suitable for wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1111	10,0	6,0	24,0	170,0	35,0	2,4	1000V	310
117.1112	11,0	7,0	27,0	185,0	38,5	2,5	1000V	380
117.1113	12,0	7,0	30,0	210,0	42,5	3,0	1000V	400

1000V high leverage combination pliers

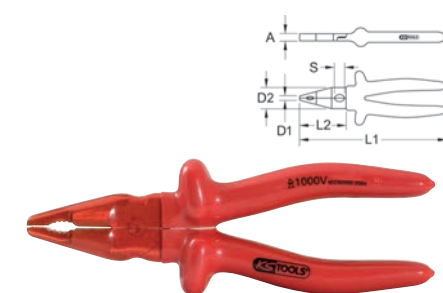
- In accordance to DIN ISO 5746
- Insulated handle to IEC 60900
- Also suitable for hard wire
- Extra heavy execution
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
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

1000V combination pliers

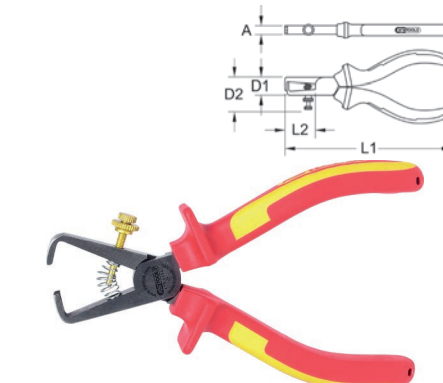
- In accordance to DIN ISO 5244
- Insulated handle to IEC 60900
- With coated working head
- Also suitable for hard wire
- Extra heavy execution
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
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

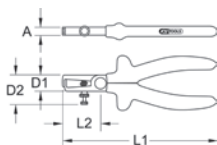
- In accordance to DIN ISO 5232
- Wrap around insulation to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	U
117.1114	10,0	17,5	31,5	160,0	36,0	210	1000V

1000V wire strippers

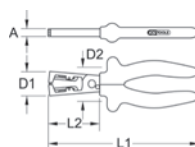
- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1271	9,5	18,5	31,5	160,0	44,0		180

1000V wire strippers

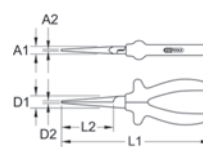
- Insulated handle to IEC 60900
- Multifunctional wire strippers
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm²
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1225	10,0	24,0	40,0	185,0	61,0		260

1000V drawing pliers

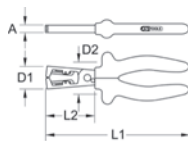
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- With flat and smooth gripping jaws
- Rounded edges
- Matt chrome
- Special tool steel



	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

1000V wire strippers

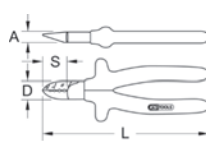
- Insulated handle to IEC 60900
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm²
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	Replacement knives	
117.1272	10,5	28,5	47,5	160,0	20,0	117.1258	220

1000V electrical side cutters

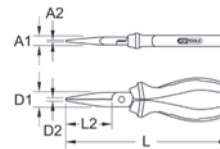
- Insulated handle to DIN / EN 60900
- For cutting, stripping and crimping
- Wire strippers for wires from 1,5 mm² + 2,5 mm²
- For crimping of insulated cable lugs with Ø 1,5 mm + 2,5 mm
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm		
117.1281	10,5	22,0	175,0	27,0		320

ERGOTORQUE® VDE flat pliers

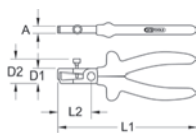
- In accordance to DIN ISO 5745
- Wrap around insulation to IEC 60900
- Two component handle
- Serrated execution
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1125	9,0	3,8	18,0	3,0	170,0	49,5		210

1000V wire strippers

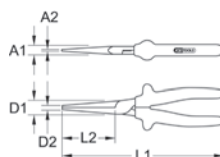
- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- With coated working head
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1713	11,0	18,5	20,0	160,0	34,0		180

1000V drawing pliers

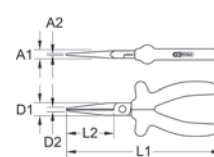
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With flat and smooth gripping jaws
- Rounded edges
- Matt chrome
- Special tool steel



	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

1000V flat pliers

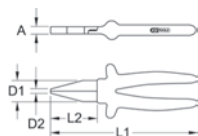
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With long jaws
- Serrated execution
- Matt chrome
- Special tool steel



	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

1000V flat pliers

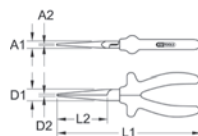
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- Short and powerful jaws
- Serrated execution
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1298	9,0	17,0	4,5	160,0	34,0		200

1000V long jaw flat pliers

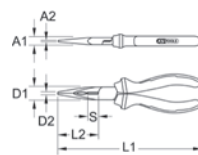
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- With long jaws
- Matt chrome
- Special tool steel



	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		130

ERGOTORQUE® VDE long nosed pliers

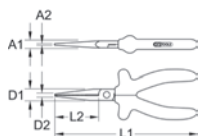
- In accordance to DIN ISO 5745
- Wrap around insulation to IEC 60900
- Two component handle
- Long jaws
- Suitable for medium and hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	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		177
117.1118	11,0	3,5	22,0	4,5	215,0	69,0	2,5		291

1000V flat pliers

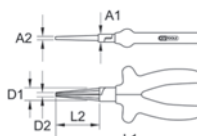
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Short and powerful jaws
- Serrated execution
- Matt chrome
- Special tool steel



	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

1000V long jaw round pliers

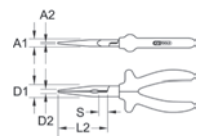
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With round and long jaws
- With smooth tips
- Serrated execution
- Matt chrome
- Special tool steel



	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		205

1000V long nosed pliers

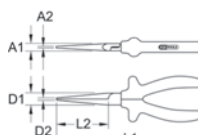
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- Long jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	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		230
117.1293	9,0	2,0	15,5	3,0	160,0	55,0		170

1000V long jaw flat pliers

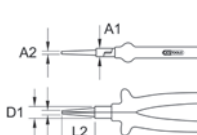
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With long jaws
- Matt chrome
- Special tool steel



	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		210

1000V round pliers

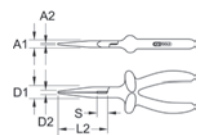
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With round, short and strong jaws
- With smooth tips
- Serrated execution
- Matt chrome
- Special tool steel



	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		180

1000V long nosed pliers

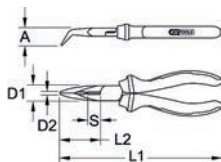
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Long jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	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		180
117.1718	10,5	3,5	18,0	5,0	200,0	74,0	14,0		230

ERGOTORQUE® VDE long nosed pliers, curved

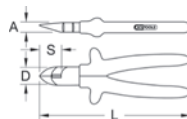
- In accordance to DIN ISO 5745
- Wrap around insulation to IEC 60900
- Two component handle
- Curved jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U	
117.1120	9,0	18,0	3,2	165,0	48,0	2,5	⚡	210	
117.1121	11,0	22,0	5,0	205,0	70,0	2,5	⚡	310	

1000V lead sealing pliers

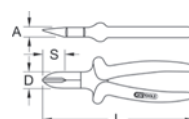
- Insulated handle to IEC 60900
- Combined with side cutter
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	U	
117.1268	10,0	20,0	160,0	15,0	⚡	1000V	220

1000V side cutters

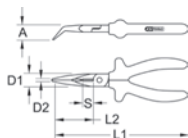
- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- Working head coated
- For soft and hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	U	
117.1721	26,0	25,5	160,0	22,0	⚡	1000V	230
117.1722	27,0	27,0	180,0	25,0	⚡	1000V	330

1000V long nosed pliers, curved

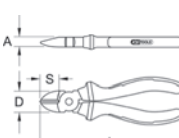
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- Curved jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U	
117.1292	9,5	17,0	4,0	200,0	78,0	14,0	⚡	210	
117.1294	9,5	15,5	4,0	160,0	51,0	11,0	⚡	1000V	170

ERGOTORQUE® VDE diagonal side cutters

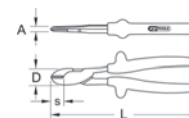
- In accordance to DIN ISO 5749
- Wrap around insulation to IEC 60900
- Two component handle
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	U	
117.1119	10,0	20,0	160,0	20,0	⚡	1000V	210

1000V high leverage side cutter

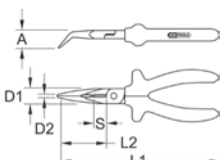
- In accordance to DIN ISO 5749
- Insulated handle to IEC 60900
- For all types of wire
- Especially for overhead line construction
- Lower power usage
- 40% power saving
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	U	
117.1234	12,0	28,5	200,0	25,0	⚡	1000V	380

1000V long nosed pliers, curved

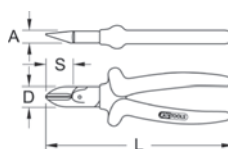
- In accordance to DIN ISO 5745
- Insulated handle to IEC 60900
- With coated working head
- Curved jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U	
117.1719	12,0	5,0	19,0	200,0	79,0	14,0	⚡	1000V	220

1000V side cutters

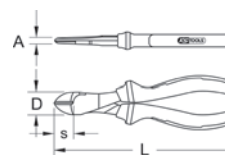
- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- For soft and hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	U	
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

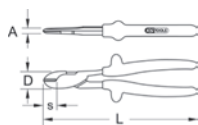
- In accordance to DIN ISO 5749
- Wrap around insulation to IEC 60900
- Two component handle
- For all types of wire
- Lower power usage
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	U	
117.1115	12,0	30,0	190,0	22,5	⚡	1000V	330
117.1116	12,5	30,0	205,0	22,5	⚡	1000V	370

1000V high leverage side cutter

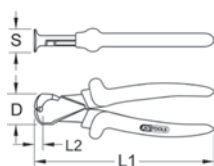
- In accordance to DIN ISO 5749
- Insulated handle to IEC 60900
- For all types of wire
- Especially for overhead line construction
- Lower power usage
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	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

1000V cutting pliers

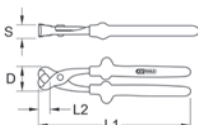
- In accordance to DIN ISO 5748
- Insulated handle to IEC 60900
- For soft and hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	D mm	L mm	L2 mm	S mm	⚡	⚙
117.1198	30,0	160,0	6,5	23,0	1000V	280

1000V rabbit pliers

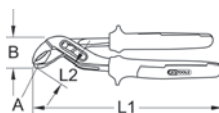
- Insulated handle to DIN / EN 60900
- For soft wire
- For the cutting and twisting of tie wire
- Induction-hardened precision cutting
- Phosphate finish
- Special tool steel



	D mm	L1 mm	L2 mm	S mm	⚡	⚙
117.1204	36,0	250,0	16,0	25,0	1000V	480

ERGOTORQUE® VDE water pump pliers

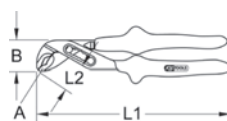
- In accordance to DIN ISO 8976
- Wrap around insulation to IEC 60900
- Two component handle
- Toothed gripping surfaces
- Substantial through joint
- Optimum power transfer
- With grooved adjustment
- With zip fastener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



	A mm	B mm	L1 mm	L2 mm	⚡	⚙
117.2000	33,0	42,0	240,0	32,0	1000V	420

1000V water pump pliers

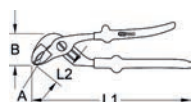
- In accordance to DIN ISO 8976
- Insulated handle to IEC 60900
- Toothed gripping surfaces
- Substantial through joint
- Optimum power transfer
- With grooved adjustment
- With zip fastener
- With inductively hardened handle areas
- Matt chrome
- Special tool steel



	A mm	B mm	L1 mm	L2 mm	⚡	⚙
117.1273	39,0	35,0	250,0	51,0	1000V	350
117.1274	65,0	47,0	300,0	65,0	1000V	690

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	⚡	⚙
117.1207	54,0	56,0	260,0	35,0	1000V	560

PLIERS WITH TOOL SAFETY MECHANISM & PROTECTIVE INSULATION

1000V power combination pliers with safety eyelet for safety line

- In accordance to DIN ISO 5746
- Integrated safety eyelet for safety line
- Insulated handle to IEC 60900
- Also suitable for hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	⚙
117.2201	11,5	8,0	28,0	205,0	43,0	18,0	1000V	400

1000V Wire Stripper with safety line safety eyelet

- In accordance to DIN ISO 5232
- Integrated safety eyelet for safety line
- Insulated handle to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,5 - 5,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	⚙
117.2202	9,5	18,5	31,5	160,0	44,0	19,0	1000V	190

1000V Diagonal cutter with safety eyelet for safety rope

- In accordance to DIN ISO 5232
- Integrated safety eyelet for safety line
- Insulated handle to IEC 60900
- For soft and hard wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	⚙
117.2204	11,0	21,5	160,0	24,0	1000V	270

1000V flat nose pliers with safety eyelet for safety line

- In accordance to DIN ISO 5745
- Integrated safety eyelet for safety line
- Insulated handle to IEC 60900
- Long jaws
- For soft and medium wire
- Induction-hardened precision cutting
- Matt chrome
- Special tool steel



	A1 mm	A2 mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	⚙
117.2203	9,5	2,5	16,0	4,0	200,0	74,0	1000V	230

1000V Single hand cable cutter with safety eyelet for safety line

- integrated safety eyelet for safety line
- 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	⚡ 1000V	🔒
117.2206	22,0	18,0	31,0	215,0	32,0		360

1000V water pump pliers with safety eyelet for safety line

- In accordance to DIN ISO 8976
- integrated safety eyelet for safety line
- 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	🔒
117.2205	39,0	35,0	240,0	51,0		390

lifeline

- for attaching to trousers and tools
- easy to fasten
- ideal for work at great heights
- Universal usage
- aluminium carabiner



	Length mm	🔒
117.2207	480 - 1500	50



PLIERS SETS WITH PROTECTIVE INSULATION

ERGOTORQUE® VDE pliers set

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



			🔒
117.1100	4 pcs	ERGOTORQUE® VDE pliers set	1,44
1 x		175 mm	
1 x		165 mm	
1 x		150 mm	
1 x		250 mm	

1000V pliers set

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



			🔒
117.1700	4 pcs	1000V pliers set	1,55
1 x		150 mm	
1 x		175 mm	
1 x		200 mm	
1 x		250 mm	



ERGOTORQUE® VDE pliers set

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



			🔒
117.1110	3 pcs	ERGOTORQUE® VDE pliers set	930
1 x		175 mm	
1 x		165 mm	
1 x		150 mm	

1000V pliers set

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



			🔒
117.1710	3 pcs	1000V pliers set	0,82
1 x		185 mm	
1 x		200 mm	
1 x		160 mm	

ERGOTORQUE® VDE pliers set

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



117.1160 4 pcs ERGOTORQUE® VDE pliers set 1,20			
1 x		200 mm	
1 x		160 mm	
1 x		180 mm	
1 x		160 mm	

1000V pliers set

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



117.1760 4 pcs 1000V pliers 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
- 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 pliers 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 pliers and screwdriver set 0,69			
1 x		200 mm	
1 x		160 mm	
2 x		4 - 5,5 mm	
1 x		PH2	

1000V electronic set

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



117.1104 9 pcs 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	

1000V pliers and screwdriver set

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










117.1875 10 pcs 1000V pliers 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 - 5,5 - 6,5 mm	
1 x		PH1	

1000V pliers set

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



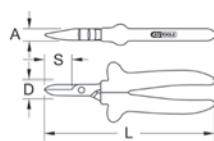
					
117.1873	6 pcs	1000V pliers set		2,50	
1 x		185 mm			
1 x		160 mm			
1 x		200 mm			
1 x		200 mm			
1 x		160 mm			
1 x		260 mm			



CABLE CUTTING

1000V electrical shear

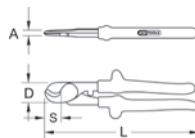
- Insulated handle to IEC 60900
- Only suitable for copper and aluminium wire
- For the cutting of thin wires and sheet metals
- Matt chrome
- Special tool steel



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

1000V cable shear

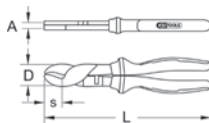
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm²
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm ²	A mm	D mm	L mm	S mm	1000V	238
117.4277	6,0	22,0	11,0	24,0	160,0	15,0	1000V	238
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

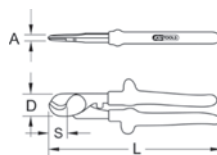
- Wrap around insulation to IEC 60900
- For lead cable up to max. Ø 50 mm²
- For squeeze free cutting of and on more wiry copper and aluminium cables
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Two component handle
- Special tool steel



	Ø mm	A mm	D mm	L mm	S mm	1000V	200
117.1122	10,0	10,8	24,5	165,0	15,0	1000V	200
117.1123	12,5	13,0	29,0	215,0	17,5	1000V	270
117.1124	15,0	13,5	45,0	245,0	31,0	1000V	550

1000V cable shear

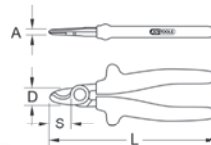
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm²
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



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

1000V single handed cable shear

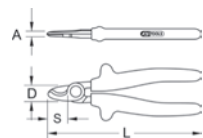
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- For lead cable up to max. Ø 50 mm²
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm ²	A mm	D mm	L mm	S mm	1000V	250
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	200,0	27,0	1000V	350

1000V single handed cable shear

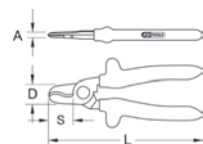
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Extremely versatile
- No bruising, slight shaping of the cable
- With precision screw joint
- Suitable for wire up to 16 mm²
- Suitable for multi strand wire up to 25 mm²
- Suitable for ultra wire up to 50 mm²
- Not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



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

1000V single handed cable shear

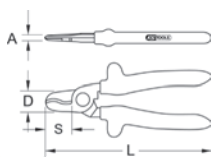
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With after adjustable screw joint
- With zip fastener
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel



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

1000V single handed cable shear

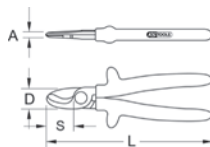
- Insulated handle to IEC 60900
- With coated working head
- For and on multi strand copper and aluminium cable
- With after adjustable screw joint
- With zip fastener
- Not suited for steel wire and hard pulled copper cables
- Phosphate finish
- Special tool steel



	Ø mm	Cutting ratio mm²	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

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	1000V	360

1000V two cut cable shear

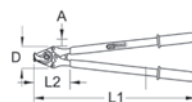
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Precision blade for easy and clean cut
- With before and after cut
- With after adjustable screw joint
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L mm	L2 mm	S mm	⚡	⚖
117.1270	20,0	50,0	13,5	33,0	200,0	83,0	48,0	1000V	365

Cable shears with protective insulation

- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminiums cables
- With interchangeable cutter head
- Knife head made out of special alloyed steel
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L1 mm	L2 mm	Replacement cutter 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 bag for cable shears with protective insulation

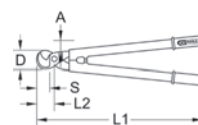
- From black synthetic leather
- For storage and protection of insulated cable shears



	L mm	B mm	⚖
117.1262	650,0	95 - 190	⇒ 117.1260 + 117.1261 241

Cable shears with protective insulation

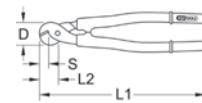
- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- Clean cut through new cutting edge geometry
- With after adjustable screw joint
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	A mm	D mm	L1 mm	L2 mm	S mm	⚡	⚖
117.1264	27,0	150,0	15,0	59,0	500,0	58,0	37,0	1000V	1,48

Cable shears with protective insulation

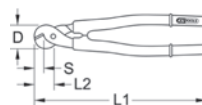
- Insulated handle to IEC 60900
- For bruise free cutting of copper and aluminium cables
- Clean cut through new cutting edge geometry
- With after adjustable screw joint
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Cutting ratio mm²	D mm	L1 mm	L2 mm	S mm	⚡	⚖
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

Wire rope cable shears with protective insulation

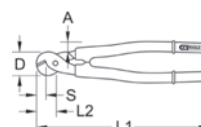
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Lower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



	Cutting edge steel mm²	Cutting edge wire mm²	D mm	L1 mm	L2 mm	S mm	⚡	⚖
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

Wire rope cable shears with protective insulation

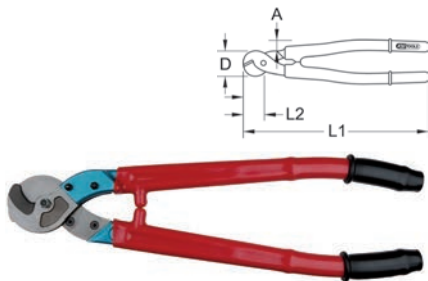
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Lower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



	Ø mm	Cutting ratio mm²	A mm	D mm	L1 mm	L2 mm	S mm	Replacement cutter head	⚡	⚖
117.1266	20,0	120,0	19,0	90,0	600,0	84,0	17,0	117.1267	1000V	1,80

Wire rope cable shears with protective insulation

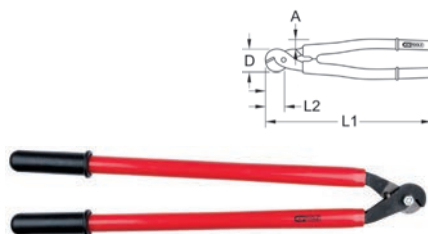
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Lower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



	D mm	Cutting ratio mm²	A mm	L1 mm	L2 mm	⚡	⚖
117.4280	35 - 50	500,0	30,0	800,0	80,0	1000V	3,90

Wire rope shears with protective insulation

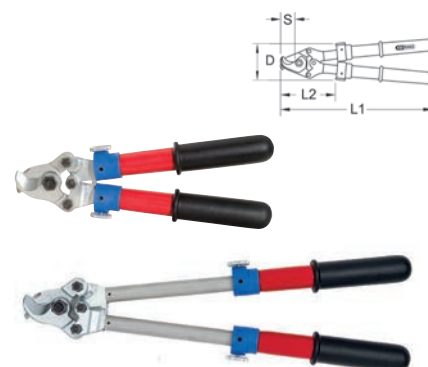
- Insulated handle to IEC 60900
- Above average cutting edge achieved
- For bruise free cutting for steel and aluminium rope, copper and aluminium cable
- Angular cutting edge tip for cutting single rope cords
- With interchangeable cutter head
- Cutter head made of high quality special steel
- Lower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



	Cutting edge mm	Cutting ratio mm²	D mm	A mm	L1 mm	L2 mm	⚡	⚖
117.1101	9,0	16,0	54,0	37,0	700,0	45,0	1000V	2,40

Cable shears with protective insulation, telescopic handle

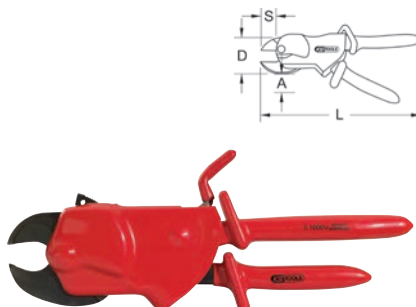
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With telescopic handle
- With interchangeable cutter head
- Lower power usage
- Not suited for steel wire and hard pulled copper cables
- Matt chrome
- Special tool steel



	Ø mm	Cutting ratio mm²	D mm	L1 mm	L2 mm	S mm	Replacement cutter head	⚡	⚖
117.1233	31,0	185,0	82,0	360-520	63,0	35,0	117.2234	1000V	2,00

One-hand ratchet cable shears with protective insulation

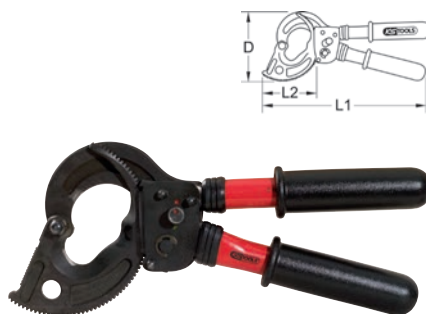
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- Working head coated
- Automatic reserve through spring return
- Cutting edge process can be interrupted in every position
- Matt chrome
- Special tool steel



	A mm	D mm	L mm	S mm	⚡	⚖
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

Ratchet cable shears with protective insulation

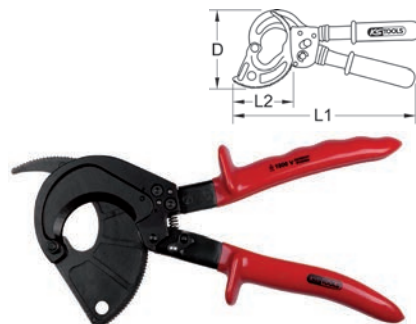
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With double supported eccentric drive
- Almost break proof gearing
- Thin cutting steel sheet casing
- Ratchet function
- Not suitable for hardened steel wire
- Phosphate finish
- Special tool steel



	Ø mm	Cutting ratio mm²	D mm	L1 mm	L2 mm	⚡	⚖
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

Ratchet cable shears with protective insulation

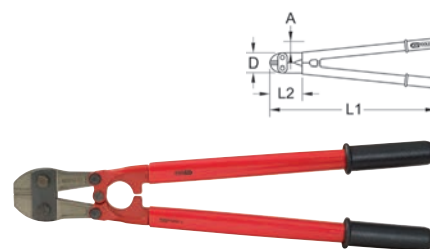
- Insulated handle to IEC 60900
- For and on multi strand copper and aluminium cable
- With double supported eccentric drive
- Almost break proof gearing
- Thin cutting steel sheet casing
- Ratchet function
- Not suitable for hardened steel wire
- Phosphate finish
- Special tool steel



	Ø mm	Ø mm	D mm	L1 mm	L2 mm	⚖
117.1102	52,0	25,0	135,0	310,0	110,0	0,92

Bolt cutter with protective insulation

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



	A mm	D mm	L1 mm	L2 mm	Replacement cutter head	⚡	⚖
117.1256	8,0	79,0	610,0	115,0	117.1257	1000V	2,70



ELECTRICIAN'S KNIVES

Cable knife with protective insulation

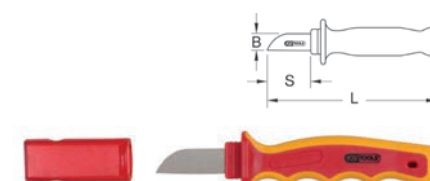
- Insulated to IEC 60900
- With durable and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚖
117.1295	18,5	50,0	210,0	1000V	105

Cable knife with protective insulation

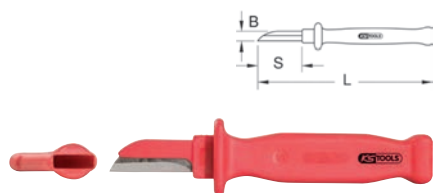
- Insulated to IEC 60900
- Two component handle
- With durable and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚖
117.1397	16,7	53,0	205,0	1000V	90

Cable knife with protective insulation

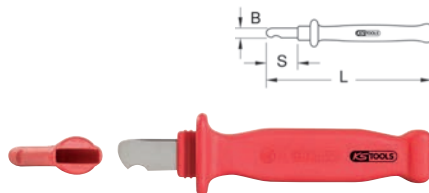
- Insulated to IEC 60900
- With durable, part insulated and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1390	18,5	50,0	210,0		115

Dismantling knife with protective insulation

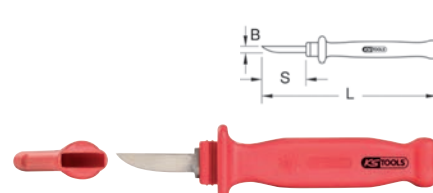
- Insulated to IEC 60900
- With durable and straight blade
- Hook shaped cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1391	19,0	35,0	182,0		95

Gutta percha knife with protective insulation

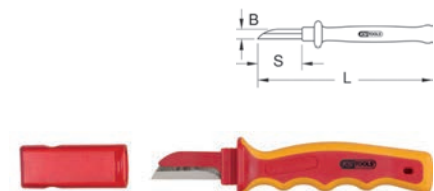
- Insulated to IEC 60900
- With durable blade
- Arched cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1393	12,0	50,0	200,0		95

Cable knife with protective insulation

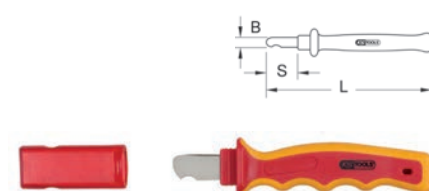
- Insulated to IEC 60900
- Two component handle
- With durable, part insulated and straight blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1304	20,3	53,0	205,0		99

Dismantling knife with protective insulation

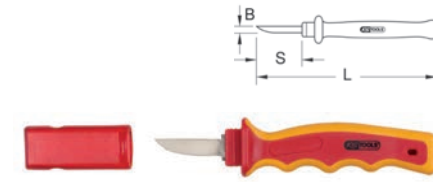
- Insulated to IEC 60900
- Two component handle
- With durable and straight blade
- Hook shaped cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1305	19,0	35,0	185,0		92

Gutta percha knife with protective insulation

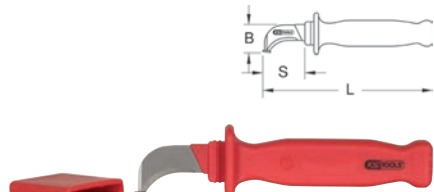
- Insulated to IEC 60900
- Two component handle
- With durable blade
- Arched cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1326	12,0	50,0	250,0		85

Cable knife with protective insulation and hook blade

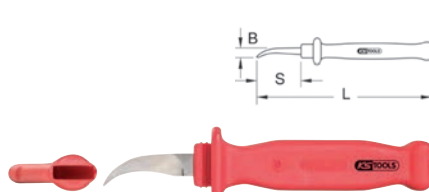
- Insulated to IEC 60900
- With durable blade
- Hook shaped cutting edge
- For slitting and stripping cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1296	28,0	40,0	200,0		100

Paper section knives with protective insulation

- 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		
117.1392	19,0	50,0	205,0		90

Settling knife with protective insulation

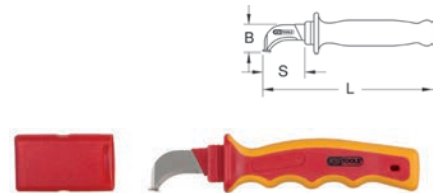
- Insulated to IEC 60900
- With durable blade
- Hook shaped and part isolated cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1394	21,0	35,0	165,0		75

Cable knife with protective insulation and hook blade

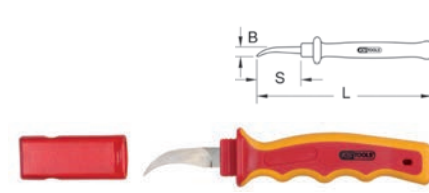
- Insulated to IEC 60900
- Two component handle
- With durable blade
- Hook shaped cutting edge
- For slitting and stripping cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1331	30,0	47,0	200,0		92

Paper section knives with protective insulation

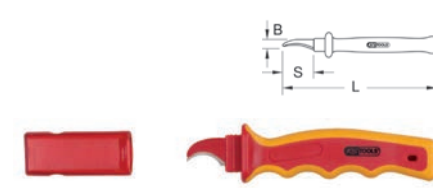
- Insulated to IEC 60900
- Two component handle
- With durable blade
- Hook shaped cutting edge
- Suitable for sector cable
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1320	17,0	56,0	210,0		83

Settling knife with protective insulation

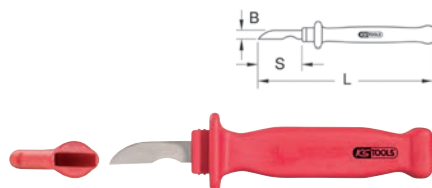
- Insulated to IEC 60900
- Two component handle
- With durable blade
- Hook shaped and part isolated cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm		
117.1328	21,2	30,0	180,0		87

Cable stripping blades with protective insulation

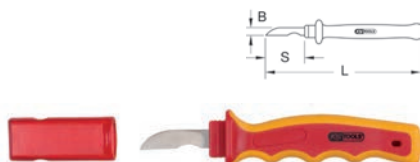
- Insulated to IEC 60900
- With durable blade
- Short and bent cutting edge for fine cable working
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1395	13,0	45,0	195,0	1000V	95

Cable stripping blades with protective insulation

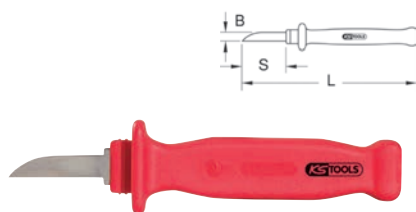
- Insulated to IEC 60900
- Two component handle
- With durable blade
- Short and bent cutting edge for fine cable working
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1329	13,0	45,0	200,0	1000V	83

Cable stripping blades with protective insulation

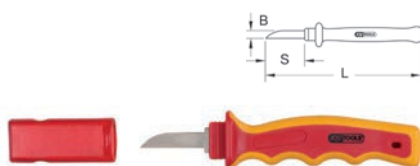
- Insulated to IEC 60900
- With durable blade
- Narrow and straight cutting edge
- Safety handle made out of tough elastic and impact resistant plastic
- With safety cover



	B mm	S mm	L mm	⚡	⚙️
117.1396	11,0	50,0	200,0	1000V	95

Cable stripping blades with protective insulation

- Insulated to IEC 60900
- 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	⚡	⚙️
117.1360	11,0	50,0	200,0	1000V	86

Cable sheath cutter with protective insulation

- Insulated 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	⚡	⚙️
117.3901	240,0	> 25,0	117.3902	1000V	250

Cable knife with protective insulation and replaceable blade

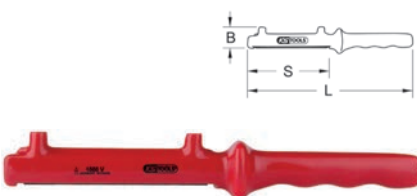
- Insulated to IEC 60900
- With durable, partially insulated and replaceable blade
- Straight blade
- Safety handle made out of tough elastic and impact resistant plastic
- With built-in protective cap






	B mm	S mm	L mm	⚡	Replacement blades	⚙️
117.1148	21,5	45,0	189,0	1000V	117.1149	67

Cable sheath saw with protective insulation

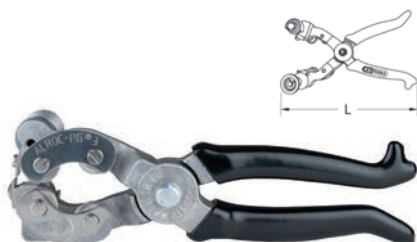
- Insulated handle to IEC 60900
- Extremely versatile
- Adjustable and replaceable saw blade



	B mm	L mm	S mm			
117.4273	40.0	330.0	175.0	117.4274		570

Insulation stripping pliers

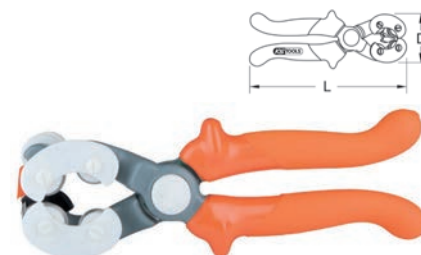
- For cutting and stripping the cable sheath
- Limited cutting depth
- No damage to internal conductor



	Ø mm	D mm	L mm	⚙️
117.1370	25-52	140,0	300,0	670
117.1366	45-75	150,0	300,0	878

Dismantling pliers with protective insulation

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

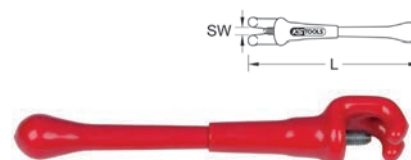


	Ø mm	D mm	L mm	⚡	⚙️
117.1365	25-52	140,0	300,0	1000V	690

COUNTERHOLDER WITH PROTECTIVE INSULATION

Counterholder with protective insulation

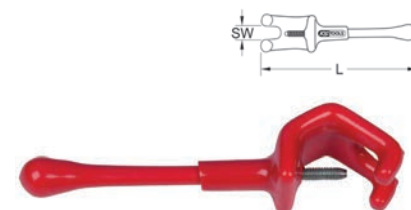
- Insulated handle to IEC 60900
- For better handling of screw connectors during assembly of sleeves
- Infinitely variable
- Can also be used for streetlights
- For screw connections of 0 - 15 mm



	SW mm	L mm	⚡	⚙️
117.1168	0-15	240,0	1000V	280

Counterholder with protective insulation

- 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

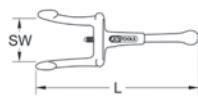


	SW mm	L mm	⚡	⚙️
117.1169	15-40	220,0	1000V	380



Counterholder with protective insulation

- 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	⚡	U
117.1183	25-50	300,0	1000V	610

Counterholder with protective insulation

- 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	⚡	U
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 WITH PROTECTIVE INSULATION

Aligning tool

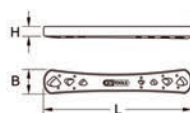
- For sector-shaped conductors
- Made from impact resistant plastic
- For aligning 3- or 4-wire sector-shaped conductors



	Conductor	L mm	B mm	⚡	U
117.3915	95-150	80,0	35,0	1000V	69
117.3916	185-240	80,0	43,0	1000V	113

Aligning tool

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



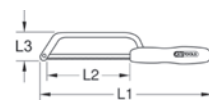
3/8"

	L mm	B mm	H mm	⚡	U
117.1223	248,0	40,0	15,0	1000V	132

SAWS WITH PROTECTIVE INSULATION

Hacksaw with protective insulation

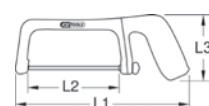
- Insulated handle to IEC 60900
- Frame out of reinforced flat iron 10 x 5 mm
- With insulated handle for tensioning the saw blade



	L1 mm	L2 mm	L3 mm	⚡	U
117.1321	280,0	150,0	80,0	997.1216	225

Hacksaw with protective insulation

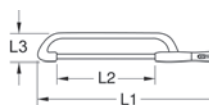
- Insulated handle to IEC 60900
- With plastic screw for tensioning the saw blade



	L1 mm	L2 mm	L3 mm	⚡	U
117.1265	265,0	145,0	100,0	997.1216	180

Hacksaw with protective insulation, heavy-duty version

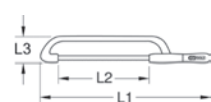
- Insulated handle to IEC 60900
- Frame out of reinforced flat iron 10 x 5 mm
- Heavy execution
- With insulated handle for tensioning the saw blade



	L1 mm	L2 mm	L3 mm	⚡	U
117.1323	520,0	330,0	130,0	129.6620-24	770

Hacksaw with protective insulation

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

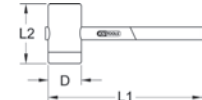


	L1 mm	L2 mm	L3 mm	⚡	U
117.1325	450,0	275,0	140,0	129.6620-24	700

HAMMER WITH PROTECTIVE INSULATION

Plastic hammer with protective insulation

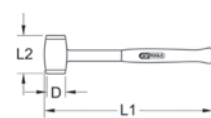
- Insulated to IEC 60900
- Made from plastic
- Without metal parts



	D mm	L1 mm	L2 mm	⚡	U
117.1131	55,0	300,0	82,0	1000V	325

Soft-face hammer with protective insulation

- 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	⚡	U
117.1126	25,0	300,0	105,0	117.1128	1000V	560
117.1127	35,0	310,0	115,0	117.1129	1000V	790

CABLE PROTECTION

cable protection wedge

- separates a cut cable from the adjacent cable
- made of nylon



	L1 mm	L2 mm	⚡	U
117.2321	122,0	48,0	1000V	57

INDUSTRIAL SAFETY

Work protective hardhat

- DIN EN 397
- Special plastic



	Colour code	L mm	B mm	H mm	Weight
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
- Also fault arc tested to ASTM F2178, ATPV: 7.0 cal/cm²
- Colour rendering index > 90%
- Light transmission: > 88%
- Suitable for standard electrician's hardhat
- Face shield for 117.1608-117.1610



	Arc fault	Weight
117.1780	class 1 1000V	278

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
- Colour rendering index > 90%
- Suitable for standard electrician's hardhat
- Suitable for standard electrician's hardhat
- Anti-mist protective gel supplied



	Arc fault	Weight
117.1796	class 2 1000V	525

Carrying bag for work helmet

- Made out of red leather
- With carrying strap



	B mm	H mm	Weight
117.1612	500,0	480,0	500

Safety rubber boots with protective insulation

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



	Size mm	Weight
117.1613	39	1000V 3,00
117.1614	40	1000V 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	Weight
117.1660	260,0	225

Electrician protective glove with natural latex insulation

- 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	Electrostatic Class	Size mm	L mm	Weight
117.1663	1,0	0	9	360,0	1000V 215
117.1664	1,0	0	10	360,0	1000V 215
117.1132	2,0	1	10	360,0	7500V 250
117.1133	2,0	3	10	410,0	26500V 690
117.1134	2,5	4	10	410,0	36000V 890

Electrician protective glove with natural latex insulation

- 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	Electrostatic Class	L mm	Weight
117.2315	1,0	8	0	400,0	500V 215
117.1661	1,0	9	0	400,0	1000V 215
117.1662	1,0	10	0	400,0	1000V 215
117.1762	2,0	10	0	410,0	1000V 470
117.1756	1,0	9	00	410,0	500V 168
117.1757	1,0	10	00	410,0	500V 189
117.2316	1,0	11	0	400,0	500V 215

Pneumatic electrician protective glove tester

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



	D mm	L mm	Weight
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	Weight g
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	Weight g
117.1560	10	320,0	175

Rubber cover sheet with protective insulation, transparent

- Insulation according to DIN EN 61112
- transparent cloth
- cold-resistant and highly flexible



	Thickness mm	B mm	L mm	Weight g
117.2303	0,5	130,0	130,0	0,03
117.2304	0,5	200,0	200,0	0,10
117.2305	0,5	250,0	350,0	0,12
117.2306	0,5	500,0	500,0	0,18
117.2307	0,5	600,0	600,0	0,22
117.2308	0,5	1000,0	1000,0	0,68
117.2309	0,5	1200,0	1200,0	0,80
117.2311	0,5	1300,0	5000,0	40,00

Rubber cover with protective insulation

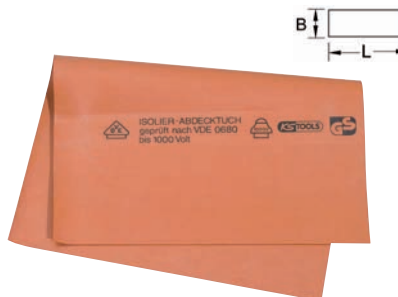
- Tested to VDE 0680/1
- Insulated to DIN EN 60903
- Extensively tear and water resistant
- Particularly suitable for external usage



	Thickness mm	B mm	L mm	Weight g
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

Rubber cover with protective insulation

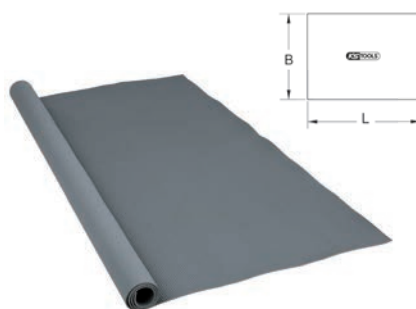
- Tested to VDE 0680/1
- Insulated to DIN EN 60903
- Extensively tear and water resistant
- Particularly suitable for external usage



	Thickness mm	B mm	L mm	Weight g
117.1746	1,6	130,0	130,0	0,03
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

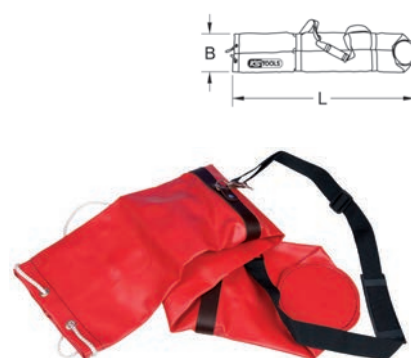
- Insulation in accordance with IEC 61111 Class 2



	Thickness mm	B mm	L mm	Weight g
117.3819	3,0	1000,0	1000,0	3,42
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	Weight g
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



	Width mm	Length mm	Weight g
917.3899	80,0	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	Height mm	Weight g
917.3898	5	200,0	66

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	84

Warning and information signs

- 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



	Width mm	Height mm	Thickness mm	
117.2478	660,0	1000,0	1,5	160
117.2479	410,0	595,0	1,5	384
117.2481	410,0	595,0	1,5	384
117.2483	200,0	237,0	1,6	58
117.2482	200,0	120,0	1,6	178

TWEEZERS & SEARCH MIRROR WITH PROTECTIVE INSULATION

Tweezers with protective insulation, curved

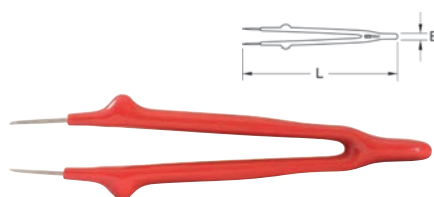
- Insulated handle to IEC 60900
- Wrap insulation
- Chrome vanadium



	B mm	L mm		
117.1623	11,5	145,0	1000V	35
117.1624	15,5	200,0	1000V	72

Tweezers with protective insulation, straight

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



	B mm	L mm		
117.1626	11,0	130,0	1000V	30
117.1627	13,5	130,0	1000V	30
117.1628	15,0	145,0	1000V	55
117.1629	15,5	200,0	1000V	72

Search mirror with protective insulation

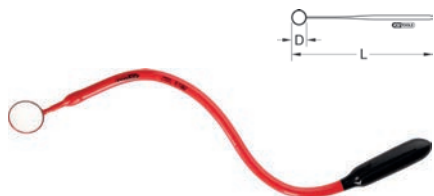
- Insulated handle to IEC 60900
- Insulated
- Chrome vanadium



	Ø mm	Length mm		
117.1630	22	175,0	1000V	20

Search mirror with protective insulation

- Insulated handle to IEC 60900
- Flexible
- Insulated



	Ø mm	Length mm		
117.2408	0 x	40	590,0	334
117.2409	0 x	58	590,0	350
117.2411	4 x	54	590,0	350

Flexible magnetic jack with protective insulation

- Insulated handle to IEC 60900
- Flexible shaft
- Special tool steel



	Load capacity kg	Ø mm	Length mm		
117.2322	0,25	14,0	420,0	1000V	23
117.2323	1,0	15,0	470,0	1000V	180
117.2324	1,8	16,5	520,0	1000V	325

VOLTAGE TESTERS

Test lamp 6 - 24 V

- Test tip protected through a cap
- Ideal for helping to locate short circuits and breaks
- With shielded crocodile clamp
- Stainless steel probe
- Brass housing and cap



	Length mm	
550.1504	125,0	30

Polarity and voltage tester 3 - 48 V

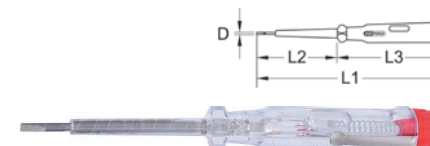
- Universal test device for the vehicle electrics and electronics to test the voltage and polarity
- To troubleshoot electronic components and prevent damage caused by incorrectly coupled lines
- Two light-emitting diodes indicate voltage as well as polarity
- Test tip with push mechanics to tap into the cable
- With shielded crocodile clamp
- Test tip and reproducing stylus tip made of stainless steel



	Length mm	
550.1503	140,0	70

Tension verifier with protection insulation 150 - 250 V

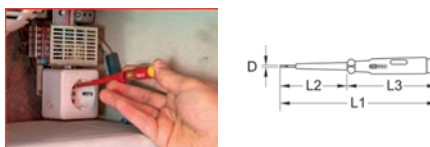
- In accordance to DIN ISO 0680
- Slot blade with hollow grinding
- Blade nickel plated
- Clip for the breast pocket
- With inspection panel



	D mm	L1 mm	L2 mm	L3 mm	
911.2188	3,0	145,0	65,0	80,0	14

Tension verifier with protection insulation 100 - 500 V

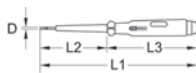
- In accordance to DIN ISO 0680
- Slot blade with hollow grinding
- Blade nickel plated
- Clip for the breast pocket
- With inspection panel



	D mm	L1 mm	L2 mm	L3 mm	
911.2176	3,0	140,0	64,0	75,0	15

Spannungsprüfer mit Schutzisolierung 100 - 500 V

- in Anlehnung an DIN ISO 0680
- Schlitz-Klinge mit Hohlsliff
- Klinge vernickelt
- mit Sichtfenster



	D mm	L1 mm	L2 mm	L3 mm	
911.2177	3,5	180,0	97,0	83,0	27

Polaritäts- und Spannungsprüfer mit Schutzisolierung 6 - 400 V

- in Anlehnung an DIN ISO 0680
- zur professionellen, mehrstufigen Spannungs- und Polaritätsprüfung
- Leuchtdioden zeigen Spannung sowie auch Polarität an
- für Gleich- und Wechselspannung
- mit Drehfeld und Phasenanzeige
- Prüfspitzen abgeschirmt
- Prüfspitze aus Edelstahl



Technische Daten:

Anzeige:	Leuchtdioden/LE
Anzeigestufe:	6 - 400 V
Stromaufnahme:	140 mA
Zulässige Einschaltzeit:	30 s
Frequenzbereich:	0 - 100 Hz
Schutzklasse:	IP40
AC Spannungsbereich Wechselspannung:	6 - 50 - 120 - 230 - 400 V
DC Spannungsbereich Gleichspannung:	6 - 50 - 120 - 230 - 400 V

550.1501		
	1000V	180

Universal-Spannungsprüfer mit Schutzisolierung 12 - 500 V

- in Anlehnung an DIN ISO 0680
- für Gleich- und Wechselspannung
- mit Drehfeld und Phasenanzeige



Technische Daten:

Anzeige:	Leuchtdioden/LE
Anzeigestufe:	12 - 500 V
Stromaufnahme:	140 mA
Zulässige Einschaltzeit:	30 s
Frequenzbereich:	0 - 100 Hz
Schutzklasse:	IP40
AC Spannungsbereich Wechselspannung:	12 - 50 - 120 - 150 - 220 - 300 - 400 - 500 V
DC Spannungsbereich Gleichspannung:	12 - 50 - 120 - 150 - 220 - 300 - 400 - 500 V

550.1502		
	1000V	180

Spannungsprüfer mit Schutzisolierung, zweipolig 12 - 1000 V

- geprüft und zugelassen gemäß international gültiger Norm
- isoliert nach IEC IEN 61243-3 (DIN VDE 0682-401)
- Spannungs-kategorie B
- Gleich- und Wechselspannung wird über LED angezeigt
- Drehfeld und Phasenanzeige über LCD
- einpolige Außenleiterprüfung (Phase)
- Drehfeldprüfung
- Polaritätsprüfung
- bewusste Auslösung eines 30 mA FI-Schutzschalters
- mit Vibrationsalarm



Technische Daten:

Anzeige:	LED/LCD
Anzeigestufe:	12 - 1000 V
Stromaufnahme:	200 mA
Zulässige Einschaltzeit:	30 s
Frequenzbereich:	0 - 500 Hz
Schutzklasse:	IP64
AC Spannungsbereich Wechselspannung:	12 - 24 - 50 - 120 - 230 - 400 - 690 - 1000 V
DC Spannungsbereich Gleichspannung:	12 - 24 - 50 - 120 - 230 - 400 - 690 - 1000 V

117.1503		
	210	

Spannungsprüfball mit Schutzisolierung, zweipolig 50 - 1000 V

- geprüft und zugelassen gemäß international gültiger Norm
- isoliert nach IEC EIN 61243-3 (DIN VDE 0682-401)
- entspricht der EMV Anforderung nach DIN EN 61326
- Gleich- und Wechselspannung wird über LED angezeigt
- Drehfeld- und Phasenanzeige über LED
- mit Drehfeldrichtungsanzeige (Links / Rechts)
- bewusste Auslösung eines 30 mA FI-Schutzschalters



Technische Daten:

Anzeige:	LED/LCD
Anzeigestufe:	50 - 1000 V
Stromaufnahme:	300 mA
Zulässige Einschaltzeit:	30 s
Frequenzbereich:	0 - 100 Hz
Schutzklasse:	IP65
AC Spannungsbereich Wechselspannung:	120 - 200 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 850 - 900 - 950 - 1000 V
DC Spannungsbereich Gleichspannung:	120 - 200 - 300 - 350 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750 - 800 - 850 - 900 - 950 - 1000 V
Überspannungskategorie:	CAT IV 600 V
	CAT III 1000 V
Prüfspannung:	6 kV

117.4266		
	620	

Elektronisches Multifunktions-Prüfgerät 6 - 24 V mit 5 m Kabel

- ideale Prüflampe mit vielen Prüffunktionen
- mit auswechselbarer Prüfspitze zur optionalen Erweiterung mit marktüblichen Prüf- und Testkomponenten
- schnelle Funktionsprüfung ohne Ausbau der Komponenten
- über Kippschalter kann Plus bzw. Minus auf die Prüfspitze gegeben werden
- eingebaute Bi-Metall-Kurzschlussicherung
- kein Sicherungsverbleib bei der Fehlersuche
- Ausführung mit auswechselbarer Prüfspitze und Krokodilklemme
- sofortiger Durchgangstest von Schaltern, Relais, Dioden, Sicherungen, Kabelsträngen etc.
- zum Betreiben von elektronischen Komponenten wie Relais, Kraftstoffpumpen, Fensterhebermotor, Schalter, Lampen etc.
- zur Feststellung schlechter Masseverbindungen
- sofortige Polaritätsfeststellung durch rote/grüne LED-Anzeige
- wechselnde akustische Signale je nach Polarität
- mit dem Prüfgerät kann sofort Strom per Tastendruck zugeführt werden
- eingebaute Bi-Metall-Kurzschlussicherung (7,5 A), daher kein Sicherungsverbleib bei der Fehlersuche
- Kabel mit abgeschirmter Krokodilklemme und Polklemmen
- 5 Meter Kabellänge
- Prüfspitze aus Edelstahl



Technische Daten:

Kabellänge:	5 m
Prüfanschlussdurchmesser:	4 mm

	Einsatzbereich	Ersatzprüfspitze	
150.1670	6 - 24 V DC	150.1671	500

Elektronisches Multifunktions-Prüfgerät 6 - 24 V mit 25 m Kabel

- ideale Prüflampe mit vielen Prüffunktionen
- mit auswechselbarer Prüfspitze zur optionalen Erweiterung mit marktüblichen Prüf- und Testkomponenten
- schnelle Funktionsprüfung ohne Ausbau der Komponenten
- über Kippschalter kann Plus bzw. Minus auf die Prüfspitze gegeben werden
- eingebaute Bi-Metall-Kurzschlussicherung
- kein Sicherungsverbleib bei der Fehlersuche
- Ausführung mit auswechselbarer Prüfspitze und Krokodilklemme
- sofortiger Durchgangstest von Schaltern, Relais, Dioden, Sicherungen, Kabelsträngen etc.
- zum Betreiben von elektronischen Komponenten wie Relais, Kraftstoffpumpen, Fensterhebermotor, Schalter, Lampen etc.
- zur Feststellung schlechter Masseverbindungen
- sofortige Polaritätsfeststellung durch rote/grüne LED-Anzeige
- wechselnde akustische Signale je nach Polarität
- mit dem Prüfgerät kann sofort Strom per Tastendruck zugeführt werden
- eingebaute Bi-Metall-Kurzschlussicherung (7,5 A), daher kein Sicherungsverbleib bei der Fehlersuche
- Kabel mit abgeschirmter Krokodilklemme und Polklemmen
- 25 Meter Kabellänge
- Prüfspitze aus Edelstahl



Technische Daten:

Kabellänge:	25 m
Prüfanschlussdurchmesser:	4 mm

	Einsatzbereich	Ersatzprüfspitze	
150.1655	6 - 24 V DC	150.1671	1,26

Digital Multimeter incl. test probes

- Specially developed professional multimeter for automotive and commercial electrics and electronics
- Dual LCD display with digital display and bar diagram display (32 segment bar graph)
- With automatic overflow and polarity indication
- With safety mechanism for V, $\mu\text{A}/\text{mA}/\text{A}$, therefore incorrect connection is impossible
- Central 19-digit rotary switch
- Large LCD display with 3.1/2-digit, high-contrast display with background lighting
- Charge state shown in display
- With integrated glass fuse 250mA / 600V, 10A / 600V – 32 x 6 mm to protect the circuits
- Includes measuring line set with probes
- With on/off switch and automatic temperature shutdown
- With fold out adjustable foot in protective rubber holster
- Sturdy plastic housing

Functions:

- DC and AC voltage measurement
- DC and AC current measurement
- Resistance measurement
- Diode test (with acoustic signal)
- Continuity test (with acoustic signal)
- Data hold function
- Battery check indicator



Technical data:

Co-current flow:	20 μA - 10 A
DC voltage:	200 mV - 600 V
AC voltage:	200 V - 600 V
Resistance measurement:	200 Ohm - 2 MOhm
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	250mA/600V; 10A/600V
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)

	Length mm	Width mm	Depth mm	
150.1495	138,0	69,0	31,0	342



Digital multimeter, including test prods and crocodile clamps

- Specially developed high quality multimeter for automotive and commercial electrics and electronics
- Dual LCD display with digital display and bar diagram display (32 segment bar graph)
- With automatic overflow and polarity indication
- With safety mechanism for V, $\mu\text{A}/\text{mA}/\text{A}$, therefore incorrect connection is impossible
- central 11-digit rotary switch
- Automatic measuring range selection
- Large LCD display with 3.1/2-digit, high-contrast display with background lighting
- with integrated glass fuse 300mA/600V; 10A/600V - 32 x 6 mm to protect the circuits
- including double test lead set with test prods and crocodile clips
- With fold out adjustable foot in protective rubber holster
- Sturdy plastic housing

Functions:

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



Technical data:

Co-current flow:	326 μV - 10 A
Capacity measurement:	326 nF - 32,6 μF
DC voltage:	326 mV - 600 V
Alternating current :	326 μV - 10 A
AC voltage:	3,26 V - 600 V
Resistance measurement:	326 Ohm - 32,6 MOhm
Frequency measurement:	32,60 - 150kHz
Temperature measurement:	-55° C ~ 1000° C
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	300mA/600V
Fuse protection S2 (power-test socket) :	10A/600V
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)

	Length mm	Width mm	Depth mm	
150.1480	189,0	91,0	31,5	834

Multimeter, including test prods, crocodile clamps, inductive clamp and temperature probe

- Specially developed high quality multimeter for automotive and commercial electrics and electronics
- With enhanced function for rpm measurement
- Ignition timing ascertainment up to 8-cylinder engines possible (Dwell function)
- Dual LCD display with digital display and bar diagram display (32 segment bar graph)
- With automatic overflow and polarity indication
- With safety mechanism for V, $\mu\text{A}/\text{mA}/\text{A}$, therefore incorrect connection is impossible
- Central 23-digit rotary switch
- With automatic area selection
- Large LCD display with 3.1/2-digit, high-contrast display with background lighting
- With integrated glass fuse 250V (500 mA) – 20 x 5 mm to protect the circuits
- Includes measuring line set with test prods, crocodile clamps, inductive clamp and temperature probe
- With on/off switch and automatic temperature shutdown
- With fold out adjustable foot in protective rubber holster
- Sturdy plastic housing

Functions:

- DC and AC voltage measurement
- DC and AC current measurement
- Resistance measurement
- Dwell
- Diode test (with acoustic signal)
- RPM measurement
- Temperature-automatic shutdown
- Frequency measurement
- Battery check indicator



Technical data:

Co-current flow:	326 μA - 10 A
Alternating current :	326 μA - 10 A
DC voltage:	326 mV - 1000 V
AC voltage:	3,26 V - 750 V
Resistance measurement:	32 - 32000 ohm
Frequency measurement:	32,60 - 200 kHz
Speed measurement:	300 - 12000 rpm
Temperature accuracy :	23° C \pm 5° C
Power requirement:	9V block battery
Fuse protection S1 (fine flow):	500mA/350V (20x5mm)
Fuse protection S2 (power-test socket) :	10A/250V (30x5mm)
Storage temperature:	-10° to +50° C (14° to 122° F)
Working temperature:	0° to +40° C (32° to 104° F)
Temperature measurement:	-20° to +760° C (-4° to 1400° F)

	Length mm	Width mm	Depth mm	
150.2040	189,0	91,0	31,5	500





Digital amp pliers 200 A

- Due to the small pliers' diameter, a high level of accuracy and safe working in previously hard-to-reach places is a given
- They measure current with a resolution of 0.01 A to max. 200 A
- The built-in multimeter with a bar graph means there is no need for any additional measuring instruments
- Ideal for locating hidden consumers
- Very easy to read display
- Ideal for direct and alternating current tests
- Max. pliers opening of 30.0 mm
- LCD display
- Includes measuring line set with probes
- In a practical storage case
- direct current

Functions:

- Direct current
- DC and AC voltage
- Resistance
- Diode test
- Continuity test
- Temperature measurement
- Data hold function
- Peak hold function



Technical data:

Co-current flow:	0,01 - 200 A
DC voltage:	0,1 - 400 V
Alternating current :	0,01 - 200 A
AC voltage:	0,1 - 400 V
Resistance measurement:	32 - 32000 ohm
Temperature accuracy :	23° C ± 5° C
Power requirement:	3x 1,5V AAA (not in the delivery)
Storage temperature:	-10° to +60° C (-4° to 140° F)
Working temperature:	-10° to +50° C (14° to 122° F)

Length mm	Width mm	Depth mm	
150.1745	185,0	42,0	30,0 160

Digital amp pliers 600 A

- Very easy to read display
- Ideal for use for alternating current tests
- Max. pliers opening of 27.0 mm
- Max. measurable conductor diameter of 29.0 mm
- including automatic switch-off after approx. 15 min
- LED display
- Includes probes and temperature gauge
- In a practical storage case

Functions:

- DC and AC voltage
- Resistance
- Diode test
- Continuity test
- Temperature measurement
- Data hold function
- Peak hold function



Technical data:

DC voltage:	600 V
Alternating current :	200 A, 600 A
AC voltage:	600 V
Resistance measurement:	2 megaohm
Temperature accuracy :	23° C ± 5° C
Power requirement:	9V block battery
Storage temperature:	0° to +50° C (14° to 122° F)
Working temperature:	-20° to +60° C (30° to 140° F)

150.0925	3 pcs	Digital amp pliers 600 A	655
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consists of:

150.0926	Digital amp pliers 600 V	370
150.0927	Probe set, 600 A	75
150.0928	Temperature gauge	20



Digital amp pliers 1000 A

- Very easy to read display
- Ideal for direct and alternating current tests
- Max. pliers opening of 45.0 mm
- Max. measurable conductor diameter of 40.0 mm
- including automatic switch-off after approx. 15 min
- LED display
- Includes probes and temperature gauge
- Includes 3 x AAA batteries
- In a practical storage case

Functions:

- DC and AC voltage
- Resistance
- Diode test
- Continuity test
- Capacity measurement
- Frequency measurement
- Frequency measurement with pliers
- Temperature measurement
- Duty cycle
- Data hold function
- Peak hold function



Technical data:

Co-current flow:	400 A, 1000 A
DC voltage:	1000 V
Alternating current :	400 A, 1000 A
AC voltage:	700 V
Resistance measurement:	32 megaohm
Capacity measurement:	40 UF
Frequency measurement:	100 kHz
Temperature accuracy :	-40° C / +750° C
Power requirement:	3x 1,5V AAA batteries
Storage temperature:	10° to +50° C (50° to 122° F)
Working temperature:	5° to +35° C (41° to 95° F)

150.0929	3 pcs	Digital amp pliers 1000 A	480
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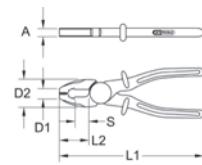
consists of:

150.0928	Temperature gauge	20
150.0938	Probe set, 1000 A	65
150.0934	Digital amp pliers 1000A	260

PLASTIC PLIERS / CLAMPS WITH PROTECTIVE INSULATION

Plastic combination pliers with protective insulation and cutting function

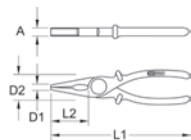
- Insulated to IEC 60900
- With machined cutting edge
- Made out of extremely durable plastic



A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm		
117.1639	15,0	15,0	37,0	200,0	39,0	14,0	152

Plastic flat nose pliers with protective insulation

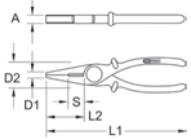
- Insulated to IEC 60900
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	⚡	U
117.1640	9,0	6,0	32,0	200,0	55,0	1000V	106

Plastic flat nose pliers with protective insulation

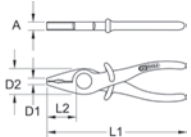
- Insulated to IEC 60900
- With machined cutting edge
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1641	9,0	6,0	32,0	190,0	55,0	14,0	1000V	108

Plastic flat nose pliers with protective insulation

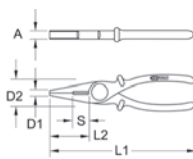
- Insulated to IEC 60900
- Suitable for meter assembly and closure
- Made out of extremely durable plastic



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1642	11,0	10,0	38,0	180,0	37,0		1000V	85

Plastic combination pliers with protective insulation

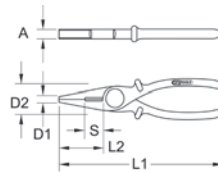
- Two component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and locking
- Glass-fibre reinforced plastic
- With soft plastic area on the handle
- For firm hold



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1765	11,5	6,0	32,0	185,0	33,0	19,0	1000V	130

Plastic combination pliers with protective insulation

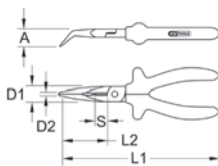
- Two component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and locking
- Glass-fibre reinforced plastic
- With soft plastic area on the handle
- For firm hold



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1766	5,0	10,0	32,0	225,0	72,0	20,0	1000V	140

Plastic combination pliers with protective insulation

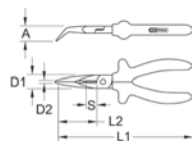
- Two component handle
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and locking
- Glass-fibre reinforced plastic
- With soft plastic area on the handle
- For firm hold



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.1767	5,0	10,0	32,0	230,0	110,0	20,0	1000V	140

Plastic telephone pliers with protective insulation

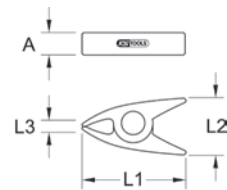
- Insulated to IEC 60900
- Fully insulated pliers
- Reduces the risk of short-circuit
- For assembling counters and locking
- Glass-fibre reinforced plastic
- For firm hold



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	S mm	⚡	U
117.2318	29,0	32,6	6,6	195,0	70,0	47,0	1000V	112

Plastic clamp with protective insulation, small

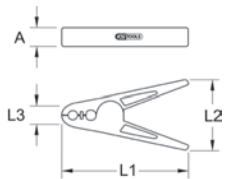
- Insulated to IEC 60900
- Extra small execution
- With inserted steel spring
- For clamping of uncovered cable
- Made from plastic



	A mm	L1 mm	L2 mm	L3 mm	⚡	U
117.1643	15,0	80,0	44,0	10,0	1000V	30

Plastic clamp with protective insulation, 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	⚡	U
117.1644	16,0	160,0	94,0	27,0	1000V	70

BRUSH WITH PROTECTIVE INSULATION

Dust brush with protective insulation, straight

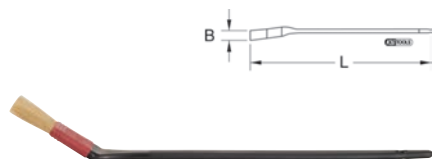
- Insulated to IEC 60900
- With hanging hole
- Short execution
- No electric run
- Made from plastic



	B mm	L mm	⚡	U
117.1645	25,0	180,0	1000V	11

Dust brush with protective insulation, curved

- 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	35,0	400,0	1000V	75
117.1648	50,0	400,0	1000V	80

SEALS & HOODS WITH PROTECTIVE INSULATION

Grommet with protective insulation and clamping 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	11
117.4236	15,0	100,0	1000V	16
117.4241	10,0	75,0	1000V	10
117.4237	20,0	100,0	1000V	30
117.4242	20,0	100,0	1000V	20
117.4243	30,0	115,0	1000V	40
117.4238	40,0	135,0	1000V	68
117.4239	50,0	155,0	1000V	99
117.4240	60,0	140,0	1000V	140

Grommet with protective insulation

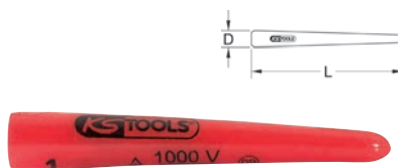
- Insulated handle to IEC 60900
- For isolating of cable heads and single conductors
- Made out of tough elastic insulating material



	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	1
117.1787	5,0	40,0	1000V	1
117.1788	7,0	50,0	1000V	1
117.1789	10,0	70,0	1000V	5
117.1790	15,0	110,0	1000V	17
117.1791	20,0	110,0	1000V	21
117.1792	25,0	110,0	1000V	22
117.1793	30,0	120,0	1000V	38
117.1794	35,0	140,0	1000V	49
117.1795	40,0	140,0	1000V	62

Counter nozzle with protective insulation

- 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

Push-on grommet with protective insulation

- 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	1
117.4248		6,0	60,0	1000V	1
117.4249		8,0	40,0	1000V	1
117.4250		10,0	30,0	1000V	1
117.4251		10,0	40,0	1000V	1
117.4252		10,0	60,0	1000V	1
117.4253		12,0	90,0	1000V	6
117.4254		15,0	110,0	1000V	14
117.4255		20,0	110,0	1000V	20
117.4256		25,0	110,0	1000V	20
117.4257		30,0	110,0	1000V	37
117.4258		40,0	110,0	1000V	37

Push-on grommet with protective insulation

- 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	77
117.1769		40,0	80,0	140,0	1000V	113

Cover and protective hood with protective insulation

- 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

Cover and protective hood with protective insulation

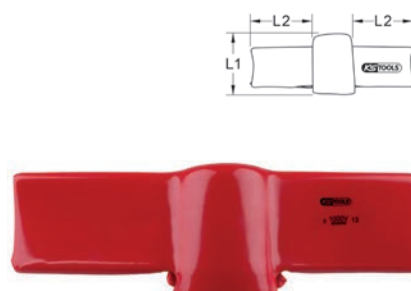
- Insulated to IEC 60900
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm	⚡	👤
117.1799	100,0	130,0	1000V	225

Cover and protective hood with protective insulation

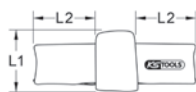
- Insulated to IEC 60900
- Made from soft PVC
- For overhead line insulators
- Made from weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm	⚡	👤
117.4201	100,0	130,0	1000V	330

Cover and protective hood with protective insulation

- 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	⚡ 1000V	👤 390
117.4202	160,0	80,0	⚡ 1000V	390
117.4203	160,0	220,0	⚡ 1000V	832

Covers for gable insulators

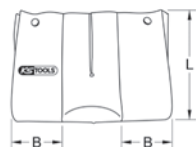
- Insulated to IEC 60900
- With plastic buttons
- Must also be firmly secured in bad weather
- Complete touch protection including on the underside
- Made from soft weatherproof insulating material
- Also suitable for long-term use



	L1 mm	L2 mm	⚡ 1000V	👤 760
117.4204	270,0	240,0	⚡ 1000V	760

Covers for gable insulators

- Insulated 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	⚡ 1000V	👤 813
117.4205	270,0	115,0	⚡ 1000V	813

NH push-on fuse handle with protective insulation

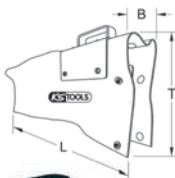
- With contact knife in accordance with DIN 43620 Part 1 of the sizes 00-3
- For low-voltage high-breaking-capacity fuse
- For nominal voltage up to 600V ac voltage



	L mm	B mm	⚡ 1000V	👤 460
117.1622	380,0	225,0	⚡ 1000V	460
117.4263	445,0	225,0	⚡ 1000V	451

Cover with protective insulation for a fuse strip

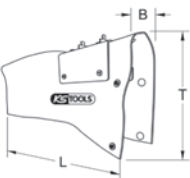
- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0680/1
- 1 suspension device downstream of LVHRC fuse-link L1
- Plastic handle for operation
- Rubber repair tape
- 50 mm projection at the top
- With 5 press studs for extension



	Thickness mm	B mm	L mm	T mm	⚡ 1000V	👤 680
117.1611	1,0	85,0	760,0	195,0	⚡ 1000V	680

Cover with protective insulation for a fuse strip

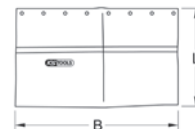
- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0680/1
- 1 suspension device downstream of LVHRC fuse-link L1
- Without plastic handle
- Rubber repair tape
- 50 mm projection at the top
- With 5 press studs for extension



	Thickness mm	B mm	L mm	T mm	⚡ 1000V	👤 680
117.1659	1,0	85,0	760,0	195,0	⚡ 1000V	680

Extension sheet with protective insulation

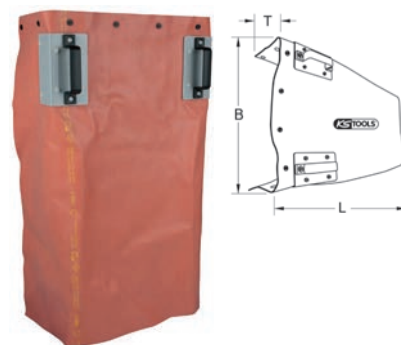
- Tested to VDE 0680/1
- To extend the cover



	Thickness mm	B mm	L mm	⚡ 1000V	Push buttons 5	👤 300
117.1690	1,0	470,0	500,0	⚡ 1000V	5	300
117.1380	1,0	800,0	500,0	⚡ 1000V	8	500

Cover with protective insulation for 2 to 4 fuse strips

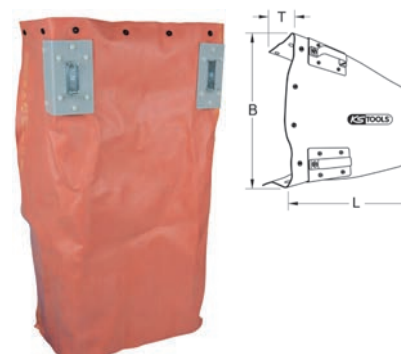
- Fuse panel insulated in accordance with DIN 43623
- Tested to VDE 0690/1
- 2 suspension devices downstream of LVHRC fuse-link L1
- 2 plastic handles for operation
- Rubber repair tape
- 50 mm projection at the top
- With 8 press studs for extension



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

Cover with protective insulation for 2 to 4 fuse strips

- 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	⚡ 1000V	👤 1,15
117.1699	1,0	430,0	760,0	195,0	⚡ 1000V	1,15

Cover and protective hood with protective insulation

- 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

NH protective cap with protective insulation

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



	L mm	B mm	⚡	⚡
117.4225	170,0	135,0	1000V	135
117.4226	260,0	135,0	1000V	190

NH protective cap with protective insulation

- 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

Conductor cable cover with protective insulation for overhead lines NS

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



	Length m	D mm	⚡	⚡
117.4259	2,50	25,0	1000V	360
117.4260	5,00	25,0	1000V	600

Mounting handle with protective insulation

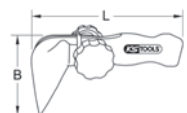
- Assembly handle for stranded conductor covers
- Made from plastic
- Class 0



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

Mounting handle with protective insulation, screw-on

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

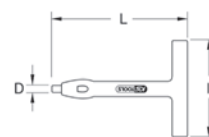


	L mm	B mm	⚡	⚡
117.4262	165,0	95,0	1000V	187

PUNCH WITH PROTECTIVE INSULATION

Punch with protective insulation

- 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

EX+LED PROTECTED LAMPS

LED lamp with protective insulation

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



	D mm	L mm	Replacement battery	⚡	⚡
117.1650	28,0	90,0	AA-Lithium	1000V	80



EXPANSION WEDGES WITH PROTECTIVE INSULATION

Plastic expansion wedge

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



	L mm	B mm	⚡ 1000V	👤 60
117.4267	160,0	15,0		

Plastic wedge

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



	B mm	L mm	⚡ 1000V	👤 90
117.1667	28,0	170,0		

Plastic expansion wedge

- For working environment of voltages 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	⚡ 1000V	👤 40
117.1668	30,0	150,0		

Plastic expansion wedge

- For working environment of voltages 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	⚡ 1000V	👤 100
117.1669	20,0	170,0		

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	⚡ 1000V	👤 55
117.1670	38,0	197,0		

Plastic expansion wedge

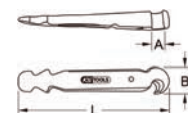
- For working environment of voltages AC 1000 V and DC 1500 V
- Without flute
- Oval form without edges
- Long execution with large impact head
- Made from impact resistant plastic



	B mm	L mm	⚡ 1000V	👤 225
117.1680	53,0	225,0		

Plastic expansion wedge

- For working environment of voltages 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	⚡ 1000V	👤 170
117.4268	20,0	270,0	50,0		

Beading chisels

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



	L mm	B mm	⚡ 1000V	👤 58
117.4269	140,0	25,0		

FOLDING RULES

Plastic folding rule, white

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



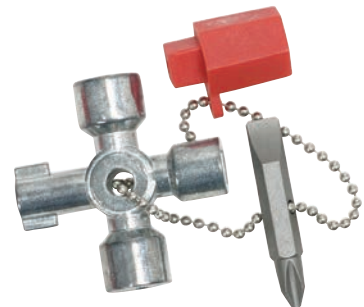
	Length mm	⚡ 1000V	👤 600
300.0066	1,00		

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



	Width mm	Length mm	👤 100
130.1010	42,0	42,0	

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
▲	9 mm
●	3 - 5 mm
⊕	PH 2
⊖	7 mm



	Width mm	Length mm	👤 200
130.1015	71,0	71,0	

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



	Width mm	Length mm	
130.1020	61,0	90,0	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



	Width mm	Length mm	
130.1046	100,0	114,0	358

Universal switchgear cabinet key, magnetic

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

	5 mm
	6 - 7 mm
	8 - 9 mm
	5 - 6 mm
	6 - 7 mm
	8 - 9 mm
	3 - 5 mm
	2 x 1/4"
	1/4"



	Width mm	Length mm	
130.1041	38,0	95,0	86

SHEARS

Universal workshop shear

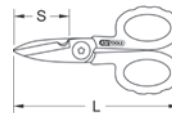
- Robust short shears
- With screw on blade
- Various applications
- Stainless steel blade



	L mm	S mm	
118.0010	140,0	43,0	100

Universal workshop shear

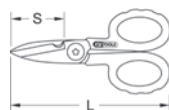
- Robust short shears
- With screw on blade
- Various applications
- Stainless steel blade
- Two component handle



	L mm	S mm	
118.0013	143,0	46,0	100

Universal workshop shear

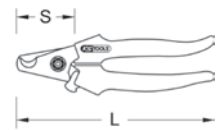
- Robust short shears
- For various application areas
- With cable cutter
- Practical and very sharp
- Includes belt bag with cut protection




	L mm	S mm	
118.0060	140,0	42,0	170

Universal cable shear

- Self opening
- Safety locking device
- Hardened blades with precision cut
- No bruising, slight shaping of the cable
- Ergonomic moulded plastic handle
- Ideal for soft cables
- Not suited for steel wire and hard pulled copper cables




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


Scissor set for hoses and plastic pipes

- ideal for angle-precise and clean cutting of rubber hoses, plastic pipes and various plastic profiles, such as cable ducts
- for rubber hoses with or without textile cover
- fittings for 16, 19 and 25 mm pipes included
- with prism for 90° profile
- with adjustable angle stop up to 45°
- In durable plastic storage case



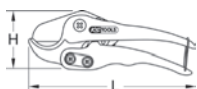
		
123.0075	7 pcs Scissor set for hoses and plastic pipes	490

consists of:

		
123.0076	scissor-shaped with blades	290
123.0077	fitting for Ø 16 and 19 mm	30
123.0078	fitting for Ø 25 mm	78
123.0079	prism for 90° profile	63
123.0084	straight fitting	37
123.0086	angular stop	36
151.2604	Hexagon key wrench phosphate finish, short, 4mm	10

Plastic pipe cutter Ø 0 - 32 mm

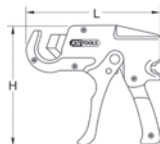
- Teflon coated cutting blades
- Aluminium die cast body



	Ø mm	H mm	L mm		
222.1001M	0 - 32,0	71,0	205,0	222.1011M	320

Plastic pipe cutting pistol Ø 6 - 35 mm

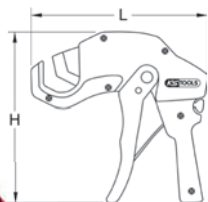
- Adjustable cutting feed through pushing the hand grips
- With knife locking knob for easy adjustment of the knife
- For thin walled plastic pipes up to max. Ø 5 mm
- Die cast body



	Ø mm	H mm	L mm		
222.1100	6,0 - 35,0	160,0	190,0	222.1101	630

Plastic pipe cutting pistol Ø 6 - 42 mm

- Two stage cutting range 6 to 26 mm + 6 - 42 mm
- Adjustable cutting feed through pushing the hand grips
- With knife locking knob for easy adjustment of the knife
- For thin walled plastic pipes up to max. Ø 5 mm
- Die cast body



	Ø mm	H mm	L mm		
222.3100	6,0 - 42,0	220,0	210,0	222.3101	750

ELECTRICAL INSULATING TAPE

PVC insulation tape set

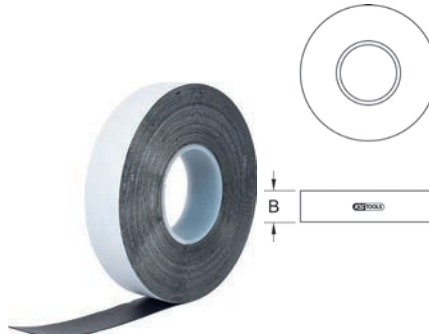
- Good resistance to abrasion and corrosion and/or moisture
- High di-electric strength and good mechanical protection
- Excellent ability to adapt to different forms
- Conforms to BS3924
- Temperature resistance of 0 °C to +90 °
- Multicoloured assortment



		B mm	Length m	
141.6010	8 pcs	19,0	10,00	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	Length m	
141.6000	●	18,0	10,00	100
141.6001	●	38,0	10,00	210

Adhesive tape with protective insulation

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



	Colour code	B mm	Length m		
117.4231	●	52,0	10,00		105
117.4232	●	102,0	10,00		190
117.4233	●	102,0	10,00		190

INSTALLATION TOOLS

Cable retraction wire

- ideal for retraction or laying of cables or lines
- with rounded off metal head, the retraction aid can be easily pushed through the tubes
- with eye for fastening the cable or line
- Perlon wire



	Ø mm	Length m	
150.0960	3,0	10,00	140
150.0970	4,0	20,00	270

cable pull aid

- low friction and high strength
- flexible head attachment
- for navigating in pipes with several bends
- Robust plastic housing



	Ø mm	Length m	
115.1113	3,0	30,00	1,20

ELECTRICIANS PEN KNIFE

Electricians pen knife

- Blade folds away
- With sickle blade and downward curved tip that ensures a powerful cut
- Sturdy, practical and very sharp
- Moulded handle made out of wood
- Rust-proof
- Stainless steel



	B mm	L mm	S mm	
907.2185	37,0	185,0	70,0	60

Electricians pen knife

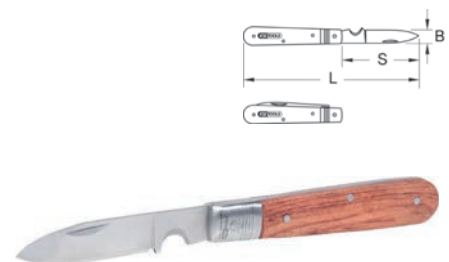
- Retractable blades
- With straight blade
- With sickle blade and downward curved tip that ensures a powerful cut
- Sturdy, practical and very sharp
- Moulded handle made out of wood
- Rust-proof
- Stainless steel



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

Electricians pen knife

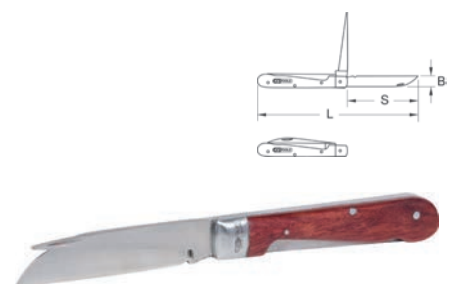
- Blade folds away
- With a straight blade that ensures a powerful cut
- With stripping function for cables
- Sturdy, practical and very sharp
- Moulded handle made out of wood
- Rust-proof
- Stainless steel



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

Electricians pen knife

- Retractable blades
- With straight blade and extra narrow pointed blade that provides for a powerful cut
- Sturdy, practical and very sharp
- Moulded handle made out of wood
- Rust-proof
- Stainless steel

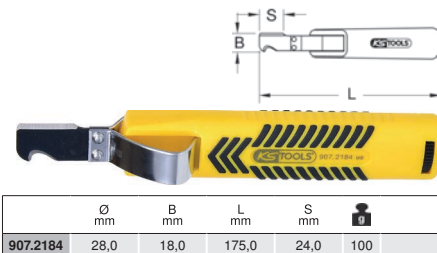


	B mm	L mm	S mm	Weight g
907.2188	19,0	198,0	90,0	60

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 mounting



Stripping tool for coaxial cable

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



	mm²	L1 mm	L2 mm	Weight 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



	mm²	L1 mm	L2 mm	Weight 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



	mm²	AWG	L1 mm	L2 mm	Weight 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

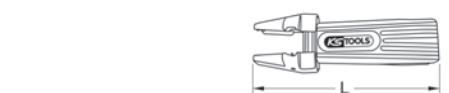
- For stripping all standard round cables
- Cutting depth can be adjusted exactly to thickness of sheath
- The knife automatically switches from round to longitudinal cutting
- Retaining bracket adjustable
- Complete stripping of insulation



	mm²	Wire mm	AWG	L mm	Weight 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



	mm²	Wire mm	L mm	Weight g
115.1007	0,5-16,0	4,0-12,0	137,0	81

Insulation stripping knife

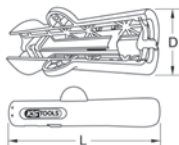
- Basic stripping of insulation from conductors
- The scanning system automatically adapts to the conductor cross-section
- The stranded conductor can then be twisted



	mm²	AWG	L mm	Weight g
115.1001	0,5-6,0	20-10	158,0	116

Round cable insulation stripper

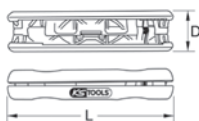
- For round cables and damp-proof cables
- Flush stripping of insulation even in areas that are hard to access, e.g. in ceilings and walls, in junction and distribution boxes and switch cabinets



	Ø Wire mm	L mm	Weight g
115.1006	8,0-13,0	125,0	43

Coaxial cable insulation strippers

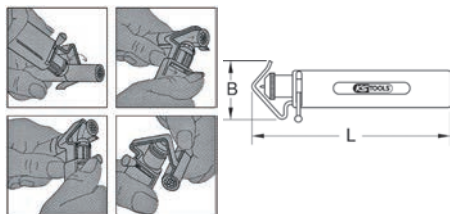
- Gradual stripping of insulation from all coaxial cables with an outer diameter of 4.8 - 7.5 mm
- Equally suitable for flexible cables and 3 x 0.75 mm², 10 mm² and 16 mm² cables



	Ø Wire mm	L mm	Weight g
115.1002	4,8-7,5	110,0	30

Universal stripping tool

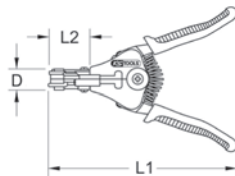
- With round cutting and longitudinal cutting function
- Suited for spiral cutting of hard insulation
- Variable cut depth adjustment through thumb wheel
- For a maximum insulation strength of up to 4,5 mm



	mm²	B mm	L mm	Replacement blades	Weight g
115.1256	6-25	41,0	138,0	115.1257	138

Automatic wire stripper

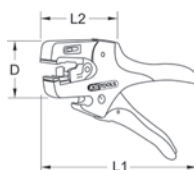
- Allows for stripping of any cable length, therefore ideal for retrofitting auxiliary heating systems, gas systems and other electrical consumers
- Automatically adjusts to the respective diameters
- For the professional and damage-free stripping of electric wires, stranded conductors and cables
- For copper and aluminium wires
- Plastic handle
- Durable clamping jaw for the adherence of the wire
- With return spring
- Smooth running mechanics
- Sturdy design



	Ø mm	AWG	D mm	L1 mm	L2 mm	Weight g
115.1028	0,5-2,0	20-14	20,0	170,0	35,0	280
115.1029	1,0-3,2	18-8	20,0	170,0	35,0	280

Self regulating wire stripper

- Easily interchangeable knife modules
- Suitable for single and multi-core cable with popular standard insulation
- Exact adjustment possible for safe stripping
- For the professional and damage-free stripping of electric wires, stranded conductors and cables
- With different length stops from 3.0 – 18.0 mm
- For copper and aluminium wires
- With cutting function
- Lightweight
- Smooth running mechanics



	mm²	AWG	D mm	L1 mm	L2 mm	Replacement blades	Weight 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	10-5	48,0	190,0	73,0	115.1248	130

Universal stripping tool

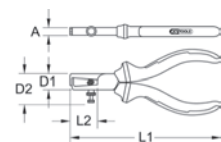
- For insulated cables
- With round cutting and longitudinal cutting function
- Suitable for stripping insulation from damp-proof cables, and for cutting plastic pipes
- Replaceable blade



	mm²		
117.4275	6,0-28,0	117.4276	60

Wire stripper

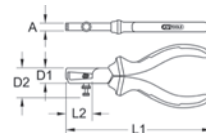
- In accordance to DIN ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- With PVC dipped handle
- For wires from 0,5 - 4.0 mm²
- Matt chrome
- Special tool steel



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

ERGOTORQUE® wire stripper

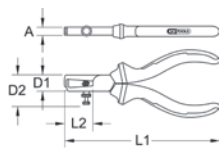
- In accordance to DIN ISO 5232
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,5 - 4.0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm	Weight g
115.1014	9,0	20,5	33,0	179,0	39,0	300

ERGOTORQUE® VDE cable stripper

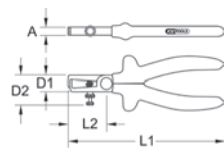
- In accordance to DIN ISO 5232
- Wrap around insulation to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- Two component handle
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1114	10,0	17,5	31,5	160,0	36,0		210

1000V wire strippers

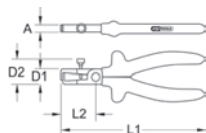
- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1271	9,5	18,5	31,5	160,0	44,0		180

1000V wire strippers

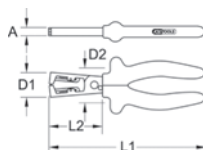
- In accordance to DIN ISO 5232
- Insulated handle to IEC 60900
- With coated working head
- Locking jaw opening
- Adjusting screw and spring
- For wires from 0,8 - 6,0 mm²
- Matt chrome
- Special tool steel



	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1713	11,0	18,5	20,0	160,0	34,0		180

1000V wire strippers

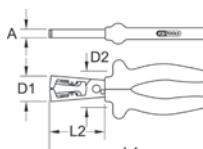
- Insulated handle to IEC 60900
- Self-adjusting
- With replaceable knives
- For wires from 0,5 - 5,0 mm²
- Cutting holes for the separation of cables and wires
- Matt chrome
- Special tool steel



	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

1000V wire strippers

- Insulated handle to IEC 60900
- Multifunctional wire strippers
- 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

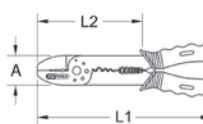


	A mm	D1 mm	D2 mm	L1 mm	L2 mm		
117.1225	10,0	24,0	40,0	185,0	61,0		260

CRIMPING TOOLS

Multifunction pliers for insulated and non insulated cable terminals

- For professional 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



	A mm	L1 mm	L2 mm	
115.1231	40,0	220,0	130,0	230

Multifunction crimping pliers set

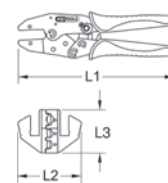
- For insulated and un-insulated cable terminals
- Includes 270 pcs consumables
- For professional cable cutting and stripping wires from 0,75 - 6,0 mm²
- For crimping cable terminals and connectors from 1,5 - 6,0 mm²
- Cutting function
- Two component handle
- Pliers body made of flat steel
- In durable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






115.1230	271 pcs	Multifunction crimping pliers set	560

Crimping pliers for non insulated terminals

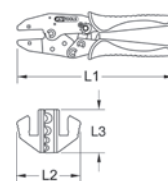
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished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



	 mm²	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

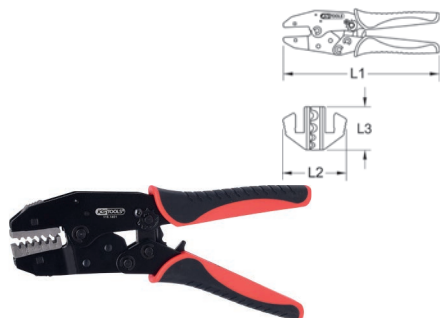
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished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



	mm ²	AWG	L1 mm	L2 mm	L3 mm		 g
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

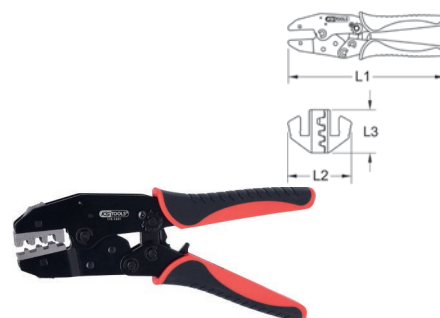
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished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



	mm²	AWG	L1 mm	L2 mm	L3 mm		
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

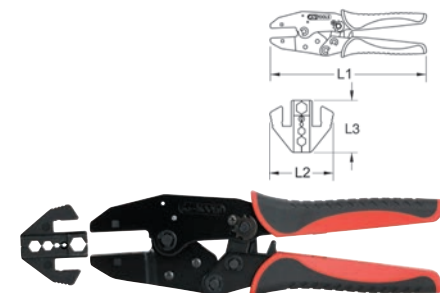
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished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



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

Crimping pliers for coaxial terminals

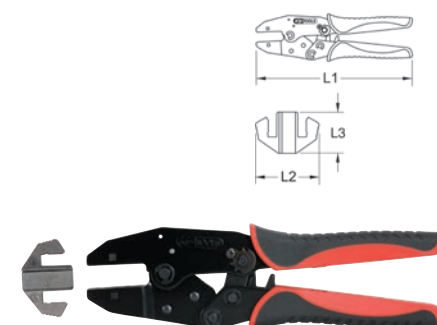
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished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



	mm²	AWG	L1 mm	L2 mm	L3 mm		
115.1445	1,7/2,5/0,5/4,0/6,4/8/23	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 change of crimp inserts
- Through quick locking device
- Two component handle
- Burnished
- Pliers body made of flat steel



	mm²	AWG	L1 mm	L2 mm	L3 mm		
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 pliers 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



115.1480	3 pcs	Electricians crimping pliers 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 pliers set

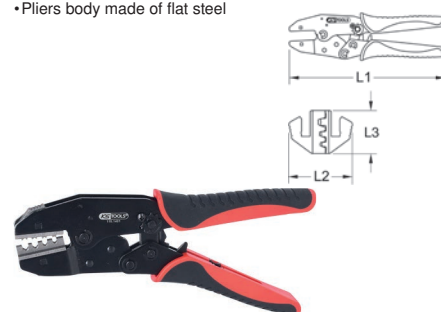
- Ideal configuration for network cabling
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking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



115.1490	5 pcs	Net working crimping pliers 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 pliers for Solarlok

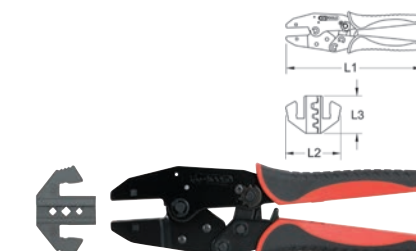
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished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



	mm²	AWG	L1 mm	L2 mm	L3 mm		
115.1520	6,0 / 4,0 / 2,5 / 1,5	10 - 15	220,0	50,0	34,0	115.1412	540

Crimping plier for solar coupler MC 3

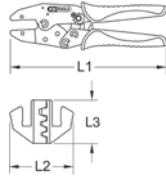
- Extremely robust and reliable
- Safety lock
- Inserts lock and to they click to prevent possible misuse
- Optimal crimping through precision profile
- Ratchet function
- Adjustment of the crimping pressure
- Easy to change the crimp heads through quick locking device
- Two component handle
- Burnished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



	mm²	AWG	L1 mm	L2 mm	L3 mm		
115.1521	4,0 / 6,0 / 2,5	12 / 10 / 14	220,0	50,0	34,0	115.1413	545

Crimping pliers for solar coupler MC 4

- 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



	mm²	AWG	L1 mm	L2 mm	L3 mm	Weight kg
115.1522	2,5 / 4,0 / 6,0	14 / 12 / 10	220,0	50,0	34,0	115.1414 550

Universal crimping tool set with automatic wire stripper

- Extremely robust and reliable crimping tool
- 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
- Including self-closing and damage-free automatic wire stripper



	Weight kg
115.1400 283 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
Socket-set with insulated tools

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



1/4"

	Weight kg
117.1877 22 pcs Socket-set with insulated tools	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

Socket-set with insulated tools

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



1/4"

	Weight kg
117.1876 21 pcs Socket-set with insulated tools	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

Socket-set with insulated tools

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



3/8"

	Weight kg
117.1878 21 pcs Socket-set with insulated tools	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

Socket-set with insulated tools

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



3/8"

	Weight kg
117.1882 16 pcs Socket-set with insulated tools	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

Socket-set with insulated tools

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



3/8"

117.1850			
16 pcs	Socket-set with insulated tools	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	

Socket-set with insulated tools

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



3/8"

117.1885			
16 pcs	Socket-set with insulated tools	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	

Socket-set with insulated tools

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



3/8"

117.1881			
14 pcs	Socket-set with insulated tools	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	

Socket-set with insulated tools

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



3/8"

117.1888			
13 pcs	Socket-set with insulated tools	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	

Socket-set with insulated tools

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



3/8"

117.1886			
13 pcs	Socket-set with insulated tools	2,56	
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	

Socket-set with insulated tools

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



3/8"

117.1887			
11 pcs	Socket-set with insulated tools	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	

Socket-set with insulated tools

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



			117.1889	11 pcs	Socket-set with insulated tools	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				

Socket-set with insulated tools

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



			117.1883	15 pcs	Socket-set with insulated tools	3,99
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				

Socket-set with insulated tools

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



			117.0600	9 pcs	Socket-set with insulated tools	2,07
1 x		270 mm				
7 x		10 - 13 - 14 - 16 - 17 - 19 - 21 mm				
1 x		125 mm				

Socket-set with insulated tools

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



			117.1860	16 pcs	Socket-set with insulated tools	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				

Tool set with insulated tools

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













			117.1870	20 pcs	Tool set with insulated tools	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				

Tool set with insulated tools

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












			117.1840	26 pcs	Tool set with insulated tools	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

Tool set with insulated tools

- Insulated handle to IEC 60900
- Made out of red leather
- With carrying strap
- Special tool steel



117.1872	14 pcs	Tool set with insulated tools	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	


Basic electricians tool set

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



117.0180	30 pcs	Basic electricians tool set	9,00
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		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
- With carrying handle
- Durable metal case



117.0181	30 pcs	Basic electricians tool set	8,83
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		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 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	Wrench	10", 250 mm	
1 x	Wrench		
1 x	Wrench		
1 x	Wrench	1/4": 918.0646	
1 x	Screwdriver	1/4"	
1 x	Screwdriver	1/4": 911.2026	
1 x	Hammer	300 g	
1 x	Wrench	1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm	
1 x	Wrench	3 m x 19 mm	
1 x	Wrench	500.7165	
1 x	Wrench	8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 19 mm	
1 x	Screwdriver	3 mm	
4 x	Screwdriver	2,5 - 4 - 5,5 - 6,5 mm	
3 x	Screwdriver	PH 0 - PH 1 - PH 2	
1 x	Pliers	160 mm	
1 x	Pliers	150 mm	
1 x	Pliers	175 mm	
1 x	Pliers	200 mm	
1 x	Pliers	200 mm	
1 x	Pliers	200 mm	
1 x	Pliers	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	Wrench		
1 x	Hammer	300 g	
1 x	Hammer	1000 g	
1 x	Screwdriver	Ø 16 mm	
1 x	Screwdriver	Ø 16 mm	
1 x	Wrench	40 mm	
1 x	Wrench	# 2	
1 x	Wrench	2 m	
1 x	Wrench		
1 x	Screwdriver	6 - 400 V	
1 x	Screwdriver		
1 x	Wrench	400 mm	
1 x	Wrench		
1 x	Wrench	1/4": 911.2060	
1 x	Wrench	1/4": 918.0640	
1 x	Wrench	2,0 - 2,5 - 3,0 - 4,0 - 5,0 - 6,0 - 8,0 - 10,0 mm	
1 x	Wrench		
1 x	Wrench	5 m x 19 mm	
1 x	Wrench	8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 mm	
1 x	Wrench	8", 200 mm	
1 x	Screwdriver	3,0 mm	
4 x	Screwdriver	3,5 - 4,0 - 5,5 - 6,5 mm	
3 x	Screwdriver	PH 0 - PH 1 - PH 2	
1 x	Pliers	160 mm	
1 x	Pliers	150 mm	
1 x	Pliers	175 mm	
1 x	Pliers	200 mm	
1 x	Pliers	200 mm	
1 x	Pliers	250 mm	














Electricians tool set

- Ideal set for electricians
- Can be used by hand or with an electric screwdriver
- Ideally suited for fittings in trade and industry
- 6 point
- FlankTraction profile
- Matt finish
- Chrome vanadium
- In a classy aluminium case



1/4" 1/2"

911.0628			
128 pcs	Electricians tool set	10,88	
12 x	Wrench	1/4": 4 - 4,5 - 5 - 5,5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 mm	
12 x	Wrench	1/2": 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 21 - 22 mm	
2 x	Wrench	1/4": 50 - 100 mm	
1 x	Wrench	1/2": 125 mm	
2 x	Wrench	1/4" - 1/2"	
1 x	Wrench	1/4": 110 mm	
1 x	Wrench	28 mm	
1 x	Wrench		
1 x	Wrench		
1 x	Wrench	28 mm	
1 x	Wrench	145 mm	
1 x	Wrench	300 g	
3 x	Screwdriver	HB	
1 x	Screwdriver	250 mm	
1 x	Screwdriver	250x25 mm	
1 x	Wrench	38 mm	
1 x	Wrench	2 m	
1 x	Wrench	300 mm	
1 x	Wrench	1/4": 911.2060	
1 x	Wrench	1/4": 205 mm	



















1 x		1/4": 145 mm
1 x		1/2": 250 mm
9 x		1,5 - 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm
1 x		5 m
18 x		100 mm
10 x		8 - 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 - 22 mm
1 x		150 - 250 V
4 x		2,5 - 4 - 5,5 - 6,5 mm
2 x		PH1 - PH2
1 x		160 mm
1 x		160 mm
1 x		170 mm
1 x		165 mm



Tool set with insulated tools

- Insulated handle to IEC 60900
- Made out of red leather
- With carrying strap
- Special tool steel
























117.1830 36 pcs Tool set with insulated tools 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
- For working environment of voltages AC 1000 V and DC 1500 V
- Made out of red leather
- With carrying strap



117.1871 55 pcs Professional electricians tool set 13,34			
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
- With carrying strap


Professional electricians tool set

- Insulated handle to IEC 60900
- Robust hard shell toolcase


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 red leather
- With carrying strap
- Front and middle wall can be folded down
- Robust design to hold approx. 50 tools and protective parts of your choice
- Chromed fittings



117.1820-99	Toolcase, empty	4,30	

Toolcase, empty

- Made out of red leather
- With 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	

117.1820	53 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 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		# 9	
1 x		260 mm	
4 x		2,5 - 4,0 - 5,5 - 6,5 mm	

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	