



OPTION GUIDE 漆包线检测仪器 选型手册

for Enamelled Wire Tester



DEAN GROUP

迪安电工集团

中国漆包线检测仪器领域的标杆性企业

迪安电工集团总部位于上海，业务涉及电工仪器、绝缘材料、电工及绝缘材料的第三方检测和国际贸易。

集团旗下的上海迪安电工器材有限公司（上海市高新技术企业），是中国漆包线检测仪器领域的标杆性品牌。公司于 2004 年就成功研发出具有自主知识产权的漆包线介质损耗测试仪和漆包线耐电晕测试仪，并获得了国家发明专利。该型仪器在国内的市场占有率已达到 80% 以上。目前我公司销售的漆包线检测仪器涵盖了机械性能、电性能、化学性能等，品种齐全。

2013 年，集团与意大利 Rigon 仪器公司共同投资成立瑞光仪器（亚洲）有限公司，公司将全面引进意大利的研发及制造技术，并负责 Rigon 仪器在亚洲地区的销售及售后服务。

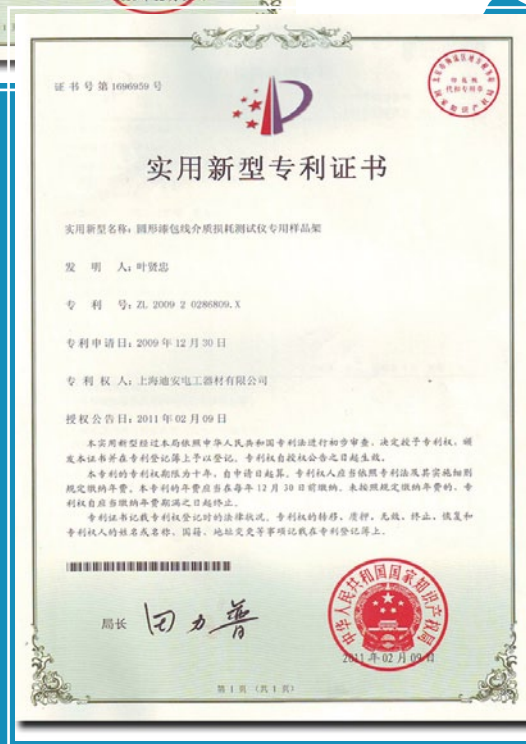
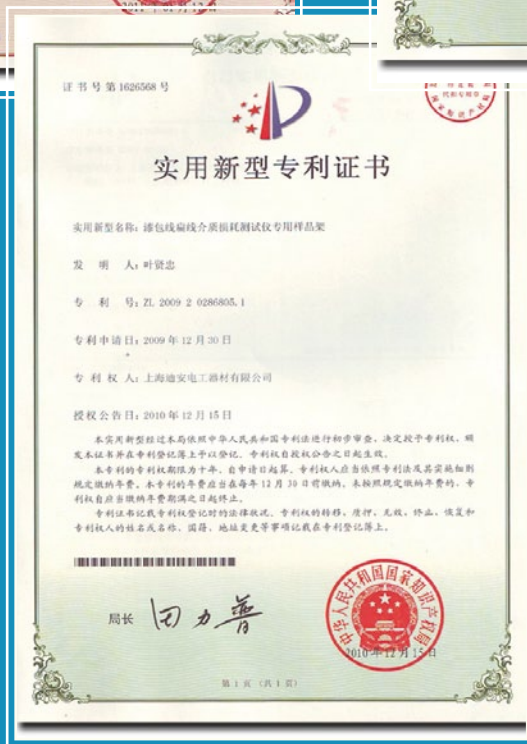
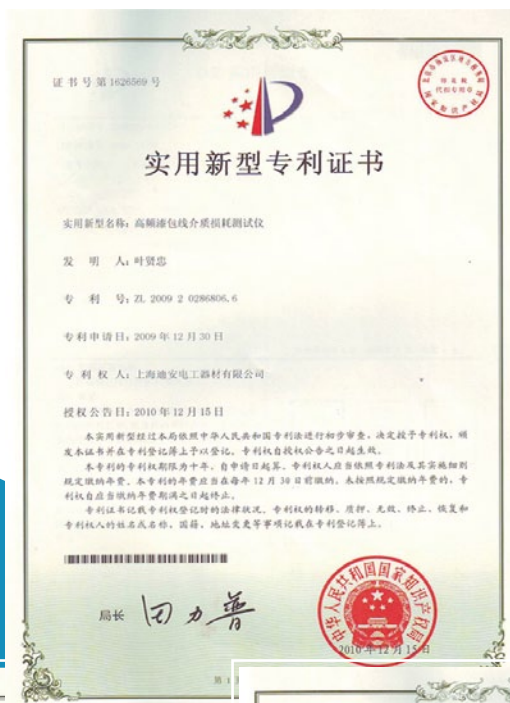
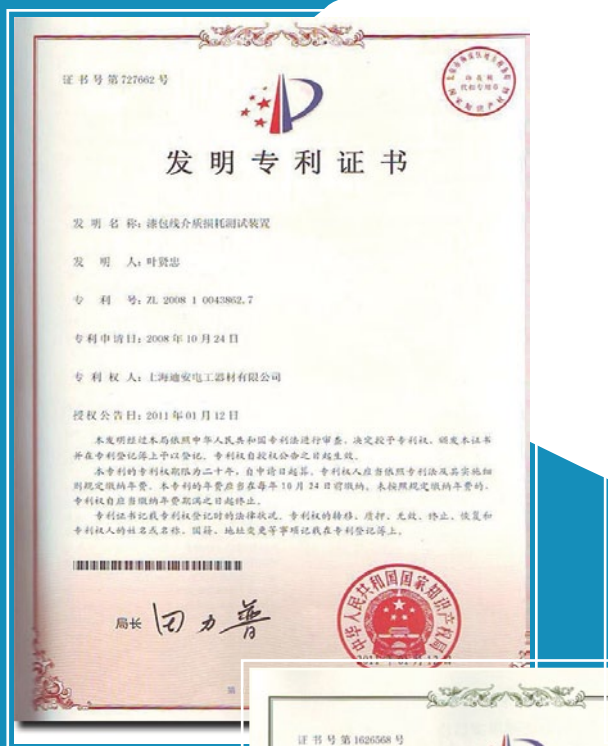
——意大利 Rigon 仪器公司（Rigon Instruments SAS）是世界知名的漆包线检测仪器专业制造商，公司拥有雄厚的设计团队和技术力量，可以向客户提供全方位的漆包线性能测试解决方案，Rigon 公司的现代化专业研发实验室，可以预测并满足客户的需要，Rigon 不仅可以满足客户常规标准（例如 IEC60851、NEMA1000、JISC3003 等）的测试需求，还可以根据客户需求，提供非标检测设备，因为 Rigon 在行业内始终奉行领先市场和技术前驱的理念。Rigon 仪器客户遍及世界 30 多个国家，在中国使用 Rigon 仪器的客户有铜陵精达、清江大通、冠城大通、浙江露笑、上海日立、无锡环宇、珠海蓉胜、番禺天顺、保定天威、四川金瑞等。





迪安电工集团总部位于上海浦东，距浦东国际机场和迪斯尼乐园仅8公里，地理位置得天独厚。

企业资质 Certificate





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珠海松田电工有限公司
珠海一致电工有限公司

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电脑控制软化击穿仪 TP-PC Thermal Cut-through Tester

仪器介绍 Instrument Description

— 该仪器设计的初衷是为了满足不同标准的测试要求。由于采用了工业电脑，使得不同的功能可以自动地得到执行并打印测试结果，执行菜单，操作简便，允许非技术人员操作，且在试验时，操作人员还可以做其它事务。

— This tester has been designed to solve to enamelled wire manufactures requests that need to carry out tests in different standards. Thanks to an industrial personal computer has been possible to implement all different functions to carry out tests automatically with print out of every measured value, an easy to use menu allow the operation of this tester to unskilled personnel too, while the tester is performing a test the operator can complete others duty.

— 测试范围：圆线直径从 0.1 ~ 5.0mm，扁线最大到 25.0 × 6.0mm

— 可满足定温法以及不同标准升温法的测试

— 全套砝码

— 升温速度每分钟 1 ~ 50°C 可调

— 预热和测试时间 10 ~ 999 秒可编程

— 最多可 20 个样品测试后进行统计（仅圆线）

— 试验腔快速冷却系统

— 最高测试腔温度可达 550°C

— 全自动电脑控制，自动计算最小、最大、平均温度和打印相关参数

— 电源：230V 50/60HZ 单相 600VA

— 压缩空气：4 ~ 6BAR

— 尺寸：800 × 680 × 750mm

— Suitable for wire diameter range from 0.10 up to 5.0 mm (38-4 AWG). Strip up to 25.0 × 6.0 mm with optional test block.

— Complete set of weights for all standard.

— Rising temperature adjustable from 1 up to 50° C/1' .

— Preheating and test time programmable from 10" up to 999" (according to IEC)

— Automatic loading/unloading of test weight

— Up to 20 specimen in sequence (only round wire).

— Fast test block recooling system.

— Maximum test block temperature 550° C.

— Automatic calculation of minimum, maximum, median temperature

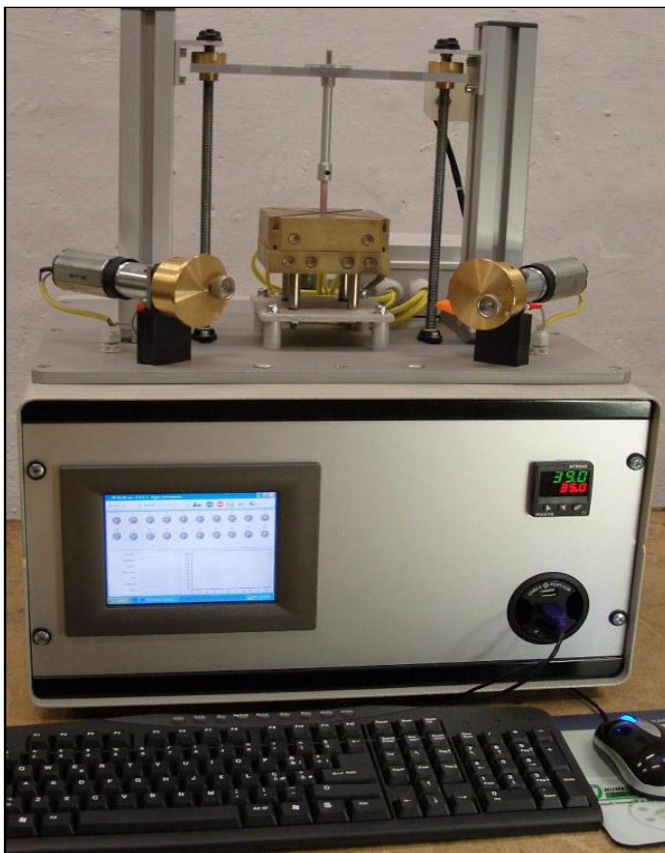
and printout of relevant parameters

— Power supply: 230V 50/60Hz 1phase 600V/A

— Compressed air: 4~6bar

— Dimentions: W800 × H680 × D750mm

— Weight: 36 KG



ID_TEST	Date	Time	Norma	Operator	Customer	Diameter	Weight	Wire	NiGITest	Machine	Lubricant	Note
4	18/02/...	14.19	IEC_60...	operator...	custom...	4	3.0	wire	20	machine...	lubrican...	note
5	18/02/...	14.24	IEC_60...	op	cu	5	5.0	wi	20	ma	lu	no
6	18/02/...	17.07	IEC_60...	ep	cccccc	9	3.0	www	5	mmmm...	llllll	mmmm
7	18/02/...	17.21	JIS_C...	op	cu	4	3.0	wi	20	ma	lu	JIS
8	18/02/...	17.20	JIS_C...	op	cu	3	3.0	wi	20	ma	lu	ji
9	18/02/...	18.07	JIS_C...	Re	lo	5	5.0	w	20	Demo	no	lll
10	18/02/...	18.20	NEMA...	...	...	5	5.0	...	20	...	...	nema
11	18/02/...	18.26	IEC_60...	...	...	2	2.0	...	20	...	...	...
12	4/27/2...	6:50 A.	IEC_60...	...	...	2	2.0	...	20	...	...	...
13	4/27/2...	7:04 A.	IEC_60...	...	...	3	3.0	...	20	...	...	...
14	4/27/2...	7:08 A.	IEC_60...	...	...	3	3.0	...	20	...	...	...
15	4/27/2...	7:14 A.	IEC_60...	...	...	2	2.0	...	20	...	...	...



多样品软化击穿仪 TP-PC 10 Multiple Thermal Cut-through Tester

仪器介绍 Instrument Description



— 该仪器设计的初衷是为了满足不同标准的测试要求。由于采用了工业电脑，使得不同的功能可以自动地得到执行并打印测试结果，执行菜单，操作简便，允许非技术人员操作，且试验时，操作人员还可以做其它事务。

- 测试范围：直径 0.1 ~ 1.6mm 漆包圆线
- 同时可测试 10 根漆包线样品
- 每根样品配有数字温控单元，分辨率为 1°C，精度为 0.2%
- 全套砝码
- 升温速度每分钟 1 ~ 20°C 可调
- 预热和测试时间 10 ~ 999 秒可编程
- 试验腔快速冷却系统
- 最高测试腔温度可达 550°C
- 可选件：适合 20 个样品同时试验的试验腔，全套试验砝码及单元
- 电源：220V 50/60HZ
- 尺寸：700 × 680 × 750mm
- 重量：48kg

— Suitable for wire diameter from 0.10 up to 1.60 mm (38–14 AWG).

- Ten sample wires tested at same time.
- Digital temperature controller, resolution 1 ° C, accuracy > 0.2%.
- Complete set of weights.
- Automatic loading/unloading of test weights.
- Rising temperature adjustable from 1 up to 50° C/1".
- Preheating and test time independently programmable from 1" up to 99'99".
- Fast test block recooling system.
- Maximum test block temperature 500° C.
- Automatic calculation of minimum, maximum, average and median temperature and standard deviation
- Power supply : 220V 50/60Hz
- Dimensions : W700 × H680 × D750mm
- Weight: 48 KG

在线高压漆膜连续性测试仪 LINCHECK In-line High Voltage Continuity of Covering Tester

仪器介绍 Instrument Description

— 不同国家应用了有关漆包线试验的标准，欧洲标准 ISO9000 规定了一些基本原则及通常的试验方法，满足了最实际应用的要求，为了满足漆包线生产者与消费者的要求，必须保证产品制造全过程的品质。

— 使用在线高压漆膜连续性测试仪可以更大程度地保证漆包线根据要求进行测试，极大地减少了刮膜和顾客的抱怨，因为任何缺陷都会被检测出来。

— 软件程序运行在 windows 操作系统下，它允许设置所有的测试参数如测试电压和电流，可设置预警和报警阈值，在每一个设置的检测长度（1 到 1000 米）里出现异常时，如在一个连续测试长度里的缺陷数或每盘线里缺陷总数超出设置上限就会对操作员发出声光报警，所有数据都存储在一个数据库里便于进一步分析，这台电脑可以被连接到一个主机上用来监督整个工厂的生产。

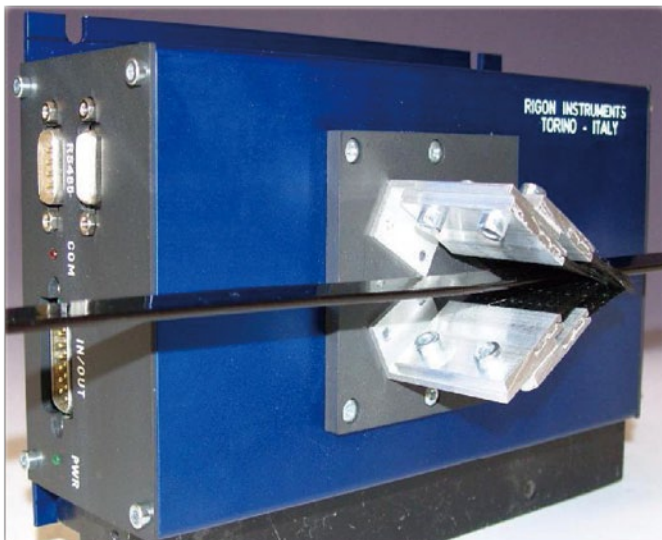
- 测试直流电压范围 100 ~ 3000V
- 测试电流范围 5 ~ 30 μ A
- 反映时间 <1 毫秒
- 两个最大容错开端
- 一台电脑通过多接口的 RS485 输出与其他模块（至多 64）连接，以管理试验参数
- 定制的电极，满足小线及扁线的所有要求

— The specifications on enameled wires tests applied in the various countries and the European specifications ISO 9000 define some basic principles and general test methods that satisfy the requirements of most practical applications. line to determine in which points of reel the faults are per reel is over, All data are stored in a data base for further.

— New requirements therefore originated from producers and consumers of enameled wires, the guarantee that the products satisfy the requirements from the beginning to the end of the reel.

— The software program runs under Windows application, it allows to set all test parameters such test voltage and current, set the pre-alarm and alarm thresholds, which alert the operator about the anomalies in every test length which can be set from 1 to 1000 meters. Pre-alarm alert the operator with a blinking lamp if the maximum admissible fault per test length is over, while the alarm (lamp and horn) occurs if in two consecutive test length the faults are over the set limit or if the total fault analysis. A statistical graphic trend is available for each .

- Test voltage adjustable from 100 up to 3000 Vdc.
- Test current adjustable from 5 up to 30 μ A.
- Response time < 1mS, production speed up to 1000 m/1'
- Two threshold for maximum admissible fault.
- RS 485 output for multipoint connection with others modules (up to 64 lines) to PC to supervise test parameters.
- Customized electrode to satisfy every requirement from fine wire to strip.





介质损耗测试仪 TD2 Tangent Delta Tester

仪器介绍 Instrument Description

— 石墨法

将一个漆包线试样用柔软的布擦拭后，放在含水的石墨分散液中浸涂 100mm，然后置于烘箱中干燥。将干燥后的样品放入恒温箱中，通过温度的变化测试相对的介质损耗的值，记录所有数据。

— 合金法

漆包线试样必须弯曲成 U 形，然后放进金属槽中。

— 适合测试直径 0.05mm ~ 5mm 的漆包线 (合金法适合 0.016 ~ 5mm)

— 最高工作温度可达 400°C，升温速率 1°C / 分钟 ~ 70°C / 分钟可调

— 三种不同的试验方法：石墨法及低熔点合金法和单点测试法

— 根据线的种类最多可绘制 5 根切线

— 测试频率为 1KHz，精度为 0.01%

— 介质损耗的分辨率为 0.0001

— 操作简便，无需专业技能

— 强大的数据存储与比较功能

— 自动计算 $\tan \delta$ 值，并打印 $\tan \delta$ 曲线

— 电源：230V 交流电 50/60Hz 单相 1000VA

— 尺寸：850 × 500 × 650mm

— 重量：58kg

— With graphite

A sample of enameled wire shall be wiped with a soft cloth, then spread with a water graphite solution on 100mm length and dried in an oven. The specimen shall be inserted in a thermostatic oven to measure the tan delta value versus temperature variation, any value shall be recorded.

— With alloy

A sample of wire shall be bent into a U-shape to be lowered into the metal bath.

— Suitable for wire diameter range from 0.05 up to 5.00 mm (alloy suitable 0.016~5mm)

— Maximum working temperature 400° C.

— Fast test time from 2' up to 6' , with adjustable rising temperature from 1° C/1' up to 70° C/1' for all sizes.

— Test frequency 1 KHz accuracy 0.01%, amplitude 5 V RMS

— Dissipation factor value resolution 0.0001

— Easily operation

— Great data base

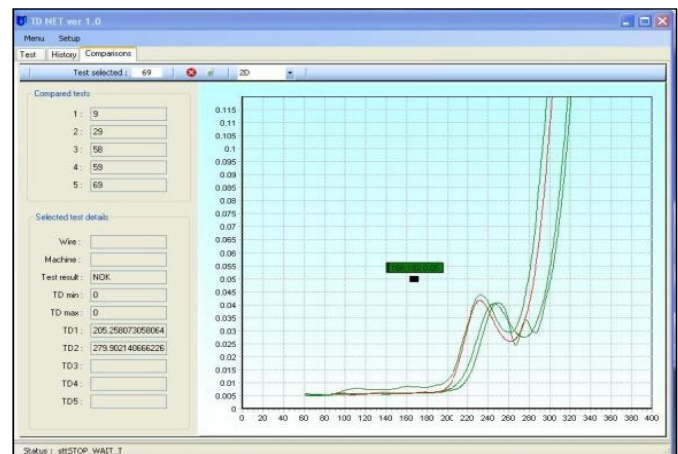
— Automatic print-out the curve

— Comparison

— Dimensions: W500 × H600 × D650mm

— Power supply: 230AV 50/60Hz 1200VA

— Weight: 58KG



耐电晕脉冲测试仪 PDT Pulse Dielectric Tester

仪器介绍 Instrument Description

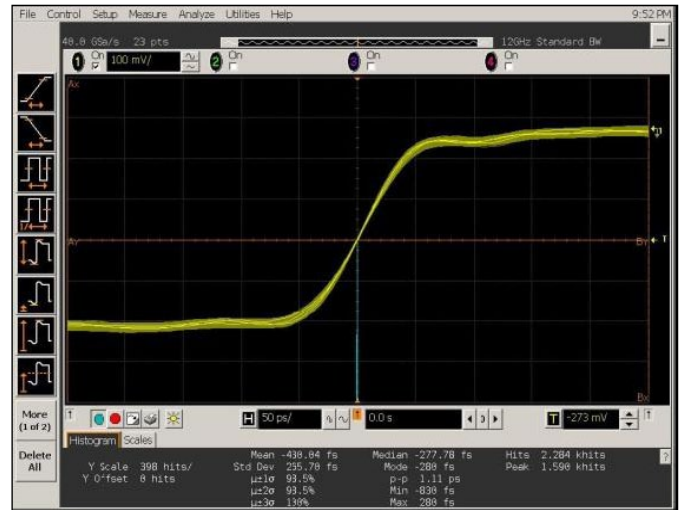
— 在变频电机中由于在线圈中所承受的非正弦波而是矩形方波电源，该种波形具有瞬间下降的特点（1/10ns），显然常规的测试如电场强度不能完全衡量漆包线的性能要求，为此 PDT 测试仪就成为必须。

— 准备三根漆包线样品，每根漆包线样品自身扭绞，使其端部打开，置于标准规定温度的烘箱中，向每对扭绞样品施加所规定上升及下降时间的高压。当施加在样品上的电流脉冲超出一定值时，样品失效，失效信息自动计入文本文件中。

- 测试电压：双极性方波 100VPP ~ 3kvVPP 可调
- 脉冲宽度 100ns ~ 2.5ms 内以 100ms 幅度可调
- 占空比：10% ~ 90% 可调
- 脉冲频率 200HZ ~ 20KHZ 可调
- 上升与下降坡度：40ns ~ 200ns，5 档可调
- 鼓风烘箱温度：400C ~ 2250C 可调
- 测试线规范围 0.05 ~ 2.0mm
- 每种样品的脉冲电流可调，使其有不同的失效值
- 电脑控制操作系统

— The enamelled wire used in asynchronous motors driven by inverter suffer of relevant electrical and thermal stress, due to the resulting sine waveform applied, derived from a modulated square waveform having steep rise and fall edges tenths of nano seconds, obviously the routine tests as for example the dielectric strength test, doesn't fully comply the requested performances, for this reason has been necessary develop a new test to simulate such conditions.

— Three enamelled wire samples are twisted back on themselves and the ends opened, placed in an air draught oven at the prescribed temperature, an high voltage having rise and fall edges according to the specifications is applied to each twisted pair. When the current threshold is exceeded for a given station, that station is disabled, the failure information is logged to a text file.



- Bidirectional test voltage independently adjustable from 100Vpp up to 3000Vpp
- Duty cycle adjustable from 10% up to 90%
- Pre-selectable test time up to 100 hours
- Pulse frequency from 200 Hz up to 20KHz
- Rising edges < 10nS @ 50 pF
- Air draught oven temperature adjustable from 40 ° C up to 225 ° C
- Current threshold adjustable in each station, with individual disable
- Suitable for wire diameter range from 0,05 mm up to 2 mm
- Test fixtures for each channel, suitable for twisted pair
- Windows operative system
- Dimensions: W600 x H1600 x D650mm
- Power supply: 230AV 50/60Hz 2500VA
- Weight: 96KG

Options

- BAR Bar code reader
- P5 Test chamber suitable for 5 samples.



高低压漆膜连续性测试仪 HLVT High/Low Voltage Continuity of Covering Tester

仪器介绍 Instrument Description



高压

— 电压发生器连续地向电极施加滤波电压。使用开放电路的直流测试电压可调范围是 $350 \pm 5\% \sim 3000 \pm 5\%V$ 。任何电压下的稳态短路电流是 $25 \pm 5 \mu A$ 。任何电压因 $50M\Omega$ 电阻引起的电压降 $<75\%$ 。试样长度为 30 米。一个适当的电路可以评估漆包线通过电流是否超过规定值，计数器显示针孔数。

低压

— 一根 30 米长的漆包线样品可以通过在盐水溶液 (30g/l) 中浸渍的两块毛毡，测试直流电压为 50V，电路能够检测出低于 $10K\Omega$ 的绝缘电阻。

- 适合测试直径为 $0.012mm \sim 1.6mm$ 的漆包线
- 高压 8 档可调: 350V、500V、750V、1KV、1.5KV、2KV、2.5KV、3KV
- 直流低压 10V \sim 110V 可调
- 测试速度在每分钟 5m \sim 30m 之间可调
- 可预置的 5 位计数器
- 配有故障持续报警装置
- 扩张式收线轮便于卸线
- 配有 5 位计数器进行最多针孔计数
- 配有 2 个高压和 1 个低压电极 (根据 IEC 标准)
- 电源: 230V50/60Hz 单相 300VA

尺寸: $500 \times 730 \times 620mm$

重量: 45kg

可选项

- GS 拉伸单元 2-4-6-8-10-12-14-16-18-20%
- ENEMAMW1000 标准指定的电极
- Ex 根据客户要求制造的低压电极

High voltage

— A voltage generator must provide the electrode with a continuous filtered voltage without transients. The test voltages using an open circuit must be adjustable from 350 to $3000Vdc \pm 5\%$. The permanent short circuit current must be $25 \pm 5 \mu A$ at any voltage. A $50M\Omega$ resistance applied to the high voltage electrode should not cause a voltage drop more than 75% irrespective of the voltage used; the specimen length shall be 30 meters. An appropriate circuit must evaluate whether the wire carries a current which is greater than that specified in the tables; a counter will display the number of faults.

Low voltage

— A sample of wire 30M length shall be passed through two felts in a water salt solution (30g/l). The test voltage shall be 50Vdc and the circuit shall be capable to detect an insulation resistance less than $10K\Omega$.

— Power supply: 230AV 50/60Hz one phase 300VA

— Dimensions: $W500 \times H730 \times D620MM$

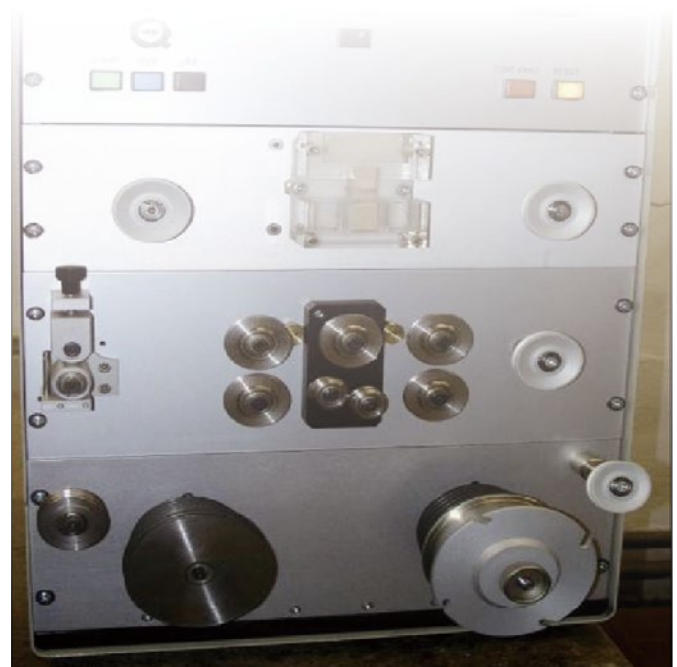
— Weight: 45KG

Options

— GS Stretching unit: 2-4-6-8-10-12-14-16-18-20%.

— E Electrodes according NEMA MW 1000 or IEC 60851-5.5.2

— Ex Customized low voltage electrode



高压漆膜连续性测试仪 HVT/HVT1 High Voltage Continuity of Covering Tester

仪器介绍 Instrument Description

— 电压发生器连续地向电极施加滤波电压。使用开放电路的测试电压可调范围是 $350 \pm 5\%$ ~ $3000 \pm 5\%$ V。任何电压下的稳态短路电流为 $25 \pm 5 \mu A$ 。任何电压因 $50M\Omega$ 电阻引起的电压降 $<75\%$ 。试样长度是 30 米。一个合适的电路可以评估漆包线通过电流是否超过规定值，计数器显示针孔数。



High voltage

— A voltage generator must provide the electrode with a continuous filtered voltage without transients. The test voltages using an open circuit must be adjustable from 350 to 3000Vdc $\pm 5\%$. The permanent short circuit current must be $25 \pm 5 \mu A$ at any voltage. A 50 Mohm resistance applied to the high voltage electrode should not cause a voltage drop more than 75% irrespective of the voltage used; the specimen length shall be 30 meters. An appropriate circuit must evaluate whether the wire carries a current which is greater than that specified in the tables; a counter will display the number of faults.

— Suitable for diameters range 0.05 up to 1.6 mm (44 –14 AWG).

— Test voltages adjustable in 8 steps: 350V, 500V, 750V, 1KV, 1.5KV, 2KV, 2.5KV, 3KV

— Test current according to standard specifications.

— Four digit meter counter with pre-selectable test length, resolution 0.1 meter.

— Four digit fault counter with sign-calling maximum admissible faults.

— Winding wheel for easy wire removal, asynchronous motor with worm gearbox, adjustable speed from 3 up to 30 m/1' with inverter driver.

— 适合测试直径为 0.05mm ~ 1.6mm 的漆包线

— 测试电压 6 档可调: 350V, 500V, 750V, 1KV, 1.5KV, 2KV (HVT1)

— 测试电压 8 档可调: 350V, 500V, 750V, 1KV, 1.5KV, 2KV, 2.5KV, 3KV (HVT)

— 可预置的 5 位计数器

— 配有 5 位计数器进行最多针孔计数 – 扩张式收线轮便于卸线, 无刷电机速度 5 ~ 30 米 / 分可调 (HVT)

— 提供 2 个电极及安全门 (按照 IEC 或 NEMA 标准)

— 电源: 230V 交流电 50/60Hz 250VA

— 尺寸: 500 × 600 × 620mm

— 重量: 38kg

可选件

— GS 拉伸单元 2-4-6-8-10-12-14-16-18-20%

— IEC 或 NEMA 标准指定的电极

— V 不同的试验电压



— Supplied with electrodes according to IEC 60851 or carbon fibre electrode according to NEMA.

— Dimensions: W500 × W600 × D620mm

— Power supply: 230AV 50/60Hz one phase 250VA

— Weight: 38KG

Options

— GS Stretching unit: 2-4-6-8-10-12-14-16-18-20%.

— E Electrodes according IEC or NEMA.

— V Different test voltages



低压漆膜连续性测试仪 LVT Low Voltage Continuity of Covering Tester

仪器介绍 Instrument Description

— 30 米长的漆包线样品必须通过在盐水溶液 (30g/l) 中浸渍的两块毛毡, 测试直流电压为 50V, 电路能够检测出低于 10K Ω 的绝缘电阻。
— A sample of wire 30 meters length shall be passed through two felts in a water salt solution (30 g/l) at the prescribed speed. The test voltage shall be 50Vdc and the circuit shall be capable to detect an insulation resistance less than 10 K Ω .



— 适合测试直径为 0.012mm ~ 1.6mm 的漆包线
— 试验直流电压由 10V ~ 110V 可调
— 可预置的 5 位计数器
— 试验速度每分 2 ~ 30 米可调
— 扩张式收线轮便于卸线
— 持续性故障报警装置
— 5 位计数器进行针孔计数
— 根据 IEC 标准提供的 2 个电极

— 电源: 230V 交流电 50/60Hz 300VA
— 尺寸: 500 × 560 × 620mm
— 重量: 45kg

可选件

— GS 拉伸单元 2-4-6-8-10-12-14-16-18-20%
— ENEMAMW1000 标准指定的电极
— Ex 定制电极
— SR 根据要求设计的灵敏计

— Suitable for diameter range from 0.012 up to 1.6 mm
— Test voltage adjustable from 10 to 110Vdc, with digital indicator 3 digit, resolution 1 Volt.
— 4 digit meter counter with pre-selectable test length, resolution 0.1 meter.
— Test speed electronically adjustable from 2 up to 30 m/1' .
— Winding wheel for easy wire removal, asynchronous motor and worm gearbox inverter driven.
— Continuous fault signalling device.
— 4 digit fault counter with alarm maximum admissible faults.
— Supplied with electrode IEC or NEMA standard at choice.

— Power supply: 230AV 50/60Hz 300VA
— Dimensions: W500 × H560 × D620mm
— Weight: 45KG

Options

— GS Stretching unit; 2-4-6-8-10-12-14-16-18-20%.
— E Electrode according NEMA MW 1000 or IEC 60851-5.5.1.
— Ex Customised electrode.

盐水针孔测试仪 PH Pin Hole Tester

仪器介绍 Instrument Description

— 直径小于 0.06mm 的漆包线，取 1.5m 长作为试样，对于直径 $\geq 0.06\text{mm}$ 的漆包线，取 6m 作为试样，在温度为 $125^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 的恒温箱中加热 10 分钟后（不弯曲，不拉伸），浸渍在浓度为 0.2% 的盐水溶液中，加入适量的酚酞含量为 3% 的酒精溶液中（直径小于 0.06mm 的漆包线，浸入长度为 1m；直径 $\geq 0.06\text{mm}$ 的漆包线，浸入长度为 5m），对溶液施加 12V 的正极电压，然后检测产生的针孔数。

— 由聚碳酸酯有机玻璃组成的不锈钢槽和盖
— 测试电压为 2V ~ 27V 的直流电压，数字显示电流及电压值
— 数字计时器，计时范围 1 秒 ~ 59 分 59 秒

— 电源：230V50/60Hz 单相 25VA
— 尺寸：600 × 290 × 195mm
— 重量：9kg

— For diameters less than 0.06 mm a piece of wire 1.5 meters long and 6 meters for wire diameter bigger, carry out heat treatment for about 10' in a thermostatic oven at $125^{\circ} \pm 3^{\circ}$ C. After heat treatment, without bending nor stretching, dip the test piece in 0.2% sodium chloride aqueous solution added with proper quantity of alcohol solution of 3% phenolphthalein, about 1meters in length for wire dia. < 0.06 mm and about 5 meters for big one. Apply 12Vdc by making the solution as positive and then examine the numbers of pin holed generated.

— Polycarbonate tank and cover.
— Adjustable test voltage from 2 up to 24 Vdc with digital readout of test voltage and current.
— Digital timer with count down from 1" up to 59' 59" .

— Dimensions: W600 × H290 × D195mm
— Power supply: 230V 50/60Hz one phase 25VA
— Weight: 9KG





直流电阻测试仪 OHM Electrical Resistance Tester

仪器介绍 Instrument Description

— 漆包线的电阻以 20°C 时的直流电阻表示，采用方法测出的精度为 0.5%，如果测试时温度不是 20°C，仪器将进行自动温度补偿。

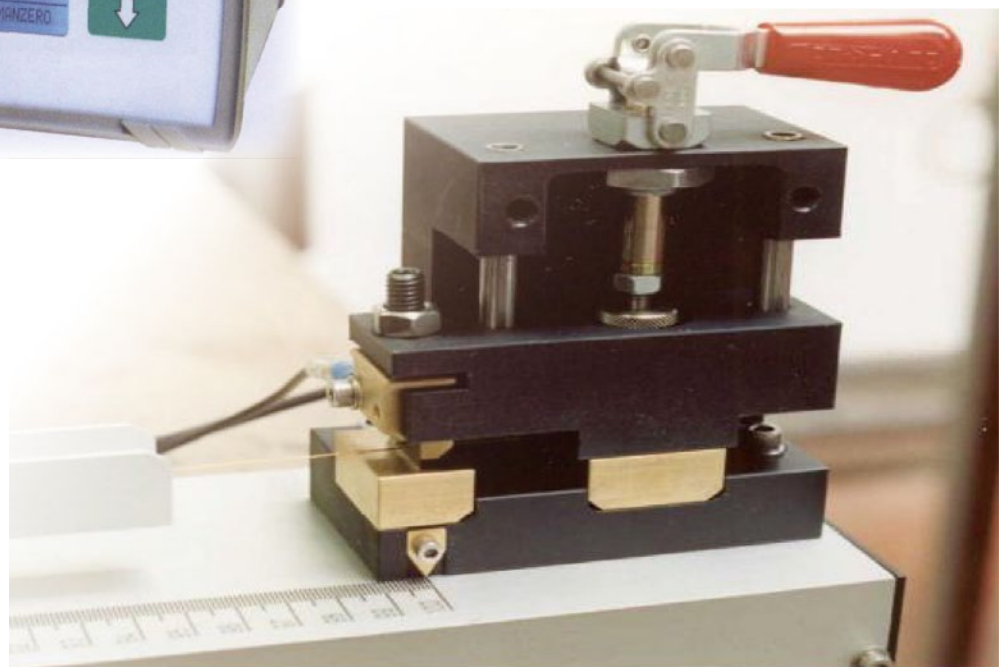
- 适合测试直径为 0.05mm ~ 6.0mm 的漆包线
- 数字式毫欧计，显示 7 个测量范围，分辨率 10 微欧，精度 >0.2%— 四种终端测量方法
- LCD3 位半显示
- 自动温度补偿 0 ~ 40°C
- 1 米长的自动夹持夹具
- 交流电或电池组电源

可选件

— OHM24 位半数字式毫欧计，分辨率 1 微欧，精度 >0.05%，也适合直径 >1.6mm 的漆包线，RS232 界面。

— The resistance of the wire shall be expressed as the directional current resistance at 20° C The method used shall provide an accuracy of 0.5%. If the resistance is measured at a temperature other than 20° C a correction factor have to be applied.

- Suitable for wire diameter 0.05 up to 6.0 mm (8 AWG).
- Digital milliohmmeter with 7 test range, resolution 10 microohms, accuracy 0.2%.
- Four terminal measurement method.
- LCD 4 digit display, sampling rate 5 reading per second.
- Automatic temperature compensation for Cu, MS63, MS80 and thermal e.m.f. compensation from 0 up to 40° C.
- 1 meter sample holder with automatic clamping device.



立柜式高压击穿仪 RDT Breakdown Voltage Tester

仪器介绍 Instrument Description

- 适合测量直径 0.012mm ~ 8mm 的漆包圆线和横截面不大于 200mm² 的扁线
- 高压变压器容量 600VA
- 数字电压表，具有两档定时电压设定
- 数字计时器，预置 0.2 秒 ~ 9999 秒可调
- 根据标准自动定时升压
- 测试腔双安全门
- 装有脚轮及刹车，便于移动
- 4 种测试电压范围：V100-2Kv0-10Kv
- 适合室温试验的测试腔的尺寸为 400 × 420 × 450mm
- 按照标准要求自动升压的控制器，4 种试验方案（手动，升压范围由每秒 4 ~ 600V 可调，自动，一种或两种定时试验）
- 提供适合于测试直径为 0.1 ~ 2.5mm 的漆包线的电极
- 电源：230V 交流电 50/60Hz 单相 800VA
- 尺寸：1800 × 610 × 700mm
- 重量：120Kg

可选件

- PC 电脑控制获取数据并管理，分别输出数值，包括最小值、最大值、平均值及标准偏差值
- STB 稳压器，在线电压 ±15%，输出 ±1%
- C2 最高可达 250°C 的高压试验腔
- V15 0 3Kv 0 15Kv
- V20 0 4Kv 0 20Kv
- V30 0 6Kv 0 30Kv

电极

- E1 圆柱体电极，适用于直径不大于 0.1mm 的漆包线，并配有全套砝码
- E4 球形电极，适用于直径大于 2.5mm 的漆包线，并配有全套砝码

- Dimensions: W1800 × H610 × D700mm
- Power supply: 230V 50/60Hz one phase 800VA
- Weight: 120KG

- PC control unit for data acquisition and data management with print out of single values, minimum, maximum, average and standard deviation.
- STB Voltage stabiliser. Line voltage +/- 15% output +/- 1%.
- C2 Test chamber suitable for high temperature tests up to 250° C, higher on request
- V15 0-3Kv 0-15Kv
- V20 0-4Kv 0-20Kv
- V30 0-6Kv 0-30Kv



Electrode

- E1 Electrode suitable for wire diameter < 0.10 mm (38AWG), complete set of weights.
- E4 Ball bath electrode suitable for wire diameter > 2.50 mm (10 AWG) and strip.

- Suitable for diameters from 0.012 to 8 mm (56 - ½ AWG) and strip.
- High voltage transformer rated power 600 VA.
- Digital voltmeter 4 digit, resolution 1 Volt, with 2 pre-selectable voltage for timed test.
- Suitable to determination of temperature index test
- Digital timer with pre-selection from 0.2" up to 9999 h.
- Automatic rise time voltage according to the standards.
- Double safety device applied on the cell door.
- Equipped with pivot wheels and break, easy to move.
- 2 testing voltage ranges: V15 0-3Kv 0-15Kv
- Test chamber suitable for test at environment temperature dimensions 400 x 420 x 450 mm.
- Control unit with automatic voltage rising according to the standards, 4 test (automatic, with one or two timed test, temperature index test).
- Supplied with electrode suitable for diameters from 0.10 up to 2.50 mm.



耐冷媒萃取测试仪 EXT Refrigerant Extraction Tester

仪器介绍 Instrument Description

— 8个漆包线试样分别卷绕成70圈的线圈，放入150度的强迫通风烘箱中处理15分钟，再冷却30分钟后，称量线圈的重量，精确至0.1mg。
— 将8个试样置于450ml的虹吸杯中，虹吸杯悬挂在压力釜顶部的冷凝管下面，然后装好压力釜，并注入R22冷冻剂，将压力釜置于加热控制系统上，并正确地连接冷凝器的进、出口水管，调节加热控制系统的温度及冷凝器的水流量使虹吸杯的回流次数保持在每小时20到25次，萃取6小时。

— 萃取结束后，将压力釜从加热系统上移开，并用干冰液化冷冻剂冷却压力釜，然后小心地排气并打开压力釜。用R113淋洗试样和虹吸杯，淋洗液应倒入压力釜中，慢慢地蒸发冷冻剂直至压力釜中还剩约5mm的冷冻剂。将萃取液倒入预先干燥并称重的铝质称量皿中，用15ml二氯甲烷冲洗，并在150°C下干燥蒸发1h，然后在干燥器中冷却至室温。称重盛有残留萃取物的称量皿，精确至0.1mg。



- 无焊缝的不锈钢结构
- 测压计，以兆帕为单位
- 过压保护值75 ~ 350PSI可调
- 最高工作温度为155°C

可选件

- HT 加热控制系统
- STV 通风烘箱
- BAL 精确度为0.1mg的分析天平
- GR 图解的温度记录计

— Eight enamelled wire specimens, shall be made into coils of 70 turns. The prepared specimens shall be annealed in a oven with forced air circulation at 150° C for 15'. After cooling for 30' the eight specimens shall be weighed together to the nearest 0,1mg.

— The eight specimens shall be placed in a 450 ml siphon cup and suspended from the condenser coil in the top portion of pressure vessel below the condenser. The pressure vessel shall be assembled and charged with monochlorodifluoromethane (R22). The pressure vessel shall be placed over a controlled heating system, and the condenser water supply and drain line properly connected. The temperature of the controlled heating system and the water flow running through the condenser shall be adjusted to maintain a reflux rate from 20 to 25 discharges per hour for 6 hours.

— After completion of the extraction, the pressure vessel shall be removed from its heating source and cooled with solid carbon dioxide to liquefy the refrigerant. The pressure vessel shall be discharged carefully and opened. The coils and the siphon cup shall be rinsed with R113 and the rinse shall be poured into the pressure vessel. The refrigerant shall be evaporated slowly to within 5 mm of the bottom of the vessel. The liquid sample shall then be transferred to a pre-dried tared aluminium weighing dish, with a 15 ml methylene chloride rinse evaporated to dryness at 150 ° C for 1h and then cooled to room temperature in a dessicator. The aluminium dish, with the residue, shall be weighed to the nearest 0,1mg.

Instrument Property

- Unwelded AISI 316 stainless steel construction.
- Pressure gauge for internal pressure measurement with scale in Mpaascal.
- Over pressure safety valve adjustable from 75 up to 350 PSI.
- Maximum working temperature 155° C.

Options

- COOL Closed circuit cooling device for coolant liquid into condenser.
- STV Air circulation oven
- BAL Analytical balance resolution 0.1 mg
- GR Graphic temperature recorder

耐水解和变压器油测试仪 HYD Refrigerant Extraction Tester

仪器介绍 Instrument Description

耐水解

— 在两根玻璃管中放入试样和脱气干燥变压器油。在其中的一根加入蒸馏水。密封两根试管并放入烘箱中加热 24 小时。然后从烘箱中取出试管，冷却至室温并打开。用正常视力检查试样。做一次测试，应记录试样外观和附着性的任何变化。测试仪

耐变压器油

— 在压力釜中放入试样，预处理后，压力釜中应注入符合规定的脱气干燥变压器油。密封的压力釜在规定温度下加热，然后冷却至室温，排气并打开压力釜。将试样按标准要求变压器油中测量击穿电压。检查圆棒卷绕试样是否开裂。做一次试验，应记录击穿电压值和任何开裂。

- 测试范围：圆扁线均可测试
- 通风烘箱温度最大到 250°C，数字式温控器，分辨率为 1°C
- 数字式计时器，可选时间最大到 9999 小时，带声音报警功能
- 压力容器容积 500ml，带密封装置
- 20 号高温玻璃管，最高达 180°C，完全密封

可选件

- STV 通风烘箱，自带数字式温控器和计时器
- RDT 击穿电压仪

Test Procedure

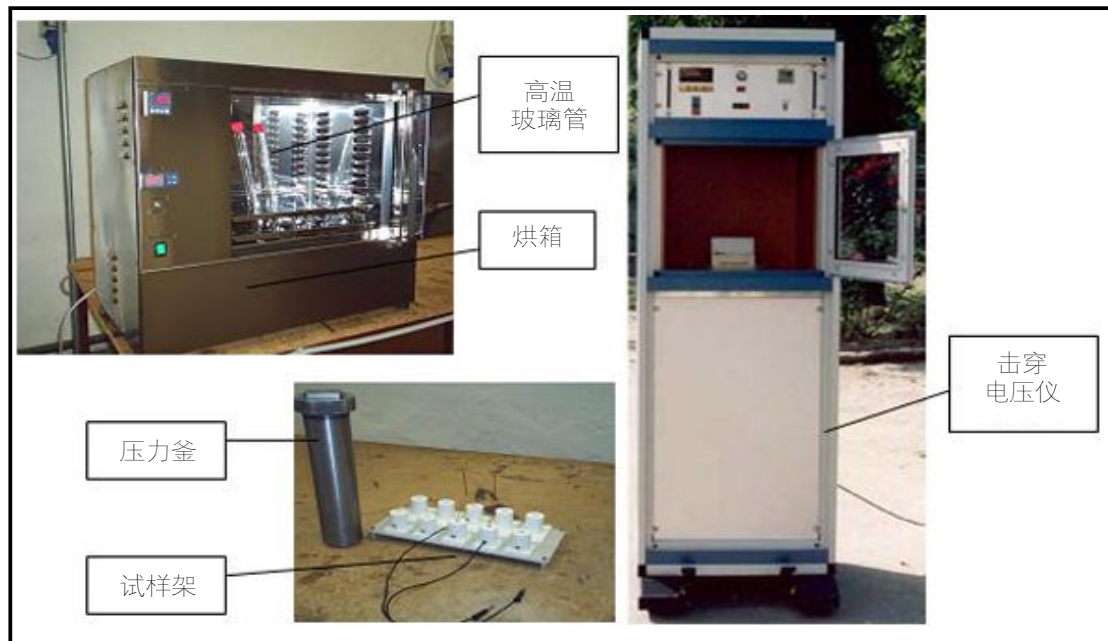
Resistance to hydrolysis is expressed by appearance and adherence after exposure of the specimens to transformer oil in the presence of water under pressure.

Resistance to transformer oil is expressed by breakdown voltage and flexibility after exposure of the specimens to transformer oil under pressure and at elevated temperature.

- Test range : both round and rectangular wire
- The temperature for oven is maximum 250, digital controller and resolution is 1°C
- Digital counting machine with sounding-calling function, maximum 9999 hours
- The pressure vessel volume 500ml, with the sealing device
- NO.20 fiberglass tube, maximum temperature is 180, completely seal

Options

- STV Ventilation oven with digital temperature controller and counting
- RDT Breakdown voltage





动静摩擦系数测试仪 SST5 Static/Dynamic Coefficient of Friction Tester

仪器介绍 Instrument Description



— 动静摩擦系数可以在同一台仪器上进行测试并通过同一台电脑控制。

— Static/Dynamic Coefficient can be tested in the same instrument and controlled by one computer.

静摩擦试验特点

- 电动倾斜装置, 倾斜速率为 $1^\circ / \text{秒}$, α 值的分辨率为 0.01°
- 电脑控制测试过程、设定参数、自动计算负荷及 $\tan \alpha$ 值并打印测试结果
- 全套砝码

动摩擦试验特点

- 摩擦系数测试装置, 分辨率为 0.01N , 精度为 0.25%
- 测试速度从 $1 \sim 30\text{m/min}$ 可调
- 全套砝码: 100g , 200g , 600 , 1000g
- 电脑控制测试过程、设定参数、计算并打印测试值、最小值、最大值、平均值及标准偏差值, 图形显示摩擦系数
- 特别设计的收线轮, 便于卸线
- 电源: 230V 交流电 $50/60\text{HZ}$ 单相 380VA
- 尺寸: $500 \times 700 \times 490\text{mm}$
- 重量: 41kg

Static coefficient test property

- Electric tripper device, inclining speed electronically regulated $1^\circ / 1''$, angle @ resolution 0.01°
- Test management with industrial PC, parameters setting, automatic calculation of applied weight and $\tan @$ value, with printout of test result.
- Complete setting of weight.

Dynamic coefficient test property

- Friction coefficient test device, resolution 0.01N , accuracy 0.25%
- Test speed adjustable from $1 \sim 30\text{M/MIN}$
- Complete set of weight 100g , 200g , 600g , 1000g
- PC test management, setting of number of measurements to be done, calculation and printout of measured.
- Winding wheel for easy wire removal.
- Dimensions: $W500 \times H700 \times D490\text{mm}$
- Power supply: $230\text{V AC } 50/60\text{Hz}$ one phase 38VA
- Weight: 41 KG

动摩擦系数测试仪 SST Dynamic Surface Smoothness Tester

仪器介绍 Instrument Description



- 摩擦系数的定义是 $\mu = Fr/Fn$, 这里 Fr 是指摩擦力, Fn 是指施加在漆包线的负载。
- 被测漆包线在一个底板和一个可移动的负载板之间以每分钟 15m 的速度移动, 两者都有规定的表面粗糙度。
- 测试负载被机械地连接到一个力器上, 由于漆包线表面存在摩擦, 测力器可以测试到摩擦力, 测试的数据可以被显示出来, 并定时进行记录。统计评估值得自 50 个单一数据。
- 摩擦力测试装置, 分辨率为 0.01N
- 电脑控制试验过程, 设定测量点数目、计算、打印每个测量值、最大值、最小值、平均值及标准偏差值, 并以图形表示
- 特别设计的收线轮, 便于卸线
- 全套砝码
- 电源: 220V 交流电 50/60HZ
- 尺寸: 500 × 560 × 630mm
- 重量: 32kg

- As coefficient of friction, which is defined as $u=Fr/Fn$, where Fr is the friction power and Fn the load applied on the wire.
- The test wire is moved at a speed of 15m/1' between a basic plate and a moveable loading plate, both have a defined surface roughness.
- The test load is mechanically connected to a dynamometer, which due to the roughness of the wire surface, detect the power friction, the values detected shall be displayed and recorded at desired time intervals. The statistical evaluation is taken from 50 single values.
- Load cell to detect the friction force, resolution 0.01 N
- Test management with PC, setting number of measurements to be done, calculation and print out of each single value, minimum, maximum, average and standard deviation, with graphical representation.
- Winding wheel for ease remove of tested wire.
- Complete of weights.
- Two test methods in one equipment (mod. SST2).
- Dimensions: W500 × H560 × D630mm
- Power supply: 220V AC 50/60Hz
- Weiht: 32 KG



摩擦系数测试仪 SST1 Friction Coefficient Tester

仪器介绍 Instrument Description

— 摩擦系数的定义是 $\mu = Fr/Fn$, 这里 Fr 是指摩擦力, Fn 是指施加在漆包线的负载。被测漆包线在一个底板和一个可移动的负载板之间以每分钟 15m 的速度移动, 两者都有规定的表面粗糙度。测试负载被机械地连接到一个测力器上, 由于漆包线表面存在摩擦, 测力器可以测试到摩擦力, 测试的数据可以被显示出来, 并定时进行记录。统计评估值得自 50 个单一数据。

- 摩擦力测试装置, 分辨率为 0.01N
- 电脑控制试验过程、设定测量点数目、计算、打印每个测量值、最大值、最小值、平均值及标准偏差值, 并以图形表示
- 特别设计的收线轮, 便于卸线
- 全套砝码
- 电源: 230V 交流电 50/60HZ 单相 280VA
- 尺寸: 500 × 560 × 490mm
- 重量: 36kg

可选件

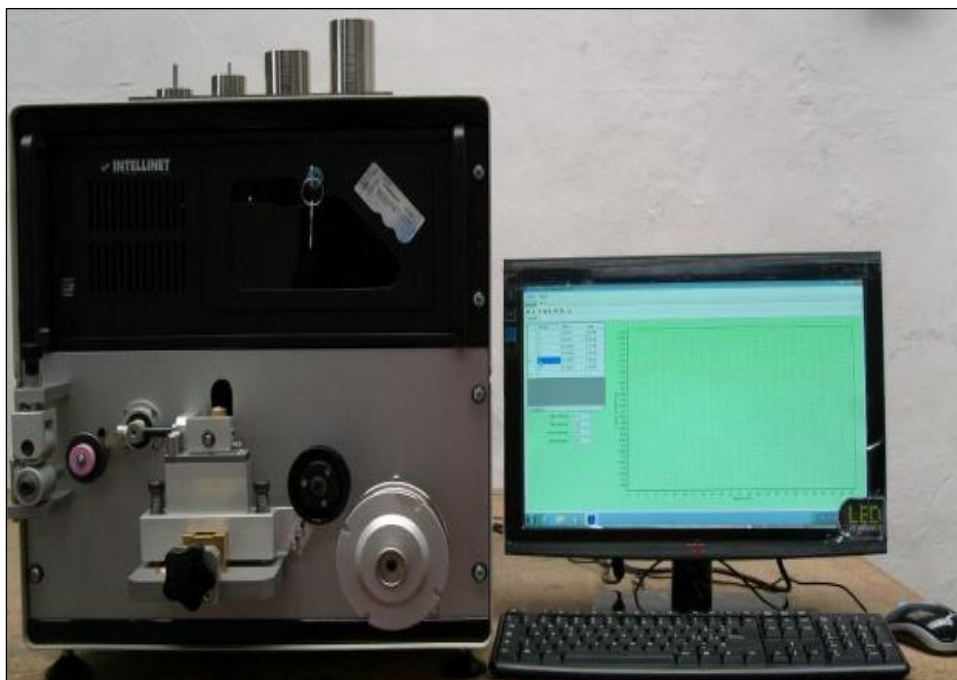
- VEL 试验速度 2 ~ 30 米 / 分可调

— As coefficient of friction, which is defined as $\mu = Fr/Fn$, where Fr is the friction power and Fn the load applied on the wire. the test wire is moved at a speed of 15m/1' between a basic plate and a moveable loading plate, both have a defined surface roughness. the test load is mechanically connected to a dynamometer, which due to the roughness of the wire surface, detect the power friction, the values detected shall be displayed and recorded at desired time intervals. The statistical evaluation is taken from 50 single values.

- Load cell to detect the friction power, resolution 0.01N.
- Test management with PC, setting number of measurements to be done, calculation and print out of each single value, minimum, maximum, average and standard deviation, with graphical representation.
- Winding wheel for ease remove of tested wire.
- Complete of weights.
- Dimensions: W500 × H560 × D490mm
- Power supply: 230V AC 50/60Hz one phase 280VA
- Weight: 36 KG

Options

- VEL Test speed adjustable 2~30M/MIN



往复刮漆测试仪 BST Bidirectional Scrape Tester

仪器介绍 Instrument Description

— 按规定程序，将漆包线试样用溶剂擦拭干净后，放置于测试仪中，刮针沿着漆包线的轴线方向并以适当的角度刮擦涂层表面。荷重的刮针慢慢下降至漆包线表面并以 50mm/秒的速度对经溶剂清洁的部分进行往复刮擦，测试仪能产生 $7.5 \pm 1.5V$ 的直流电压，施加在刮针与导体之间，该电路能检测短路电路。

- 适合测试直径为 0.2mm ~ 2.1mm 的漆包线
- 设备的旋转度为 120° 及 240°
- 延伸度为 1%
- 可调节的琴钢丝设备
- 可调节的直流电压为 3 ~ 25V
- 试验电流为 4 ~ 28MA
- 可预置的数字计数器
- 数字电压表和毫安表

- 电源：230V 交流电 50/60Hz 单相 80VA
- 尺寸：500 × 390 × 350mm
- 重量：24kg

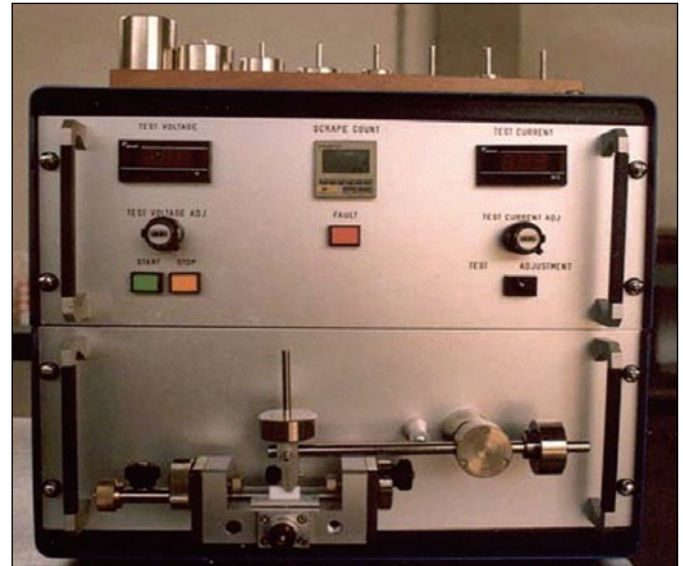
可选件

— PC 自动控制试验过程，机动旋转样品 120° 、 240° ，计算并打印各结果值及平均值。

— After the specimen has been removed from the solvent following the procedure described in the single data sheet, it must be inserted on a device which scrapes the surface of the film coating at right angle to the length of the wire with the prescribed weight and lowered gently to the surface of the film coating and scrapes at 50 mm/1" along the portion that was immersed in the solvent. Exposure of the bare conductor shall be indicated by an electrical circuit having a potential of $7.5 \pm 1.5Vdc$ between the needle and the conductor.

- Suitable for wire diameter from 0.2 up to 2.1 mm
- Rotation of specimen device by 120° and 240°
- Stretching device 1%.
- Adjustable piano wire device.
- Adjustable DC from 3~25V
- Test Current from 4~28MA
- 4 digit counter with pre-selection and automatic stopping.

- Power supply: 230V AC 50/60Hz one phase 80VA
- Dimensions : 500 × D390 × H350MM
- Weight: 24 KG



Options

— PC Automatic management of the test, with motorised turn of specimen by 120° and 240° , calculation and print out of single values and average.



热 溶剂粘结力测试仪 HBT HEAT OR SOLVENT BONDING TESTER

仪器介绍 Instrument Description

— 将漆包线试样在圆棒上卷绕成螺旋线圈，然后加负荷压紧，并在热和溶剂的作用下粘合。粘合后从圆棒上取下线圈试样并悬挂，在其下端挂上负荷来测定试样能否承受规定的负荷，在高温下重复试验。

- 可调速电动负荷装置，测量粘结强度
- 数显式测力计，精确至 0.01N
- 全套砝码和绕棒

- 电源 :230V 交流电 50/60HZ 单相 50VA
- 尺寸 :450 × 480 × 600mm
- 重量 :32kg

可选件

- STV 带数字温控仪、计时器，最高温度至 250°C 的通风烘箱

— The turns of a helical coil of the wire wound on a mandrel are pressed together by applying a load and bonded by means of heat or solvent. After bonding, the specimen is removed from the mandrel and suspended in a vertical position with a load applied at the lower end to determine whether the specimen withstands a specified load or not.

- Motorized load cell with adjustable speed to measure the bonding strength.
- Digital indicator of bonding forces resolution 0.01 N
- Complete set of loading weights and winding mandrels.

- Power supply: 230 AC 50/60HZ one phase 50VA
- Dimension: W450 × D480 × H600MM
- Weight: 32KG

Options

- STV Air draught oven, with digital temperature controller, max temperature 250° C and timer.



焦耳效应粘结力测试仪 JOU Joule Effect Self Bonding Tester

仪器介绍 Instrument Description

— 试样由按标准要求的圈数绕制并扭绞（施加 100N 的负荷）的漆包线构成，在其两端部施加连续的恒定电流 30 ~ 60 秒，将样品水平置于拉力试验机中，测定使线圈变型所需的最大作用力，试验在高温下重复进行。

- 根据不同线径自动计算样品圈数并自动绕线
- 配有 100N 负荷的线圈扭绞装置
- 大功率恒定电流发生器
- 电动样品粘结力测试腔
- 红外线非接触性粘结温度测试装置
- 工业电脑控制试验，并配置 LCD 显示屏，自动计算最大值、最小值、平均值以及偏差值，并打印结果值
- 可达 220°C 高温的通风烘炉，配有数字调温装置并与 PC 相联接

- 电源：230V 交流电 50/60HZ 单相 3KVA
- 尺寸：900 × 480 × 600mm
- 重量：69kg

— The sample is formed by a twisted winding having a number of turns given from the relevant specifications. The sample so realised is loaded with a weight of 100 N , at the ends of the coil a constant continuous current for a time between 30" to 60 " is applied, this specimen will be tested in a tensile testing equipment in a horizontal position to obtain the maximum deflection force to break it. The test shall be repeated at elevated temperature.

- Motorized winding device with automatic calculation of number of turns as a function of the wire diameter.
- Sample twisting device supplied with weight of 100N and device to lift up/down the weight.
- High power constant current supply (Voltage adjustable from 0 up to 50 Vdc and current from 0 up to 24 A).
- Motorized load cell device to measure the sample deflection force, maximum force 500 N resolution 0.1 N.
- Infrared contact less thermometer for bonding temperature determination, resolution 1° C max. temp. 500° C.
- Industrial PC with LCD screen for the management of the test and self guide menu for every step of test, automatic calculation of minimum, maximum, average and standard deviation with printout of measured values.
- Air draught oven for high temperature test up to 220° C, complete of digital temperature controller with serial line for PC combination.

- Dimensions: W900 × D480 × H600mm
- Power supply: 230AV 50/60Hz one phase 3KVA
- Weight: 69KG





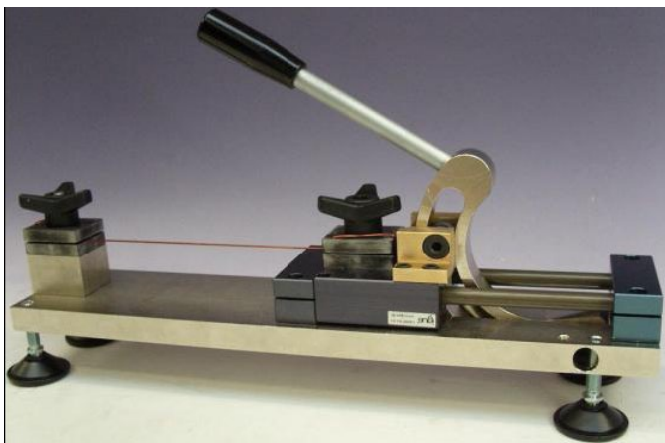
急拉断测试仪 JT Jerk Tester

仪器介绍 Instrument Description

- 将一根长 250mm 的漆包线样品急速拉伸至断裂点或相关标准规定的延伸率。
- 用放大镜检查样品是否断裂或失去附着力直径 $\leq 0.04\text{mm}$ 的样线, 使用 10 ~ 15 倍的放大镜直径为 $0.04\text{mm} \sim 0.5\text{mm}$ (包括 0.5mm) 的样线, 用 6 ~ 10 倍的放大镜直径 $> 0.5\text{mm}$ 的样线, 以正常视力或不超过 6 倍的放大镜检查断头, 2mm 内不作考核, 进行三次测试。
- 适合测试直径为 $0.09\text{mm} \sim 1.6\text{mm}$ 的漆包线
- 夹具长度为 250mm
- 压缩空气, 最大压力为 650 牛顿
- 可预置延伸率值的测试装置
- 有百分比和毫米两种刻度
- 尺寸: $750 \times 250 \times 350\text{mm}$
- 重量: 29kg

可选件

- 可调范围为 6 ~ 40 倍的放大镜



- A sample of wire of 250 mm (10 inches) length shall be suddenly stretched to the breaking point or to an elongation given in the relevant specification sheet.
- The specimen shall be examined for cracks or loss of adhesion under a magnification of:
 - 10 to 15 times for nominal conductor diameters up to and including 0.04 mm.
 - 6 to 10 times for nominal conductor diameters > 0.04 up to and including 0.5 mm.
 - Normal vision or up to six times for nominal conductor diameters over 0.5 mm. The distance of 2 mm from the broken ends shall be disregarded. Three tests shall be made.
- Suitable for wire diameter range from: 0.09 up to 1.6 mm
- Clamping length 250 mm
- Compressed air, maximum force of 650N
- Pre-selectable elongation value device
- Graduate percentage scale and millimeters
- Dimensions: $W750 \times D250 \times H350\text{mm}$
- Weight: 29kg

Options

- Microscope with adjustable magnification from 6 up to 40 times.

自动延伸率测试仪 ET/ET1/ETD Automatic Elongation Tester

仪器介绍 Instrument Description



— 用自动延伸率测试仪测量延伸率，可自由测试范围为 200mm ~ 250mm。

— 将漆包线以每秒 $5\text{mm} \pm 20\%$ 的速度拉伸，测量到的拉伸百分比即为延伸率。进行三次测量，取平均值作为延伸率。

ET

- 适合直径为 $0.050\text{mm} \sim 2.75\text{mm}$ 的漆包线
- 测试长度为 250mm ，最大可测延伸率为 53%
- 可预选的延伸率数字计数器，分辨率为 0.01mm ，精度 $>0.3\%$
- 拉伸速度每秒 $1.5\text{mm} \sim 8\text{mm}$ 可调
- 配有行星齿轮箱和 4 相驱动器的直流电机
- 在断线和快速回车时自动停机

ET1

- 适合直径为 $0.064\text{mm} \sim 2.15\text{mm}$ 的漆包线
- 测试长度为 250mm (10 英寸)，最大可测延伸率为 53%
- 拉伸速度每秒 $1.5\text{mm} \sim 8\text{mm}$ 可调
- 断线时自动停机
- 直接的百分比读数显示器
- 电源：230V 交流电 50/60HZ 单相 250VA
- 尺寸：950 × 500 × 650mm
- 重量：34kg

可选件：

- D 测力装置

- Measured with an automatic elongation tester or tester machine. Free measuring length will be $200\text{mm} \sim 250\text{mm}$
- Strength at the speed of $5\text{MM} \pm 20\%$, the value of free-measured strength percentage will be the elongation. Then do repeat three times for average. The average will be taken as "Elongation"

ET

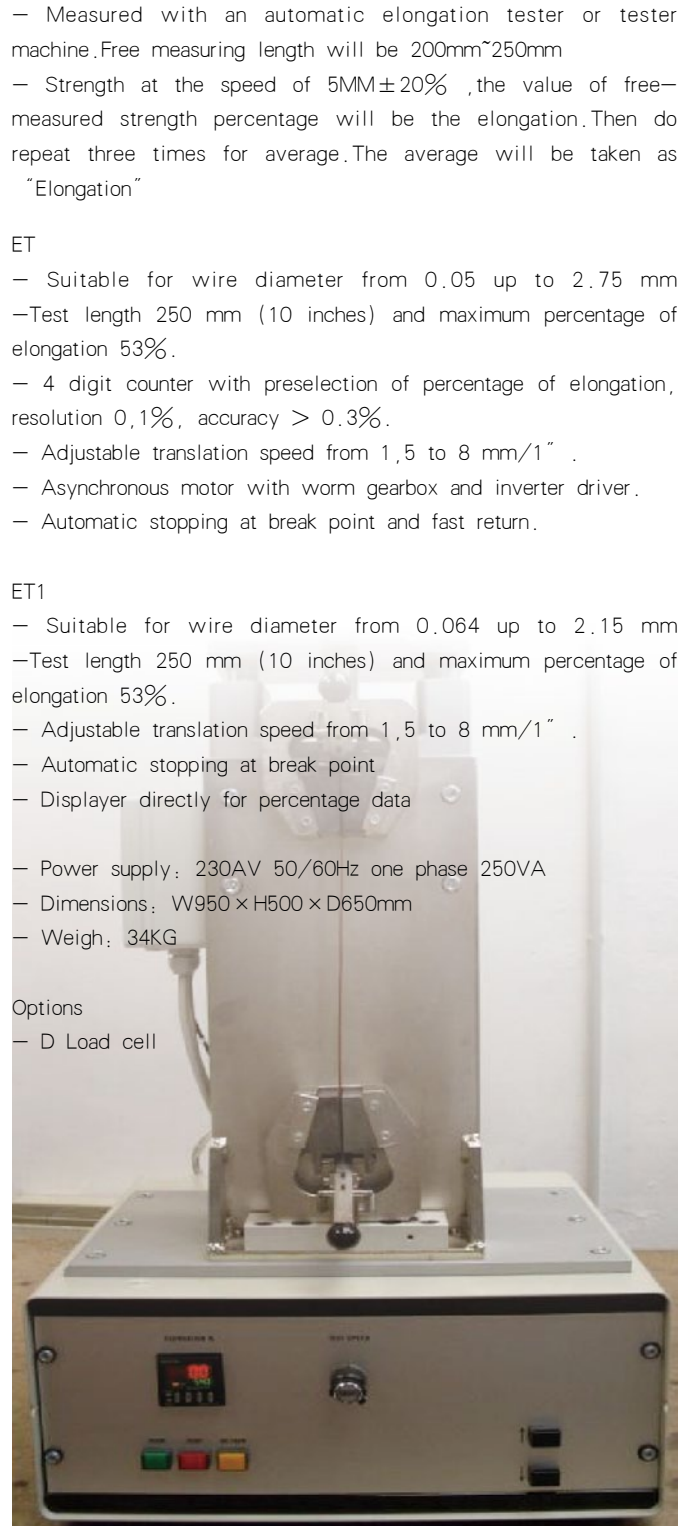
- Suitable for wire diameter from 0.05 up to 2.75 mm
- Test length 250 mm (10 inches) and maximum percentage of elongation 53% .
- 4 digit counter with preselection of percentage of elongation, resolution 0.1% , accuracy $> 0.3\%$.
- Adjustable translation speed from 1.5 to 8 mm/1" .
- Asynchronous motor with worm gearbox and inverter driver.
- Automatic stopping at break point and fast return.

ET1

- Suitable for wire diameter from 0.064 up to 2.15 mm
- Test length 250 mm (10 inches) and maximum percentage of elongation 53% .
- Adjustable translation speed from 1.5 to 8 mm/1" .
- Automatic stopping at break point
- Displayer directly for percentage data
- Power supply: 230AV $50/60\text{Hz}$ one phase 250VA
- Dimensions: $W950 \times H500 \times D650\text{mm}$
- Weigh: 34KG

Options

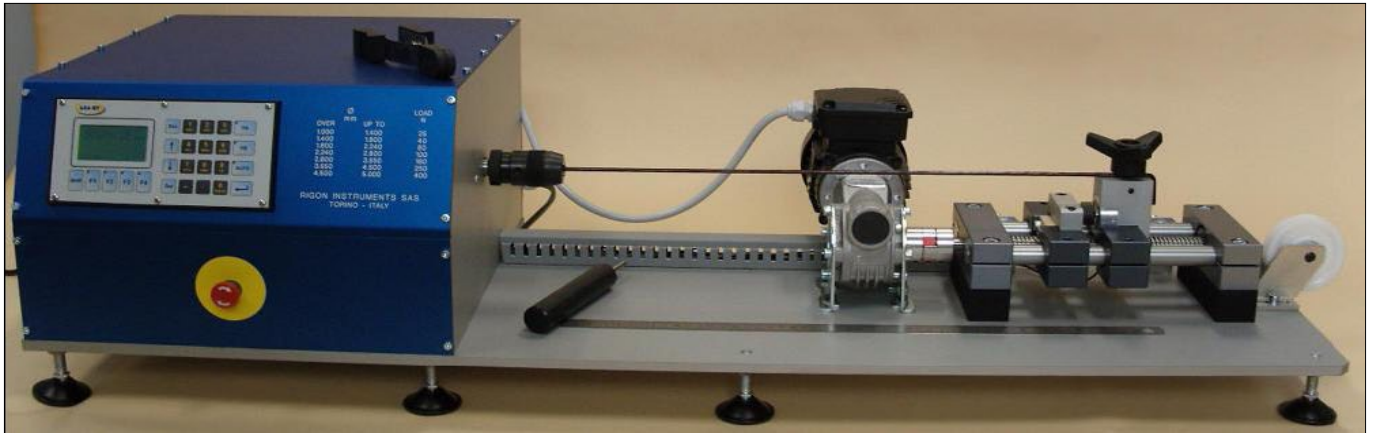
- D Load cell





剥离试验仪 PT Peel Tester

仪器介绍 Instrument Description



— 一根漆包圆线置于两个绕轴之间，其中一个绕轴能旋转，另一个不能旋转，可以轴向移动，根据规定并加挂负荷，以对旋转样线施加张力。同时，使用刮刀轴向刮去试样两侧的漆膜直至露出导体。— 旋转设备以每分钟 60 ~ 100 圈的速度旋转标准规定的转数，检测样线的柔韧性和附着性。

- 适合测试直径为 0.9mm ~ 5.00mm 的漆包线
- 配有行星齿轮箱和 4 相驱动器的直流电机，速度由每分钟 30 ~ 240 圈可调
- 数字力距显示仪
- 可预置的计数器
- 全套砝码

- 电源：230V 交流电 50/60Hz 单相 150VA
- 尺寸：1200 × 400 × 350mm
- 重量：35Kg

可选件
— 全套绕轴

— A sample of round wire shall be inserted between two mandrels, one of these is able to rotate, the other one cannot rotate but can be displaced axially, the latter is loaded according to the table to apply tension to the rotating wire. By means a scraper the enamel is removed on opposite sides of the wire down to the bare conductor.

- The rotating fixing device shall be driven at a speed from 60 to 100 RPM until the number of revolutions required has been reached. The specimen shall then be examined for enamel flexibility and for adhesion of the enamel.
- Suitable for diameter from 0.9 up to 5.00 mm
- Brushless motor with planetary gear box, four quadrants driver, adjustable speed from 30 up to 240 RPM.
- Digital displayer for moment of force
- Pre-set of the counting machine
- Complete set of weight

- Power supply: 230V 50/60Hz one phase 150VA
- Dimensions: W1200 × D400 × H350mm
- Weight: 35KG

Option
— WD Complete set of mandrels for winding test.

低应力拉伸测试仪 LSE/LSE-PC Less Strength Elongation Tester

仪器介绍 Instrument Description

— 小心地取三根 400mm 长的漆包线样品，不损伤漆包线的表面，以免影响最终测试结果。例如：将样品置于相距 254mm 的两个夹具之间，并预置 51.75N/mm² 的负荷，然后测量柔软度的比较器必须“置零”，再将负荷增加至预置负荷的两倍，即 103.5N/mm²，停留 30 秒钟，然后卸去负荷，在比较器上读取总变型

值 Δ ，用以下公式计算低应力延伸值：

$$L.S.E = \Delta \text{all} / 10'' \times 100$$

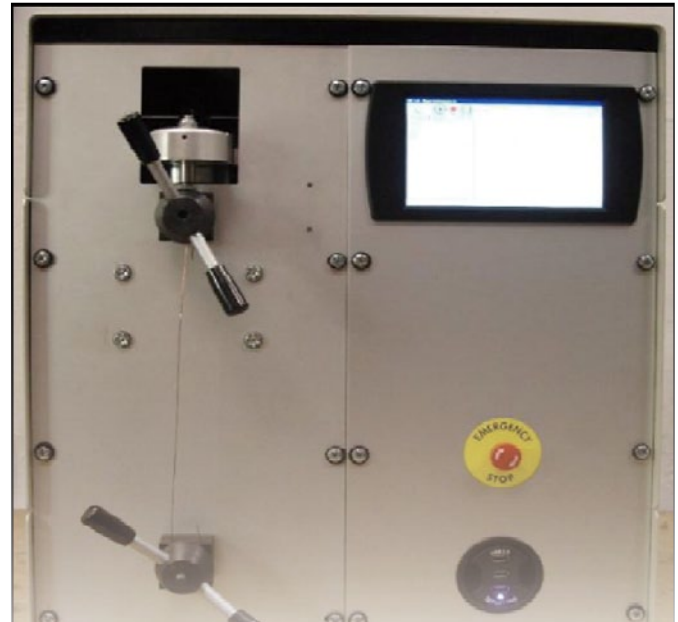
重复测试另两个样品，并取 LES 的平均值。

型号 LSE

- 适合线径 0.10 ~ 1.60mm
- 配备三套砝码（预置砝码 + 拉伸砝码）
- 数显比较器（分辨率 0.001mm）

型号 LSE-PC

- 适合线径 0.10 ~ 3.15mm
- 全电脑控制，不需要专业知识便可操作，不需要预置及拉伸砝码，不需要人工计算 LSE 值，牵引力是通过两个高精度的测力器实现
- 可以显示每次测量值，并统计最小值，最大值，平均值和分散性，并打印结果。



— Take three samples of enamelled wire 400 mm in length, paying attention to handle them with care avoiding deformation which will false the final test result. The sample shall then be placed between two jaws at a distance of 254mm, a pre-load of 51,75 N/mm². The comparator used to measure the softness must be zeroed, double the test weight (103,5 N/mm²) for a time of 30'', take out then the doubled weight, read on comparator the Δ value, then calculate the low stress elongation value with the following formula:

$$L.S.E = \Delta \text{all} / 10'' \times 100$$

Calculate then the average of three measurements.

LSE

- Suitable for wire diameter range from 0,1 up to 1,60 mm
- Supplied with three pre-load and three load weights.
- Digital comparator resolution 0,001 mm

LSE-PC

- Suitable for wire diameter range from 0,10 up to 3,15 mm
- Computerised version, the use is suitable also for unskilled personnel, doesn't need pre-load and load weights, so complicated calculation for their value are avoid, the traction force is determine by means the use of an high resolution load cell.
- Print-out of each single result with calculation of minimum, maximum, average and standard deviation values.



Important notes

It is for some representative products.If any improved in product—self or production technology ,welcome to get more information from us.

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