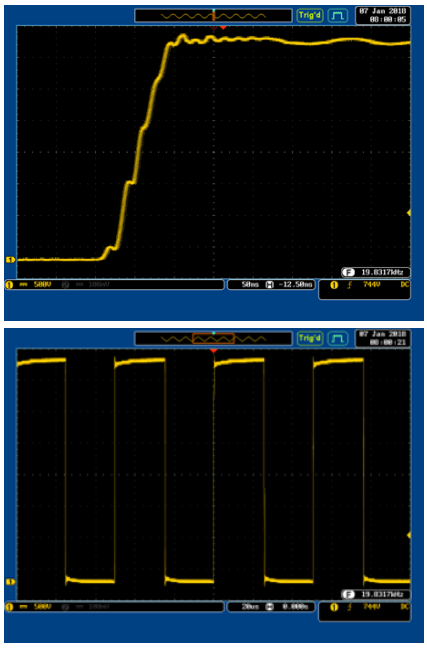
Pulse Dielectric Tester

Model PDT, PDT1



Model PDT1



The enamelled wire used in asynchronous motors driven by inverters suffers from 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 nanoseconds. Obviously, routine tests, such as the dielectric strength test, don't fully comply with the requested performances. For this reason, it has been necessary to develop a new test to simulate such conditions.

Test procedure

Five enamelled wire samples are twisted back on themselves, and the ends are opened. They are placed in an air-draught oven at the prescribed temperature. A high voltage having risen and fallen 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, and the failure information is logged into a text file.

System description PDT

- Bidirectional test voltage independently adjustable from 500Vpp to 3200Vpp
- Duty cycle 50%
- Pre-selectable test time up to 99 days.
- Pulse frequency from 1 kHz up to 20KHz, up to 30 KHz with de-rate voltage to 1750V
- Rising edges <100nS
- Air draught oven temperature adjustable from 40°C up to 250°C
- Current threshold fixed 50mA
- Suitable for wire diameter range from 0.071 mm to 2.5 mm (41AWG – 10AWG) and strip wire
- Five test fixtures, suitable for twisted pair
- Windows operative system, included application for remote connection

System description PDT1

- Unidirectional square wave high voltage independently adjustable from 100Vp to 3600Vp
- Duty cycle 50%
- Pre-selectable test time up to 99 days.
- Pulse frequency from 1KHz up to 20KHz, to 30 KHz with de-rate voltage to 1750V
- Rising edges 50nS @ 50 pF
- Air draught oven, complete of five sample holders temperature adjustable from 40°C up to 250°C
- Current threshold adjustable in each station, with individual disable
- Suitable for wire diameter range from 0.05 mm up to 2.5 mm (44AWG – 10AWG) and strip wire
- Test fixtures for each channel, suitable for twisted pair
- Windows operative system

Specifications

Model	**PDT**	**PDT1**
PDT, PDT1		
Dimensions		
Dimensions (WxDxH)	650x600x1700 mm	650x600x1700 mm
Weight	158 kg / 325.6 lb	148 kg / 325.6 lb
Power supply		
Volt	230 V	230 V
Hertz	50/60 Single phase	50/60 Single phase
Volt-amperes	3300	2500
Options		
ELEC	Sample holder suitable for strip	Sample holder suitable for strip
Standards		
IEC	62068-1	62068-1

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