

# Portable GTO Functionality Tester Product Fact Sheet

DYN-PA-19019-V1



Power Assemblies

The Dynex Portable GTO Functionality Tester is designed to test the blocking and switching functionality of a GTO at a safe voltage level. Specifically designed and targeted towards the maintenance of GTO based traction converters.



<b>1 General</b>		
1.1	Device compatibility	The tester is compatible with GTO Thyristor and Diode devices. Variations can be made to suit SCR, MOSFET or IGBT technology by changing the internal gate driver PCB.
1.2	Test methodology	The tester is designed to give a Go/No-Go assessment of the DUT.
1.3	Target failure methods	<ul style="list-style-type: none"> <li>• Short circuit,</li> <li>• Open circuit,</li> <li>• Gate malfunction.</li> </ul>
<b>2 Electrical</b>		
2.1	Power input	110 to 220 Vac, 5 to 10 Arms, 1ph + E, 50/60Hz
2.2	Maximum test current	10 A
2.3	Maximum anode voltage	48 V
2.4	Gate output voltage range	-14.8 V to +15.0 V
2.5	Maximum gate current	1.5 A
2.6	Gate voltage on GTO when not firing	-14.8 V
2.7	Gate voltage on GTO when firing	+ 6.1 V
2.8	Firing pulse length	1 second
<b>3 Mechanical</b>		
3.1	Dimensions (W x D x H)	524 x 428 x 206 mm
3.2	Weight	Approx. 15 kg

<b>4</b>	<b>Operating Conditions</b>	
4.1	Operational temperature	-10 °C to 70 °C
4.2	Storage temperature	-25 °C to 85 °C
4.3	Relative humidity	10% to 90%
4.4	Pollution grade	2 (non-conductive pollution)

<b>5</b>	<b>Safety Features</b>	
5.1	Low voltage testing	A low testing voltage of 48 V has been selected for safety considerations.
5.2	Panel earthing	The operating panel of the tester is fully connected to earth when plugged in to mains power.
5.3	Over-temperature protection	The PSU output will be disabled in the event of over temperature of the internal current limiting resistor.
5.4	Short circuit protection	The PSU will operate in a constant current mode in the event of short circuit of the GTO.

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