

Multiple Cell Tester

HD Series

System with
768 circuits
of 2A each



- Designed to test battery cells with up to 6V
- 2A charge / discharge per test circuit
- Four switchable current ranges
- High measuring precision
- High packing density: up to 800 circuits in a duplex 19" cabinet
- Flexible paralleling of circuits
- Modular configuration, upgradeable
- Energy efficient technology: less heat output and noise
- Mixed mode: power modules with 2A, 5A, and 10A can be combined
- Exclusive **B.E.S.T.**[™] technology available: regenerative DC link and mains feedback



■ TECHNICAL DATA *

**Multiple Cell Tester
MCT-HD**

■ DC DATA

Voltage range charge	-0.2V – 6V			
Voltage range discharge	6V – 0.7V			
Max. current per circuit	2A			
Current ranges	±2A	±1A	±0.5A	±0.25A
Resolution I	72µA	36µA	18µA	9µA
Accuracy U _{DC}	< ± 0.025% FSR			
Accuracy I _{DC}	< ± 0.025% FSR			
Resolution U	115 µV			
Paralleling of circuits	yes			
Energy recuperation	via DC link and optionally mains feedback			

Maximum cable diameter: 4mm² / AWG 12

■ MAINS SUPPLY, COOLING, ENVIRONMENTAL CONDITIONS

Mains connection	208V*** – 480V ± 10%, 50 – 60Hz ± 3Hz (3 phase)
Cooling	forced air ventilation
Ambient temperature, operating	10° – 40°C (50° – 104°F)
Protection level	IP20
Humidity	10% - 90% RH, non-condensing and non-corroding

■ GENERAL DATA

Max. circuits per installation	unlimited**
Circuits per 19" power module	up to 64
Dimensions of power module	19" 4U
Superior reliability by distribution of power sections across multiple CPUs	

■ OPTIONS & ACCESSORIES

Data loggers for additional inputs: voltage, temperature, analog, high impedance inputs for reference electrodes, I/O for auxiliary devices, RS-232, CAN interfaces
BIND-Concept for synchronisation of multiple circuits in one climate chamber
Mixed Mode: power modules with 2A, 5A, and 10A can be combined

■ B.E.S.T. – BICONDITIONAL ENERGY SUPPLY TRACKING

Digatron's B.E.S.T. technology ensures optimum energy efficiency under any operating condition. Innovative process that automatically balances the energy flows between the test circuits and tracks the energy balance of the DC link accordingly, either to regenerate 100% in the DC realm (and top off from AC as needed), or to feed excess energy back to the 3-phase grid.



Unrivalled High Test Circuit Density



Rear view of power module



CAN-DLT Temperature Logger for 16 thermocouples

* Design and specifications are subject to change without notice. Biconditional Energy Supply Tracking (B.E.S.T.) is a pending trademark of Digatron Power Electronics GmbH, Germany.

**dependant on hardware and software configuration

*** Power reduced below 380VAC mains voltage



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Multiple Cell Tester

HD Series

System with
384 circuits
of 5A each



- Designed to test battery cells with up to 6V
- 5A charge / discharge per test circuit
- Four switchable current ranges
- High measuring precision
- High packing density: up to 400 circuits in one 19" cabinet
- Flexible paralleling of circuits
- Modular configuration, upgradeable
- Energy efficient technology: less heat output and noise
- Mixed mode: power modules with 2A, 5A, and 10A can be combined
- Exclusive **B.E.S.T.**[™] technology available: regenerative DC link and mains feedback



■ TECHNICAL DATA *

**Multiple Cell Tester
MCT-HD**

■ DC DATA

Voltage range charge	-0.2V – 6V			
Voltage range discharge	6V – 0.7V			
Max. current per circuit	5A			
Current ranges	±5A	±2,5A	±1,25A	±0,625A
Resolution I	180µA	90µA	45µA	22.5µA
Accuracy U _{DC}	< ± 0.025% FSR			
Accuracy I _{DC}	< ± 0.025% FSR			
Resolution U	115 µV			
Paralleling of circuits	yes			
Energy recuperation	via DC link and optionally mains feedback			

Maximum cable diameter: 4mm² / AWG 12

■ MAINS SUPPLY, COOLING, ENVIRONMENTAL CONDITIONS

Mains connection	208V*** – 480V ± 10%, 50 – 60Hz ± 3Hz (3 phase)
Cooling	forced air ventilation
Ambient temperature, operating	10° – 40°C (50° – 104°F)
Protection level	IP20
Humidity	10% - 90% RH, non-condensing and non-corroding

■ GENERAL DATA

Max. circuits per installation	unlimited**
Circuits per 19" power module	up to 64
Dimensions of power module	19" 4U
Superior reliability by distribution of power sections across multiple CPUs	

■ OPTIONS & ACCESSORIES

Data loggers for additional inputs: voltage, temperature, analog, high impedance inputs for reference electrodes, I/O for auxiliary devices, RS-232, CAN interfaces
BIND-Concept for synchronisation of multiple circuits in one climate chamber
Mixed Mode: power modules with 2A, 5A, and 10A can be combined

■ B.E.S.T. – BICONDITIONAL ENERGY SUPPLY TRACKING

Digatron's B.E.S.T. technology ensures optimum energy efficiency under any operating condition. Innovative process that automatically balances the energy flows between the test circuits and tracks the energy balance of the DC link accordingly, either to regenerate 100% in the DC realm (and top off from AC as needed), or to feed excess energy back to the 3-phase grid.



Unrivalled High Test Circuit Density



Rear view of power module



CAN-DLT Temperature Logger for 16 thermocouples

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Multiple Cell Tester

HD Series

System with
256 circuits
of 10A each



- Designed to test battery cells with up to 6V
- 10A charge / discharge per test circuit
- Four switchable current ranges
- High measuring precision
- High packing density: over 250 circuits in one 19" cabinet
- Flexible paralleling of circuits
- Modular configuration, upgradeable
- Energy efficient technology: less heat output and noise
- Mixed mode: power modules with 2A, 5A, and 10A can be combined
- Exclusive **B.E.S.T.**[™] technology available: regenerative DC link and mains feedback



■ TECHNICAL DATA *

**Multiple Cell Tester
MCT-HD**

■ DC DATA

Voltage range charge	-0.2V to 6V			
Voltage range discharge	6V to 0.7V			
Max. current per circuit	10A			
Current ranges	±10A	±5A	±2,5A	±1,25A
Resolution I	360µA	180µA	90µA	45µA
Accuracy U _{DC}	< ± 0.05% FSR			
Accuracy I _{DC}	< ± 0.05% FSR			
Resolution U	115 µV			
Paralleling of circuits	yes			
Energy recuperation	via DC link and optionally mains feedback			

Maximum cable diameter: 4mm² / AWG 12

■ MAINS SUPPLY, COOLING, ENVIRONMENTAL CONDITIONS

Mains connection	208V*** – 480V ± 10%, 50 – 60Hz ± 3Hz (3 phase)
Cooling	forced air ventilation
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Protection level	IP20
Humidity	10% - 90% RH, non-condensing and non-corroding

■ GENERAL DATA

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Unrivalled High Test Circuit Density



Rear view of power module



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Also available as an 18V System for portable batteries and SLI



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