# **Datalog Controls and Solutions Pvt. Ltd.**

......A team for real time Data Acquisition





### **DATALOG CONTROLS AND SOLUTIONS PVT LTD**

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### **About Datalog Controls**

**Datalog Controls and Solutions** was established in the year 1998 with an objective of developing indigenous Test and data acquisition solutions. Over the two decades, **Datalog** has pioneered the design and development of complex missile battery test systems, electronic load banks, High Power DC sources, automated test setups and so on.

Being an ISO 9001:2008 Certified organization, **Datalog** has been involved in the successful development of many customized solutions to various defence establishments, PSUs and the Private Industry.

With an excellent manufacturing facility, **Datalog** is empowered by its highly qualified team of engineers in the research and development, takes up highly challenging and complex tasks for the defence, military, railways and the industry.

# **PRODUCTS...**

- **≻Load Banks** 
  - >Electronic Loads
  - **≻Resistive Loads**
  - **≻Inductive Loads**
- > Battery Chargers
- **>**Battery Packs
- **≻Test Systems**
- **≻Power Supplies**
- **>MIL Grade DC-DC Converters**
- **>Others**

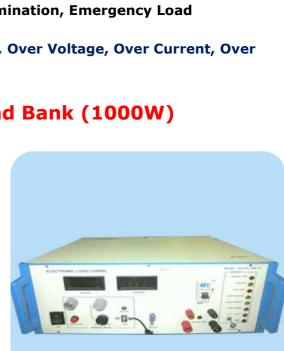
### **Programmable Electronic Load Bank (500W)**

#### **Salient Features:**

- > Suitable for Battery Discharger, SMPS Tester, Power Supply Tester, Solar Panel Tester
- >Voltage range up to 60V
- **≻Load capacity up to 20A or 500W**
- > Mode operations are Manual and remote
- > RS232 Interface with user friendly Application Software
- > Manual mode with USB storage
- >Programmable Load steps with sample rates
- ➤ Sample rates: 1ms; 10ms; 100ms; 1000ms;
- > Operating Modes: Constant Current
- >Protections: Over Voltage, Over Current, Over Power and Reverse Protection
- >Data Acquisitions: Current, Power, Voltage, Squib
- **➤Terminations:** by Time, by End Voltage, Forced Termination, Emergency Load Termination
- **➤Indications:** Source Connected, Load ON, Test Over, Over Voltage, Over Current, Over Power



- >Suitable for Battery Discharger, SMPS Tester, Power Supply Tester and Solar Panel Tester
- >Voltage range up to 120V
- >Load capacity up to 30A or 1000W
- **>**Suitable for Battery Discharger, SMPS Tester, Power Supply Tester, Solar Panel Tester
- >Manual and remote mode operation
- > RS232 Interface with user friendly Application Software
- > Manual mode with USB storage
- **≻Programmable load steps with sample rates**
- ➤ Programmable Sample rates: 1ms; 10ms; 100ms; 1000ms;
- > Operating Modes: Constant Current
- >Protections: Over Voltage, Over Current, Over Power and Reverse Protection
- **➤Data Acquisitions: Current, Power, Voltage, Squib Current**
- **➤Terminations:** by Time, by End Voltage, Forced Termination, Emergency Load Termination
- **➤Indications:** Source Connected, Load ON, Test Over, Over Voltage, Over Current, Over Power



### **Electronic Load Bank- (6kW)**

#### **Salient Features:**

- > Designed to perform the discharging the aircrafts batteries
- > System capable of efficiently loading the DC source with constant current
- **>**Voltage range 3V-120V
- >Load capacity up to 500A or 6kW
- > Forced air cooling
- > Coarse and fine control for load current
- ➤ Large LED display
- > Operating Modes: Constant Current
- > Data Acquisitions: Current, Voltage.
- > Protections: Full protection of Over Voltage, Over Current and Reverse protection
- ➤ Indications: Source Connected, Load ON, Test Over, Over Voltage, Over Current, Over Power



- > High Voltage Battery Discharger
- ➤ Perform load simulation tests on various DC

  Sources such as Rectifiers, AC-DC converters, Battery

  Banks, Chargers Etc
- ➤Voltage range up to 160-220V
- **➤Load capacity up to 40A Or 8.8 KW**
- ➤ Manual and remote mode operation
- >RS232 Interface with user friendly Application Software
- **>**Operating mode: Constant Current
- ➤ Data Acquisition: Voltage and Current





### Electronic Load Bank- Manual (60V/150A)

#### **Salient Features:**

- > Designed for Load simulation tests on lead acid batteries
- >The system capable of efficiently loading the DC source with constant current
- > Voltage range of 60V
- > Load capacity up to 150A
- > Dedicated START & STOP switches for load
- > Forced air cooling
- > AH Display through AH Meter
- ➤ Large LED display
- **➤** Operating Modes:
  - Constant Current
  - Constant Power
  - Constant Voltage
  - Constant Resistance
- > Protections: Over Voltage, Over Current and Reverse protection
- **➤ Data Acquisitions: Current, Voltage**



### **Electronic Load (200V/200A)**

- **≻Perform load simulation on Primary batteries**
- > Voltage range of 10-200V
- > Load capacity up to 200A Or 40 KW
- ➤ Igniter firing electronics to test fire the primary batteries
- ➤RS232 Interface with easy to user Application Software
- >Programmable Load steps with defined sample rates
- ➤ Programmable Sample rates: 1ms; 10ms; 100ms; 1000ms
- > RS232 interface with User friendly application software
- **>**Operating mode: CC, CV, CP
- > Dynamic Pulse load simulation of as low as 10mS @1mS DAQ
- >Protections: Over Voltage, Over Current, Over Power and Reverse Protection
- >Data Acquisition: Current, Power, Voltage, Squib Current



### DC Dual Electronic Load Bank (12.5kW)

#### **Salient Features:**

- >Specifically designed for discharge the thermal batteries
- >Perform capacity tests on Sub Marine Batteries
- **>OCV range: 0V-120V, 0V-60V**
- >On load voltage range: 5V-100V, 5V-50V
- >Load capacity up to 100A, 50A
- > Remote Mode operation
- > Constant current mode operation
- **➤Powerful user Application Software**
- >Programmable Load steps with sample rates
- >High precision data acquisition
- **≻Protections:** Over Voltage, Over Current, Over

**Power and Reverse Protection** 

- >Data Acquisition: Current, Power, Voltage, Squib Current
- **➤Terminations:** by Time, by End Voltage,
  - **Forced Termination & Emergency Load Termination**
- >Indications: Source Connected, Load ON, Test Over, Over Voltage,

**Over Current and over power** 



- > High Rate Discharge Electronic Load Bank
- >Perform capacity tests on Sub Marine Batteries
- **>Voltage range up to 4V-12V**
- **≻Load capacity up to 1200A or 10kW**
- >Mode of operations are Manual and remote
- > Constant current and constant power modes
- **≻Powerful user Application Software**
- >Programmable Load steps with sample rates
- >High precision data acquisition





### Electronic Load (220V/80A)

#### **Salient Features:**

- >High Voltage Battery Discharger
- ➤ Perform load simulation tests on various DC Sources such as Rectifiers, AC-DC converters, Battery Banks, Chargers Etc.
- ➤ Voltage range up to 160-220V
- >Load capacity up to 80A Or 17.6 KW
- ➤ Manual and remote mode operation
- >RS232 Interface with user friendly Application Software
- **>**Operating mode: Constant Current
- **≻Precise data Acquisition**
- >HMI Interface



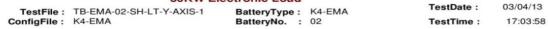
### Electronic Load (100V/200A)

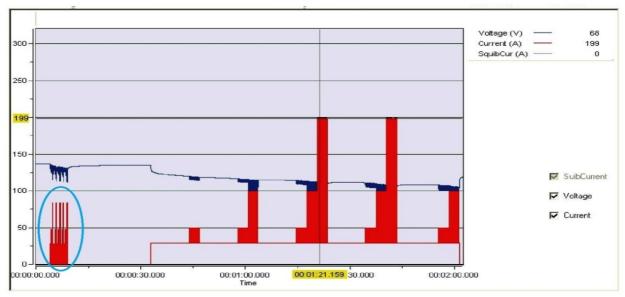
- > High Rate discharge electronic load bank, Designed to perform discharge load simulation on Primary batteries
- >Voltage range up to 10-100V
- > Load capacity up to 200A Or 20 KW
- >Squib firing mechanism
- ➤ RS232 Interface with user friendly Application Software
- ➤ Programmable Load steps with Programmable sample rates
- ➤ Programmable Sample rates: 1ms; 10ms; 100ms; 1000ms
- > Operating Mode: CC, CV, CR, CP
- ➤ Dynamic Pulse load simulation of as low as 10ms @1ms DAO
- **>>Protections: Over Voltage, Over Current, Over Power & Reverse Protection**
- **▶Data Acquisitions:** Current, Power, Voltage, Squib Current



#### **RESEARCH CENTRE IMARAT**

30KW Electronic Load

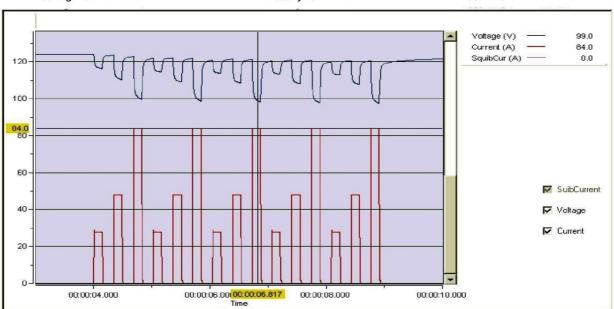




#### **RESEARCH CENTRE IMARAT**

30KW Electronic Load

TestFile: TB-EMA-02-SH-LT-Y-AXIS-1
ConfigFile: K4-EMA
BatteryType: K4-EMA
TestDate: 03/04/13
TestTime: 17:03:58



### **Electronic Load Bank- Manual (6kW)**

#### **Salient Features:**

- > Designed to perform the discharging the aircrafts batteries
- > System capable of efficiently loading the DC source with constant current
- >Voltage range 20V-60V
- >Load capacity up to 300A or 6kW
- > Forced air cooling
- > Coarse and fine control for load current
- ➤ Large LED display
- > Operating Modes: Constant Current
- > Data Acquisitions: Current, Voltage.
- > Protections: Full protection of Over Voltage, Over Current and Reverse protection
- ➤ Indications: Source Connected, Load ON, Test Over, Over Voltage, Over Current, Over Power



- > Designed to perform the discharging the aircrafts batteries.
- > RS232 Interface with Application Software
- **▶Programmable Load steps with sample rates**
- > Igniter firing electronics to test fire the primary batteries.
- **➤Time countdown timer for Igniter firing**
- **>Voltage range up to 10V-100V**
- **➤Load capacity up to 100A or 10kW**
- > Operating Modes: CC, CP
- ➤ Protections: Over Voltage, Over Current, Over Power and Reverse Protection
- > Data Acquisitions: Current, Power, Voltage, Squib Current
- > Terminations: By Time, By End Voltage, Forced Termination, Emergency Load Termination.
- ➤ Indications: Source Connected, Load ON, Test Over, Over Voltage, Over Current, Over Power





### 3 Channel Electronic Load Bank

#### **Salient Features:**

- ➤ Designed to perform the discharging 3 individual batteries simultaneously.
- > The System capable of efficiently loading the DC source with constant current mode
- >Voltage range up to 5V-45V
- **>Load capacity up to 10A (3x10A)**
- ➤ Max Load capacity: 30A or 1350W
- > Forced air cooling
- > Coarse and fine control for load current
- **➤ Operating Modes: Constant Current**
- ➤ Load Termination: Emergency Load Termination
- > Data Acquisitions: Current, Voltage. , Power
- > Dedicated START and STOP switches for load
- >Protections: Full protection of Over Voltage, Over Current and Reverse protection



- > Specifically designed for discharging batteries
- >Latest Micro controller based control electronic
- >The system capable of efficiently loading the DC source with constant current
- > Voltage range of 36V-56V
- > Load capacity 0A-40A, 60A and 80A
- > Load selection
  - ❖ Variable Load
- **➤** Operating Modes:
  - Constant Current
- > Protections: Over Voltage, Over Current, Over Power and Reverse protection
- > Indications: Mains ON, Source ON, Load ON, Over Voltage, Variable Load and Step Load
  - > Data Acquisitions: Current and Voltage





### **Electronic Load Bank (30V/1500A)**

### **Salient Features:**

- ➤ High Rate discharge Electronic load bank
- **➤ Designed for Sub Marine Battery Testing**
- >Voltage range up to 30V
- >Load capacity up to 1500A or 20kW
- > RS232 interface with User friendly GUI application software
- > Modular design
- **≻**Operation: Manual mode and remote mode
- **>**Mode of Operation: Constant Current, Constant Power
- **>Data Acquisitions: Voltage, current, temperature, △H**
- > Protections: Reverse, over load and short circuit



### **Electronic Load Bank (220V/100A)**

- ➤ High Voltage Battery Discharger
- > Perform load simulation tests on Rectifiers, AC-DC converters, Battery Banks and Chargers Etc.
- > Voltage range up to 160V-220V
- **➤Load capacity up to 100A Or 22 KW max**
- > Mode of operations are Manual and remote
- >RS232 Interface with easy to user Application Software
- > High precision data acquisition
- **≻LCD** Interface



### **Electronic Load Bank (12V/2200A)**

#### **Salient Features:**

- > High Rate discharge Electronic load bank
- >Performs capacity test on submarine batteries
- >Voltage range up to 4V-12V
- >Load capacity up to 2200A or 26.4kW
- > RS232 interface with User friendly GUI application
- > Modular design
- **≻Operation: Manual mode and remote mode**
- **≻**Mode of Operation:
  - **Constant Current**
  - **\* Constant Power**
- >Data Acquisitions: Voltage, current, AH
- > Protections: Reverse, over load and short circuit



## **Electronic Load Bank (30kW)**

- >Latest Microcontroller based electronics
- **➤Definable Missile battery types**
- **➤Voltage range up to 10V-150V**
- > Load capacity up to 400A or 30kW
- >Powerful user friendly Application Software
- >> Programmable Load Profiles
- > Programmable Igniter Activation
- > Responds to pulse loads of as fast as 1ms
- >High precision data acquisition
- ➤ Powerful graphical data presentation with multiple zooming
- > Tabular data presentation for closer examination of battery performance
- **➤Data export to MATLAB for further analysis**

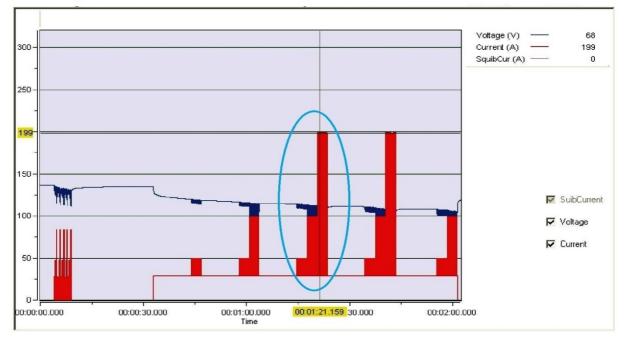


#### **RESEARCH CENTRE IMARAT**

#### 30KW Electronic Load

 TestFile:
 TB-EMA-02-SH-LT-Y-AXIS-1
 BatteryType:
 K4-EMA
 TestDate:
 03/04/13

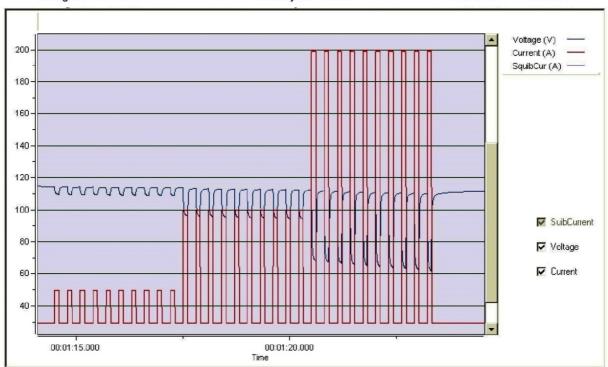
 ConfigFile:
 K4-EMA
 BatteryNo.:
 02
 TestTime:
 17:03:58



#### **RESEARCH CENTRE IMARAT**

#### 30KW Electronic Load

TestFile: TB-EMA-02-SH-LT-Y-AXIS-1
ConfigFile: K4-EMA
BatteryType: K4-EMA
TestDate: 03/04/13
TestDite: 17:03:58



### **Programmable Multi Load System (40kW)**

### **Salient Features:**

- **➤Designed for thermal batteries**
- **>Voltage range up to 10V-150V**
- >Load capacity up to 400A or 40kW
- >Powerful user friendly Application Software
- >Programmable Load profiles
- **≻**Continuous load and pulse load
- **>**Multi load Channel Selection
- ➤ High precision data acquisition
- >Protections: Reverse, short circuit and over load
- >Powerful graphical data presentation with multiple zooming
- >Tabular data presentation for closer Examination of battery performance
- **➤Data export to MATLAB for further analysis**



### **Dual Electronic Load Bank**

- >Latest Microcontroller based Control electronics
- **➤Definable Missile battery types**
- **➤Simulation testing of missile batteries**
- **≻Voltage: 10V-110V**
- >Load capacity up to 400A or 40kW
  - ♦ Channel-I: 100A
    ♦ Channel-II: 200A
  - ❖ Channel-II: 300A
- **≻Powerful user friendly Application Software**
- >Programmable Dual Load Profiles
- **>**User definable test end limits
- **▶Programmable Igniter Activation**
- > Responds to pulse loads of as fast as 1ms
- >High precision data acquisition
- >Powerful graphical data presentation with multiple zooming
- >Tabular data presentation for closer examination of battery performance
- >Data export to MATLAB for further analysis



### Electronic Load Bank (220V / 360A)

### **Salient Features:**

- > High Voltage Battery Discharger
- > Voltage range up to 160-220V
- > load capacity up to 360A or 72kW
- ➤ Perform load simulation tests on Rectifiers, AC-DC converters, Battery Banks, Chargers Etc
- > Mode operation is Manual and remote.
- > RS232 Interface with Application Software
- **➤**Mode of Operating: Constant Current.
- > High precision data acquisition
- >HMI Interface



### **Hybrid Electronic Load (150kW)**

- **>>Perform load simulation tests on Rectifiers, AC-DC converters, Battery Banks, Chargers**
- >Precise load control
- > Modular Design
- ➤ Micro Controller based Data acquisition
- > Voltage range up to 10-300v
- > Load capacity up to 500A or 150KW
- **≻Each module capable of load 50A**
- > Continuous load
- >Forced Air cooling
- **≻Operating mode:** 
  - Constant Current
  - Constant Power
- **≻64 channel DAQ system**
- >Protections: Reverse, over load and short circuit
- >Indications: Source Connected, Load ON, Test Over, Over Voltage, over current, over power



### DC Electronic Load 100V/200A (20kW)

### **Salient Features:**

- **>**Designed for thermal batteries
- **>Voltage range up to 10V-100V**
- >Load capacity up to 200A or 20kW
- >Powerful user friendly Application Software
- >Programmable Load profiles
- **≻Continuous load and pulse load**
- >High precision data acquisition
- >Protections: Reverse, short circuit and over load
- >Powerful graphical data presentation with multiple zooming
- >Tabular data presentation for closer Examination of battery performance



# **Programmable Electronic Load (60kW)**

- >Latest Microcontroller based Control electronics
- **➤Definable Missile battery types**
- **>**Simulation testing of missile batteries
- **➤Voltage range up to 10V-800V**
- >Load capacity up to 650A or 60kW
- >Powerful user friendly Application Software
- **>**Modes of testing
  - Constant Current
  - Constant Voltage
  - Constant Power
  - Constant Resistance
- **≻Programmable Load Profiles**
- **≻User definable test end limits**
- >High precision data acquisition
- ➤ Responds to pulse loads of as fast as 1ms
- >Powerful graphical data presentation with multiple zooming
- > Tabular data presentation for closer examination of battery performance
- **➤Data export to MATLAB for further analysis**



### Thermal Battery Test System (3kW)

### **Salient Features:**

- >Specifically designed for discharge the thermal batteries
- >Powerful user friendly Application Software
- > RS232 interface with User friendly GUI application
- **>> Dual Channel Selection**
- >Voltage range up to 10V-100V
- >Load capacity up to 50A or 3kW
- **▶Programmable Load profiles**
- **≻**Continuous load and pulse load
- **≻**Modes of Operation
  - **\*** Constant Current
  - Constant Power
- >High precision data acquisition
- **≻Protections:** Reverse, short circuit, over voltage, over power and over current
- **➤Indications:** Mains ON, Source connected, Load ON and Test Over
- >Powerful graphical data presentation with multiple zooming
- >Tabular data presentation for closer Examination of battery performance

# **Electronic Load Bank- Manual (15kW)**

#### **Salient Features:**

- >Specifically designed for BLDC motor testing
- >Latest Micro controller based control electronic
- >The system capable of efficiently loading the DC source with constant current
- > Voltage range of 350V
- > Load capacity up to 50A
- > Dedicated START & STOP Provision
- **>>** Load selection
  - ❖ Variable Load
  - Step Load
- **➤** Operating Modes:
  - Constant Current
- ➤ Protections: Over Voltage, Over Current, Over Power and Reverse protection
- ➤ Indications: Mains ON, Source ON, Load ON, Over Voltage, Variable Load and Step Load
- > Data Acquisitions: Current, Voltage, Power and Time



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### **Electronic Load Bank- Manual (10kW)**

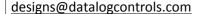
#### **Salient Features:**

- >Programmable Touch screen Electronic Load
- >Specifically designed for Sub Marine Battery testing
- ➤ Quad core 1.2GHz Broadcom BCM2837 64-bit CPU
- >1GB RAM, Micro SD port for loading operating system and storing data
- >Extended 40-pin GPIO header, 4USB 2.0 ports
- **>DSI** display port for connecting a Raspberry Pi touch screen display, 10 finger capacitive touch
- >19.4cm (7 inch) Touch screen Display
- >The system capable of efficiently loading the DC source with constant current
- > Voltage range of 6V
- > Load capacity up to 2000A
- ➤ Dedicated START & STOP Provision
- > Load selection
  - Variable Load
  - Step Load
- > Operating Mode: Constant Current
- > Protections: Over Voltage, Over Current, Over Power and Reverse protection
- ➤ Indications: Mains ON, Source ON, Load ON, Over Voltage, Variable Load and Step Load
- > Data Acquisitions: Current, Voltage and Power



- >Specifically designed for BLDC motor testing
- >Latest Micro controller based control electronic
- >The system capable of efficiently loading the DC source with constant current
- > Voltage range of 2V-30V
- > Load capacity up to 50A
- > Load selection
  - Variable Load
- > Operating Modes:
  - Constant Current
- ➤ Protections: Over Voltage, Over Current, Over Power and Reverse protection
- ➤ Indications: Mains ON, Source ON, Load ON, Over Voltage, Variable Load and Step Load
- > Data Acquisitions: Current and Voltage









# **DATALOG CONTROLS AND SOLUTIONS PVT LTD**

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