



## IDC20K

20,000 A primary  
DC current  
source

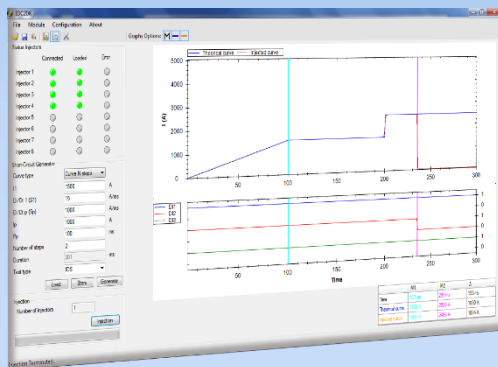


## 20,000 A DC current source

IDC20K is a high accuracy, portable, modular DC current source able to generate up to 20,000 A.

### SUITABLE FOR:

- Periodic test and calibration of High-Speed DC Circuit Breakers
- Periodic test and commissioning of protection relays
- Contactors with current threshold



### FIELDS OF APPLICATION :

- High-Speed DC breakers for DC substations
- High-Speed DC breaker for rolling stock
- Maintenance workshops
- Train, tram, metro, trolleybus
- Oil, mining, marine

### PRIMARY DC INJECTION

Developed in 2009, with numerous solid customer references around the world, Gillam brings innovative solutions for portable DC injection testing.

IDC20K realizes test of **High-Speed DC circuit breakers** with uncompromised accuracy (IDS, opening time, contact resistance, di/dt sensitivity).

Relying on Gillam +35 years of expertise in protection relays manufacture, IDC20K encompasses all functions to perform, at primary current level, the test of **protection relays** (calibration, individual parameter test, validation of protection study, line short-circuit, ...). An exclusive playback feature allows to replay a transient fault captured on the line with a protection relay, which is particularly valuable when investigating substation faults or qualifying new furniture.

### SUPERCAPACITORS EXCLUSIVE BENEFITS

The energy storage, relying exclusively on supercapacitors, brings premium benefits :

- No batteries and its known disadvantages : high weight, short life, charging time, leakage risks and recombination gas, ...
- High injection voltage of 7.5 V
- Work efficiency : after a 10 minutes warm-up, IDC20K is ready for all day long use (1 injection per minute max rate)

### MADE FOR TRANSPORT

IDC20K is a modular solution, organized for easy transport. The compact dimension of the transport cases is suited for transport and installation in small switchgear rooms. Each individual case does not exceed 25kg. Power cables are included in the transport cases.

We propose also customised solutions for stationary installations or rolling surfaces.

### SECONDARY DC INJECTION

The ICK20 controller can also be used as standalone to generate a 0-10V, 0-20mA or shunt output.

### ELECTRICS

- ✓ High lifetime – no batteries !
- ✓ Fast charging time
- ✓ Continuous use
- ✓ 230V/16A single pole supply
- ✓ No ripple, no harmonics
- ✓ True modular solution, even after sales

### MECHANICS

- ✓ Light weight
- ✓ No base trolley
- ✓ Easy door passing (max width is 60 cm)
- ✓ Cables included in the case

### TESTS

- ✓ High accuracy
- ✓ Compliance with IEC standards
- ✓ Primary test of protection relays

- ✓ 2 years of warranty
- ✓ Customisation upon request

### POWERFUL INTERFACE

The Graphical User Interface operates under Windows™.

For engineering purposes, it provides an accurate control over the waveforms and display markers for computation.

For periodic maintenance, use of predefined templates makes a hassle-free operation.

### REPORT MANAGER

All results are stored in database. Powerful sorting function provides easy access to archived tests. PDF files are generated to provide a formal test report.



### IJK20 2,500 A POWER MODULE

- Primary Current : 2,500 A (pulse)
- Voltage : 7.5 V
- di/dt : < 500 A/ms per module
- Absolute accuracy : 1,5%
- Warm-up time: 10 min
- Recharge time : 1 min
- Cables : 3 m x 95 mm<sup>2</sup> - flexible
- Cables storage in the case

- Detailed waveform parameters access for engineering
- Display markers
- 3 auxiliary contact inputs
- Voltage input

### HSDC BREAKER TEST

- Operation test
- IDS (IEC60772-1-2, IEC61992-1-2 200A/s or equivalent method)
- Opening time
- Di/dt sensitivity
- Micro-ohmmeter (0...1mΩ)
- Test of auxiliary contacts

### PROTECTION RELAY TEST

- Primary and secondary test
- Calibration (I, di/dt)
- Di/dt
- Delayed di/dt
- Delta I
- I Max
- Line short-circuit
- Arbitrary fault transient playback

### SECONDARY TEST

- 0-10V output (<5 mA)
- 0-20mA output (<5 V)
- Shunt level output

### REPORT MANAGER

- Archiving
- Sorting function
- PDF or XLS export of reports

### TRANSPORT CASES

- L x W x H : 56 x 55 x 20 cm
- Supply : 110/230 Vac 50/60 Hz
- Power : < 300 W per module
- IJK20 weight : 18kg + 6kg (cables)
- ICK20 weight : 20kg

Proudly designed and manufactured in Belgium.

### ICK20 CONTROLLER MODULE

- Command up to 8 IJK20 units
- Built-in laptop PC
- Graphical User Interface running under Windows™
- User predefined templates for periodic maintenance

