



Technical data sheet



DC Bias Units 3265BQ/25A 3265B/25A 3265B/10A 3265B/5A
DC Bias Fixture 1009
Ancillary Units for analyzers 3260B, 3255BQ, 3255B and 3255BL

- Enhances usability of Wayne Kerr Analyzers
 - 3255B series of Inductance Analyzers
 - 3260B Precision Magnetics Analyzer
- DC Bias Units can deliver between 25 mA and 125 A DC bias current in steps of 25 mA
- DC Bias Fixture model 1009 allows accurate and safe testing of SMD inductors
- Adds additional functionality

Component tests up to 125 A DC bias current

To evaluate components at currents up to 125 A the 3265B DC Bias Units are used with either the Wayne Kerr 3255B series of Inductance Analyzers or the 3260B Precision Magnetics Analyzer. When one 3265B/25A or 3265BQ/25A DC Bias Unit is connected to an instrument up to 25 A of DC bias current can be set in steps of 25 mA with one unit. Additional DC Bias Units can be added such that with five units connected in parallel it is possible to set DC bias currents up to a maximum of 125 A DC.

The 3255BL may only be used with the 3265B/5A and 3265B/10A, 5A and 10A DC bias units. Multiple instruments may be connected in parallel to give a maximum DC bias current of up to 50A which may be set in steps of 25 mA.

The instruments have a number of safety and protection features including a safety interlock system to protect the user against back EMFs. They are also fully protected against over temperature, excess voltage drop and sense lead failure.



3265B/25A can deliver up to 25 A in steps of 25 mA

SMD inductor tests up to 50 A

With the addition of the 1009 DC Bias Fixture DC bias currents up to 50 A can be applied to an SMD inductor during component test in order to evaluate the devices thoroughly at the operational bias currents.

The fixture operates with either one or two 3265B DC bias units and a 3260B Precision Magnetics Analyzer. The optional 1009 high current lead set will be required if two 3265B/25As are used.

Four front panel mounted BNC connectors and two captive high current cables ensure simplicity and ease of use with a 3265B.

Interchangeable component test carriers ensure that the 1009 DC Bias Fixture may be used with a wide variety of devices. Blank carriers are available which enable device specific test fixtures to be developed or alternatively a carrier design and manufacturing service is available.



1009 Fixture enables 50 A to be applied to an SMD inductor

Stable component fixturing ensures high accuracy and repeatable measurements. Enclosed fixtures, with safety interlocks, minimises risk to operators.

Technical specifications

The 3265B series of DC bias units must be used in conjunction with either a 3260B, 3255BL, 3255B or 3255BQ.

Compliance voltages

Maximum compliance voltage (<12 kHz) 11 V DC at 0.25 V AC drive level.

10 V compliance at 1 V AC drive level. For $f > 12$ kHz deduct 0.5 V.

Applications

Permits measurement analysis of wound components with levels of DC bias current higher than the standard 1A

Variable measured

In impedance mode: L, Z, R, Q, D.

Not applicable to Rdc, or transformer measurements

Measured frequency range

3255BL 20 Hz to 200 kHz (3265B/5A or 3265B10A only)

3255B: 20 Hz to 500 kHz

3255BQ: 20 Hz to 1 MHz

3260B: 20 Hz to 3 MHz (with 3265BQ/25A)

Basic accuracy

$\pm 1\%$, Varies with measurement speed, frequency and options chosen.

Measurement terminals

2-terminals measurement via M8 studs.

4-terminal measurement via Kelvin leads and M8 studs.

Measurement terminals internally protected by 1.6A fuses against normal inductor back-EMF or accidental disconnection of inductor.

Front panel fuses easily replaced.

Control connections

I²C bus link controls application of DC current and monitors status of analyzer. Status data includes excessive voltage drop and over temperature

Optional facilities

3265B bias units may be connected in parallel to give five times the rated current.

Interlock

Bias safety interlock socket on rear panel of analyzer provides door lock and closed control lines

Temperature range

Storage: -40°C to 70°C .

Operating: 0°C to 40°C 20 A (3265BQ/25A and 3265B/25A)

Full accuracy: 15°C to 30°C (at maximum rated current)

Power supply

Universal 90 to 255 V AC, 47 to 63 Hz

Input current 9 A rms max.

Power factor >0.9

Unit powers up automatically when connected to a powered analyzer. Isolating switch provided

Dimensions

Height 190 mm ($7\frac{1}{2}$ "

Width 440 mm ($17\frac{3}{8}$ "

Depth 520 mm ($20\frac{1}{2}$ "

Weight 15 kg (33 lb)

Cooling

Fan cooled. Intake front, exhaust rear. Fan filter accessible on front panel. Over temperature trip provided

Order codes and options

Description

25A DC bias unit 3265BQ/25A (3 MHz)

25A DC bias unit 3265B/25A

10A DC bias unit 3265B/10A

5A DC bias unit 3265B/5A

Order code

1J3265BQ/25A

1J3265B/25A

1J3265B/10A

1J3265B/5A

All units are supplied with user manual, power cable, spare fuses, 4 x BNC to BNC links and daisy chain control link.

Accessories

Description

Kelvin clips leads (fine jaws)

Kelvin clips leads (large jaws)

Power transfer bus bars

Filter pad (washable)

1009 DC bias fixture

1009 50A lead set

Order code

1EVA40100

1EVA40180

4-324-6009-PAIR

HMDEC10

1J1009

5-328-2005

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