

# Биологические спектрофотометры Biowave 3 и 3+ УФ-видимой области спектра

## Технические характеристики

По вопросам продаж и поддержки обращайтесь:

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## Biowave 3 and 3+ UV-Visible Life Science Spectrophotometers

The Biowave 3 offers all the benefits and capabilities of a research grade Life Science spectrophotometer with the robust design and reasonable cost that also makes it perfect for students. The Biowave 3+ is a higher resolution 3nm bandwidth version.

### **Built in Life Science Methods**

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Predefined life science methods for nucleic acid, protein and microbial culture quantification and analysis, combined with the rapid scanning, kinetics and concentration capabilities, and their compatibility with disposable low volume UV cuvettes have made them a common sight among educational and industrial laboratories alike.

## Feature:

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- Split Beam (RBC) UV/Vis Spectrophotometer 190-1100nm (3nm/5nm bandwidth)
- Pre-programmed methods for DNA, RNA, Oligos, proteins and cell density
- Nucleic acid scans for purity checking
- Low volume capability with Microvolume cuvettes
- Novel optics with a Xenon source for long lamp lifetime and low running costs
- Lightweight and stackable for storage

## Flexible Data Export Options

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Results may be downloaded to a USB flash drive or printed to an optional integrated graphical printer for a permanent record. Alternatively, results can be exported via a cable connection to a suitable PC running Print Via Computer (PVC) software or wireless accessory (optional).

## Comprehensive IQ/OQ Support for your Biowave instrument:

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Comprehensive IQ/OQ documentation and service support is available for our Biowave instruments allowing the qualification of wavelength accuracy, wavelength repeatability, photometric accuracy, stray light, resolution, noise, and drift.

If your lab requires IQ (Installation Qualification) and OQ (Operational Qualification), contact us to learn more.

## TECHNICAL SPECIFICATIONS

| SPECIFICATION                      | DATA  |
|------------------------------------|---|
| <b>Wavelength Range</b>            | 190 to 1100 nm  |
| <b>Monochromator</b>               | Flat grating  |
| <b>Wavelength Calibration</b>      | Automatic upon switch on  |
| <b>Beam Height</b>                 | 15 mm   |
| <b>Spectral Bandwidth</b>          | 5 nm or 3 nm for '+' models   |
| <b>Wavelength Accuracy</b>         | ±2 nm   |
| <b>Wavelength Reproducibility</b>  | ±1 nm   |
| <b>Light Source</b>                | Xenon flash lamp  |
| <b>Detector</b>                    | Twin CMOS array   |
| <b>Photometric Range</b>           | 0.0 to 2.500 A, 0.3 to 100 %T   |
| <b>Photometric Linearity</b>       | ±1.3 % or ±0.008 A whichever is greater at 546 nm   |
| <b>Photometric Reproducibility</b> | ±0.002 A to 0.5 A at 546 nm   |
| <b>Stray Light</b>                 | <0.5 %T 340 nm  |
| <b>Stability</b>                   | ±0.01 A/h at 340 nm   |
| <b>Noise</b>                       | ±0.005 peak to peak ±0.002 RMS  |
| <b>Digital Output</b>              | USB flash drive, PC via PVC software, Optional Wireless   |
| <b>Data Export</b>                 | USB flash drive: .tsv, native PVC format PC via PVC: .csv, .emf, .xlsx, .xls, .rtf, .tsv, native PVC format |
| <b>Method Storage</b>              | 90 with PIN number protection   |
| <b>Graphical Display</b>           | Yes, zoom and track function  |
| <b>Sample ID</b>                   | Yes   |
| <b>Languages</b>                   | English, German, French, Spanish, Italian, Japanese, Chinese  |

| TECHNICAL SPECIFICATIONS |                    |
|--------------------------|--------------------|
| SPECIFICATION            | DATA               |
| Dimensions               | 260 × 390 × 100 mm |
| Weight 3.00 kg           | 3.00 kg            |

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^ **WPA Biowave 3**

ITEM #: 80-3007-32

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∨ **WPA Biowave 3 with Printer**

ITEM #: 80-3007-33

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∨ **WPA Biowave 3 Wireless**

ITEM #: 80-3007-34

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∨ **WPA Biowave 3 Wireless with Printer**

ITEM #: 80-3007-35

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∨ **WPA Biowave 3+**

ITEM #: 80-3007-37

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∨ **WPA Biowave 3+ with Printer**

ITEM #: 80-3007-38

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✓ **WPA Biowave 3+ Wireless**

ITEM #: 80-3007-39

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✓ **WPA Biowave 3+ Wireless with Printer**

ITEM #: 80-3007-40

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## Biowave 3 & Biowave 3+

### WPA Spectrophotometers

The Biowave 3 and 3+ diode array spectrophotometers offer all the benefits associated with the established WPA Biowave range. Predefined life science methods for nucleic acid, protein and microbial culture quantification and analysis, combined with the rapid scanning, kinetics and concentration capabilities, and their compatibility with disposable low volume UV cuvettes have made them a common sight among educational and industrial laboratories alike.

#### Features & Benefits

- UV/Visible spectrophotometer covering 190 to 1100 nm allows you to see more of your sample
- Save data to a USB flash drive so results can be analysed later
- Builds on the success of the WPA Biowave range, with additional protein fluorescent label quantification and substrate applications
- PVC (Print Via Computer) software is included and allows you to transfer data directly from the instrument to your PC
- Optional integrated printer and wireless accessories
- At only 3 Kg, the Biowave 3 and 3+ units are easy to move around, making them ideal for teaching laboratories.

## Technical Specifications

| Technical                          |   |
|------------------------------------|---|
| <b>Wavelength Range</b>            | 190 to 1100 nm                                    |
| <b>Monochromator</b>               | Flat grating                                      |
| <b>Wavelength Calibration</b>      | Automatic upon switch on                          |
| <b>Beam Height</b>                 | 15 mm   |
| <b>Spectral Bandwidth</b>          | 5 nm 3 nm for '+' models                          |
| <b>Wavelength Accuracy</b>         | ±2 nm   |
| <b>Wavelength Reproducibility</b>  | ±1 nm   |
| <b>Light Sources</b>               | Xenon flash lamp                                  |
| <b>Detector</b>                    | Twin CMOS array                                   |
| <b>Photometric Range</b>           | -0.300 to 2.500 A, 0.3 to 199 %T                  |
| <b>Photometric Linearity</b>       | ±1.3 % or ±0.008 A whichever is greater at 546 nm |
| <b>Photometric Reproducibility</b> | ±0.002 A to 0.5 A at 546 nm                       |
| <b>Stray Light</b>                 | <0.5 %T 340 nm                                    |
| <b>Stability</b>                   | ±0.01 A/h at 340 nm                               |
| <b>Noise</b>                       | ±0.005 peak to peak ±0.002 RMS                    |

## Technical Specifications

| Software  |   |
|---|---|
| <b>General Laboratory:</b><br>Single wavelength,<br>Multi wavelength,<br>Concentration,<br>Standard curve/<br>Wavelength scanning,<br>Kinetics Absorbance ratio | <b>Life Science Laboratory:</b><br>Nucleic Acid UV quantification,<br>Tm calculation, Protein UV quantification, Protein colorimetry; BSA, Bradford, Lowry and Biuret, Fluorescent label quantification, OD600 microbial culture quantification |
| <b>Digital Output</b>   | USB flash drive, PC via PVC software, Optional: Wireless  |
| <b>Data Export</b>  | USB flash drive: .tsv, native PVC format<br>PC via PVC: .csv, .emf, .xlsx, .xls, .rtf, .tsv, native PVC format  |
| <b>Method Storage</b>   | 90 with PIN number protection   |
| <b>Graphical Display</b>  | Yes, zoom and track function  |
| <b>Sample ID</b>  | Yes   |
| <b>Languages</b>  | English, German, French, Spanish, Italian, Japanese, Chinese  |
| <b>Dimensions</b>   | 260 × 390 × 100 mm  |
| <b>Weight</b>   | 3.00 kg   |

## Ordering Info

| Order #           | Product                             |
|-------------------|-------------------------------------|
| <b>80-3007-32</b> | WPA Biowave 3                       |
| <b>80-3007-33</b> | WPA Biowave 3 with Printer          |
| <b>80-3007-34</b> | WPA Biowave 3 Wireless              |
| <b>80-3007-35</b> | WPA Biowave 3 Wireless with Printer |

| Order #           | Product                              |
|-------------------|--------------------------------------|
| <b>80-3007-37</b> | WPA Biowave 3+                       |
| <b>80-3007-38</b> | WPA Biowave 3+ Wireless with Printer |
| <b>80-3007-39</b> | WPA Biowave 3+ Wireless              |
| <b>80-3007-40</b> | WPA Biowave 3+ Wireless with Printer |

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