Miercom

Konica Minolta bizhub vCare 2.10

Certified Green Testing

KONICA MINOLTA

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1.0 Executive Summary

Businesses play an enormous role in the use of the planet's limited resources. Large-scale power consumption is driven by factory operation, and some environmentally conscious companies work to reduce a great portion of their carbon footprint by being mindful of efficiency. Rather than monetarily support "Going Green", these companies take it a few steps further – infusing energy saving practices into their products, for continuous optimization of consumption.

Konica Minolta has been a participant of clean technology since 2005, with its bizhub, bizhub PRO and bizhub PRESS products, by gathering metrics on resource usage to more strategically conduct business services that leave only a positive impact on the environment. Multifunction products (MFP) and printers embedded with Konica Minolta bizhub vCare technology allows technicians to remotely monitor, manage and service bizhub, bizhub PRO and bizhub PRESS products over the Internet. Its Central vCare diagnostic server provides routine status updates, toner and supply levels, meter reads and urgent servicing messages to reduce downtime and boost productivity. Using years' worth of data collection, engineers can optimize and support Konica Minolta in its endeavor to promote Green technology and solve environmental challenges.

Under Miercom's Certified Green Program, Konica Minolta engaged in an independent evaluation of its *bizhub vCare version 2.10R1* device management system and provided nine *bizhub* products to test for power consumption, energy efficiency and environmental impact. Our testing focused on power consumption, Green affiliations and Green innovation.

Key Findings

- **Saves as much as 98% power consumption with bizhub products in Hibernate Mode**
- **Sleep Mode reduces power by 99.02% for the most power intensive bizhub MFP**
- **Launched Eco Vision 2050 goals to ensure business growth via environmental action**
- **Offers green products that utilize recycled composite materials, organic toner, OLED lighting and other innovations to achieve sustainable development goals**
- **Optimizes manufacturing and supplying processes to reduce carbon dioxide emissions and non-biodegradable waste through programs such as *SmartWay Transport Partnership* – reducing costs by nearly $50 million over a decade**
- **Promotes green products, services and knowledge for global change**
- **Recognized by more than a dozen international Green accreditations**

Based on our findings, we found Konica Minolta offers multiple ways to minimize its environmental impact through intelligent design, innovative technology and sustainable development. In addition to its renowned affiliations, we are awarding this solution the **_Miercom Certified Green_** accreditation.

Robert Smithers

CEO

Miercom

2.0 Products Tested

The endpoint devices tested are representative of the bizhub product line of multifunction printers. These products were evaluated for power consumption and Green features.

**AccurioPress C6100
Digital Color Press**

- 100 ppm color printer
- Recipient of 2018 Production Pro Award for Outstanding Color Mid-Volume Production Print
- Automated management system for consistent quality
- EnhancedSimitri HDE toner with plant-based material
- Versatile inline finishing options (e.g. binding, stitching)

**AccurioPress C2070
Digital Color Press**

- 71 ppm color printer
- Real-time image and color density sensors
- EnhancedSimitri HDE toner with plant-based material
- EPEAT ratings standard certified

**bizhub C759
Color Multifunction Printer**

- High-volume
- User-customizable printer with configurable tasks
- Award-winning InfoPalette control panel design
- Web browser, 4 GB memory, secure network integration with encryption and user authentication
- Downloadable Konica Minolta Marketplace applications
- EPEAT ratings standard certified

**bizhub C759
Color Multifunction Printer**

- All-in-one printer, copier and scanner
- Large color touchscreen, enhanced control panel, mobile connectivity area and hardware/software control
- 240 originals per minute (opm)
- Konica Minolta exclusive bEST (bizhub Extended Solution Technology) for seamless third-party software integration
- Downloadable Konica Minolta Marketplace applications
- EPEAT ratings standard certified

bizhub C658
Color Multifunction Printer

- 65 ppm, 240 opm
- Modular finishing options
- Large color touchscreen, enhanced control panel, mobile connectivity area and hardware/software control
- High processing CPU for high performing central MFP
- Downloadable Konica Minolta Marketplace applications
- EPEAT ratings standard certified

bizhub C458
Color Multifunction Printer

- 45 ppm, 240 opm
- Large color touchscreen, enhanced control panel, mobile connectivity area and hardware/software control
- Fast processing CPU for high performing central MFP
- Downloadable Konica Minolta Marketplace applications
- EPEAT ratings standard certified

bizhub C308
Color Multifunction Printer

- 30 ppm, 160 opm, 6650-sheet capacity
- Color control panel, browser
- Konica Minolta exclusive bEST (bizhub Extended Solution Technology) for seamless third-party software integration
- Downloadable Konica Minolta Marketplace applications
- EPEAT ratings standard certified

bizhub 227
Color Multifunction Printer

- 22 ppm, 45 opm, 3600-sheet capacity
- Multi-touch interface with LED indications at a distance and audible control instructions
- Optional 10-key pad for quick and easy entry
- Downloadable Konica Minolta Marketplace applications
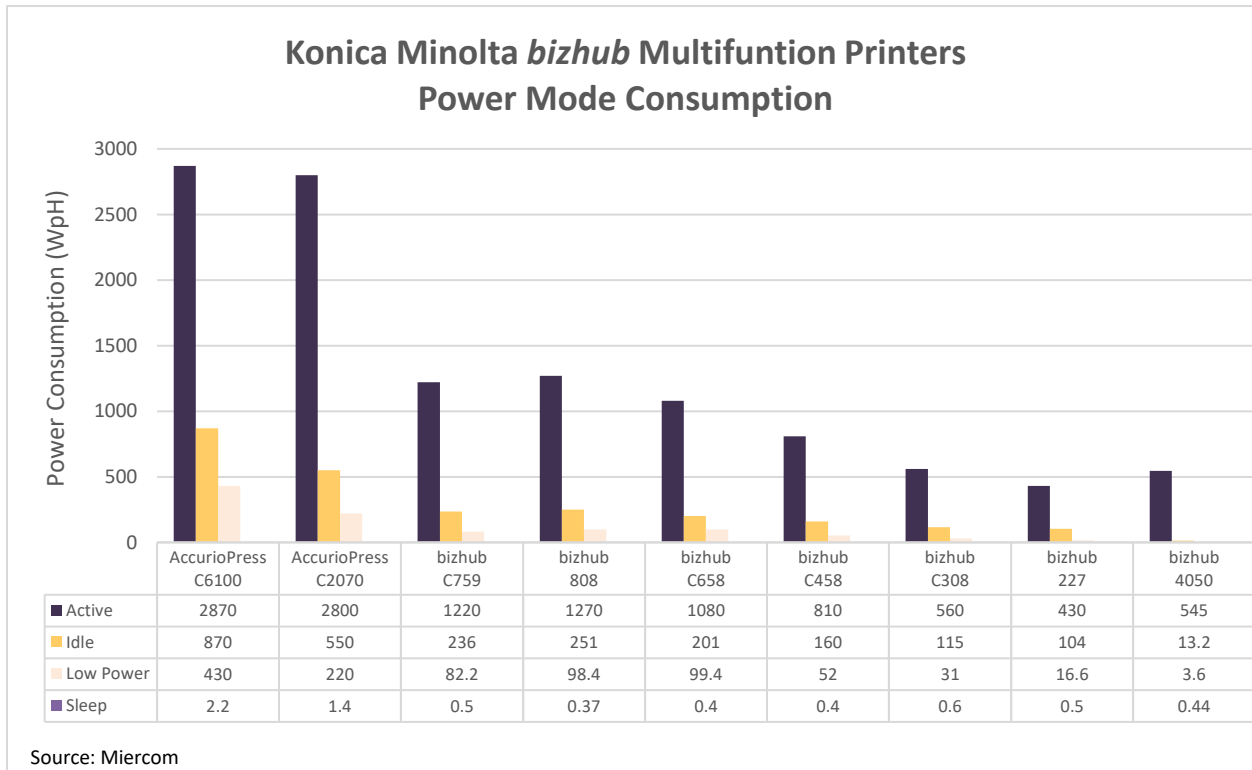- EPEAT ratings standard certified

bizhub 227
Color Multifunction Printer

- 42 ppm print/copy high resolution letter and legal-size
- 7" touch screen panel and reversing document feeder
- USB Direct print (e.g. OOXML, Word, Excel and PPT files)
- Open API for seamless software integration
- Mobile printing support (e.g. AirPrint, Google Cloud Print)
- Downloadable Konica Minolta Marketplace applications
- EPEAT ratings standard certified

The *bizhub vCare 2.10* monitoring system supports bizhub and bizhub PRO products manufactured since 2005. Products discussed here feature a Sleep Mode setting to significantly reduce power consumption. Below is a comparison of power consumption listed in Watts per Hour (WpH) for different modes.

Figure 1: Konica Minolta bizhub MFP Power Consumption

Konica Minolta *bizhub* Multifuntion Printers Power Mode Consumption

	AccurioPress C6100	AccurioPress C2070	bizhub C759	bizhub 808	bizhub C658	bizhub C458	bizhub C308	bizhub 227	bizhub 4050
Active	2870	2800	1220	1270	1080	810	560	430	545
Idle	870	550	236	251	201	160	115	104	13.2
Low Power	430	220	82.2	98.4	99.4	52	31	16.6	3.6
Sleep	2.2	1.4	0.5	0.37	0.4	0.4	0.6	0.5	0.44

Source: Miercom

In idle mode, the bizhub 4050 consumes only 2 percent of the 545 WpH that it does when active. In sleep mode, the same model consumes only 0.08 percent of this rate. Even for the more power intensive model, the AccurioPress C6100, the idle power is only 30 percent of its active consumption. When in sleep mode, the C6100 consumes 0.08 percent of its active mode power at an impressive 2.2 WpH.
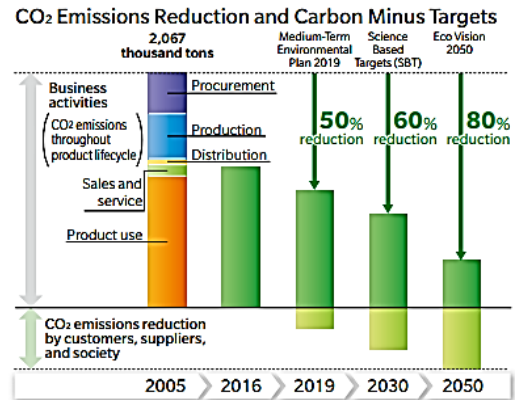
Modes, such as idle or "Hibernate", can be set via the control panel and scheduled for the most optimal phase use. This flexibility allows companies using Konica Minolta vCare monitoring to adjust their MFPs for efficient use and lowest power consumption to benefit both the customer and the environment.

3.0 Corporate Initiatives

Konica Minolta is committed to preserving the environment and has launched a plan – Eco vision 2050 – to achieve green objectives by 2050.

Eco Vision 2050 Goals

1. Reduce carbon dioxide emissions throughout product lifecycles by 80 percent, compared to 2005 levels, while working with customers and suppliers to reduce carbon dioxide emissions, to achieve Carbon Minus status
2. Promote recycling and effective use of limited natural resources
3. Work to restore and preserve biodiversity

Source: Konica Minolta

To guide its initiative towards the 2050 goal, a short-term plan is also in place to ensure business growth via environmental action for both Konica Minolta and its customers. This plan uses combined environmental issue solutions and business contributions to drive sales and profit, eventually creating more business by 2021.

Other initiatives include:

- Solar Energy Initiatives
- Earth Friendly Products
- EPEAT Ranking
- Clean Planet Recycling Program
- Simitri HD Polymerized Toner
- PET Plastics
- ICE-u Technology
- OLED Lighting

4.0 Green Benefits

Konica Minolta evaluates all products to certify the most environmentally friendly performance for its customers through achieving Sustainable Development Goals (SDGs).

The objective of an ongoing green initiative at Konica Minolta Business Solutions USA is to make its data center, in Ramsey, NJ, more environmentally friendly. The data center houses *bizhub vCare* for the United States and Canada.

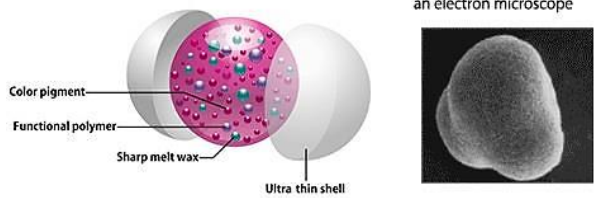The following items contribute to Konica Minolta's effort for advancement in green operations.

Recycled PC/PET parts are comprised of recycled materials. Composite materials, made from used PET bottles and recycled polycarbonate, are used in the exterior body of color MFPs. Additionally, using a proprietary cleaning technology, microscopic cells are removed from plastic to recycle discarded milk containers into MFP toner bottles.

bizhub C368 series using recycled PC/PET

Source: Konica Minolta

Source: Konica Minolta

Simitri HD Toner is made from plant-based biomass, organic, materials to reduce toner particles, cutting consumption by 30 percent or more. This toner fuses to paper at lower temperatures and requires less warm-up time to reduce power consumption than comparable toners – diminishing carbon emissions by 40 percent.

Green Products as well as planning and development provide innovative products such as recyclable equipment, OLED lighting, textile printers and other competitive services.

Green Factories yield more efficient production for suppliers by optimizing procurement and manufacturing processes. In doing so, carbon dioxide emissions and non-biodegradable byproducts are dramatically reduced. Over a decade, a decrease of 94 tons of waste was able to save more than $46 million USD.
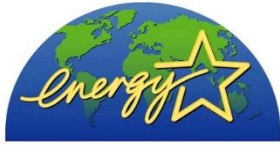
Green Supplier Program ensures Konica Minolta works closely with suppliers to reduce their environmental impact, creating a greener supply chain. *SmartWay Transport Partnership* helps minimize carbon dioxide emissions and fuel consumption by consolidating orders and transferring products more efficiently. At least 50 percent of all Konica Minolta goods are transported using *SmartWay* carriers with optimized routes and less vehicle idle time.

Green Marketing helps popularize environmentally friendly products and services by educating customers on how to effectively encounter challenges and set goals based on regional requirements, such as distribution, packaging, sales and service.

Clean Planet Program launched in 2010 to recycle all Konica Minolta products – keeping them out of landfills. This program does not cost anything for customers and has recycled more than 2.8 million items to date to reduce a substantial 3.5 million pounds of materials from landfills.

5.0 Green Certifications

Energy Star Certified

Every *bizhub* office model and *bizhub PRO* production print MFP are Energy Start Certified. Konica Minolta continues to meet their ever-stringent guidelines and expectations to surpass competitors in pursuit of energy efficient business objectives.

Two Sides, North America

Konica Minolta promotes environmental awareness and responsible production, use and sustainability of print and paper.
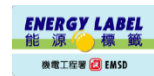
EPEAT Registered – Gold, Silver and Bronze Status

Konica Minolta represents environmental leadership by having 73 products on the EPEAT registry – 54 with Gold status.

They have also been recognized for the following:

About Miercom

Miercom has published hundreds of network product analyses in leading trade periodicals and other publications. Miercom's reputation as the leading, independent product test center is undisputed. Private test services available from Miercom include competitive product analyses, as well as individual product evaluations. Miercom features comprehensive certification and test programs including: Certified Interoperable, Certified Reliable, Certified Secure and Certified Green. Products may also be evaluated under the Performance Verified program, the industry's most thorough and trusted assessment for product usability and performance.

Customer Use and Evaluation

We encourage customers to do their own product trials, as tests are based on the average environment and do not reflect every possible deployment scenario. We offer consulting services and engineering assistance for any customer who wishes to perform an on-site evaluation.

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