3M™ Data Center Solutions

Innovation is the Solution

Air Filtration

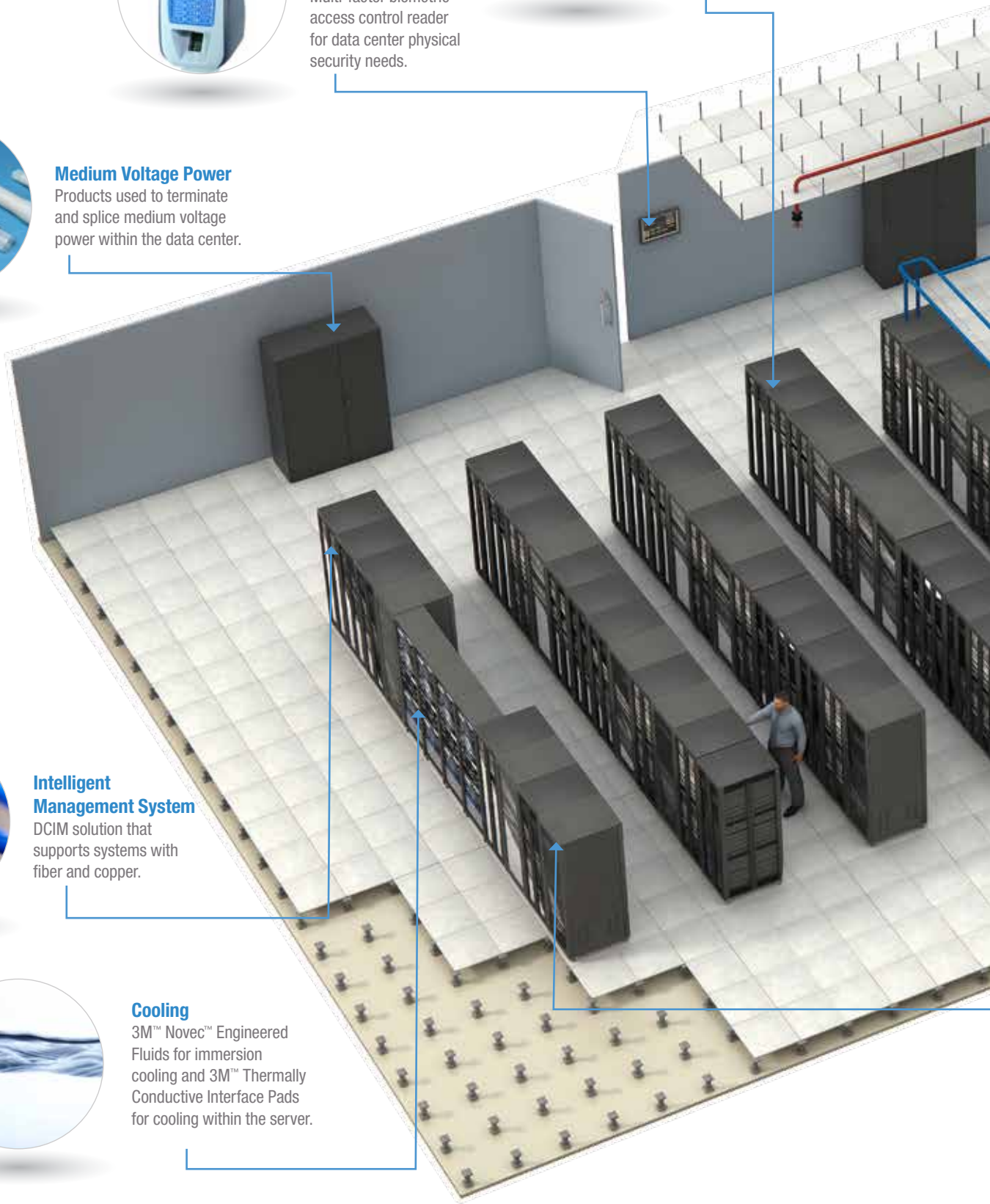
Filters help provide energy savings and indoor air quality improvements for general HVAC system and CRAC units.

Biometric Physical Security

Multi-factor biometric access control reader for data center physical security needs.

Medium Voltage Power

Products used to terminate and splice medium voltage power within the data center.



Intelligent Management System

DCIM solution that supports systems with fiber and copper.

Cooling

3M™ Novec™ Engineered Fluids for immersion cooling and 3M™ Thermally Conductive Interface Pads for cooling within the server.

www.3M.com/datacenters

Fire Protection

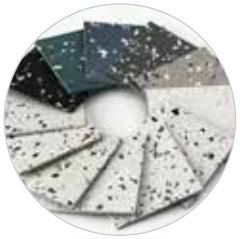
3M™ Novec™ Fire Protection Fluid 1230 quickly and safely helps extinguish fires. Other fire protection products from 3M help suppress the spread of fire and noxious gases.

Automated Fiber Management

AFM provides fully automated and managed fiber infrastructure.

Infrastructure

Broad range of products including medium voltage accessories, static control systems, and raised flooring.



Copper Structured Cabling

Copper structured cabling products, including patch panels, jacks, and patch cords.

High-Speed Connectivity

3M™ Twin Axial Cable and 3M™ Active Optical Cable (AOC) are innovative, high-speed cabling solutions that enable density without sacrificing performance.

Fiber Structured Cabling

Fiber structured cabling solutions include innovative, field-install fiber connectors, fiber patch cords and cables, MPO components, and fiber patch panels.

3M™ Data Center Solutions

Data centers are about more than data. That's why 3M Data Center solutions are designed to increase efficiency and reduce energy. To maximize performance and minimize costs. We harness the power of more than 45 technologies and more than 50 years of network experience to provide customer-centric innovations, worldwide, that are fast, safe, sustainable, and secure. Because the future belongs to those who invent it. 3M.

3M Products and Technologies Address Top Data Center Concerns

	Ease of Expanding Offering Efficiently	Minimize OpEx	Standardization of Systems	Power Efficiency	Remote Management	Green ICT and Sustainability	Quality of Service	Security	Protection of Assets	Reliability
High-Speed Connectivity		•	•	•		•	•			•
Fiber Structured Cabling	•	•	•	•		•	•			•
Fiber Connectors	•	•	•				•			•
Copper Structured Cabling	•	•	•	•		•	•			•
Automated Fiber Management	•	•			•		•		•	•
Intelligent Infrastructure Mgmt	•	•	•		•		•			•
Biometric Access								•	•	•
Fire Protection Fluid		•	•			•	•	•	•	•
Convection / Conduction Cooling		•		•		•				•
Medium Voltage Products				•			•		•	•
Static Control Systems		•			•		•		•	•
Immersion Cooling (in development)		•		•		•				•
Air Filtration		•		•		•				•

Innovation Technology for a Changing World

For generations, people have looked to 3M for products and ideas to solve problems. Data Centers are no different—3M strives to meet the unaddressed needs facing data centers today.

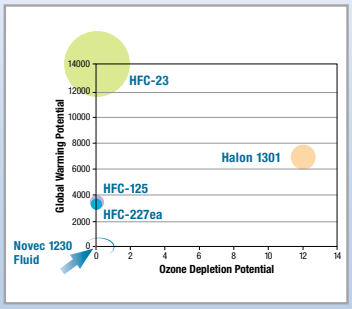
For example, to help address both server cooling and fire protection concerns, 3M is developing a simple, passive, 2-phase (evaporative) cooling technique that involves immersing servers in a bath of 3M™ Novec™ Fluids.

Sustainability

Over the past 40 years, 3M has actively pursued the development of products that enable our customers to reduce their impact on the environment. The 3M™ Data Center Solutions portfolio supports this commitment.

3M™ Novec™ Fluids

Used for fire protection, convection cooling, and an immersion cooling process that is in development, these fluids combine proven performance with an outstanding environmental and safety profile.

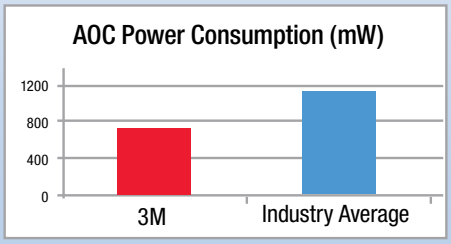


High-Speed Connectivity Products

With its high-performance, high-speed connectivity products, 3M is helping customers achieve more energy-efficient operations.

3M™ Active Optical Cable (AOC): Low-power AOC option offering significant power savings.

3M™ Twin Axial Cable: Drives data center efficiency by enabling efficient operations and improving server airflow.



3M Data Center Products

Cooling

Computer Room | OEM Equipment

3M™ Novec™ Engineered Fluids

Fluids offering heat transfer efficiency with low environmental impact.

3M™ Thermally Conductive Interface Tapes

Tapes providing thermal management and bonding between components.

3M™ Thermally Conductive Interface Pads

Acrylic and silicone interface pads providing thermal management between non-contact components.

High-Speed Connectivity

Switch-to-Server | Top-of-Rack | IntraRack

3M™ Twin Axial Cable Assembly

Flat, foldable and longitudinally shielded high-performance cable assembly. InfiniBand certified.

3M™ Active Optical Cable (AOC) Assembly

Low-power, low-cost, high-performance active optical cable assembly. InfiniBand certified.

Fiber Structured Cabling

Carrier Space | Meet-Me-Room | Cages | Computer Room | NOC

3M™ Crimplok™+ Connectors

No splice, no gel, no adhesive field-install fiber connectors.

3M™ No Polish Connectors

Field-installed fiber connectors with index-matching gel.

3M™ Hot Melt Connectors

Fiber connectors offering high reliability and longevity.

3M™ Volition™ Fiber Cable

Singlemode (9/125mm); Multimode (OM1, OM2, OM3, OM4).

3M™ MPO Fiber System Solution

High-fiber density, pre-terminated connection system.

3M™ Fiber Distribution System RFO NG

High-density fiber management system with a modular design.

3M™ Fiber Distribution Unit 8400 Series

Flexible, compact fiber distribution system with options for customization.

3M™ Fiber Patch Cords

Singlemode and multimode fiber with several connector options.

Intelligent Connectivity

Carrier Space | Meet-Me-Room | Cages | Computer Room | NOC

FiberZone Automated Fiber Management

System providing fully automated and managed fiber infrastructure.

3M™ Volition™ Intelligent Management Systems

DCIM solution supporting systems with fiber and copper.

Copper Structured Cabling

Carrier Space | Meet-Me-Room | Cages | Computer Room | NOC

3M™ Volition™ Copper Patch Panels

Modular-design patch panels accommodating up to 32 RJ45 ports in 1U.

3M™ Volition™ RJ45 Jacks

Easy to terminate tool less connectors with superior headroom.

3M™ Volition™ Copper Patch Cords

Cat. 6A patch cords designed to minimize alien crosstalk up to 500 MHz.

3M™ Volition™ Copper Cables

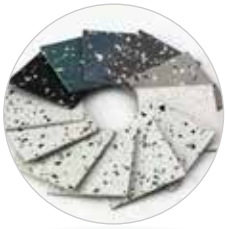
Shielded Category 6A and 7 cables with excellent EMC/ alien crosstalk performance.

Infrastructure

Computer Room | OEM Equipment

3M™ Static Management Program

Continuous monitoring of ground to equipment/chassis, and other essential static controls.



3M™ Static Control Flooring/Mats

First line of defense against build-up of static charge.

3M™ EMI/EMC Electronic Materials

Transfer tapes, absorber sheets, FFDM, and EMI gaskets.

Fire Protection

Computer Room | General Facilities

Novec™ Fire Protection Fluid

Highly-efficient clean agent for data center fire suppression.

Fire Barrier Products

Passive fire protection to reduce the spread of smoke, fire and noxious gases.

Medium Voltage Power

General Facilities | Power Generation

Medium Voltage Products

Cable terminations and splices providing power and connecting equipment.

Electrical Construction Service

Free project analysis providing take-offs, training and support.

Biometric Physical Security

General Infrastructure | Cage Access

MiY-Biometric Access Control

Multi-factor biometric access control reader. Winner of Biometrics, Identification, and Credentialing Award at ISC West in 2011.

Air Filtration

Computer Room | General Facilities

Filtrete™ Commercial HVAC Filters

Long-life air filters help provide energy savings with a low pressure drop and improved indoor air quality.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability.

3M's product warranty is stated in its product literature, available upon request. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE**. If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any loss or damage arising from this 3M product, whether indirect, special, incidental or consequential regardless of the legal theory asserted.**

3M Electronics & Energy Business
6801 River Place Blvd.
Austin, TX 78726-9000
www.3M.com/datacenters
3MDataCenters@mmm.com

3M, Novec, Crimplok, Volition, Filtrete, VF-45 and RF45 are trademarks of 3M Company.

Please recycle. Printed in USA.
© 3M 2012. All rights reserved.

80-4000-7023-3