

# 2033C Series

UNINTERRUPTIBLE POWER  
SUPPLY SYSTEMS

7.5kVA – 50kVA



ISO 9001  
CERTIFIED

**Where Reliability  
Breeds Confidence**

 MITSUBISHI ELECTRIC

## Superior Performance, Reliability and Safety Come from Experience. Our Uninterruptible Power Supply Systems Ensure All Three.

Mitsubishi Electric has been developing and manufacturing Uninterruptible Power Supply (UPS) components and systems for more than three decades. This experience, and the continuous application of new power device technologies to further improve products in the industry, clearly explain why Mitsubishi Electric has dominated a large portion of the world UPS market for years.

When purchasing a UPS system, the key word is "reliability." And there's one company that many rely on. Uninterruptible Power Supply systems by Mitsubishi Electric.



### Full IGBT Transistors – Excellent Performance Characteristics

Mitsubishi Electric is the leading manufacturer of Insulated Gate Bipolar Transistors (IGBT). Mitsubishi Electric utilizes IGBTs in the converter and inverter sections of our 2033C Series UPS systems. These advanced, high performance transistors

provide a variety of intelligent features:

- Large power capabilities
- High speed switching
- Low control power consumption

### Low Input Current Harmonics (THD)

- 4% typical (100% load)
- 5% typical (75% load)
- 7% typical (50% load)

### Input Power Factor

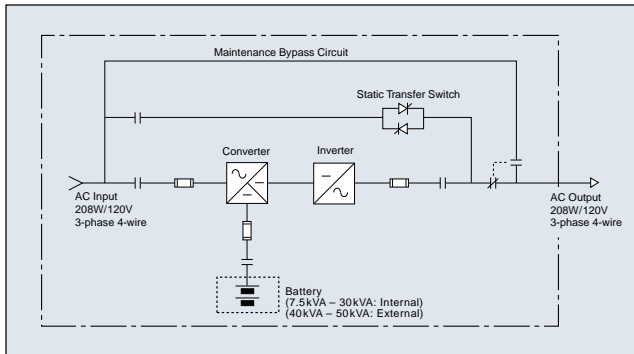
- 1:1 ratio

### Low Heat Loss/High Efficiency

Use of the IGBTs permits efficient high speed switching (16kHz or 12kHz), thus reducing heat dissipation in the UPS. (Higher efficiency means lower cost per kilowatt to the customer.)

# TECHNICALLY, ANYTHING IS POSSIBLE

## One-Line Diagram



## Software

### What is DiamondLink™?

DiamondLink is user-customizable power monitoring, management and shutdown software, designed to provide information about the power condition of the UPS systems.

### How does DiamondLink work?

DiamondLink is designed to run on network server or workstations in any office environment. The software will monitor the status of your UPS and, when critical events occur, will perform a graceful unattended shutdown.

### Features

- Automatic unattended shutdown.
- Color coded power event logging.
- Smart messages can be user defined.
- User defined actions for a specific list of power events.
- Built-in graphing routines allow customized graphs to be created on-line.
- DiamondLink can be used with all Mitsubishi single phase and three phase products.



### Specifics

- Power history graph
- Custom user defined events
- Data log viewer
- E-mail configurations
- E-mail options for power events
- Event action
- Events log file
- Modem alert operation
- Pager notification
- Paging option

### Supported Operating Systems

- Microsoft Windows®
- Microsoft Windows NT
- Microsoft Windows 95
- Microsoft Windows 98
- Microsoft Windows 00
- OS/2
- Novel NetWare®
- SVR4
- SCO UNIX
- SCO XENIX
- Solaris™
- IBM® AIX®-RS6000™
- HP-UX
- SGI
- Digital UNIX
- RED HAT LINUX

**NEW**



### Battery Included

- All in one
- Reduced foot print

### Extended Battery Life

Power draw from batteries during step load conditions is no longer required with the IGBT in both the converter and the inverter. Other UPS systems required assistance from batteries when the converter was unable to supply the required current. This cycling of batteries causes shorter life. Mitsubishi Electric IGBTs incorporate the latest technologies and provide step load applications (0-100%) without the use of batteries, thus ensuring maximum battery service life (i.e. lower lifetime cost of UPS system).

### Quiet Operation

- 7.5-20kVA → 55dB (A scale, 1m)
- 30-50kVA → 59dB (A scale, 1m)

### Internal Maintenance Bypass (in addition to Static bypass)

All 2033C Series UPS systems are equipped with an internal wrap around "Zero Energy" maintenance bypass system for greater maintenance flexibility.

### Superior Functions

- Front access only
- Automatic restart after low battery inverter stop
- Automatic retransfer
- Converter walk-in function
- "Form A" dry contacts
- High tolerance for overload/overcurrent
- Battery current limit
- Battery self test

### Touch screen display allows user to access:

- Input/Output voltage
- Input/Output current
- KW
- Frequency
- Battery information
  - Charge voltage
  - Discharge voltage
- Diagnostics
  - Fault/Alarm history

### Software

- RS-232C serial interface (Standard)
- DiamondLink application software (Optional)
  - Multilingual
  - Paging, E-mail capability during power events
  - SNMP interface (NETCOM)

### Warranty

**Standard warranty is two years, including parts, labor and batteries.**

*(NOTE: All information subject to change without prior notice.)*



**NEW**

# SPECIFICATIONS

## UPS Voltage Configurations

kVA	208V to 208V Dimensions (in) W × D × H	208V to 208V Weight (lbs)	480V (or 600V) to 208V Dimensions (in) W × D × H	480V (or 600V) to 208V Weight (lbs)	*480V to 480V Dimensions (in) W × D × H	*480V to 480V Weight (lbs)
7.5	17.7 × 31.5 × 43.3	562	35.4 × 31.5 × 43.3	682	53.1 × 31.5 × 43.3	1,372
10	17.7 × 31.5 × 43.3	562	35.4 × 31.5 × 43.3	935	53.1 × 31.5 × 43.3	1,570
15	17.7 × 31.5 × 43.3	816	35.4 × 31.5 × 43.3	1,111	53.1 × 31.5 × 43.3	1,796
20	17.7 × 31.5 × 43.3	816	35.4 × 31.5 × 43.3	1,186	53.1 × 31.5 × 43.3	1,946
30	23.6 × 31.5 × 59.1	1,322	51.1 × 31.5 × 59.1	1,957	51.1 × 31.5 × 59.1	2,242
40	27.6 × 31.5 × 59.1	1,082	55.1 × 31.5 × 59.1	1,767	55.1 × 31.5 × 59.1	2,102
50	27.6 × 31.5 × 59.1	1,082	55.1 × 31.5 × 59.1	1,842	55.1 × 31.5 × 59.1	2,252

\*Same for 600V input/600V output

NOTES: Batteries included (7.5kVA 11min., 10kVA 5min., 15kVA 11min., 20kVA 7min., 30kVA 6min. at 100% load)

Above weights for 7.5-30kVA include batteries.

## Standard Features

- IGBT (Converter/Inverter)
- UL1778 / cUL listed
- UL924 listed
- Zero energy MBS
- Conformally coated boards (industrial environment)
- Front access only (Serviceability)
- "DiamondSense" battery self-test

## Battery DC Link

- 360 VDC

## Operating Environment

- Low acoustic noise
- Temperature: 0 ~ 40°C
- Relative humidity: 5 ~ 95% (non-condensing)
- Altitude: 0-9,000 feet (no derating)

## Options

- Seismic bracing brackets
- 480V Input (external matching cabinet)
- Software (for specific O/S systems)

## AC Input Rating

- +15% ~ -25%
- Power: Rated 1kVA : 1kW Generator
- 208Y / 120 VAC
- THD (reflected current):
  - 4% typical (100% load)
  - 7% typical (50% load)
- 3-phase, 4-wire, plus ground
- Frequency: 60Hz (±5%)
- Surge withstand: Meets IEEE C62.41-1991
- EMI compatibility: FCC Title 47, Part 15 Subpart B

## AC Output Rating

- 3-phase, 4-wire, plus ground
- 208Y / 120 VAC
- Output power factor rating: 0.8 ~ 1.0 Lag (within output kW rating)
- Frequency: 60Hz ±0.01% (free running)
- Voltage accuracy: ±1%
- Transient recovery time: 16.7ms
- Load unbalance: 100% ±2% or less
- Step load change: 0 ~ 100% ±3%
- Load/Return of AC power: ±1% (at 100% load)
- UPS load transfer, bypass: ±3% (at 100% load)
- THD (Voltage): 2% (100% linear load); 4% (100% non-linear load)
- Slew rate: 1, 2Hz/sec (selectable)

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The quality management system of  
Mitsubishi Electric Corporation Kobe Works  
has been approved to ISO9001:1994.

The quality management system is  
applicable to design, development and  
manufacturing of the UPS.

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