MITSUBISHI ELECTRIC

UNINTERRUPTIBLE POWER SUPPLIES

2033C

>2033C UPS

UNINTERRUPTIBLE **POWER** SUPPLIES

10KVA , 15KVA , 20KVA

2033C

Available in 10kVA, 15kVA, and 20kVA, the 2033C delivers the reliable power and protection Mitsubishi customers have come to expect. Its transformerless design and excellent performance characteristics differentiate the 2033C Series UPS from others in the industry.

SERIES

>2033C UPS

Mitsubishi Electric has been developing and manufacturing Uninterruptible Power Supply (UPS) components and systems for more than four 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.

BATTERY INCLUDED

> All In One (Internal)
> Reduced Foot Print

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.)

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).

LOW INPUT CURRENT HARMONICS (THD)

> 4% Typical (100% Load)
> 5% Typical (75% Load)
> 7% Typical (50% Load)

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
> "Diamond Sense" Battery Self Test

INPUT POWER FACTOR

> Greater than .99

KVA	208V TO 208V DIMENSIONS (WXDXH)	208V TO 208V (LBS)
10	17.7" X 31.5" X 43.3"	560
15	17.7" X 31.5" X 43.3"	820
20	17.7" X 31.5" X 43.3"	820

RELIABILITY 2-year-warranty

UPS Uninterruptible Power Supplies

quality systems

HIGH PERFORMANCE

TOUCH SCREEN DISPLAY ALLOWS USER TO ACCESS:

> Input/Output Voltage
> Input/Output Current
> KW
> Frequency
> Battery Information
  – Voltage
  – Remaining Battery Capacity
> Diagnostics
  – Fault/Alarm History

SOFTWARE

> RS-232C Serial Interface (Standard)
> DiamondLink Application Software (Optional)
  – Paging, E-mail Capability during Power Events
  – SNMP Interface (NETCOM2)
  – NETCOM2 - (SNMP Interface Optional)

STANDARD FEATURES

> IGBT (Converter/Inverter)
> UL1778/cUL Listed
> UL924 Listed
> Conformally Coated Boards (Industrial Environment)
> Front Access Only (Serviceability)
> "DiamondSense" Battery Self-test

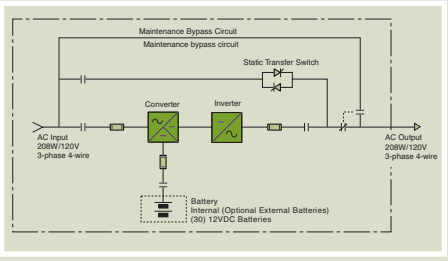
BATTERY DC LINK

> 360 VDC

OPTIONS

> Seismic Bracing Brackets
> 480V Input (External Matching Cabinet)
> Software (for Specific O/S Systems)

2033C ONE LINE DIAGRAM



OPERATING ENVIRONMENT

> Low Acoustic Noise
> Temperature: 0–40°C
> Relative Humidity: 5–95% (Noncondensing)
> Altitude: 0–5,000 feet (No Derating)

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: 60 Hz (±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: 16.7 Milliseconds
> Load Unbalance: 100% ±2% or Less
> Step Load: (0–100%): ±3%
> Less/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: 2Hz/sec

WARRANTY

Standard warranty is two years, including parts and labor.

Mitsubishi Electric Customized IGBT Module

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*

IGBT has become the preferred power device for UPS systems, but it is how the IGBT power device is controlled that is key to achieving optimum UPS performance.

IGBT

The quality management system of Mitsubishi Electric Corporation Kobe Works has been approved to ISO9001:2000.

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

Mitsubishi Electric Power Products, Inc.
Uninterruptible Power Supplies (UPS) Division
547 Keystone Drive • Warrendale, PA 15086
Phone: 724-772-2555 • Fax: 724-778-3146

www.meppi.com

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