

## Facility Planning Data Sheet

### 2033A DDC Series 30 - 75 kVA UPS (208in/208out)

Power Rating		UPS AC Input							Battery System			AC Output			Mechanical Information				
		Voltage		kVA		Current		Minimum Input	External Overcurrent Protection	Nominal Voltage	Full Load	Maximum Discharge	Voltage	Current Nominal	External Overcurrent Protection	Dimensions W x D x H	Weight	Floor Loading	Heat Rejection
kVA	kW	Vac/ Freq.	Nom.	Max.	Nom.	Max.	AWG or kcmil	VDC		kW	A	Vac	A		Inch	Lbs	Lbs/ Ft <sup>2</sup>	kBTU/ Hr	CFM
30	24	208 / 60Hz	27.8	30.9	77	86	2 or larger	360	26.2	90	208	83.3	110A	35.4x29.5x70.9	1,050	145	11.0	1160	
50	40	208 / 60Hz	45.9	51.5	127	143	2/0 or larger	360	43.7	151	208	138.9	175A	43.3x29.5x70.9	1,470	166	16.9	1790	
75	60	208 / 60Hz	68.7	77.3	191	215	300 or larger	360	65.6	226	208	208.2	300A	43.3x29.5x70.9	1,700	191	25.0	2650	
Notes:					1	2	3,4,10,13,A,B,C	4,7,9	5	6,10		1	4,7,8,11	11,12					

#### Notes:

1. Nominal (Nom.) current based on rated load.
2. Maximum (Max.) current based on converter overload rating.
3. Input and output cables typically run in separate conduits.
4. If initial load is less than UPS' rated output, it is recommended that AC input, battery, and AC output wiring and overcurrent protection be sized to UPS' full load rating to accommodate possible future expansion.
5. Nominal battery voltage assumed to be 2.0 volts/cell (lead technology).
6. DC cables should be sized for not more than a 2.0% line drop at maximum discharge current.
7. Suggested AC output overcurrent protection based on continuous full load current per NEC 210-20. 80% rated breakers assumed.
8. Grounding conductors to be sized per NEC Article 250-122 and NEC Table 250-122. Neutral conductors to be sized per NEC Article 310-15.
  - AC Input: 3  $\phi$ , 3 wire, ground.  
**For single input feed, neutral conductor required for bypass.**  
**For single input feed, jumper bypass and converter phase conductors.**
  - Bypass Input: 3  $\phi$ , 4 wire + ground.
  - AC Output: 3  $\phi$ , 4 wire + ground.
  - DC Input: 2 wire (Positive and Negative) + ground.
9. Input neutral conductor not required if main feed is from a delta-wye input isolation transformer AND both the Bypass and AC Inputs are fed from wye side. Neutral derived on wye side.
10. All wiring to be in accordance with all applicable national and/or local electrical codes.
11. Minimum access clearance per UPS drawings or Owner's Manual.
12. Cable entry from top or bottom. Punch plates accordingly. (*Side access possible. Consult MEPPI for specifics.*)
13. Control wiring and power wiring to be run in separate conduits.

#### Additional Notes:

- i. For site configurations including emergency generators, engine generator to be sized and equipped for UPS applications. Generator equipped with governor for frequency regulation and regulator for voltage stability recommended. Note: UPS' reflected current distortion is 3% max at full load and 6% max at 50% load.
  - ii. For site configurations equipped with an external Maintenance Bypass Switch circuit, UPS must be on internal Static Bypass before transferring to external Maintenance Bypass. Consult Factory for further information.
  - iii. For site configurations including automatic transfer switches, transfer switch to be equipped with "neutral delay position" option to minimize phase shift during operation. Transfer switch equipped with auxiliary contact for control of UPS input current when on generator recommended. Consult transfer switch manufacturer for required transfer switch options and sizing.
    - A. Not more than 3 conductors in raceway assumed; ambient temperature of 30 °C (86 °F) assumed.
    - B. Temperature rating of conductors: 75 °C (167 °F). Reference Table 310-16 of NEC, 75 °C column, using copper conductors. 75 °C (167 °F) cable terminal connectors assumed.
    - C. Reference: NEC handbook 2005. Consult local codes for possible variations.
- D. RATINGS OF CABLES AND OVERCURRENT DEVICES SUPPLIED FOR INFORMATION ONLY. USER TO CONSULT WITH ITS ENGINEERING SERVICES BEFORE ADOPTING.**



Mitsubishi Electric Power Products, Inc.  
 UPS Division  
 Phone: (724) 772-2555 Fax: (724) 778-3146