

YASKAWA AC Drive-J1000

Compact V/f Control Drive

Manual Supplement

Supplement to: J1000 Quick Start Guide TOEP C710606 26C <3>
J1000 Technical Manual SIEP C710606 31C <2>

Type: CIMR-JU□A

Models: 200 V Class, Three-Phase Input: 0.1 to 5.5 kW
200 V Class, Single-Phase Input: 0.1 to 2.2 kW
400 V Class, Three-Phase Input: 0.2 to 5.5 kW

YASKAWA AC Drive-V1000

Compact Vector Control Drive

Manual Supplement

Supplement to: V1000 Quick Start Guide TOEP C710606 47B <1>
V1000 Technical Manual SIEP C710606 18D <3>

Type: CIMR-VU□A

Models: 200 V Class, Three-Phase Input: 0.1 to 18.5 kW
200 V Class, Single-Phase Input: 0.1 to 3.7 kW
400 V Class, Three-Phase Input: 0.2 to 18.5 kW

To properly use the product, read this supplement thoroughly and retain for easy reference, inspection, and maintenance. Ensure the end user receives this supplement.

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1 Supplemental Information - Applicable Documents

◆ Document Applicability

The contents of this supplement add to the contents of the product manual sections listed in [Table 1](#).

Table 1 Affected Documents and Sections

| Drive Series | Document | Appendix | Sections |
|--------------|------------------------------------|----------------------|--|
| J1000 | TOEP C710606 26 SIEP C710606 31 | Standards Compliance | UL and CSA Standards Factory Recommended Branch Circuit Protection |
| V1000 | TOEP C710606 47 SIEP C710606 18 | | |

2 Supplemental Information - Standards Compliance

◆ Factory Recommended Branch Circuit Protection

Yaskawa recommends installing one of the following types of branch circuit protection to maintain compliance with UL508C. Semiconductor protective type fuses are preferred.

Branch circuit protection shall be provided by any of the following according to [Table 2](#).

- Non-time Delay Class J, T, or CC fuses.
- Time Delay Class J, T, CC, or RK5 fuses.
- Semiconductor fuses.
- Molded Case Circuit Breakers (MCCB).

Table 2 Factory Recommended Drive Branch Circuit Protection

| Drive Model | Non-time Delay Fuse Rating (A) <1> | Time Delay Fuses | | Bussmann Semiconductor Fuse Part Number (Fuse Ampere) <4> | MCCB <5> | |
|--|---------------------------------------|--|----------------------------------|---|------------|---|
| | | Class J, T, or CC Fuse Rating (A) <2> | Class RK5 Fuse Rating (A) <3> | | Rating (A) | Minimum Enclosure Volume (in ³) |
| 200 V Class Single-Phase Drives | | | | | | |
| BA0001 | 6 | 3.5 | 4 | FWH-25A14F (25) | 15 | 600 |
| BA0002 | 10 | 6 | 8 | FWH-25A14F (25) | 15 | 600 |
| BA0003 | 20 | 10 | 15 | FWH-60B (60) | 15 | 600 |
| BA0006 | 40 | 20 | 30 | FWH-80B (80) | 30 | 1152 |
| BA0010 | 40 | 35 | 45 | FWH-100B (100) | 50 | 1152 |
| BA0012 <6> | 50 | 40 | 50 | FWH-125B (125) | 60 | 1152 |
| BA0018 <6> | 80 | 60 | 70 | FWH-175B (175) | 80 | 1152 |
| 200 V Class Three-Phase Drives | | | | | | |
| 2A0001 | 3 | 1.5 | 2 | FWH-25A14F (25) | 15 | 600 |
| 2A0002 | 6 <7> | 3 | 3 | FWH-25A14F (25) | 15 | 600 |
| 2A0004 | 15 <8> | 6 | 8 | FWH-25A14F (25) | 15 | 600 |
| 2A0006 | 20 | 10 | 15 | FWH-25A14F (25) | 15 | 1152 |
| 2A0010 | 25 | 15 | 20 | FWH-70B (70) | 25 | 1152 |
| 2A0012 | 25 | 20 | 30 | FWH-70B (70) | 30 | 1152 |
| 2A0020 | 40 | 40 | 50 | FWH-90B (90) | 60 | 1152 |
| 2A0030 | – | 60 | 80 | FWH-100B (100) | 90 | 1152 |
| 2A0040 <6> | – | 90 | 110 | FWH-200B (200) | 125 | 1152 |
| 2A0056 <6> | – | 110 | 150 | FWH-200B (200) | 150 | 2560 |
| 2A0069 <6> | – | 125 | 175 | FWH-200B (200) | 200 | 2560 |
| 400 V Class Three-Phase Drives | | | | | | |
| 4A0001 | 3 | 2 | 2 | FWH-40B (40) | 15 | 1152 |
| 4A0002 | 6 | 3.5 | 3 | FWH-40B (40) | 15 | 1152 |
| 4A0004 | 15 <8> | 7 | 8 | FWH-50B (50) | 15 | 1152 |
| 4A0005 | 20 <9> | 10 | 10 | FWH-70B (70) | 15 | 1152 |
| 4A0007 | 25 <10> | 12 | 15 | FWH-70B (70) | 20 | 1152 |
| 4A0009 | 25 | 15 | 20 | FWH-90B (90) | 20 | 1152 |
| 4A0011 | 30 | 20 | 30 | FWH-90B (90) | 35 | 1152 |
| 4A0018 <6> | – | 35 | 45 | FWH-80B (80) | 50 | 1152 |
| 4A0023 <6> | – | 40 | 50 | FWH-100B (100) | 60 | 1152 |
| 4A0031 <6> | – | 60 | 80 | FWH-125B (125) | 90 | 1152 |
| 4A0038 <6> | – | 70 | 90 | FWH-200B (200) | 110 | 1152 |

<1> Maximum 300% of drive input current rating for any Class J, T, or CC fuse except for models 2A0002, 2A0004, 4A0004, 4A0005, and 4A0007.

<2> Maximum 175% of drive input current rating for any Class J, T, or CC fuse.

2 Supplemental Information - Standards Compliance

- <3> Maximum 225% of drive input current rating for any Class RK5 fuse.
- <4> When using semiconductor fuses, Bussmann FWH are required for UL compliance.
- <5> Maximum MCCB Rating is 15 A or 200% of drive input current rating, whichever is larger. MCCB voltage rating must be 600 Vac or greater. Additionally, when using MCCBs for protection, the drive must be installed in a ventilated enclosure with minimum volume according the “Minimum Enclosure Volume” column.
- <6> Available for V1000 only.
- <7> Model 2A0002 requires Mersen (Ferraz) part number A6T6 for compliance.
- <8> Models 2A0004 and 4A0004 require Mersen (Ferraz) part number A6T15 for compliance.
- <9> Model 4A0005 requires Mersen (Ferraz) part number A6T20 for compliance.
- <10> Model 4A0007 requires Mersen (Ferraz) part number A6T25 for compliance.

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Revision History

The revision dates and the numbers of the revised manuals appear on the bottom of the back cover.

| Date of Publication | Revision Number | Section | Revised Content |
|---------------------|-----------------|---------|-----------------|
| March 2015 | - | - | First Edition. |

YASKAWA AC Drive-J1000 and V1000

Compact V/f Control and Compact Vector Control Drives

Manual Supplement

YASKAWA AMERICA, INC.

2121 Norman Drive South, Waukegan, IL 60085, U.S.A.
Phone: 1-800-YASKAWA (927-5292) or 1-847-887-7000 Fax: 1-847-887-7310
<http://www.yaskawa.com>

DRIVE CENTER (INVERTER PLANT)

2-13-1, Nishimiyaichi, Yukuhashi, Fukuoka, 824-8511, Japan
Phone: 81-930-25-3844 Fax: 81-930-25-4369
<http://www.yaskawa.co.jp>

YASKAWA ELECTRIC CORPORATION

New Pier Takeshiba South Tower, 1-16-1, Kaigan, Minatoku, Tokyo, 105-6891, Japan
Phone: 81-3-5402-4502 Fax: 81-3-5402-4580
<http://www.yaskawa.co.jp>

YASKAWA ELÉTRICO DO BRASIL LTDA.

Avenida Piraporinha 777, Diadema, São Paulo, 09950-000, Brasil
Phone: 55-11-3585-1100 Fax: 55-11-3585-1187
<http://www.yaskawa.com.br>

YASKAWA EUROPE GmbH

Hauptstrasse 185, 65760 Eschborn, Germany
Phone: 49-6196-569-300 Fax: 49-6196-569-398
<http://www.yaskawa.eu.com>

YASKAWA ELECTRIC KOREA CORPORATION

9F, Kyobo Securities Bldg., 26-4, Yeouido-dong, Yeongdeungpo-gu, Seoul, 150-737, Korea
Phone: 82-2-784-7844 Fax: 82-2-784-8495
<http://www.yaskawa.co.kr>

YASKAWA ELECTRIC (SINGAPORE) PTE. LTD.

151 Lorong Chuan, #04-02A, New Tech Park, 556741, Singapore
Phone: 65-6282-3003 Fax: 65-6289-3003
<http://www.yaskawa.com.sg>

YASKAWA ELECTRIC (CHINA) CO., LTD.

12F, Carlton Bld., No.21 HuangHe Road, HuangPu District, Shanghai 200003, China
Phone: 86-21-5385-2200 Fax: 86-21-5385-3299
<http://www.yaskawa.com.cn>

YASKAWA ELECTRIC (CHINA) CO., LTD. BEIJING OFFICE

Room 1011, Tower W3 Oriental Plaza, No. 1 East Chang An Ave.,
Dong Cheng District, Beijing, 100738, China
Phone: 86-10-8518-4086 Fax: 86-10-8518-4082

YASKAWA ELECTRIC TAIWAN CORPORATION

9F, 16, Nanking E. Rd., Sec. 3, Taipei, 104, Taiwan
Phone: 886-2-2502-5003 Fax: 886-2-2505-1280

YASKAWA INDIA PRIVATE LIMITED

#17/A Electronics City, Hosur Road Bangalore 560 100 (Karnataka), India
Phone: 91-80-4244-1900 Fax: 91-80-4244-1901
<http://www.yaskawaindia.in>



YASKAWA ELECTRIC CORPORATION

In the event that the end user of this product is to be the military and said product is to be employed in any weapons systems or the manufacture thereof, the export will fall under the relevant regulations as stipulated in the Foreign Exchange and Foreign Trade Regulations. Therefore, be sure to follow all procedures and submit all relevant documentation according to any and all rules, regulations and laws that may apply.

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TOEPYAISUP07

SUPPLEMENT NO. TOEP YAISUP 07A

Published in USA March 2015 15-3