



High Speed Fuses

Bussmann® Fuses in Allen-Bradley Drives

TECHNICAL LITERATURE

The following data sheets contain information obtained directly from the manufacturer's installation instruction manuals. Within each application there are specific requirements that detail how the Power Electronic Equipment should be installed and the proper overcurrent protection that has been tested and approved by certified testing agencies.

The part numbers shown in this guide were obtained from the latest available published information from the manufacturer. It is recommended that each installation be checked against the manufacturer's installation guides to determine if any additional requirements are needed. Bussmann® is not responsible for mis-application of our products.

For the latest, most up-to-date product specifications listed in this guide please visit us at <http://www.bussmann.com> or by calling the Bussmann Information Fax (BIF) at 636-527-1450.

This guide is intended to clearly represent product data and provide technical information that will help the end user with design/installation applications. Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Bussmann also reserves the right to change or update, without notice, any information contained in this guide. Once a product has been selected, it should be checked and tested by the end user in all possible applications.



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Model 1302 AC Drive (575 Volts)

Maximum Short Circuit Rating is 30kA

AC Input Line Fuse Selection Values

| Model Number | Voltage | HP | Input Current | Fuse Part Number |
|--------------|---------|-----|---------------|------------------|
| | V | | A | |
| 1302-C001-AA | 575 | 1 | 2 | LPJ-4SP |
| 1302-C001-AF | 575 | 1 | 2 | LPJ-4SP |
| 1302-C002-AA | 575 | 2 | 3.4 | LPJ-7SP |
| 1302-C002-AF | 575 | 2 | 3.4 | LPJ-7SP |
| 1302-C003-AA | 575 | 3 | 5.2 | LPJ-10SP |
| 1302-C003-AF | 575 | 3 | 5.2 | LPJ-10SP |
| 1302-C004-AA | 575 | 5 | 7.5 | LPJ-15SP |
| 1302-C005-AA | 575 | 5 | 7.5 | LPJ-15SP |
| 1302-C005-AF | 575 | 7.5 | 10.9 | LPJ-20SP |
| 1302-C007-AF | 575 | 7.5 | 10.9 | LPJ-20SP |
| 1302-C010-AA | 575 | 10 | 14.5 | LPJ-25SP |
| 1302-C010-AF | 575 | 10 | 14.5 | LPJ-25SP |

Fuse Block

J60030-3CR or JP60030-3CR

Disconnect Switch

CFD30J3



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**Model 1305 Adjustable Frequency AC Drive (Series C)
0.37 - 5kW (0.5 - 5 HP)**

| Catalog Number | Voltage V | Three Phase Input | | Single Phase Input | | Bussmann Class CC | Bussmann Class J |
|----------------|--------------|-------------------|------|--------------------|------|----------------------|---------------------|
| | | HP | kW | HP | kW | | |
| 1305-AA02A | 200-230 | 0.5 | 0.37 | 0.25 | 0.19 | KTK-R-6 | LPJ-6SP |
| 1305-AA03A | 200-230 | 0.75 | 0.55 | 0.5 | 0.37 | KTK-R-6 | LPJ-6SP |
| 1305-AA04A | 200-230 | 1 | 0.75 | 0.75 | 0.55 | KTK-R-10 | LPJ-10SP |
| 1305-AA08A | 200-230 | 2 | 1.5 | 1 | 0.75 | KTK-R-15 | LPJ-15SP |
| 1305-AA12A | 200-230 | 3 | 2.2 | 2 | 1.5 | KTK-R-25 | LPJ-25SP |
| 1305-BA01A | 380-460 | 0.5 | 0.37 | | | | LPJ-3SP |
| 1305-BA02A | 380-460 | 0.75 | 0.55 | | | | LPJ-3SP |
| 1305-BA03A | 380-460 | 1 | 0.75 | | | KTK-R-6 | LPJ-6SP |
| 1305-BA04A | 380-460 | 2 | 1.5 | | | KTK-R-10 | LPJ-10SP |
| 1305-BA06A | 380-460 | 3 | 2.2 | | | KTK-R-15 | LPJ-15SP |
| 1305-BA09A | 380-460 | 5 | 4 | | | KTK-R-20 | LPJ-20SP |

| | | Fuse Blocks | Disconnect Switches |
|-------|-----------|---------------------------|---------------------|
| KTK-R | (0 to 30) | BC6033B or OPM-NG-SC3 | CFD30CC3 |
| LPJ | (0 to 30) | J60030-3CR or JP60030-3CR | CFD30J3 |



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Model 1329 Intergrated Drive/Motor (Series B)

1,0 to 5.0 HP

Maximum Short Circuit Rating is 10kA

| Catalog Number | Single Phase Voltage | Three Phase Voltage | HP | Input Current | Bussmann Class CC | Bussmann Class J |
|----------------|----------------------|---------------------|----|---------------|-------------------|------------------|
| 1329I-BJ001 | 115 | | 1 | 14 | KTK-R-20 | LPJ-20SP |
| 1329I-BK001 | 230 | | 1 | 5.8 | KTK-R-9 | LPJ-9SP |
| 1329I-BK002 | 230 | | 2 | 14 | KTK-R-20 | LPJ-20SP |
| 1329I-BL001 | | 230 | 1 | 4.5 | KTK-R-7 | LPJ-7SP |
| 1329I-BL002 | | 230 | 2 | 7.6 | KTK-R-12 | LPJ-12SP |
| 1329I-BM001 | | 460 | 1 | 2.3 | KTK-R-3.5 | LPJ-3.5SP |
| 1329I-BM002 | | 460 | 2 | 3.7 | KTK-R-6 | LPJ-6SP |
| 1329I-BM003 | | 460 | 3 | 5.7 | KTK-R-9 | LPJ-9SP |
| 1329I-BM005 | | 460 | 5 | 9 | KTK-R-15 | LPJ-15SP |

| | | Fuse Blocks | Disconnect Switches |
|-------|-----------|---------------------------|---------------------|
| KTK-R | (0 to 30) | BC6033B or OPM-NG-SC3 | CFD30CC3 |
| LPJ | (0 to 30) | J60030-3CR or JP60030-3CR | CFD30J3 |



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Model 1333 3/4 to 20HP (.55-15kW) Adjustable Frequency AC Drive
Series D

| Catalog Number | HP | kW | Single Phase Voltage | Three Phase Voltage | Single Phase Current | Three Phase Current | Bussmann Class RK5 |
|----------------|------|------|----------------------|---------------------|----------------------|---------------------|--------------------|
| 1333-ZAA | 0.75 | 0.55 | 230 | 230 | 6.2 | 4.1 | FRS-R-15 |
| 1333-AAA | 1 | 0.75 | 230 | 230 | 8.6 | 6.5 | FRS-R-15 |
| 1333-YAA | 2 | 1.5 | 230 | 230 | 9.5 | 9 | FRS-R-15 |
| 1333-BAA | 3 | 2.2 | 230 | 230 | 13 | 14 | FRS-R-30 |
| 1333-CAA | 5 | 4 | 230 | 230 | 18.8 | 22 | FRS-R-40 |
| 1333-DAA | 7.5 | 5.5 | 230 | 230 | 23.4 | 27 | FRS-R-70 |
| 1333-EAA | 10 | 7.5 | 230 | 230 | 31.1 | 37 | FRS-R-80 |
| 1333-FAA | 15 | 11 | 230 | 230 | 41.6 | 47 | FRS-R-100 |
| 1333-GAA | 20 | 15 | 230 | 230 | 54.6 | 62 | FRS-R-125 |
| 1333-AAB | 1 | 0.75 | | 460 | | 3.3 | FRS-R-15 |
| 1333-YAB | 2 | 1.5 | | 460 | | 4.5 | FRS-R-15 |
| 1333-BAB | 3 | 2.2 | | 460 | | 8 | FRS-R-15 |
| 1333-CAB | 5 | 4 | | 460 | | 13 | FRS-R-20 |

| Amperage | Fuse Blocks |
|------------|-------------|
| 0 to 30 | R60030-3CR |
| 35 to 60 | R60060-3CR |
| 65 to 100 | R60100-3CR |
| 110 to 200 | R60200-3CR |



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Model 1336 FORCE Adjustable Frequency AC Drive

0.75 - 485 kW (1 - 650 HP)

Maximum Short Circuit Rating is 200kA

Maximum Recommended AC Input Line Fuse Ratings (fuses are user supplied)

| Drive Catalog Number | Rating kW | HP | Use Bussmann LPJ, KTK-R or JJS Fuses | | |
|----------------------|-----------|-----|--------------------------------------|----------|----------|
| | | | 200–240V | 380–480V | 500–600V |
| 1336T– __ F10 | 0.75 | 1 | 10 | 6 | – |
| 1336T– __ F30 | 2.2 | 3 | 25 | 15 | – |
| 1336T– __ F50 | 3.7 | 5 | 40 | 20 | – |
| 1336T– __ 001 | 0.75 | 1 | 10 | 6 | 6 |
| 1336T– __ 003 | 2.2 | 3 | 15 | 10 | 10 |
| 1336T– __ 007 | 5.5 | 7.5 | 40 | 20 | 15 |
| 1336T– __ 010 | 7.5 | 10 | 50 | 30 | 20 |
| 1336T– __ 015 | 11 | 15 | 70 | 35 | 25 |
| 1336T– __ 020 | 15 | 20 | 100 | 45 | 35 |
| 1336T– __ 025 | 18.5 | 25 | 100 | 60 | 40 |
| 1336T– __ 030 | 22 | 30 | 125 | 70 | 50 |
| 1336T– __ 040 | 30 | 40 | 150 | 80 | 60 |
| 1336T– __ 050 | 37 | 50 | 200 | 100 | 80 |
| 1336T– __ X060 | 45 | 60 | – | 100 | – |
| 1336T– __ 060 | 45 | 60 | 250 | 125 | 90 |
| 1336T– __ 075 | 56 | 75 | – | 150 | 110 |
| 1336T– __ 100 | 75 | 100 | – | 200 | 150 |
| 1336T– __ 125 | 93 | 125 | – | 250 | 175 |
| 1336T– __ X150 | 112 | 150 | – | 250 | – |
| 1336T– __ 150 | 112 | 150 | – | 300 | 225 |
| 1336T– __ 200 | 149 | 200 | – | 400 | 350 |
| 1336T– __ 250 | 187 | 250 | – | 450 | 400 |
| 1336T– __ X300 | 224 | 300 | – | – | 400 |

| | Amps | Fuse Blocks | Disconnect Switches |
|-------|------------|--------------------------------|---------------------|
| KTK-R | 0 to 30 | BC6033B or OPM-NG-SC3 | CFD30CC3 |
| LPJ | 0 to 30 | J60030-3CR or JP60030-3CR | CFD30J3 |
| | 35 to 60 | J60060-3CR | CDF60J3 |
| | 65 to 100 | J60100-3CR | CFD100J3 |
| | 110 to 200 | J60200-3CR | FD200J3 |
| | 225 to 400 | J60400-3CR | FD400J3 |
| | 450 to 600 | J60600-3CR | FD600J3 |
| JJS | 0 to 30 | T60030-3CR | |
| | 35 to 60 | T60060-3CR | |
| | 65 to 100 | T60100-3C | CFD100J3/BDTA1 |
| | 110 to 200 | T60200-1C (Single pole blocks) | FD200J3/BDTA2 |
| | 225 to 400 | T60400-1C (Single pole blocks) | FD400J3/BDTA4 |
| | 450 to 600 | T60600-1C (Single pole blocks) | FD600J3/BDTA6 |



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Model 1336 FORCE Adjustable Frequency AC Drive

0.75 - 485 kW (1 - 650 HP)

Maximum Short Circuit Rating is 200kA

Maximum Recommended AC Input Line Fuse Ratings (fuses are user supplied)

| Drive Catalog Number | Rating kW | HP | Use Bussmann Semiconductor Fuses | | |
|----------------------|-----------|-----|----------------------------------|-------------------------|-------------------------|
| | | | 200–240V | 380–480V | 500–600V |
| 1336T- __ X250 | 187 | 250 | – | FWP-450A | – |
| 1336E- __ P250 | 187 | 250 | – | FWP-450A | – |
| 1336T- __ 300T | 224 | 300 | – | FWP-450A | FWP-400A |
| 1336E- __ 300 | 224 | 300 | – | FWP-500A | FWP-450A |
| 1336T- __ 350 | 261 | 350 | – | FWP-500A | FWP-450A |
| 1336E- __ 350 | 261 | 350 | – | FWP-600A | |
| 1336T- __ 400 | 298 | 400 | – | FWP-600A | FWP-500A |
| 1336E- __ 400 | 298 | 400 | – | FWP-600A | |
| 1336T- __ 450 | 336 | 450 | – | FWP-800A | FWP-600A |
| 1336E- __ 450 | 336 | 450 | – | FWP-700A | FWP-600A |
| 1336T- __ 500 | 373 | 500 | – | FWP-800A | FWP-800A |
| 1336T- __ 600 | 448 | 600 | – | FWP-900A | FWP-800A |
| 1336T- __ 650 | 485 | 650 | – | – | FWP-800A |
| 1336T- __ 700C | 522 | 700 | – | FWP-600A ^{1} | FWP-700A ^{1} |
| 1336T- __ 800C | 597 | 800 | – | FWP-700A ^{1} | FWP-700A ^{1} |

{1} Two Fuses in parallel are required.

| | Amps | Fuse Blocks |
|-----|-----------|-------------|
| FWP | 450 - 600 | 1BS104 |
| | 700 | BH-3145 |



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Model 1336 IMPACT Adjustable Frequency AC Drive

0.37 - 597 kW (0.5 - 800 HP)

Maximum Short Circuit Rating is 200kA

Maximum Recommended AC Input Line Fuse Ratings (fuses are user supplied)

| Drive Catalog Number | Rating kW | HP | Use Bussmann LPJ, KTK-R or JJS Fuses | | |
|----------------------|-----------|------|--------------------------------------|----------|----------|
| | | | 200–240V | 380–480V | 500–600V |
| 1336E-__ F05 | 0.37 | 0.5 | 6 | 3 | |
| 1336E-__ F07 | 0.56 | 0.75 | 6 | 3 | |
| 1336E-__ F10 | 0.75 | 1 | 10 | 6 | 3 |
| 1336E-__ F15 | 1.2 | 1.5 | 15 | 6 | |
| 1336E-__ F20 | 1.5 | 2 | 15 | 10 | 6 |
| 1336E-__ F30 | 2.2 | 3 | 25 | 15 | 10 |
| 1336E-__ F50 | 3.7 | 5 | 40 | 20 | 0.1 |
| 1336E-__ F75 | 5.5 | 7.5 | | 20 | 15 |
| 1336E-__ F100 | 7.5 | 10 | | 30 | 20 |
| 1336E-__ 007 | 5.5 | 7.5 | 40 | 20 | 15 |
| 1336E-__ 010 | 7.5 | 10 | 50 | 30 | 20 |
| 1336E-__ 015 | 11 | 15 | 70 | 35 | 25 |
| 1336E-__ 020 | 15 | 20 | 100 | 45 | 35 |
| 1336E-__ 025 | 18.5 | 25 | 100 | 60 | 40 |
| 1336E-__ 030 | 22 | 30 | 125 | 70 | 50 |
| 1336E-__ X040 | 30 | 40 | 150 | 80 | 60 |
| 1336E-__ 040 | 30 | 40 | 150 | 80 | 60 |
| 1336E-__ 050 | 37 | 50 | 200 | 100 | 80 |
| 1336E-__ X060 | 45 | 60 | | 100 | |
| 1336E-__ 060 | 45 | 60 | 250 | 125 | 90 |
| 1336E-__ 075 | 56 | 75 | 300 | 150 | 110 |
| 1336E-__ 100 | 75 | 100 | 400 | 200 | 150 |
| 1336E-__ 125 | 93 | 125 | 450 | 250 | 175 |
| 1336E-__ X150 | 112 | 150 | | 250 | |
| 1336E-__ 150 | 112 | 150 | | 300 | 225 |
| 1336E-__ 200 | 149 | 200 | | 400 | 350 |
| 1336E-__ 250 | 187 | 250 | | 450 | 400 |
| 1336E-__ X300 | 224 | 300 | | | 400 |

| | Amps | Fuse Blocks | Disconnect Switches |
|-------|------------|--------------------------------|---------------------|
| KTK-R | 0 to 30 | BC6033B or OPM-NG-SC3 | CFD30CC3 |
| LPJ | 0 to 30 | J60030-3CR or JP60030-3CR | CFD30J3 |
| | 35 to 60 | J60060-3CR | CDF60J3 |
| | 65 to 100 | J60100-3CR | CFD100J3 |
| | 110 to 200 | J60200-3CR | FD200J3 |
| | 225 to 400 | J60400-3CR | FD400J3 |
| | 450 to 600 | J60600-3CR | FD600J3 |
| JJS | 0 to 30 | T60030-3CR | |
| | 35 to 60 | T60060-3CR | |
| | 65 to 100 | T60100-3C | CFD100J3/BDTA1 |
| | 110 to 200 | T60200-1C (Single pole blocks) | FD200J3/BDTA2 |
| | 225 to 400 | T60400-1C (Single pole blocks) | FD400J3/BDTA4 |
| | 450 to 600 | T60600-1C (Single pole blocks) | FD600J3/BDTA6 |



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Model 1336 IMPACT Adjustable Frequency AC Drive

0.37 - 597 kW (0.5 - 800 HP)

Maximum Short Circuit Rating is 200kA

Maximum Recommended AC Input Line Fuse Ratings (fuses are user supplied)

| Drive Catalog Number | Rating kW | HP | Use Bussmann Semiconductor Fuses | | |
|----------------------|-----------|-----|----------------------------------|-------------------------|-------------------------|
| | | | 200-240V | 380-480V | 500-600V |
| 1336E-__ 300 | 224 | 300 | | FWP-500A | FWP-400A |
| 1336E-__ P300 | 224 | 300 | | FWP-500A | |
| 1336E-__ 350 | 224 | 300 | | FWP-600A | FWP-450A |
| 1336E-__ P350 | 261 | 350 | | FWP-600A | |
| 1336E-__ 400 | 298 | 400 | | FWP-600A | FWP-500A |
| 1336E-__ P400 | 298 | 400 | | FWP-600A | |
| 1336E-__ 450 | 336 | 450 | | FWP-800A | FWP-600A |
| 1336E-__ P450 | 336 | 450 | | FWP-700A | |
| 1336E-__ 500 | 373 | 500 | | FWP-800A | FWP-800A |
| 1336E-__ 600 | 448 | 600 | | FWP-900A | FWP-800A |
| 1336E-__ 650 | 485 | 650 | | | FWP-800A |
| 1336E-__ 700C | 522 | 700 | | FWP-600A ^{1} | FWP-700A ^{1} |
| 1336E-__ 800C | 597 | 800 | | FWP-700A ^{1} | FWP-700A ^{1} |

{1} Two Fuses in parallel are required.

| | Amps | Fuse Blocks |
|-----|-----------|-------------|
| FWP | 450 - 600 | 1BS104 |
| | 700 | BH-3145 |



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Model 1336 PLUS Adjustable Frequency AC Drive

0.37 - 448 kW (0.5 - 600 HP)

Maximum Short Circuit Rating is 200kA

Maximum Recommended AC Input Line Fuse Ratings (fuses are user supplied)

| Drive Catalog Number | Rating kW | HP | Use Bussmann LPJ, KTK-R or JJS Fuses | | |
|----------------------|-----------|------|--------------------------------------|----------|----------|
| | | | 200–240V | 380–480V | 500–600V |
| 1336S-__ F05 | 0.37 | 0.5 | 6 | 3 | |
| 1336S-__ F07 | 0.56 | 0.75 | 6 | 3 | |
| 1336S-__ F10 | 0.75 | 1 | 10 | 6 | 6 |
| 1336S-__ F15 | 1.2 | 1.5 | 15 | 6 | |
| 1336S-__ F20 | 1.5 | 2 | 15 | 10 | 10 |
| 1336S-__ F30 | 2.2 | 3 | 25 | 15 | 15 |
| 1336S-__ F50 | 3.7 | 5 | 40 | 20 | 20 |
| 1336S-__ F75 | 5.5 | 7.5 | | 20 | |
| 1336S-__ F100 | 7.5 | 10 | | 30 | |
| 1336S-__ 007 | 5.5 | 7.5 | 40 | 20 | 15 |
| 1336S-__ 010 | 7.5 | 10 | 50 | 30 | 20 |
| 1336S-__ 015 | 11 | 15 | 70 | 35 | 25 |
| 1336S-__ 020 | 15 | 20 | 100 | 45 | 35 |
| 1336S-__ 025 | 18.5 | 25 | 100 | 60 | 40 |
| 1336S-__ 030 | 22 | 30 | 125 | 70 | 50 |
| 1336S-__ 040 | 30 | 40 | 150 | 80 | 60 |
| 1336S-__ 050 | 37 | 50 | 200 | 100 | 80 |
| 1336S-__ X060 | 45 | 60 | | 100 | |
| 1336S-__ 060 | 45 | 60 | 250 | 125 | 90 |
| 1336S-__ 075 | 56 | 75 | 300 | 150 | 110 |
| 1336S-__ 100 | 75 | 100 | 400 | 200 | 150 |
| 1336S-__ 125 | 93 | 125 | 450 | 250 | 175 |
| 1336S-__ X150 | 112 | 150 | | 250 | |
| 1336S-__ 150 | 112 | 150 | | 300 | 225 |
| 1336S-__ 200 | 149 | 200 | | 400 | 350 |
| 1336S-__ 250 | 187 | 250 | | 450 | 400 |
| 1336S-__ X300 | 224 | 300 | | | 400 |

| | Amps | Fuse Blocks | Disconnect Switches |
|-------|------------|--------------------------------|---------------------|
| KTK-R | 0 to 30 | BC6033B or OPM-NG-SC3 | CFD30CC3 |
| LPJ | 0 to 30 | J60030-3CR or JP60030-3CR | CFD30J3 |
| | 35 to 60 | J60060-3CR | CDF60J3 |
| | 65 to 100 | J60100-3CR | CFD100J3 |
| | 110 to 200 | J60200-3CR | FD200J3 |
| | 225 to 400 | J60400-3CR | FD400J3 |
| | 450 to 600 | J60600-3CR | FD600J3 |
| JJS | 0 to 30 | T60030-3CR | |
| | 35 to 60 | T60060-3CR | |
| | 65 to 100 | T60100-3C | CFD100J3/BDTA1 |
| | 110 to 200 | T60200-1C (Single pole blocks) | FD200J3/BDTA2 |
| | 225 to 400 | T60400-1C (Single pole blocks) | FD400J3/BDTA4 |
| | 450 to 600 | T60600-1C (Single pole blocks) | FD600J3/BDTA6 |



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Model 1336 PLUS Adjustable Frequency AC Drive

0.37 - 448 kW (0.5 - 600 HP)

Maximum Short Circuit Rating is 200kA

Maximum Recommended AC Input Line Fuse Ratings (fuses are user supplied)

| Drive Catalog Number | Rating kW | HP | Use Bussmann Semiconductor Fuses | | |
|----------------------|-----------|-----|----------------------------------|----------|----------|
| | | | 200–240V | 380–480V | 500–600V |
| 1336S-__ P250 | 187 | 250 | | FWP-450A | |
| 1336S-__ X250 | 187 | 250 | | FWP-450A | |
| 1336S-__ 300 | 224 | 300 | | FWP-450A | FWP-400A |
| 1336S-__ P300 | 224 | 300 | | FWP-500A | |
| 1336S-__ 350 | 261 | 350 | | FWP-500A | FWP-450A |
| 1336S-__ P350 | 261 | 350 | | FWP-600A | |
| 1336S-__ 400 | 298 | 400 | | FWP-600A | FWP-500A |
| 1336S-__ P400 | 298 | 400 | | FWP-600A | |
| 1336S-__ 450 | 336 | 450 | | FWP-800A | FWP-600A |
| 1336S-__ P450 | 336 | 450 | | FWP-700A | |
| 1336S-__ 500 | 373 | 500 | | FWP-800A | FWP-800A |
| 1336S-__ 600 | 448 | 600 | | FWP-900A | FWP-800A |

| | Amps | Fuse Blocks |
|-----|-----------|-------------|
| FWP | 450 - 600 | 1BS104 |
| | 700 | BH-3145 |



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Model 1336 PLUS II Adjustable Frequency AC Drive

0.37 - 448 kW (0.5 - 600 HP)

Maximum Short Circuit Rating is 200kA

Maximum Recommended AC Input Line Fuse Ratings (fuses are user supplied)

| Drive Catalog Number | Rating kW | HP | Use Bussmann LPJ, KTK-R or JJS Fuses | | |
|-----------------------|-----------|------|--------------------------------------|----------|----------|
| | | | 200-240V | 380-480V | 500-600V |
| 1336F-__ F05 | 0.37 | 0.5 | 4 | 3 | |
| 1336F-__ F05 Series A | 0.37 | 0.5 | 6 | 3 | |
| 1336F-__ F07 | 0.56 | 0.75 | 4 | 3 | |
| 1336F-__ F07 Series A | 0.56 | 0.75 | 6 | 3 | |
| 1336F-__ F10 | 0.75 | 1 | 6 | 3 | 3 |
| 1336F-__ F10 Series A | 0.75 | 1 | 10 | 6 | 6 |
| 1336F-__ F15 | 1.2 | 1.5 | 8 | 4 | |
| 1336F-__ F15 Series A | 1.2 | 1.5 | 15 | 6 | |
| 1336F-__ F20 | 1.5 | 2 | 10 | 5 | 6 |
| 1336F-__ F20 Series A | 1.5 | 2 | 15 | 10 | 10 |
| 1336F-__ F30 | 2.2 | 3 | 15 | 8 | 10 |
| 1336F-__ F30 Series A | 2.2 | 3 | 25 | 15 | 15 |
| 1336F-__ F50 | 3.7 | 5 | 25 | 12 | 15 |
| 1336F-__ F50 Series A | 3.7 | 5 | 40 | 20 | 20 |
| 1336F-__ F75 | 5.5 | 7.5 | 30 | 20 | 15 |
| 1336F-__ F100 | 7.5 | 10 | | 30 | 20 |
| 1336F-__ F150 | 11 | 15 | | 35 | 25 |
| 1336F-__ F200 | 15 | 20 | | 35 | 30 |
| 1336F-__ 007 | 5.5 | 7.5 | 40 | 20 | 15 |
| 1336F-__ 010 | 7.5 | 10 | 50 | 30 | 20 |
| 1336F-__ 015 | 11 | 15 | 70 | 35 | 25 |
| 1336F-__ 020 | 15 | 20 | 100 | 45 | 35 |
| 1336F-__ 025 | 18.5 | 25 | 100 | 60 | 40 |
| 1336F-__ 030 | 22 | 30 | 125 | 70 | 50 |
| 1336F-__ 040/X040 | 30 | 40 | 150 | 80 | 60 |
| 1336F-__ 050 | 37 | 50 | 200 | 100 | 80 |
| 1336F-__ X060 | 45 | 60 | | 100 | |
| 1336F-__ 060 | 45 | 60 | 250 | 125 | 90 |
| 1336F-__ 075 | 56 | 75 | 300 | 150 | 110 |
| 1336F-__ 100 | 75 | 100 | 400 | 200 | 150 |
| 1336F-__ 125 | 93 | 125 | 450 | 250 | 175 |
| 1336F-__ X150 | 112 | 150 | | 250 | |
| 1336F-__ 150 | 112 | 150 | | 300 | 225 |
| 1336F-__ 200 | 149 | 200 | | 400 | 350 |
| 1336F-__ 250 | 187 | 250 | | 450 | 400 |
| 1336F-__ X300 | 224 | 300 | | | 400 |

| | Amps | Fuse Blocks | Disconnect Switches |
|------------|------------|--------------------------------|---------------------|
| KTK-R | 0 to 30 | BC6033B or OPM-NG-SC3 | CFD30CC3 |
| LPJ | 0 to 30 | J60030-3CR or JP60030-3CR | CFD30J3 |
| | 35 to 60 | J60060-3CR | CFD60J3 |
| | 65 to 100 | J60100-3CR | CFD100J3 |
| | 110 to 200 | J60200-3CR | FD200J3 |
| | 225 to 400 | J60400-3CR | FD400J3 |
| | 450 to 600 | J60600-3CR | FD600J3 |
| | JJS | 0 to 30 | T60030-3CR |
| 35 to 60 | | T60060-3CR | |
| 65 to 100 | | T60100-3C | CFD100J3/BDTA1 |
| 110 to 200 | | T60200-1C (Single pole blocks) | FD200J3/BDTA2 |
| 225 to 400 | | T60400-1C (Single pole blocks) | FD400J3/BDTA4 |
| 450 to 600 | | T60600-1C (Single pole blocks) | FD600J3/BDTA6 |



High Speed Fuses

Bussmann® Fuses in Allen-Bradley Drives

TECHNICAL LITERATURE

(cont.)

Model 1336 PLUS II Adjustable Frequency AC Drive

0.37 - 448 kW (0.5 - 600 HP)

Maximum Short Circuit Rating is 200kA

Maximum Recommended AC Input Line Fuse Ratings (fuses are user supplied)

| Drive Catalog Number | Rating kW | HP | Use Bussmann Semiconductor Fuses | | |
|----------------------|-----------|-----|----------------------------------|----------|----------|
| | | | 200-240V | 380-480V | 500-600V |
| 1336F-__BP/BPR250 | 187 | 250 | | FWP-450A | |
| 1336F-__X250 | 187 | 250 | | FWP-450A | |
| 1336F-__300 | 224 | 300 | | FWP-450A | FWP-400A |
| 1336F-__BP/BPR300 | 224 | 300 | | FWP-500A | |
| 1336F-__350 | 261 | 350 | | FWP-500A | FWP-450A |
| 1336F-__BP/BPR350 | 261 | 350 | | FWP-600A | |
| 1336F-__400 | 298 | 400 | | FWP-600A | FWP-500A |
| 1336F-__BP/BPR400 | 298 | 400 | | FWP-600A | |
| 1336F-__450 | 336 | 450 | | FWP-800A | FWP-600A |
| 1336F-__BP/BPR450 | 336 | 450 | | FWP-700A | |
| 1336F-__500 | 373 | 500 | | FWP-800A | FWP-800A |
| 1336F-__600 | 448 | 600 | | FWP-900A | FWP-800A |

| | | |
|-----|-------------|--------------------|
| FWP | Amps | Fuse Blocks |
| | 450 - 600 | 1BS104 |
| | 700 | BH-3145 |



High Speed Fuses

Bussmann® Fuses in Allen-Bradley Drives TECHNICAL LITERATURE

Model 1336 SPIDER Adjustable Frequency Drive for the Fibers Industry

9.9A - 60A

Maximum Short Circuit Rating is 200kA

Maximum Recommended AC Input Line Fuse Ratings (fuses are user supplied)

| Drive Catalog Number | Rating kW | Input Current | Use Bussmann LPJ, KTK-R or JJS Fuses | |
|----------------------|-----------|---------------|--------------------------------------|----------|
| | | | 200–240V | 380–480V |
| 1336Z- __ A022 | 1.8 | 7.6 | 30 | |
| 1336Z- __ A036 | 3 | 12.5 | 30 | |
| 1336Z- __ A060 | 5 | 24.6 | 50 | |
| 1336Z- __ B010 | 1.6 | 8.7 | | 20 |
| 1336Z- __ B017 | 2.7 | 11.4 | | 20 |
| 1336Z- __ B033 | 5.5 | 19.8 | | 40 |

| | Amps | Fuse Blocks | Disconnect Switches |
|-------|----------|---------------------------|---------------------|
| KTK-R | 0 to 30 | BC6033B or OPM-NG-SC3 | CFD30CC3 |
| LPJ | 0 to 30 | J60030-3CR or JP60030-3CR | CFD30J3 |
| | 35 to 60 | J60060-3CR | CDF60J3 |
| JJS | 0 to 30 | T60030-3CR | |
| | 35 to 60 | T60060-3CR | |



High Speed Fuses

Bussmann® Fuses in Allen-Bradley Drives

TECHNICAL LITERATURE

1336/1336VT/1336 PLUS/1336 PLUS II/FORCE/IMPACT Series A Brake Chopper

Dynamic Brake Fuse

All brake modules are internally fused to protect brake components.

| Dynamic Brake | Fuse | Rating | Recommended Fuse |
|---------------|---------|------------|------------------|
| 1336-WA018 | F1 & F2 | 30A, 600V | FWC-30A10F |
| 1336-WB009 | F1 & F2 | 15A, 600V | FWC-15A10F |
| 1336-WC009 | F1 & F2 | 15A, 600V | FWC-15A10F |
| 1336-WA070 | F1 & F2 | 125A, 700V | FWP-125A |
| 1336-WB035 | F1 & F2 | 60A, 700V | FWP-60A |
| 1336-WC035 | F1 & F2 | 60A, 700V | FWP-60A |
| 1336-WA115 | F1 & F2 | 200A, 700V | FWP-200A |
| 1336-WB110 | F1 & F2 | 200A, 700V | FWP-200A |
| 1336-WC085 | F1 & F2 | 200A, 700V | FWP-200A |



High Speed Fuses

Bussmann® Fuses in Allen-Bradley Drives

TECHNICAL LITERATURE

Model 1336 Adjustable Frequency AC Drive

Maximum Recommended AC Input Line Fuse Ratings (fuses are user supplied)

| Catalog Number | Input Current | Input Voltage | Recommended Bussmann Fuse | | |
|----------------|---------------|---------------|---------------------------|---------|---------|
| 1336-B003 | 5.7 | 460 | KTK-R-10 | JJS-10 | |
| 1336-B005 | 9.2 | 460 | KTK-R-15 | JJS-15 | |
| 1336-B007 | 13.3 | 460 | KTK-R-20 | JJS-20 | |
| 1336-B010 | 17 | 460 | KTK-R-25 | JJS-25 | |
| 1336-B015 | 25 | 460 | | JJS-35 | JKS-35 |
| 1336-B020 | 34 | 460 | | JJS-45 | JKS-45 |
| 1336-B025 | 42 | 460 | | JJS-60 | JKS-60 |
| 1336-B030 | 49 | 460 | | JJS-70 | JKS-70 |
| 1336-B040 | 61 | 460 | | JJS-80 | JKS-80 |
| 1336-B050 | 76 | 460 | | JJS-100 | JKS-100 |
| 1336-B075 | 122 | 460 | | JJS-150 | JKS-150 |
| 1336-B100 | 153 | 460 | | JJS-200 | JKS-200 |
| 1336-B125 | 184 | 460 | | JJS-250 | JKS-250 |
| 1336-B150 | 222 | 460 | | JJS-300 | JKS-300 |
| 1336-B200 | 296 | 460 | | JJS-400 | JKS-400 |
| 1336-C003 | 3.2 | 575 | KTK-R-6 | JJS-6 | |
| 1336-C005 | 4.1 | 575 | KTK-R-6 | JJS-6 | |
| 1336-C007 | 7.7 | 575 | KTK-R-10 | JJS-10 | |
| 1336-C010 | 10.2 | 575 | KTK-R-15 | JJS-15 | |
| 1336-C015 | 15 | 575 | | JJS-20 | JKS-20 |
| 1336-C020 | 19 | 575 | | JJS-25 | JKS-25 |
| 1336-C025 | 24 | 575 | | JJS-30 | JKS-30 |
| 1336-C030 | 29 | 575 | | JJS-35 | JKS-35 |
| 1336-C040 | 39 | 575 | | JJS-45 | JKS-45 |
| 1336-C050 | 48 | 575 | | JJS-60 | JKS-60 |
| 1336-C075 | 73 | 575 | | JJS-90 | JKS-90 |
| 1336-C100 | 97 | 575 | | JJS-125 | JKS-125 |
| 1336-C125 | 121 | 575 | | JJS-150 | JKS-150 |
| 1336-C150 | 146 | 575 | | JJS-175 | JKS-175 |
| 1336-C200 | 193 | 575 | | JJS-250 | JKS-250 |

| | Amps | Fuse Blocks | Disconnect Switches |
|-------|------------|--------------------------------|---------------------|
| KTK-R | 0 to 30 | BC6033B or OPM-NG-SC3 | CFD30CC3 |
| LPJ | 0 to 30 | J60030-3CR or JP60030-3CR | CFD30J3 |
| | 35 to 60 | J60060-3CR | CDF60J3 |
| | 65 to 100 | J60100-3CR | CFD100J3 |
| | 110 to 200 | J60200-3CR | FD200J3 |
| | 225 to 400 | J60400-3CR | FD400J3 |
| JJS | 0 to 30 | T60030-3CR | |
| | 35 to 60 | T60060-3CR | |
| | 65 to 100 | T60100-3C | CFD100J3/BDTA1 |
| | 110 to 200 | T60200-1C (Single pole blocks) | FD200J3/BDTA2 |
| | 225 to 400 | T60400-1C (Single pole blocks) | FD400J3/BDTA4 |



High Speed Fuses

Bussmann® Fuses in Allen-Bradley Drives TECHNICAL LITERATURE

Heavy Duty Dynamic Braking for use with 1336/1336VT/1336 PLUS/1336 FORCE Drives

All brake modules are internally fused to protect brake components.

| Dynamic Brake | Fuse | Rating | Recommended Fuse |
|----------------------|-------------|---------------|-------------------------|
| 1336-MOD-KA005 | F1 | 10A, 500V | FWH-10A14F |
| 1336-MOD-KB005 | F1 | 5A, 600V | FWC-5A10F |
| 1336-MOD-KC005 | F1 | 5A, 700V | FWP-5A14F |
| 1336-MOD-KA010 | F1 | 20A, 500V | FWH-20A14F |
| 1336-MOD-KB010 | F1 | 10A, 600V | FWC-10A10F |
| 1336-MOD-KC010 | F1 | 10A, 700V | FWP-10A14F |
| 1336-MOD-KA050 | F1 & F2 | 50A, 500V | FWH-50A |
| 1336-MOD-KB050 | F1 & F2 | 35A, 700V | FWP-35A |
| 1336-MOD-KC050 | F1 & F2 | 35A, 700V | FWP-35A |



High Speed Fuses

Bussmann® Fuses in Allen-Bradley Drives

TECHNICAL LITERATURE

Model 1336VT Adjustable Frequency AC Drive

| Catalog Number | Input Current | Input Voltage | Recommended Bussmann Fuse | | |
|----------------|---------------|---------------|---------------------------|---------|---------|
| 1336VT-B003 | 5.6 | 460 | KTK-R-10 | | |
| 1336VT-B005 | 7.5 | 460 | KTK-R-15 | | |
| 1336VT-B007 | 11.4 | 460 | KTK-R-20 | | |
| 1336VT-B010 | 14.6 | 460 | KTK-R-25 | | |
| 1336VT-B015 | 22 | 460 | | JJS-35 | JKS-30 |
| 1336VT-B020 | 28 | 460 | | JJS-45 | JKS-45 |
| 1336VT-B025 | 35 | 460 | | JJS-60 | JKS-60 |
| 1336VT-B030 | 44 | 460 | | JJS-70 | JKS-60 |
| 1336VT-B040 | 54 | 460 | | JJS-80 | JKS-80 |
| 1336VT-B050 | 67 | 460 | | JJS-100 | JKS-100 |
| 1336VT-B060 | 78 | 460 | | JJS-110 | JKS-110 |
| 1336VT-B075 | 97 | 460 | | JJS-150 | JKS-150 |
| 1336VT-B100 | 124 | 460 | | JJS-200 | JKS-200 |
| 1336VT-B125 | 154 | 460 | | JJS-250 | JKS-250 |
| 1336VT-B150 | 178 | 460 | | JJS-300 | JKS-300 |
| 1336VT-B200 | 235 | 460 | | JJS-400 | JKS-400 |
| 1336VT-B250 | 296 | 460 | | JJS-500 | JKS-500 |

| | Amps | Fuse Blocks | Disconnect Switches |
|-------|------------|--------------------------------|---------------------|
| KTK-R | 0 to 30 | BC6033B or OPM-NG-SC3 | CFD30CC3 |
| LPJ | 0 to 30 | J60030-3CR or JP60030-3CR | CFD30J3 |
| | 35 to 60 | J60060-3CR | CDF60J3 |
| | 65 to 100 | J60100-3CR | CFD100J3 |
| | 110 to 200 | J60200-3CR | FD200J3 |
| | 225 to 400 | J60400-3CR | FD400J3 |
| | 450 to 600 | J60600-3CR | FD600J3 |
| JJS | 0 to 30 | T60030-3CR | |
| | 35 to 60 | T60060-3CR | |
| | 65 to 100 | T60100-3C | CFD100J3/BDTA1 |
| | 110 to 200 | T60200-1C (Single pole blocks) | FD200J3/BDTA2 |
| | 225 to 400 | T60400-1C (Single pole blocks) | FD400J3/BDTA4 |
| | 450 to 600 | T60600-1C (Single pole blocks) | FD600J3/BDTA6 |



High Speed Fuses

Bussmann® Fuses in Allen-Bradley Drives

TECHNICAL LITERATURE

Model 1391-DES Digital AC Servo Drive

Recommended fuse for transformer primary protection

| Catalog Number | XFMR KVA Rating | Voltage | | | | | |
|----------------|--------------------|--------------|----------|-------------|----------|--------------|----------|
| | | 208 | 240 | 380 | 415 | 480 | 575 |
| 1391-T015 | 1.5 | FRS-R-8 | FRS-R-7 | FRS-R-4-1/2 | FRS-R-4 | FRS-R-3-1/2 | FRS-R-3 |
| 1391-T035 | 3.5 | FRS-R-17-1/2 | FRS-R-15 | FRS-R-9 | FRS-R-8 | FRS-R-7 | FRS-R-6 |
| 1391-T050 | 5 | FRS-R-20 | FRS-R-20 | FRS-R-12 | FRS-R-12 | FRS-R-10 | FRS-R-8 |
| 1391-T100 | 10 | FRS-R-40 | FRS-R-35 | FRS-R-25 | FRS-R-20 | FRS-R-17-1/2 | FRS-R-15 |
| 1391-T125 | 12.5 | FRS-R-50 | FRS-R-45 | FRS-R-30 | FRS-R-25 | FRS-R-25 | FRS-R-20 |
| 1391-T150 | 15 | FRS-R-60 | FRS-R-50 | FRS-R-35 | FRS-R-30 | FRS-R-30 | FRS-R-25 |

Recommended fusing for shunt regulator.

| Drive Rating | Fuse Location | Bussmann |
|--------------|---------------|-----------|
| 15 Amps | Top Panel | KLM-10 |
| 22.5 Amps | Top Panel | FNM-6-1/4 |
| 22.5 Amps | External | KTK-15 |
| 45 Amps | External | KLM-20 |



High Speed Fuses

Bussmann® Fuses in Allen-Bradley Drives

TECHNICAL LITERATURE

Model 1394 Digital AC Multi-Axis Motion Control System

Maximum Short Circuit Rating of 100kA

Line Input Fusing

| Catalog Number | Series | Recommended Bussmann Fuses | | |
|---------------------|----------------|----------------------------|-------------|----------|
| 1394-SJT05 Systems | Series A and B | FRS-R-20 | | |
| 1394C-SJT05 Systems | Series C | KTK-R-20 | LPJ-20SP | |
| 1394-SJT10 Systems | Series A and B | FRS-R-30 | | |
| 1394C-SJT10 Systems | Series C | KTK-R-30 | LPJ-30SP | |
| 1394x-SJT22 Systems | | FRS-R-35 | LPS-RK-40SP | LPJ-45SP |

Shunt Module

| Catalog Number | Shunt has UL | Shunt has no UL | |
|----------------|--------------|-----------------|------------|
| 1394-SR9A | FWP-50A14F | 170N2013 | FWP-50A22F |
| 1394-SR9AF | FWP-50A14F | 170N2013 | FWP-50A22F |
| 1394-SR10A | FWP-40A14F | | |
| 1394-SR36A | FWP-50A14F | 170N2013 | FWP-50A22F |
| 1394-SR36AF | FWP-50A14F | 170N2013 | FWP-50A22F |

24 Volt Logic Input Power

| 24V logic input voltage | Axis | Current | Recommended Fuse |
|-------------------------|------|---------|------------------|
| 19-28V AC | 1 | 3.5 | MDA-15 |
| 19-28V AC | 2 | 4.4 | MDA-15 |
| 18.75-31.25 DC | 3 | 5.2 | MDA-15 |
| 18.75-31.25 DC | 4 | 6 | MDA-15 |