

CLASS RK5 – FLNR_ID • FLNR_ID SERIES INDICATOR® FUSES

250/600 Vac • Dual Element • Time Delay • 1/10-600 A



Description

Available in both Indicating and Non-Indicating versions, the FLNR/FLSR series of fuses set the standard for general purpose fuses. The dual-element design provides advanced short circuit and overload protection. FLSR series fuses provide excellent protection for all types of circuits especially those containing motors.

Applications

- Service entrance switches
- Transformers
- Switchboard mains and feeders
- Motor control central mains and motor branch circuits
- All general purpose circuits

Features/Benefits

- Indication
- Dual-element design
- Available without indication
- Current limiting

Specifications

| | |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Voltage Ratings | AC: 250 V (FLNR_ID); 600 V (FLSR_ID) DC: 125 V (FLNR 1/10 – 30 A); 125 V (FLNR_ID 35 – 600 A); 300 V (FLSR_ID) |
| Interrupting Ratings | AC: 200 kA rms symmetrical 300 kA rms symmetrical (Littelfuse self-certified) DC: 20 kA |
| Ampere Range | 1/10 – 600 A |
| Approvals | Standard 248-12, Class RK5 UL Listed (File: E81895) CSA Certified (File: LR29862) Federal Specification WF-1814 (QPL- W-F-1814) |

Dimensions

Please refer to the Class R dimensions page 2.

Ordering Information

| AMPERE RATINGS | | | | | | | |
|----------------|--------|--------|--------|--------|------|-----|-----|
| 1/10 | 6/10 | 1 8/10 | 4 | 8 | 30 | 80 | 225 |
| 1/8* | 8/10 | 2 | 4 1/2 | 9 | 35 | 90 | 250 |
| 15/100 | 1 | 2 1/4 | 5 | 10 | 40 | 100 | 300 |
| 2/10 | 1 1/8 | 2 1/2 | 5 6/10 | 12 | 45 | 110 | 350 |
| 1/4 | 1 1/4 | 2 8/10 | 6 | 15 | 50 | 125 | 400 |
| 3/10† | 1 4/10 | 3 | 6 1/4 | 17 1/2 | 60 | 150 | 450 |
| 4/10 | 1 1/2 | 3 2/10 | 7 | 20 | 70 | 175 | 500 |
| 1/2 | 1 6/10 | 3 1/2 | 7 1/2 | 25 | 75** | 200 | 600 |

*FLNR only. †FLNR, FLSR, FLSR_ID only. **FLNR, FLSR, FLSR_ID only
Note: For 1/10 – 30A 250 volt fuses, order non-indicating FLNR series fuses.

| TYPE | VOLT | SERIES | AMP | CATALOG NUMBER | ORDERING NUMBER |
|----------------|------|---------|-----|----------------|-----------------|
| NON-INDICATING | 600 | FLSR | 15 | FLSR015 | FLSR015.T |
| INDICATING | 600 | FLSR_ID | 15 | FLSR015ID | FLSR015.TXID |
| NON-INDICATING | 250 | FLNR | 60 | FLNR060 | FLNR060.T |
| INDICATING | 250 | FLNR_ID | 60 | FLNR060ID | FLNR060.TXID |

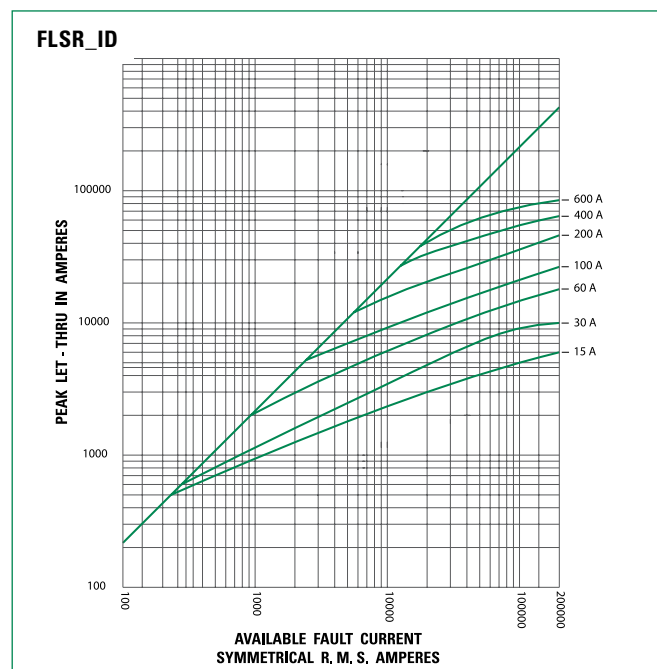
Web Resources

Download TC Curves, CAD drawings and other technical information: littelfuse.com/flsr
littelfuse.com/flnr

Recommended Fuse Holders

LFR60 Series • LFR25 Series

Peak Let-Thru Curve (600 V)



Note: For more information, see Peak Let-Thru Table

CLASS RK5 – FLNR_ID • FLNR_ID SERIES INDICATOR® FUSES

Current-Limiting Effects of FLNR and FLNR_ID (600 V) Fuses

| SHORT-CIRCUIT CURRENT* | APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS | | | | | |
|------------------------|-----------------------------------------------------------|-------|--------|--------|--------|--------|
| | 30 A | 60 A | 100 A | 200 A | 400 A | 600 A |
| 5,000 | 1,250 | 2,100 | 3,200 | 5,000 | 5,000 | 5,000 |
| 10,000 | 1,600 | 2,850 | 4,300 | 7,250 | 10,000 | 10,000 |
| 15,000 | 1,800 | 3,400 | 5,000 | 8,500 | 13,500 | 15,000 |
| 20,000 | 2,250 | 3,800 | 5,500 | 9,500 | 15,750 | 19,000 |
| 25,000 | 2,450 | 4,100 | 5,700 | 10,250 | 17,000 | 21,000 |
| 30,000 | 2,700 | 4,500 | 6,400 | 10,750 | 18,000 | 23,000 |
| 35,000 | 2,900 | 4,800 | 6,700 | 11,500 | 19,000 | 24,250 |
| 40,000 | 3,000 | 5,000 | 7,250 | 12,000 | 19,500 | 27,000 |
| 50,000 | 3,400 | 5,250 | 7,750 | 13,000 | 21,000 | 29,000 |
| 60,000 | 3,600 | 5,750 | 8,100 | 14,000 | 22,000 | 30,500 |
| 80,000 | 3,900 | 6,250 | 9,000 | 15,000 | 24,000 | 33,000 |
| 100,000 | 4,300 | 6,750 | 9,750 | 16,500 | 26,000 | 35,000 |
| 150,000 | 4,500 | 7,600 | 11,100 | 19,000 | 28,000 | 38,000 |
| 200,000 | 4,600 | 8,400 | 12,250 | 21,500 | 30,000 | 40,000 |

Current-Limiting Effects of FLNR and FLNR_ID (250V) Fuses

| SHORT-CIRCUIT CURRENT* | APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS | | | | | |
|------------------------|-----------------------------------------------------------|-------|-------|--------|--------|--------|
| | 30 A | 60 A | 100 A | 200 A | 400 A | 600 A |
| 5,000 | 1,400 | 2,100 | 3,100 | 5,000 | 5,000 | 5,000 |
| 10,000 | 1,550 | 2,500 | 3,900 | 6,500 | 9,500 | 10,000 |
| 15,000 | 2,000 | 3,150 | 4,400 | 7,250 | 10,500 | 14,000 |
| 20,000 | 2,250 | 3,400 | 5,000 | 8,250 | 12,000 | 16,000 |
| 25,000 | 2,400 | 3,750 | 5,250 | 9,000 | 12,500 | 16,500 |
| 30,000 | 2,550 | 4,100 | 5,600 | 9,500 | 13,500 | 18,000 |
| 35,000 | 2,650 | 4,300 | 5,800 | 9,750 | 14,000 | 19,000 |
| 40,000 | 2,800 | 4,400 | 6,250 | 10,250 | 15,000 | 20,000 |
| 50,000 | 3,000 | 5,000 | 6,500 | 10,500 | 16,000 | 21,000 |
| 60,000 | 3,200 | 5,250 | 7,000 | 11,500 | 17,000 | 23,000 |
| 80,000 | 3,400 | 5,750 | 7,500 | 12,500 | 19,000 | 25,500 |
| 100,000 | 3,850 | 6,000 | 8,000 | 13,500 | 21,000 | 27,500 |
| 150,000 | 4,100 | 7,000 | 9,000 | 15,200 | 24,000 | 31,500 |
| 200,000 | 4,300 | 7,500 | 9,750 | 16,500 | 26,000 | 34,000 |

*Prospective RMS Symmetrical Amperes Short-Circuit Current
Note: Data Derived from Peak Let-Thru Curves

Dimensions

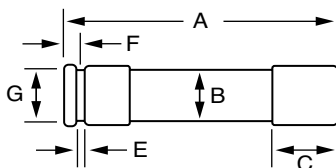


FIG. 1

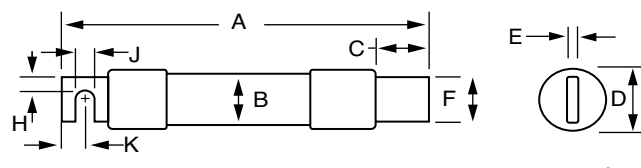


FIG. 2

70-600A

| AMPS | FIGURE NUMBER | SERIES | DIMENSIONS INCHES (mm) | | | | | | | | | |
|---------|---------------|--------|------------------------|--------------|----------------|----------------|------------|--------------|------------|-------------|---------------|----------------|
| | | | A | B | C | D | E | F | G | H | J | K |
| 1/10-30 | 1 | FLNR | 2 (50.8) | 1/2 (12.7) | 1/2 (12.7) | 9/16 (14.3) | 5/64 (2.0) | 5/32 (4.0) | 3/8 (9.5) | — | — | — |
| | | FLSR | 5 (127.0) | 3/4 (19.1) | 5/8 (15.9) | 13/16 (20.6) | 3/32 (2.4) | 3/16 (4.8) | 5/8 (15.9) | — | — | — |
| 35-60 | 1 | FLNR | 3 (76.2) | 3/4 (19.1) | 5/8 (15.9) | 13/16 (20.6) | 3/32 (2.4) | 3/16 (4.8) | 5/8 (15.9) | — | — | — |
| | | FLSR | 5 1/2 (139.7) | 1 (25.4) | 5/8 (15.9) | 1 1/16 (27.0) | 3/32 (2.4) | 1/4 (6.4) | 7/8 (22.2) | — | — | — |
| 70-100 | 2 | FLNR | 5 7/8 (149.2) | 1 (25.4) | 1 1/16 (27.0) | 1 1/16 (27.0) | 1/8 (3.2) | 3/4 (19.1) | — | 1/4 (6.4) | 9/32 (7.1) | 1/2 (12.7) |
| | | FLSR | 7 7/8 (200.0) | 1 1/4 (31.8) | 1 1/16 (27.0) | 1 5/16 (33.3) | 1/8 (3.2) | 3/4 (19.1) | — | 1/4 (6.4) | 9/32 (7.1) | 1/2 (12.7) |
| 110-200 | 2 | FLNR | 7 7/8 (181.0) | 1 1/2 (38.1) | 1 15/32 (37.3) | 1 19/32 (40.5) | 3/16 (4.8) | 1 1/8 (28.6) | — | 7/16 (11.1) | 9/32 (7.1) | 1 11/16 (17.5) |
| | | FLSR | 9 5/8 (244.5) | 1 3/4 (44.5) | 1 15/32 (37.3) | 1 27/32 (46.8) | 3/16 (4.8) | 1 1/8 (28.6) | — | 7/16 (11.1) | 9/32 (7.1) | 1 11/16 (17.5) |
| 225-400 | 2 | FLNR | 8 5/8 (219.1) | 2 (50.8) | 1 15/16 (49.2) | 2 3/32 (53.2) | 1/4 (6.4) | 1 5/8 (41.3) | — | 5/8 (15.9) | 1 3/32 (10.3) | 1 5/16 (23.8) |
| | | FLSR | 11 5/8 (295.3) | 2 1/2 (63.5) | 2 (50.8) | 2 19/32 (65.9) | 1/4 (6.4) | 1 5/8 (41.3) | — | 5/8 (15.9) | 1 3/32 (10.3) | 1 5/16 (23.8) |
| 450-600 | 2 | FLNR | 10 3/8 (263.5) | 2 1/2 (63.5) | 2 3/8 (60.3) | 2 19/32 (65.9) | 1/4 (6.4) | 2 (50.8) | — | 3/4 (19.1) | 1 7/32 (13.5) | 1 7/8 (28.6) |
| | | FLSR | 13 3/8 (339.7) | 3 (76.2) | 2 3/32 (61.1) | 3 3/32 (78.6) | 1/4 (6.4) | 2 (50.8) | — | 3/4 (19.1) | 1 7/32 (13.5) | 1 7/8 (28.6) |

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Description

Available in both Indicating and Non-Indicating versions, the FLNR/FLSR series of fuses set the standard for general purpose fuses. The dual-element design provides advanced short circuit and overload protection. FLSR series fuses provide excellent protection for all types of circuits especially those containing motors.

Applications

- Service entrance switches
- Transformers
- Switchboard mains and feeders
- Motor control central mains and motor branch circuits
- All general purpose circuits

Features/Benefits

- Indication
- Dual-element design
- Available without indication
- Current limiting

Specifications

| | |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Voltage Ratings | AC: 250 V (FLNR_ID); 600 V (FLSR_ID) DC: 125 V (FLNR 1/10 – 30 A); 125 V (FLNR_ID 35 – 600 A); 300 V (FLSR_ID) |
| Interrupting Ratings | AC: 200 kA rms symmetrical 300 kA rms symmetrical (Littelfuse self-certified) DC: 20 kA |
| Ampere Range | 1/10 – 600 A |
| Approvals | Standard 248-12, Class RK5 UL Listed (File: E81895) CSA Certified (File: LR29862) Federal Specification WF-1814 (QPL- W-F-1814) |

Dimensions

Please refer to the Class R dimensions page 2.

Ordering Information

| AMPERE RATINGS | | | | | | | |
|----------------|--------|--------|--------|--------|------|-----|-----|
| 1/10 | 6/10 | 1 8/10 | 4 | 8 | 30 | 80 | 225 |
| 1/8* | 8/10 | 2 | 4 1/2 | 9 | 35 | 90 | 250 |
| 15/100 | 1 | 2 1/4 | 5 | 10 | 40 | 100 | 300 |
| 2/10 | 1 1/8 | 2 1/2 | 5 6/10 | 12 | 45 | 110 | 350 |
| 1/4 | 1 1/4 | 2 8/10 | 6 | 15 | 50 | 125 | 400 |
| 3/10† | 1 4/10 | 3 | 6 1/4 | 17 1/2 | 60 | 150 | 450 |
| 4/10 | 1 1/2 | 3 2/10 | 7 | 20 | 70 | 175 | 500 |
| 1/2 | 1 6/10 | 3 1/2 | 7 1/2 | 25 | 75** | 200 | 600 |

*FLNR only. †FLNR, FLSR, FLSR_ID only. **FLNR, FLSR, FLSR_ID only
Note: For 1/10 – 30A 250 volt fuses, order non-indicating FLNR series fuses.

| TYPE | VOLT | SERIES | AMP | CATALOG NUMBER | ORDERING NUMBER |
|----------------|------|---------|-----|----------------|-----------------|
| NON-INDICATING | 600 | FLSR | 15 | FLSR015 | FLSR015.T |
| INDICATING | 600 | FLSR_ID | 15 | FLSR015ID | FLSR015.TXID |
| NON-INDICATING | 250 | FLNR | 60 | FLNR060 | FLNR060.T |
| INDICATING | 250 | FLNR_ID | 60 | FLNR060ID | FLNR060.TXID |

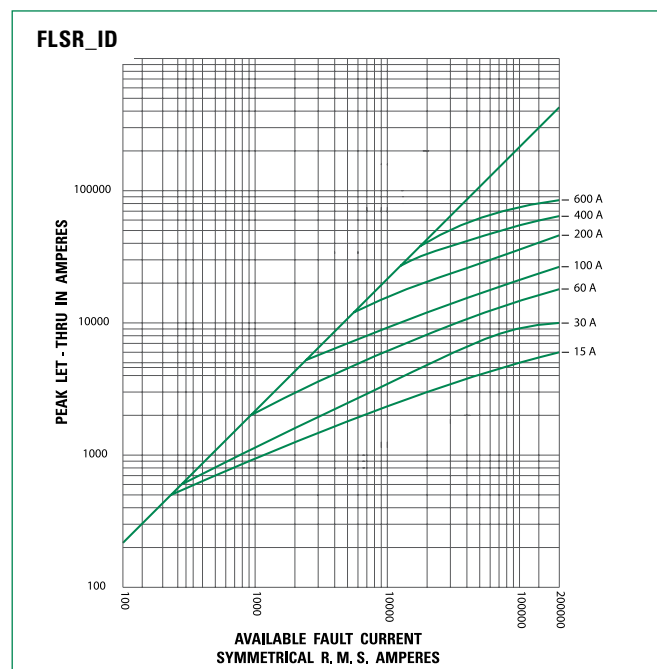
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Recommended Fuse Holders

LFR60 Series • LFR25 Series

Peak Let-Thru Curve (600 V)



Note: For more information, see Peak Let-Thru Table

CLASS RK5 – FLNR_ID • FLNR_ID SERIES INDICATOR® FUSES

Current-Limiting Effects of FLNR and FLNR_ID (600 V) Fuses

| SHORT-CIRCUIT CURRENT* | APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS | | | | | |
|------------------------|-----------------------------------------------------------|-------|--------|--------|--------|--------|
| | 30 A | 60 A | 100 A | 200 A | 400 A | 600 A |
| 5,000 | 1,250 | 2,100 | 3,200 | 5,000 | 5,000 | 5,000 |
| 10,000 | 1,600 | 2,850 | 4,300 | 7,250 | 10,000 | 10,000 |
| 15,000 | 1,800 | 3,400 | 5,000 | 8,500 | 13,500 | 15,000 |
| 20,000 | 2,250 | 3,800 | 5,500 | 9,500 | 15,750 | 19,000 |
| 25,000 | 2,450 | 4,100 | 5,700 | 10,250 | 17,000 | 21,000 |
| 30,000 | 2,700 | 4,500 | 6,400 | 10,750 | 18,000 | 23,000 |
| 35,000 | 2,900 | 4,800 | 6,700 | 11,500 | 19,000 | 24,250 |
| 40,000 | 3,000 | 5,000 | 7,250 | 12,000 | 19,500 | 27,000 |
| 50,000 | 3,400 | 5,250 | 7,750 | 13,000 | 21,000 | 29,000 |
| 60,000 | 3,600 | 5,750 | 8,100 | 14,000 | 22,000 | 30,500 |
| 80,000 | 3,900 | 6,250 | 9,000 | 15,000 | 24,000 | 33,000 |
| 100,000 | 4,300 | 6,750 | 9,750 | 16,500 | 26,000 | 35,000 |
| 150,000 | 4,500 | 7,600 | 11,100 | 19,000 | 28,000 | 38,000 |
| 200,000 | 4,600 | 8,400 | 12,250 | 21,500 | 30,000 | 40,000 |

Current-Limiting Effects of FLNR and FLNR_ID (250V) Fuses

| SHORT-CIRCUIT CURRENT* | APPARENT RMS SYMMETRICAL CURRENT FOR VARIOUS FUSE RATINGS | | | | | |
|------------------------|-----------------------------------------------------------|-------|-------|--------|--------|--------|
| | 30 A | 60 A | 100 A | 200 A | 400 A | 600 A |
| 5,000 | 1,400 | 2,100 | 3,100 | 5,000 | 5,000 | 5,000 |
| 10,000 | 1,550 | 2,500 | 3,900 | 6,500 | 9,500 | 10,000 |
| 15,000 | 2,000 | 3,150 | 4,400 | 7,250 | 10,500 | 14,000 |
| 20,000 | 2,250 | 3,400 | 5,000 | 8,250 | 12,000 | 16,000 |
| 25,000 | 2,400 | 3,750 | 5,250 | 9,000 | 12,500 | 16,500 |
| 30,000 | 2,550 | 4,100 | 5,600 | 9,500 | 13,500 | 18,000 |
| 35,000 | 2,650 | 4,300 | 5,800 | 9,750 | 14,000 | 19,000 |
| 40,000 | 2,800 | 4,400 | 6,250 | 10,250 | 15,000 | 20,000 |
| 50,000 | 3,000 | 5,000 | 6,500 | 10,500 | 16,000 | 21,000 |
| 60,000 | 3,200 | 5,250 | 7,000 | 11,500 | 17,000 | 23,000 |
| 80,000 | 3,400 | 5,750 | 7,500 | 12,500 | 19,000 | 25,500 |
| 100,000 | 3,850 | 6,000 | 8,000 | 13,500 | 21,000 | 27,500 |
| 150,000 | 4,100 | 7,000 | 9,000 | 15,200 | 24,000 | 31,500 |
| 200,000 | 4,300 | 7,500 | 9,750 | 16,500 | 26,000 | 34,000 |

*Prospective RMS Symmetrical Amperes Short-Circuit Current
Note: Data Derived from Peak Let-Thru Curves

Dimensions

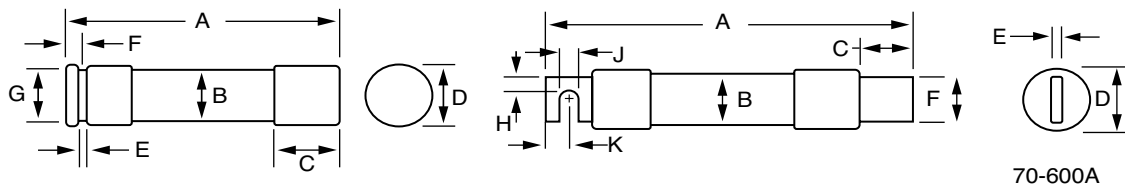


FIG. 1

FIG. 2

70-600A

| AMPS | FIGURE NUMBER | SERIES | DIMENSIONS INCHES (mm) | | | | | | | | | |
|---------|---------------|--------|------------------------|--------------|----------------|----------------|------------|--------------|------------|-------------|---------------|----------------|
| | | | A | B | C | D | E | F | G | H | J | K |
| 1/10-30 | 1 | FLNR | 2 (50.8) | 1/2 (12.7) | 1/2 (12.7) | 9/16 (14.3) | 5/64 (2.0) | 5/32 (4.0) | 3/8 (9.5) | — | — | — |
| | | FLSR | 5 (127.0) | 3/4 (19.1) | 5/8 (15.9) | 13/16 (20.6) | 3/32 (2.4) | 3/16 (4.8) | 5/8 (15.9) | — | — | — |
| 35-60 | 1 | FLNR | 3 (76.2) | 3/4 (19.1) | 5/8 (15.9) | 13/16 (20.6) | 3/32 (2.4) | 3/16 (4.8) | 5/8 (15.9) | — | — | — |
| | | FLSR | 5 1/2 (139.7) | 1 (25.4) | 5/8 (15.9) | 1 1/16 (27.0) | 3/32 (2.4) | 1/4 (6.4) | 7/8 (22.2) | — | — | — |
| 70-100 | 2 | FLNR | 5 7/8 (149.2) | 1 (25.4) | 1 1/16 (27.0) | 1 1/16 (27.0) | 1/8 (3.2) | 3/4 (19.1) | — | 1/4 (6.4) | 9/32 (7.1) | 1/2 (12.7) |
| | | FLSR | 7 7/8 (200.0) | 1 1/4 (31.8) | 1 1/16 (27.0) | 1 5/16 (33.3) | 1/8 (3.2) | 3/4 (19.1) | — | 1/4 (6.4) | 9/32 (7.1) | 1/2 (12.7) |
| 110-200 | 2 | FLNR | 7 7/8 (181.0) | 1 1/2 (38.1) | 1 15/32 (37.3) | 1 19/32 (40.5) | 3/16 (4.8) | 1 1/8 (28.6) | — | 7/16 (11.1) | 9/32 (7.1) | 1 11/16 (17.5) |
| | | FLSR | 9 5/8 (244.5) | 1 3/4 (44.5) | 1 15/32 (37.3) | 1 27/32 (46.8) | 3/16 (4.8) | 1 1/8 (28.6) | — | 7/16 (11.1) | 9/32 (7.1) | 1 11/16 (17.5) |
| 225-400 | 2 | FLNR | 8 5/8 (219.1) | 2 (50.8) | 1 15/16 (49.2) | 2 3/32 (53.2) | 1/4 (6.4) | 1 5/8 (41.3) | — | 5/8 (15.9) | 1 3/32 (10.3) | 1 5/16 (23.8) |
| | | FLSR | 11 5/8 (295.3) | 2 1/2 (63.5) | 2 (50.8) | 2 19/32 (65.9) | 1/4 (6.4) | 1 5/8 (41.3) | — | 5/8 (15.9) | 1 3/32 (10.3) | 1 5/16 (23.8) |
| 450-600 | 2 | FLNR | 10 3/8 (263.5) | 2 1/2 (63.5) | 2 3/8 (60.3) | 2 19/32 (65.9) | 1/4 (6.4) | 2 (50.8) | — | 3/4 (19.1) | 1 7/32 (13.5) | 1 7/8 (28.6) |
| | | FLSR | 13 3/8 (339.7) | 3 (76.2) | 2 3/32 (61.1) | 3 3/32 (78.6) | 1/4 (6.4) | 2 (50.8) | — | 3/4 (19.1) | 1 7/32 (13.5) | 1 7/8 (28.6) |