

# Industrial fuses

## NFC-DIN industrial fuselinks gG and aM curves
from 0.16 to 1250 A




*gG fuse*
*from 0.5 to 125 A*




*aM type fuse*
*from 6 to 1250 A*




*gG fuse*
*from 6 to 1250 A*

### The solution for

- Motor protection
- Cable and device protection



### Strong points

- High level performances
- High reliability
- Improved safety

### Conformity to standards

- IEC 60269-1
- DIN EN 60269-1
- NF EN 60269-1
- IEC 60269-2
- NF EN 60269-2

## Function

**SOCOMEC industrial fuses** protect installations and people from overcurrents for any low voltage electrical circuit.

## Advantages

**High level performances**
- High breaking capacity - 120 kA at 400/500 V, 80 kA at 690 V.
- High short-circuit limitation capacity.
- Simple and reliable discrimination.

**High reliability**
- Absolute protection over time guaranteed by the simplicity of manufacture and function (Joule effect).
- No downgrading of fuse characteristics over time.

**Improved safety**
The energy released whilst eliminating the fault (fuse blowing) is contained within the cartridge (no degassing).

# References

## gG type fuses (in multiples of 10)

| Rating (A) | 10 x 38 without striker | | 14 x 51 without striker | | 14 x 51 with striker | | 22 x 58 without striker | | 22 x 58 with striker | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference |
| 0.5 | 500 | 6012 **0000** | | | | | | | | |
| 1 | 500 | 6012 **0001** | 690 | 6022 **0001** | | | | | | |
| 2 | 500 | 6012 **0002** | 690 | 6022 **0002** | 500 | 6052 **0002** | 690 | 6032 **0002** | | |
| 4 | 500 | 6012 **0004** | 690 | 6022 **0004** | 500 | 6052 **0004** | 690 | 6032 **0004** | 690 | 6062 **0004** |
| 6 | 500 | 6012 **0006** | 690 | 6022 **0006** | 500 | 6052 **0006** | 690 | 6032 **0006** | 690 | 6062 **0006** |
| 8 | 500 | 6012 **0008** | 690 | 6022 **0008** | 500 | 6052 **0008** | 690 | 6032 **0008** | 690 | 6062 **0008** |
| 10 | 500 | 6012 **0010** | 690 | 6022 **0010** | 500 | 6052 **0010** | 690 | 6032 **0010** | 690 | 6062 **0010** |
| 12 | 500 | 6012 **0012** | 690 | 6022 **0012** | 500 | 6052 **0012** | 690 | 6032 **0012** | 690 | 6062 **0012** |
| 16 | 500 | 6012 **0016** | 690 | 6022 **0016** | 500 | 6052 **0016** | 690 | 6032 **0016** | 690 | 6062 **0016** |
| 20 | 500 | 6012 **0020** | 690 | 6022 **0020** | 500 | 6052 **0020** | 690 | 6032 **0020** | 690 | 6062 **0020** |
| 25 | 500 | 6012 **0025** | 690 | 6022 **0025** | 500 | 6052 **0025** | 690 | 6032 **0025** | 690 | 6062 **0025** |
| 32 | 400 | 6012 **0032** | 500 | 6022 **0032** | 500 | 6052 **0032** | 690 | 6032 **0032** | 690 | 6062 **0032** |
| 40 | | | 500 | 6022 **0040** | 500 | 6052 **0040** | 690 | 6032 **0040** | 690 | 6062 **0040** |
| 50 | | | 400 | 6022 **0050** | 400 | 6052 **0050** | 690 | 6032 **0050** | 690 | 6062 **0050** |
| 63 | | | | | | | 690 | 6032 **0063** | 690 | 6062 **0063** |
| 80 | | | | | | | 500 | 6032 **0080** | 500 | 6062 **0080** |
| 100 | | | | | | | 500 | 6032 **0100** | 500 | 6062 **0100** |
| 125 | | | | | | | 400 | 6032 **0125** | 400 | 6062 **0125** |

### Description of accessories

| | Reference | | Reference | | Reference | | Reference | | Reference |
|---|---|---|---|---|---|---|---|---|---|
| Solid cylindrical link | 6019 **0000** | | 6029 **0000** | | 6029 **0000** | | 6039 **0000** | | 6039 **0000** |

## aM type fuses (in multiples of 10)

| Rating (A) | 10 x 38 without striker | | 14 x 51 without striker | | 14 x 51 with striker | | 22 x 58 without striker | | 22 x 58 with striker | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference |
| 0.16 | 500 | 6013 **0007** | | | | | | | | |
| 0.25 | 500 | 6013 **0005** | 690 | 6023 **0005** | | | | | | |
| 0.5 | 500 | 6013 **0000** | 690 | 6023 **0000** | | | | | | |
| 1 | 500 | 6013 **0001** | 690 | 6023 **0001** | | | | | | |
| 2 | 500 | 6013 **0002** | 690 | 6023 **0002** | 500 | 6053 **0002** | 690 | 6033 **0002** | | |
| 4 | 500 | 6013 **0004** | 690 | 6023 **0004** | 500 | 6053 **0004** | 690 | 6033 **0004** | 690 | 6063 **0004** |
| 6 | 500 | 6013 **0006** | 690 | 6023 **0006** | 500 | 6053 **0006** | 690 | 6033 **0006** | 690 | 6063 **0006** |
| 8 | 500 | 6013 **0008** | 690 | 6023 **0008** | 500 | 6053 **0008** | 690 | 6033 **0008** | 690 | 6063 **0008** |
| 10 | 500 | 6013 **0010** | 690 | 6023 **0010** | 500 | 6053 **0010** | 690 | 6033 **0010** | 690 | 6063 **0010** |
| 12 | 500 | 6013 **0012** | 690 | 6023 **0012** | 500 | 6053 **0012** | 690 | 6033 **0012** | 690 | 6063 **0012** |
| 16 | 500 | 6013 **0016** | 690 | 6023 **0016** | 500 | 6053 **0016** | 690 | 6033 **0016** | 690 | 6063 **0016** |
| 20 | 400 | 6013 **0020** | 690 | 6023 **0020** | 500 | 6053 **0020** | 690 | 6033 **0020** | 690 | 6063 **0020** |
| 25 | 400 | 6013 **0025** | 690 | 6023 **0025** | 500 | 6053 **0025** | 690 | 6033 **0025** | 690 | 6063 **0025** |
| 32 | | | 500 | 6023 **0032** | 500 | 6053 **0032** | 690 | 6033 **0032** | 690 | 6063 **0032** |
| 40 | | | 500 | 6023 **0040** | 500 | 6053 **0040** | 690 | 6033 **0040** | 690 | 6063 **0040** |
| 50 | | | 400 | 6023 **0050** | 400 | 6053 **0050** | 690 | 6033 **0050** | 690 | 6063 **0050** |
| 63 | | | | | | | 690 | 6033 **0063** | 690 | 6063 **0063** |
| 80 | | | | | | | 500 | 6033 **0080** | 500 | 6063 **0080** |
| 100 | | | | | | | 500 | 6033 **0100** | 400 | 6063 **0100** |
| 125 | | | | | | | 400 | 6033 **0125** | 400 | 6063 **0125** |

### Description of accessories

| | Reference | | Reference | | Reference | | Reference | | Reference |
|---|---|---|---|---|---|---|---|---|---|
| Solid cylindrical link | 6019 **0000** | | 6029 **0000** | | 6029 **0000** | | 6039 **0000** | | 6039 **0000** |

## References (continued)

### Knife-edge fuses (NH), gG type

| Rating (A) | 000/00C without striker (in multiples of 3) | | 00 without striker (in multiples of 3) | | 0 without striker (in multiples of 3) | | 0 with striker (in multiples of 3) | | 1 without striker (in multiples of 3) | | 1 with striker (in multiples of 3) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference |
| 6 | 500 | 6600 **0006** | | | | | | | | | | |
| 10 | 500 | 6600 **0010** | | | | | | | | | | |
| 16 | 500 | 6600 **0016** | | | 500 | 6702 **0016** | | | | | | |
| 20 | 500 | 6600 **0020** | | | 500 | 6702 **0020** | | | | | | |
| 25 | 500 | 6600 **0025** | | | 500 | 6702 **0025** | | | | | | |
| 32 | 500 | 6600 **0032** | | | 500 | 6702 **0032** | 690 | 6852 **0032** | | | | |
| 40 | 500 | 6600 **0040** | | | 500 | 6702 **0040** | 690 | 6852 **0040** | | | | |
| 50 | 500 | 6600 **0050** | | | 500 | 6702 **0050** | 690 | 6852 **0050** | | | | |
| 63 | 500 | 6600 **0063** | | | 500 | 6702 **0063** | 690 | 6852 **0063** | 500 | 6712 **0063** | | |
| 80 | 500 | 6600 **0080** | | | 500 | 6702 **0080** | 690 | 6852 **0080** | 500 | 6712 **0080** | 690 | 6862 **0080** |
| 100 | 500 | 6600 **0100** | | | 500 | 6702 **0100** | 690 | 6852 **0100** | 500 | 6712 **0100** | 690 | 6862 **0100** |
| 125 | | | 500 | 6692 **0125** | 500 | 6702 **0125** | 500 | 6852 **0125** | 500 | 6712 **0125** | 690 | 6862 **0125** |
| 160 | | | 500 | 6692 **0160** | 500 | 6702 **0160** | 500 | 6852 **0160** | 500 | 6712 **0160** | 690 | 6862 **0160** |
| 200 | | | | | 500 | 6702 **0200** | 500 | 6852 **0200** | 500 | 6712 **0200** | 690 | 6862 **0200** |
| 250 | | | | | | | | | 500 | 6712 **0250** | 500 | 6862 **0250** |
| 315 | | | | | | | | | 400 | 6712 **0315** | 500 | 6862 **0315** |

#### Description of accessories

| | Reference | | Reference | | Reference | | Reference | | Reference | | Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Neutral bar | 6420 **0000** | | 6420 **0000** | | 6421 **0000** | | 6421 **0000** | | 6421 **0001** | | 6421 **0001** |

| Rating (A) | 2 without striker (in multiples of 3) | | 2 with striker (in multiples of 3) | | 3 without striker (to this unit) | | 3 with striker (to this unit) | | 4 without striker (to this unit) | | 4 with striker (to this unit) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference |
| 100 | 500 | 6722 **0100** | | | | | | | | | | |
| 125 | 500 | 6722 **0125** | 690 | 6872 **0125** | | | | | | | | |
| 160 | 500 | 6722 **0160** | 690 | 6872 **0160** | | | | | | | | |
| 200 | 500 | 6722 **0200** | 690 | 6872 **0200** | | | | | | | | |
| 250 | 500 | 6722 **0250** | 690 | 6872 **0250** | | | | | | | | |
| 315 | 500 | 6722 **0315** | 690 | 6872 **0315** | 500 | 6732 **0315** | 690 | 6882 **0315** | 500 | 6746 **0315** | 500 | 6896 **0315** |
| 400 | 500 | 6722 **0400** | 500 | 6872 **0400** | 500 | 6732 **0400** | 690 | 6882 **0400** | 500 | 6746 **0400** | 500 | 6896 **0400** |
| 500 | 500 | 6722 **0500** | 500 | 6872 **0500** | 500 | 6732 **0500** | 690 | 6882 **0500** | 500 | 6746 **0500** | 500 | 6896 **0500** |
| 630 | | | | | 500 | 6732 **0630** | 500 | 6882 **0630** | 500 | 6746 **0630** | 500 | 6896 **0630** |
| 800 | | | | | 500 | 6732 **0800** | | | 500 | 6746 **0800** | 500 | 6896 **0800** |
| 900 | | | | | | | | | 500 | 6746 **0900** | 500 | 6896 **0900** |
| 1000 | | | | | | | | | 500 | 6746 **1000** | 500 | 6896 **1000** |
| 1250 | | | | | | | | | 500 | 6746 **1200** | 500 | 6896 **1200** |

#### Description of accessories

| | Reference | | Reference | | Reference | | Reference | | Reference | | Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Neutral bar | 6421 **0002** | | 6421 **0002** | | 6421 **0003** | | 6421 **0003** | | 6441 **0005** | | 6441 **0005** |

## Knife-edge fuses (NH), aM type

| Rating (A) | 000/00C without striker (in multiples of 3) | | 00 without striker (in multiples of 3) | | 0 without striker (in multiples of 3) | | 0 with striker (in multiples of 3) | | 1 without striker (in multiples of 3) | | 1 with striker (in multiples of 3) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference |
| 6 | 500 | 6601 **0006** | | | | | | | | | | |
| 10 | 500 | 6601 **0010** | | | | | | | | | | |
| 16 | 500 | 6601 **0016** | | | 500 | 6703 **0016** | | | | | | |
| 20 | 500 | 6601 **0020** | | | 500 | 6703 **0020** | | | | | | |
| 25 | 500 | 6601 **0025** | | | 500 | 6703 **0025** | | | | | | |
| 32 | 500 | 6601 **0032** | | | 500 | 6703 **0032** | 690 | 6853 **0032** | | | | |
| 40 | 500 | 6601 **0040** | | | 500 | 6703 **0040** | 690 | 6853 **0040** | | | | |
| 50 | 500 | 6601 **0050** | | | 500 | 6703 **0050** | 690 | 6853 **0050** | | | | |
| 63 | 500 | 6601 **0063** | | | 500 | 6703 **0063** | 690 | 6853 **0063** | | | | |
| 80 | 500 | 6601 **0080** | | | 500 | 6703 **0080** | 690 | 6853 **0080** | | | 690 | 6863 **0080** |
| 100 | | | 500 | 6693 **0100** | 500 | 6703 **0100** | 690 | 6853 **0100** | 500 | 6713 **0100** | 690 | 6863 **0100** |
| 125 | | | 500 | 6693 **0125** | 500 | 6703 **0125** | 690 | 6853 **0125** | 500 | 6713 **0125** | 690 | 6863 **0125** |
| 160 | | | 500 | 6693 **0160** | 500 | 6703 **0160** | 690 | 6853 **0160** | 500 | 6713 **0160** | 690 | 6863 **0160** |
| 200 | | | | | 500 | 6703 **0200** | 500 | 6853 **0200** | 500 | 6713 **0200** | 690 | 6863 **0200** |
| 250 | | | | | | | | | 500 | 6713 **0250** | 690 | 6863 **0250** |
| 315 | | | | | | | | | 500 | 6713 **0315** | 500 | 6863 **0315** |

### Description of accessories

| | Reference | | Reference | | Reference | | Reference | | Reference | | Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Neutral bar | 6420 **0000** | | 6420 **0000** | | 6421 **0000** | | 6421 **0000** | | 6421 **0001** | | 6421 **0001** |

| Rating (A) | 2 without striker (in multiples of 3) | | 2 with striker (in multiples of 3) | | 3 without striker (to this unit) | | 3 with striker (to this unit) | | 4 without striker (to this unit) | | 4 with striker (to this unit) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference | Voltage (VAC) | Reference |
| 100 | 500 | 6723 **0100** | | | | | | | | | | |
| 125 | 500 | 6723 **0125** | | | | | | | | | | |
| 160 | 500 | 6723 **0160** | 690 | 6873 **0160** | | | | | | | | |
| 200 | 500 | 6723 **0200** | 690 | 6873 **0200** | | | | | | | | |
| 250 | 500 | 6723 **0250** | 690 | 6873 **0250** | | | | | | | | |
| 315 | 500 | 6723 **0315** | 690 | 6873 **0315** | 500 | 6733 **0315** | 690 | 6883 **0315** | 500 | 6747 **0315** | 500 | 6897 **0315** |
| 400 | 500 | 6723 **0400** | 690 | 6873 **0400** | 500 | 6733 **0400** | 690 | 6883 **0400** | 500 | 6747 **0400** | 500 | 6897 **0400** |
| 500 | 500 | 6723 **0500** | 500 | 6873 **0500** | 500 | 6733 **0500** | 690 | 6883 **0500** | 500 | 6747 **0500** | 500 | 6897 **0500** |
| 630 | | | | | 500 | 6733 **0630** | 500 | 6883 **0630** | 500 | 6747 **0630** | 500 | 6897 **0630** |
| 800 | | | | | | | | | 500 | 6747 **0800** | 500 | 6897 **0800** |
| 1000 | | | | | | | | | 500 | 6747 **1000** | 500 | 6897 **1000** |
| 1250 | | | | | | | | | 500 | 6747 **1200** | 500 | 6897 **1200** |

### Description of accessories

| | Reference | | Reference | | Reference | | Reference | | Reference | | Reference |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Neutral bar | 6421 **0002** | | 6421 **0002** | | 6421 **0003** | | 6421 **0003** | | 6441 **0005** | | 6441 **0005** |

# Accessories

## Solid cylindrical link

**Use**

Solid link to be used in conjunction with the neutral pole of cylindrical fused disconnecting switches.

3 sizes: 10 x 38, 14 x 51, 22 x 58.

| Rating (A) | Size | To be ordered in multiples of | Reference |
|---|---|---|---|
| 32 | 10 x 38 | 10 | 6019 **0000** |
| 50 | 14 x 51 | 10 | 6029 **0000** |
| 100 | 22 x 58 | 10 | 6039 **0000** |



fusib_123_a_1_cat

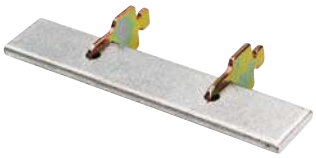
## Solid links

**Use**

Solid link to be used in conjunction with fuse bases or knife-edge fused disconnecting switches, generally fitted on the neutral pole.

6 sizes: 000/00C/00-0-1-2-3-4.

| Rating (A) | Size | Tightening | Reference |
|---|---|---|---|
| 160 | 000/00C/00 | elastic | 6420 **0000** |
| 160 | 0 | elastic | 6421 **0000** |
| 315 | 1 | elastic | 6421 **0001** |
| 400 | 2 | elastic | 6421 **0002** |
| 630 | 3 | elastic | 6421 **0003** |
| 1250 | 4 | blocked | 6441 **0005** |



fusib_124_a_1_cat

## Operating handle

**Use**

For inserting and extracting knife-edge fuses, sizes 000 to 4.

| Type | Reference |
|---|---|
| Operating handle | 6401 **0011** |

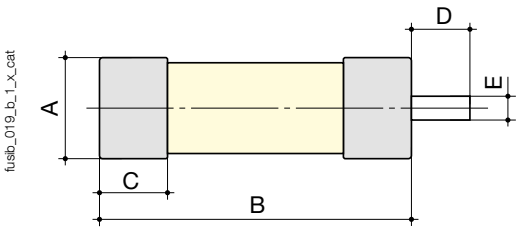


fusib_122_a_1_cat

# Dimensions

## Cylindrical fuses (NF)

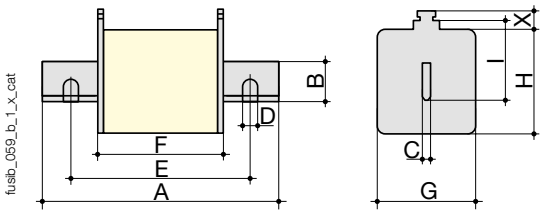
**Without striker - with striker**




| Standard dimensions (mm) as per IEC 60269-2-1 | | | | | |
|---|---|---|---|---|---|
| **Size** | **A** | **B** | **C** | **D** | **E** |
| 10 x 38 | 10.3 | 38 | 10.5 | | |
| 14 x 51 | 14.3 | 51 | 13.8 | 7.5 | 3.8 |
| 22 x 58 | 22.2 | 58 | 16.2 | 7.5 | 3.8 |

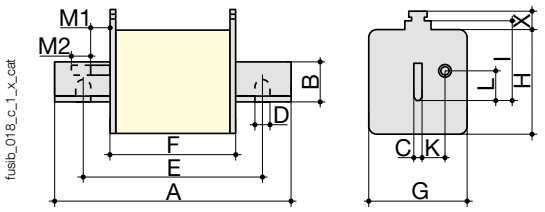
## Knife-edge fuses (NH)

**without striker**




| Standard dimensions (mm) as per IEC 60269-2-1 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Size** | **A maxi** | **B mini** | **C** | **D** | **E mini** | **F maxi** | **G maxi** | **H maxi** | **I** | **X mini** |
| 000/00C | 80 | 15 | 6 | | | 54 | 21 | 41 | 35 | 11 |
| 00 | 80 | 15 | 6 | | | 54 | 30 | 48 | 35 | 11 |
| 0 | 127.5 | 15 | 6 | | | 68 | 40 | 48 | 35 | 11 |
| 1 | 137.5 | 20 | 6 | | | 75 | 52 | 53 | 40 | 11 |
| 2 | 152.5 | 25 | 6 | | | 75 | 60 | 61 | 48 | 11 |
| 3 | 152.5 | 32 | 6 | | | 75 | 75 | 76 | 60 | 11 |
| 4 | 203 | 49 | 8 | 16 | 150 | 90 | 105 | 110 | 87 | 11 |

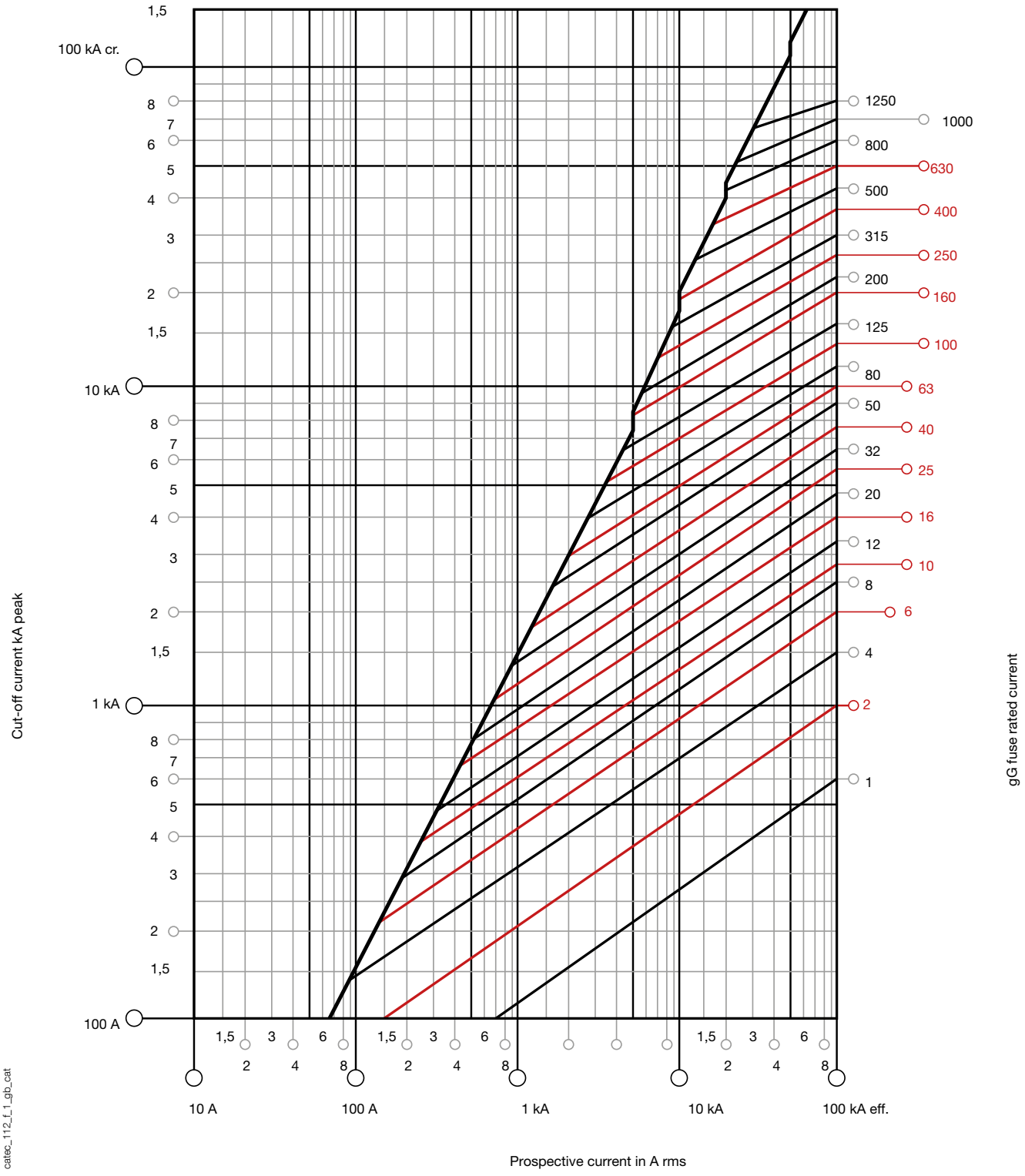
**With striker**



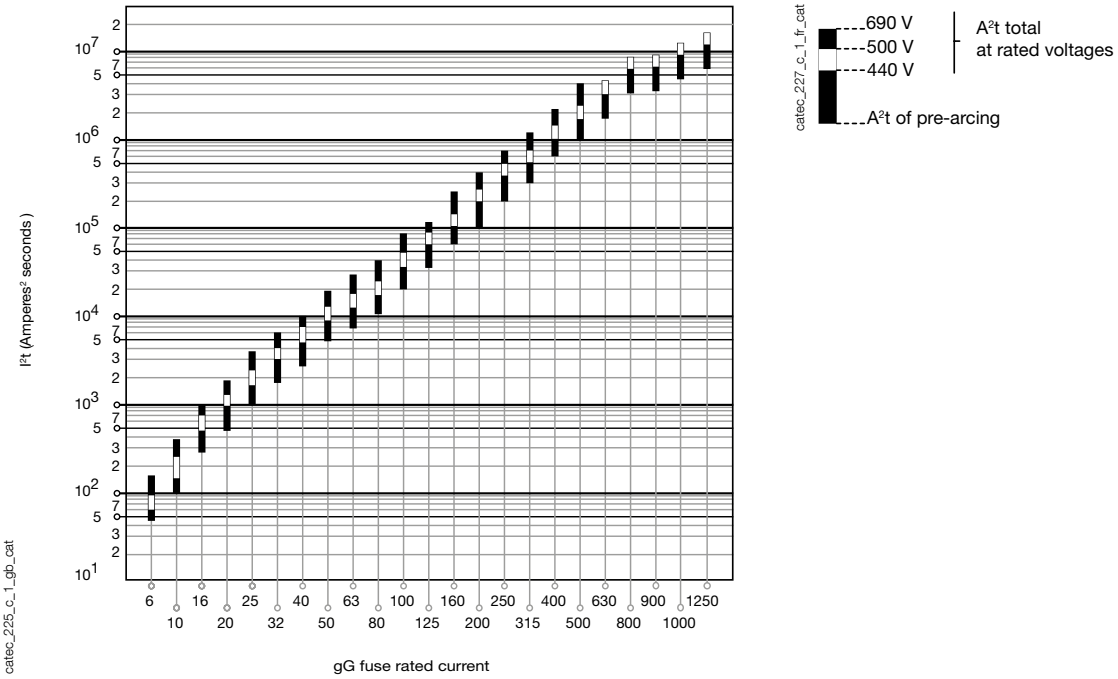

| Standard dimensions (mm) as per IEC 60269-2-1 | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Size** | **A maxi** | **B mini** | **C** | **D** | **E** | **F maxi** | **G maxi** | **H maxi** | **I** | **K** | **L** | **M1** | **M2 mini** | **X mini** |
| 0 | 127.5 | 15 | 6 | | | 68 | 45 | 48 | 35 | 11.5 | 14 | 25 | 13 | 11 |
| 1 | 137.5 | 20 | 6 | | | 75 | 52 | 53 | 40 | 13 | 14.5 | 25.5 | 13 | 11 |
| 2 | 152.5 | 25 | 6 | | | 75 | 60 | 61 | 48 | 16 | 14.5 | 25.5 | 13 | 11 |
| 3 | 152.5 | 32 | 6 | | | 75 | 75 | 76 | 60 | 21 | 14.5 | 25.5 | 13 | 11 |
| 4 | 203 | 49 | 8 | 16 | 150 | 90 | 105 | 110 | 87 | 24.5 | 14.5 | 35 | 13 | 11 |

## Curves characteristic of NF and NH gG type fuses

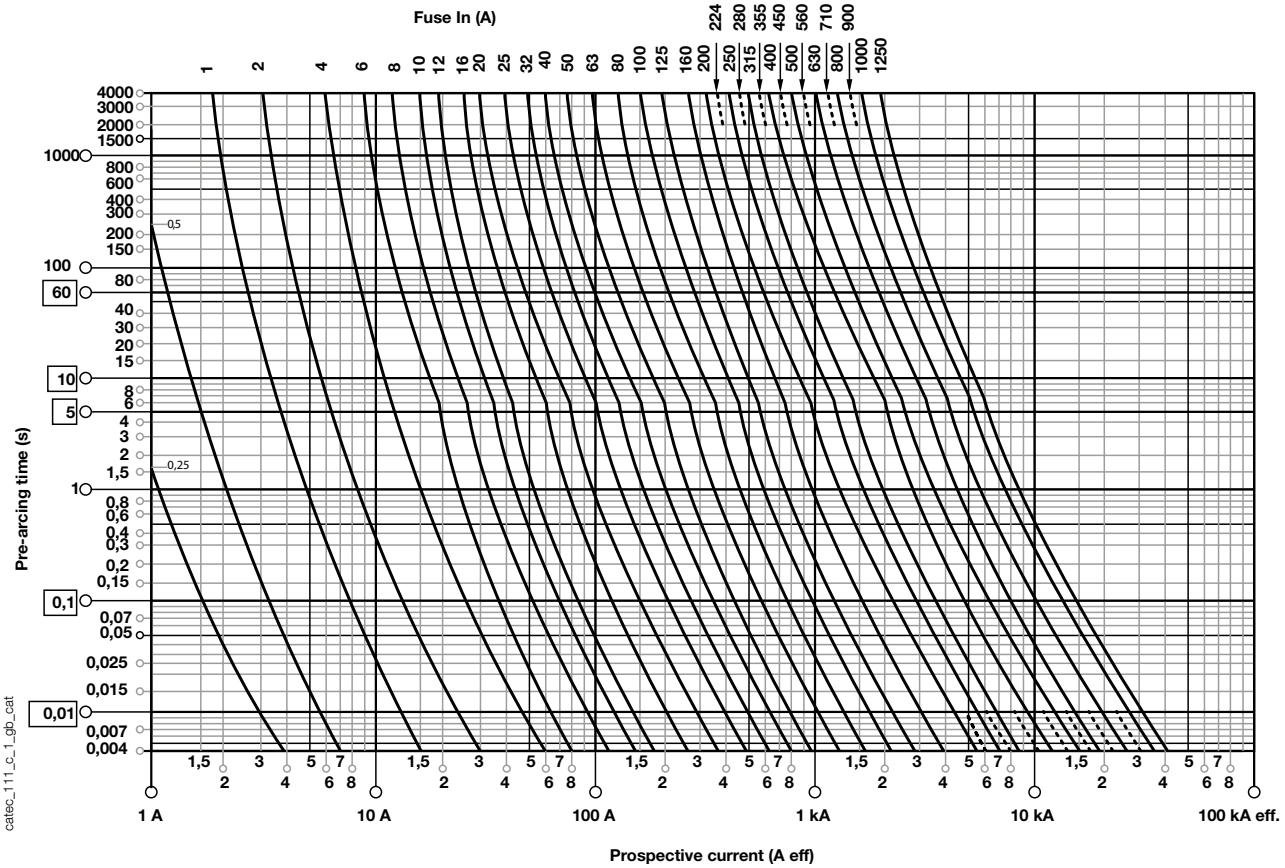
### Cut-off current diagram



## Diagram of thermal constraint limitation

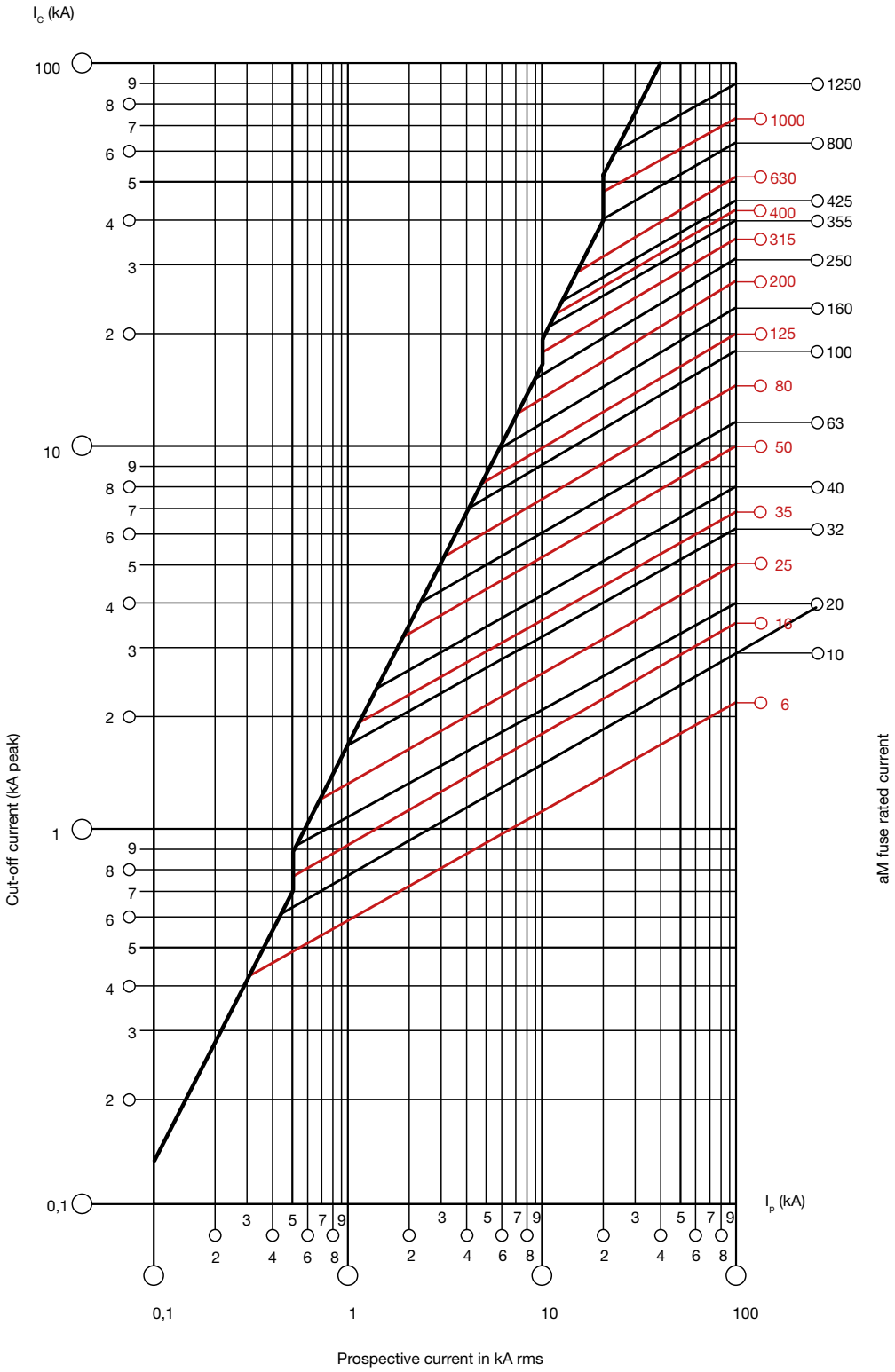



## Time/current operation characteristics



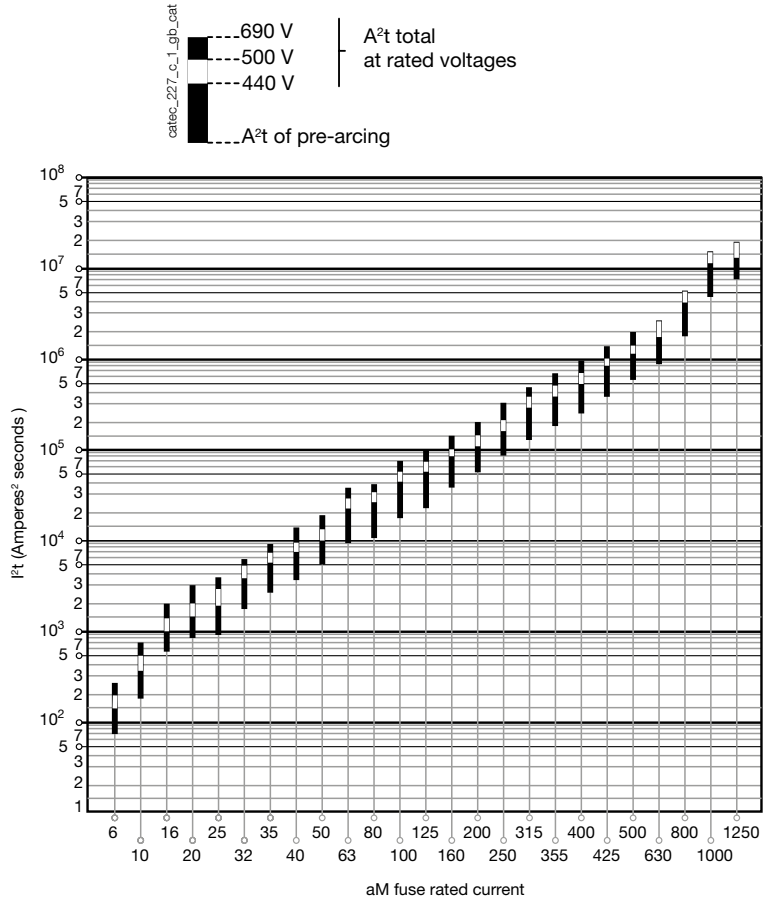
## Curves characteristic of NF and NH aM type fuses

### Cut-off current diagram




catec_114_g_1_gb_cat

## Diagram of thermal constraint limitation

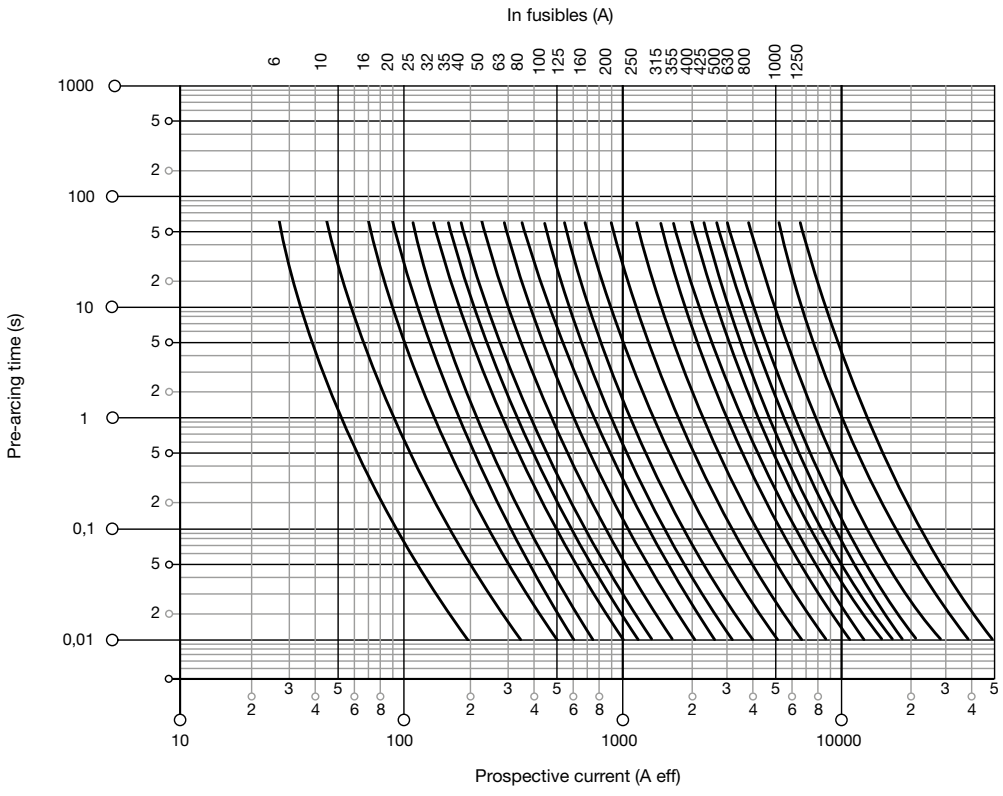



catec_226_c_1_gb_cat

Dissipated power without striker (W)

| Rated operational currents | Fuse size | | | | | | |
|---|---|---|---|---|---|---|---|
| In (A) | 000 | 00 | 0/0S | 1 | 2 | 3 | 4 |
| 6 | 0.33 | | 0.42 | | | | |
| 10 | 0.52 | | 0.67 | | | | |
| 16 | 0.81 | | 0.98 | | | | |
| 20 | 0.92 | | 1.04 | | | | |
| 25 | 1.08 | | 1.17 | | | | |
| 32 | 1.42 | | 1.67 | | | | |
| 35 | 1.58 | | 1.72 | | | | |
| 40 | 1.68 | | 1.91 | | | | |
| 50 | | 2.28 | 2.51 | | | | |
| 63 | | 2.9 | 3.35 | 3.2 | | | |
| 80 | | 4.19 | 4.93 | 4.6 | | | |
| 100 | | 5.09 | 5.72 | 5.7 | | | |
| 125 | | 6.29 | 7.30 | 6.98 | 7.6 | | |
| 160 | | 7.73 | 9.50 | 9.2 | 9.7 | | |
| 200 | | | 12.3 | 13.7 | 13.9 | | |
| 224 | | | | 14.0 | 14.0 | | |
| 250 | | | | 15.3 | 17.0 | | |
| 315 | | | | | 26.0 | 20.6 | 18.8 |
| 355 | | | | | 25.2 | 23.9 | |
| 400 | | | | | 29.3 | 26.5 | 23.5 |
| 425 | | | | | | 28.3 | |
| 500 | | | | | | 35.8 | 34 |
| 630 | | | | | | 56.9 | 49 |
| 800 | | | | | | | 70 |
| 1000 | | | | | | | 80 |
| 1250 | | | | | | | 108 |

## Time/current operation characteristics




catec_113_d_1_gb_cat