

MCBs - 6kA Range

Features & Specifications

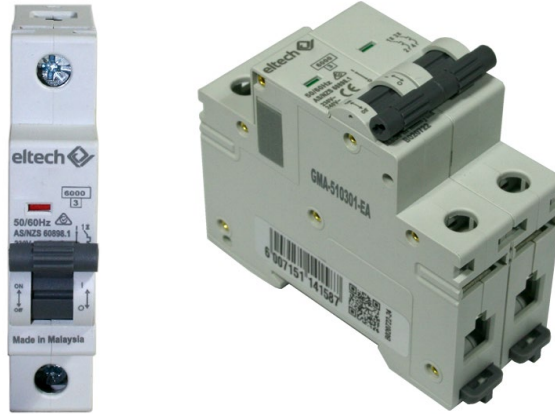
- General purpose light and power applications
- C curve tripping characteristics
- Calibrated at 40°C
- Rated Current (A): 2, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63
- Rated Voltage: 240/415VAC
- No. Poles: 1P, 2P, 3P
- Width: 1P = 17.6mm, 2P = 35.2, 3P = 52.8mm
- Rated frequency: 50/60 Hz
- Residual Insulation Voltage (Ui): 1P = 500V, 3P = 1000V
- Tripping Type: Thermal Magnetic
- Operating Temp: -20°C to +70°C
- Curve type: C-type
- Installation: DIN rail mount
- Mechanical Cycles: 10,000
- Electrical Cycles: 2,500
- Short circuit capacity Icn/Ics: 6Ka
- Connection Torque: 2.5Nm
- Standards: AS 60898.1

Product Images

1 Pole



2 Pole



3 Pole



Product Details

1 Pole Range

| Part No. | Current (A) | Poles |
|----------|-------------|--------|
| CBW1002S | 2A | 1 Pole |
| CBW1004S | 4A | 1 Pole |
| CBW1006S | 6A | 1 Pole |
| CBW1010S | 10A | 1 Pole |
| CBW1016S | 16A | 1 Pole |
| CBW1020S | 20A | 1 Pole |
| CBW1025S | 25A | 1 Pole |
| CBW1032S | 32A | 1 Pole |
| CBW1040S | 40A | 1 Pole |
| CBW1050S | 50A | 1 Pole |
| CBW1063S | 63A | 1 Pole |

2 Pole Range

| Part No. | Current (A) | Poles |
|----------|-------------|--------|
| CBW2002S | 2A | 2 Pole |
| CBW2004S | 4A | 2 Pole |
| CBW2006S | 6A | 2 Pole |
| CBW2010S | 10A | 2 Pole |
| CBW2016S | 16A | 2 Pole |
| CBW2020S | 20A | 2 Pole |
| CBW2025S | 25A | 2 Pole |
| CBW2032S | 32A | 2 Pole |

3 Pole Range

| Part No. | Current (A) | Poles |
|----------|-------------|--------|
| CBW3006S | 6A | 3 Pole |
| CBW3010S | 10A | 3 Pole |
| CBW3016S | 16A | 3 Pole |
| CBW3020S | 20A | 3 Pole |
| CBW3025S | 25A | 3 Pole |
| CBW3032S | 32A | 3 Pole |
| CBW3040S | 40A | 3 Pole |
| CBW3050S | 50A | 3 Pole |
| CBW3063S | 63A | 3 Pole |

Watt Loss Data

1 Pole Range

| Part No. | Current (A) | Watt Loss W (Min) | Watt Loss W (Max) |
|----------|-------------|----------------------|----------------------|
| CBW1002S | 2A | 1.12 | 1.16 |
| CBW1004S | 4A | 1.4 | 1.46 |
| CBW1006S | 6A | 1.01 | 1.21 |
| CBW1010S | 10A | 1.44 | 1.69 |
| CBW1016S | 16A | 1.89 | 2.04 |
| CBW1020S | 20A | 1.92 | 2.14 |
| CBW1025S | 25A | 2.23 | 2.39 |
| CBW1032S | 32A | 2.04 | 2.59 |
| CBW1040S | 40A | 2.42 | 3.07 |
| CBW1050S | 50A | 2.5 | 2.93 |
| CBW1063S | 63A | 3.45 | 5.48 |

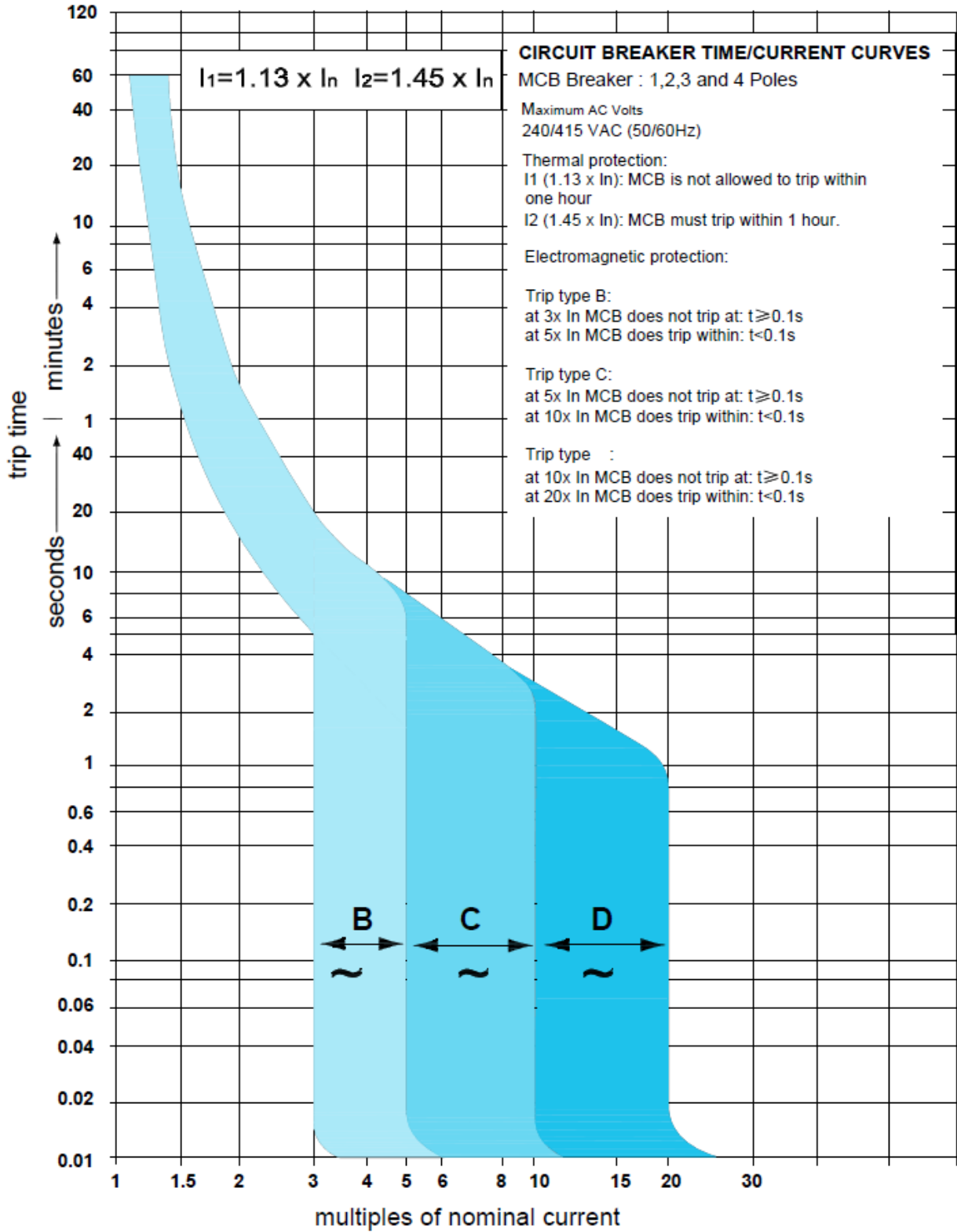
2 Pole Range

| Part No. | Current (A) | Watt Loss W (Min) | Watt Loss W (Max) |
|----------|-------------|----------------------|----------------------|
| CBW2002S | 2A | 2.24 | 2.32 |
| CBW2004S | 4A | 2.8 | 2.92 |
| CBW2006S | 6A | 2.02 | 2.42 |
| CBW2010S | 10A | 2.88 | 3.38 |
| CBW2016S | 16A | 3.78 | 4.08 |
| CBW2020S | 20A | 3.84 | 4.28 |
| CBW2025S | 25A | 4.46 | 4.78 |
| CBW2032S | 32A | 4.08 | 5.18 |

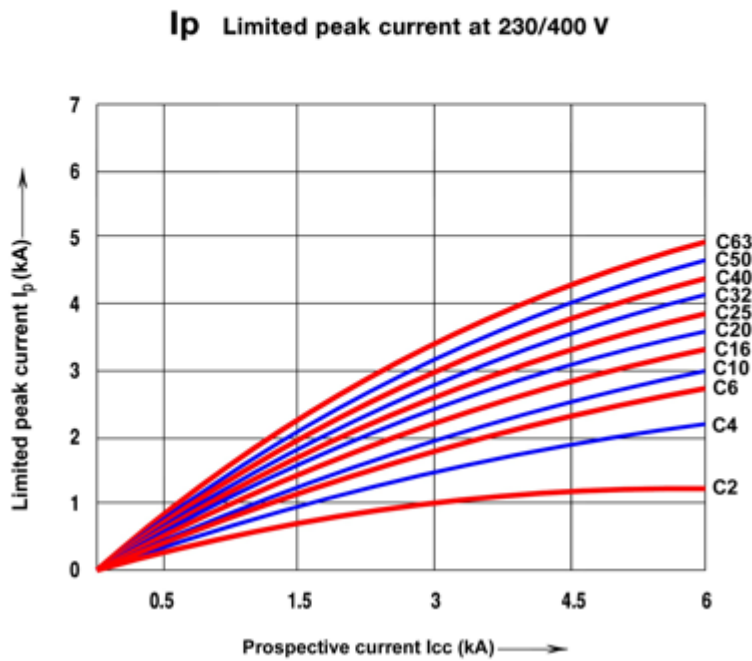
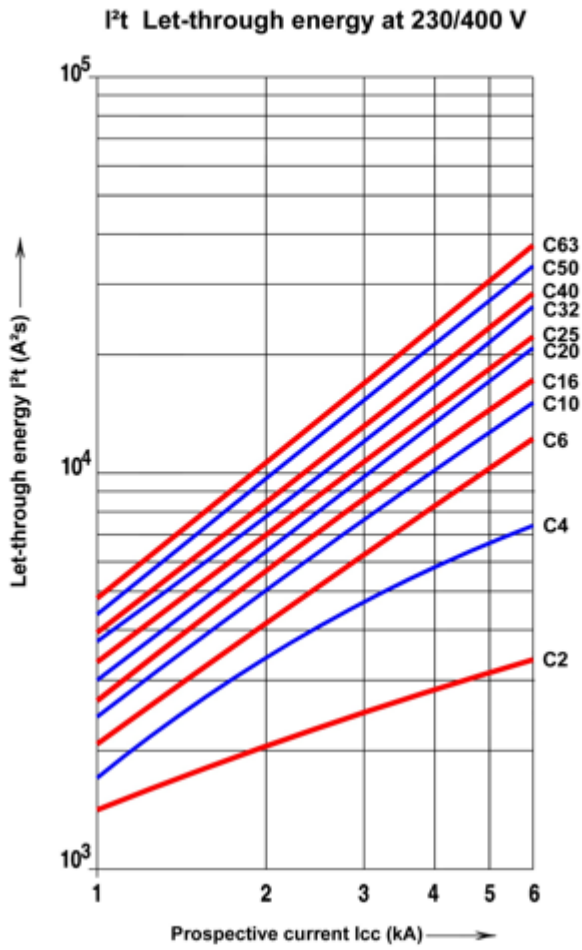
3 Pole Range

| Part No. | Current (A) | Watt Loss W (Min) | Watt Loss W (Max) |
|----------|-------------|----------------------|----------------------|
| CBW3006S | 6A | 3.03 | 3.63 |
| CBW3010S | 10A | 4.32 | 5.07 |
| CBW3016S | 16A | 5.67 | 6.12 |
| CBW3020S | 20A | 5.76 | 6.42 |
| CBW3025S | 25A | 6.69 | 7.17 |
| CBW3032S | 32A | 6.12 | 7.77 |
| CBW3040S | 40A | 7.26 | 9.21 |
| CBW3050S | 50A | 7.5 | 8.79 |
| CBW3063S | 63A | 10.35 | 16.44 |

Time Current Curve

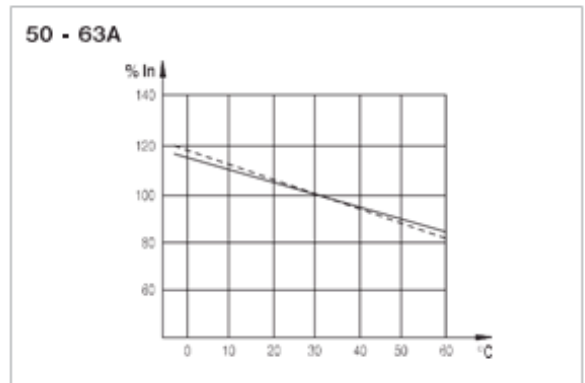
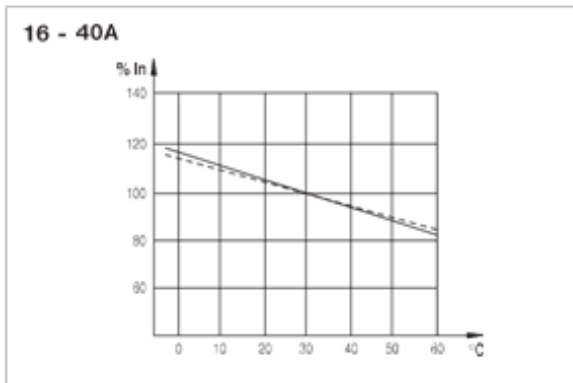
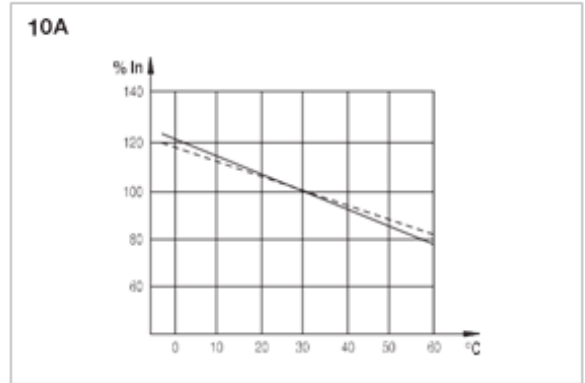
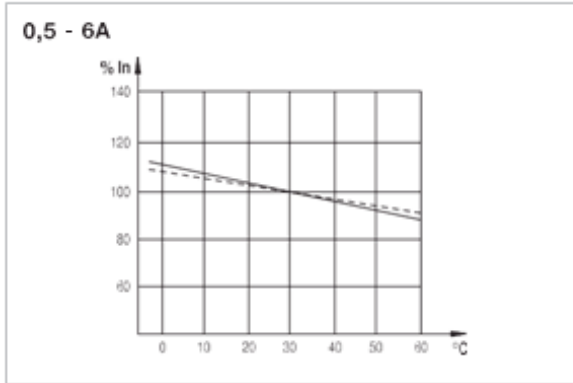


Energy Limited & Energy Peak Current Curves 6kA (1 Pole & 3 Pole)



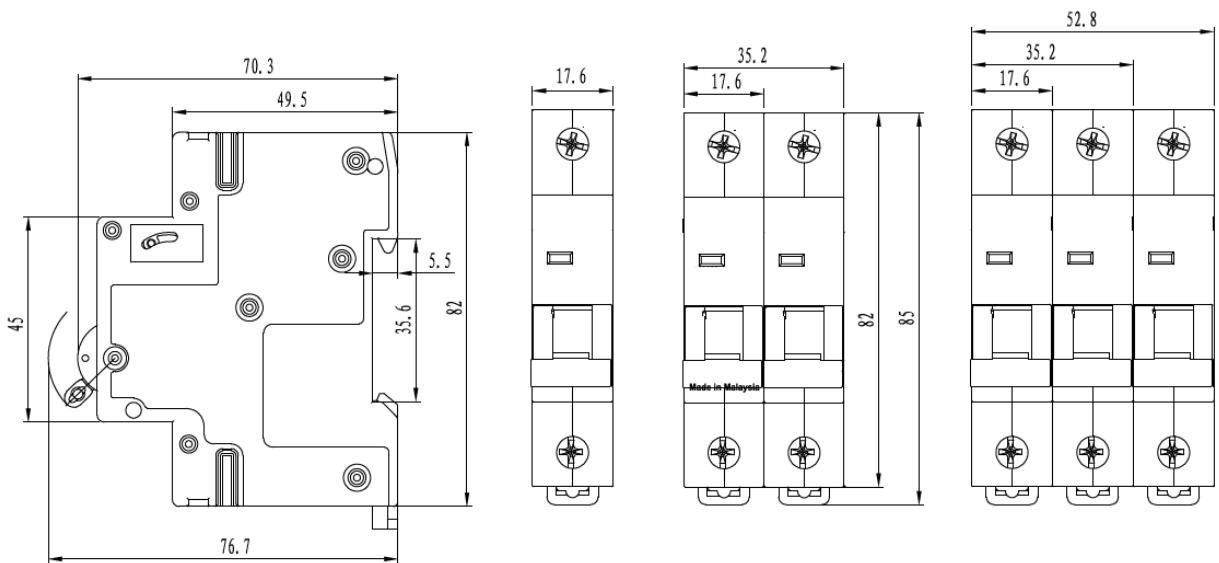
Influence of Ambient Air Temperature on Rated Current

The thermal calibration of the MCBs was carried out at ambient temperature of 30°C. Ambient temperatures different from 30°C can influence the bimetal and this results in earlier or later thermal tripping.



———— : 1P (Single pole)
 - - - - - : mP (Multipole)

Dimension Diagrams



Cascade (Back-up)/Selectivity Tables

The Cascade and Selectivity tables shown in the following pages are verified according to AS/NZS 60947.

Back-up - Upstream MCCB/Downstream MCB

Voltage 230/240V, Icc max. In kA

| Downstream | | | Upstream | |
|------------|----|----------|------------|-------------|
| | | | MCCB3160FH | MCCB3250JTM |
| Icu(kA) | | | 50kA | 50kA |
| Type | kA | In (A) | | |
| CBW__S | 6 | 0.5 - 63 | 25 | 30 |
| CBW__H | 10 | 0.5 - 63 | 36 | 36 |

Voltage 400/415V, Icc max. In kA

| Downstream | | | Upstream | |
|------------|----|----------|------------|-------------|
| | | | MCCB3160FH | MCCB3250JTM |
| Icu(kA) | | | 50kA | 50kA |
| Type | kA | In (A) | | |
| CBW__S | 6 | 0.5 - 63 | 25 | 30 |
| CBW__H | 10 | 0.5 - 63 | 36 | 36 |

Selectivity / Discrimination Table 1

| Downstream | Upstream | In (A) | MCCB | | | | | | | | | | | |
|--|----------|--------|----------|------|------|------|-----------------------|------|------|-----|-----------------|------|-----|-----|
| | | | G- Frame | | | | F- Frame (25kA, 36kA) | | | | F- Frame (50kA) | | | |
| | | | 16A | 20A | 25A | 32A | 16A | 20A | 25A | 32A | 25A | 32A | 40A | 50A |
| Selectivity limit in kA ⁽¹⁾ | | | | | | | | | | | | | | |
| MCB, RCBO QP,DQ,DN,DNB RGP,ODN | ≤6 | 0.16 | 0.2 | 0.25 | 0.32 | 0.16 | 0.2 | 0.25 | 0.32 | 0.2 | 0.26 | 0.32 | 0.5 | |
| | 10 | -- | 0.2 | 0.25 | 0.32 | -- | 0.2 | 0.25 | 0.32 | 0.2 | 0.26 | 0.32 | 0.5 | |
| | 16 | -- | -- | -- | 0.32 | -- | -- | -- | 0.32 | -- | 0.26 | 0.32 | 0.5 | |
| | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.32 | 0.5 | |
| | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.5 | |
| MPCB | ≤6 | 0.16 | 0.2 | 0.25 | 0.32 | 0.16 | 0.2 | 0.25 | 0.32 | 0.2 | 0.26 | 0.32 | 0.5 | |
| | 10 | -- | 0.2 | 0.25 | 0.32 | -- | 0.2 | 0.25 | 0.32 | 0.2 | 0.26 | 0.32 | 0.5 | |
| | 16 | -- | -- | -- | 0.32 | -- | -- | -- | 0.32 | -- | 0.26 | 0.32 | 0.5 | |
| | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.32 | 0.5 | |
| | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.5 | |
| MCCB G FRAME, F FRAME | 16 | -- | -- | -- | 0.32 | -- | -- | -- | 0.32 | -- | 0.26 | 0.32 | 0.5 | |
| | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.5 | |
| | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.5 | |
| | 25 | -- | -- | -- | 0.32 | -- | -- | -- | 0.32 | -- | -- | -- | 0.5 | |
| | 32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |

Selectivity / Discrimination Table 2

| | | MCCB | | | | | | | | | | | | | | | | | |
|--------------------------------------|------------|--|-----|-----|-----|------|-----------------------|-----|-----|-----|-----|-----------------|------|-----|-----|-----|-----|------|------|
| | | G- Frame | | | | | F- Frame (25kA, 36kA) | | | | | F- Frame (50kA) | | | | | | | |
| Upstream | Downstream | 40A | 50A | 63A | 80A | 100A | 125A | 40A | 50A | 63A | 80A | 100A | 125A | 40A | 50A | 63A | 80A | 100A | 125A |
| | | 160A | | | | | 160A | | | | | 160A | | | | | | | |
| | | Selectivity limit In kA ⁽¹⁾ | | | | | | | | | | | | | | | | | |
| MCB, RCBO QP,DQ,DN,DNB RQP,ODN | ≤16 | 0.6 | 2.5 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 20 | 0.6 | 2.5 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 25 | -- | 0.8 | 1.2 | T | T | T | 1.6 | T | T | T | T | T | 1.6 | T | T | T | T | T |
| | 32 | -- | -- | 1.2 | 3 | T | T | -- | -- | T | T | T | T | -- | -- | T | T | T | T |
| MPCB | ≤20 | 0.6 | 2.5 | 6 | 6 | 10 | T | 10 | 10 | T | T | T | T | 10 | 10 | T | T | T | T |
| | 25 | -- | 1 | 1.2 | 6 | 6 | T | -- | 3.5 | 15 | 15 | T | T | -- | 3.5 | 15 | 15 | T | T |
| | 32 | -- | -- | 1.2 | 3 | 6 | 10 | -- | -- | 6 | 6 | T | T | -- | -- | 6 | 6 | T | T |
| | 40 | -- | -- | -- | 3 | 4 | 6 | -- | -- | -- | 6 | T | T | -- | -- | -- | 6 | T | T |
| | 50 | -- | -- | -- | 1.2 | 1.6 | 6 | -- | -- | -- | 3.5 | T | T | -- | -- | -- | 3.5 | T | T |
| 63 | -- | -- | -- | -- | 1.6 | 2 | -- | -- | -- | -- | 8 | T | -- | -- | -- | -- | 8 | T | |
| MCCB G FRAME, F FRAME | ≤25 | 0.4 | 0.5 | 0.6 | 0.8 | 1 | 1.3 | 0.6 | 0.8 | 0.9 | 1.2 | 1.5 | 3.5 | 0.6 | 0.8 | 0.9 | 1.2 | 1.5 | 3.5 |
| | 32 | -- | 0.5 | 0.6 | 0.8 | 1 | 1.3 | -- | 0.8 | 0.9 | 1.2 | 1.5 | 3.5 | -- | 0.8 | 0.9 | 1.2 | 1.5 | 3.5 |
| | 40 | -- | -- | -- | 0.8 | 1 | 1.3 | -- | -- | -- | 1.2 | 1.5 | 3.5 | -- | -- | -- | 1.2 | 1.5 | 3.5 |
| | 50 | -- | -- | -- | 0.8 | 1 | 1.3 | -- | -- | -- | 1.2 | 1.5 | 3.5 | -- | -- | -- | 1.2 | 1.5 | 3.5 |
| | 63 | -- | -- | -- | -- | 1 | 1.3 | -- | -- | -- | -- | 1.5 | 3.5 | -- | -- | -- | -- | 1.5 | 3.5 |
| | 80 | -- | -- | -- | -- | -- | 1.3 | -- | -- | -- | -- | -- | 3.5 | -- | -- | -- | -- | -- | 3.5 |

Selectivity / Discrimination Table 3

| | | MCCB | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|------------|--|-----|------|------|-----------------|------|------|------|----------|------|------|-----|-----------------|------|------|------|------|------|------|------|------|
| | | Fr Frame (25kA, 36kA) | | | | F- Frame (50kA) | | | | F- Frame | | | | J- Frame (50kA) | | | | | | | | |
| Upstream | Downstream | 63A | 80A | 100A | 125A | 160A | 100A | 125A | 160A | 63A | 125A | 160A | 63A | 125A | 160A | 125A | 160A | 200A | 250A | 125A | 160A | 250A |
| | | Selectivity limit In kA ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | |
| MCB, RCBO QP,DQ,DN,DNB RQP,ODN | ≤20 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | 25 | 1.2 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | 32 | 1.2 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | 40 | -- | 3 | 4 | T | T | T | T | -- | T | T | T | T | T | T | T | T | T | T | T | T | |
| MPCB | ≤20 | 6 | 6 | 10 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | 25 | 1.2 | 6 | 6 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | |
| | 32 | 1.2 | 3 | 6 | 10 | 10 | T | T | T | T | T | 10 | T | T | T | T | T | T | T | T | T | |
| | 40 | -- | -- | 4 | 6 | 6 | T | T | T | T | T | 6 | 10 | T | T | T | T | T | T | T | T | |
| | 50 | -- | -- | 1.6 | 6 | 6 | T | T | T | -- | T | 6 | 6 | 10 | T | T | T | T | T | T | T | |
| 63 | -- | -- | -- | 2 | 2 | -- | T | T | -- | T | 2 | 6 | 6 | T | T | T | T | T | T | T | T | |
| MCCB G FRAME, F FRAME | ≤40 | 0.6 | 0.8 | 1 | 1.2 | 1.6 | 30 | 30 | 30 | 36 | 36 | 36 | 1.6 | 2 | 2.5 | 42 | 42 | 42 | 42 | 50 | 50 | |
| | 50 | -- | 0.8 | 1 | 1.2 | 1.6 | 30 | 30 | 30 | -- | 36 | 36 | 1.6 | 2 | 2.5 | 42 | 42 | 42 | 42 | 50 | 50 | |
| | 63 | -- | -- | 1 | 1.2 | 1.6 | 30 | 30 | 30 | -- | 36 | 36 | 1.6 | 2 | 2.5 | 42 | 42 | 42 | 42 | 50 | 50 | |
| | 80 | -- | -- | -- | 1.2 | 1.6 | -- | 30 | 30 | -- | 36 | 36 | 1.6 | 2 | 2.5 | 42 | 42 | 42 | 42 | 50 | 50 | |
| | 100 | -- | -- | -- | -- | 1.6 | -- | -- | 30 | -- | -- | 36 | 1.6 | 2 | 2.5 | -- | 42 | 42 | 42 | -- | 50 | |
| | 125 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2 | 2.5 | -- | -- | 42 | 42 | -- | -- | 50 | |
| | 160 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.5 | -- | -- | -- | 42 | -- | -- | -- | 50 | |

(1) Where T is mentioned Selectivity is Full up until the Icu of the downstream device.

Selectivity / Discrimination Table 4

| Upstream | | MCCB | | | | | | | | | | | | | | | |
|--------------------------------------|---------|--|-----|-----|-----------------|------|------|---------|------|------|-----------------|------|-----------------|------|------|------|------|
| | | F-Frame | | | J-Frame Thermal | | | J-Frame | | | K-Frame Thermal | | K-Frame Thermal | | | | |
| Downstream | | Selectivity limit in kA ⁽¹⁾ | | | | | | | | | | | | | | | |
| | | In (A) | 63A | 80A | 160A | 125A | 160A | 200A | 250A | 125A | 160A | 250A | 250A | 350A | 400A | 400A | 500A |
| MCB, RCBO QP,DQ,DN,DNB RQP,ODN | ≤16 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 20 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 25 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 32 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 40 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 50 | -- | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 63 | -- | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| MPCB | ≤25 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 32 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 40 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 50 | -- | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 63 | -- | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | ≤25 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 32 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| MCCB G FRAME, F FRAME | ≤40 | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 50 | -- | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 63 | -- | T | T | T | T | T | T | T | T | T | T | T | T | T | T | T |
| | 80 | -- | -- | T | -- | T | T | T | T | T | T | T | T | T | T | T | T |
| | 100 | -- | -- | T | -- | -- | T | T | -- | T | T | T | T | T | T | T | T |
| | 125 | -- | -- | -- | -- | -- | T | T | -- | -- | T | T | T | T | T | T | T |
| | 160 | -- | -- | -- | -- | -- | -- | T | -- | -- | T | T | T | T | T | T | T |
| MCCB J FRAME | 125 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.5 | 10 | 15 | T | T | T | T |
| | 160 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.5 | 10 | 15 | T | T | T | T |
| | 200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 | 15 | T | T | T | T |
| | 250 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10 | 15 | T | T | T | T |
| MCCB K FRAME | 250 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5 | 6 | 5 | 7 | 7 | 7 |
| | 350-400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7 |

Selectivity / Discrimination

| Upstream | | L-Frame | |
|--------------------------------------|------------|---------|----|
| | | 800A | |
| Downstream | | In (A) | |
| MCB, RCBO QP,DQ,DN,DNB RQP,ODN | | ALL | T |
| | | | |
| MPCB | | ALL | T |
| MCCB G FRAME | Trip Units | ALL | T |
| MCCB F FRAME | Trip Units | ALL | T |
| MCCB J FRAME | Trip Units | ALL | T |
| MCCB K FRAME | | 400 | T |
| | Trip Units | 500 | 15 |
| | | 630 | 15 |
| MCCB L FRAME | Trip Units | 800 | -- |