MCBs - 10kA 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, 3P
- Width: 1P = 17.6mm, 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 Ics: 7.5Ka
- Short circuit capacity Icn: 10Ka
- Connection Torque: 2.5Nm
- Standards: AS 60898.1

Product Images

Product Details

1 Pole Range

Part No.	Current (A)	Poles
CBW1002H	2A	1 Pole
CBW1004H	4A	1 Pole
CBW1006H	6A	1 Pole
CBW1010H	10A	1 Pole
CBW1016H	16A	1 Pole
CBW1020H	20A	1 Pole
CBW1025H	25A	1 Pole
CBW1032H	32A	1 Pole
CBW1040H	40A	1 Pole
CBW1050H	50A	1 Pole
CBW1063H	63A	1 Pole

3 Pole Range

Part No.	Current (A)	Poles
CBW3006H	6A	3 Pole
CBW3030H	10A	3 Pole
CBW3036H	16A	3 Pole
CBW3020H	20A	3 Pole
CBW3025H	25A	3 Pole
CBW3032H	32A	3 Pole
CBW3040H	40A	3 Pole
CBW3050H	50A	3 Pole
CBW3063H	63A	3 Pole

Watt Loss Data

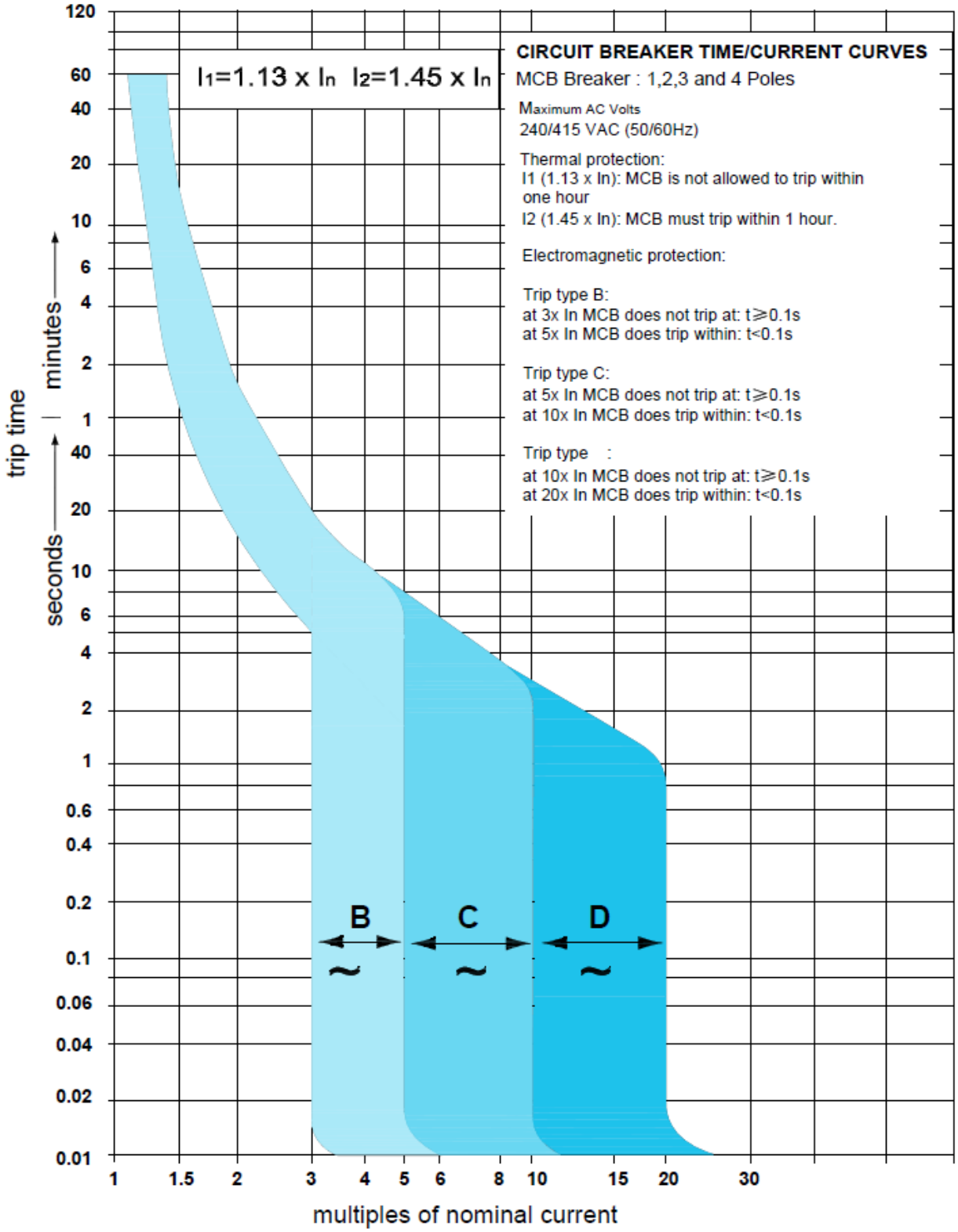
1 Pole Range

Part No.	Current (A)	Watt Loss W (Min)	Watt Loss W (Max)
CBW1002H	2A	1.04	1.07
CBW1004H	4A	1.30	1.36
CBW1006H	6A	0.96	1.06
CBW1010H	10A	1.65	1.72
CBW1016H	16A	1.92	2.14
CBW1020H	20A	2.09	2.3
CBW1025H	25A	1.76	2.76
CBW1032H	32A	2.16	2.36
CBW1040H	40A	2.42	2.92
CBW1050H	50A	2.09	3.26
CBW1063H	63A	3.32	4.4

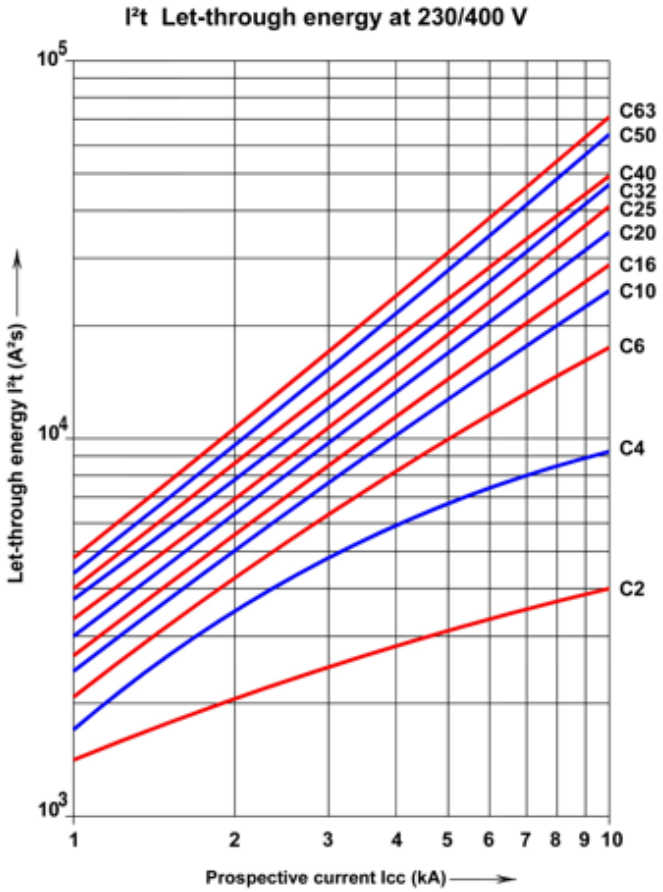
3 Pole Range

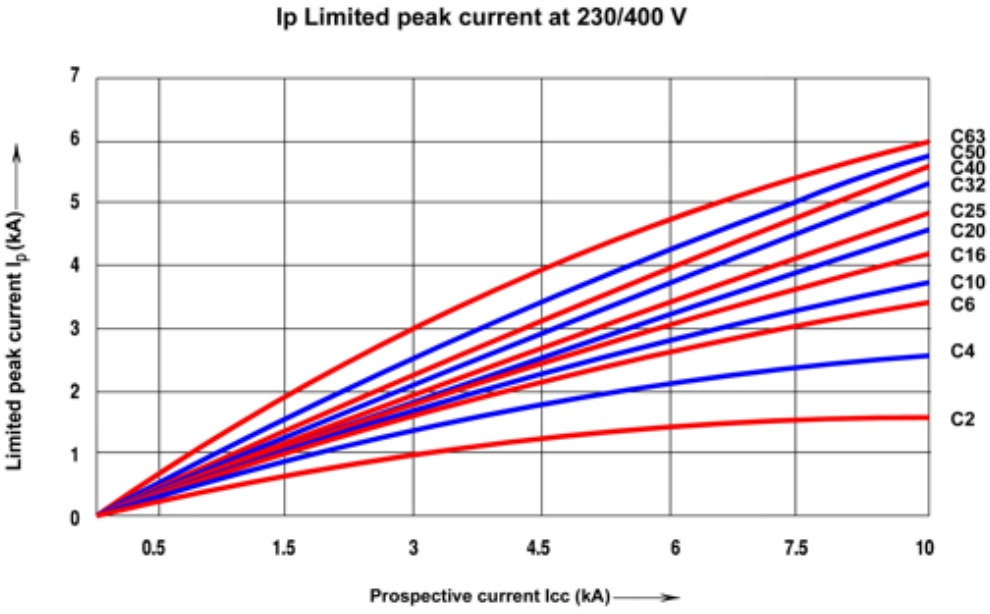
Part No.	Current (A)	Watt Loss W (Min)	Watt Loss W (Max)
CBW3006H	6A	8.64	3.18
CBW3010H	10A	4.95	5.16
CBW3016H	16A	5.76	6.42
CBW3020H	20A	6.27	6.9
CBW3025H	25A	5.28	8.28
CBW3032H	32A	6.48	7.08
CBW3040H	40A	7.26	8.76
CBW3050H	50A	6.27	9.78
CBW3063H	63A	9.96	13.2

Time Current Curve



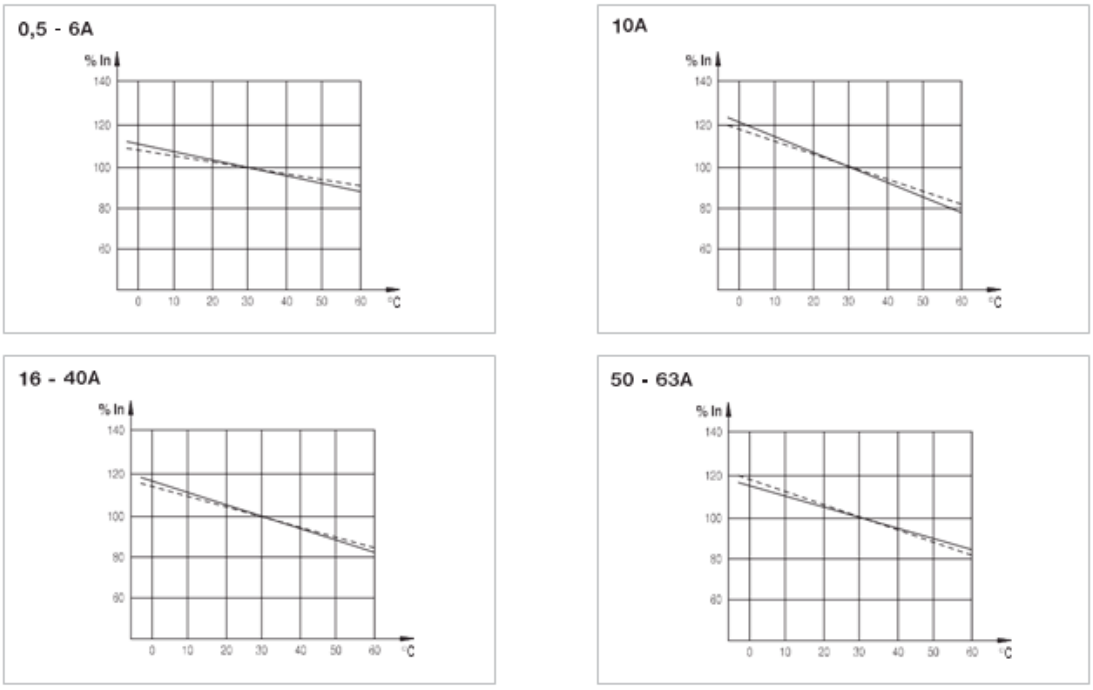
Energy Limited & Energy Peak Current Curves 10kA (1 Pole & 3 Pole)



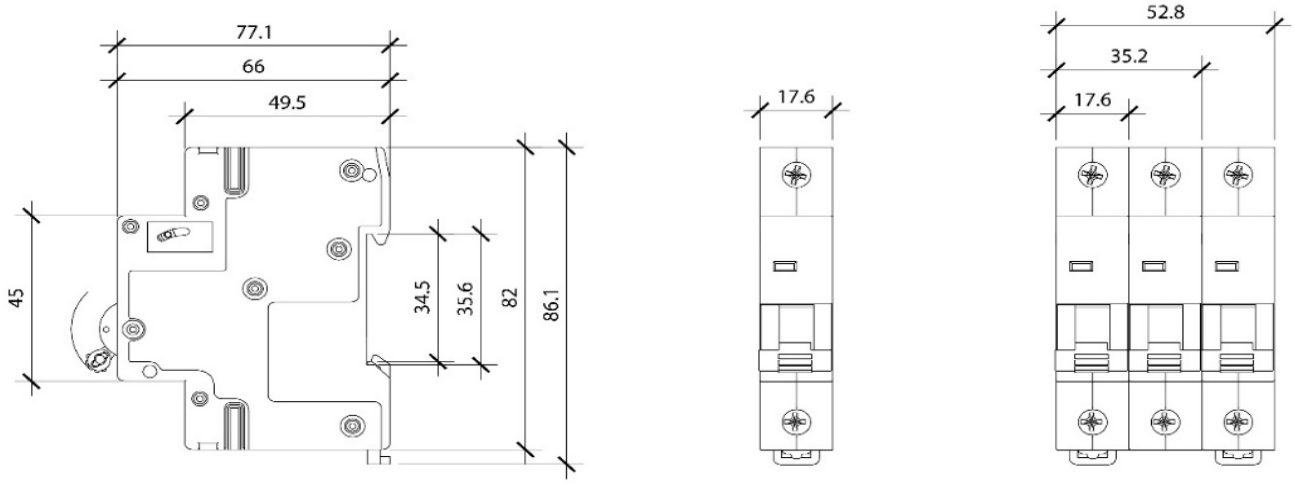


Influence of Ambient Air Temperature on Rated Current

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.



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

Upstream / Downstream	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 RQP,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
	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

Upstream / Downstream	In (A)	MCCB																	
		G- Frame						F- Frame (25kA, 36kA)						F- Frame (50kA)					
		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

Upstream / Downstream	In (A)	MCCB																			
		Fr Frame (25kA, 36kA)							F- Frame (50kA)			F- Frame						J- Frame, (50kA)			
		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	T
	25	1.2	T	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	T
	40	--	3	4	T	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	T
	25	1.2	6	6	T	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	T	10	T	T	T	T	T	T	T	T	T
	40	--	--	4	6	6	T	T	T	T	T	T	6	10	T	T	T	T	T	T	T	T
	50	--	--	1.6	6	6	T	T	T	--	T	T	6	6	10	T	T	T	T	T	T	T
	63	--	--	--	2	2	--	T	T	--	T	T	2	6	6	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
	50	--	0.8	1	1.2	1.6	30	30	30	--	36	36	1.6	2	2.5	42	42	42	42	50	50	50
	63	--	--	1	1.2	1.6	30	30	30	--	36	36	1.6	2	2.5	42	42	42	42	50	50	50
	80	--	--	--	1.2	1.6	--	30	30	--	36	36	1.6	2	2.5	42	42	42	42	50	50	50
	100	--	--	--	--	1.6	--	--	30	--	--	36	1.6	2	2.5	--	42	42	42	--	50	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 olthe downstream device.

Selectivity / Discrimination Table 4

Upstream / Downstream	In (A)	MCCB															
		F- Frame			J- Frame Thermal				J- Frame			K- Frame Thermal			K- Frame Thermal		
		63A	80A	160A	125A	160A	200A	250A	125A	160A	250A	250A	350A	400A	400A	500A	630A
		Selectivity limit in kA[1]															
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
	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
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
	160	--	--	--	--	--	--	--	--	--	--	3.5	10	15	T	T	T
	200	--	--	--	--	--	--	--	--	--	--	--	10	15	T	T	T
	250	--	--	--	--	--	--	--	--	--	--	--	10	15	T	T	T
MCCB K FRAME	250	--	--	--	--	--	--	--	--	--	--	--	5	6	5	7	7
	350-400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7

Selectivity / Discrimination

Downstream \ Upstream		In (A)	L- Frame 800A
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	Trip Units	ALL	T
		400	T
	Trip Units	500	15
		630	15
MCCB L FRAME	Trip Units	800	--