TERASAKI
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NHP

TemBreak PRO

Cascading and Selectivity

Moulded Case Circuit Breakers Tables

TECH DATA

Version

2.0.1

Summary of Changes

This section highlights the details of changes made since the previous issue of this document.

The versioning convention used to track changes in this document follows the structure V**x.y.z** where:

x: Major revision, where extensive changes are made which is generally incompatible with the previous version. Such changes may include new products and/or features, or removal of information which is no longer relevant or applicable to the previous version

y: Minor revision, where changes made do not change the overall scope of the previous version, but may include additional information which complements or corrects the previous version, or provides additional clarity on an existing topic.

z: Patch version, where small changes are made to correct minor errors or adjust existing text, charts, figures and/or images, and which do not add or remove information from the previous version. Example changes may include spelling corrections, image re-sizing and adjustments, updated images, etc.

Version	Publication date	Changes	By
V 1.0.0	29-Apr-2021	Initial release	N.ALEX
V 1.1.0	10-June-2021	Corrections to Part Number Break Down, typo fixes and further verified combinations, clarified that quoted selectivity values are based on I_n	N.ALEX
V 1.2.0	27-Sept-2021	Added ZS Cascading and Selectivity, added ACB to MCCB Selectivity, fixed typo on Part Number Break Down, corrections/additions to Available MCCBs, corrections to A250F available trip units, added more explanations around selectively and how the tables are to be used.	N.ALEX
V 1.2.1	28-Sept-2021	Typo and spelling corrections	N.ALEX
V 2.0.0	07-March-2022	Reformatted tables, layout, headings, document flow, Added A250_200TM columns, Added DSRCBT, M6RCBT, M6RCBF,, Added refers to DSRCM results being based on the MCB its mounted to, Concept Isolator Selectivity tables added.	N.ALEX
V 2.0.1	30-March-2022	Fixed typo on Concept Isolator with DTCB15	N.ALEX

Table of Contents

Introduction

The technical data in this document relates to cascading and selectivity of TemBreak PRO with Din-T, Din-Safe and MOD6 MCBs and RCBOs.
This document provides data for the following MCCB models:

- A160, A250
- P160, P250, P400, P630
- B160, B250, B400, B800, B1000, B1250, B1600
- XS2000, XS2500, XS3200
- ZS125, ZS250
- Concept Isolator (Not a TemBreak PRO product)

What is Cascading and Selectivity

Two common terminologies relating to general power back-up and system protection are: Selectivity (Discrimination) and Cascading (Back-up).
In general terms, Selectivity is used to improve system reliability and to ensure a continuous supply of power to as high a degree as possible for critical systems. Cascading on the other hand is where an upstream breaker is used to "back-up" a lower kA breaker installed downstream to clear a fault current, and is generally applied to non-critical load applications, or where economics plays a significant part in system design.

Selectivity

Selectivity, also known as 'discrimination', is associated with continuity of supply. The concept of selectivity is to ensure the device immediately upstream of the fault, interrupts the fault. This maintains a continuous supply to parts of the system that are fault free.

Cascading (or Back-up)

Cascading can be utilised when the potential fault that a down-stream device has to interrupt is larger than its breaking capacity. It involves the co-ordination of two devices in series being used to interrupt the fault as opposed to the downstream device alone.
The technique of cascading is used in applications where the protective devices are feeding non-essential loads.
The reason being, that in order for an upstream device to cascade with or 'back-up' a downstream device it may have to trip.
The technique is a recognised method for fault interruption, being stated in standards such as AS60947-2 (IEC 60947-2) for circuit breakers and AS61439 for switchboard assemblies.

Cascade/Selectivity tables

The Cascade and Selectivity tables shown in the following pages are verified according to AS/NZS 60947.
The data in these tables is to be used in conjunction with a desk study comparing the circuit break curve data. Software tools like TemCurve and PowerCAD can assist with these studies.

Additional Resources

The following resources also contain this information.

Resource	Description
NHP/Terasaki TemBreak *PRO* MCCB Brochure TemBreakPRO-BRO-001-EN	Brochure providing a range overview, high level data, and product features & benefits
NHP/Terasaki TemBreak *PRO* Technical Catalogue NHP-TECH-PDP-CP-2020-11-27-EN	Catalogue for product selection and technical data

Terminology and Abbreviations

Abbreviation	Description	Abbreviation	Description
Calibrated Temperature	Temperature Rating for Thermal Magnetic MCCBs	**MCCB**	Moulded Case Circuit Breaker
Rated Temperature	Temperature Rating for Electronic and Non-Auto MCCBs		
TM	Adjustable Thermal and Adjustable Magnetic	**FF**	Fixed Thermal and Fixed Magnetic
FM	Fixed Thermal and Adjustable Magnetic	**TF**	Adjustable Thermal and Fixed Magnetic
BE	Basic Electronic Trip Unit (dial type, **LSI** and **LSIG**)	**SE**	Smart Energy Trip Unit
MCR	Make Current Release	**SX**	Smart Ammeter Trip Unit
LSI	Long Time, Short Time and Instantaneous Protection	**LSIG**	Long Time, Short Time, Instantaneous and Ground Fault Protection
I_n	Rated Current	**AF**	Ampere Frame
I_{cu}	Ultimate Breaking Capacity		
Desk Study	Discrimination Study (AS/NZS 3000) Coordination Study (AS/NZS 3000) Desk Study (AS/NZS IEC 60947-2) Time/Current Curve Comparison		

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Product Information

Part Number Break Down

P	160	F	2	4	160	BE	G
a)	b)	c)	d)	e)	f)	g)	h)

a) Model Type

A	Basic applications (160…250 A)
P	Mid to advanced applications (160…630 A)
B	High current, high kA applications (160…1600 A)
ZS	Earth Leakage applications (125…250 A)
XS	Highest current applications (2000…3200 A)

b) Ampere Frame

125	A
160	A
250	A
400	A
630	A
800	A
1000	A
1250	A
1600	A
2000	A
2500	A
3200	A

c) Short Circuit Break Capacity I_{cu} (kA)

R	200 kA
L	150 kA
P	125 kA
S	110 kA
G	100 kA
HL	85 kA
H	70 kA
M	65 kA
N	50 kA
F	36 kA
E	25 kA
D	Switch

d) Pole Pitch Size (mm) 1)

1	25
2	30
3	35

e) No. of Poles

1	7)
2	8)
3	
4	

f) Trip Unit Rating (I_n)

I_n	x A

g) Trip Unit Type

TF	Adj Thermal Fix Magnetic 4)
FF	Fix Thermal Fix Magnetic
TM	Adj Thermal Adj Magnetic
SX	Smart Ammeter 5) 6)
BE	Basic Electronic 6)
SE	Smart Energy 6)
NN	Non-Auto Switch

h) Trip Unit Option

G	Ground Fault 2)
N	Neutral 2)
P	Pre-Trip Alarm 3)
SN	Solid Neutral 9)

Notice: Not all combinations are possible. Confirm part number combination with NHP for availability.

1. 160AF only
2. For P_SE versions these features are standard and therefore are not added to the end of the part number.
3. PTA is standard with P electronic models and therefore P is not added to the end of the part number.
4. Only available in A & ZS models
5. Only available in B models
6. Not available in A and ZS models
7. Only available in A and B models (FF Only Trip Unit)
8. Not available in A and B models (FF Only Trip Unit)
9. ZS Models

Product Information

Available MCCBs in the TemBreak *PRO* range:

Rating Short Circuit Break Capacity (kA)		Frame Size										
		160	250	400	630	800	1000	1250	1600	2000	2500	3200
E	*25*	A160E – TF A160E – FF B160E – FF	A250E – TM	P400E-TM	P630E – TM							
F	*36*	A160F – TF P160F – FF P160F – TM P160F – BE P160F – BEG P160F – SE	A250F – TM P250F – TM P250F – BE P250F – BEG P250F – SE	P400F – TM P400F – BE P400F – BEG P400F – SE	P630F – TM P630F – BE P630F – BEG P630F – SE	B800F – TM						
N	*50*	P160N – TM P160N – BE P160N – BEG P160N – SE	P250N – TM P250N – BE P250N – BEG P250N – SE	P400N – TM P400N – BE P400N – BEG P400N – SE	P630N – TM P630N – BE P630N – BEG P630N – SE	B800N – TM B800N – BE B800N – SX B800N – SE	B1000N – BE B1000N – BEG B1000N – SX B1000N – SE	B1250N – BE B1250N – BEG	B1600N – BE B1600N – BEG			
H	*70*	P160H – TM P160H – BE P160H – BEG P160H – SE	P250H – TM P250H – BE P250H – BEG P250H – SE	P400H – TM P400H – BE P400H – BEG P400H – SE	P630H – TM P630H – BE P630H – BEG P630H – SE	B800H – TM B800H – BE B800H – BEG B800H – SX B800H – SE	B1000H – BE B1000H – BEG B1000H – SX B1000H – SE	B1250H – BE B1250H – BEG				
HL	*85*							B1250HL – BE B1250HL – BEG	B1600HL – BE B1600HL – BEG	XS2000HL – BE XS2000HL – BEG	XS2500HL – BE XS2500HL – BEG	XS3200HL – BE
G	*100*					B800G – TM B800G – BE B800G – BEG B800G – SX B800G – SE						
S	*110*			P400S – TM P400S – BE P400S – BEG P400S – SE	P630S – TM P630S – BE P630S – BEG P630S – SE							
P	*125*	B160P – TM	B250P – TM B250P – BE B250P – SE	B400P – BE B400P – BEG		B800P – BE B800P – BEG B800P – SX B800P – SE						
R	*200*	B160R – TM	B250R – TM	B400R – BE B400R – BEG		B800R – BE B800R – BEG B800R – SX B800R – SE						
D	*Switch*	A160D – NN P160D – NN	A250D – NN P250D – NN	P400D – NN	P630D – NN	B800D – NN	B1000D – NN	B1250D – NN	B1600D – NN	XS2000D – NN	XS2500D – NN	

Cascading

ZS125, A160, P160

Cascading refers to a design verified combination of circuit breakers where, both breakers have been verified to work safely in short circuit level higher than the downstream I_{cu} ratings. Whenever there is a dash "-" this means the combination can be safely used ONLY up to the lower I_{cu} rating of both devices.

MCCB to MCB

Upstream MCCBs				ZS125M TF	A160E FF	A160E TF	A160F TF	P160F FF	P160F TM, BE, SE	P160N TM, BE, SE	P160H TM, BE, SE
Downstream MCB, C or D curve		kA (rms 415V)		65	25	25	36	25	36	50	70
			I_n (A)	20 - 125	16 - 125	25 – 160	25 – 160	15 – 125	20 – 160	20 – 160	20 – 160
MOD6	MCB	6	6 – 63	-	25	25	25	25	25	25	25
DTCB6	MCB	6	2 – 63	-	25	25	36	25	36	36	36
DTCB10	MCB	10	0.5 – 63	36	25	25	36	25	36	50	50
DTCB15	MCB	15	0.5 – 63	36	25	25	36	25	36	50	50
DTCB10H	MCB	16	80 – 125	36	25	25	36	25	36	50	70

MCCB to RCBO

Upstream MCCBs				ZS125M TF	A160E FF	A160E TF	A160F TF	P160F FF	P160F TM, BE, SE	P160N TM, BE, SE	P160H TM, BE, SE
Downstream RCBO		kA (rms 415V)		65	25	25	36	36	36	50	70
			I_n (A)	20 - 125	16 – 125	25 – 160	25 – 160	15 - 125	20 – 160	20 –160	20 – 160
M6 RCBS_CAN	RCBO	6	6 – 32	-	25	25	25	25	25	25	25
DSRCBS_CAN	RCBO	6	6 – 32	-	25	25	36	36	36	36	36
MOD6 RCBO1_AL	RCBO	6	10 – 32	-	25	25	25	25	25	25	25
DSRCBH 6 kA	RCBO	6	6 – 40	-	25	25	36	36	36	36	36
MOD6 RCBO2	RCBO	6	6 – 40	-	25	25	25	25	25	25	25
DSRCB_AI	RCBO	6	6 – 40	36	25	25	36	36	36	50	50
M6RCBF	RCBO	6	6 – 32	-	-	-	-	-	-	-	-
M6RCBT	RCBO	6	6 – 63	-		25	25		25	25	25
DSRCBH 10 kA	RCBO	10	6 – 40	36	25	25	36	36	36	36	36
DSRCB_A DSRCB_P	RCBO	10	6 – 40	36	25	25	36	36	36	50	50
DSRCBT	RCBO	10	6 – 63	-		25	36		36	36	36
DSRCM	RCD	N/A	32 – 63	Refer to the attached MCB's Results							

Notice: These tables are referencing verified data only.
NHP are continuing to improve and verify further combinations.

Cascading

A250, P250, ZS250

Cascading refers to a design verified combination of circuit breakers where, both breakers have been verified to work safely in short circuit level higher than the downstream I_{cu} ratings. Whenever there is a dash "-" this means the combination can be safely used ONLY up to the lower I_{cu} rating of both devices.

MCCB to MCB

Upstream MCCBs				A250E TM	A250F TM	P250F TM, BE, SE	P250N TM, BE, SE	P250H TM, BE, SE	ZS250M TF
Downstream MCB, C or D curve		kA (rms 415V)		25	36	36	50	70	65
			I_n (A)	100 – 250	160 – 250	40 – 250	40 – 250	40 – 250	160 - 250
MOD6	MCB	6	6 – 63	20	20	25	25	25	-
DTCB6	MCB	6	2 – 63	20	20	36	36	36	-
DTCB10	MCB	10	0.5 – 63	25	36	36	50	50	36
DTCB15	MCB	15	0.5 – 63	25	36	36	50	50	36
DTCB10H	MCB	16	80 – 125	25	36	36	50	50	36

MCCB to RCBO

Upstream MCCBs				A250E TM	A250F TM	P250F TM, BE, SE	P250N TM, BE, SE	P250H TM, BE, SE	ZS250M TF
Downstream RCBO		kA (rms 415V)		25	36	36	50	70	65
			I_n (A)	100 – 250	160 – 250	40 – 250	40 – 250	40 – 250	160 - 250
M6 RCBS_CAN	RCBO	6	6 – 32	20	20	25	25	25	-
DSRCBS_CAN	RCBO	6	6 – 32	20	20	36	36	36	-
MOD6 RCBO1_AL	RCBO	6	10 – 32	20	25	25	25	25	-
DSRCBH 6 kA	RCBO	6	6 – 40	25	36	36	36	36	-
MOD6 RCBO2	RCBO	6	6 – 40	25	25	25	25	25	-
DSRCB_AI	RCBO	6	6 – 40	25	36	36	36	36	36
M6RCBF	RCBO	6	6 – 32	-	-	-	-	-	-
M6RCBT	RCBO	6	6 – 63	25	25	25	25	25	-
DSRCBH 10 kA	RCBO	10	6 – 40	25	36	36	36	36	36
DSRCB_A DSRCB_P	RCBO	10	6 – 40	25	36	36	36	36	36
DSRCBT	RCBO	10	6 – 63	25	36	36	36	36	-
DSRCM	RCD	N/A	32 – 63	Refer to the attached MCB's Results					

Notice: These tables are referencing verified data only.
NHP are continuing to improve and verify further combinations.

Cascading

P400

Cascading refers to a design verified combination of circuit breakers where, both breakers have been verified to work safely in short circuit level higher than the downstream I_{cu} ratings. Whenever there is a dash "-" this means the combination can be safely used ONLY up to the lower I_{cu} rating of both devices.

MCCB to MCB

Upstream MCCBs				P400E TM, BE, SE	P400F TM, BE, SE	P400N TM, BE, SE	P400H TM, BE, SE	P400S TM, BE, SE
Downstream MCB, C or D curve		kA (rms 415V)		25	36	50	70	110
			I_n (A)	250 – 400	250 – 400	250 – 400	250 – 400	250 – 400
MOD6 MCB	MCB	6	6 – 63	-	-	-	-	-
DTCB6	MCB	6	2 – 63	-	-	-	-	-
DTCB10	MCB	10	0.5 – 63	25	36	50	50	50
DTCB15	MCB	15	0.5 – 63	25	36	50	50	50
DTCB10H	MCB	16	80 – 125	25	36	50	50	50

MCCB to RCBO

Upstream MCCBs				P400E TM, BE, SE	P400F TM, BE, SE	P400N TM, BE, SE	P400H TM, BE, SE	P400S TM, BE, SE
Downstream RCD, C curve		kA (rms 415V)		25	36	50	70	110
			I_n (A)	250 – 400	250 – 400	250 – 400	250 – 400	250 – 400
M6 RCBS_CAN	RCBO	6	6 – 32	-	-	-	-	-
DSRCBS_CAN	RCBO	6	6 – 32	-	-	-	-	-
MOD6 RCBO1_AL	RCBO	6	10 – 32	-	-	-	-	-
DSRCBH 6 kA	RCBO	6	6 – 40	-	-	-	-	-
MOD6 RCBO2	RCBO	6	6 – 40	-	-	-	-	-
DSRCB_AI	RCBO	6	6 – 40	25	36	36	36	36
M6RCBF	RCBO	6	6 – 32	-	-	-	-	-
M6RCBT	RCBO	6	6 – 63	-	-	-	-	-
DSRCBH 10 kA	RCBO	10	6 – 40	25	36	36	36	36
DSRCB_A DSRCB_P	RCBO	10	6 – 40	25	36	36	36	36
DSRCBT	RCBO	10	6 – 63	-	-	-	-	-
DSRCM	RCD	N/A	32 – 63	Refer to the attached MCB's Results				

Notice: These tables are referencing verified data only.
NHP are continuing to improve and verify further combinations.

Cascading

MCCB to MCCB

Thermal Magnetic Upstream

Cascading refers to a design verified combination of circuit breakers where, both breakers have been verified to work safely in short circuit level higher than the downstream I_{cu} ratings. Whenever there is a dash "-" this means the combination can be safely used **ONLY** up to the lower I_{cu} rating of both devices.

CASCADE @ 240 / 415 VAC			A160E_TF	A160F_TF	P160F_TM	P160N_TM	P160H_TM	B160P_TM	A250E_TM	A250F_TM	P250F_TM	P250N_TM	P250H_TM	B250P_TM	P400E_TM	P400F_TM	P400N_TM	P400H_TM	P400S_TM	P630E_TM	P630F_TM	P630N_TM	P630H_TM	P630S_TM	B800F_TM	B800N_TM	B800H_TM	B800G_TM
Downstream MCCB Trip unit [1]: TM, BE, SX, SE	**36**	**Icu kA**	**25**	**36**	**36**	**50**	**70**	**125**	**25**	**36**	**36**	**50**	**70**	**125**	**25**	**36**	**50**	**70**	**110**	**25**	**36**	**50**	**70**	**110**	**36**	**50**	**70**	**100**
A160E (1Pole)	160A 25 mm pole centres	**25**	-	-	36	36	36	70	-	36	36	36	36	70	-	36	36	36	36	-	36	36	36	36	-	-	-	-
A160E		**25**	-	-	36	36	36	70	-	36	36	36	36	70	-	36	36	36	36	-	36	36	36	36	-	-	-	-
A160F		**36**	-	-	-	50	70	85	-	-	-	50	70	85	-	-	50	50	50	-	-	50	50	50	-	-	-	-
ZS125M	125A 160A 30 mm pole centres	**65**	-	-	-	-	70	125	-	-	-	-	70	125	-	-	-	70	85	-	-	-	70	85	-	-	70	70
P160F		**36**	-	-	-	50	50	70	-	-	-	50	50	70	-	-	50	50	50	-	-	50	50	50	-	-	50	50
P160N		**50**	-	-	-	-	70	85	-	-	-	-	70	85	-	-	-	70	70	-	-	-	70	70	-	-	-	-
P160H		**70**	-	-	-	-	-	110	-	-	-	-	-	110	-	-	-	-	85	-	-	-	-	85	-	-	-	-
B160P 20-125A	250 AF 35 mm pole centres	**125**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B160P 160A		**125**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B160F (1Pole)		**25**	-	-	-	-	-	-	-	-	-	-	50	85	-	36	36	50	50	-	36	36	50	36	-	36	36	-
A250E		**25**	-	-	-	-	-	-	-	-	36	50	70	85	-	36	50	70	70	-	36	50	70	70	-	-	50	50
A250F		**36**	-	-	-	-	-	-	-	-	-	50	70	85	-	36	50	70	70	-	36	50	70	70	-	-	50	50
P250F		**36**	-	-	-	-	-	-	-	-	-	50	50	70	-	-	50	50	50	-	-	50	50	50	-	-	50	50
P250N		**50**	-	-	-	-	-	-	-	-	-	-	70	85	-	-	-	70	70	-	-	-	70	70	-	-	70	70
P250H		**70**	-	-	-	-	-	-	-	-	-	-	-	110	-	-	-	-	85	-	-	-	-	85	-	-	-	85
B250P		**125**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZS250M		**65**	-	-	-	-	-	-	-	-	-	-	70	125	-	-	-	70	85	-	-	-	70	85	-	-	70	70
P400E	400A 630A	**25**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	36	36	-	36	36	36	36	-	36	36	36
P400F		**36**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	50	50	-	-	50	50	50	-	50	50	50
P400N		**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	70	-	-	-	70	70	-	-	70	70
P400H		**70**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	110	-	-	-	-	110	-	-	-	70
P400S		**110**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	110	-	-	-	-	-	-	-	-	-
B400P		**125**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P630E		**25**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P630F		**36**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P630N		**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P630H		**70**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P630S		**110**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes

1. Downstream MCCB trip units can be TM, TF, FF, BE, BEG, SX, or SE types, unless it is specifically stated as being for one type only.

Cascading

MCCB to MCCB

Electronic Upstream

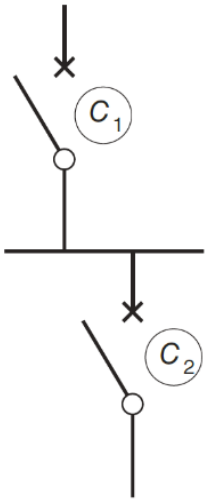
Cascading refers to a design verified combination of circuit breakers where, both breakers have been verified to work safely in short circuit level higher than the downstream I_{cu} ratings. Whenever there is a dash "-" this means the combination can be safely used **ONLY** up to the lower I_{cu} rating of both devices.

CASCADE @ 240 /415 VAC			P160F	P160N	P160H	P250F	P250N	P250H	B250P	P400F	P400N	P400H	P400S	B400P	B400R	P630F	P630N	P630H	P630S	B800N	B800H	B800G	B800P	B800R	B1000N	B1000H	B1250N	B1250H	B1250HL	B1600N	B1600HL
Downstream MCCB Trip unit [1] : TM, BE, SX, SE	**Frame**	**Icu kA**	**36**	**50**	**70**	**36**	**50**	**70**	**125**	**36**	**50**	**70**	**110**	**125**	**200**	**36**	**50**	**70**	**110**	**50**	**70**	**100**	**125**	**200**	**50**	**70**	**50**	**70**	**85**	**50**	**85**
A160E (1Pole)	160A 25 mm pole centres	**25**	36	36	36	36	36	36	70	36	36	36	36	36	36	36	36	36	36	-	-	-	-	-	-	-	-	-	-	-	-
A160E		**25**	36	36	36	36	36	36	70	36	36	36	36	36	36	36	36	36	36	-	-	-	-	-	-	-	-	-	-	-	-
A160F		**36**	-	50	70	-	50	70	85	-	50	50	50	70	70	-	50	50	50	-	-	-	-	-	-	-	-	-	-	-	-
ZS125M	125A 160A 30 mm pole centres	**65**	-	-	70	-	-	70	125	-	-	70	110	125	150	-	-	70	70	-	70	70	-	-	-	-	-	-	-	-	-
P160F		**36**	-	50	50	-	50	50	70	-	50	50	50	70	70	-	50	50	50	50	50	50	-	-	-	-	-	-	-	-	-
P160N		**50**	-	-	70	-	-	70	85	-	-	70	70	85	85	-	-	70	70	-	-	-	-	-	-	-	-	-	-	-	-
P160H		**70**	-	-	-	-	-	-	110	-	-	-	85	110	110	-	-	-	85	-	-	-	-	-	-	-	-	-	-	-	-
B160P	250 AF 35 mm pole centres	**125**	-	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B160F (1Pole)		**25**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A250E		**25**	-	-	-	36	50	70	85	36	50	70	70	70	70	36	50	70	70	50	50	50	50	50	50	50	-	-	-	-	-
A250F		**36**	-	-	-	-	50	70	85	-	50	70	70	70	70	-	50	70	70	50	50	50	50	50	50	50	-	-	-	-	-
P250F		**36**	-	-	-	-	50	50	70	-	50	50	50	70	70	-	50	50	50	-	50	50	50	50	50	50	-	-	-	-	-
P250N		**50**	-	-	-	-	-	70	85	-	-	70	70	85	85	-	-	70	70	-	70	70	-	70	-	70	-	-	-	-	-
P250H		**70**	-	-	-	-	-	-	110	-	-	-	85	110	110	-	-	-	85	-	-	85	-	-	-	-	-	-	-	-	-
B250P		**125**	-	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	150	-	-	-	-	-	-	-
ZS250M		**65**	-	-	-	-	-	70	125	-	-	70	110	125	150	-	-	70	70	-	70	70	70	70	-	70	-	-	-	-	-
P400E	400A 630A	**25**	-	-	-	-	-	-	-	-	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
P400F		**36**	-	-	-	-	-	-	-	-	50	50	50	50	50	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
P400N		**50**	-	-	-	-	-	-	-	-	-	70	70	70	70	-	-	70	70	-	70	70	70	70	-	70	-	70	70	-	70
P400H		**70**	-	-	-	-	-	-	-	-	-	-	110	110	110	-	-	-	110	-	-	-	110	110	-	-	-	-	-	-	85
P400S		**110**	-	-	-	-	-	-	-	-	-	-	-	125	150	-	-	-	-	-	-	-	125	125	-	-	-	-	-	-	-
B400P		**125**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P630E		**25**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P630F		**36**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P630N		**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P630H		**70**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P630S		**110**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B800F		**36**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B800N		**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B800H		**70**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B800P		**125**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1000N		**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1000H		**70**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1250N	1250A 1600A	**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1250HL		**85**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1600N		**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1600HL		**85**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes

1. Downstream MCCB trip units can be TM, TF, FF, BE, BEG, SX, or SE types, unless it is specifically stated as being for one type only.

Selectivity



The upstream device being referred to as C1
The downstream device being referred to as C2

How Is Selectively Defined

AS/NZS 3000 defines selectivity as.

"AS/NZS 3000:2018 - 2.5.7.2.1 General
Coordination of protective devices requires consideration of both discrimination (selectivity) and backup (cascading) protection.
Discrimination (selectivity) between protective devices depends on the operating characteristics of two or more protective devices such that the protective device for the downstream circuit shall operate for a given fault current while the protective device(s) for the upstream circuit shall not operate.
Backup (cascading) depends on the characteristics of each of the two devices as well as the behaviour of the two devices when operating in series. This includes the energy let through when sharing the fault as well as the peak current withstand of the downstream device.
*NOTE: Manufacturer's instructions/data should be used where available." **

How Do I Ensure Selectivity

Selectivity is achieved using a discrimination study. This study can be done using ratios or manufacturer's data, depending on the rating of C2.

According to AS/NZS 3000;

*"**AS/NZS 3000:2018 - 2.5.7.2.3 General supply circuit discrimination (selectivity)***
In accordance with Clause 2.5.7.1, to minimize loss of supply, discrimination (selectivity) shall be arranged between protective devices for outgoing circuits and the upstream protective device.
Discrimination is achieved using a discrimination study, the ratios shown below or manufacturer's data and tables. Circuit-breakers with curves shown in AS/NZS IEC 60947.2:2015 Figure K.1, current limiting and reflex tripping circuit-breakers may require special consideration.
Discrimination need not apply above the arcing fault current Iarc which is deemed to be in the range of 30% to 60% of the prospective short-circuit current.
Discrimination need not apply where protective devices are in series on the same circuit such as in UPS connected supplies.
Refer to Figure 2.13.
Downstream devices shall be selected to discriminate (provide selectivity) with upstream devices, using time-current curves, in accordance with the following:

a) Circuit-breakers Two circuit-breakers, connected such that C2 is the downstream device and C1 the upstream device, shall be selected:

i. For ratings of C2 greater than or equal to 800 A, discrimination shall be provided by a coordination study using manufacturer's data.
NOTE: Curve references are found in AS/NZS IEC 60947.2:2015, Figure K.1.
Allowance for tolerances on settings may be required. Refer to Figure 2.14.

ii. For ratings of C2 greater than or equal to 250 A, and less than 800 A, discrimination shall be provided between overload curves.
Discrimination is deemed to be achieved if the overload setting of C1 ≥ 1.5 x C2, e.g. C1 1000 A with C2 630 A.
Refer to Figure 2.15.

iii. For ratings of C2 less than 250 A, discrimination is deemed to be achieved if C1 ≥ 1.5 x C2, e.g. C1 MCB marked C63 with MCB C2 marked C40 (i.e. both C curves). Refer to Figure 2.16
Exception: For ratings of C2 ≤ 80A discrimination is not required."
NOTES:
1. *ISD is not available on MCBs and only available on some MCCBs with electronic trip units.*
2. *Where a circuit-breaker is installed for load limiting purposes, such as on submains, reliability of supply is not required. [1]*

NOTES:
1. *A coordination study requires the calculation of the prospective short-circuit currents, and comparison of the operating time of various protective devices, taking into consideration the actual current seen by each protective device. Manufacturer's data should be used to assess coordination (discrimination and back up) in the short-circuit area (above the short delay or Instantaneous setting of the protective devices).*
2. *Detailed requirements for coordination (selectivity and back up) as well as symbols, figures and examples are given in relevant Standards as follows: MCCBs and ACBs—AS/NZS IEC 60947.2, MCBs—AS/NZS 60898.*
3. *If devices are to be installed above their rated short-circuit capacity, the backup protection (cascading) requirements for circuit-breaker or fuse selection needs to be determined from manufacturer's data. Discrimination (selectivity), when backup protection of a circuit-breaker is applied, is limited (partial) and the value needs to be obtained from the manufacturer.*
4. *Refer to Clause 2.5.5 for other requirements for ≥800 A main switchboards.*
5. *The electricity distributor should be consulted for discrimination requirements between installation protective devices and the electricity distributor's service protective devices. The curves and settings of service protective devices will be required. For example, a 100 A service fuse will discriminate with a 32 A MCB.*
6. *Discrimination requirements are not retrospective.*
7. *The following terms are used in Figures 2.13 to 2.18:*

IPSC	=	*prospective short-circuit current (see Clause 1.4.43)*
Iarc	=	*deemed maximum arcing fault current (= 60% IPSC)*
Ii	=	*instantaneous setting*
ISD	=	*short delay setting*
0.01 s	=	*the limit of fuse time-current." **

*Excerpts of source material from publications such as Standards is required to study technical points completely and in full context. The direct copying of excerpts from standards publications for educational purposes is protected under moral rights by the Copyright Act of 2000.

[1] Clause 2.5.7.2.3 continues with points b, and c cover fuses to fuse and fuse to circuit breaker selectivity, and where not referenced for clarity around circuit breaker to circuit breaker requirements

Selectivity

How Do I Ensure Selectivity… Continued

"Coordination study" refers to, comparing the time-current curves of the 2 devices and ensuring that the curves to not intersect in the overload and low-level fault regions. Tools like TemCurve, PowerCad, PowerTools, and more can assist in conducting these studies.

Regarding current limiting breakers, for applications requirements going above and beyond the standards where selectivity is required in the instantaneous cross over region of the 2 curves, manufactures test data is required to complete the study, refer to the tables provided for verified combinations.
For devices where C2 is less than 800A a ratio method of x1.5 can be applied.

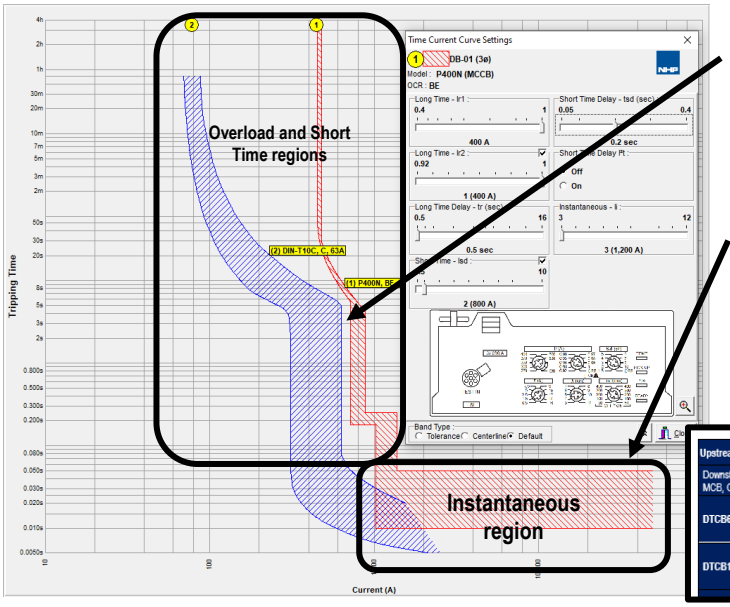
Regarding Safety Services, **AS/NZS 3000:2018 - 2.5.7.2.2 Safety service circuit discrimination (selectivity)** outlines the requirements.

Selectivity

How Do I Use The Tables In My Study

These tables give data as to the performance of C1 and C2 where the instantaneous regions of the curves overlap.

Example 1:
C1 = P400N3400BE
C2 = DTCB10363C



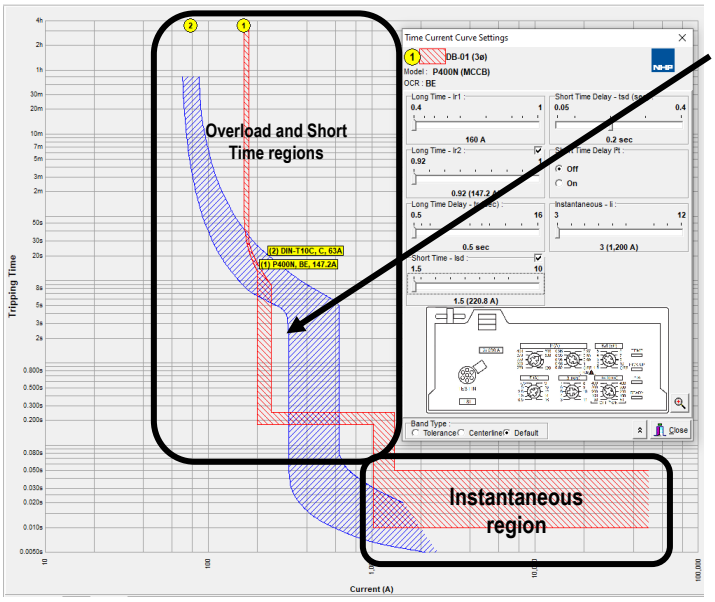
As we can see the setting of the P400N allow for selectivity in the overload and short time regions, however there is a cross over in the curves in the instantaneous region.
As advised before the AS/NZS 3000 does not require selectivity in the region.

For critical applications where selectivity is needed in the instantaneous region more data is needed to be able to complete the study.

This is where the following tables give guidance as to the verified performance in these crossovers.

Upstream MCCBs			P250F, N, H TM	P250F BE, SE		P250N BE, SE			P250H BE, SE			P400E TM	P400F TM, BE, SE	P40 TM	, H, S BE, SE
Downstream		kA (rms 415V)	36, 50, 70	36		50			70			25	36	50, , 110	
MCB, C or D curve		I_r (A)	50 - 160	250	40	100	160-250	40	100	160-250	40	100	160-250	250	400	250	400
DTCB6	MCB	6	2 - 20	-	15*	36	36	36	36	36	36	36	36	36	-	-	-	-
			25 - 32	-	15*	36	36	36	36	36	36	36	36	36	-	-	-	-
			40 – 63	-	15*	-	36	36	-	36	36	-	36	36	-	-	-	-
DTCB10	MCB	10	0.5 – 16	-	15*	36	36	36	50	50	50	50	50	50	25	36	50	50
			20 – 32		15*	36	36	36	50	50	50	50	50	50	25	36	50	50
			40 – 63	-	15*	-	36	36	-	50	50	-	50	50	25	36	36 / 50*	50

Example 2:
C1 = P400N3400BE
C2 = DTCB10363C



In this example we have set the P400N to its minimum I_r and I_{SD} settings and we can now see that the curves are overlapping in the overload and short time regions.

Meaning even if the below tables advise selectivity in the Instantaneous region the following combination of C1 and C2 at C1's current settings do not meet the requirements for selectivity.

For more information on selectivity, it is recommended to read through the LV Power Distribution Protection Guide and consult with your local NHP representatives

Selectivity

ZS125 & A160 Thermal Magnetic

The tables below cover for thermal magnetic ZS125 & A160 MCCBs, in conjunction with thermal magnetic MCBs downstream.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.
Values given with an asterisk (X*) were achieved with the I_i setting at maximum.

MCCB to MCBs

Upstream MCCBs					ZS125M TF						A160E FF										A160E, F TF						
Downstream MCB, C or D curve		kA (rms 415 V)			65						25										25, 36						
			Phases	I_n (A)	20	32	50	63	100	125	16	20	25	32	40	50	63	80	100	125	25	40	63	80	100	125	160
MOD6	MCB	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-						-	-	-	-	-			-	-	-	-	-
				50 – 63					-	-								-	-	-				-	-	-	-
			2,3	2 – 6	-	-	-	-	-	-	N/A										-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-											-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-												-	-	-	-	-	-
				32 – 40			-	-	-	-													-	-	-	-	-
				50 – 63					-	-														-	-	-	-
DTCB6	MCB	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-						-	-	-	-	-			-	-	-	-	-
				50 – 63					-	-								-	-	-				-	-	-	-
			2,3	2 – 6	-	-	-	-	-	-	N/A										-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-											-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-												-	-	-	-	-	-
				32 – 40			-	-	-	-													-	-	-	-	-
				50 – 63					-	-														-	-	-	-
DTCB10	MCB	10	Single	0.5 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-						-	-	-	-	-			-	-	-	-	-
				50 – 63					-	-								-	-	-				-	-	-	-
			2,3	0.5 – 6	-	-	-	-	-	-	N/A										-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-											-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-												-	-	-	-	-	-
				32 – 40			-	-	-	-													-	-	-	-	-
				50 – 63					-	-														-	-	-	-
DTCB15	MCB	15	Single	0.5 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-						-	-	-	-	-			-	-	-	-	-
				50 – 63					-	-								-	-	-				-	-	-	-
			2,3	0.5 – 6	-	-	-	-	-	-	N/A										-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-											-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-												-	-	-	-	-	-
				32 – 40			-	-	-	-													-	-	-	-	-
				50 – 63					-	-														-	-	-	-
DTCB10H	MCB	16	Single	80					-	-									-	-				-	-	-	-
				100						-										-						-	-
				125						-																	-
			2,3	80					-	-	N/A													-	-	-	-
				100						-																-	-
				125						-																	-

Selectivity

ZS125 & A160 Thermal Magnetic

The tables below cover for thermal magnetic ZS125 & A160 MCCBs, in conjunction with thermal magnetic RCBOs downstream.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.
Values given with an asterisk (X*) were achieved with the I_i setting at maximum.

MCCB to RCBOs

Upstream MCCBs					ZS125M TF						A160E FF										A160E, F TF						
Downstream RCBOs		kA (rms 415 V)			65						25										25, 36						
			Phases	I_n (A)	20	32	50	63	100	125	16	20	25	32	40	50	63	80	100	125	25	40	63	80	100	125	160
M6RCBS_CAN	RCBO	**6**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32			-	-	-	-					-	-	-	-	-	-		-	-	-	-	-	-
DSRCBS_CAN	RCBO	**6**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32			-	-	-	-					-	-	-	-	-	-		-	-	-	-	-	-
MOD6RCBO1_AL	RCBO	**6**	Single	10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32			-	-	-	-					-	-	-	-	-	-		-	-	-	-	-	-
DSRCBH (6 kA)	RCBO	**6**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-						-	-	-	-	-			-	-	-	-	-
MOD6 RCBO2	RCBO	**6**	Single	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-						-	-	-	-	-			-	-	-	-	-
DSRCB_AI	RCBO	**6**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-						-	-	-	-	-			-	-	-	-	-
M6RCBF	RCBO	**6**	3+N	6	-	-	-	-	-	-	N/A										-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-											-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-												-	-	-	-	-	-
				32			-	-	-	-												-	-	-	-	-	-
M6RCBT	RCBO	**6**	3+N	6	-	-	-	-	-	-	N/A										-	-	-	-	-	-	6
				10 – 16	-	-	-	-	-	-											-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-												-	-	-	-	-	-
				32 – 40			-	-	-	-													-	-	-	-	-
				50 – 63					-	-														-	-	-	-
DSRCBH (10 kA)	RCBO	**10**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-						-	-	-	-	-			-	-	-	-	-
DSRCB_A DSRCB_P	RCBO	**10**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-				-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-						-	-	-	-	-			-	-	-	-	-
DSRCBT	RCBO	**10**	3+N	6	-	-	-	-	-	-	N/A										-	-	-	-	-	-	10
				10 – 16	-	-	-	-	-	-											-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-												-	-	-	-	-	-
				32 – 40			-	-	-	-													-	-	-	-	-
				50 – 63					-	-														-	-	-	-
DSRCM	RCD	N/A	N/A	32 – 63	Refer to the attached MCB's Results																						

Selectivity

P160 Thermal Magnetic

The tables below cover for thermal magnetic P160 MCCBs, in conjunction with thermal magnetic downstream MCBs.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.
Values given with an asterisk (X*) were achieved with the I_i setting at maximum.

MCCB to MCBs

Upstream MCCBs					P160 FF									P160F, N, H TM						
Downstream MCB, C or D curve		kA (rms 415 V)			25									36, 50, 70						
			Phases	I_n (A)	15	20	30	40	50	60	75	100	125	20	32	50	63	100	125	160
MOD6	MCB	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25			-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40					-	-	-	-	-			-	-	-	-	-
				50 – 63							-	-	-				-	-	-	-
			2,3	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25			-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40					-	-	-	-	-			-	-	-	-	-
				50 – 63							-	-	-				-	-	-	-
DTCB6	MCB	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25			-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40					-	-	-	-	-			-	-	-	-	-
				50 – 63							-	-	-				-	-	-	-
			2,3	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25			-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40					-	-	-	-	-			-	-	-	-	-
				50 – 63							-	-	-				-	-	-	-
DTCB10	MCB	10	Single	0.5 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25			-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40					-	-	-	-	-			-	-	-	-	-
				50 – 63							-	-	-				-	-	-	-
			2,3	0.5 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25			-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40					-	-	-	-	-			-	-	-	-	-
				50 – 63							-	-	-				-	-	-	-
DTCB15	MCB	15	Single	0.5 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25			-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40					-	-	-	-	-			-	-	-	-	-
				50 – 63							-	-	-				-	-	-	-
			2,3	0.5 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25			-	-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40					-	-	-	-	-			-	-	-	-	-
				50 – 63							-	-	-				-	-	-	-
DTCB10H	MCB	16	Single	80								-	-					-	-	-
				100									-						-	-
				125									-							-
			2,3	80								-	-					-	-	-
				100									-						-	-
				125									-							-

Selectivity

P160 Thermal Magnetic

The tables below cover for thermal magnetic P160 MCCBs, in conjunction with thermal magnetic downstream RCBOs.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.
Values given with an asterisk (X*) were achieved with the I_i setting at maximum.

MCCB to RCBOs

Upstream MCCBs					P160 FF									P160F, N, H TM						
Downstream RCBOs		kA (rms 415 V)			25									36, 50, 70						
			Phases	I_n (A)	15	20	30	40	50	60	75	100	125	20	32	50	63	100	125	160
M6RCBS_CAN	RCBO	**6**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25				-	-	-	-	-	-		-	-	-	-	-	-
				32					-	-	-	-	-		-	-	-	-	-	-
DSRCBS_CAN	RCBO	**6**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25				-	-	-	-	-	-		-	-	-	-	-	-
				32					-	-	-	-	-		-	-	-	-	-	-
MOD6RCBO1_AL	RCBO	**6**	Single	10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25				-	-	-	-	-	-		-	-	-	-	-	-
				32					-	-	-	-	-		-	-	-	-	-	-
DSRCBH (6 kA)	RCBO	**6**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25				-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40						-	-	-	-			-	-	-	-	-
MOD6 RCBO2	RCBO	**6**	Single	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25				-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40						-	-	-	-			-	-	-	-	-
DSRCB_AI	RCBO	**6**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25				-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40						-	-	-	-			-	-	-	-	-
M6RCBF	RCBO	**6**	3+N	6	N/A									-	-	-	-	-	-	-
				10 – 16										-	-	-	-	-	-	-
				20 – 25											-	-	-	-	-	-
				32											-	-	-	-	-	-
M6RCBT	RCBO	**6**	3+N	6	N/A									-	-	-	-	-	-	6
				10 – 16										-	-	-	-	-	-	-
				20 – 25											-	-	-	-	-	-
				32 – 40												-	-	-	-	-
				50 – 63													-	-	-	-
DSRCBH (10 kA)	RCBO	**10**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25				-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40						-	-	-	-			-	-	-	-	-
DSRCB_A DSRCB_P	RCBO	**10**	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25				-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40						-	-	-	-			-	-	-	-	-
DSRCBT	RCBO	**10**	3+N	6	N/A									-	-	-	-	-	-	10
				10 – 16										-	-	-	-	-	-	-
				20 – 25											-	-	-	-	-	-
				32 – 40												-	-	-	-	-
				50 – 63													-	-	-	-
DSRCM	RCD	N/A	N/A	32 – 63	Refer to the attached MCB's Results															

Selectivity

P160 Electronic

The tables below cover for electronic P160 MCCBs, in conjunction with thermal magnetic downstream MCBs.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.
Values given with an asterisk (X*) were achieved with the I_i setting at maximum.

MCCB to MCBs

Upstream MCCBs					P160F BE, SE			P160N BE, SE			P160H BE, SE		
Downstream MCB, C or D curve		kA (rms 415 V)			36			50			70		
			Phases	I_n (A)	40	100	160	40	100	160	40	100	160
MOD6	MCB	6	Single	2 – 6	25	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25	25
				32 – 40		25	25		25	25		25	25
				50 – 63		25	25		25	25		25	25
			2,3	2 – 6	25	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25	25
				32 – 40		25	25		25	25		25	25
				50 – 63		25	25		25	25		25	25
DTCB6	MCB	6	Single	2 – 6	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36
				32 – 40		36	36		36	36		36	36
				50 – 63		36	36		36	36		36	36
			2,3	2 – 6	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36
				32 – 40		36	36		36	36		36	36
				50 – 63		36	36		36	36		36	36
DTCB10	MCB	10	Single	0.5 – 6	36	36	36	50	50	50	50	50	50
				10 – 16	36	36	36	50	50	50	50	50	50
				20 – 25	36	36	36	50	50	50	50	50	50
				32 – 40		36	36		50	50		50	50
				50 – 63		36	36		50	50		50	50
			2,3	0.5 – 6	36	36	36	50	50	50	50	50	50
				10 – 16	36	36	36	50	50	50	50	50	50
				20 – 25	36	36	36	50	50	50	50	50	50
				32 – 40		36	36		50	50		50	50
				50 – 63		36	36		50	50		50	50
DTCB15	MCB	15	Single	0.5 – 6	36	36	36	50	50	50	50	50	50
				10 – 16	36	36	36	50	50	50	50	50	50
				20 – 25	36	36	36	50	50	50	50	50	50
				32 – 40		36	36		50	50		50	50
				50 – 63		36	36		50	50		50	50
			2,3	0.5 – 6	36	36	36	50	50	50	50	50	50
				10 – 16	36	36	36	50	50	50	50	50	50
				20 – 25	36	36	36	50	50	50	50	50	50
				32 – 40		36	36		50	50		50	50
				50 – 63		36	36		50	50		50	50
DTCB10H	MCB	16	Single	80		36	36		50	50		50	50
				100			36			50			50
				125			36			50			50
			2,3	80		36	36		50	50		50	50
				100			36			50			50
				125			36			50			50

Selectivity

P160 Electronic

The tables below cover for electronic P160 MCCBs, in conjunction with thermal magnetic downstream RCBOs.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.
Values given with an asterisk (X*) were achieved with the I_i setting at maximum.

MCCB to RCBOs

Upstream MCCBs					P160F BE, SE			P160N BE, SE			P160H BE, SE		
Downstream RCBOs		kA (rms 415 V)			36			50			70		
			Phases	I_n (A)	40	100	160	40	100	160	40	100	160
M6RCBS_CAN	RCBO	6	Single	2 – 6	25	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25	25
				32	25	25	25	25	25	25	25	25	25
DSRCBS_CAN	RCBO	6	Single	2 – 6	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36
				32	36	36	36	36	36	36	36	36	36
MOD6RCBO1_AL	RCBO	6	Single	10 – 16	25	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25	25
				32	25	25	25	25	25	25	25	25	25
DSRCBH (6 kA)	RCBO	6	Single	2 – 6	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36
				32 – 40		36	36		36	36		36	36
MOD6 RCBO2	RCBO	6	Single	6	25	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25	25
				32 – 40		25	25		25	25		25	25
DSRCB_AI	RCBO	6	Single	2 – 6	36	36	36	50	50	50	50	50	50
				10 – 16	36	36	36	50	50	50	50	50	50
				20 – 25	36	36	36	50	50	50	50	50	50
				32 – 40		36	36		50	50		50	50
M6RCBF	RCBO	6	3+N	6	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-
				32	-	-	-	-	-	-	-	-	-
M6RCBT	RCBO	6	3+N	6	6	6	6	6	6	6	6	6	6
				10 – 16	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-
				32 – 40		-	-		-	-		-	-
				50 – 63		-	-		-	-		-	-
DSRCBH (10 kA)	RCBO	10	Single	2 – 6	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36
				32 – 40		36	36		36	36		36	36
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	36	36	36	50	50	50	50	50	50
				10 – 16	36	36	36	50	50	50	50	50	50
				20 – 25	36	36	36	50	50	50	50	50	50
				32 – 40		36	36		50	50		50	50
DSRCBT	RCBO	10	3+N	6	10	10	10	10	10	10	10	10	10
				10 – 16	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-
				32 – 40		-	-		-	-		-	-
				50 – 63		-	-		-	-		-	-
DSRCM	RCD	N/A	N/A	32 – 63	Refer to the attached MCB's Results								

Selectivity

A250, P250, ZS250 Thermal Magnetic

The tables below cover for thermal magnetic A250, P250 and ZS250 MCCBs, in conjunction with thermal magnetic downstream MCBs.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.
Values given with an asterisk (X*) were achieved with the I_i setting at maximum.

MCCB to MCBs

Upstream MCCBs					A250E TM				A250F TM			P250F, N, H TM						ZS250M TF	
Downstream MCB, C or D curve		kA (rms 415 V)			25				36			36, 50, 70						65	
			Phases	I_n (A)	100	160	200	250	160	200	250	50	63	100	125	160	250	160	250
MOD6	MCB	6	Single	2 – 6	-	20	20	20	20	20	20	-	-	-	-	-	15*	-	-
				10 – 16	-	20	20	20	20	20	20	-	-	-	-	-	15*	-	-
				20 – 25	-	20	20	20	20	20	20	-	-	-	-	-	15*	-	-
				32 – 40	-	20	20	20	20	20	20	-	-	-	-	-	15*	-	-
				50 – 63	-	-	-	20*	-	-	20*			-	-	-	15*	-	-
			2,3	2 – 6	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	-
				10 – 16	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	-
				20 – 25	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	-
				32 – 40	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	-
				50 – 63	-	-	-	20*	-	-	20*			-	-	-	15*	-	-
DTCB6	MCB	6	Single	2 – 6	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	-
				10 – 16	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	-
				20 – 25	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	-
				32 – 40	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	-
				50 – 63	-	-	-	20*	-	-	20*			-	-	-	15*	-	-
			2,3	2 – 6	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	-
				10 – 16	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	-
				20 – 25	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	-
				32 – 40	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	-
				50 – 63	-	-	-	20*	-	-	20*			-	-	-	15*	-	-
DTCB10	MCB	10	Single	0.5 – 6	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	25
				10 – 16	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	25
				20 – 25	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	25
				32 – 40	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	25
				50 – 63	-	-	-	20*	-	-	20*			-	-	-	15*	-	15
			2,3	0.5 – 6	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	15
				10 – 16	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	15
				20 – 25	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	15
				32 – 40	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	15
				50 – 63	-	-	-	20*	-	-	20*			-	-	-	15*	-	15
DTCB15	MCB	15	Single	0.5 – 6	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	25
				10 – 16	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	25
				20 – 25	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	25
				32 – 40	-	25	25	25	25	25	25	-	-	-	-	-	15*	-	25
				50 – 63	-	-	-	20*	-	-	20*			-	-	-	15*	-	15
			2,3	0.5 – 6	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	15
				10 – 16	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	15
				20 – 25	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	15
				32 – 40	-	-	-	20*	-	-	20*	-	-	-	-	-	15*	-	15
				50 – 63	-	-	-	20*	-	-	20*			-	-	-	15*	-	15
DTCB10H	MCB	16	Single	80	-	-	-	15*	-	-	15*			-	-	-	-	-	15
				100	-	-	-	15*	-	-	15*				-	-	-	-	15
				125	-	-	-	15*	-	-	15*					-	-	-	15
			2,3	80	-	-	-	15*	-	-	15*			-	-	-	-	-	15
				100	-	-	-	15*	-	-	15*				-	-	-	-	15
				125	-	-	-	15*	-	-	15*					-	-	-	15

Selectivity

A250, P250, ZS250 Thermal Magnetic

The tables below cover for thermal magnetic A250, P250 and ZS250 MCCBs, in conjunction with thermal magnetic downstream MCBs.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.
Values given with an asterisk (X*) were achieved with the I_i setting at maximum.

MCCB to RCBOs

Upstream MCCBs					A250E TM				A250F TM			P250F, N, H TM						ZS250M TF	
Downstream RCBOs		kA (rms 415 V)			25				36			36, 50, 70						65	
			Phases	I_n (A)	100	160	200	250	160	200	250	50	63	100	125	160	250	160	250
M6RCBS_CAN	RCBO	6	Single	2 – 6	-	-	-	20*	-	-	20*	-	-	-	-	-	25*	-	-
				10 – 16	-	-	-	20*	-	-	20*	-	-	-	-	-	25*	-	-
				20 – 25	-	-	-	20*	-	-	20*	-	-	-	-	-	25*	-	-
				32	-	-	-	20*	-	-	20*	-	-	-	-	-	25*	-	-
DSRCBS_CAN	RCBO	6	Single	2 – 6	-	-	-	20*	-	-	20*	-	-	-	-	-	36*	-	-
				10 – 16	-	-	-	20*	-	-	20*	-	-	-	-	-	36*	-	-
				20 – 25	-	-	-	20*	-	-	20*	-	-	-	-	-	36*	-	-
				32	-	-	-	20*	-	-	20*	-	-	-	-	-	36*	-	-
MOD6RCBO1_AL	RCBO	6	Single	10 – 16	-	20	20	20	20	20	20	-	-	-	-	-	25*	-	-
				20 – 25	-	20	20	20	20	20	20	-	-	-	-	-	25*	-	-
				32	-	20	20	20	20	20	20	-	-	-	-	-	25*	-	-
DSRCBH (6 kA)	RCBO	6	Single	2 – 6	-	25	25	25	25	25	25	-	-	-	-	-	36*	-	25
				10 – 16	-	25	25	25	25	25	25	-	-	-	-	-	36*	-	25
				20 – 25	-	25	25	25	25	25	25	-	-	-	-	-	36*	-	25
				32 – 40	-	25	25	25	25	25	25	-	-	-	-	-	36*	-	25
MOD6 RCBO2	RCBO	6	Single	6	-	-	-	20	-	-	20	-	-	-	-	-	25*	-	-
				10 – 16	-	-	-	20	-	-	20	-	-	-	-	-	25*	-	-
				20 – 25	-	-	-	20	-	-	20	-	-	-	-	-	25*	-	-
				32 – 40	-	-	-	20	-	-	20	-	-	-	-	-	25*	-	-
DSRCB_AI	RCBO	6	Single	2 – 6	-	-	-	25*	-	-	36*	-	-	-	-	-	36	-	25
				10 – 16	-	-	-	25*	-	-	36*	-	-	-	-	-	36	-	25
				20 – 25	-	-	-	25*	-	-	36*	-	-	-	-	-	36	-	25
				32 – 40	-	-	-	25*	-	-	36*	-	-	-	-	-	36	-	25
M6RCBF	RCBO	6	3+N	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M6RCBT	RCBO	6	3+N	6	-	-	-	10	-	-	10	-	-	-	-	-	10	-	6
				10 – 16	-	-	-	10*	-	-	10*	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	10*	-	-	10*	-	-	-	-	-	-	-	-
				32 – 40	-	-	-	10*	-	-	10*	-	-	-	-	-	-	-	-
				50 – 63	-	-	-	10*	-	-	10*	-	-	-	-	-	-	-	-
DSRCBH (10 kA)	RCBO	10	Single	2 – 6	-	25	25	25	25	25	25/36*	-	-	-	-	-	36*	-	25
				10 – 16	-	25	25	25	25	25	25/36*	-	-	-	-	-	36*	-	25
				20 – 25	-	25	25	25	25	25	25/36*	-	-	-	-	-	36*	-	25
				32 – 40	-	25	25	25	25	25	25/36*	-	-	-	-	-	36*	-	25
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	-	-	-	25*			36*	-	-	-	-	-	36*	-	25
				10 – 16	-	-	-	25*			36*	-	-	-	-	-	36*	-	25
				20 – 25	-	-	-	25*			36*	-	-	-	-	-	36*	-	25
				32 – 40	-	-	-	25*			36*	-	-	-	-	-	36*	-	25
DSRCBT	RCBO	10	3+N	6	-	-	-	10	-	-	10	-	-	-	-	-	10	-	10
				10 – 16	-	-	-	10*	-	-	10*	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	10*	-	-	10*	-	-	-	-	-	-	-	-
				32 – 40	-	-	-	10*	-	-	10*	-	-	-	-	-	-	-	-
				50 – 63	-	-	-	10*	-	-	10*	-	-	-	-	-	-	-	-
DSRCM	RCD	N/A	N/A	32 – 63	Refer to the attached MCB's Results														

Selectivity

P250 Electronic

The tables below cover for electronic P250 MCCBs, in conjunction with thermal magnetic downstream MCBs.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.
Values given with an asterisk (X*) were achieved with the I_i setting at maximum.

MCCB to MCBs

Upstream MCCBs					P250F BE, SE				P250N BE, SE				P250H BE, SE			
Downstream MCB, C or D curve		kA (rms 415 V)			36				50				70			
			Phases	I_n (A)	40	100	160	250	40	100	160	250	40	100	160	250
MOD6	MCB	6	Single	2 – 6	25	25	25	25	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25	25	25	25	25
				32 – 40		25	25	25		25	25	25		25	25	25
				50 – 63		25	25	25		25	25	25		25	25	25
			2,3	2 – 6	25	25	25	25	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25	25	25	25	25
				32 – 40		25	25	25		25	25	25		25	25	25
				50 – 63		25	25	25		25	25	25		25	25	25
DTCB6	MCB	6	Single	2 – 6	36	36	36	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36	36	36	36
				32 – 40		36	36	36		36	36	36		36	36	36
				50 – 63		36	36	36		36	36	36		36	36	36
			2,3	2 – 6	36	36	36	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36	36	36	36
				32 – 40		36	36	36		36	36	36		36	36	36
				50 – 63		36	36	36		36	36	36		36	36	36
DTCB10	MCB	10	Single	0.5 – 6	36	36	36	36	50	50	50	50	50	50	50	50
				10 – 16	36	36	36	36	50	50	50	50	50	50	50	50
				20 – 25	36	36	36	36	50	50	50	50	50	50	50	50
				32 – 40		36	36	36		50	50	50		50	50	50
				50 – 63		36	36	36		50	50	50		50	50	50
			2,3	0.5 – 6	36	36	36	36	50	50	50	50	50	50	50	50
				10 – 16	36	36	36	36	50	50	50	50	50	50	50	50
				20 – 25	36	36	36	36	50	50	50	50	50	50	50	50
				32 – 40		36	36	36		50	50	50		50	50	50
				50 – 63		36	36	36		50	50	50		50	50	50
DTCB15	MCB	15	Single	0.5 – 6	36	36	36	36	50	50	50	50	50	50	50	50
				10 – 16	36	36	36	36	50	50	50	50	50	50	50	50
				20 – 25	36	36	36	36	50	50	50	50	50	50	50	50
				32 – 40		36	36	36		50	50	50		50	50	50
				50 – 63		36	36	36		50	50	50		50	50	50
			2,3	0.5 – 6	36	36	36	36	50	50	50	50	50	50	50	50
				10 – 16	36	36	36	36	50	50	50	50	50	50	50	50
				20 – 25	36	36	36	36	50	50	50	50	50	50	50	50
				32 – 40		36	36	36		50	50	50		50	50	50
				50 – 63		36	36	36		50	50	50		50	50	50
DTCB10H	MCB	16	Single	80		36	36	36		50	50	50		50	50	50
				100			36	36			50	50			50	50
				125			36	36			50	50			50	50
			2,3	80		36	36	36		50	50	50		50	50	50
				100			36	36			50	50			50	50
				125			36	36			50	50			50	50

Selectivity

P250 Electronic

The tables below cover for electronic P250 MCCBs, in conjunction with thermal magnetic downstream RCBOs.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.
Values given with an asterisk (X*) were achieved with the I_i setting at maximum.

MCCB to RCBOs

Upstream MCCBs					P250F BE, SE				P250N BE, SE				P250H BE, SE			
Downstream RCBOs		kA (rms 415 V)			36				50				70			
			Phases	I_n (A)	40	100	160	250	40	100	160	250	40	100	160	250
M6RCBS_CAN	RCBO	6	Single	2 – 6	25	25	25	25	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25	25	25	25	25
				32	25	25	25	25	25	25	25	25	25	25	25	25
DSRCBS_CAN	RCBO	6	Single	2 – 6	36	36	36	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36	36	36	36
				32	36	36	36	36	36	36	36	36	36	36	36	36
MOD6RCBO1_AL	RCBO	6	Single	10 – 16	25	25	25	25	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25	25	25	25	25
				32	25	25	25	25	25	25	25	25	25	25	25	25
DSRCBH (6 kA)	RCBO	6	Single	2 – 6	36	36	36	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36	36	36	36
				32 – 40		36	36	36		36	36	36		36	36	36
MOD6 RCBO2	RCBO	6	Single	6	25	25	25	25	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25	25	25	25	25
				32 – 40		25	25	25		25	25	25		25	25	25
DSRCB_AI	RCBO	6	Single	2 – 6	36	36	36	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36	36	36	36
				32 – 40		36	36	36		36	36	36		36	36	36
M6RCBF	RCBO	6	3+N	6	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-	-	-
				32	-	-	-	-	-	-	-	-	-	-	-	-
M6RCBT	RCBO	6	3+N	6	25	25	25	25	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25	25	25	25	25
				32 – 40		25	25	25		25	25	25		25	25	25
				50 – 63		-	-	-		-	-	-		-	-	-
DSRCBH (10 kA)	RCBO	10	Single	2 – 6	36	36	36	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36	36	36	36
				32 – 40		36	36	36		36	36	36		36	36	36
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	36	36	36	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36	36	36	36
				32 – 40		36	36	36		36	36	36		36	36	36
DSRCBT	RCBO	10	3+N	6	36	36	36	36	36	36	36	36	36	36	36	36
				10 – 16	36	36	36	36	36	36	36	36	36	36	36	36
				20 – 25	36	36	36	36	36	36	36	36	36	36	36	36
				32 – 40		36	36	36		36	36	36		36	36	36
				50 – 63		-	-	-		-	-	-		-	-	-
DSRCM	RCD	N/A	N/A	32 – 63	Refer to the attached MCB's Results											

Selectivity

P400 Thermal Magnetic & Electronic

The tables below cover for thermal magnetic and electronic P400 MCCBs, in conjunction with thermal magnetic downstream MCBs.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCCB to MCBs

Upstream MCCBs					P400E TM		P400F TM		P400F BE, SE		P400N, H, S TM		P400N, H, S BE, SE	
Downstream MCB, C or D curve		kA (rms 415 V)			25		36		36		50, 70, 110		50, 70, 110	
			Phases	I_n (A)	250	400	250	400	250	400	250	400	250	400
MOD6	MCB	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32 – 40	-	-	-	-	-	-	-	-	-	-
				50 – 63	-	-	-	-	-	-	-	-	-	-
			2,3	2 – 6	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32 – 40	-	-	-	-	-	-	-	-	-	-
				50 – 63	-	-	-	-	-	-	-	-	-	-
DTCB6	MCB	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32 – 40	-	-	-	-	-	-	-	-	-	-
				50 – 63	-	-	-	-	-	-	-	-	-	-
			2,3	2 – 6	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32 – 40	-	-	-	-	-	-	-	-	-	-
				50 – 63	-	-	-	-	-	-	-	-	-	-
DTCB10	MCB	10	Single	0.5 – 6	25	25	36	36	36	36	50	50	50	50
				10 – 16	25	25	36	36	36	36	50	50	50	50
				20 – 25	25	25	36	36	36	36	50	50	50	50
				32 – 40	25	25	36	36	36	36	50	50	50	50
				50 – 63	25	25	36	36	36	36	50	50	50	50
			2,3	0.5 – 6	25	25	36	36	36	36	50	50	50	50
				10 – 16	25	25	36	36	36	36	50	50	50	50
				20 – 25	25	25	36	36	36	36	50	50	50	50
				32 – 40	25	25	36	36	36	36	50	50	50	50
				50 – 63	25	25	36	36	36	36	36	36	50	50
DTCB15	MCB	15	Single	0.5 – 6	25	25	36	36	36	36	50	50	50	50
				10 – 16	25	25	36	36	36	36	50	50	50	50
				20 – 25	25	25	36	36	36	36	50	50	50	50
				32 – 40	25	25	36	36	36	36	50	50	50	50
				50 – 63	25	25	36	36	36	36	50	50	50	50
			2,3	0.5 – 6	25	25	36	36	36	36	50	50	50	50
				10 – 16	25	25	36	36	36	36	50	50	50	50
				20 – 25	25	25	36	36	36	36	50	50	50	50
				32 – 40	25	25	36	36	36	36	50	50	50	50
				50 – 63	25	25	36	36	36	36	36	36	50	50
DTCB10H	MCB	16	Single	80	25	25	36	36	36	36	50	50	50	50
				100	25	25	36	36	36	36	50	50	50	50
				125	25	25	36	36	36	36	50	50	50	50
			2,3	80	25	25	36	36	36	36	50	50	50	50
				100	25	25	36	36	36	36	50	50	50	50
				125	25	25	36	36	36	36	50	50	50	50

Selectivity

P400 Thermal Magnetic & Electronic

The tables below cover for thermal magnetic and electronic P400 MCCBs, in conjunction with thermal magnetic downstream RCBOs.
The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCCB to RCBOs

Upstream MCCBs					P400E TM		P400F TM		P400F BE, SE		P400N, H, S TM		P400N, H, S BE, SE	
Downstream RCBOs		kA (rms 415 V)			25		36		36		50, 70, 110		50, 70, 110	
			Phases	I_n (A)	250	400	250	400	250	400	250	400	250	400
M6RCBS_CAN	RCBO	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32	-	-	-	-	-	-	-	-	-	-
DSRCBS_CAN	RCBO	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32	-	-	-	-	-	-	-	-	-	-
MOD6RCBO1_AL	RCBO	6	Single	10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32	-	-	-	-	-	-	-	-	-	-
DSRCBH (6 kA)	RCBO	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32 – 40	-	-	-	-	-	-	-	-	-	-
MOD6 RCBO2	RCBO	6	Single	6	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32 – 40	-	-	-	-	-	-	-	-	-	-
DSRCB_AI	RCBO	6	Single	2 – 6	25*	25*	36*	36*	36	36	36*	36*	36	36
				10 – 16	25*	25*	36*	36*	36	36	36*	36*	36	36
				20 – 25	25*	25*	36*	36*	36	36	36*	36*	36	36
				32 – 40	25*	25*	36*	36*	36	36	36*	36*	36	36
M6RCBF	RCBO	6	3+N	6	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32	-	-	-	-	-	-	-	-	-	-
M6RCBT	RCBO	6	3+N	6	6	6	6	6	6	6	6	6	6	6
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32 – 40	-	-	-	-	-	-	-	-	-	-
				50 – 63	-	-	-	-	-	-	-	-	-	-
DSRCBH (10 kA)	RCBO	10	Single	2 – 6	25*	25*	36*	36*	36	36	36*	36*	36	36
				10 – 16	25*	25*	36*	36*	36	36	36*	36*	36	36
				20 – 25	25*	25*	36*	36*	36	36	36*	36*	36	36
				32 – 40	25*	25*	36*	36*	36	36	36*	36*	36	36
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	25*	25*	36*	36*	36	36	36*	36*	36	36
				10 – 16	25*	25*	36*	36*	36	36	36*	36*	36	36
				20 – 25	25*	25*	36*	36*	36	36	36*	36*	36	36
				32 – 40	25*	25*	36*	36*	36	36	36*	36*	36	36
DSRCBT	RCBO	10	3+N	6	10	10	10	10	10	10	10	10	10	10
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32 – 40	-	-	-	-	-	-	-	-	-	-
				50 – 63	-	-	-	-	-	-	-	-	-	-
DSRCM	RCD	N/A	N/A	32 – 63	Refer to the attached MCB's Results									

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator without Upstream MCCB

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCBs

Upstream Devices (C2)					CEL3160M/K	CEL3250M/K
Downstream (C1)		kA (rms 415 V)			25	25
MCB, C or D curve			Phases	I_n (A)	160	250
MOD6 MCB	MCB	6	Single	2 - 6	6	6
				10 - 16	6	6
				20 - 25	6	6
				32 – 40	6	6
				50 – 63	6	6
			2,3	2 - 6	6	6
				10 - 16	6	6
				20 - 25	6	6
				32 – 40	6	6
				50 – 63	6	6
DTCB6	MCB	6	Single	2 - 6	6	6
				10 - 16	6	6
				20 - 25	6	6
				32 – 40	6	6
				50 – 63	6	6
			2,3	2 - 6	6	6
				10 - 16	6	6
				20 - 25	6	6
				32 – 40	6	6
				50 – 63	6	6
DTCB10	MCB	10	Single	0.5 - 6	10	10
				10 - 16	10	10
				20 - 25	10	10
				32 – 40	10	10
				50 – 63	10	10
			2,3	0.5 - 6	10	10
				10 - 16	10	10
				20 - 25	10	10
				32 – 40	10	10
				50 – 63	10	10
DTCB15	MCB	15	Single	0.5 - 6	15	15
				10 - 16	15	15
				20 - 25	15	15
				32 – 40	15	15
				50 – 63	15	15
			2,3	0.5 - 6	15	15
				10 - 16	15	15
				20 - 25	15	15
				32 – 40	15	15
				50 – 63	15	15
DTCB10H	MCB	16	Single, 2,3	80	15	15
				100	15	15
				125	15	15

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator without Upstream MCCB

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

RCBOs

Upstream Devices (C2)					CEL3160M/K	CEL3250M/K
Downstream (C1)		kA (rms 415 V)			25	25
RCBO			Phases	I_n (A)	160	250
M6RCBS_CAN	RCBO	6	Single	2 - 6 10 - 16 20 – 25 32	6 6 6 6	6 6 6 6
DSRCBS_CAN	RCBO	6	Single	6 10 – 16 20 – 25 32	6 6 6 6	6 6 6 6
MOD6RCBO1_AL	RCBO	6	Single	2 – 6 10 – 16 20 – 25 32	6 6 6 6	6 6 6 6
DSRCBH	RCBO	6	Single	2 – 6 10 – 16 20 – 25 32 - 40	6 6 6 6	6 6 6 6
MOD6 RCBO2	RCBO	6	Single	2 – 6 10 – 16 20 – 25 32 - 40	6 6 6 6	6 6 6 6
DSRCB_AI	RCBO	6	Single	2 – 6 10 – 16 20 – 25 32 - 40	6 6 6 6	6 6 6 6
M6RCBF	RCBO	6	3	6 10 – 16 20 – 25 32	- - - -	- - - -
M6RCBT	RCBO	6	3	6 10 – 16 20 – 25 32 - 40 50 - 63	6 6 6 6 6	6 6 6 6 6
DSRCBH	RCBO	10	Single	2 – 6 10 – 16 20 – 25 32 - 40	10 10 10 10	10 10 10 10
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6 10 – 16 20 – 25 32 - 40	10 10 10 10	10 10 10 10
DSRCBT	RCBO	10	3	6 10 – 16 20 – 25 32 - 40 50 - 63	10 10 10 10 10	10 10 10 10 10

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream A160 or P160_TM

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCBs

Upstream Devices (C2)					A160E_TF A160F_TF							P160F_TM P160N_TM P160H_TM						
Downstream (C1) MCB, C or D curve		kA (rms 415 V)			25, 36							36, 50, 70						
			Phases	I_n (A)	25	40	63	80	100	125	160	20	32	50	63	100	125	160
MOD6 MCB	MCB	6	Single	2 - 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-	-			-	-	-	-	-
				50 – 63				-	-	-	-					-	-	-
			2,3	2 - 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-	-			-	-	-	-	-
				50 – 63				-	-	-	-					-	-	-
DTCB6	MCB	6	Single	2 - 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-	-			-	-	-	-	-
				50 – 63				-	-	-	-					-	-	-
			2,3	2 - 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-	-			-	-	-	-	-
				50 – 63				-	-	-	-					-	-	-
DTCB10	MCB	10	Single	0.5 - 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-	-			-	-	-	-	-
				50 – 63				-	-	-	-					-	-	-
			2,3	0.5 - 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-	-			-	-	-	-	-
				50 – 63				-	-	-	-					-	-	-
DTCB15	MCB	15	Single	0.5 - 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-	-			-	-	-	-	-
				50 – 63				-	-	-	-					-	-	-
			2,3	0.5 - 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 – 40			-	-	-	-	-			-	-	-	-	-
				50 – 63				-	-	-	-					-	-	-
DTCB10H	MCB	16	Single, 2,3	80					-	-	-					-	-	-
				100						-	-						-	-
				125							-							-

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream A160 or P160_TM

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

RCBOs

Upstream Devices (C2)					A160E_TF A160F_TF							P160F_TM P160N_TM P160H_TM						
Downstream (C1) RCBO		kA (rms 415 V)			25, 36							36, 50, 70						
			Phases	I_n (A)	25	40	63	80	100	125	160	20	32	50	63	100	125	160
M6RCBS_CAN	RCBO	6	Single	2 - 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-		-	-	-	-	-	-
				32		-	-	-	-	-	-			-	-	-	-	-
DSRCBS_CAN	RCBO	6	Single	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-		-	-	-	-	-	-
				32		-	-	-	-	-	-			-	-	-	-	-
MOD6RCBO1_AL	RCBO	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-		-	-	-	-	-	-
				32		-	-	-	-	-	-			-	-	-	-	-
DSRCBH	RCBO	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 - 40			-	-	-	-	-			-	-	-	-	-
MOD6 RCBO2	RCBO	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 - 40			-	-	-	-	-			-	-	-	-	-
DSRCB_AI	RCBO	6	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 - 40			-	-	-	-	-			-	-	-	-	-
M6RCBF	RCBO	6	3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-		-	-	-	-	-	-
				32		-	-	-	-	-	-			-	-	-	-	-
M6RCBT	RCBO	6	3	6	-	-	-	-	-	-	10	-	-	-	-	-	-	10
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 - 40			-	-	-	-	-			-	-	-	-	-
				50 - 63				-	-	-	-					-	-	-
DSRCBH	RCBO	10	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 - 40			-	-	-	-	-			-	-	-	-	-
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 - 40			-	-	-	-	-			-	-	-	-	-
DSRCBT	RCBO	10	3	6	-	-	-	-	-	-	10	-	-	-	-	-	-	10
				10 – 16	-	-	-	-	-	-	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-		-	-	-	-	-	-
				32 - 40			-	-	-	-	-			-	-	-	-	-
				50 - 63				-	-	-	-					-	-	-

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream P160 Electronic

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCBs

Upstream Devices (C2)					P160F_BE P160N_BE P160H_BE			P160F_SE P160N_SE P160H_SE		
Downstream (C1) MCB C or D curve		kA (rms 415 V)			36, 50, 70			36, 50, 70		
			Phases	I_n (A)	40	100	160	40	100	160
MOD6 MCB	MCB	6	Single	2 - 6	20	20	20	20	20	20
				10 - 16	20	20	20	20	20	20
				20 - 25	20	20	20	20	20	20
				32 – 40		20	20		20	20
				50 – 63		20	20		20	20
			2,3	2 - 6	20	20	20	20	20	20
				10 - 16	20	20	20	20	20	20
				20 - 25	20	20	20	20	20	20
				32 – 40		20	20		20	20
				50 – 63		20	20		20	20
DTCB6	MCB	6	Single	2 - 6	20	20	20	20	20	20
				10 - 16	20	20	20	20	20	20
				20 - 25	20	20	20	20	20	20
				32 – 40		20	20		20	20
				50 – 63		20	20		20	20
			2,3	2 - 6	20	20	20	20	20	20
				10 - 16	20	20	20	20	20	20
				20 - 25	20	20	20	20	20	20
				32 – 40		20	20		20	20
				50 – 63		20	20		20	20
DTCB10	MCB	10	Single	0.5 - 6	25	25	25	25	25	25
				10 - 16	25	25	25	25	25	25
				20 - 25	25	25	25	25	25	25
				32 – 40		25	25		25	25
				50 – 63		25	25		25	25
			2,3	0.5 - 6	25	25	25	25	25	25
				10 - 16	25	25	25	25	25	25
				20 - 25	25	25	25	25	25	25
				32 – 40		25	25		25	25
				50 – 63		25	25		25	25
DTCB15	MCB	15	Single	0.5 - 6	25	25	25	25	25	25
				10 - 16	25	25	25	25	25	25
				20 - 25	25	25	25	25	25	25
				32 – 40		25	25		25	25
				50 – 63		25	25		25	25
			2,3	0.5 - 6	25	25	25	25	25	25
				10 - 16	25	25	25	25	25	25
				20 - 25	25	25	25	25	25	25
				32 – 40		25	25		25	25
				50 – 63		25	25		25	25
DTCB10H	MCB	16	Single, 2,3	80		15	15		15	15
				100			15			15
				125			15			15

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream P160 Electronic

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

RCBOs

Upstream Devices (C2)					P160F_BE P160N_BE P160H_BE			P160F_SE P160N_SE P160H_SE		
Downstream (C1) RCBO		kA (rms 415 V)			36, 50, 70			36, 50, 70		
			Phases	I_n (A)	40	100	160	40	100	160
M6RCBS_CAN	RCBO	6	Single	2 - 6	20	20	20	20	20	20
				10 - 16	20	20	20	20	20	20
				20 – 25	20	20	20	20	20	20
				32	20	20	20	20	20	20
DSRCBS_CAN	RCBO	6	Single	6	20	20	20	20	20	20
				10 – 16	20	20	20	20	20	20
				20 – 25	20	20	20	20	20	20
				32	20	20	20	20	20	20
MOD6RCBO1_AL	RCBO	6	Single	2 – 6	20	20	20	20	20	20
				10 – 16	20	20	20	20	20	20
				20 – 25	20	20	20	20	20	20
				32	20	20	20	20	20	20
DSRCBH	RCBO	6	Single	2 – 6	20	20	20	20	20	20
				10 – 16	20	20	20	20	20	20
				20 – 25	20	20	20	20	20	20
				32 - 40		20	20		20	20
MOD6 RCBO2	RCBO	6	Single	2 – 6	20	20	20	20	20	20
				10 – 16	20	20	20	20	20	20
				20 – 25	20	20	20	20	20	20
				32 - 40		20	20		20	20
DSRCB_AI	RCBO	6	Single	2 – 6	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25
				32 - 40		25	25		25	25
M6RCBF	RCBO	6	3	6	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-
				32	-	-	-	-	-	-
M6RCBT	RCBO	6	3	6	10	10	10	10	10	10
				10 – 16	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-
				32 - 40		-	-		-	-
				50 - 63		-	-		-	-
DSRCBH	RCBO	10	Single	2 – 6	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25
				32 - 40		25	25		25	25
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25
				32 - 40		25	25		25	25
DSRCBT	RCBO	10	3	6	10	10	10	10	10	10
				10 – 16	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-
				32 - 40		-	-		-	-
				50 - 63		-	-		-	-

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream A250 & P250_TM

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCBs

Upstream Devices (C2)					A250E_TM	A250E_TM A250F_TM		P250F_TM P250N_TM P250H_TM					
Downstream (C1) MCB, C or D curve		kA (rms 415 V)			25	25, 36		36, 50, 70					
			Phases	I_n (A)	100	160	250	50	63	100	125	160	250
MOD6 MCB	MCB	6	Single	2 - 6	-	20	20	-	-	-	-	-	15*
				10 - 16	-	20	20	-	-	-	-	-	15*
				20 - 25	-	20	20	-	-	-	-	-	15*
				32 – 40	-	20	20	-	-	-	-	-	15*
				50 – 63	-	-	20*			-	-	-	15*
			2,3	2 - 6	-	-	20*	-	-	-	-	-	15*
				10 - 16	-	-	20*	-	-	-	-	-	15*
				20 - 25	-	-	20*	-	-	-	-	-	15*
				32 – 40	-	-	20*	-	-	-	-	-	15*
				50 – 63	-	-	20*			-	-	-	15*
DTCB6	MCB	6	Single	2 - 6	-	20	20	-	-	-	-	-	15*
				10 - 16	-	20	20	-	-	-	-	-	15*
				20 - 25	-	20	20	-	-	-	-	-	15*
				32 – 40	-	20	20	-	-	-	-	-	15*
				50 – 63	-	-	20*			-	-	-	15*
			2,3	2 - 6	-	-	20*	-	-	-	-	-	15*
				10 - 16	-	-	20*	-	-	-	-	-	15*
				20 - 25	-	-	20*	-	-	-	-	-	15*
				32 – 40	-	-	20*	-	-	-	-	-	15*
				50 – 63	-	-	20*			-	-	-	15*
DTCB10	MCB	10	Single	0.5 - 6	-	25	25	-	-	-	-	-	15*
				10 - 16	-	25	25	-	-	-	-	-	15*
				20 - 25	-	25	25	-	-	-	-	-	15*
				32 – 40	-	25	25	-	-	-	-	-	15*
				50 – 63	-	-	25*			-	-	-	15*
			2,3	0.5 - 6	-	-	25*	-	-	-	-	-	15*
				10 - 16	-	-	25*	-	-	-	-	-	15*
				20 - 25	-	-	25*	-	-	-	-	-	15*
				32 – 40	-	-	25*	-	-	-	-	-	15*
				50 – 63	-	-	25*			-	-	-	15*
DTCB15	MCB	15	Single	0.5 - 6	-	25	25	-	-	-	-	-	15*
				10 - 16	-	25	25	-	-	-	-	-	15*
				20 - 25	-	25	25	-	-	-	-	-	15*
				32 – 40	-	25	25	-	-	-	-	-	15*
				50 – 63	-	-	25*			-	-	-	15*
			2,3	0.5 - 6	-	-	25*	-	-	-	-	-	15*
				10 - 16	-	-	25*	-	-	-	-	-	15*
				20 - 25	-	-	25*	-	-	-	-	-	15*
				32 – 40	-	-	25*	-	-	-	-	-	15*
				50 – 63	-	-	25*			-	-	-	15*
DTCB10H	MCB	16	Single, 2,3	80	-	-	15*			-	-	-	15*
				100		-	15*				-	-	15*
				125		-	15*					-	15*

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream A250 & P250_TM

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

RCBOs

Upstream Devices (C2)					A250E_TM	A250E_TM A250F_TM			P250F_TM P250N_TM P250H_TM					
Downstream (C1) RCBO		kA (rms 415 V)			25	25, 36			36, 50, 70					
			Phases	I_n (A)	100	160	200	250	50	63	100	125	160	250
M6RCBS_CAN	RCBO	6	Single	2 - 6	-	20*	20*	20*	-	-	-	-	-	20*
				10 - 16	-	20*	20*	20*	-	-	-	-	-	20*
				20 – 25	-	20*	20*	20*	-	-	-	-	-	20*
				32	-	20*	20*	20*	-	-	-	-	-	20*
DSRCBS_CAN	RCBO	6	Single	6	-	20*	20*	20*	-	-	-	-	-	20*
				10 – 16	-	20*	20*	20*	-	-	-	-	-	20*
				20 – 25	-	20*	20*	20*	-	-	-	-	-	20*
				32	-	20*	20*	20*	-	-	-	-	-	20*
MOD6RCBO1_AL	RCBO	6	Single	2 – 6	-	20	20	20	-	-	-	-	-	20*
				10 – 16	-	20	20	20	-	-	-	-	-	20*
				20 – 25	-	20	20	20	-	-	-	-	-	20*
				32	-	20	20	20	-	-	-	-	-	20*
DSRCBH	RCBO	6	Single	2 – 6	-	20	20	20	-	-	-	-	-	20*
				10 – 16	-	20	20	20						20*
				20 – 25	-	20	20	20	-	-	-	-	-	20*
				32 - 40	-	20	20	20	-	-	-	-	-	20*
MOD6 RCBO2	RCBO	6	Single	2 – 6	-	-	-	20	-	-	-	-	-	20*
				10 – 16	-	-	-	20	-	-	-	-	-	20*
				20 – 25	-	-	-	20	-	-	-	-	-	20*
				32 - 40	-	-	-	20	-	-	-	-	-	20*
DSRCB_AI	RCBO	6	Single	2 – 6	-	-	-	25	-	-	-	-	-	25*
				10 – 16	-	-	-	25	-	-	-	-	-	25*
				20 – 25	-	-	-	25	-	-	-	-	-	25*
				32 - 40	-	-	-	25	-	-	-	-	-	25*
M6RCBF	RCBO	6	3	6	-	-	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32	-	-	-	-	-	-	-	-	-	-
M6RCBT	RCBO	6	3	6	-	10	10	10	-	-	-	-	10	10
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32 - 40	-	-	-	-	-	-	-	-	-	-
				50 - 63	-	-	-	-			-	-	-	-
DSRCBH	RCBO	10	Single	2 – 6	-	25	25	25	-	-	-	-	-	25*
				10 – 16	-	25	25	25	-	-	-	-	-	25*
				20 – 25	-	25	25	25	-	-	-	-	-	25*
				32 - 40	-	25	25	25	-	-	-	-	-	25*
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	-	-	-	25	-	-	-	-	-	25*
				10 – 16	-	-	-	25	-	-	-	-	-	25*
				20 – 25	-	-	-	25	-	-	-	-	-	25*
				32 - 40	-	-	-	25	-	-	-	-	-	25*
DSRCBT	RCBO	10	3	6	-	10	10	10	-	-	-	-	10	10
				10 – 16	-	-	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-	-	-
				32 - 40	-	-	-	-	-	-	-	-	-	-
				50 - 63	-	-	-	-			-	-	-	-

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream P250 Electronic

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCBs

Upstream Devices (C2)					P250F_BE P250N_BE P250H_BE				P250F_SE P250N_SE P250H_SE			
Downstream (C1) MCB C or D curve		kA (rms 415 V)			36, 50, 70				36, 50, 70			
			Phases	I_n (A)	40	100	160	250	40	100	160	250
MOD6 MCB	MCB	6	Single	2 - 6	20	20	20	20	20	20	20	20
				10 - 16	20	20	20	20	20	20	20	20
				20 - 25	20	20	20	20	20	20	20	20
				32 – 40		20	20	20		20	20	20
				50 – 63		20	20	20		20	20	20
			2,3	2 - 6	20	20	20	20	20	20	20	20
				10 - 16	20	20	20	20	20	20	20	20
				20 - 25	20	20	20	20	20	20	20	20
				32 – 40		20	20	20		20	20	20
				50 – 63		20	20	20		20	20	20
DTCB6	MCB	6	Single	2 - 6	20	20	20	20	20	20	20	20
				10 - 16	20	20	20	20	20	20	20	20
				20 - 25	20	20	20	20	20	20	20	20
				32 – 40		20	20	20		20	20	20
				50 – 63		20	20	20		20	20	20
			2,3	2 - 6	20	20	20	20	20	20	20	20
				10 - 16	20	20	20	20	20	20	20	20
				20 - 25	20	20	20	20	20	20	20	20
				32 – 40		20	20	20		20	20	20
				50 – 63		20	20	20		20	20	20
DTCB10	MCB	10	Single	0.5 - 6	25	25	25	25	25	25	25	25
				10 - 16	25	25	25	25	25	25	25	25
				20 - 25	25	25	25	25	25	25	25	25
				32 – 40		25	25	25		25	25	25
				50 – 63		25	25	25		25	25	25
			2,3	0.5 - 6	25	25	25	25	25	25	25	25
				10 - 16	25	25	25	25	25	25	25	25
				20 - 25	25	25	25	25	25	25	25	25
				32 – 40		25	25	25		25	25	25
				50 – 63		25	25	25		25	25	25
DTCB15	MCB	15	Single	0.5 - 6	25	25	25	25	25	25	25	25
				10 - 16	25	25	25	25	25	25	25	25
				20 - 25	25	25	25	25	25	25	25	25
				32 – 40		25	25	25		25	25	25
				50 – 63		25	25	25		25	25	25
			2,3	0.5 - 6	25	25	25	25	25	25	25	25
				10 - 16	25	25	25	25	25	25	25	25
				20 - 25	25	25	25	25	25	25	25	25
				32 – 40		25	25	25		25	25	25
				50 – 63		25	25	25		25	25	25
DTCB10H	MCB	16	Single, 2,3	80		15	15	15		15	15	15
				100			15	15			15	15
				125			15	15			15	15

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream P250 Electronic

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

RCBOs

Upstream Devices (C2)					P250F_BE P250N_BE P250H_BE				P250F_SE P250N_SE P250H_SE			
Downstream (C1) RCBO		kA (rms 415 V)			36, 50, 70				36, 50, 70			
			Phases	I_n (A)	40	100	160	250	40	100	160	250
M6RCBS_CAN	RCBO	6	Single	2 - 6	20	20	20	20	20	20	20	20
				10 - 16	20	20	20	20	20	20	20	20
				20 – 25	20	20	20	20	20	20	20	20
				32	20	20	20	20	20	20	20	20
DSRCBS_CAN	RCBO	6	Single	6	20	20	20	20	20	20	20	20
				10 – 16	20	20	20	20	20	20	20	20
				20 – 25	20	20	20	20	20	20	20	20
				32	20	20	20	20	20	20	20	20
MOD6RCBO1_AL	RCBO	6	Single	2 – 6	20	20	20	20	20	20	20	20
				10 – 16	20	20	20	20	20	20	20	20
				20 – 25	20	20	20	20	20	20	20	20
				32	20	20	20	20	20	20	20	20
DSRCBH	RCBO	6	Single	2 – 6	20	20	20	20	20	20	20	20
				10 – 16	20	20	20	20	20	20	20	20
				20 – 25	20	20	20	20	20	20	20	20
				32 - 40		20	20	20		20	20	20
MOD6 RCBO2	RCBO	6	Single	2 – 6	20	20	20	20	20	20	20	20
				10 – 16	20	20	20	20	20	20	20	20
				20 – 25	20	20	20	20	20	20	20	20
				32 - 40		20	20	20		20	20	20
DSRCB_AI	RCBO	6	Single	2 – 6	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25
				32 - 40		25	25	25		25	25	25
M6RCBF	RCBO	6	3	6	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-
				20 – 25	-	-	-	-	-	-	-	-
				32	-	-	-	-	-	-	-	-
M6RCBT	RCBO	6	3	6	10	10	10	10	10	10	10	10
				10 – 16	10	10	10	10	10	10	10	10
				20 – 25	10	10	10	10	10	10	10	10
				32 - 40		10	10	10		10	10	10
				50 - 63		10	10	10		10	10	10
DSRCBH	RCBO	10	Single	2 – 6	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25
				32 - 40		25	25	25		25	25	25
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	25	25	25	25	25	25	25	25
				10 – 16	25	25	25	25	25	25	25	25
				20 – 25	25	25	25	25	25	25	25	25
				32 - 40		25	25	25		25	25	25
DSRCBT	RCBO	10	3	6	10	10	10	10	10	10	10	10
				10 – 16	10	10	10	10	10	10	10	10
				20 – 25	10	10	10	10	10	10	10	10
				32 - 40		10	10	10		10	10	10
				50 - 63		10	10	10		10	10	10

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream P400_250

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCBs

Upstream Devices (C2)					P400E_250TM P400F_250TM P400N_250TM P400H_250TM P400S_250TM	P400F_250BE P400N_250BE P400H_250BE P400S_250BE	P400F_250SE P400N_250SE P400H_250SE P400S_250SE
Downstream (C1) MCB C or D curve		kA (rms 415 V)			25, 36, 50, 70,110	36, 50, 70,110	36, 50, 70,110
			Phases	I_n (A)	250	250	250
MOD6 MCB	MCB	6	Single	2 - 6	-	20	20
				10 - 16	-	20	20
				20 - 25	-	20	20
				32 – 40	-	20	20
				50 – 63	-	20	20
			2,3	2 - 6	-	20	20
				10 - 16	-	20	20
				20 - 25	-	20	20
				32 – 40	-	20	20
				50 – 63	-	20	20
DTCB6	MCB	6	Single	2 - 6	-	20	20
				10 - 16	-	20	20
				20 - 25	-	20	20
				32 – 40	-	20	20
				50 – 63	-	20	20
			2,3	2 - 6	-	20	20
				10 - 16	-	20	20
				20 - 25	-	20	20
				32 – 40	-	20	20
				50 – 63	-	20	20
DTCB10	MCB	10	Single	0.5 - 6	-	25	25
				10 - 16	-	25	25
				20 - 25	-	25	25
				32 – 40	-	25	25
				50 – 63	-	25	25
			2,3	0.5 - 6	-	25	25
				10 - 16	-	25	25
				20 - 25	-	25	25
				32 – 40	-	25	25
				50 – 63	-	25	25
DTCB15	MCB	15	Single	0.5 - 6	-	25	25
				10 - 16	-	25	25
				20 - 25	-	25	25
				32 – 40	-	25	25
				50 – 63	-	25	25
			2,3	0.5 - 6	-	25	25
				10 - 16	-	25	25
				20 - 25	-	25	25
				32 – 40	-	25	25
				50 – 63	-	25	25
DTCB10H	MCB	16	Single, 2,3	80	-	15	15
				100	-	15	15
				125	-	15	15

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream P400_250

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

RCBOs

Upstream Devices (C2)					P400E_250TM P400F_250TM P400N_250TM P400H_250TM P400S_250TM	P400F_250BE P400N_250BE P400H_250BE P400S_250BE	P400F_250SE P400N_250SE P400H_250SE P400S_250SE
Downstream (C1)		kA (rms 415 V)			25, 36, 50, 70,110	36, 50, 70,110	36, 50, 70,110
RCBO			Phases	I_n (A)	250	250	250
M6RCBS_CAN	RCBO	6	Single	2 - 6	-	20	20
				10 - 16	-	20	20
				20 – 25	-	20	20
				32	-	20	20
DSRCBS_CAN	RCBO	6	Single	6	-	20	20
				10 – 16	-	20	20
				20 – 25	-	20	20
				32	-	20	20
MOD6RCBO1_AL	RCBO	6	Single	2 – 6	-	20	20
				10 – 16	-	20	20
				20 – 25	-	20	20
				32	-	20	20
DSRCBH	RCBO	6	Single	2 – 6	-	20	20
				10 – 16	-	20	20
				20 – 25	-	20	20
				32 - 40	-	20	20
MOD6 RCBO2	RCBO	6	Single	2 – 6	-	20	20
				10 – 16	-	20	20
				20 – 25	-	20	20
				32 - 40	-	20	20
DSRCB_AI	RCBO	6	Single	2 – 6	-	25	25
				10 – 16	-	25	25
				20 – 25	-	25	25
				32 - 40	-	25	25
M6RCBF	RCBO	6	3	6	-	-	-
				10 – 16	-	-	-
				20 – 25	-	-	-
				32	-	-	-
M6RCBT	RCBO	6	3	6	6	6	6
				10 – 16	-	6	6
				20 – 25	-	6	6
				32 - 40	-	6	6
				50 - 63	-	6	6
DSRCBH	RCBO	10	Single	2 – 6	-	25	25
				10 – 16	-	25	25
				20 – 25	-	25	25
				32 - 40	-	25	25
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	-	25	25
				10 – 16	-	25	25
				20 – 25	-	25	25
				32 - 40	-	25	25
DSRCBT	RCBO	10	3	6	10	10	10
				10 – 16	-	10	10
				20 – 25	-	10	10
				32 - 40	-	10	10
				50 - 63	-	10	10

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream ZS250M & ZS250GJ

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCBs

Upstream Devices (C2)					ZS250M_TF		ZS250GJ	
Downstream (C1)		kA (rms 415 V)			65		65	
MCB C or D curve			Phases	I_n (A)	160	250	160	250
MOD6 MCB	MCB	6	Single	2 - 6	-	20	-	20
				10 - 16	-	20	-	20
				20 - 25	-	20	-	20
				32 – 40	-	20	-	20
				50 – 63	-	20	-	20
			2,3	2 - 6	-	15	-	15
				10 - 16	-	15	-	15
				20 - 25	-	15	-	15
				32 – 40	-	15	-	15
				50 – 63	-	15	-	15
DTCB6	MCB	6	Single	2 - 6	-	20	-	20
				10 - 16	-	20	-	20
				20 - 25	-	20	-	20
				32 – 40	-	20	-	20
				50 – 63	-	20	-	20
			2,3	2 - 6	-	15	-	15
				10 - 16	-	15	-	15
				20 - 25	-	15	-	15
				32 – 40	-	15	-	15
				50 – 63	-	15	-	15
DTCB10	MCB	10	Single	0.5 - 6	-	25	-	25
				10 - 16	-	25	-	25
				20 - 25	-	25	-	25
				32 – 40	-	25	-	25
				50 – 63	-	25	-	25
			2,3	0.5 - 6	-	15	-	15
				10 - 16	-	15	-	15
				20 - 25	-	15	-	15
				32 – 40	-	15	-	15
				50 – 63	-	15	-	15
DTCB15	MCB	15	Single	0.5 - 6	-	25	-	25
				10 - 16	-	25	-	25
				20 - 25	-	25	-	25
				32 – 40	-	25	-	25
				50 – 63	-	25	-	25
			2,3	0.5 - 6	-	15	-	15
				10 - 16	-	15	-	15
				20 - 25	-	15	-	15
				32 – 40	-	15	-	15
				50 – 63	-	15	-	15
DTCB10H	MCB	16	Single, 2,3	80	-	15	-	15
				100	-	15	-	15
				125	-	15	-	15

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream ZS250M & ZS250GJ

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

RCBOs

Upstream Devices (C2)					ZS250M_TF		ZS250GJ	
Downstream (C1) RCBO		kA (rms 415 V)			65		65	
			Phases	I_n (A)	160	250	160	250
M6RCBS_CAN	RCBO	6	Single	2 - 6	-	20	-	20
				10 - 16	-	20	-	20
				20 – 25	-	20	-	20
				32	-	20	-	20
DSRCBS_CAN	RCBO	6	Single	6	-	20	-	20
				10 – 16	-	20	-	20
				20 – 25	-	20	-	20
				32	-	20	-	20
MOD6RCBO1_AL	RCBO	6	Single	2 – 6	-	20	-	20
				10 – 16	-	20	-	20
				20 – 25	-	20	-	20
				32	-	20	-	20
DSRCBH	RCBO	6	Single	2 – 6	-	20	-	20
				10 – 16	-	20	-	20
				20 – 25	-	20	-	20
				32 - 40	-	20	-	20
MOD6 RCBO2	RCBO	6	Single	2 – 6	-	20	-	20
				10 – 16	-	20	-	20
				20 – 25	-	20	-	20
				32 - 40	-	20	-	20
DSRCB_AI	RCBO	6	Single	2 – 6	-	25	-	25
				10 – 16	-	25	-	25
				20 – 25	-	25	-	25
				32 - 40	-	25	-	25
M6RCBF	RCBO	6	3	6	-	-	-	-
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32	-	-	-	-
M6RCBT	RCBO	6	3	6	6	6	6	6
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32 - 40	-	-	-	-
				50 - 63	-	-	-	-
DSRCBH	RCBO	10	Single	2 – 6	-	25	-	25
				10 – 16	-	25	-	25
				20 – 25	-	25	-	25
				32 - 40	-	25	-	25
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	-	25	-	25
				10 – 16	-	25	-	25
				20 – 25	-	25	-	25
				32 - 40	-	25	-	25
DSRCBT	RCBO	10	3	6	10	10	10	10
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32 - 40	-	-	-	-
				50 - 63	-	-	-	-

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream S160, H160, & L160

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCBs

Upstream Devices (C2)					S160NJ S160GJ							H160NJ L160NJ
Downstream (C1)		kA (rms 415 V)			NJ (30)		NJ (36), GJ (65)					H (125), L(200)
MCB C or D curve			Phases	I_n (A)	20	32	50	63	100	125	160	160
MOD6 MCB	MCB	6	Single	2 - 6	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-	-
				32 – 40			-	-	-	-	-	-
				50 – 63					-	-	-	-
			2,3	2 - 6	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-	-
				32 – 40			-	-	-	-	-	-
				50 – 63					-	-	-	-
DTCB6	MCB	6	Single	2 - 6	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-	-
				32 – 40			-	-	-	-	-	-
				50 – 63					-	-	-	-
			2,3	2 - 6	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-	-
				32 – 40			-	-	-	-	-	-
				50 – 63					-	-	-	-
DTCB10	MCB	10	Single	0.5 - 6	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-	-
				32 – 40			-	-	-	-	-	-
				50 – 63					-	-	-	-
			2,3	0.5 - 6	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-	-
				32 – 40			-	-	-	-	-	-
				50 – 63					-	-	-	-
DTCB15	MCB	15	Single	0.5 - 6	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-	-
				32 – 40			-	-	-	-	-	-
				50 – 63					-	-	-	-
			2,3	0.5 - 6	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-
				20 - 25		-	-	-	-	-	-	-
				32 – 40			-	-	-	-	-	-
				50 – 63					-	-	-	-
DTCB10H	MCB	16	Single, 2,3	80					-	-	-	-
				100						-	-	-
				125							-	-

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream S160, H160, & L160

Whenever there the table is left blank " " selectivity is not possible.
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RCBOs

Upstream Devices (C2)					S160NJ S160GJ							H160NJ L160NJ
Downstream (C1) RCBO		kA (rms 415 V)			NJ (30)		NJ (36), GJ (65)					H (125), L(200)
			Phases	I_n (A)	20	32	50	63	100	125	160	160
M6RCBS_CAN	RCBO	6	Single	2 - 6	-	-	-	-	-	-	-	-
				10 - 16	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-	-
				32			-	-	-	-	-	-
DSRCBS_CAN	RCBO	6	Single	6	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-	-
				32			-	-	-	-	-	-
MOD6RCBO1_AL	RCBO	6	Single	2 – 6	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-	-
				32			-	-	-	-	-	-
DSRCBH	RCBO	6	Single	2 – 6	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-	-
				32 - 40			-	-	-	-	-	-
MOD6 RCBO2	RCBO	6	Single	2 – 6	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-	-
				32 - 40			-	-	-	-	-	-
DSRCB_AI	RCBO	6	Single	2 – 6	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-	-
				32 - 40			-	-	-	-	-	-
M6RCBF	RCBO	6	3	6	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-	-
				32			-	-	-	-	-	-
M6RCBT	RCBO	6	3	6	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-	-
				32 - 40			-	-	-	-	-	-
				50 - 63					-	-	-	-
DSRCBH	RCBO	10	Single	2 – 6	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-	-
				32 - 40			-	-	-	-	-	-
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-	-
				32 - 40			-	-	-	-	-	-
DSRCBT	RCBO	10	3	6	-	-	-	-	-	-	-	-
				10 – 16	-	-	-	-	-	-	-	-
				20 – 25		-	-	-	-	-	-	-
				32 - 40			-	-	-	-	-	-
				50 - 63					-	-	-	-

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream E250, S250, H250, & L250

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCBs

Upstream Devices (C2)					E250NJ	S250NJ S250GJ	H250NJ L250NJ
Downstream (C1) MCB C or D curve		kA (rms 415 V)			25	NJ (36), GJ (65)	H (125), L(200)
			Phases	I_n (A)	250	250	250
MOD6 MCB	MCB	6	Single	2 - 6	20*	20*	-
				10 - 16	20*	20*	-
				20 - 25	20*	20*	-
				32 – 40	20*	20*	-
				50 – 63	20*	20*	-
			2,3	2 - 6	20*	20*	-
				10 - 16	20*	20*	-
				20 - 25	20*	20*	-
				32 – 40	20*	20*	-
				50 – 63	20*	20*	-
DTCB6	MCB	6	Single	2 - 6	20*	20*	-
				10 - 16	20*	20*	-
				20 - 25	20*	20*	-
				32 – 40	20*	20*	-
				50 – 63	20*	20*	-
			2,3	2 - 6	20*	20*	-
				10 - 16	20*	20*	-
				20 - 25	20*	20*	-
				32 – 40	20*	20*	-
				50 – 63	20*	20*	-
DTCB10	MCB	10	Single	0.5 - 6	25*	25*	-
				10 - 16	25*	25*	-
				20 - 25	25*	25*	-
				32 – 40	25*	25*	-
				50 – 63	25*	25*	-
			2,3	0.5 - 6	25*	25*	-
				10 - 16	25*	25*	-
				20 - 25	25*	25*	-
				32 – 40	25*	25*	-
				50 – 63	25*	25*	-
DTCB15	MCB	15	Single	0.5 - 6	25*	25*	-
				10 - 16	25*	25*	-
				20 - 25	25*	25*	-
				32 – 40	25*	25*	-
				50 – 63	25*	25*	-
			2,3	0.5 - 6	25*	25*	-
				10 - 16	25*	25*	-
				20 - 25	25*	25*	-
				32 – 40	25*	25*	-
				50 – 63	25*	25*	-
DTCB10H	MCB	16	Single, 2,3	80	-	-	-
				100	-	-	-
				125	-	-	-

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream E250, S250, H250, & L250

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

RCBOs

Upstream Devices (C2)					E250NJ	S250NJ S250GJ	H250NJ L250NJ
Downstream (C1)		kA (rms 415 V)			25	NJ (36), GJ (65)	H (125), L(200)
RCBO			Phases	I_n (A)	250	250	250
M6RCBS_CAN	RCBO	6	Single	2 - 6	20*	20*	-
				10 - 16	20*	20*	-
				20 – 25	20*	20*	-
				32	20*	20*	-
DSRCBS_CAN	RCBO	6	Single	6	20*	20*	-
				10 – 16	20*	20*	-
				20 – 25	20*	20*	-
				32	20*	20*	-
MOD6RCBO1_AL	RCBO	6	Single	2 – 6	20*	20*	-
				10 – 16	20*	20*	-
				20 – 25	20*	20*	-
				32	20*	20*	-
DSRCBH	RCBO	6	Single	2 – 6	20*	20*	-
				10 – 16	20*	20*	-
				20 – 25	20*	20*	-
				32 - 40	20*	20*	-
MOD6 RCBO2	RCBO	6	Single	2 – 6	20*	20*	-
				10 – 16	20*	20*	-
				20 – 25	20*	20*	-
				32 - 40	20*	20*	-
DSRCB_AI	RCBO	6	Single	2 – 6	25*	25*	-
				10 – 16	25*	25*	-
				20 – 25	25*	25*	-
				32 - 40	25*	25*	-
M6RCBF	RCBO	6	3	6	-	-	-
				10 – 16	-	-	-
				20 – 25	-	-	-
				32	-	-	-
M6RCBT	RCBO	6	3	6	6	6	-
				10 – 16	-	-	-
				20 – 25	-	-	-
				32 - 40	-	-	-
				50 - 63	-	-	-
DSRCBH	RCBO	10	Single	2 – 6	25*	25*	-
				10 – 16	25*	25*	-
				20 – 25	25*	25*	-
				32 - 40	25*	25*	-
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	25*	25*	-
				10 – 16	25*	25*	-
				20 – 25	25*	25*	-
				32 - 40	25*	25*	-
DSRCBT	RCBO	10	3	6	-	10	-
				10 – 16	-	-	-
				20 – 25	-	-	-
				32 - 40	-	-	-
				50 - 63	-	-	-

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream S250 Electronic

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

MCBs

Upstream Devices (C2)					S250NE S250PE			
Downstream (C1)		kA (rms 415 V)			NE (36), PE (70)			
MCB/RCBO, C or D curve			Phases	I_n (A)	40	125	160	250
MOD6 MCB	MCB	6	Single	2 - 6	-	-	-	-
				10 - 16	-	-	-	-
				20 - 25	-	-	-	-
				32 – 40		-	-	-
				50 – 63		-	-	-
			2,3	2 - 6	-	-	-	-
				10 - 16	-	-	-	-
				20 - 25	-	-	-	-
				32 – 40		-	-	-
				50 – 63		-	-	-
DTCB6	MCB	6	Single	2 - 6	-	-	-	-
				10 - 16	-	-	-	-
				20 - 25	-	-	-	-
				32 – 40		-	-	-
				50 – 63		-	-	-
			2,3	2 - 6	-	-	-	-
				10 - 16	-	-	-	-
				20 - 25	-	-	-	-
				32 – 40		-	-	-
				50 – 63		-	-	-
DTCB10	MCB	10	Single	0.5 - 6	-	-	-	-
				10 - 16	-	-	-	-
				20 - 25	-	-	-	-
				32 – 40	-	-	-	-
				50 – 63		-	-	-
			2,3	0.5 - 6	-	-	-	-
				10 - 16	-	-	-	-
				20 - 25	-	-	-	-
				32 – 40		-	-	-
				50 – 63		-	-	-
DTCB15	MCB	15	Single	0.5 - 6	-	-	-	-
				10 - 16	-	-	-	-
				20 - 25	-	-	-	-
				32 – 40		-	-	-
				50 – 63		-	-	-
			2,3	0.5 - 6	-	-	-	-
				10 - 16	-	-	-	-
				20 - 25	-	-	-	-
				32 – 40		-	-	-
				50 – 63		-	-	-
DTCB10H	MCB	16	Single, 2,3	80		-	-	-
				100		-	-	-
				125			-	-

Selectivity

Concept Isolator

The NHP Concept Isolator is a Magnetic only MCCB (ICB). The following tables will assist with ensuring selectivity of the upstream, the concept isolator and downstream devices. The concept isolator offers no backup protection to downstream devices and requires an upstream MCCB to offer enhanced selectivity for the downstream devices.

Concept Isolator with Upstream S250 Electronic

Whenever there the table is left blank " " selectivity is not possible.
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

RCBOs

Upstream Devices (C2)					S250NE S250PE			
Downstream (C1) MCB/RCBO, C or D curve		kA (rms 415 V)			NE (36), PE (70)			
			Phases	I_n (A)	40	125	160	250
M6RCBS_CAN	RCBO	6	Single	2 - 6	-	-	-	-
				10 - 16	-	-	-	-
				20 – 25	-	-	-	-
				32	-	-	-	-
DSRCBS_CAN	RCBO	6	Single	6	-	-	-	-
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32	-	-	-	-
MOD6RCBO1_AL	RCBO	6	Single	2 – 6	-	-	-	-
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32	-	-	-	-
DSRCBH	RCBO	6	Single	2 – 6	-	-	-	-
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32 - 40		-	-	-
MOD6 RCBO2	RCBO	6	Single	2 – 6	-	-	-	-
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32 - 40		-	-	-
DSRCB_AI	RCBO	6	Single	2 – 6	-	-	-	-
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32 - 40		-	-	-
M6RCBF	RCBO	6	3	6	-	-	-	-
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32	-	-	-	-
M6RCBT	RCBO	6	3	6	-	-	-	-
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32 - 40		-	-	-
				50 - 63		-	-	-
DSRCBH	RCBO	10	Single	2 – 6	-	-	-	-
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32 - 40		-	-	-
DSRCB_A DSRCB_P	RCBO	10	Single	2 – 6	-	-	-	-
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32 - 40		-	-	-
DSRCBT	RCBO	10	3	6	-	-	-	-
				10 – 16	-	-	-	-
				20 – 25	-	-	-	-
				32 - 40		-	-	-
				50 - 63		-	-	-

Selectivity

MCCB to MCCB

Thermal Magnetic & Electronic Upstream

The tables below cover for electronic upstream MCCBs, in conjunction with thermal magnetic and electronic downstream MCCBs, unless specifically stated. The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

SELECTIVITY @ 240 /415 VAC			P250F	P250N	P250H	P400E	P400F	P400N	P400H	P400S	B400P	B400R	P630E	P630F	P630N	P630H	P630S	B800N	B800H	B800G	B800P	B800R	B1000N	B1000H	B1250N	B1250H	B1250HL	B1600N	B1600HL	XS2000HL XS2500HL XS3200HL
Downstream MCCB Trip unit [1]: TM, BE, SX, SE	**Trip unit (A)**	**Icu kA (rms)**	**36**	**50**	**70**	**25**	**36**	**50**	**70**	**110**	**125**	**200**	**25**	**36**	**50**	**70**	**110**	**50**	**70**	**100**	**125**	**200**	**50**	**70**	**50**	**70**	**85**	**50**	**85**	**85**
A160E_FF, 1P	16 – 125	**25**	25	25	25	25	25	25	25	25	17	17	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
A160E_TF	25 – 125	**25**	25	25	25	25	25	25	25	25	17	17	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	160		20	20	20	25	25	25	25	25	17	17	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
A160F_TF	25 – 125	**36**	30	30	30	25	25	25	25	25	17	17	25	36	36	36	36	30	30	30	30	30	36	36	36	36	36	36	36	36
	160		20	20	20	25	25	25	25	25	17	17	25	36	36	36	36	30	30	30	30	30	36	36	36	36	36	36	36	36
ZS125M	20 – 125	**65**	-	-	-	6	6	6	6	6	65	65	25	30	30	30	30	50	65	65	65	65	50	65	50	65	65	50	65	65
P160F	20 – 125	**36**	30	30	30	25	36	36	36	36	36	36	25	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	160		20	20	20	25	36	36	36	36	36	36	25	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
P160N	20 – 125	**50**	30	30	30	25	36	50	50	50	50	50	25	36	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	160		20	20	20	25	36	50	50	50	50	50	25	36	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
P160H	20 – 125	**70**	30	30	30	25	36	50	50	50	50	50	25	36	50	70	70	50	70	70	50	50	50	70	50	70	70	50	70	70
	160		20	20	20	25	36	50	50	50	50	50	25	36	50	70	70	50	50	50	50	50	50	70	50	70	70	50	70	70
B160P	20 – 125	**125**	-	-	-	25	25	25	25	25	125	125	25	25	25	25	25	50	50	50	125	125	50	70	50	70	70	50	85	85
	160		-	-	-	5	5	5	5	5	125	125	25	25	25	25	25	50	50	50	125	125	50	70	50	70	70	50	85	85
B160E_FF, 1P	16 – 125	**25**	10	10	10	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	160		-	-	-	10	10	10	10	10	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
A250E	100 – 160	**25**	10	10	10	10	10	10	10	10	5	5	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	200 – 250		-	-	-	5	5	5	5	5	5	5	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
A250F	100 – 160	**36**	10	10	10	15	15	15	15	15	10	10	25	30	30	30	30	30	30	30	25	25	30	30	30	30	30	36	36	36
	200 – 250		-	-	-	5	5	5	5	5	5	5	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	36	36	36
P250F	40 – 160	**36**	25	25	25	25	25	25	25	25	10	10	25	36	36	36	36	36	36	36	25	25	36	36	36	36	36	36	36	36
	250		-	-	-	10	10	10	10	10	10	10	25	36	36	36	36	36	36	36	25	25	36	36	36	36	36	36	36	36
P250N	40 – 160	**50**	25	25	25	25	25	25	25	25	10	10	25	36	50	50	50	36	36	36	25	25	50	50	50	50	50	50	50	50
	250		-	-	-	10	10	10	10	10	10	10	25	36	50	50	50	36	36	36	25	25	50	50	50	50	50	50	50	50
P250H	40 – 160	**70**	25	25	25	25	25	25	25	25	10	10	25	36	50	70	70	36	36	36	25	25	50	70	50	70	70	50	70	70
	250		-	-	-	10	10	10	10	10	10	10	25	36	50	70	70	36	36	36	25	25	50	70	50	70	70	50	70	70
B250P_TM	160 – 250	**125**	-	-	-	5	5	5	5	5	125	125	25	25	25	25	25	50	50	50	125	125	50	70	50	70	70	50	85	85
B250P_BE/SE	40 – 160	**125**	-	-	-	5	5	5	5	5	125	125	25	25	25	25	25	36	36	36	125	125	50	50	50	70	70	50	85	85
	250		-	-	-	5	5	5	5	5	125	125	25	25	25	25	25	36	36	36	125	125	50	50	50	70	70	50	85	85
ZS250M	160	**65**	-	-	-	5	5	5	5	5	5	5	25	25	25	25	25	36	36	36	65	65	50	65	50	65	65	50	65	65
	250		-	-	-	5	5	5	5	5	5	5	25	25	25	25	25	36	36	36	65	65	50	65	50	65	65	50	65	65

Notes

1. Downstream MCCB trip units can be TM, TF, FF, BE, BEG, SX, or SE types, unless it is specifically stated as being for one type only.
2. Upstream MCCB trip unit are to be electronic, BE, BEG, SX or SE types.

Selectivity

Thermal Magnetic & Electronic Upstream

MCCB to MCCB

The tables below cover for electronic upstream MCCBs, in conjunction with thermal magnetic and electronic downstream MCCBs, unless specifically stated. The tables provide data to help with conducting selectivity studies and should be used with the study to ensure selectivity is maintained at long time and short time levels (time/current curve comparison).
Whenever there is a dash "-" selectivity is achieved up to the point of intersection of the circuit breakers time/current curves.

SELECTIVITY @ 240 /415 VAC			**P250F**	**P250N**	**P250H**	**P400E**	**P400F**	**P400N**	**P400H**	**P400S**	**B400P**	**B400R**	**P630E**	**P630F**	**P630N**	**P630H**	**P630S**	**B800N**	**B800H**	**B800G**	**B800P**	**B800R**	**B1000N**	**B1000H**	**B1250N**	**B1250H**	**B1250HL**	**B1600N**	**B1600HL**	**XS2000HL XS2500HL XS3200HL**
Downstream MCCB Trip unit [1]: TM, BE, SX, SE	**Trip unit (A)**	**Icu kA (rms)**	**36**	**50**	**70**	**25**	**85**	**50**	**70**	**110**	**125**	**200**	**25**	**36**	**50**	**70**	**110**	**50**	**70**	**100**	**125**	**200**	**50**	**70**	**50**	**70**	**85**	**50**	**85**	**85**
P400E	250	**25**	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	25	25	25	25	25	25	25	25	25	25	25	25	25
	400		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	25	25	25	25	25	25	25	25	25	25	25
P400F	250	**36**	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	25	25	25	25	25	30	30	36	36	36	36	36	36
	400		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	25	25	25	30	30	36	36	36	36	36	36
P400N	250	**50**	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	25	25	25	25	25	30	30	36	36	36	50	50	50
	400		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	25	25	25	30	30	36	36	36	50	50	50
P400H	250	**70**	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	25	25	25	25	25	30	30	36	36	36	50	50	70
	400		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	25	25	25	30	30	36	36	36	50	50	70
P400S	250	**110**	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	25	25	25	25	25	30	30	36	36	36	50	50	85
	400		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	25	25	25	30	30	36	36	36	50	50	85
B400P	250	**125**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	36	36	25	25	50	50	50	70	70	50	50	85
	400		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	36	36	25	25	50	50	50	70	70	50	50	85
P630E	630	**25**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25	25	25	25	36
P630F		**36**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	36	36	36	36	36
P630N		**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	36	36	50	50	36
P630H		**70**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	36	36	50	70	36
P630S		**110**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	85	36
B800F	630 800	**36**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	36
B800N		**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	36
B800H		**70**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	36
B800P		**125**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	36
B1000N	1000	**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	
B1000H		**70**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	
B1250N	1250	**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	
B1250HL		**85**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	
B1600N	1600	**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
B1600HL		**85**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Notes

1. Downstream MCCB trip units can be TM, TF, FF, BE, BEG, SX, or SE types, unless it is specifically stated as being for one type only.
2. Upstream MCCB trip unit are to be electronic, BE, BEG, SX or SE type

Selectivity

ACBs

All Terasaki ACB are non-current limiting short-circuit protection devices, depending on the trip unit to identify the tripping time and thus discrimination can be ensured by desk study alone, in accordance with AS/NZS IEC 60947-2 Annex A.
By ensuring that the protection curves of the upstream are not overlapping with the downstream (utilising the settings of the current and time delays in the trip unit of the upstream and downstream) that will help to secure the selectivity between the ACB's and MCCB's.

Notice:

If the following requirements are met the selectivity figures for AR ACBs with TemBreak PRO MCCBs are as follows in the tables below.

- **The Upstream ACBs are to have I_i (instantaneous) set to NON, and the MCR (make current release) set to ON.**
- **Time/Current curves do not overlap**

Frame			800A	1250A		1600A			2000A			2500A		3200A		4000A	5000A	6300A	
	Model		AR208S	AR212S	AR212H	AR216S	AR216H	AR316H	AR220S	AR220H	AR320H	AR325S	AR325H	AR332S	AR332H	AR440S	AR650S	AR663S	AR663H
		Breaking Capacity	65kA	65kA	80kA	65kA	80kA	100kA	65kA	80kA	100kA	85kA	100kA	85kA	100kA	100kA	120kA	120kA	135kA
ZS125 TF	ZS125M	65kA	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
A160 TF	A160E	25kA	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	A160F	36kA	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
P160 FF, TM, BE, SE	P160E	25kA	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	P160F	36kA	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	P160N	50kA	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	P160H	70kA	65	65	70	65	70	70	65	70	70	70	70	70	70	70	70	70	70
B160 TM	B160P	125kA	65	65	80	65	80	100	65	80	100	85	100	85	100	100	120	120	125
	B160R	200kA	65	65	80	65	80	100	65	80	100	85	100	85	100	100	120	120	135
A250 TM	A250E	25kA	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	A250F	36kA	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
P250 TM, BE, SE	P250F	36kA	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	P250N	50kA	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	P250H	70kA	65	65	70	65	70	70	65	70	70	70	70	70	70	70	70	70	70
B250 TM, BE, SE	B250P	125kA	65	65	80	65	80	100	65	80	100	85	100	85	100	100	120	120	125
	B250R	200kA	65	65	80	65	80	100	65	80	100	85	100	85	100	100	120	120	135
ZS250 TF	ZS250M	65kA	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
P400 TM, BE, SE	P400E	25kA	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	P400F	36kA	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	P400N	50kA	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	P400H	70kA	65	65	70	65	70	70	65	70	70	70	70	70	70	70	70	70	70
	P400S	110kA	65	65	80	65	80	100	65	80	100	85	100	85	100	100	110	110	110
B400 BE	B400P	125kA	65	65	80	65	80	100	65	80	100	85	100	85	100	100	120	120	125
	B400R	250kA	65	65	80	65	80	100	65	80	100	85	100	85	100	100	120	120	135
P630 TM, BE, SE	P630E	25kA	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	P630F	36kA	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	P630N	50kA	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	P630H	70kA	65	65	70	65	70	70	65	70	70	70	70	70	70	70	70	70	70
	P630S	110kA	65	65	80	65	80	100	65	80	100	85	100	85	100	100	110	110	110
B800 TM, BE, SX, SE	B800F	36kA	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	B800N	50kA	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	B800H	70kA	65	65	70	65	70	70	65	70	70	70	70	70	70	70	70	70	70
	B800G	100kA	65	65	80	65	80	100	65	80	100	85	100	85	100	100	110	110	110
	B800P	125kA	65	65	80	65	80	100	65	80	100	85	100	85	100	100	120	120	125
	B800R	200kA	65	65	80	65	80	100	65	80	100	85	100	85	100	100	120	120	135
B1000 BE, SX, SE	B1000N	50kA	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	B1000H	70kA	-	65	70	65	70	70	65	70	70	70	70	70	70	70	70	70	70
B1250 BE	B1250N	50kA	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	B1250H	70kA	-	65	70	65	70	70	65	70	70	70	70	70	70	70	70	70	70
	B1250HL	85kA	-	65	80	65	80	85	65	80	85	85	85	85	85	85	85	85	85
B1600 BE	B1600N	50kA	-	-	-	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	B1600HL	85kA	-	-	-	65	80	85	65	80	85	85	85	85	85	85	85	85	85

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