

CHARACTERISTICS CURVES

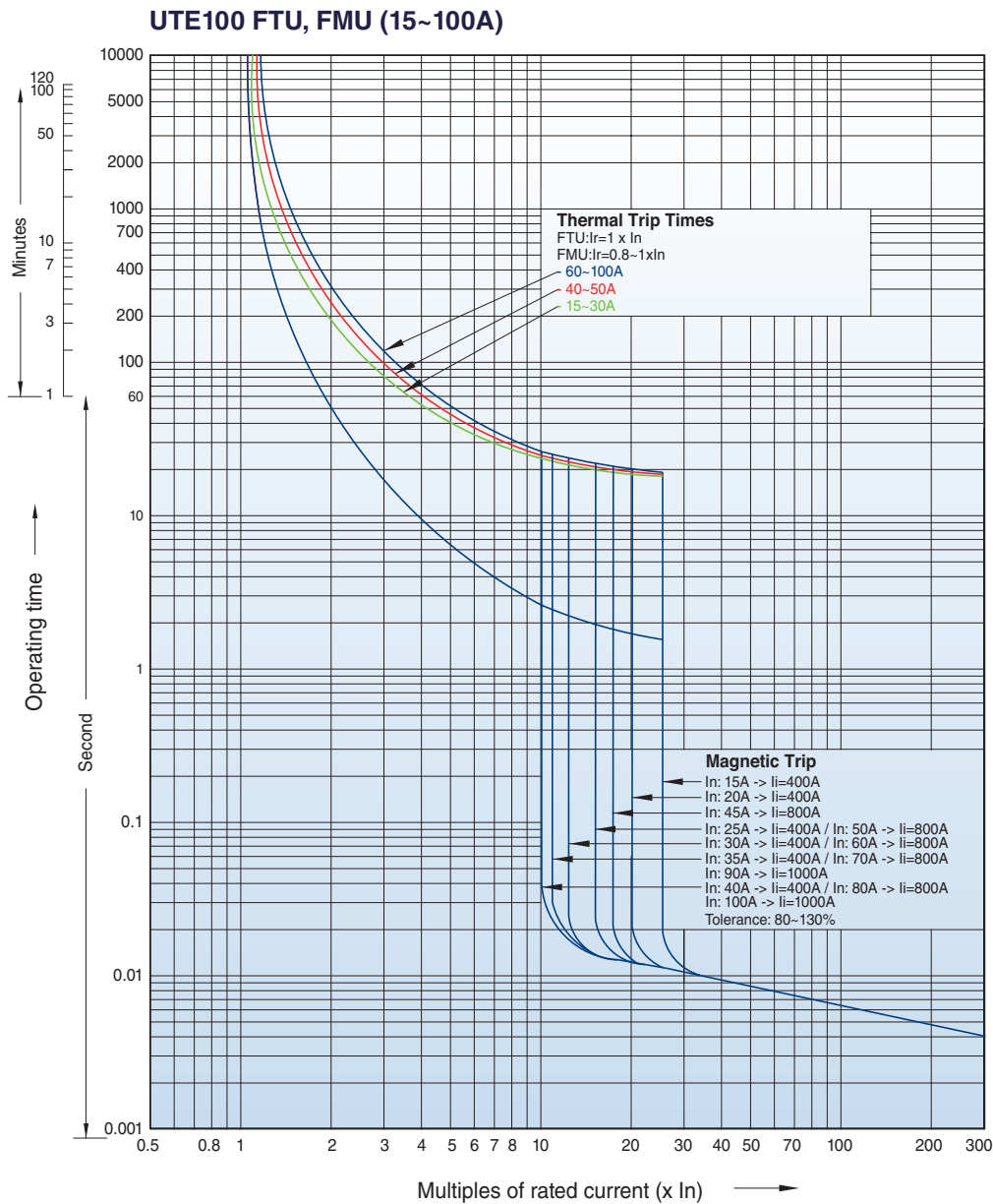
UTE100	112 page
UTS150	114 page
UTS250	119 page
UTS400	123 page
UTS600	127 page
UTS150/250 (ETS23), UTS400/600 (ETS33)	131 page
UTS400/600 (ETM33)	133 page
UTS800	137 page
UTS1200	137 page

LET-THROUGH ENERGY I^2t AND PEAK LET-THROUGH CURRENT I_p

UTE100	143 page
UTS150	144 page
UTS250	145 page
UTS400	146 page
UTS600	147 page
UTS800	148 page
UTS1200	149 page

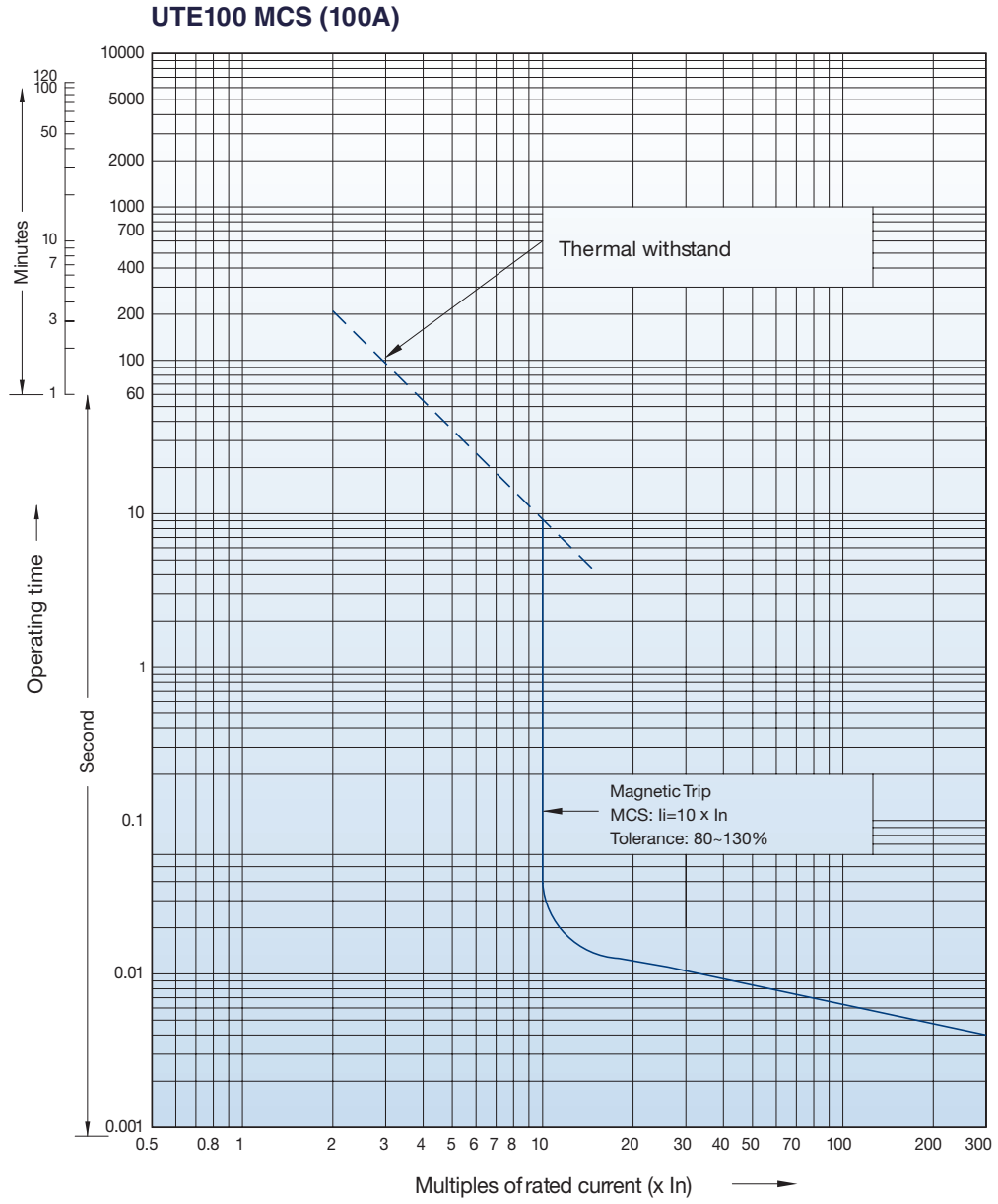
UTE100 CHARACTERISTIC

This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.



RATING UTE100	FTU	
	2P/3P	MAG TRIP (80%~130%)
15	○	
20	○	
25	○	400A
30	○	
35	○	
40	○	
45	○	
50	○	
60	○	800A
70	○	
80	○	
90	○	1000A
100	○	

RATING UTE100	FMU		
	3P	RATING RANGE	MAG TRIP (80%~130%)
25	○	20~25A	
40	○	32~40A	400A
60	○	48~60A	
80	○	64~80A	800A
100	○	80~100A	1000A

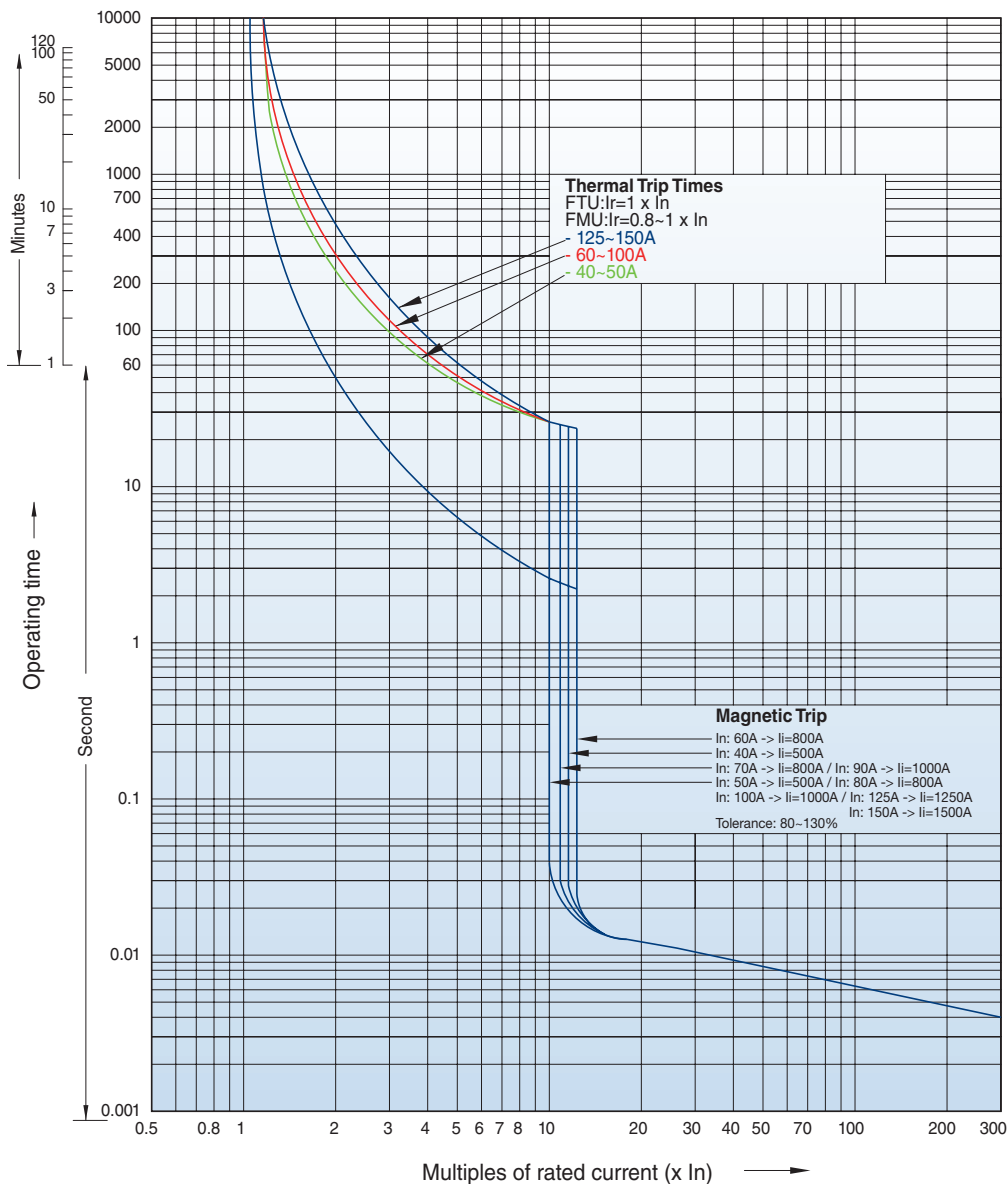


MCS (2P/3P)	
RATING	MAG TRIP
UTE100	(80%~130%)
	(10 $\times I_n$)
100	1000A

UTS150 CHARACTERISTIC

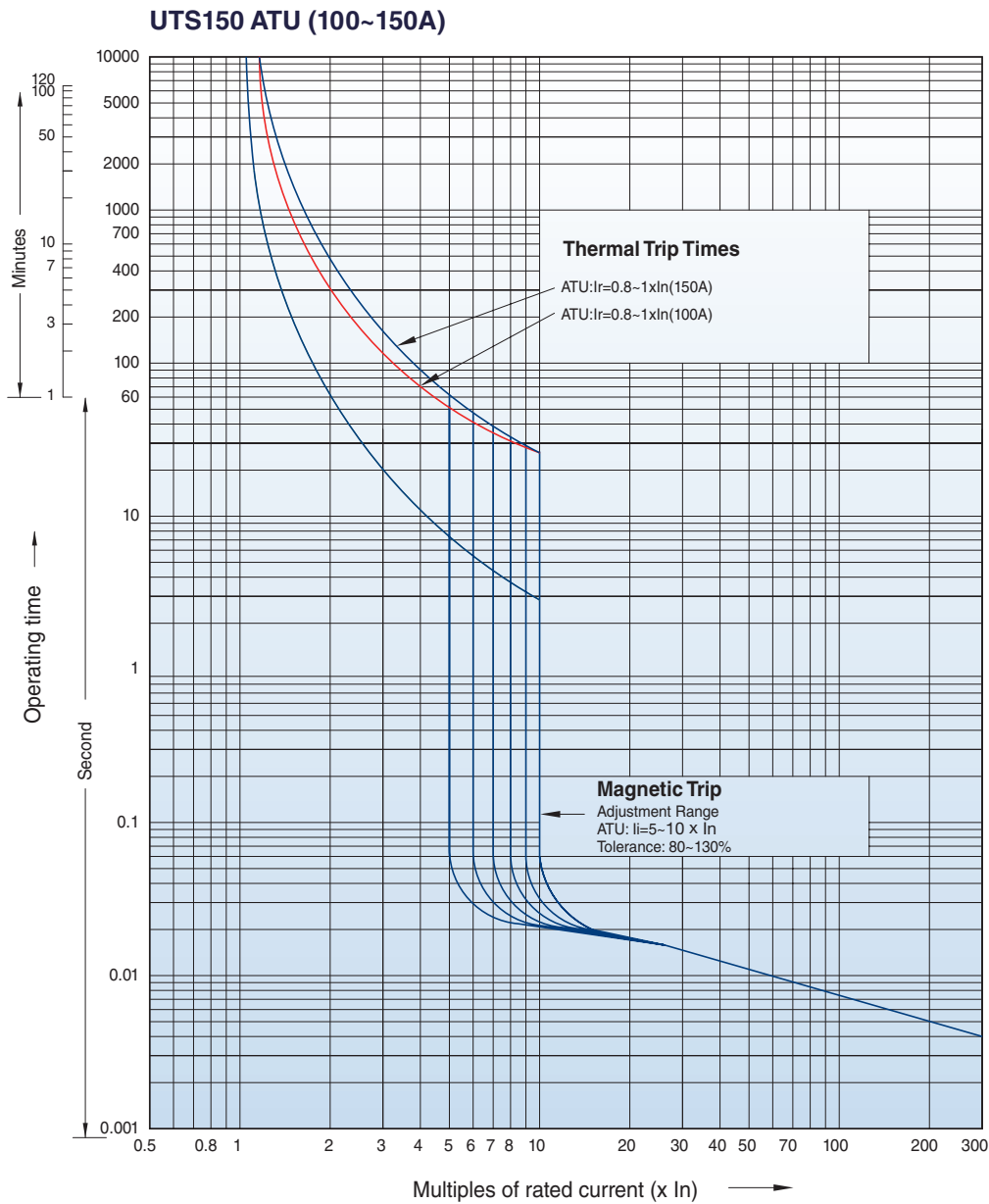
This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.

UTS150 FTU, FMU (40~150A)



RATING UTS150	FTU	
	2P/3P	MAG TRIP (80%~130%)
40	○	500A
50	○	
60	○	
70	○	800A
80	○	
90	○	
100	○	1000A
125	○	1250A
150	○	1500A

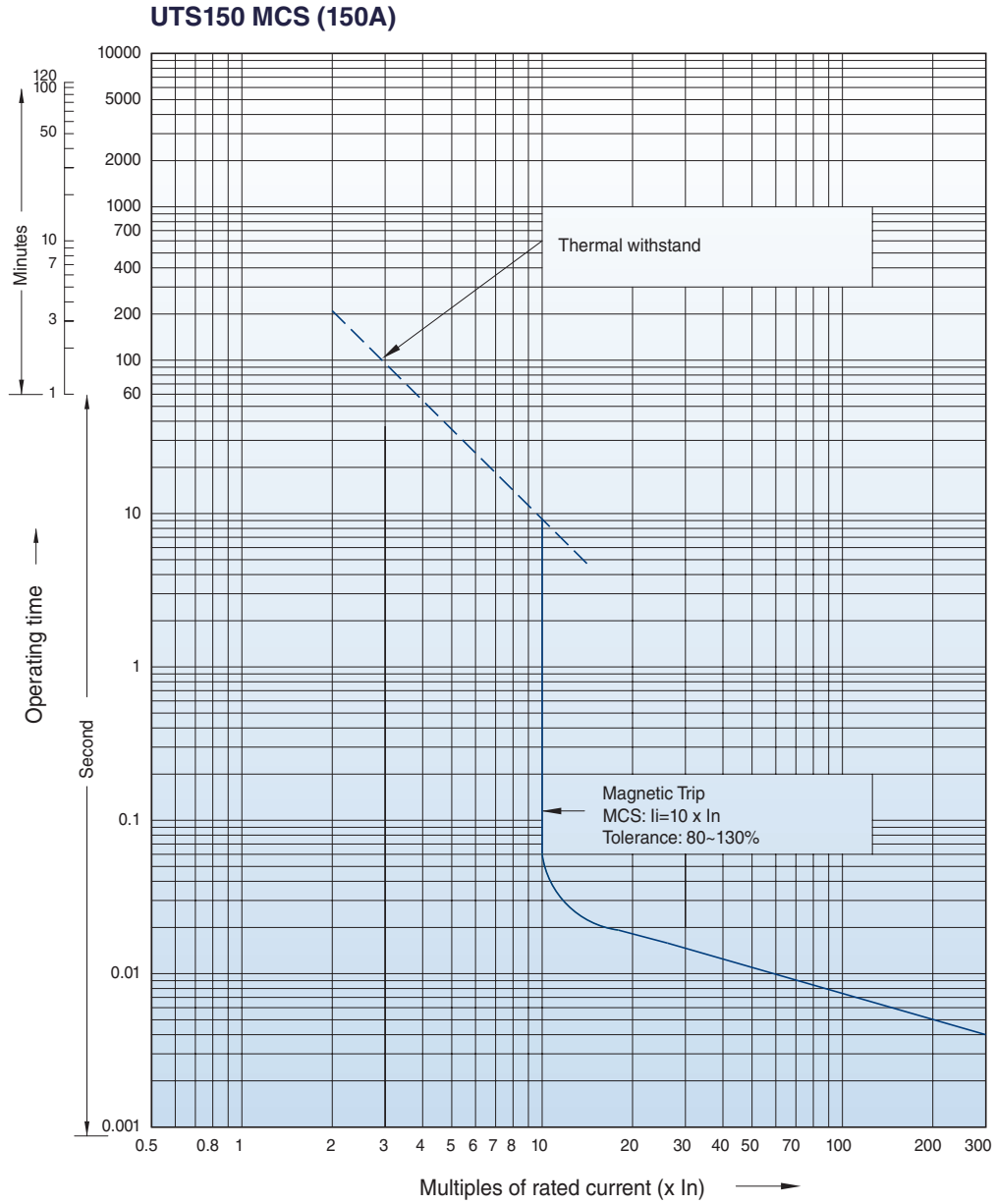
RATING UTS150	FMU		
	2P/3P	RATING RANGE (0.8~1 x In)	MAG TRIP (80%~130%)
40	○	32~40A	500A
60	○	48~60A	800A
80	○	64~80A	800A
100	○	80~100A	1000A
125	○	100~125A	1250A
150	○	120~150A	1500A



RATING UTS150	ATU		
	2P/3P	RATING RANGE ($0.8-1 \times I_n$)	MAG TRIP (80%~130%) ($5-10 \times I_n$)
100	○	80~100A	500~1000A
125	○	100~125A	625~1250A
150	○	120~150A	750~1500A

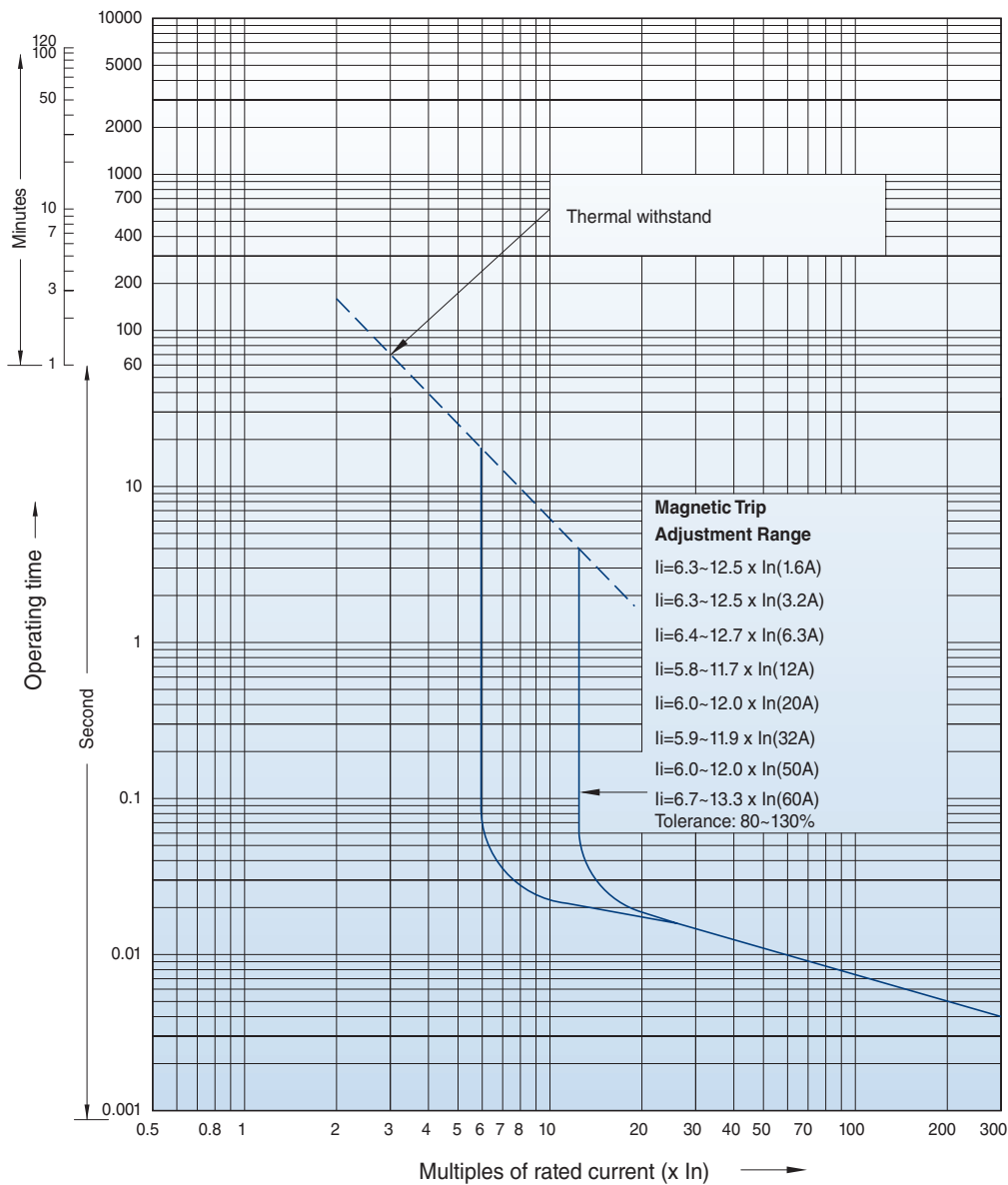
UTS150 CHARACTERISTIC

This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.



RATING	MCS (2P/3P)
	MAG TRIP (80%~130%) (10 x In)
UTS150	1500A

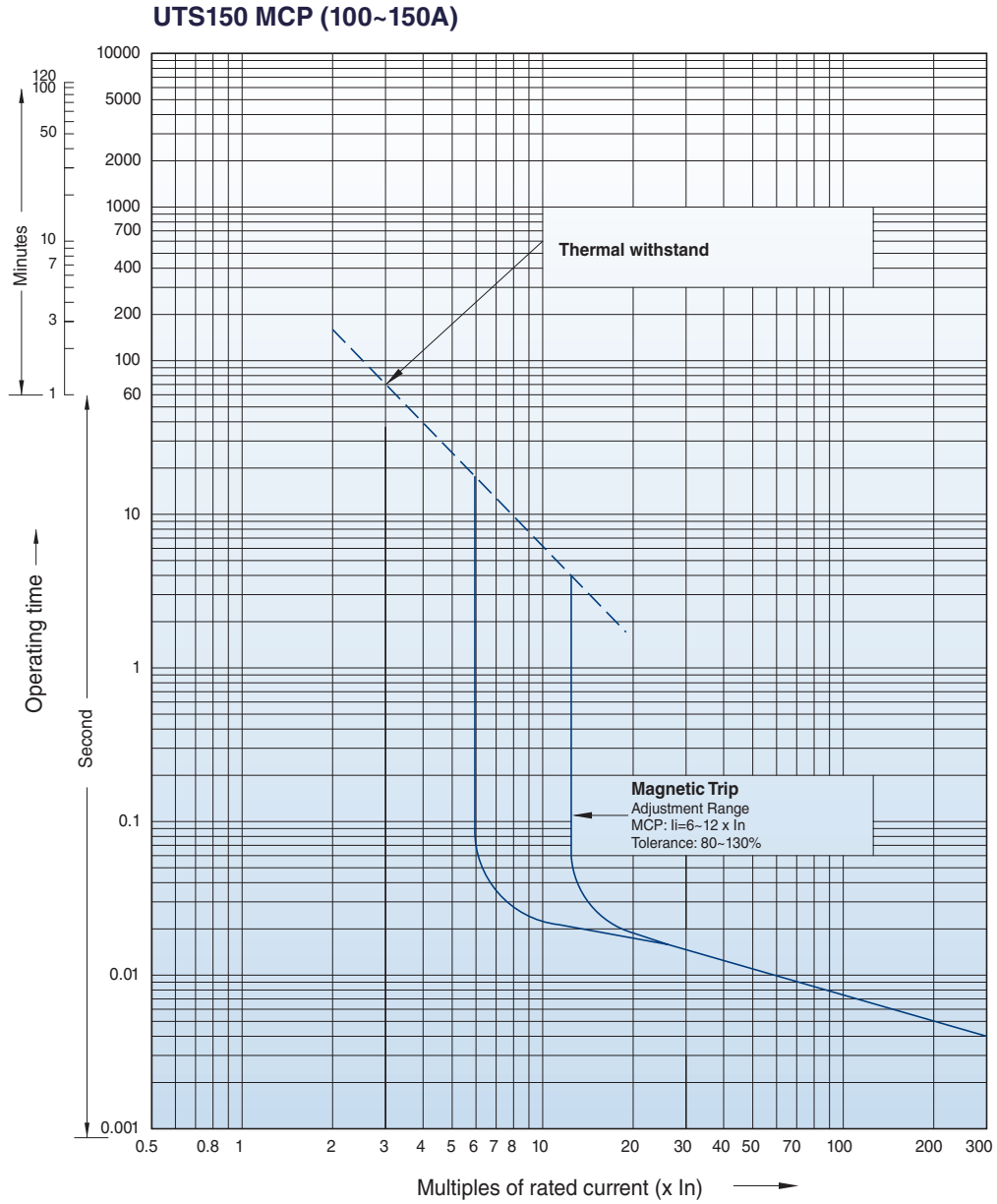
UTS150 MCP (1.6~60A)



RATING UTS150	MCP (3P)
	MAG TRIP (80%~130%) (5.8~13.3 x In)
1.6	10~20A
3.2	20~40A
6.3	40~80A
12	70~140A
20	120~240A
32	190~380A
50	300~600A
60	400~800A

UTS150 CHARACTERISTIC

This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.

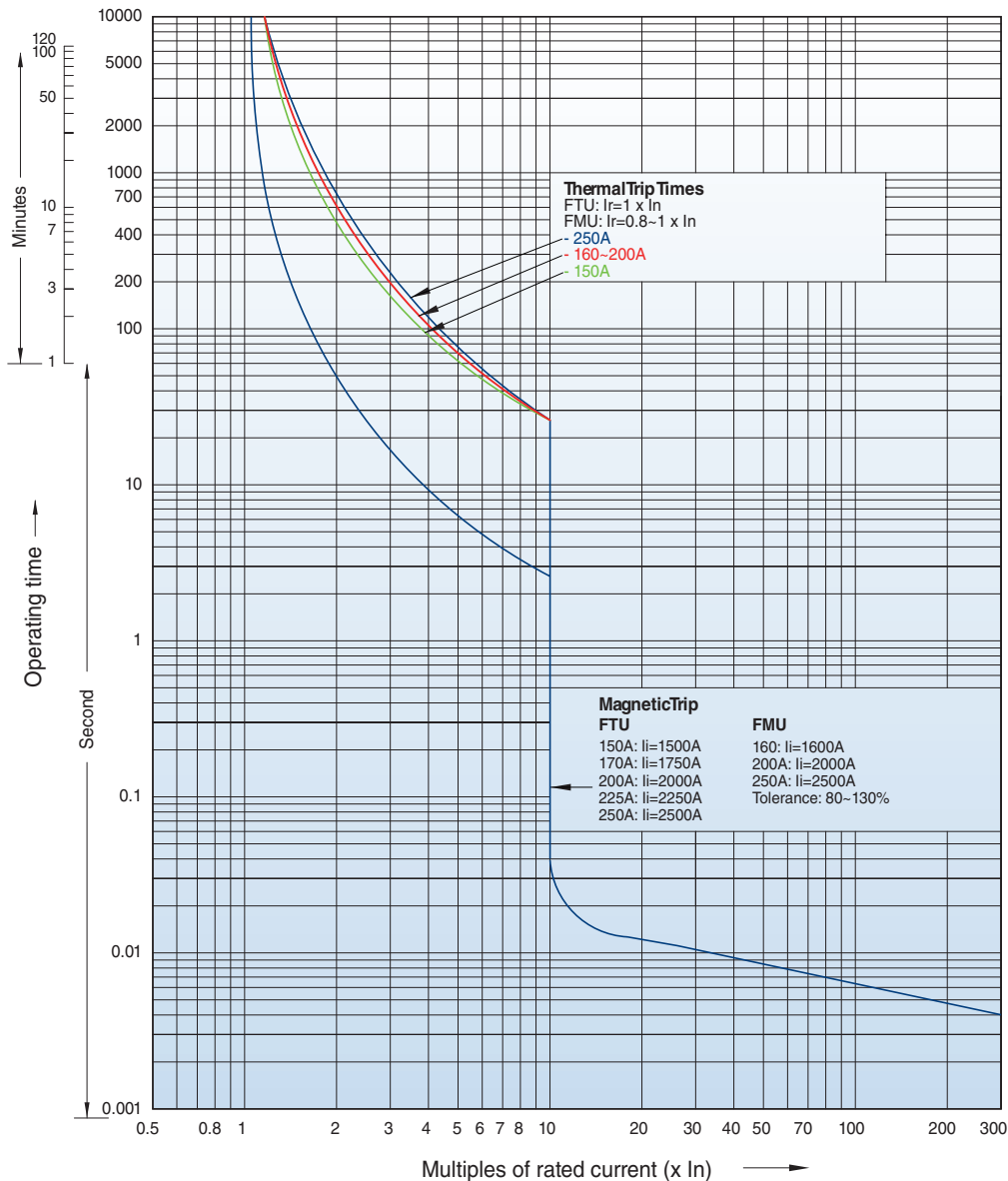


RATING UTS150	MCP (3P)
	MAG TRIP (80~130%) (6~12 x In)
100	600~1200A
150	900~1800A

UTS250 CHARACTERISTIC

This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.

UTS250 FTU, FMU (150~250A)

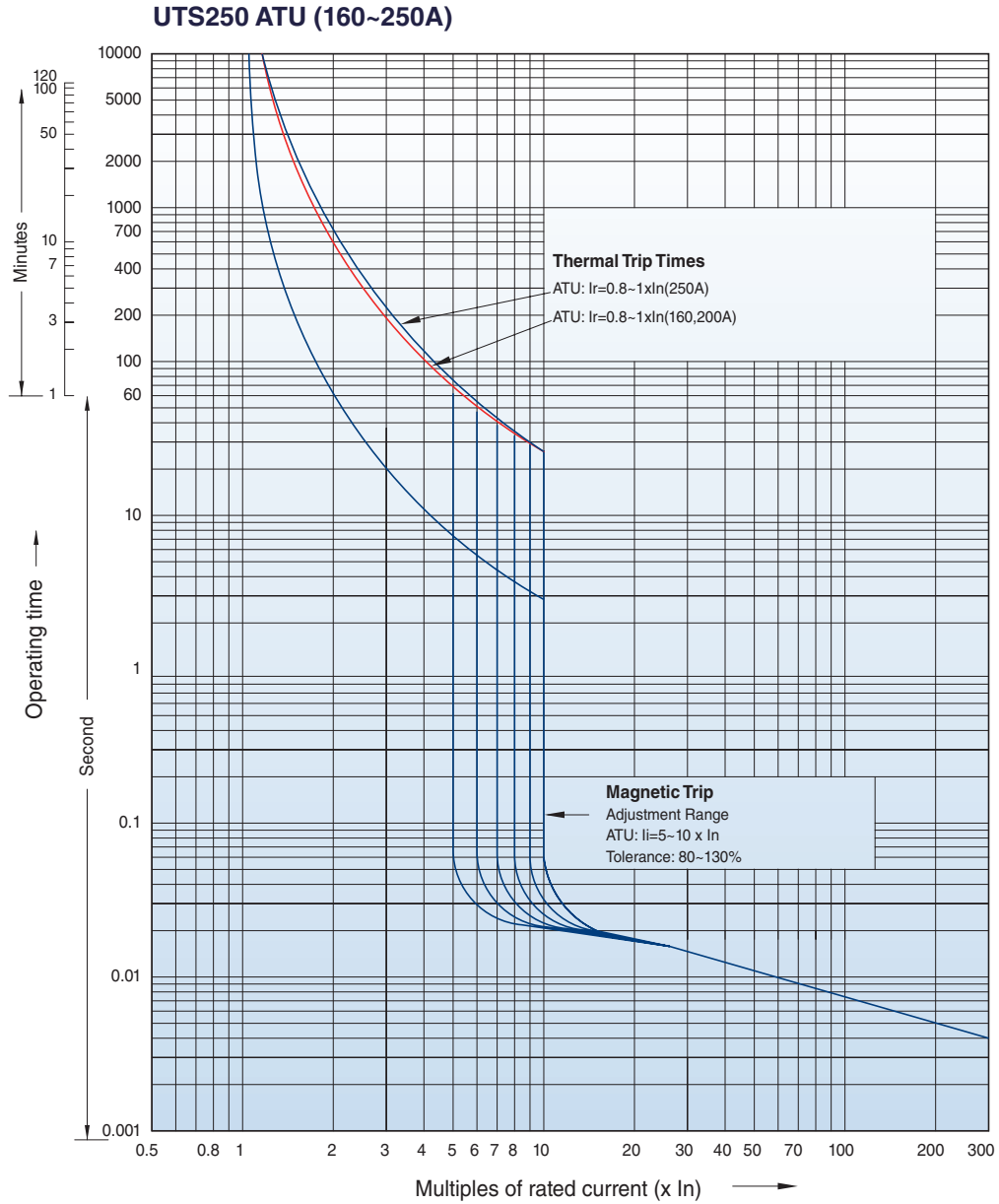


RATING UTS250	FTU	
	2P/3P	MAG TRIP (80%~130%)
150	○	1500A
175	○	1750A
200	○	2000A
225	○	2250A
250	○	2500A

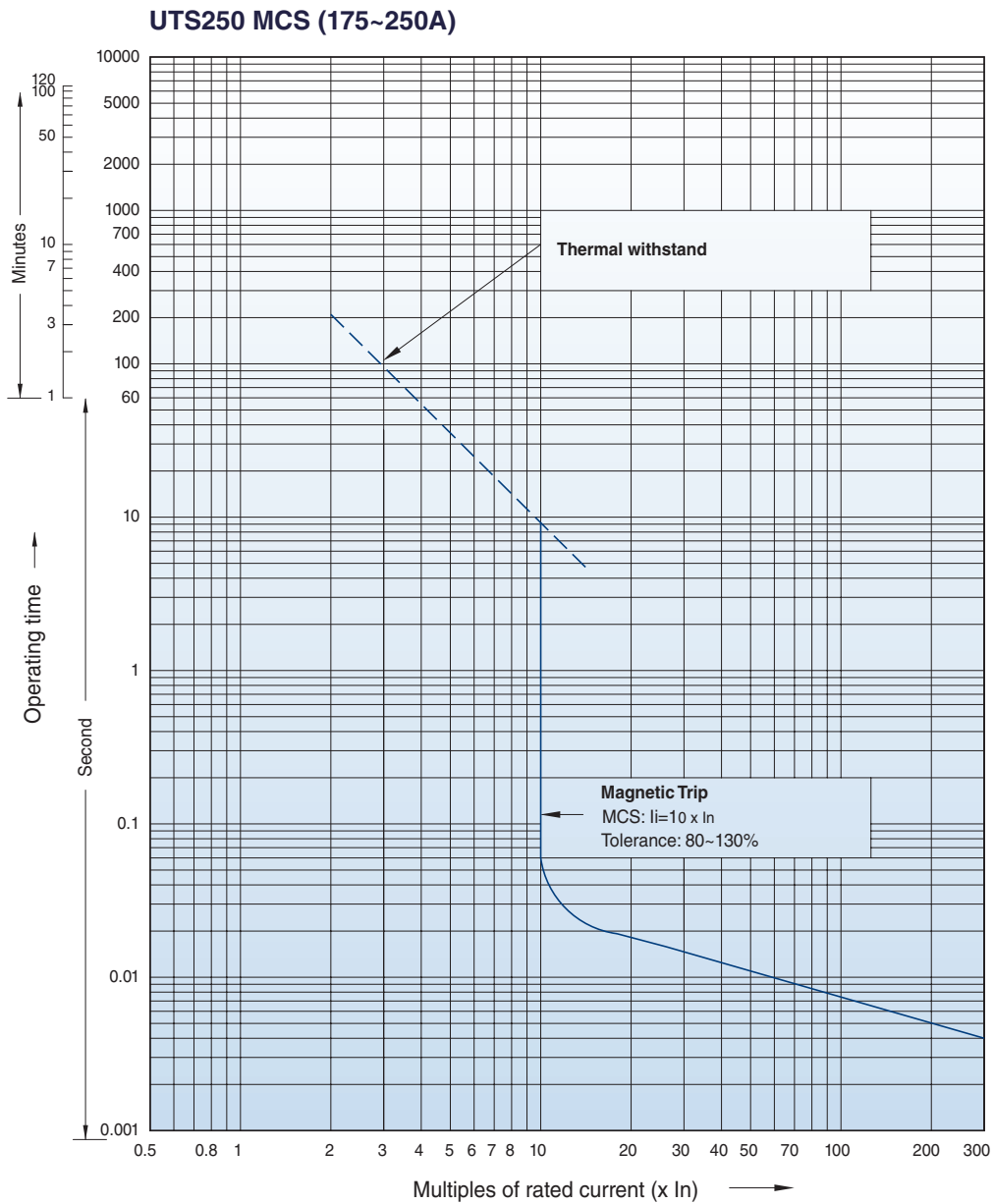
RATING UTS250	FMU		
	2P/3P	RATING RANGE (0.8~1 x In)	MAG TRIP (80%~130%)
160	○	128~160A	1600A
200	○	160~200A	2000A
250	○	200~250A	2500A

UTS250 CHARACTERISTIC

This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.



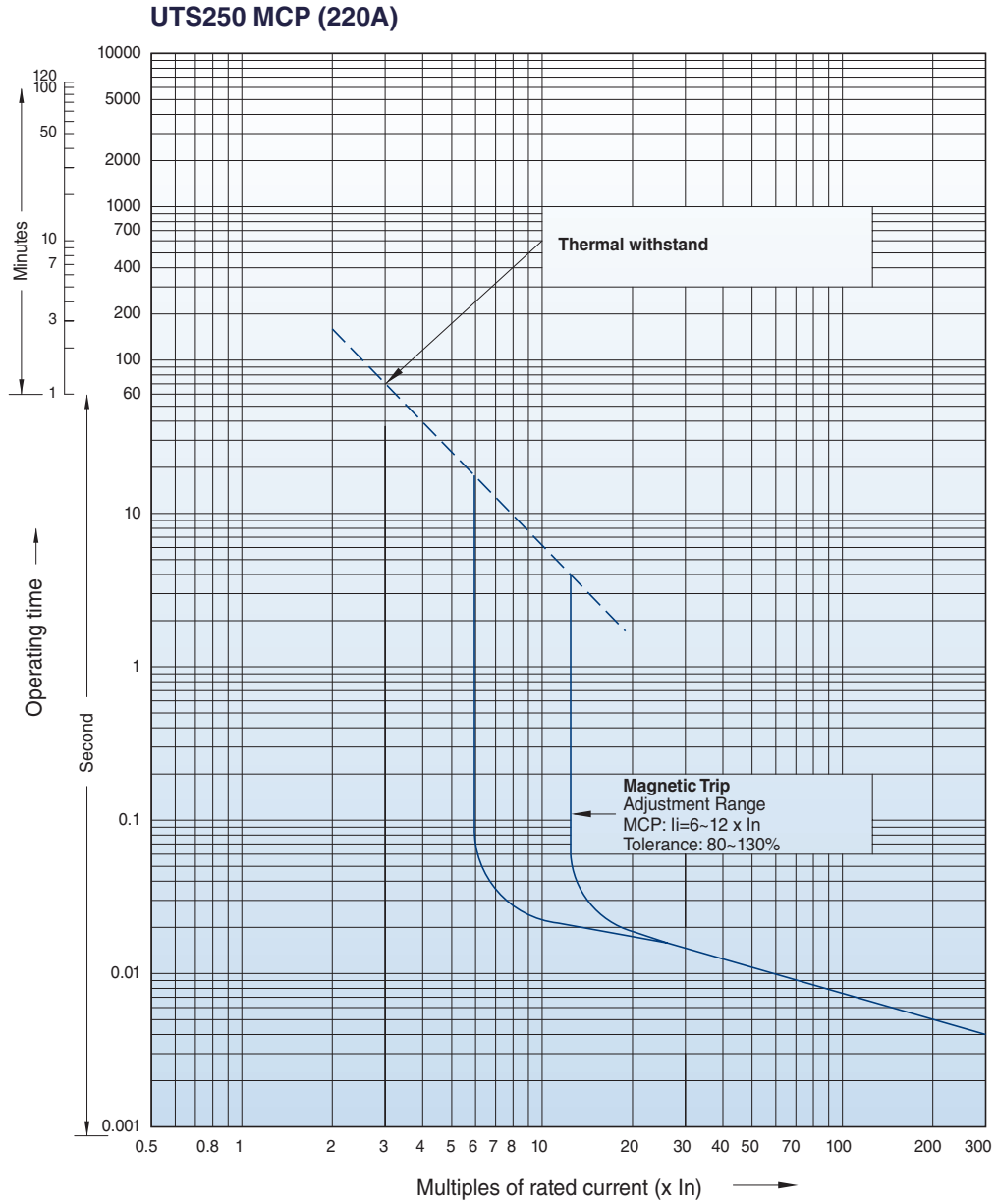
RATING UTS250	ATU		
	2P/3P	RATING RANGE ($0.8-1 \times I_n$)	MAG TRIP (80%~130%) ($5-10 \times I_n$)
160	○	128~160A	800~1600A
200	○	160~200A	1000~2000A
250	○	200~250A	1250~2500A



RATING UTS250	MCS (2P/3P)
	MAG TRIP (80%~130%) (10 x In)
175	1750A
250	2500A

UTS250 CHARACTERISTIC

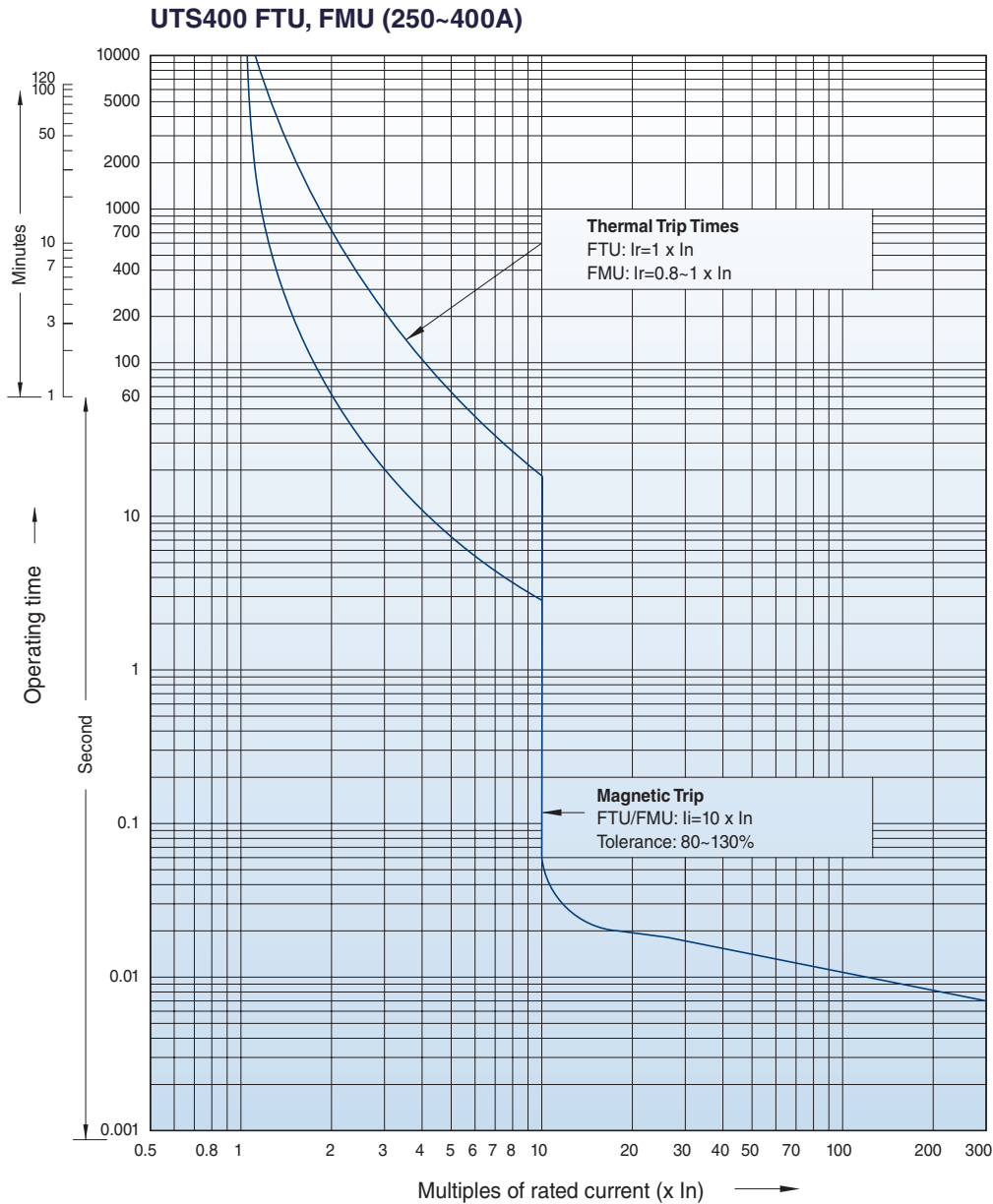
This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.



RATING UTS250	MCP (3P)
	MAG TRIP (80%~130%) (6~12 x In)
220	1320~2640A

UTS400 CHARACTERISTIC

This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.

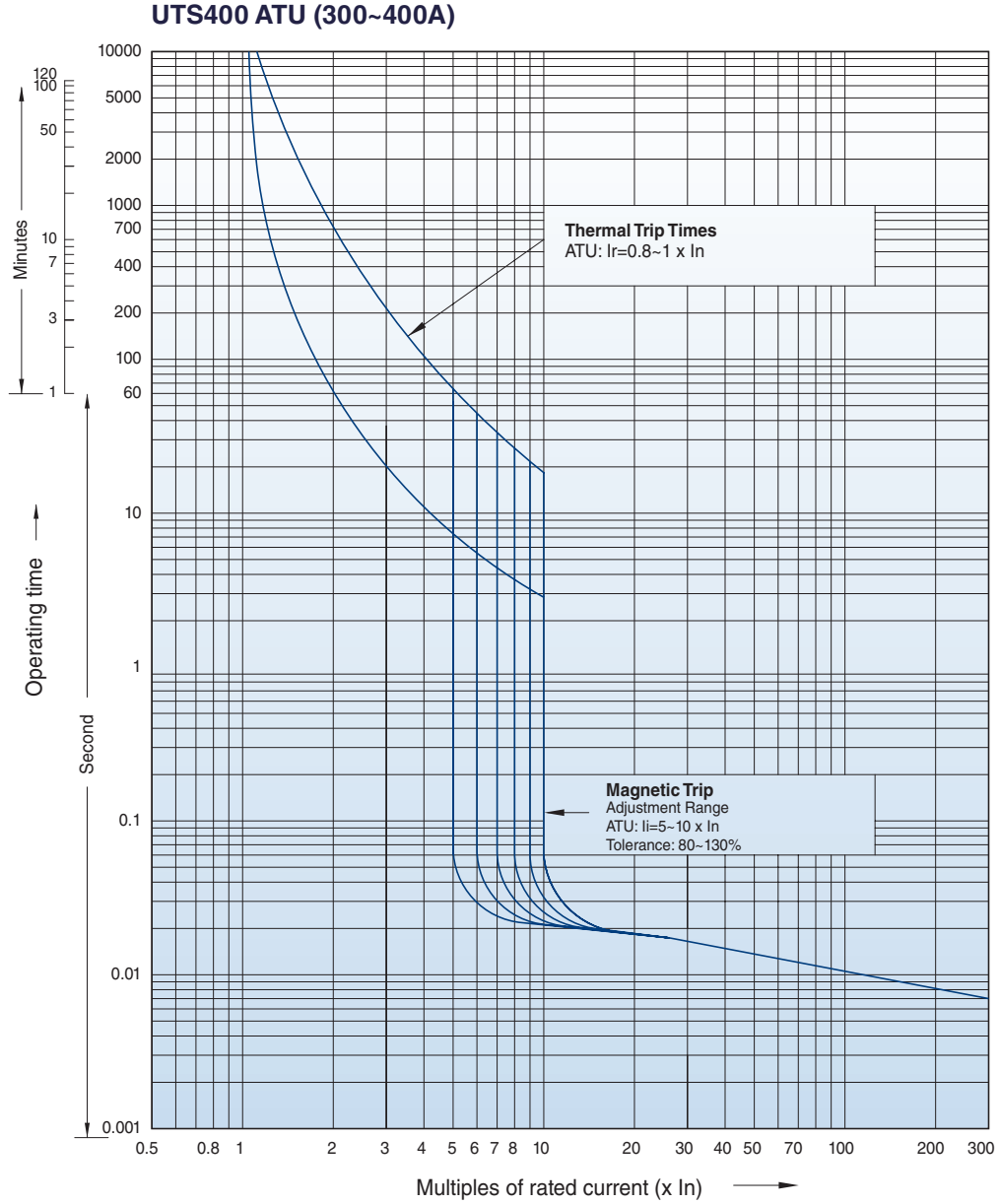


RATING UTS400	FTU	
	2P/3P	MAG TRIP (80%~130%)
250	○	2500A
300	○	3000A
350	○	3500A
400	○	4000A

RATING UTS400	FMU		
	2P/3P	RATING RANGE (0.8~1xIn)	MAG TRIP (80%~130%)
300	○	240~300A	3000A
400	○	320~400A	4000A

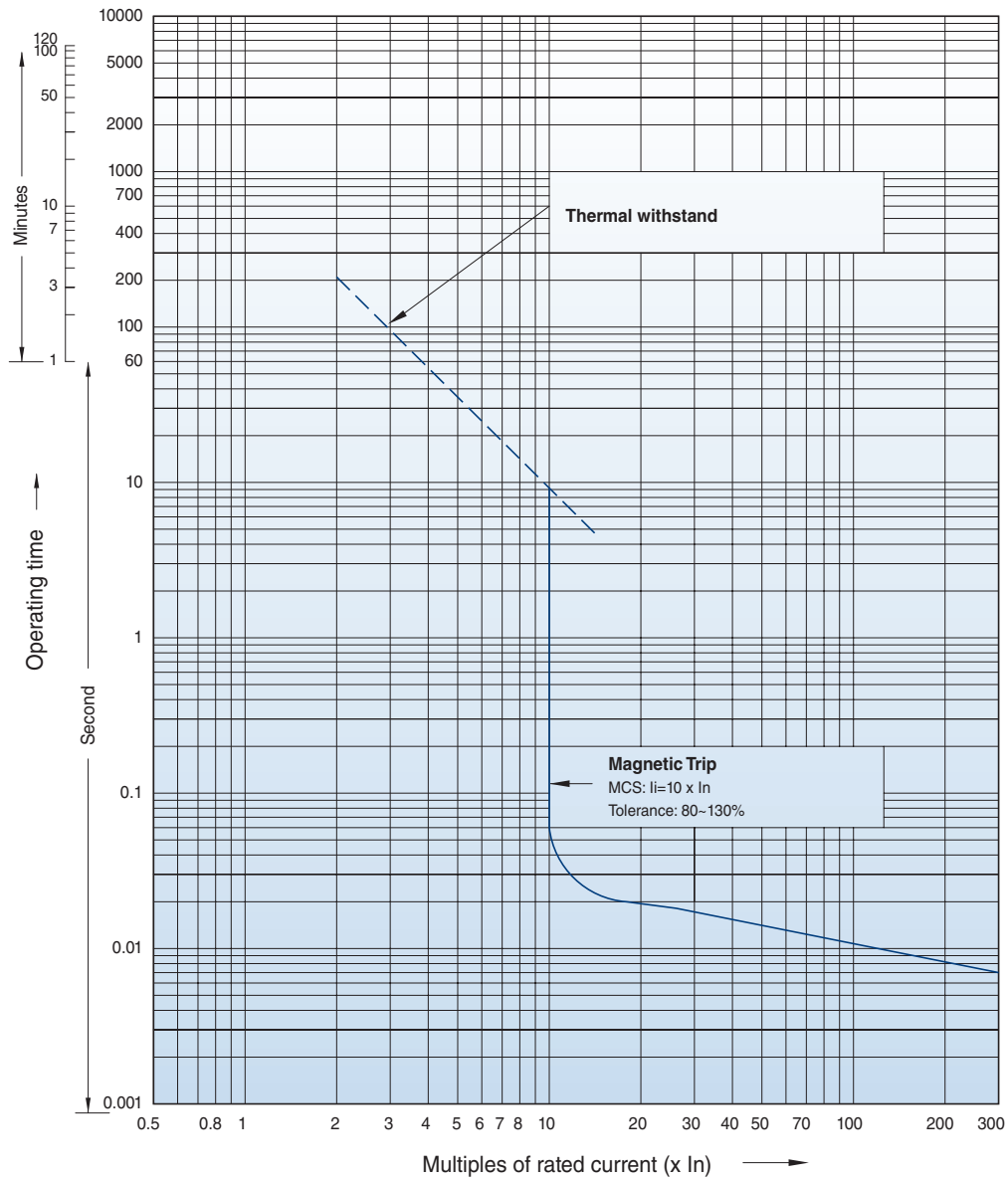
UTS400 CHARACTERISTIC

This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.



RATING UTS400	ATU		
	2P/3P	RATING RANGE (0.8~1 x In)	MAG TRIP (80%~130%) (5~10 x In)
300	○	240~300A	1500~3000A
400	○	320~400A	2000~4000A

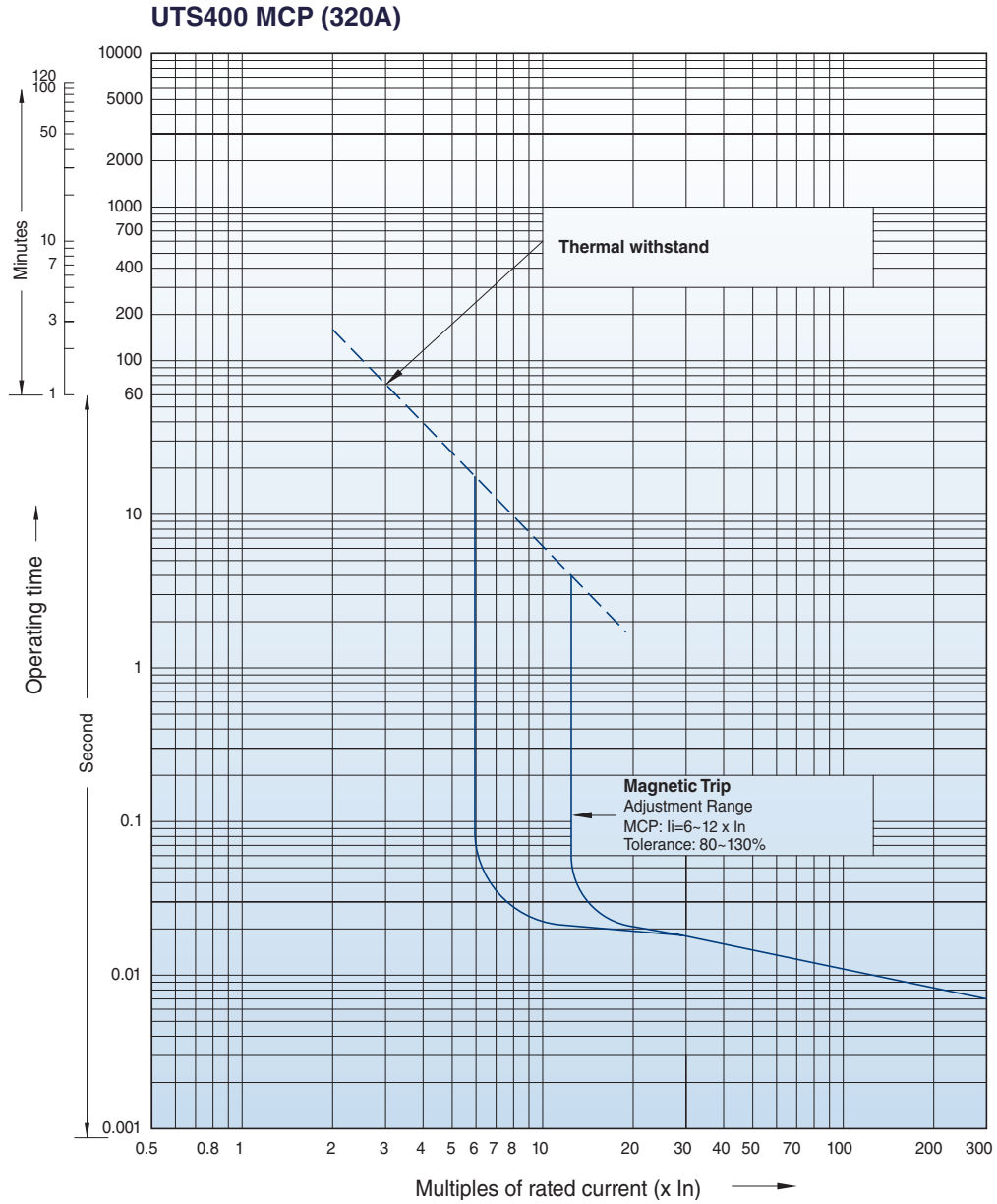
UTS400 MCS (400A)



RATING UTS400	MCS (2P/3P)
	MAG TRIP (80%~130%) (10 x In)
400	4000A

UTS400 CHARACTERISTIC

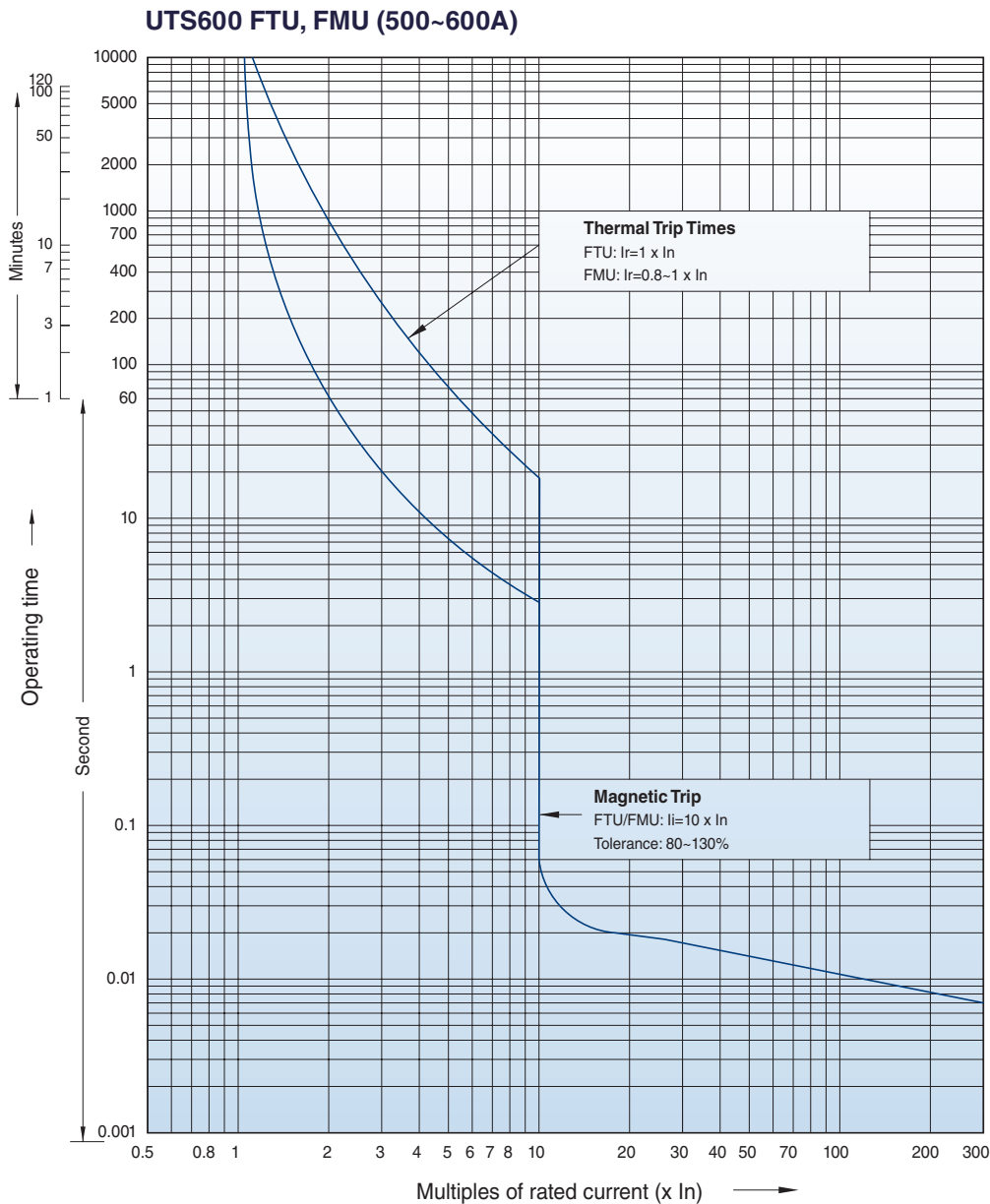
This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.



RATING UTS400	MCP (3P)
	MAG TRIP (80%~130%) (6~12 x In)
320	1920~3840A

UTS600 CHARACTERISTIC

This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.

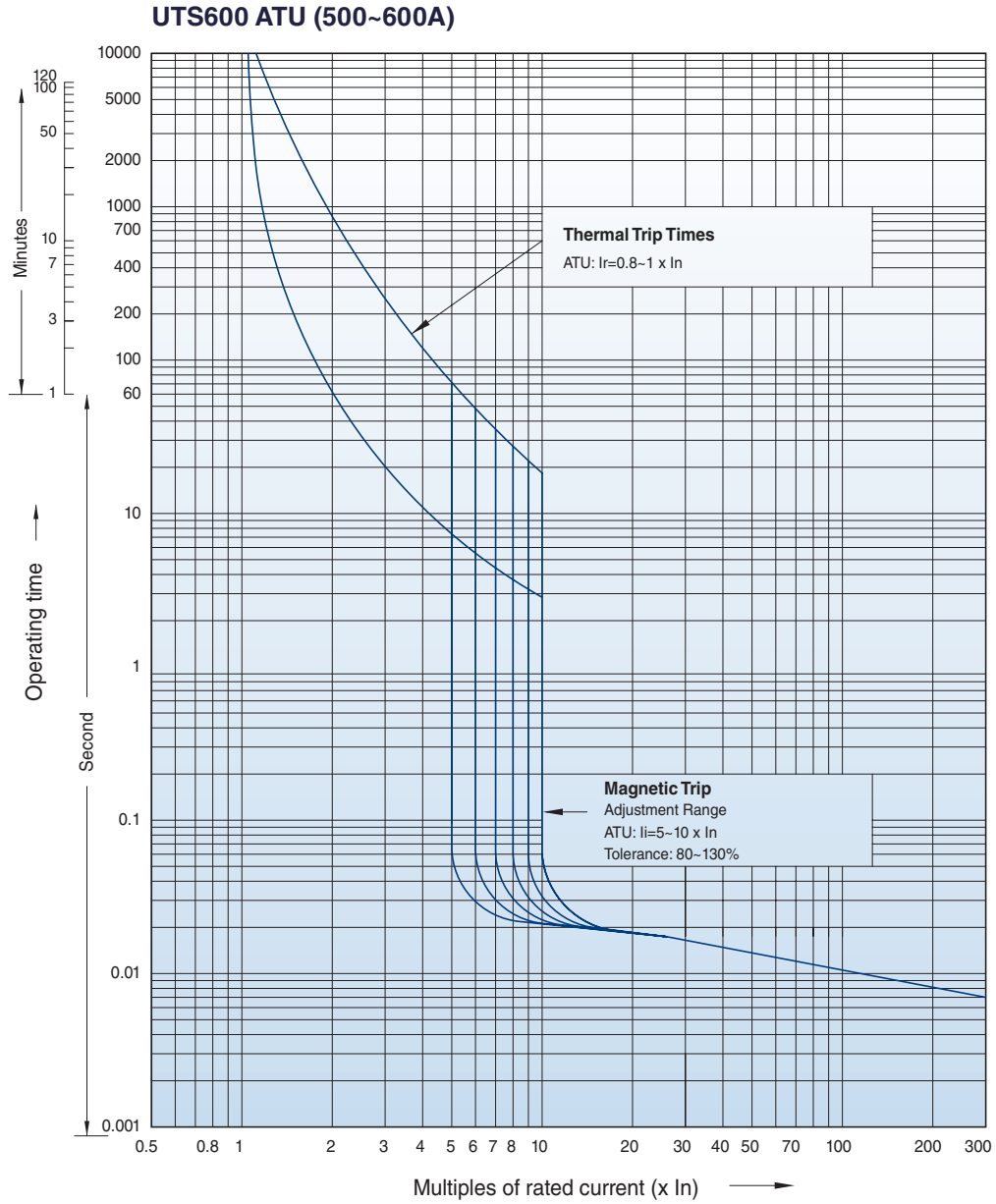


RATING UTS600	FTU	
	2P/3P	MAG TRIP (80%~130%)
500	○	5000A
600	○	6000A

RATING UTS600	2P/3P	FMU	
		RATING RANGE (0.8~1xIn)	MAG TRIP (80%~130%)
500	○	400~500A	5000A
600	○	480~600A	6000A

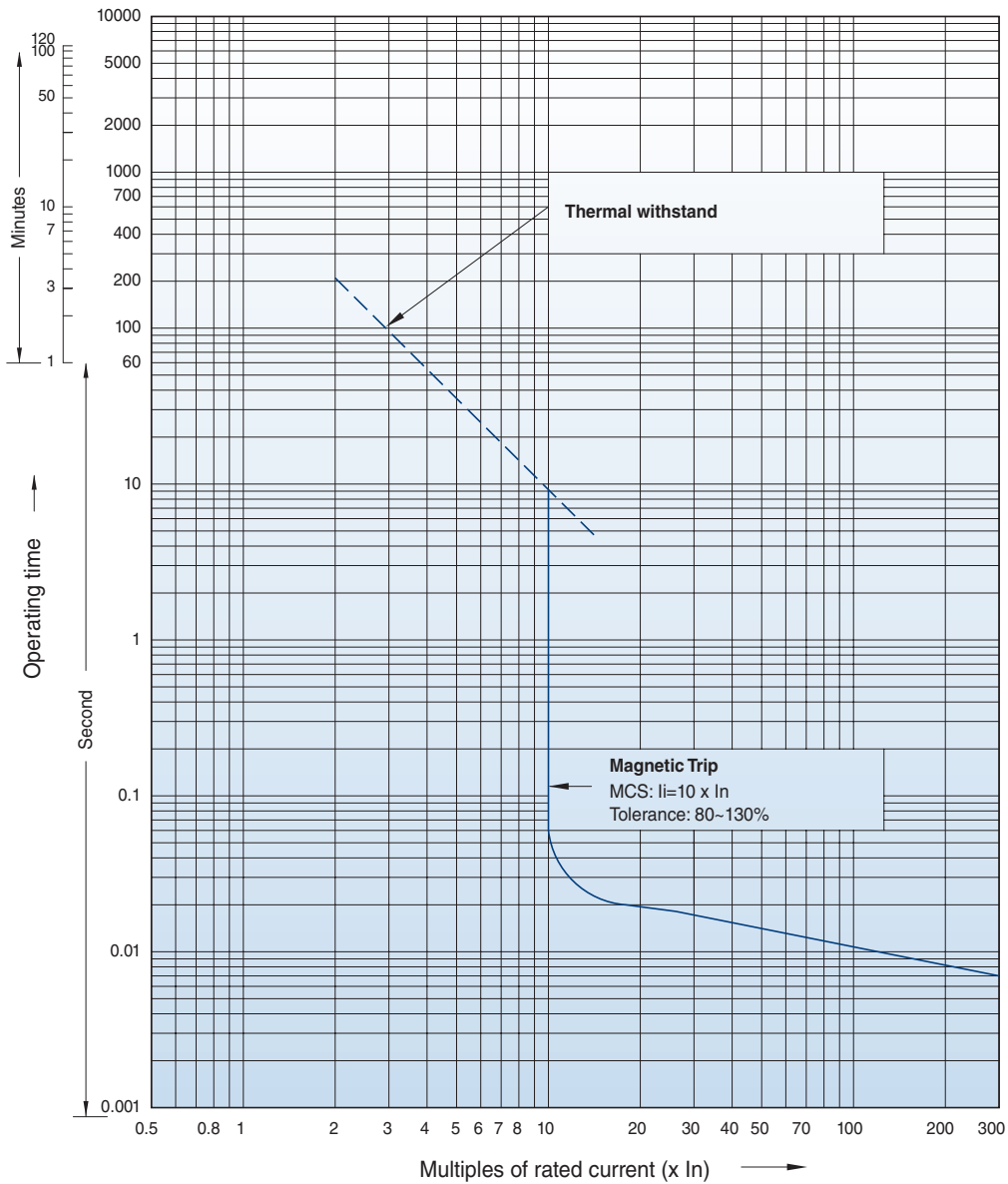
UTS600 CHARACTERISTIC

This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.



RATING UTS600	ATU		
	2P/3P	RATING RANGE (0.8~1 x In)	MAG TRIP (80%~130%) (5~10 x In)
500	○	400~500A	2500~5000A
600	○	480~600A	3000~6000A

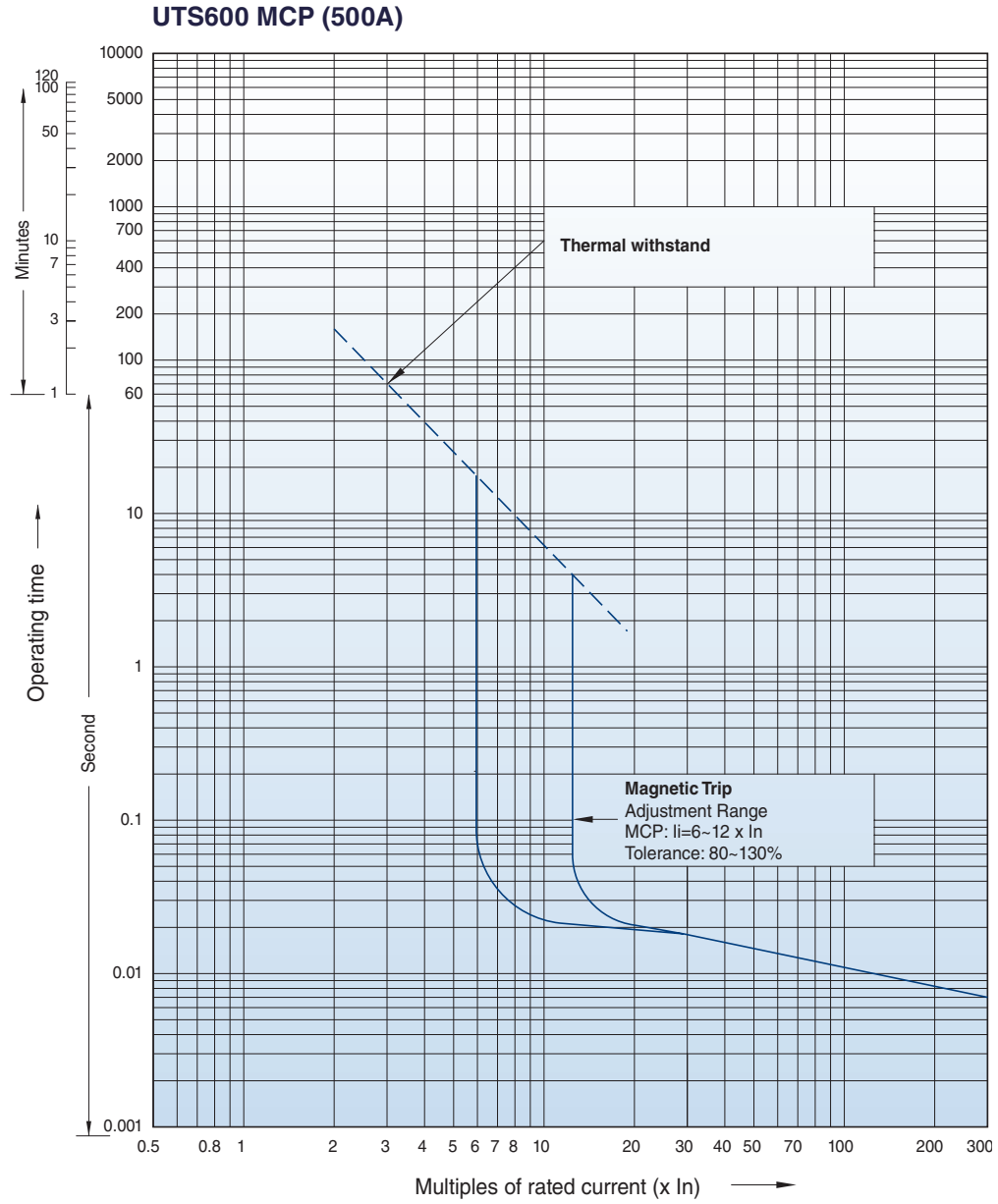
UTS600 MCS (600A)



RATING UTS600	MCS (2P/3P)
	MAG TRIP (80%~130%) (10 x In)
600	6000A

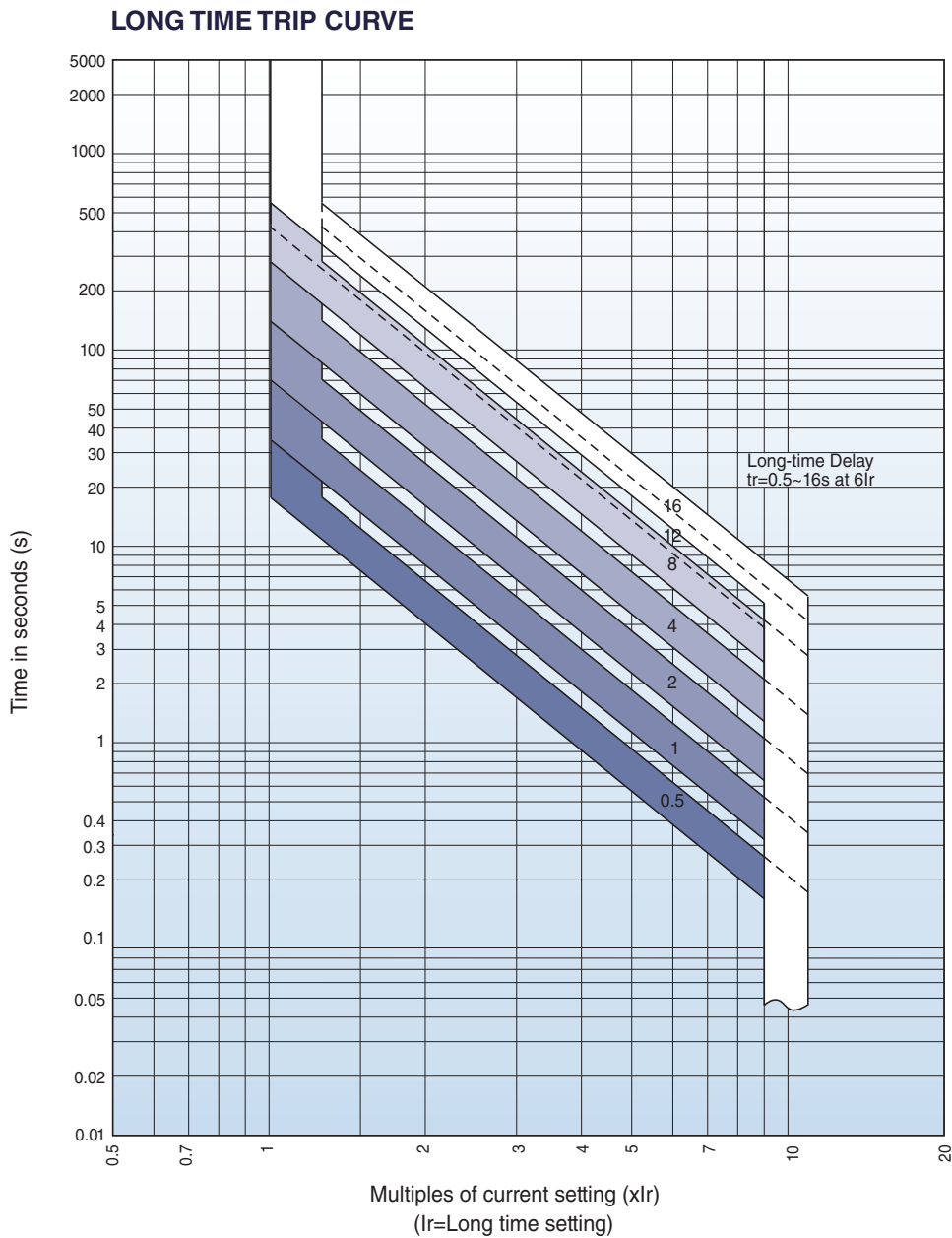
UTS600 CHARACTERISTIC

This curve is to be used for application and coordination purposes only.
All time/current characteristic curve data is based on 40°C ambient cold start.

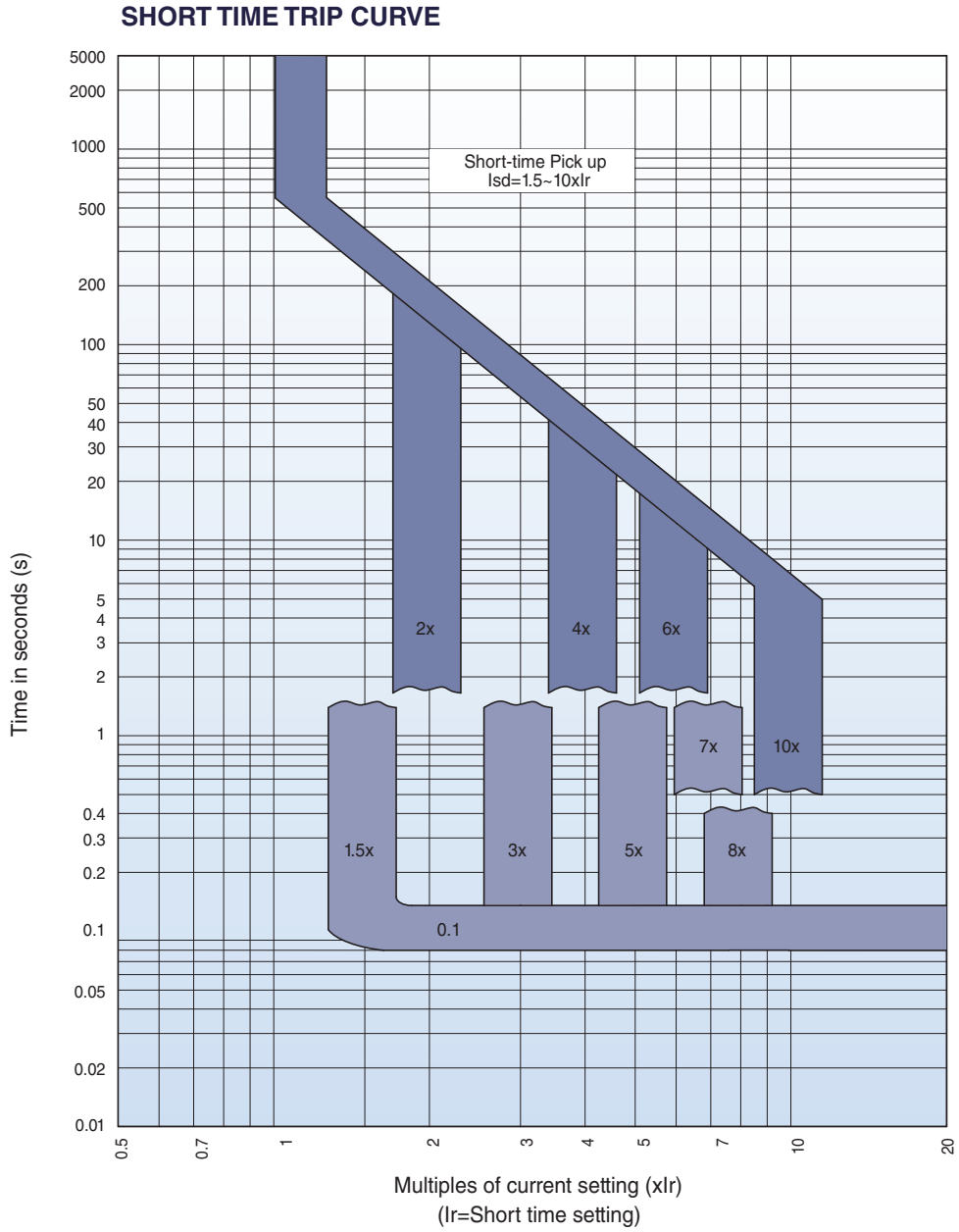


RATING UTS600	MCP (3P)
	MAG TRIP (80%~130%) (6~12xIn)
500	3000~6000A

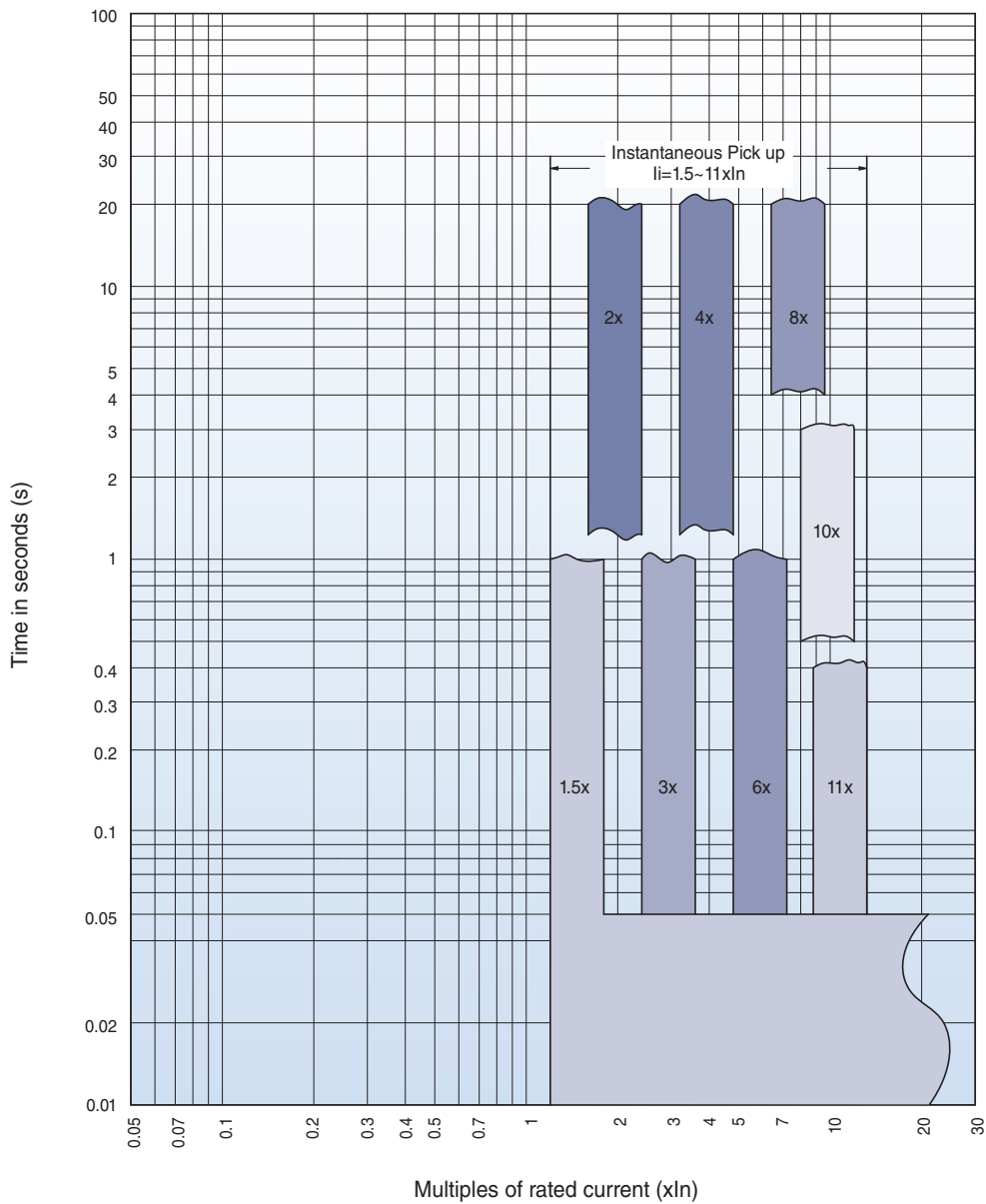
ELECTRONIC TRIP UNIT (ETS23, ETS33)



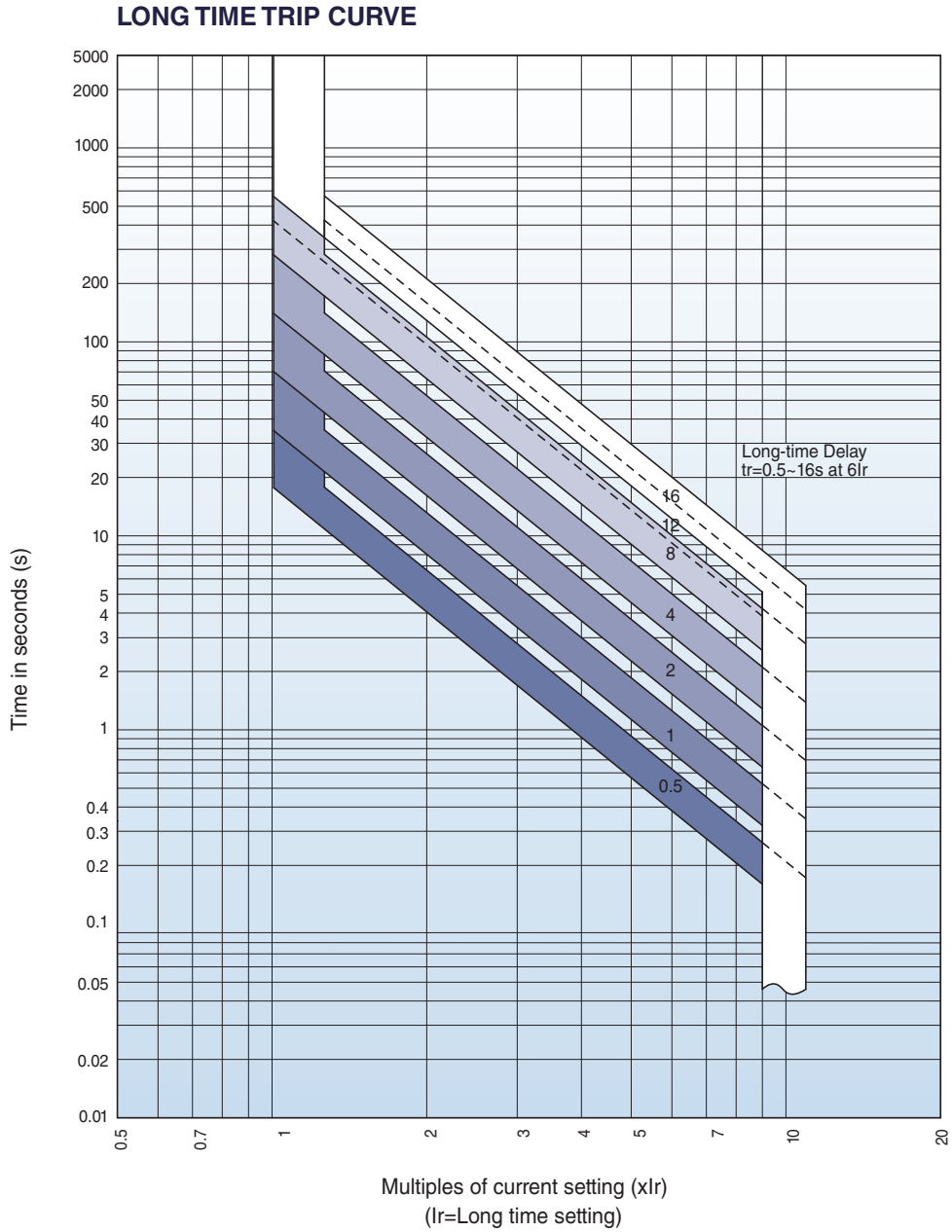
ELECTRONIC TRIP UNIT (ETS23, ETS33)



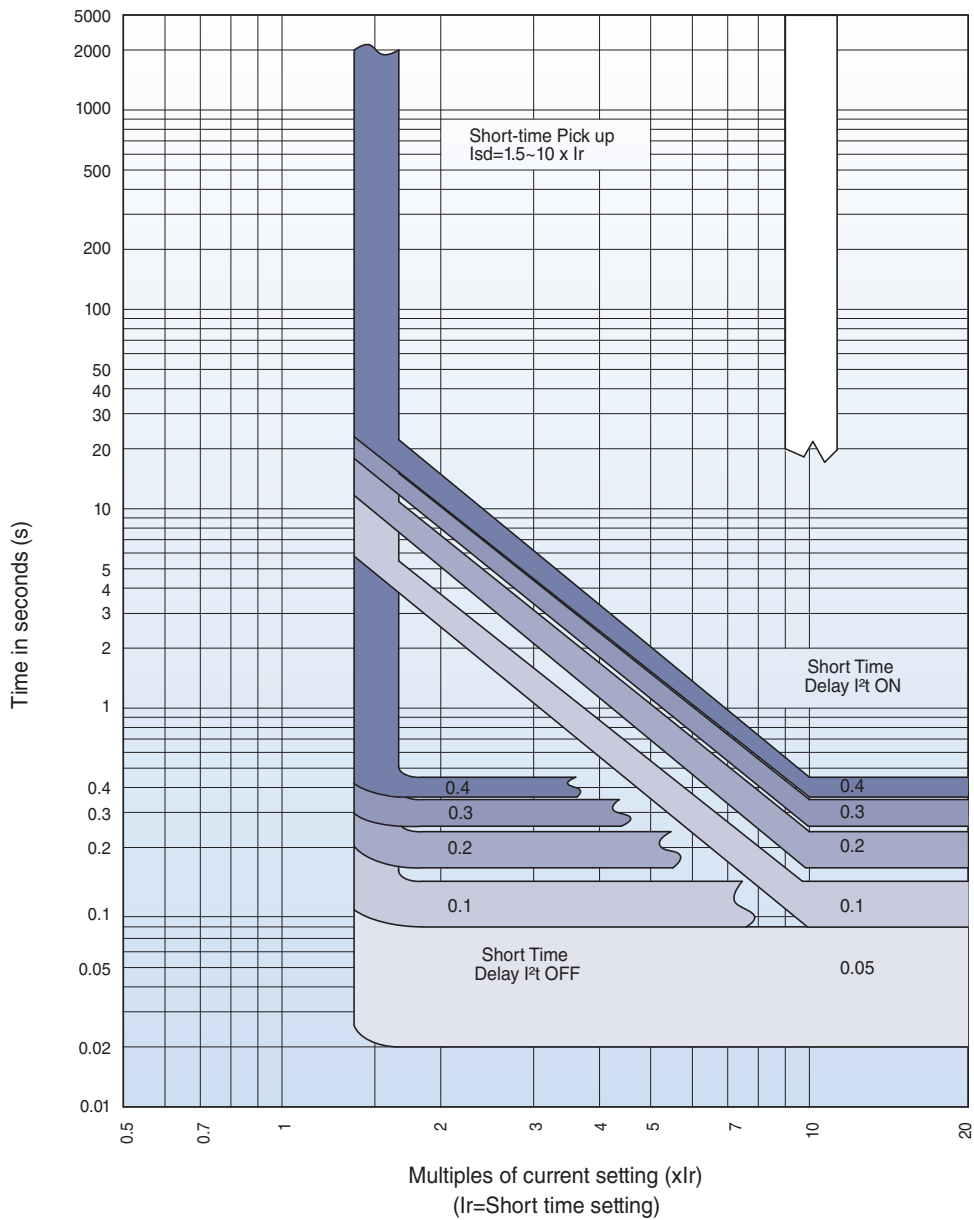
INSTANTANEOUS TRIP CURVE



ELECTRONIC TRIP UNIT (ETM33)

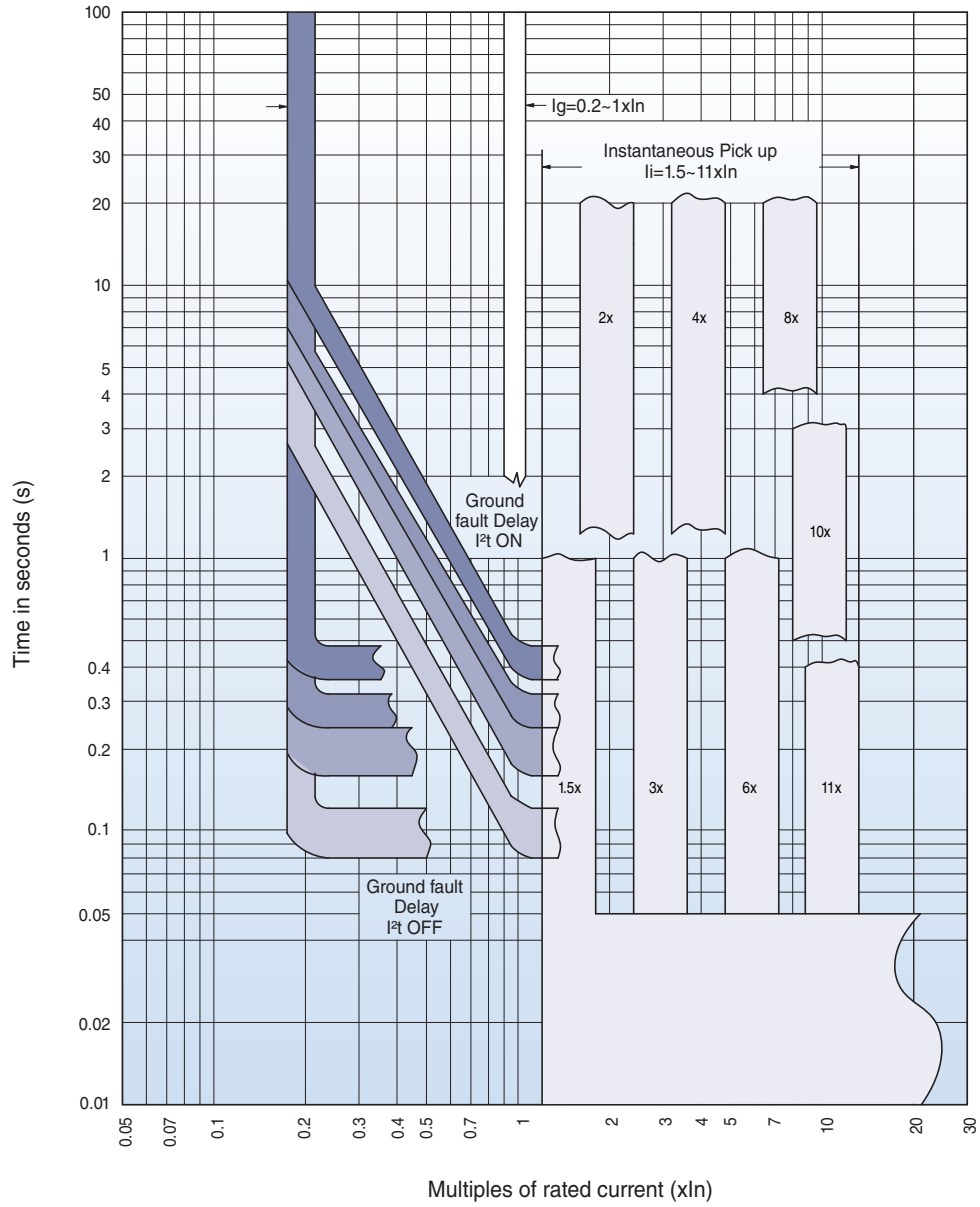


SHORT TIME TRIP CURVE



ELECTRONIC TRIP UNIT (ETM33)

INSTANTANEOUS AND GROUND FAULT CURVE

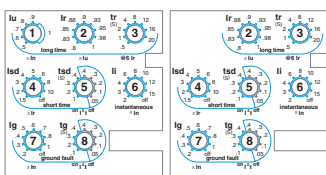


UTS800/UTS1200 CHARACTERISTIC TRIP CURVES

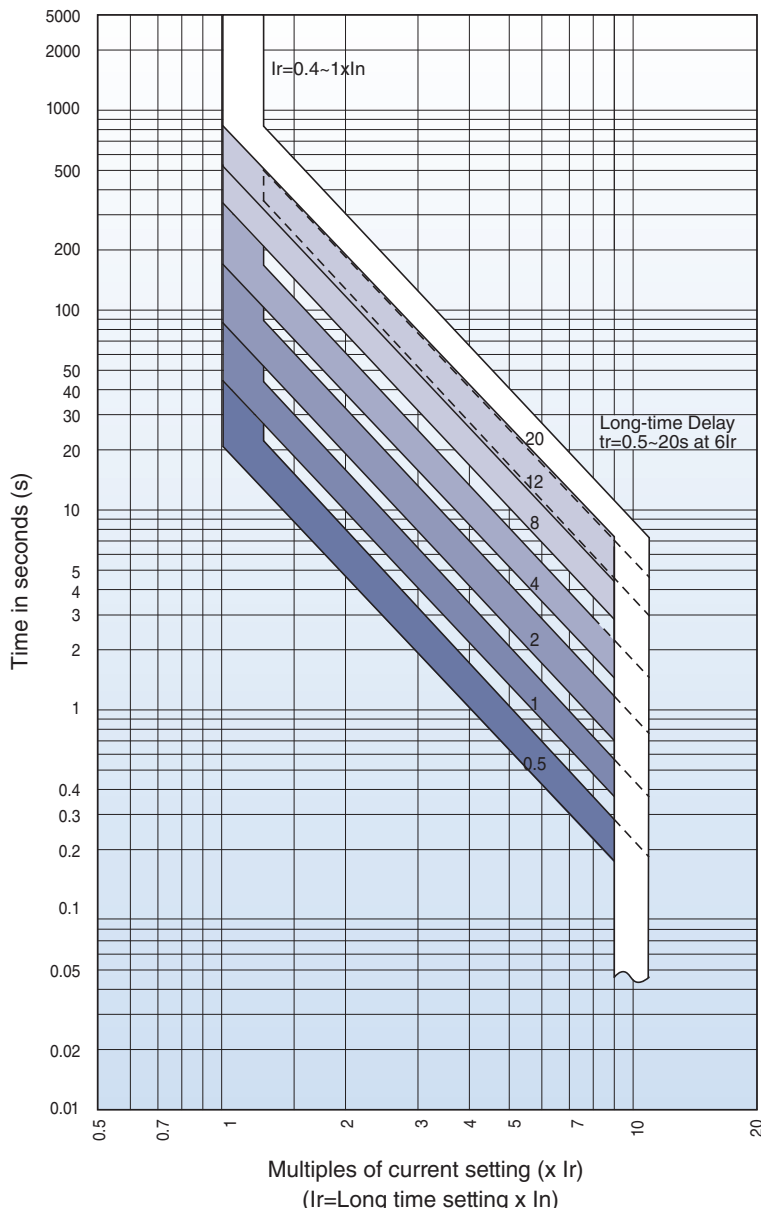
This curve is to be used for application and coordination purposes only.

LONG-TIME DELAY (400~1200A)

Long-time pickup $0.4 \sim 1 \times I_r$
and delay $0.5 \sim 20s$



①, ②, ③ – Long-time setting

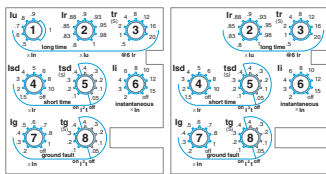


Notes :

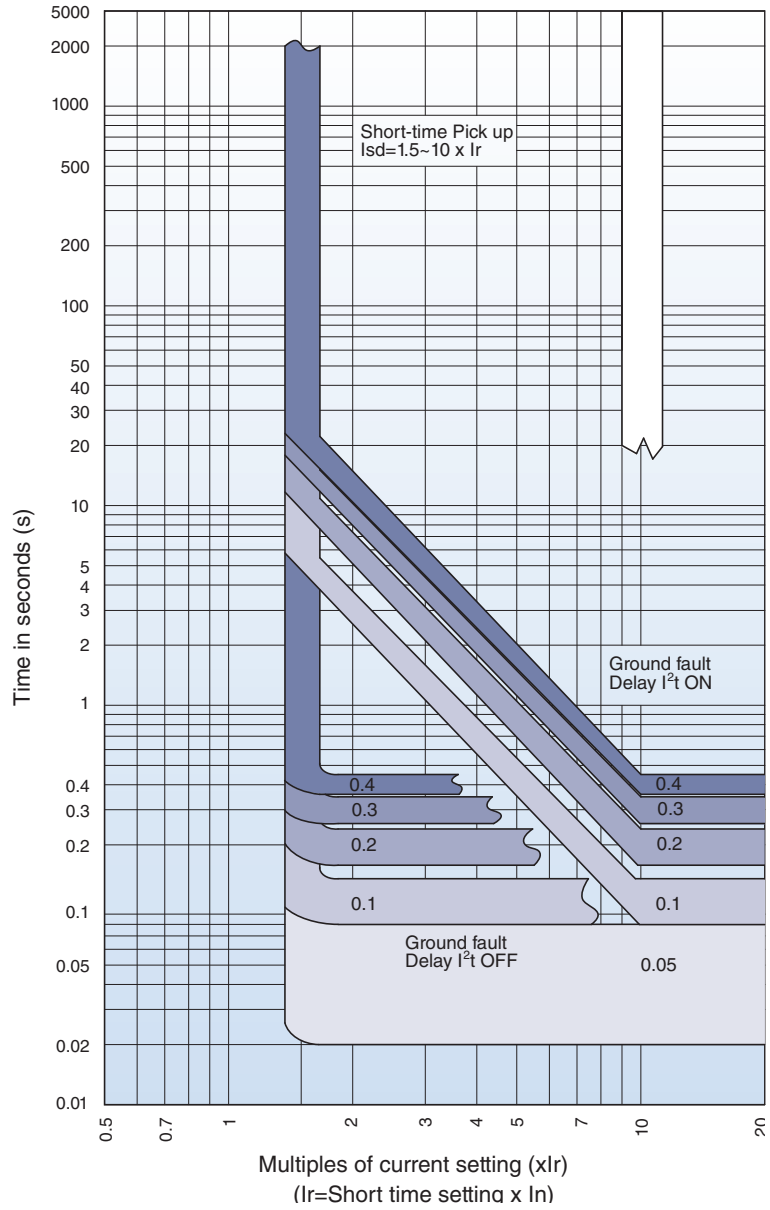
1. There is a thermal-imaging effect that can act to shorten the long-time delay. The thermal imaging effect comes into play if a current above the long-time delay pickup value exists for a time and then is cleared by the tripping of a downstream device or the circuit breaker itself. A subsequent overload will cause the circuit breaker to trip in a shorter time than normal. The amount of time delay reduction is inverse to the amount of time that has elapsed since the previous overload.
2. Total clearing times shown include the response times of the trip unit, the circuit breaker opening, and the extinction of the current.

SHORT-TIME DELAY (400~1200A)

Short-time pickup $1.5 \sim 10 \times I_r$
and delay 0.1~0.4s



④, ⑤ – Short-time setting

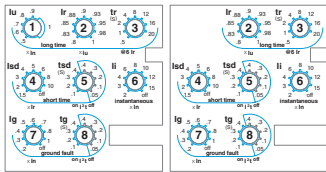


UTS800/UTS1200 CHARACTERISTIC TRIP CURVES

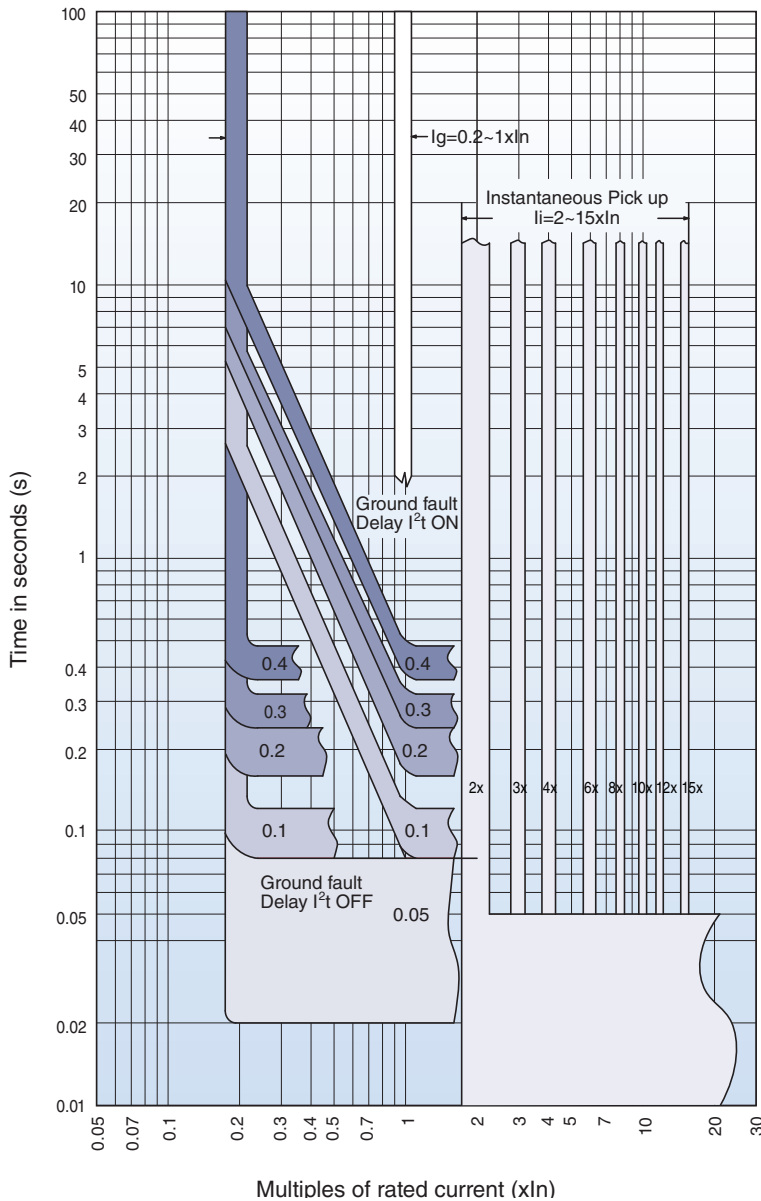
This curve is to be used for application and coordination purposes only.

INSTANTANEOUS AND GROUND FAULT (400~1200A)

Instantaneous pickup $2 \sim 15 \times I_n$
and Ground fault pickup $0.2 \sim 1 \times I_n$
and delay $0.1 \sim 0.4s$

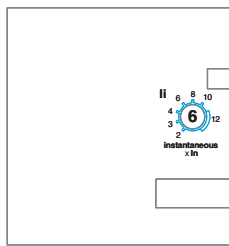


⑥, ⑦, ⑧ - Instantaneous and Ground fault setting

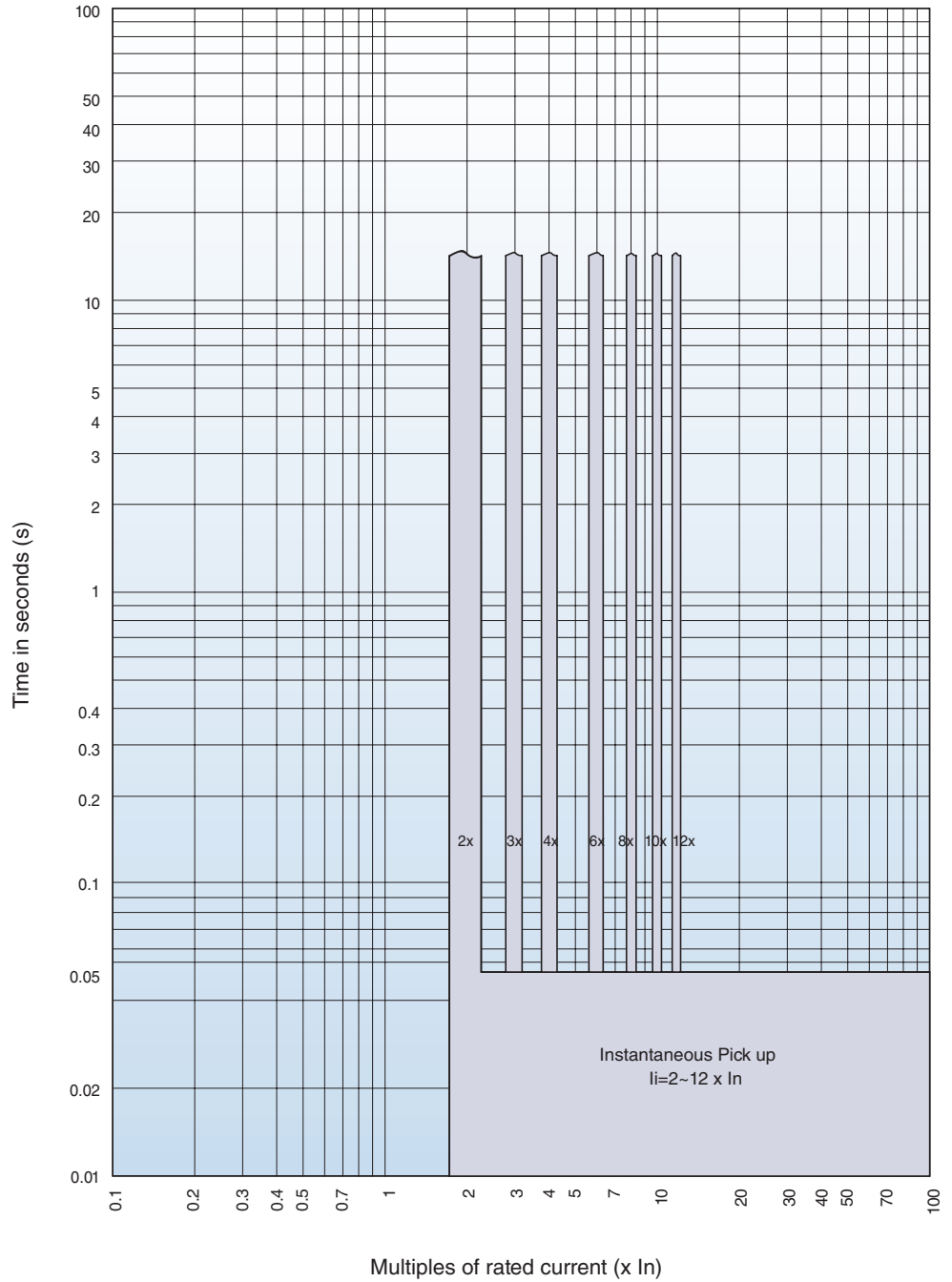


MCP: ADJUSTABLE INSTANTANEOUS TRIP CURVE (800A)

INSTANTANEOUS PICKUP 2~12 X I_n AT 800A

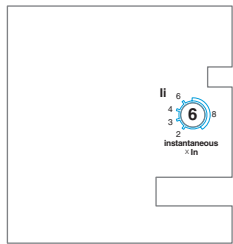


Instantaneous pickup
2~12 x I_n at 800A

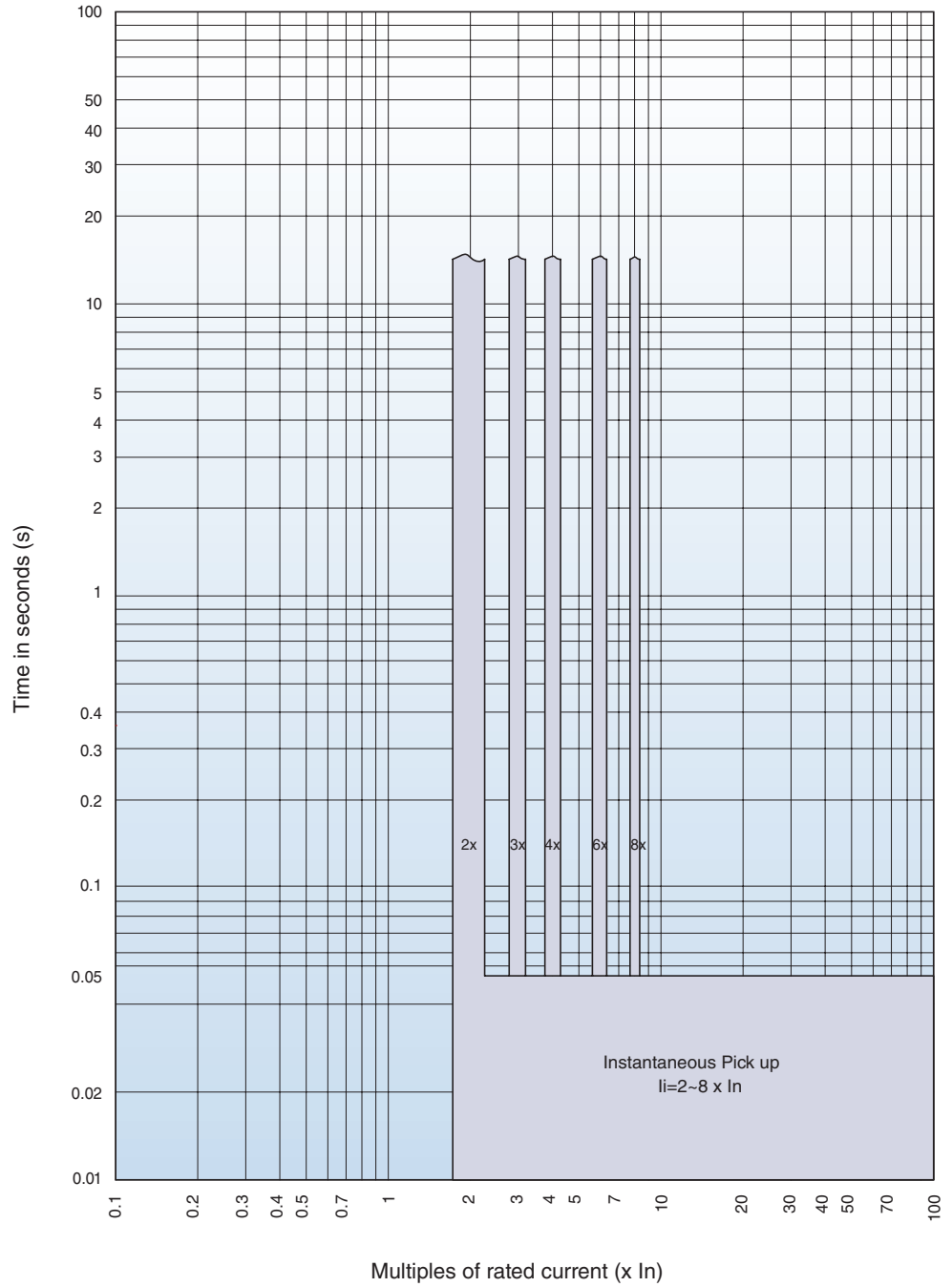


MCP: ADJUSTABLE INSTANTANEOUS TRIP CURVE (1200A)

INSTANTANEOUS PICKUP 2~8 X I_n AT 1200A

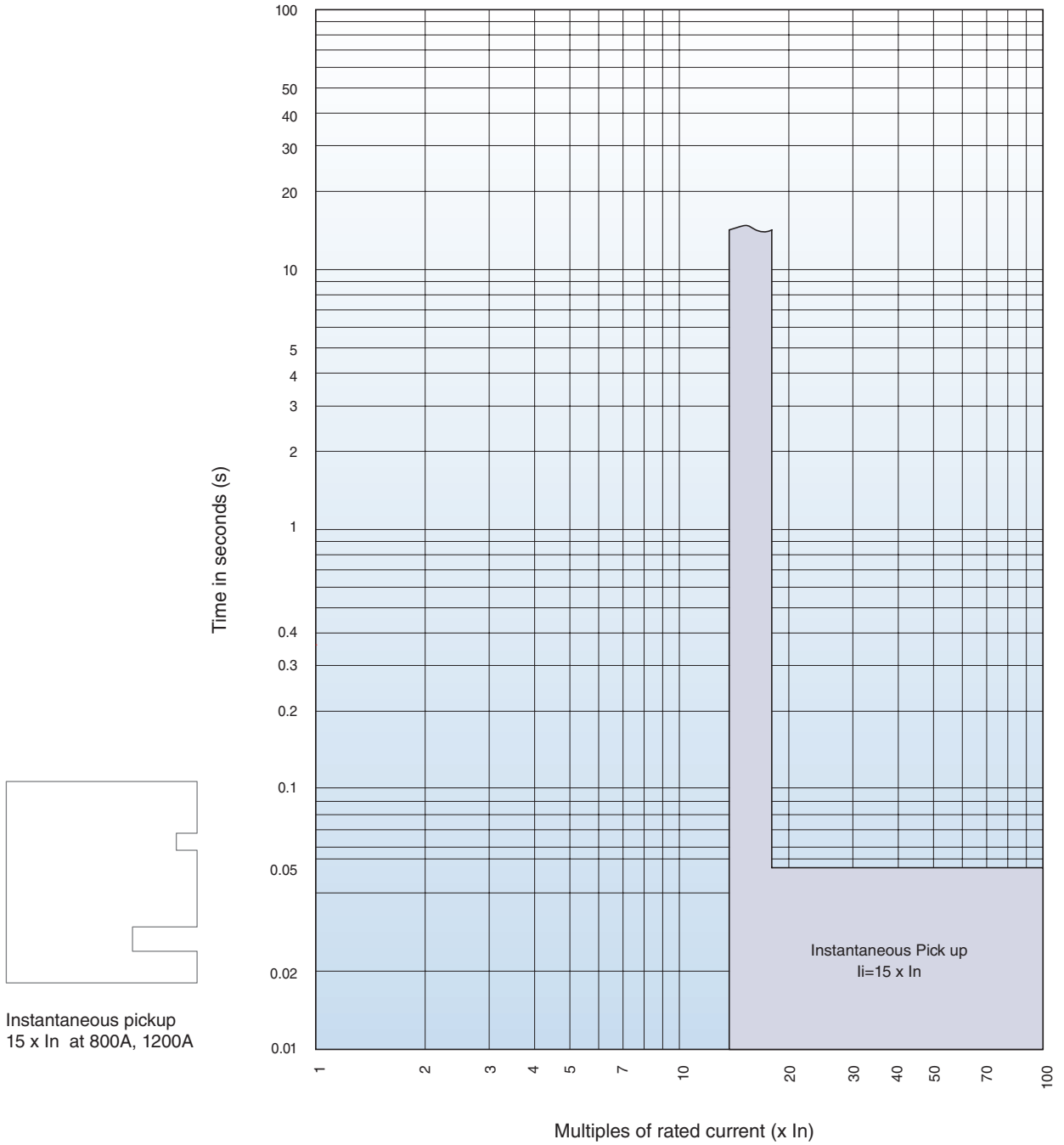


Instantaneous pickup
2~8 x I_n at 1200A



MCS: FIXED INSTANTANEOUS TRIP CURVE (800~1200A)

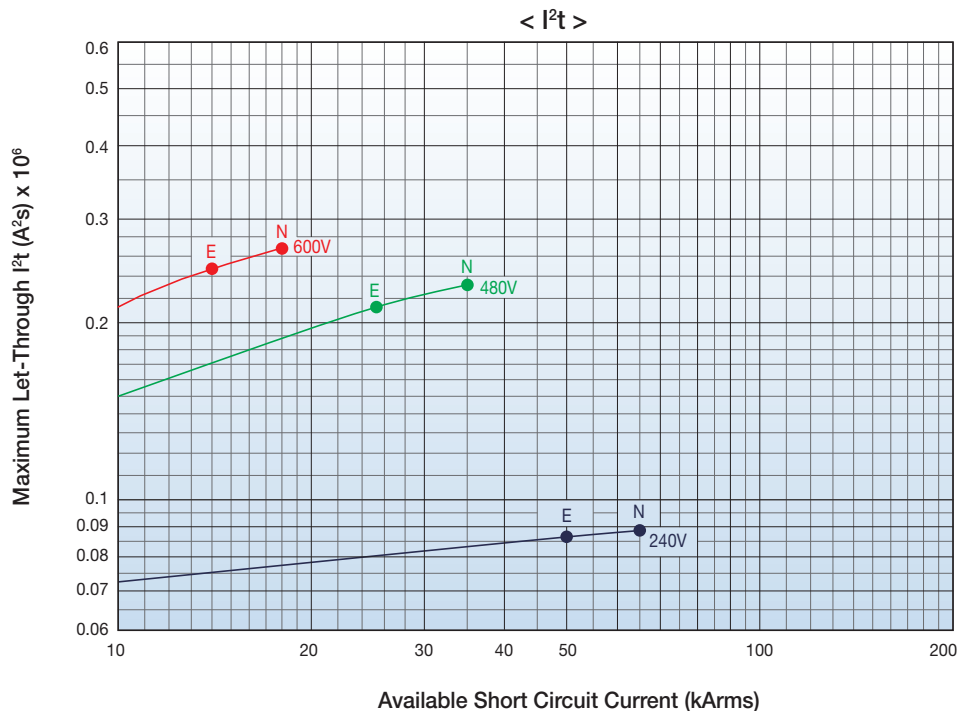
INSTANTANEOUS PICKUP 15 X I_n AT 800A, 1200A



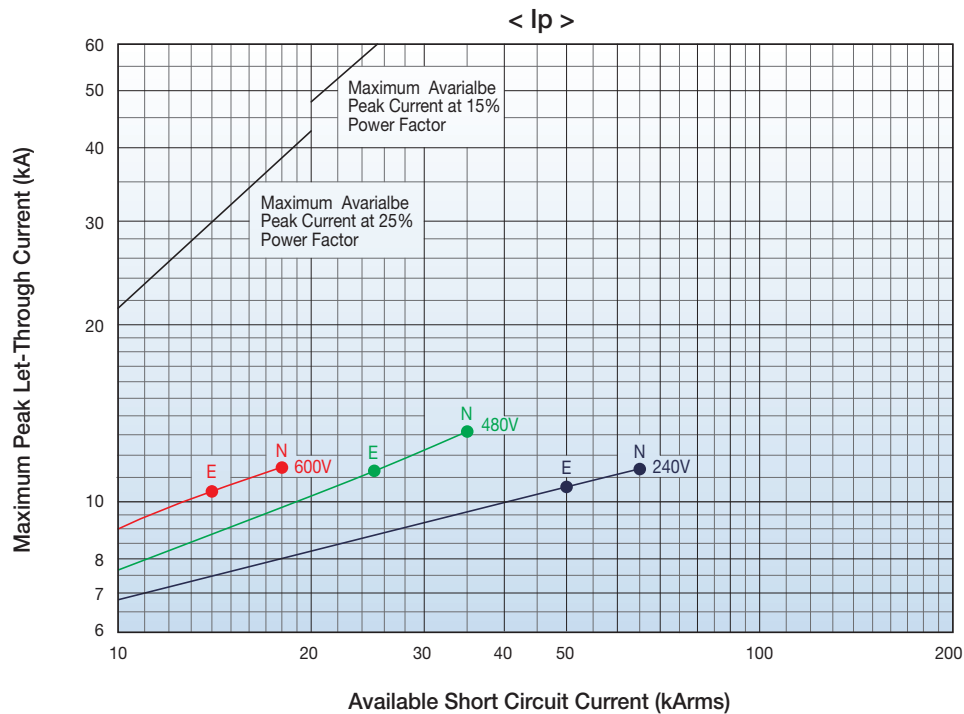
UTE100 CHARACTERISTIC

Based on typical values obtained throughout the circuit breaker development and UL test programs.

LET-THROUGH ENERGY I^2t (240V, 480V AND 600V)



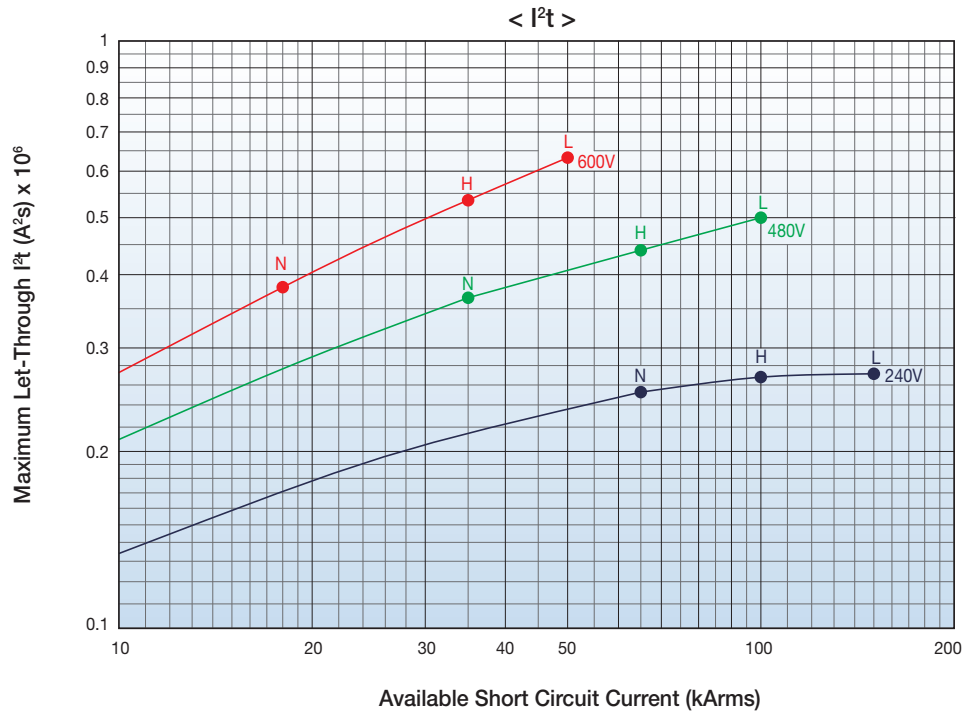
PEAK LET-THROUGH CURRENT I_p (240V, 480V AND 600V)



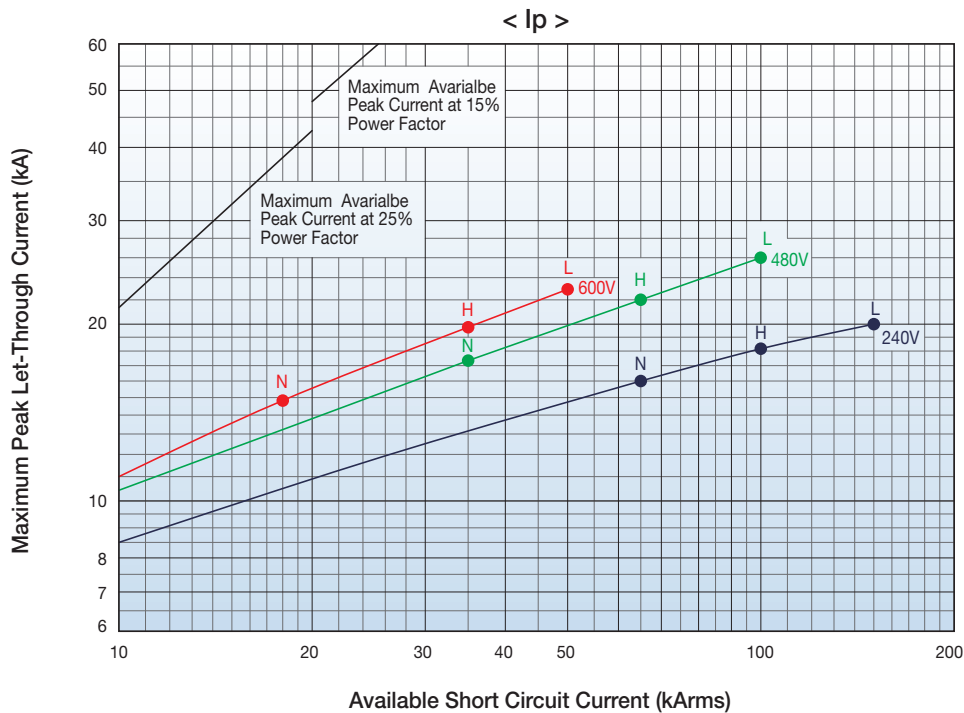
UTS150 CHARACTERISTIC

Based on typical values obtained throughout the circuit breaker development and UL test programs.

LET-THROUGH ENERGY I^2t (240V, 480V AND 600V)



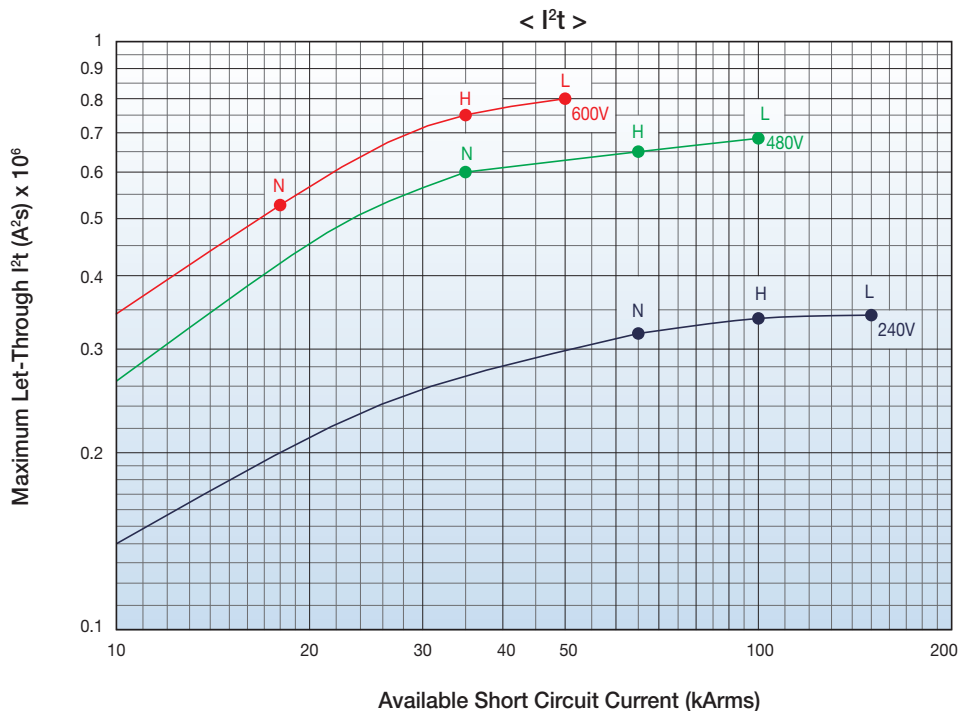
PEAK LET-THROUGH CURRENT I_p (240V, 480V AND 600V)



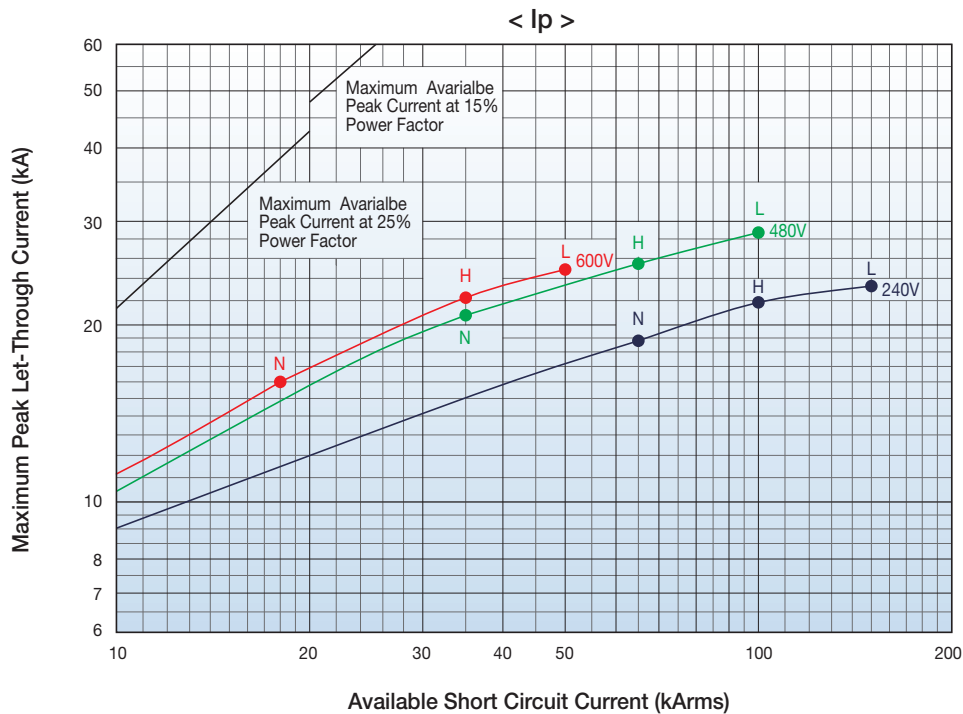
UTS250 CHARACTERISTIC

Based on typical values obtained throughout the circuit breaker development and UL test programs.

LET-THROUGH ENERGY I^2t (240V, 480V AND 600V)



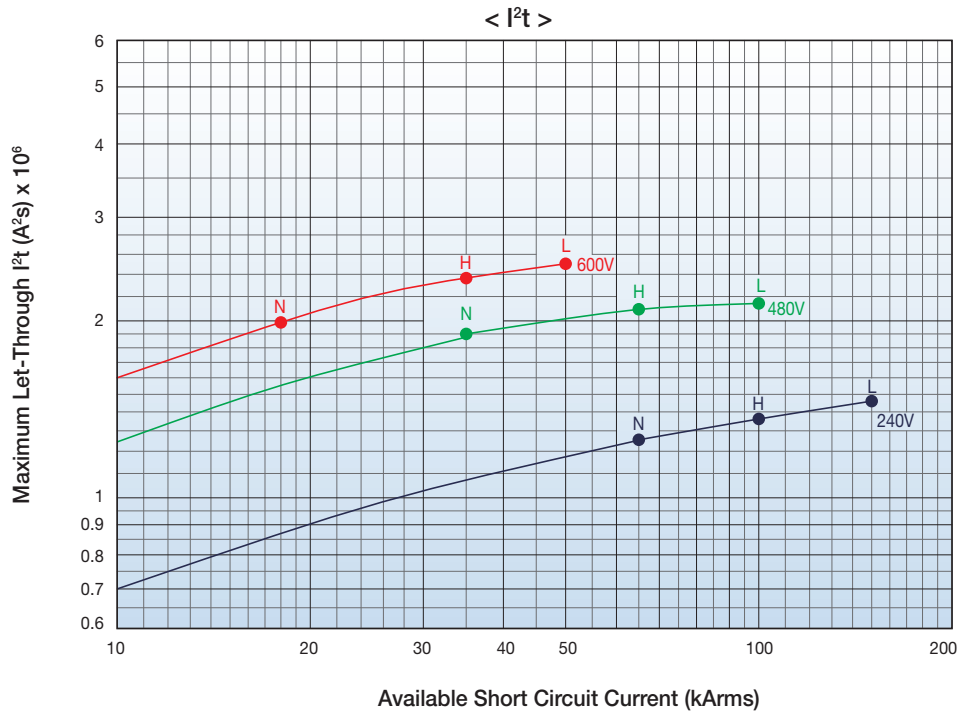
PEAK LET-THROUGH CURRENT I_p (240V, 480V AND 600V)



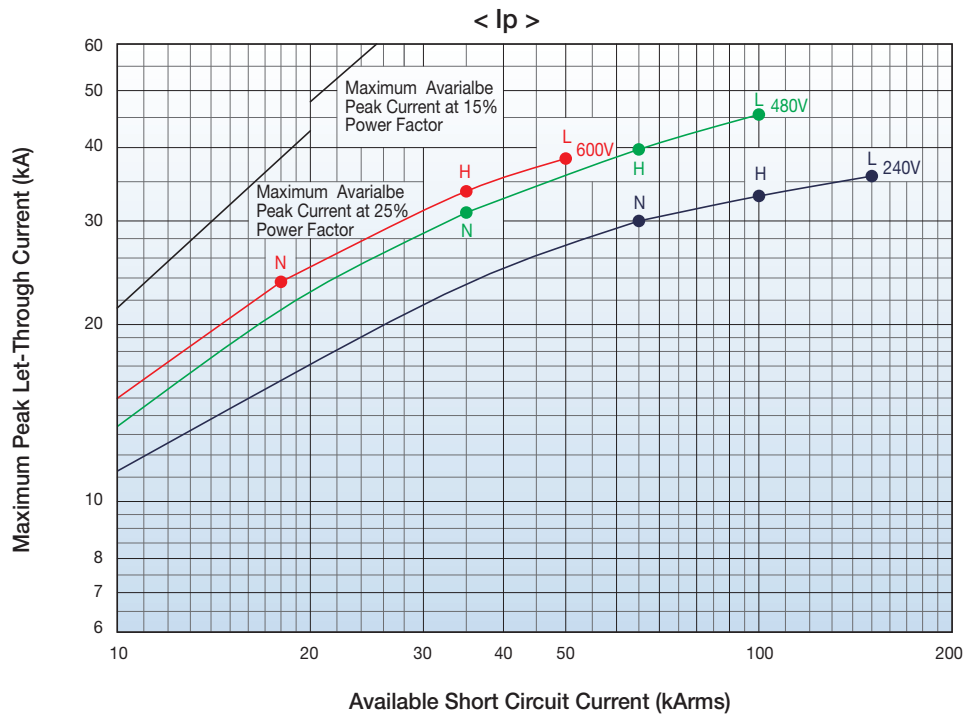
UTS400 CHARACTERISTIC

Based on typical values obtained throughout the circuit breaker development and UL test programs.

LET-THROUGH ENERGY I^2t (240V, 480V AND 600V)



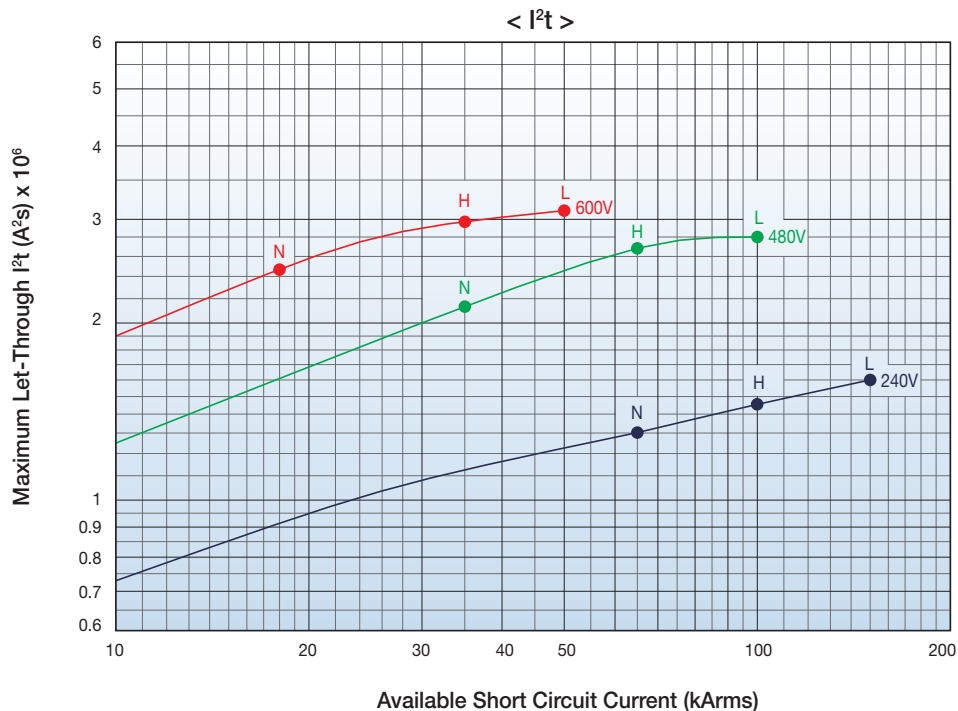
PEAK LET-THROUGH CURRENT I_p (240V, 480V AND 600V)



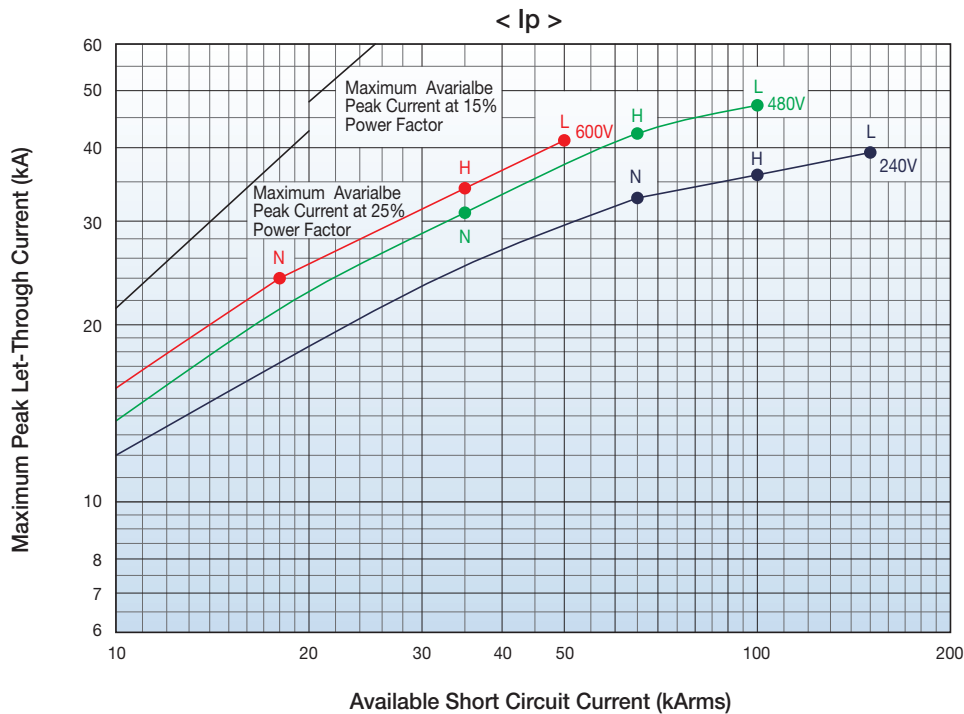
UTS600 CHARACTERISTIC

Based on typical values obtained throughout the circuit breaker development and UL test programs.

LET-THROUGH ENERGY I^2t (240V, 480V AND 600V)



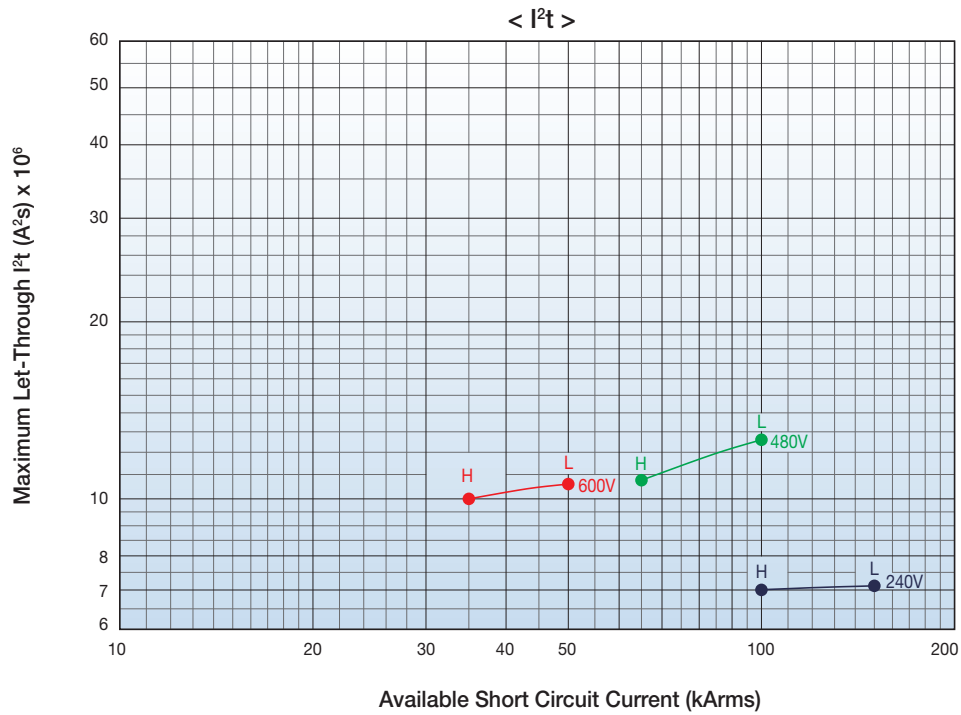
PEAK LET-THROUGH CURRENT I_p (240V, 480V AND 600V)



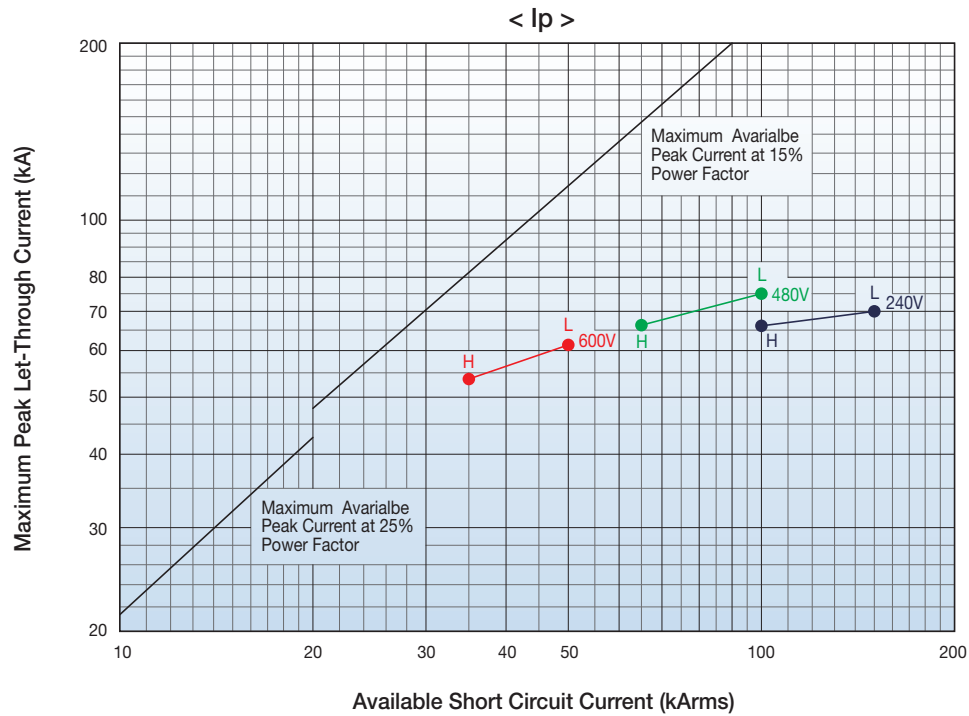
UTS800 CHARACTERISTIC

Based on typical values obtained throughout the circuit breaker development and UL test programs.

LET-THROUGH ENERGY I^2t (240V, 480V AND 600V)



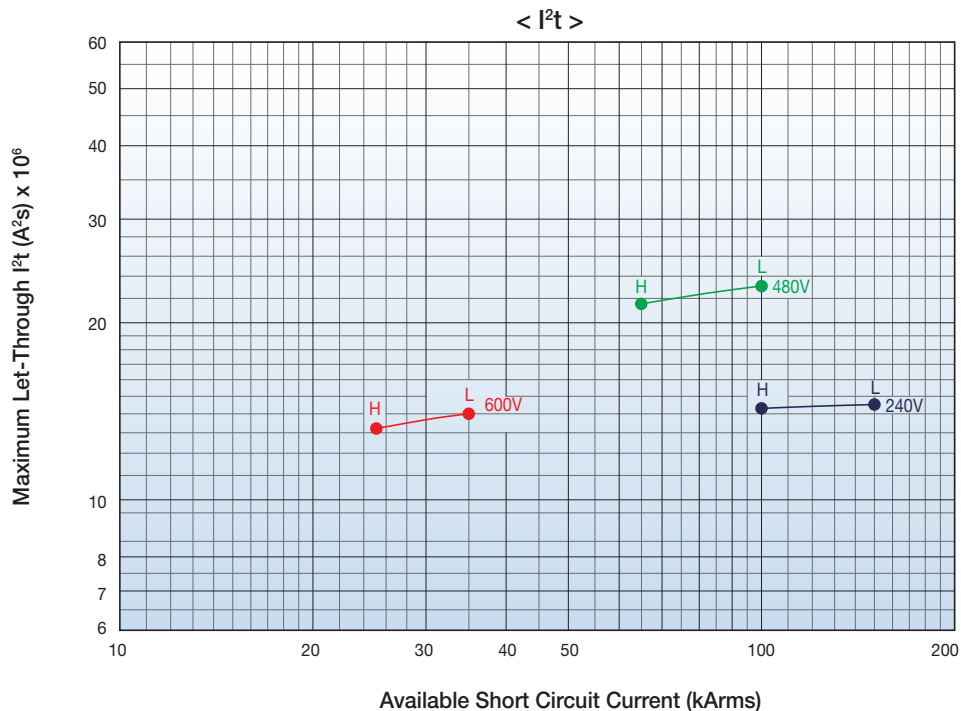
PEAK LET-THROUGH CURRENT I_p (240V, 480V AND 600V)



UTS1200 CHARACTERISTIC

Based on typical values obtained throughout the circuit breaker development and UL test programs.

LET-THROUGH ENERGY I^2t (240V, 480V AND 600V)



PEAK LET-THROUGH CURRENT I_p (240V, 480V AND 600V)

