

Time current curves Power Defense MCCB Frame 5 PXR electronic trip units Standards: UL, CSA, IEC, CCC

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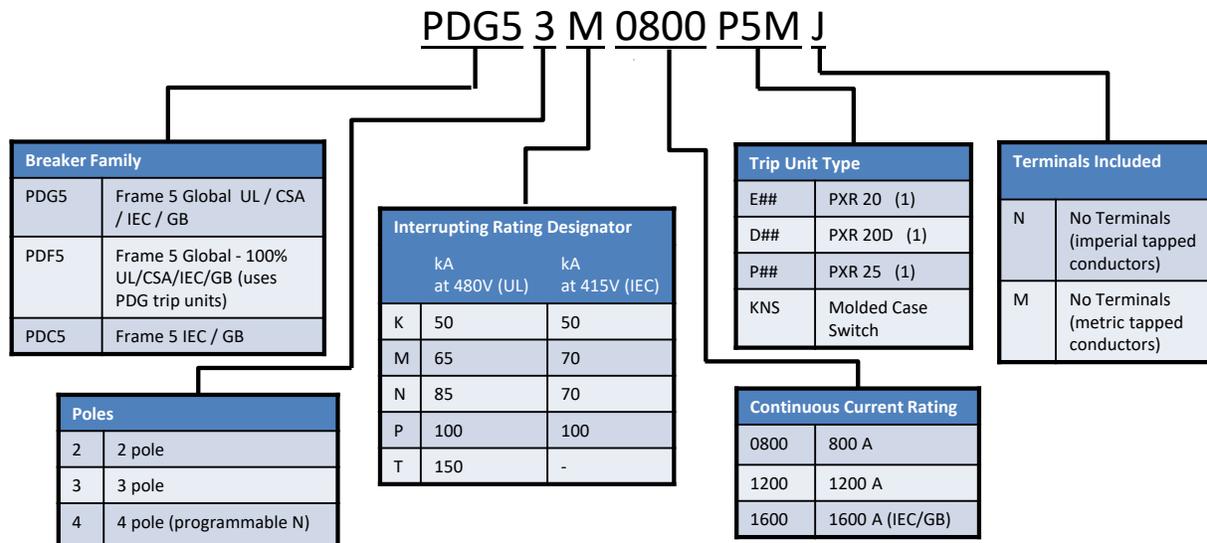
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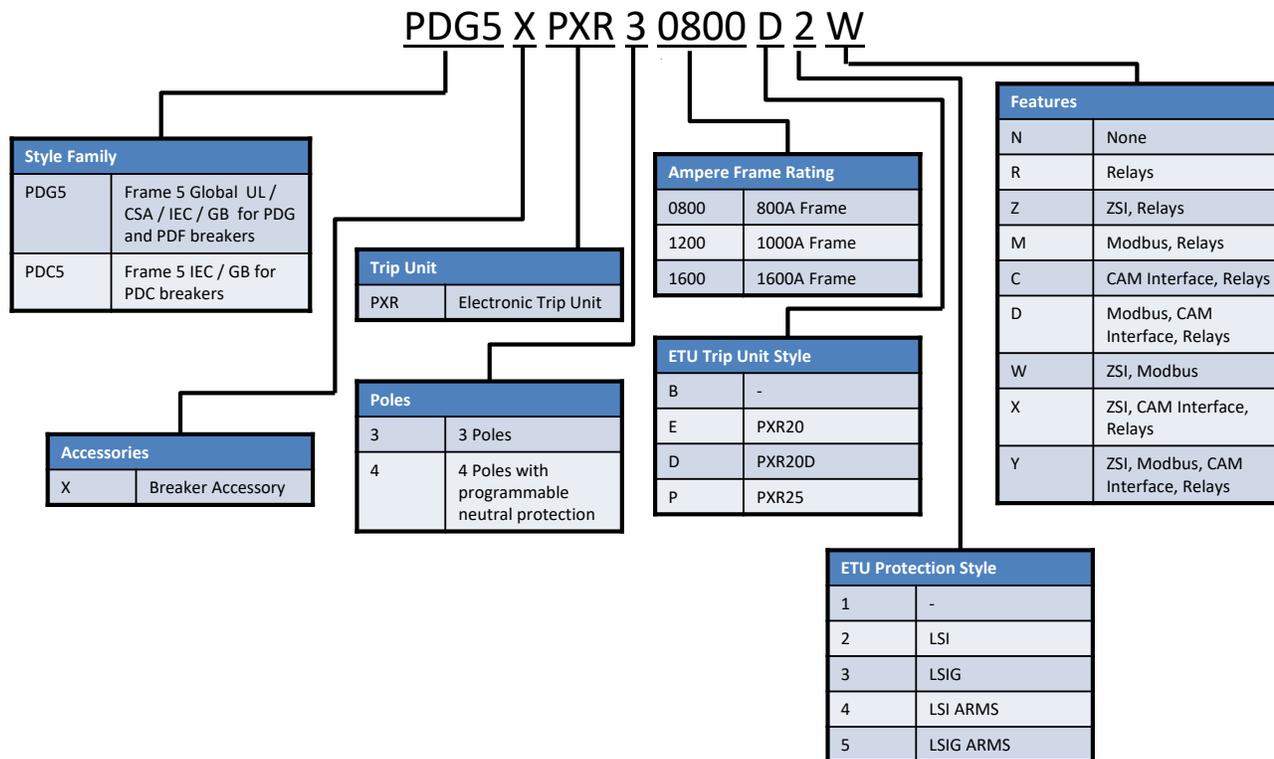
This information is provided only as an aid to understand the catalog numbers.
It is not to be used to build catalog numbers for circuit breakers or trip units as all combinations may not be available.

Table 2. Circuit breaker catalog number convention



Note: 1 See catalog for ## (protection type and available configured options).

Table 3. Electronic trip unit catalog number convention



Note: IEC standard breakers include the CE mark; GB standard breakers include the CCC mark.

This information is provided only as an aid to understand the catalog numbers.
It is not to be used to build catalog numbers for circuit breakers or trip units as all combinations may not be available.

Table 4. Symmetrical RMS interruption ratings I_{cu} (kA) for each breaker frame

Voltage	Frame	UL / CSA			IEC / CCC					
		240V	480V	600V	240V	415V	440V	480V	525V	690V
Globally rated	PDG5xK	85	50	25	85	50	35	35	25	10
	PDG5xM	100	65	35	100	70	50	50	30	15
	PDG5xN	150	85	50	150	70	70	65	35	20
	PDG5xP	200	100	65	200	100	100	85	40	35
Globally rated (UL 100%)	PDF5xK	85	50	25	85	50	35	35	25	10
	PDF5xM	100	65	35	100	70	50	50	30	15
	PDF5xN	150	85	50	150	70	70	65	35	20
	PDF5xP	200	100	65	200	100	100	85	40	35
IEC / GB only	PDC5xK	-	-	-	85	50	35	35	25	10
	PDC5xM	-	-	-	100	70	50	50	30	15

Table 5. Curve notes

1. These curves apply for 50Hz and 60Hz applications
2. The maximum voltage rating for the frame style is stated in Table 4.
3. These curves are comprehensive for Power Defense style circuit breakers including frame sizes, ratings and constructions stated.
4. The total clearing times shown include the response time for the trip unit, the breaker opening and the interruption of the current. The bottom of the time band is the minimum commit to trip time.
5. The end of the curve is determined by the application or the interrupting rating of the circuit breaker.
8. All electronic trip units have an over temperature protection feature that will trip the breaker when the internal temperature of the ETU is over 105°C

Labels

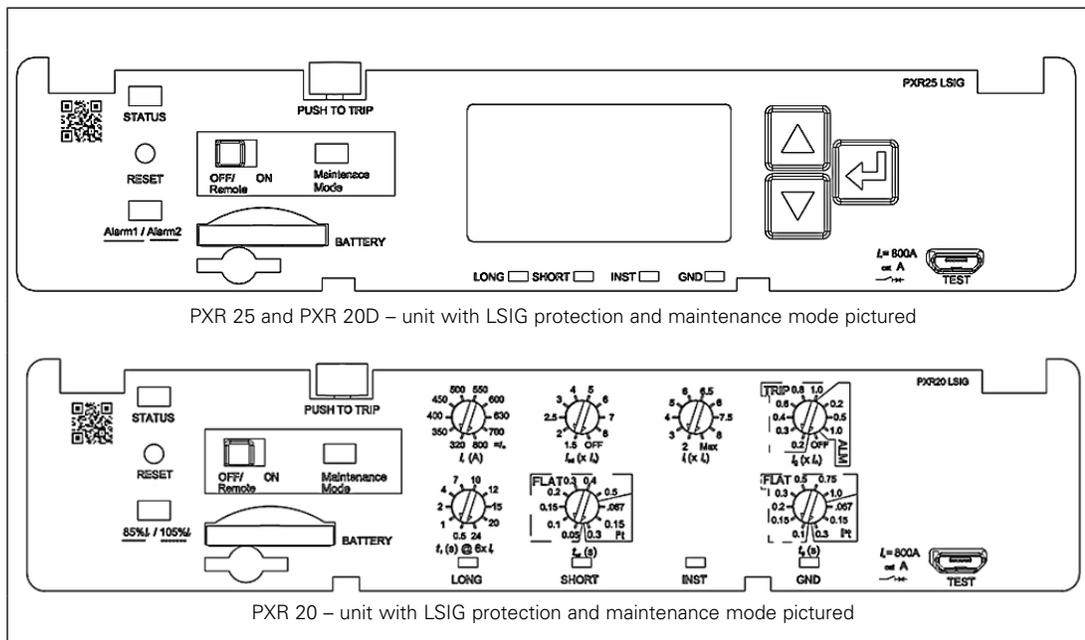


Figure 1. Power Defense frame 5 trip unit front labels.

Note: Trip unit drawings in Figure 1 are representative of the face plates provided. Values on the trip unit dials will change based upon the specific breaker and trip unit. Refer to the time current curve of the breaker or the PXR User Guide for the specific settings.

Curves

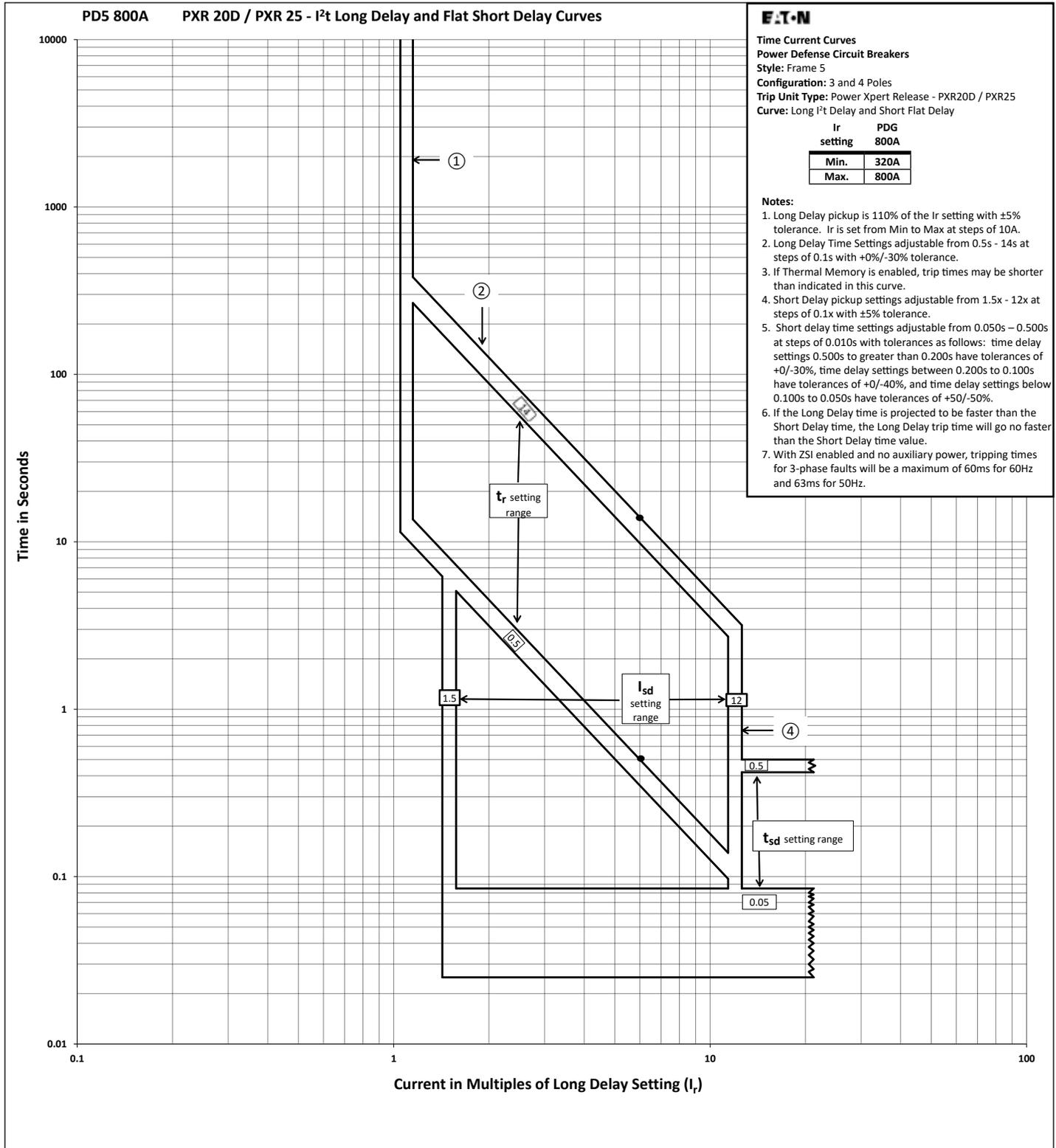


Figure 2. 800A frame PXR 20D / PXR 25 - I²t long delay and flat short delay.

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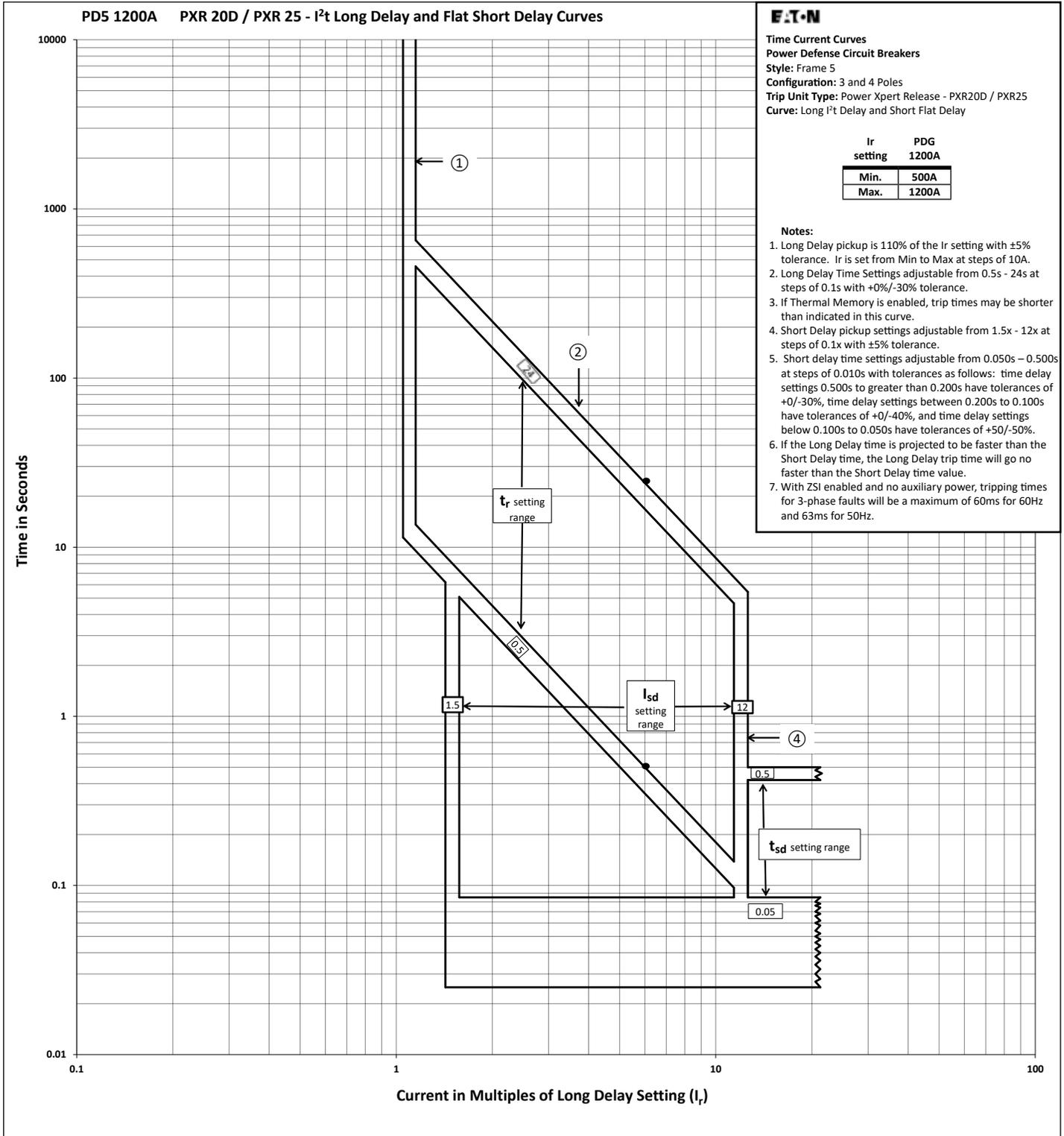


Figure 3. 1200A frame PXR 20D / PXR 25 - I²t long delay and flat short delay.

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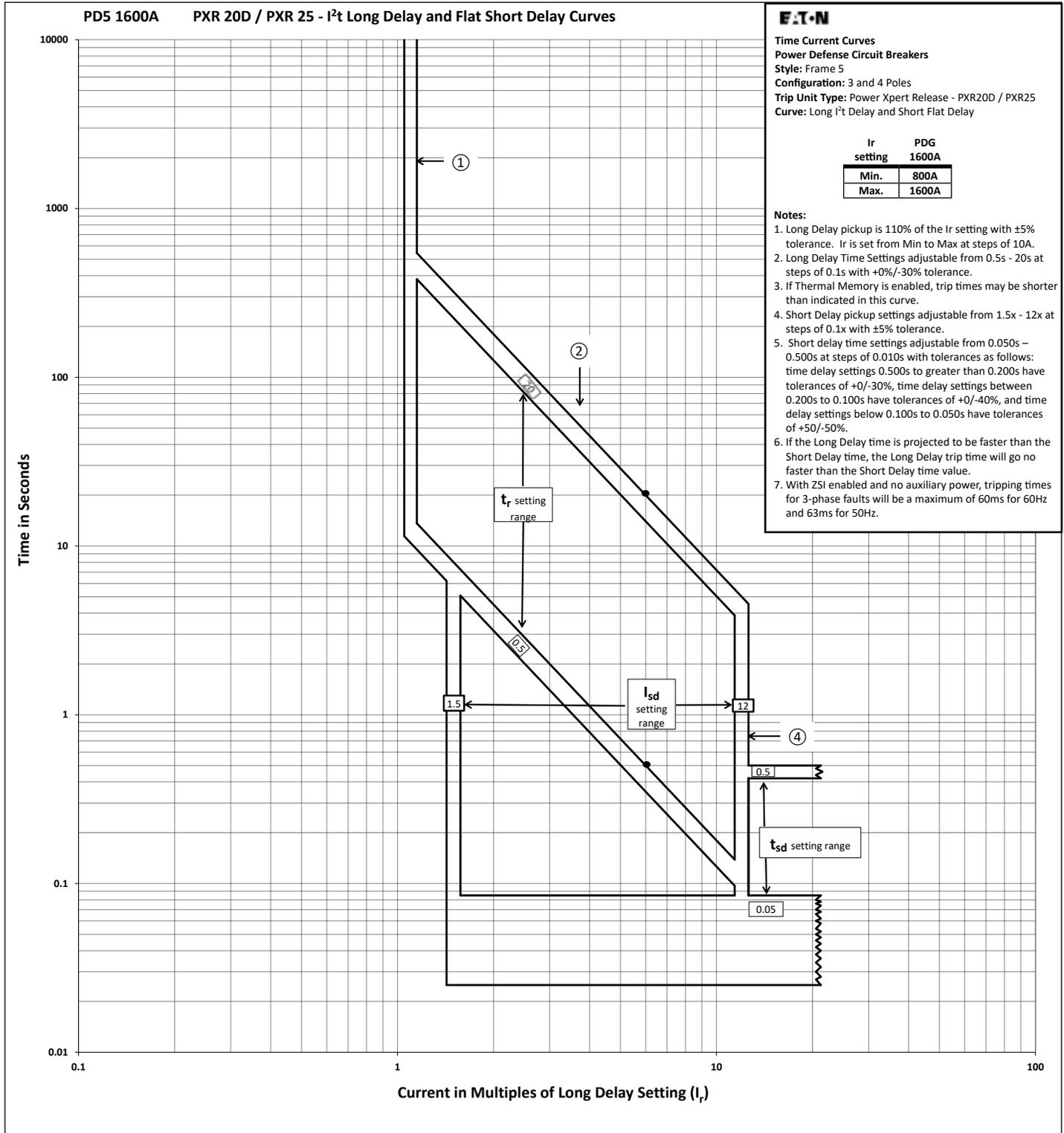


Figure 4. 1600A frame PXR 20D / PXR 25 - I²t long delay and flat short delay.

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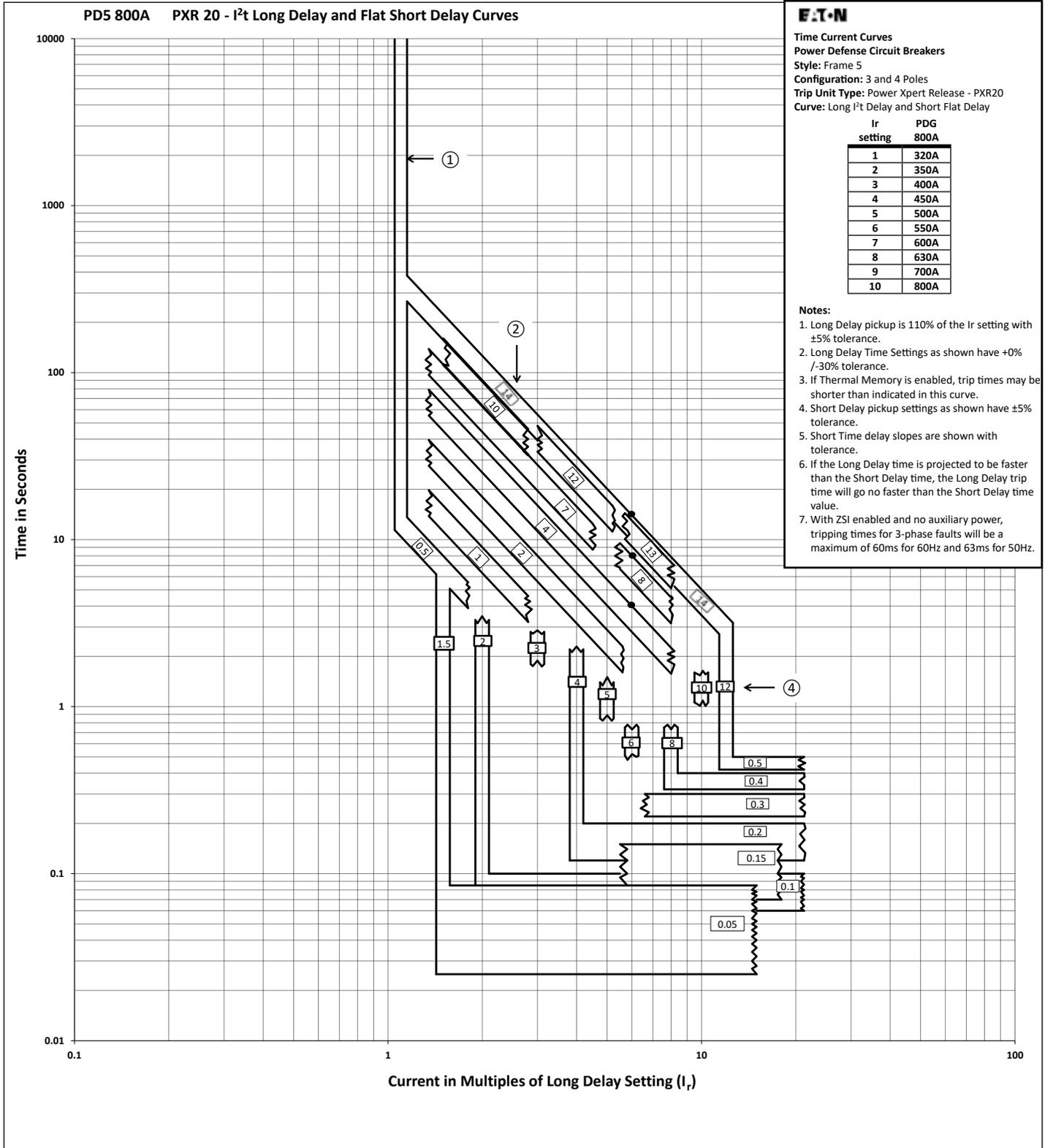


Figure 5. 800A frame PXR 20 - I²t long delay and flat short delay.

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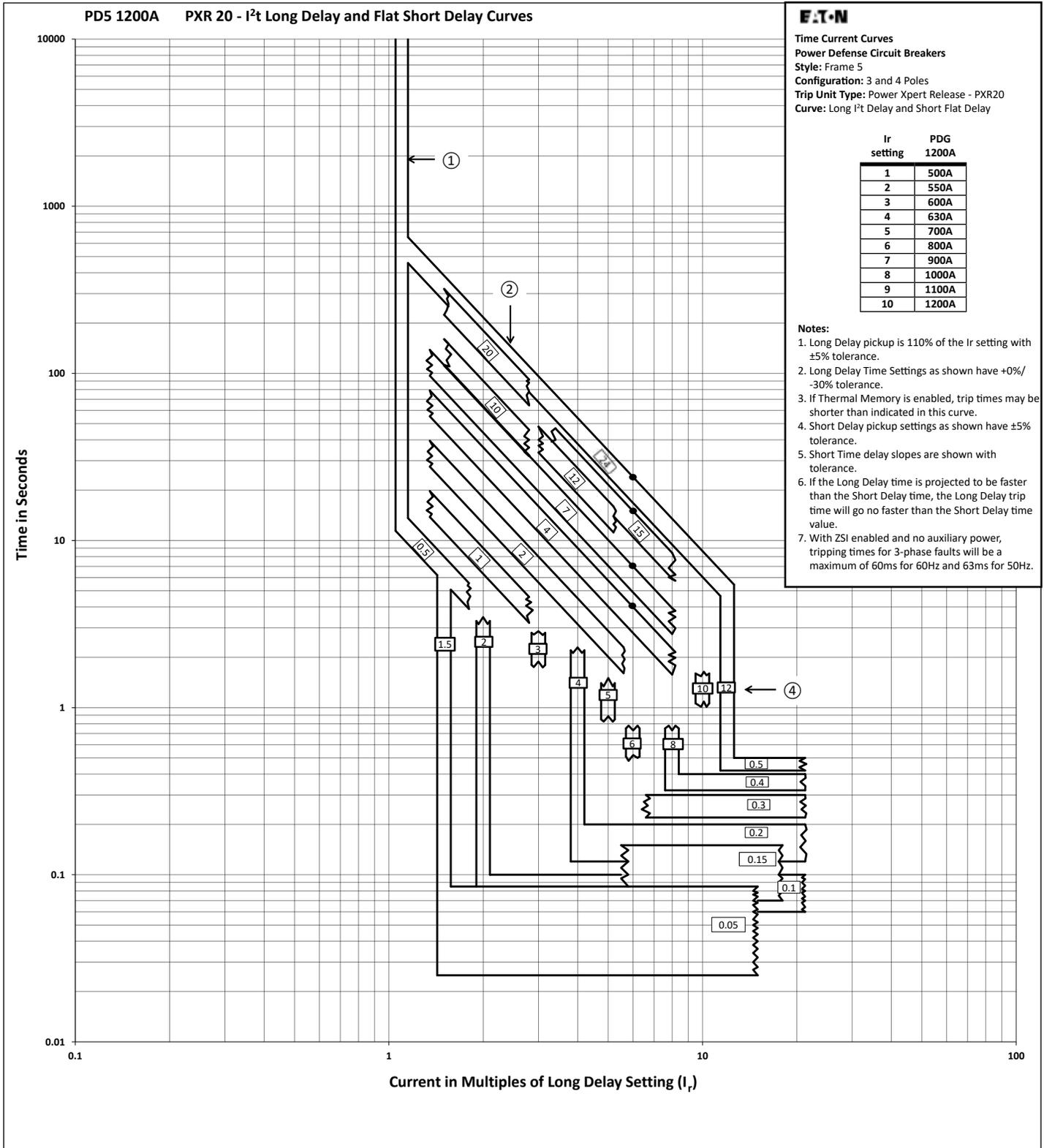


Figure 6. 1200A frame PXR 20 - I²t long delay and flat short delay.

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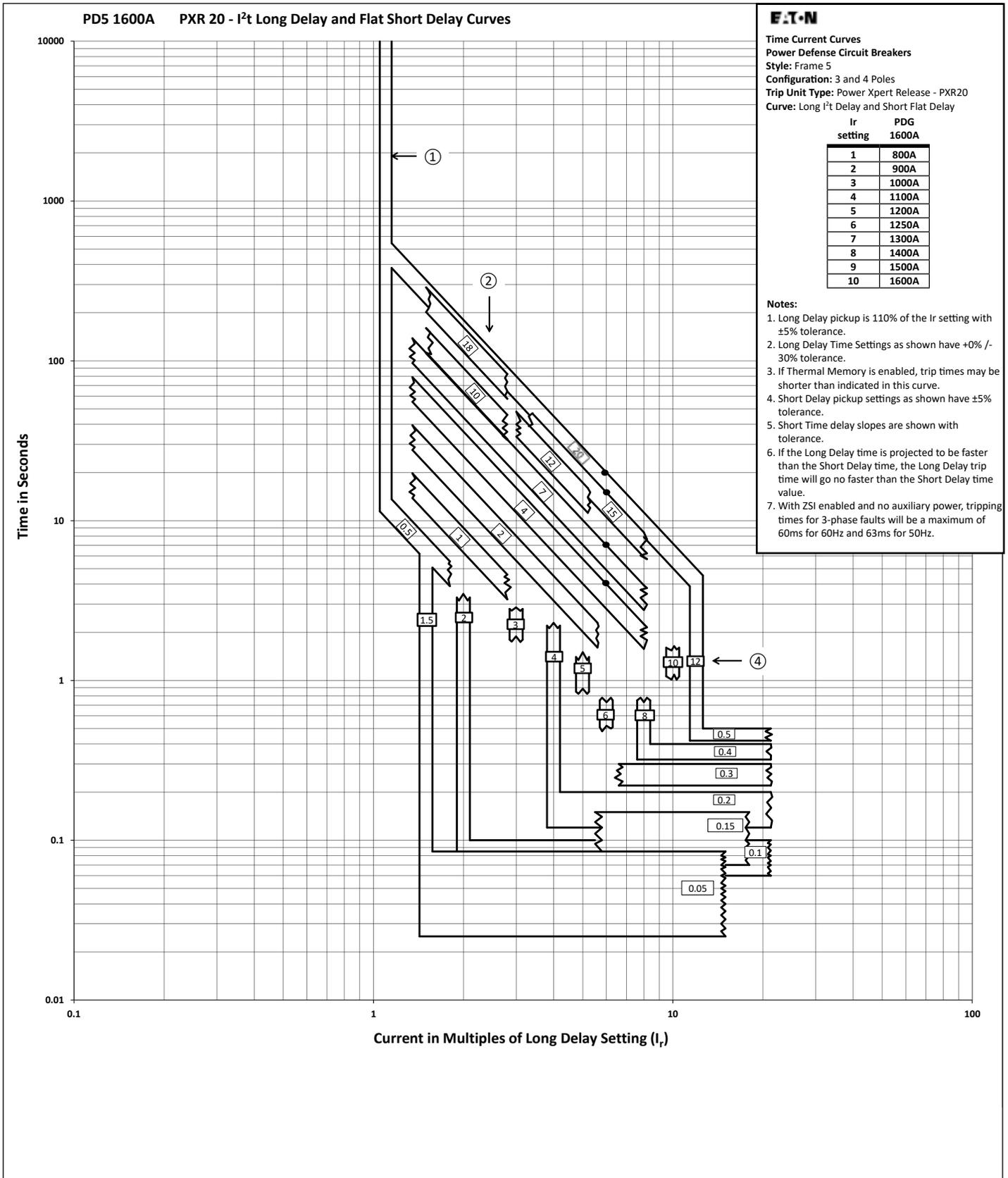


Figure 7. 1600A frame PXR 20 - I²t long delay and flat short delay.

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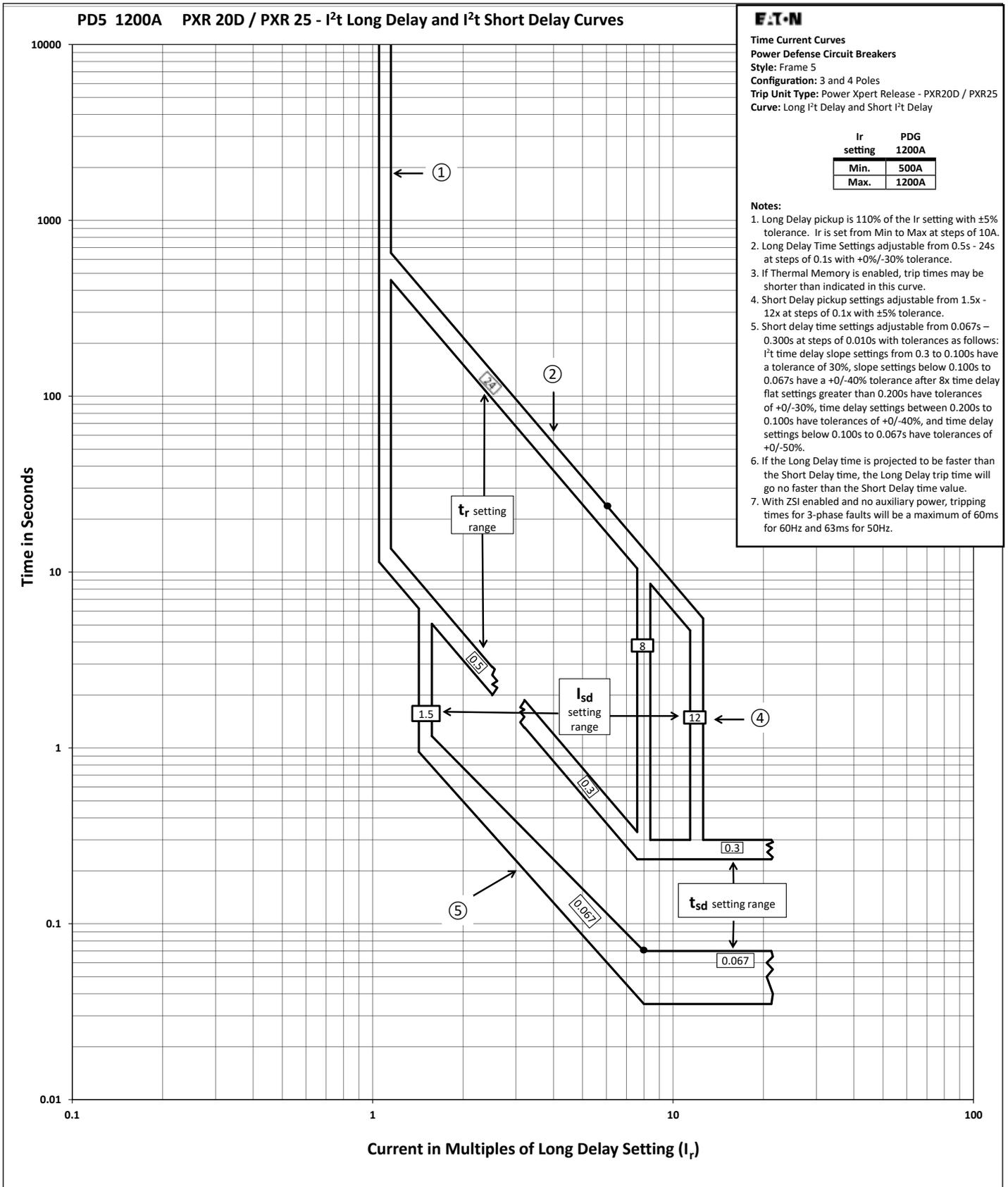


Figure 9. 1200A frame PXR 20D / PXR 25 - I²t long delay and I²t short delay.

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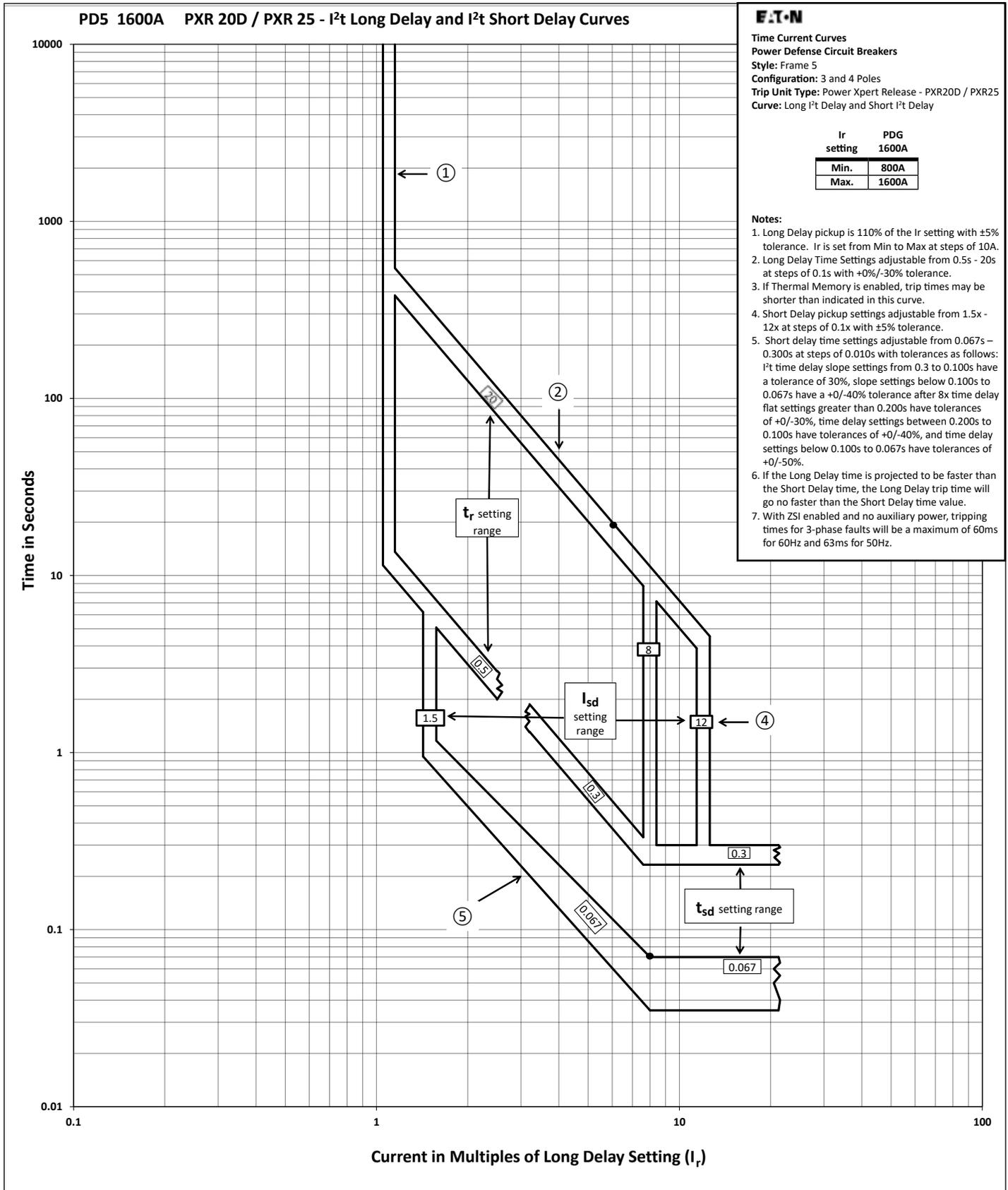


Figure 10. 1600A frame PXR 20D / PXR 25 - I²t long delay and I²t short delay.

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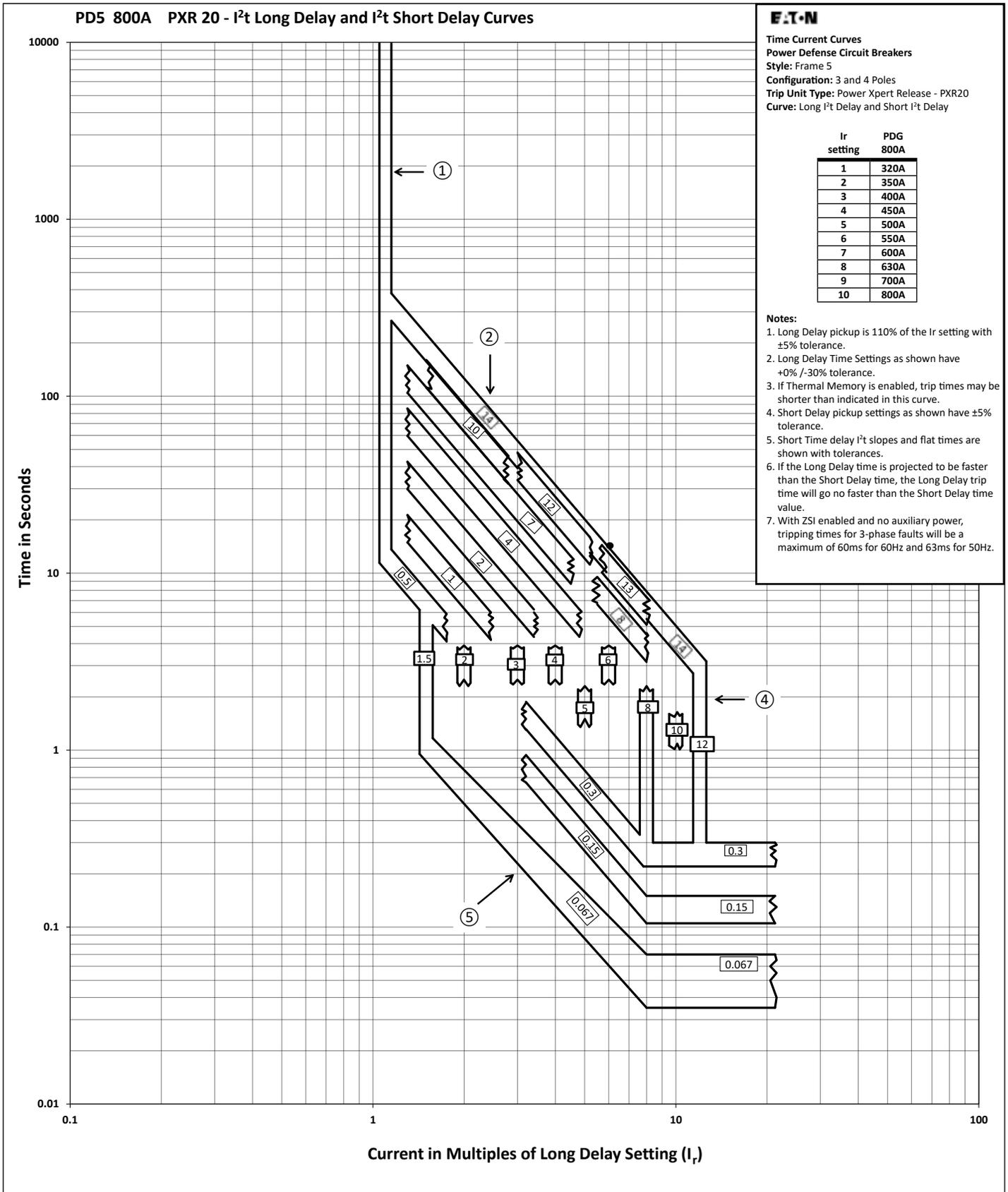


Figure 11. 800A frame PXR 20 I²t long delay and I²t short delay.

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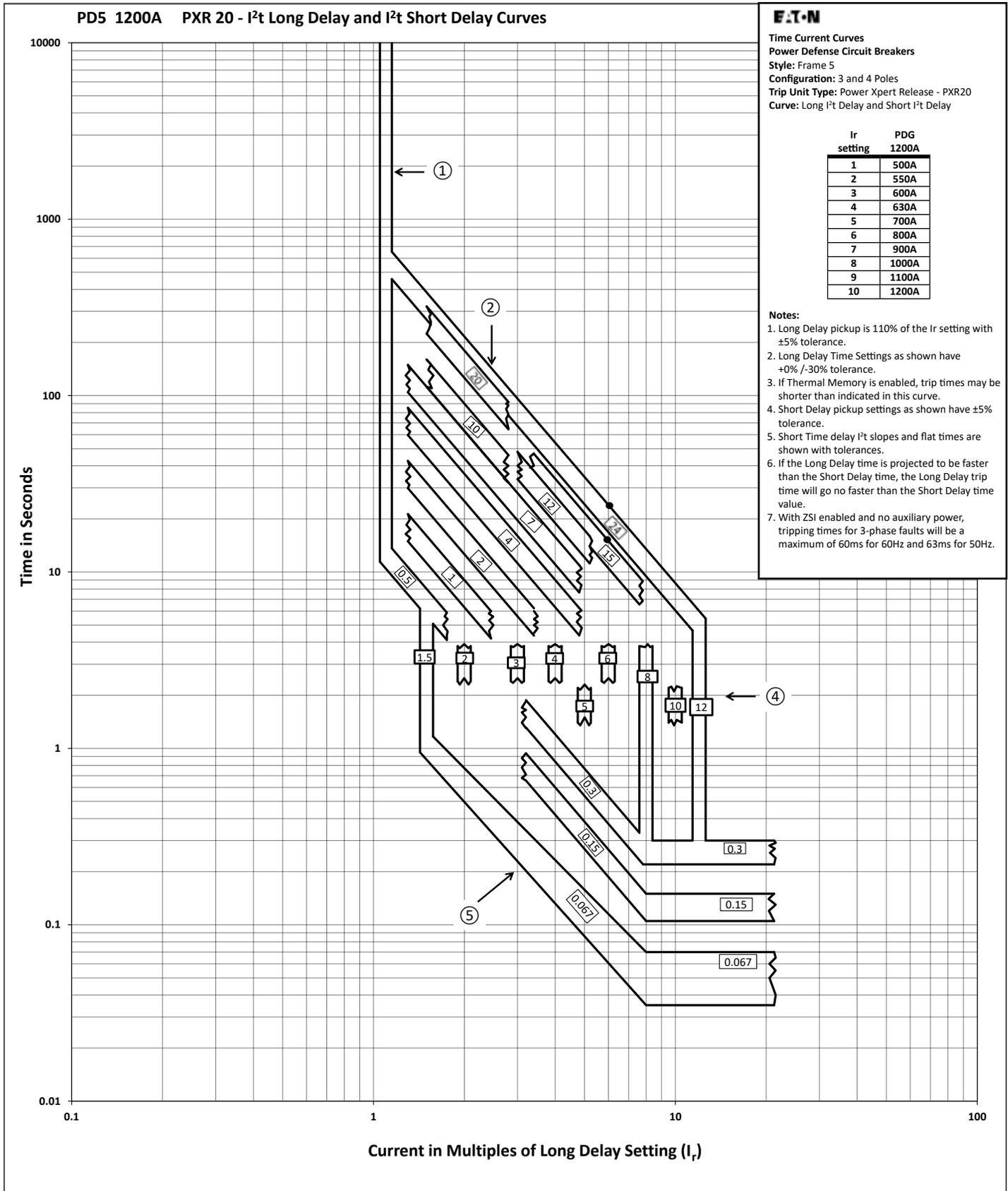


Figure 12. 1200A frame PXR 20 I²t long delay and I²t short delay.

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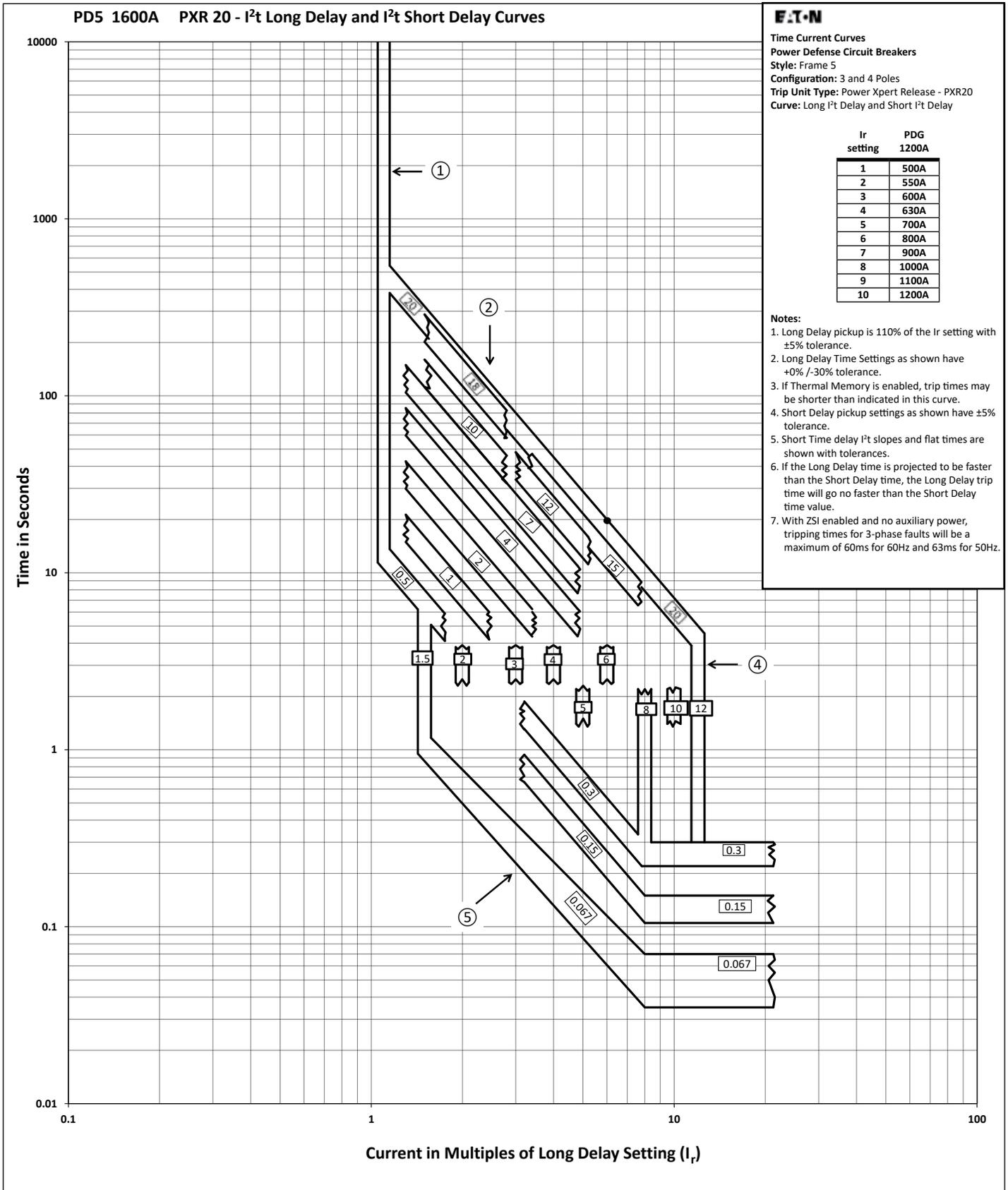


Figure 13. 1600A frame PXR 20 I²t long delay and I²t short delay.

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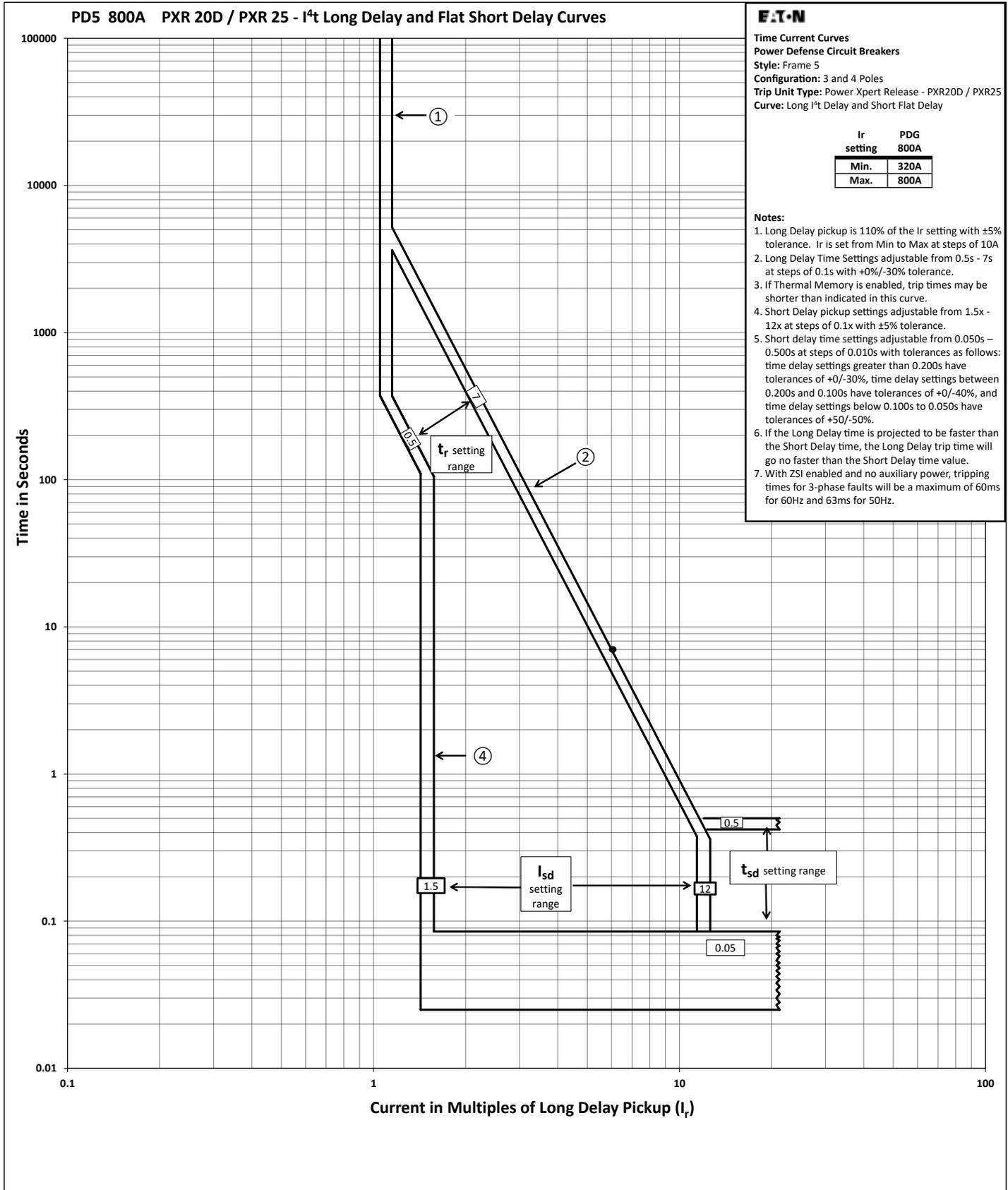


Figure 14. 800A frame PXR 20D / PXR 25 - I²t long delay and flat short delay.

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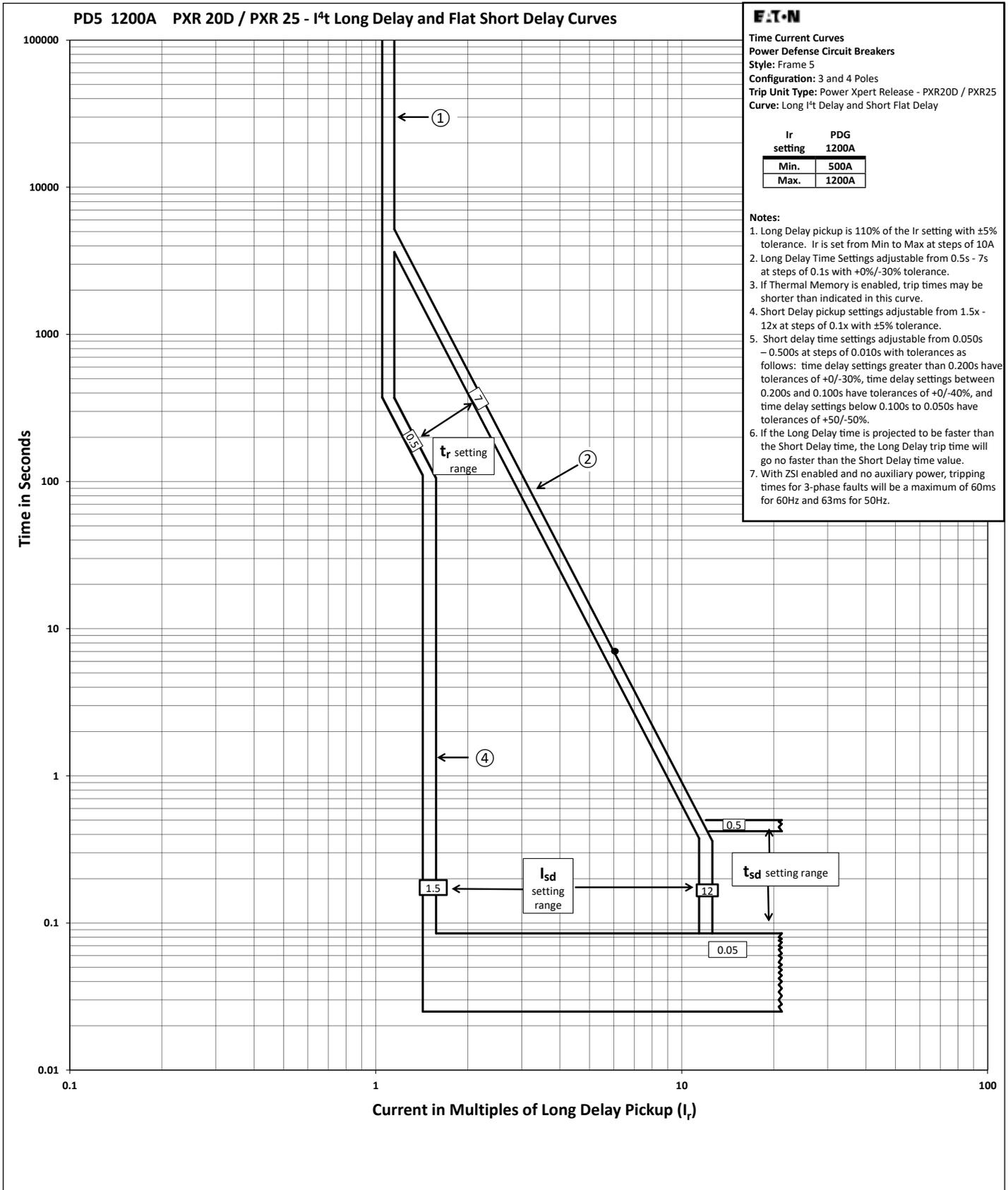


Figure 15. 1200A frame PXR 20D / PXR 25 - I²t long delay and flat short delay.

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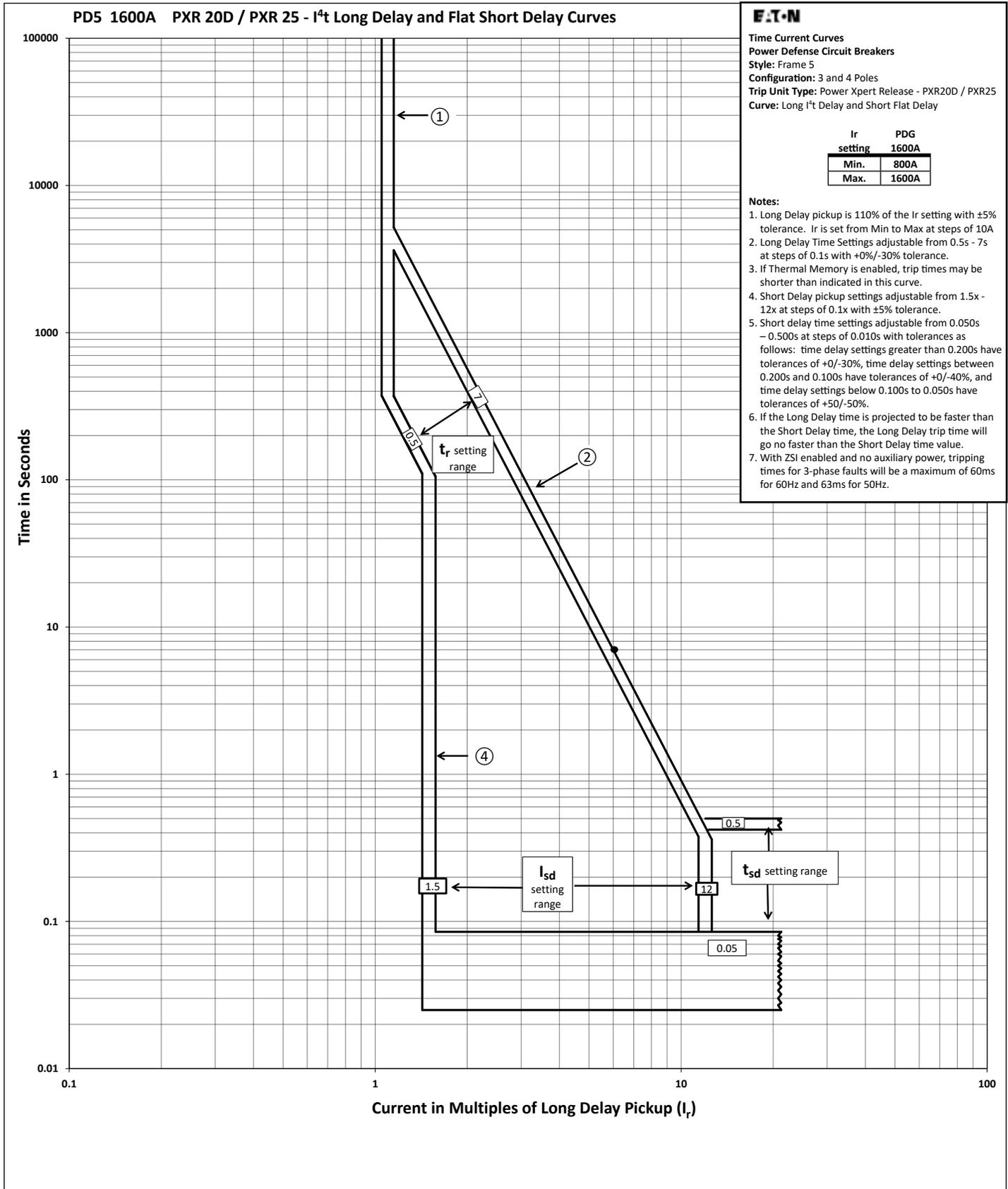


Figure 16. 1600A frame PXR 20D / PXR 25 - I^t long delay and flat short delay.

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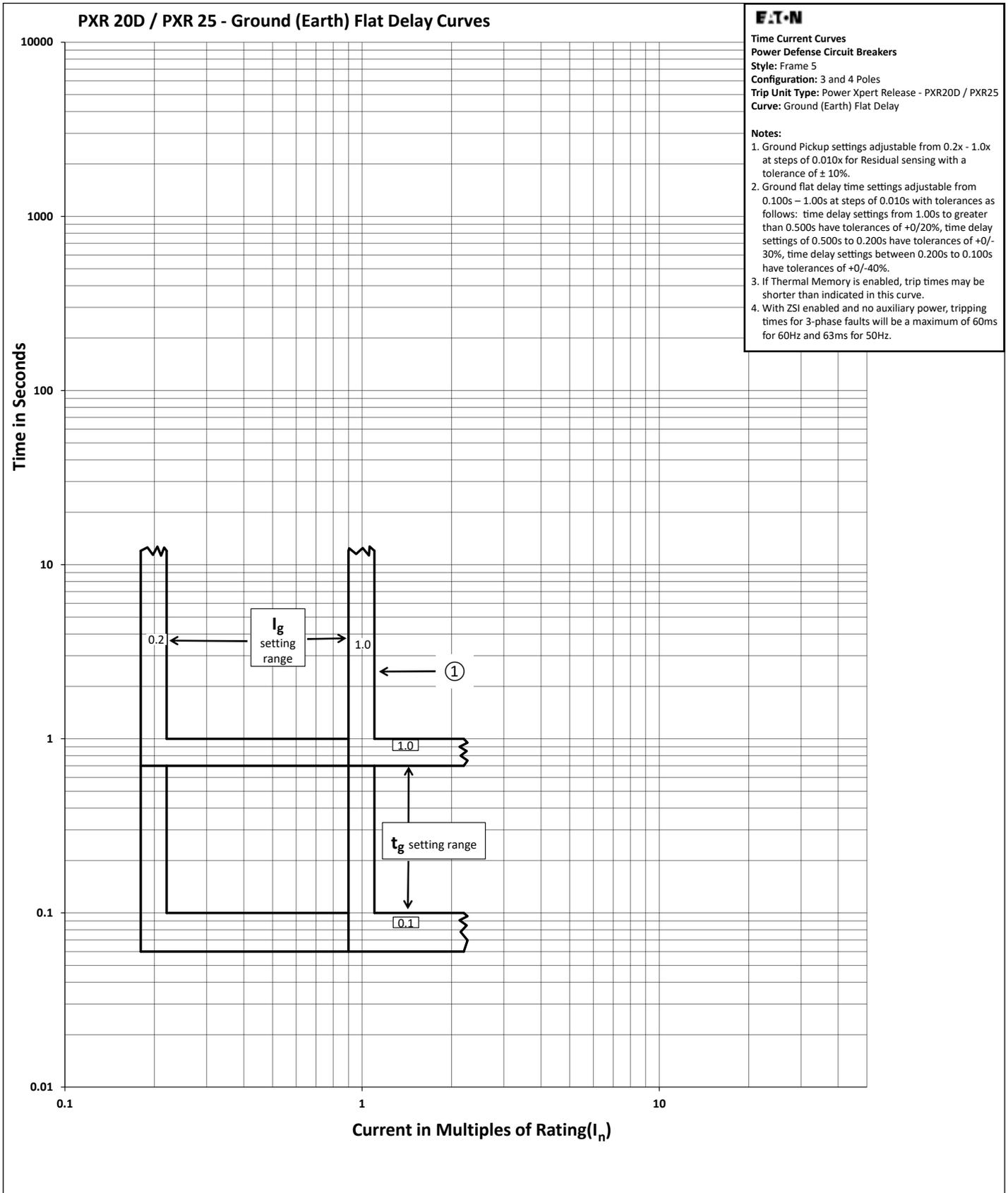


Figure 17. PXR 20D / PXR 25 ground (earth) flat delay.

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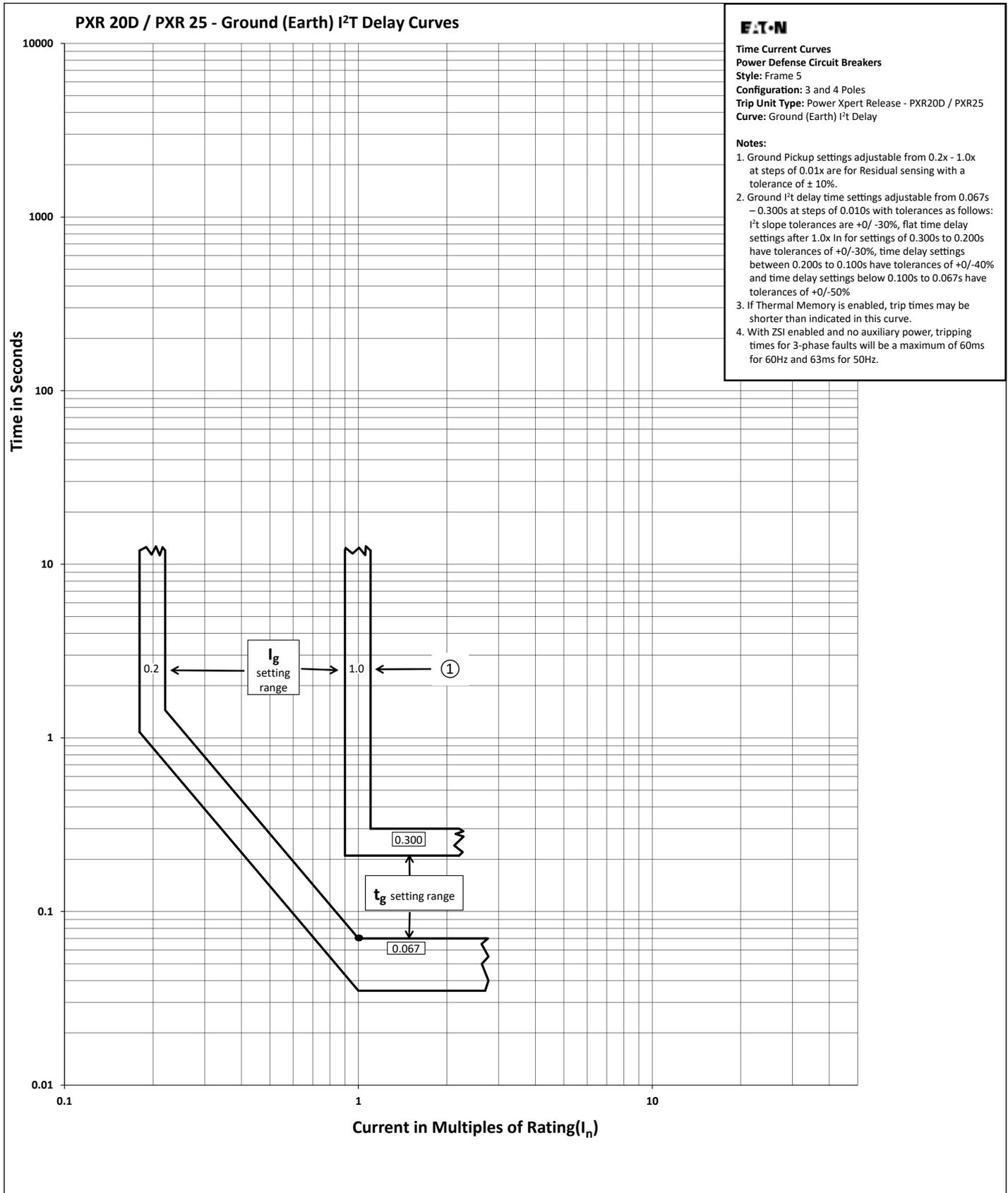


Figure 18. PXR 20D / PXR 25 - ground (earth) I²t delay.

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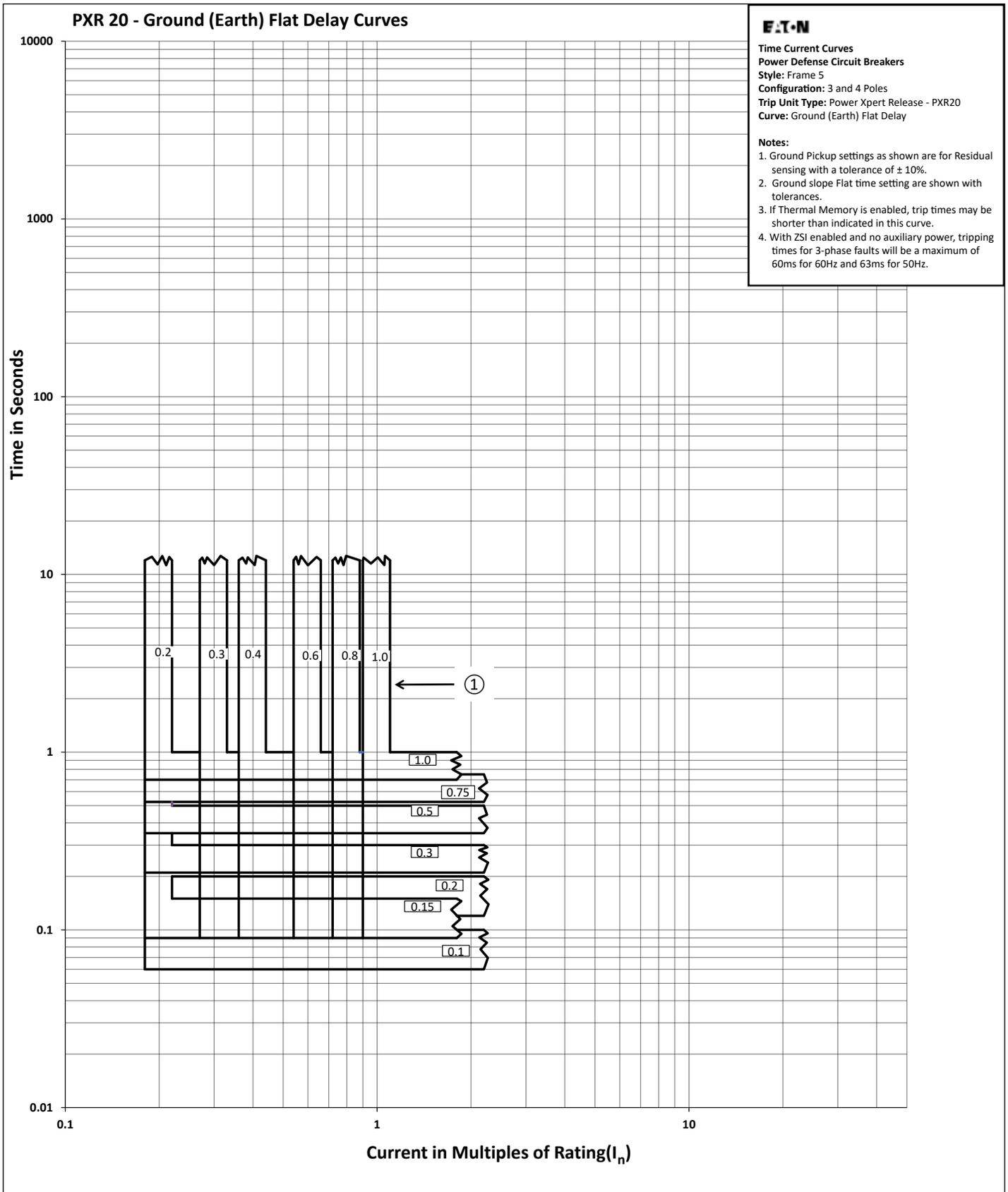


Figure 19. PXR 20 - ground (earth) flat delay.

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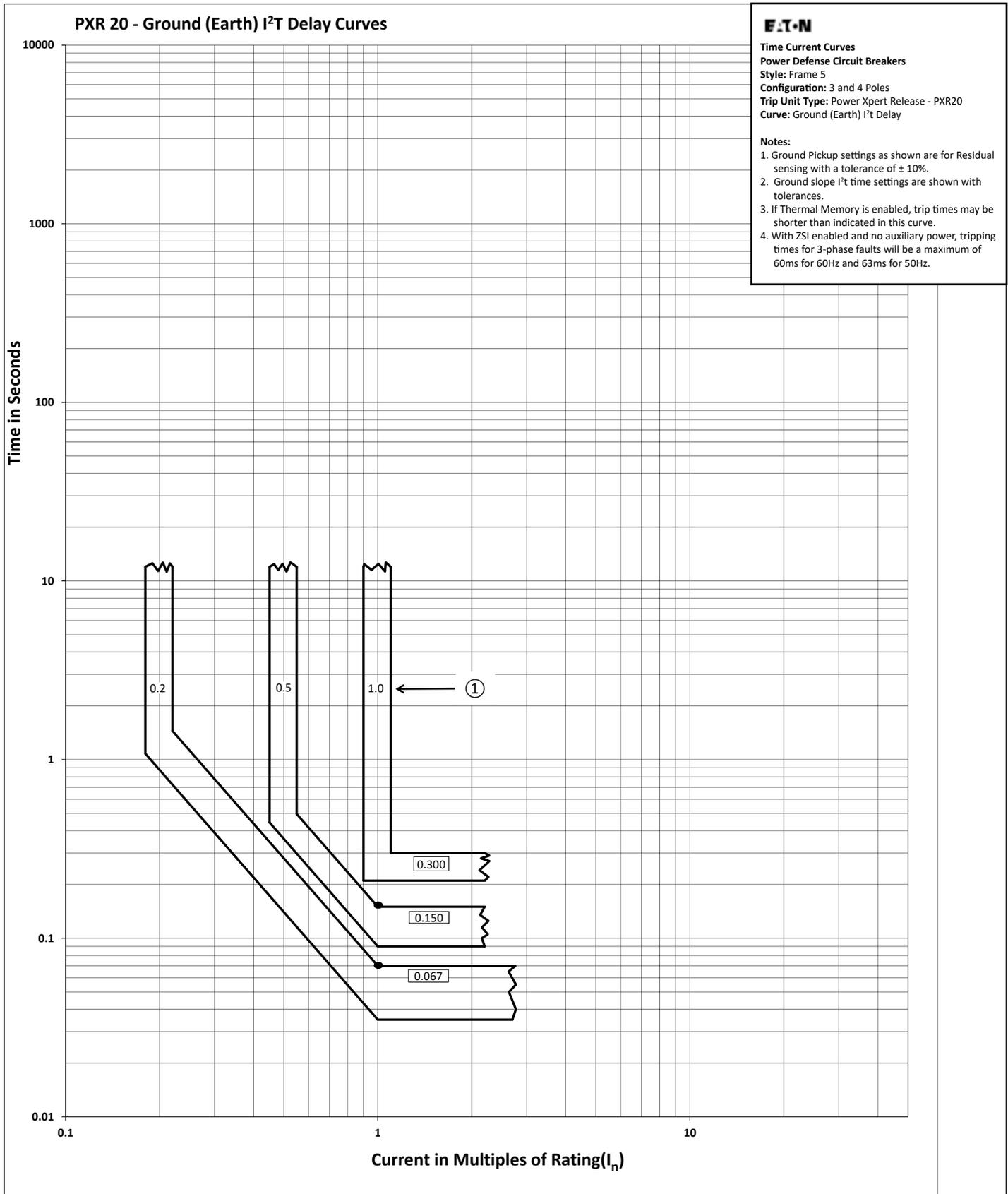


Figure 20. PXR 20 - ground (earth) I²t delay.

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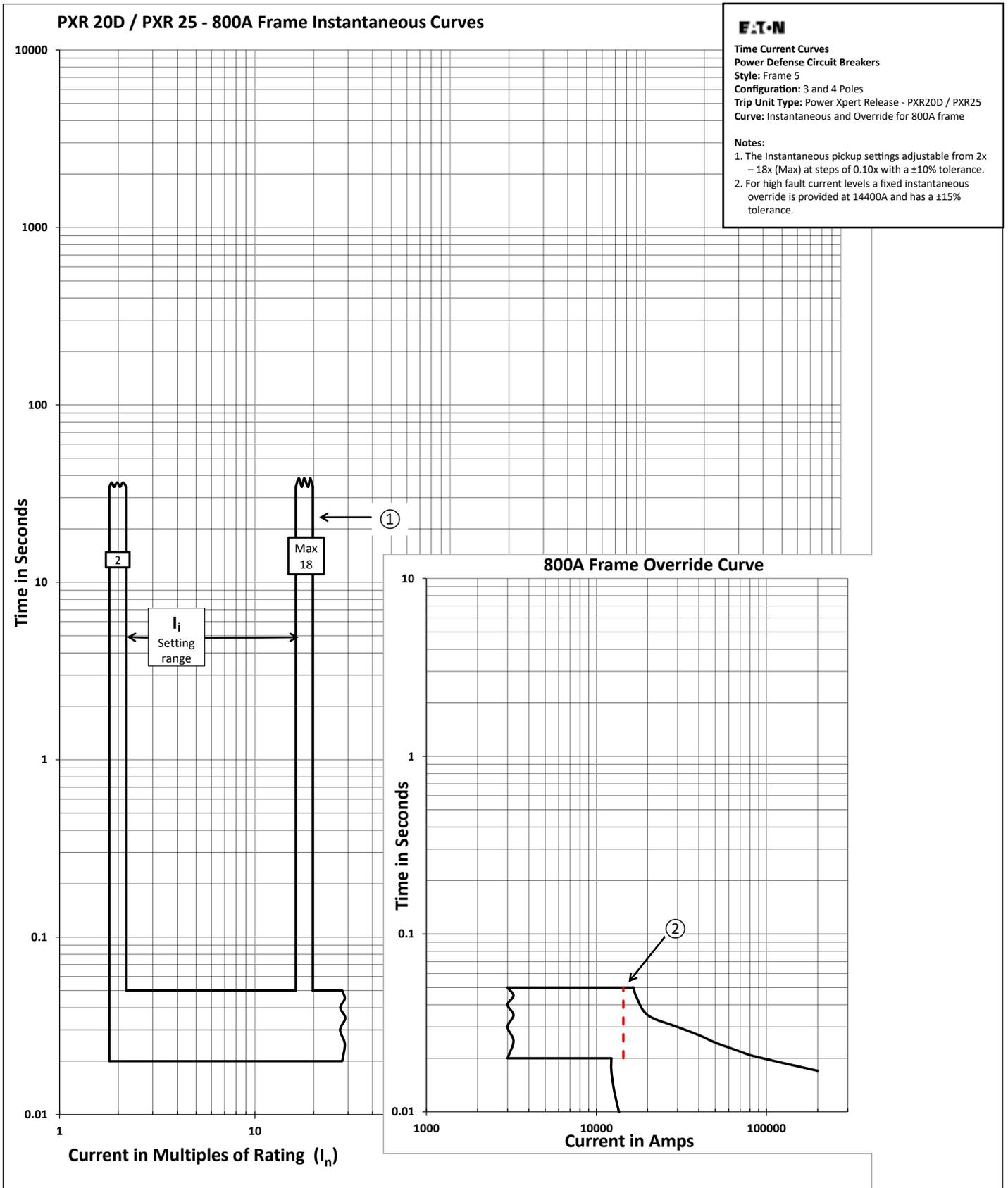


Figure 21. 800A frame PXR 20D / PXR 25 - instantaneous and override.

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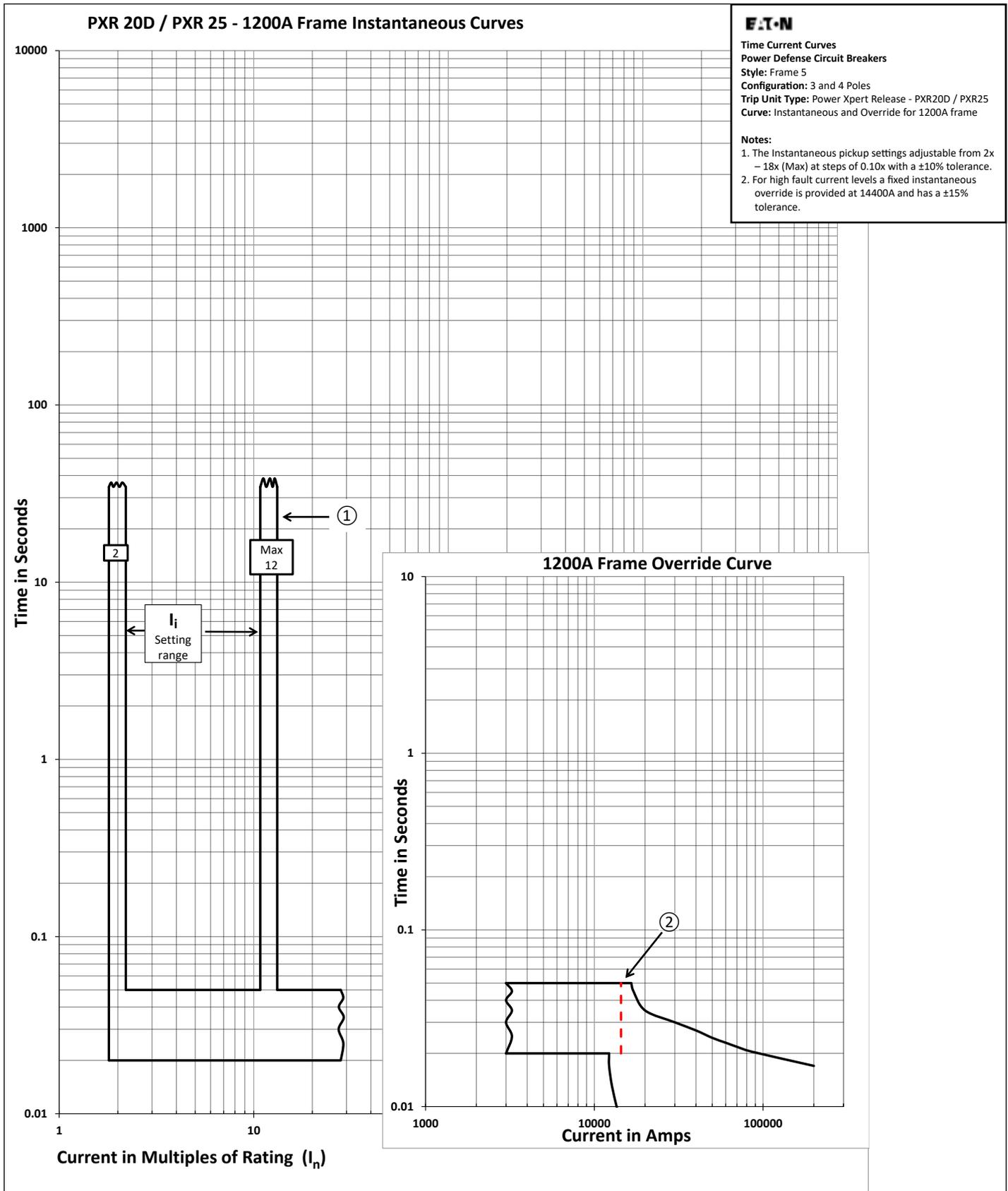
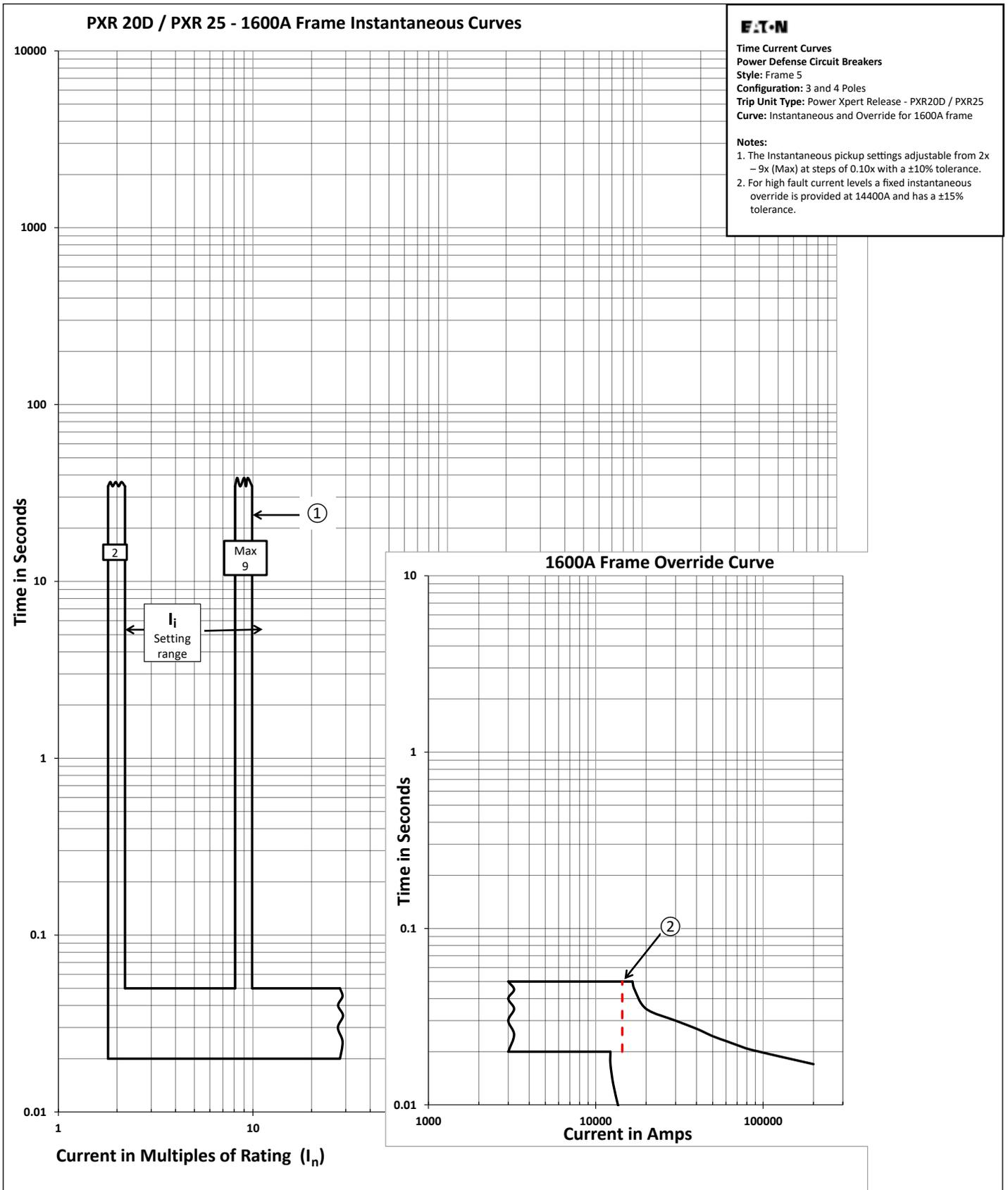


Figure 22. 1200A frame PXR 20D / PXR 25 - instantaneous and override.

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EATON
Time Current Curves
Power Defense Circuit Breakers
 Style: Frame 5
 Configuration: 3 and 4 Poles
 Trip Unit Type: Power Xpert Release - PXR20D / PXR25
 Curve: Instantaneous and Override for 1600A frame

Notes:
 1. The Instantaneous pickup settings adjustable from 2x – 9x (Max) at steps of 0.10x with a ±10% tolerance.
 2. For high fault current levels a fixed instantaneous override is provided at 14400A and has a ±15% tolerance.

Figure 23. 1600A frame PXR 20D / PXR 25 - instantaneous and override.

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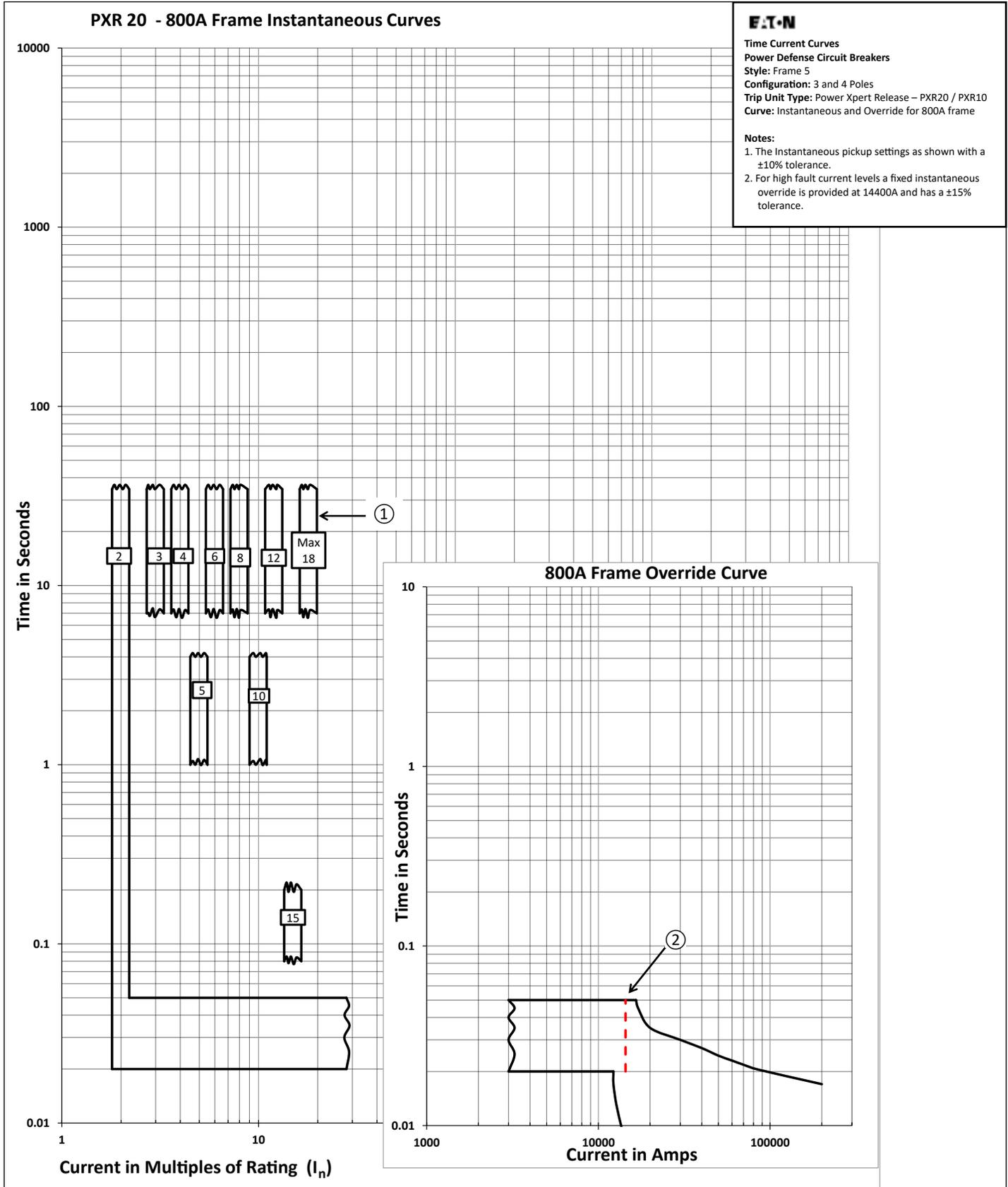


Figure 24. 800A frame PXR 20 - instantaneous and override.

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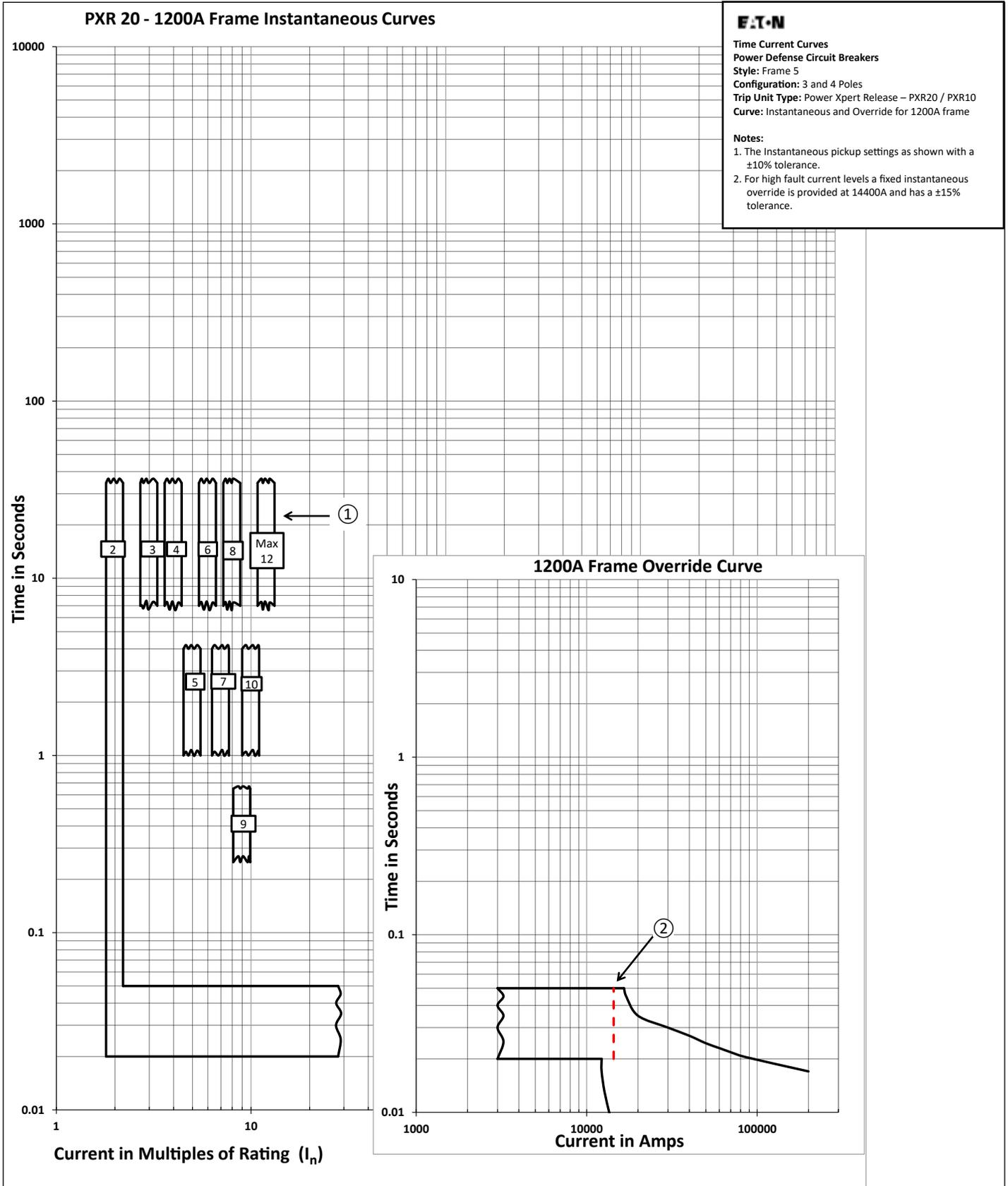


Figure 25. 1200A frame PXR 20 - instantaneous and override.

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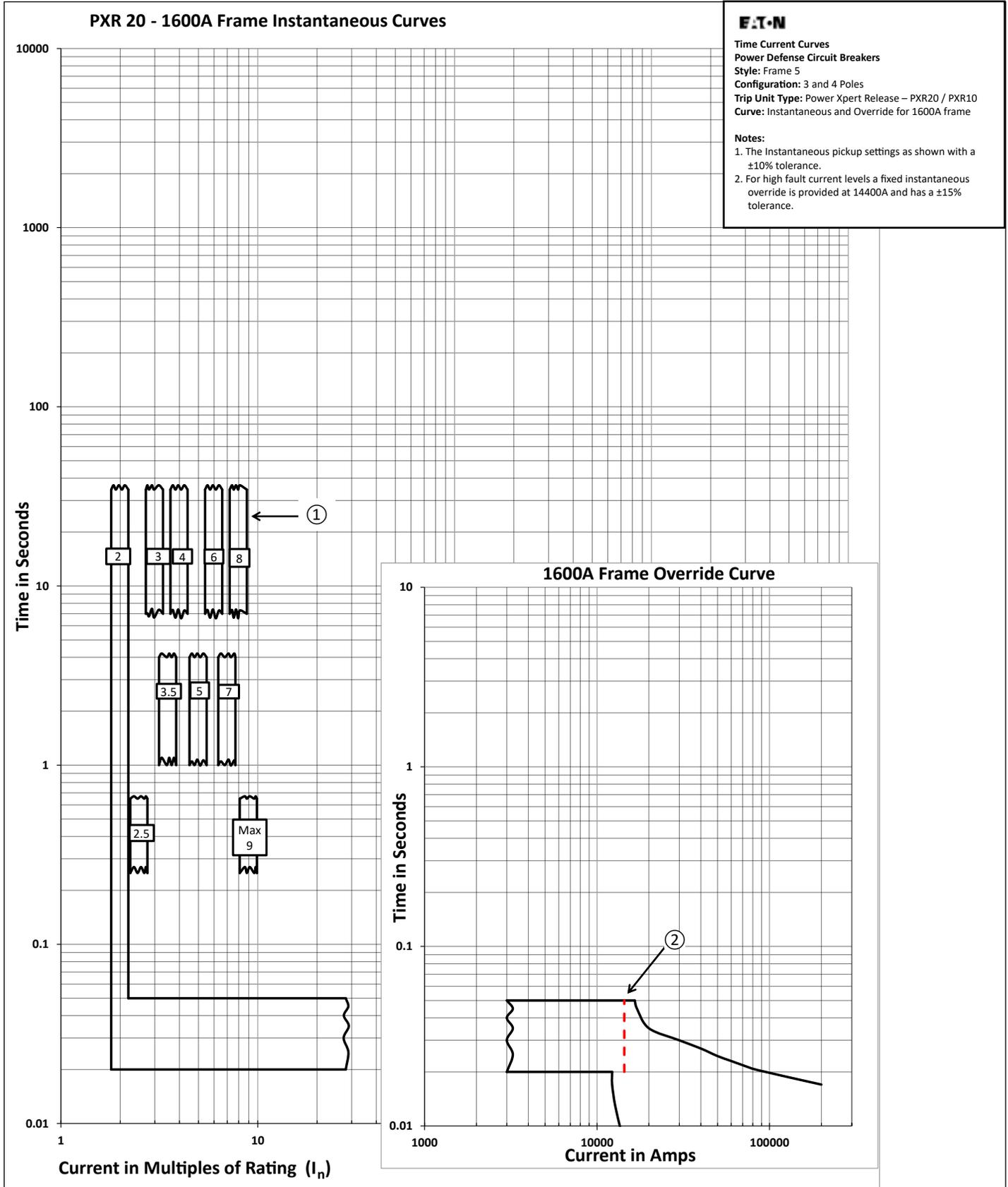


Figure 26. 1600A frame PXR 20 - instantaneous and override.

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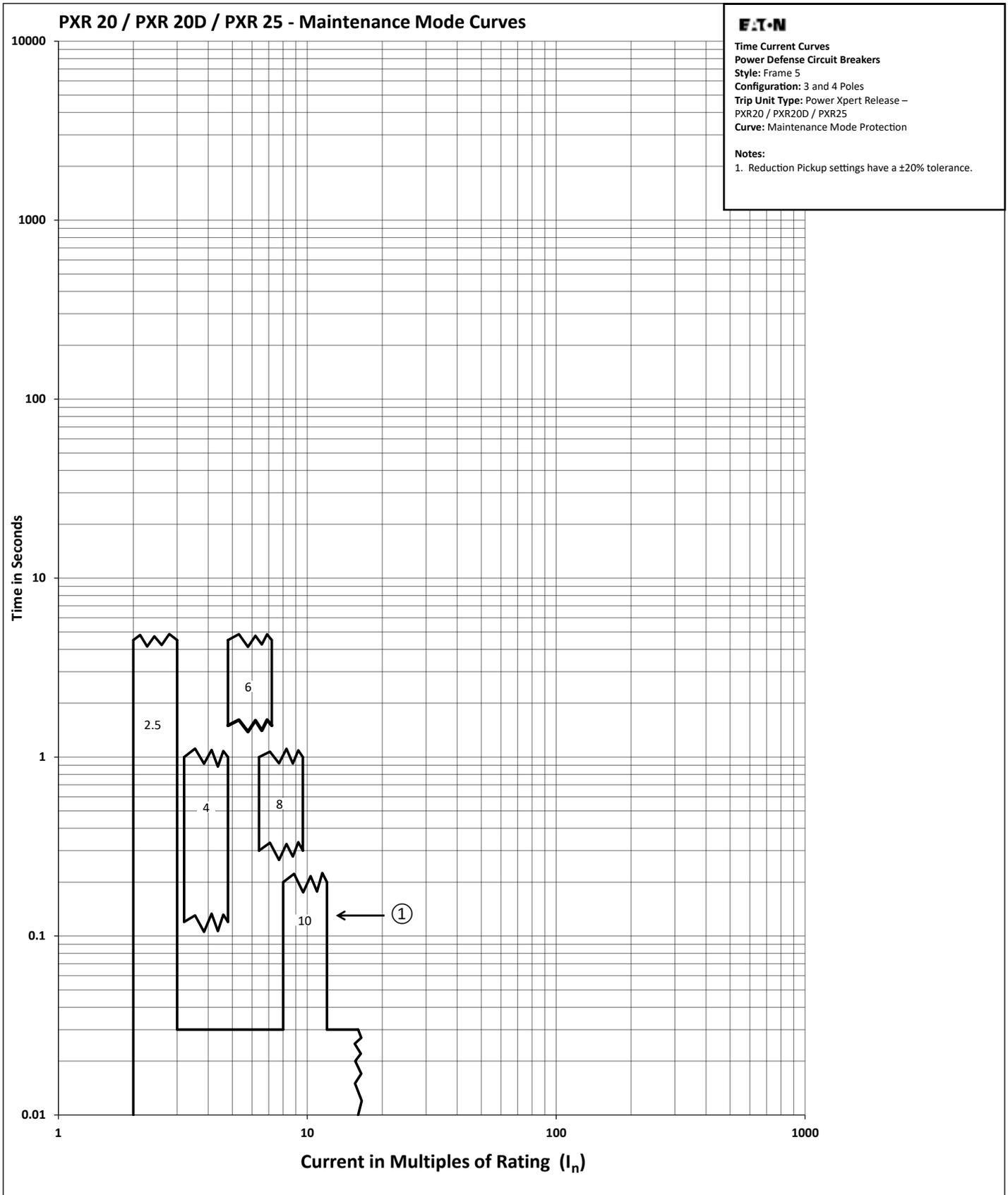


Figure 27. PXR 20 / PXR 20D / PXR 25 - maintenance mode.

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