

A man in a grey sweater and blue striped shirt is looking at a rack of electrical equipment. The equipment has two digital displays and several buttons. The background is a plain wall.

Compact NSJ MCP Powerpact D MCP Trip Curve Estimation

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There is no published trip curve for Obsolete NSJ/D frame MCP

However, let's look at the information that is published for UL and IEC versions.



Table 23: Motor Circuit Protector Ratings and Interrupting Ratings

Model Number	D/L3648M36		D/L3660M42
Rated Current	In	400 A	600 A
Number of Poles		3	3
UL 489 Ratings			
Rated Voltage (V)		600 A	600 A
Magnetic Trip Setting (5-10 Times In)		2500-4000 A	3000-6000 A
IEC 947-2 ratings			
Rated Insulation Voltage (V)	Ui	750	750
Rated Impulse Withstand Voltage (kV)	Uimp	8	8
Rated Operational Voltage	Ue	690	690
Ultimate Breaking Capacity (kAIC)	AC 50/60 Hz	100	100
		220/240 V	100 kAIC
		280/315 V	70
		440 V	65
		500 V	50
	DC	600 V	20
		250 V (1P)	65
		500 V (2 poles at series)	85
		100%	100%
		A	A

Table 24: Motor Circuit Protector Catalog Numbers¹

Ampere Rating	Adjustable Trip Range	Catalog Number	Wire Range
300 A	200-600 A	D/L3648M36	2 AWG-500 kcmil Al or 2 AWG-600 kcmil Cu
400 A	200-600 A	D/L3660M42	(2) 3/5 AWG-500 kcmil Al/Cu
400 A	200-600 A	D/L3648M36	2 AWG-500 kcmil Al or 2 AWG-600 kcmil Cu
600 A	200-600 A	D/L3660M42	(2) 3/5 AWG-500 kcmil Al/Cu
400 A	200-4000 A	D/L3648M36	2 AWG-500 kcmil Al or 2 AWG-600 kcmil Cu
600 A	200-6000 A	D/L3660M42	(2) 3/5 AWG-500 kcmil Al/Cu

¹ Also available in 1-line, plug-in, and chassis versions.



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DJL36600M42 Magnetic trip settings (shown in photo)

DJL36600M42 magnetic trip settings

- 3000, 3600, 4200, 4800, 5400, 6000
- Settings are 5X, 6X, 7X, 8X, 9X, 10X

DJL36400M36 estimated settings

- Estimated based on 600A info above (5X, 6X, 7X, 8X, 9X, 10X)
- 2000, 2400, 2800, 3200, 3600, 4000

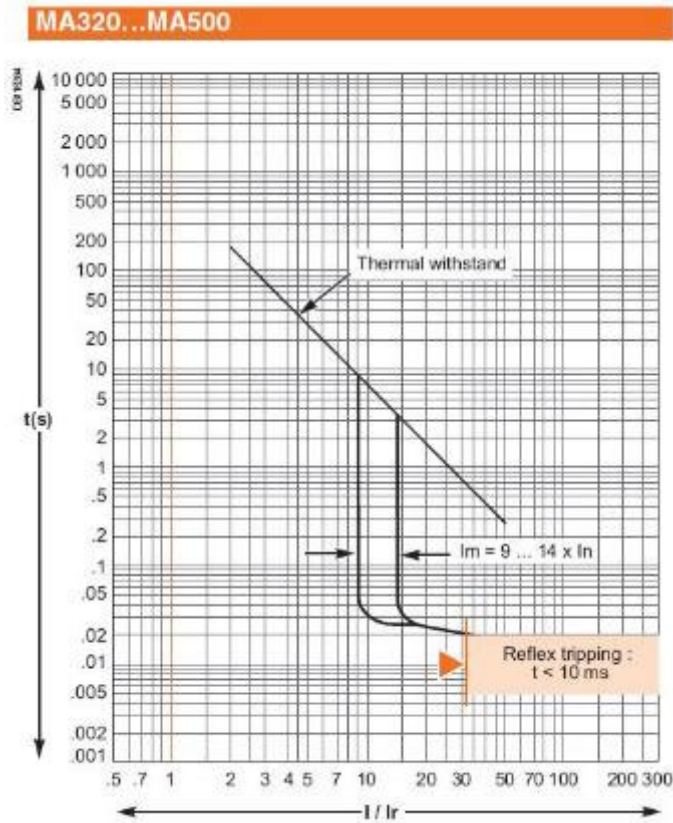


Compact IEC NS400-630 MA320...MA500 trip curve

Use the maximum clearing time from the IEC equivalent MA320...MA500 trip curve.

Use the UL489 magnetic tolerance for pickup amperage:

- UL magnetic trip tolerances are -20% / +30% from the nominal values shown.
- Use 5X – 10X for I_m range



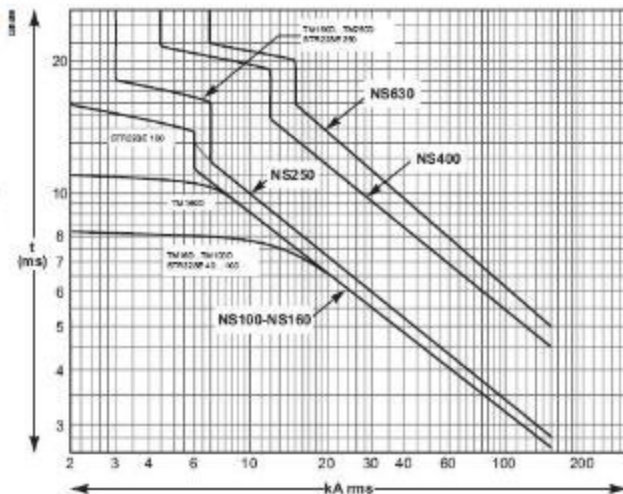
Compact IEC NS400-630 Reflex Tripping Curve

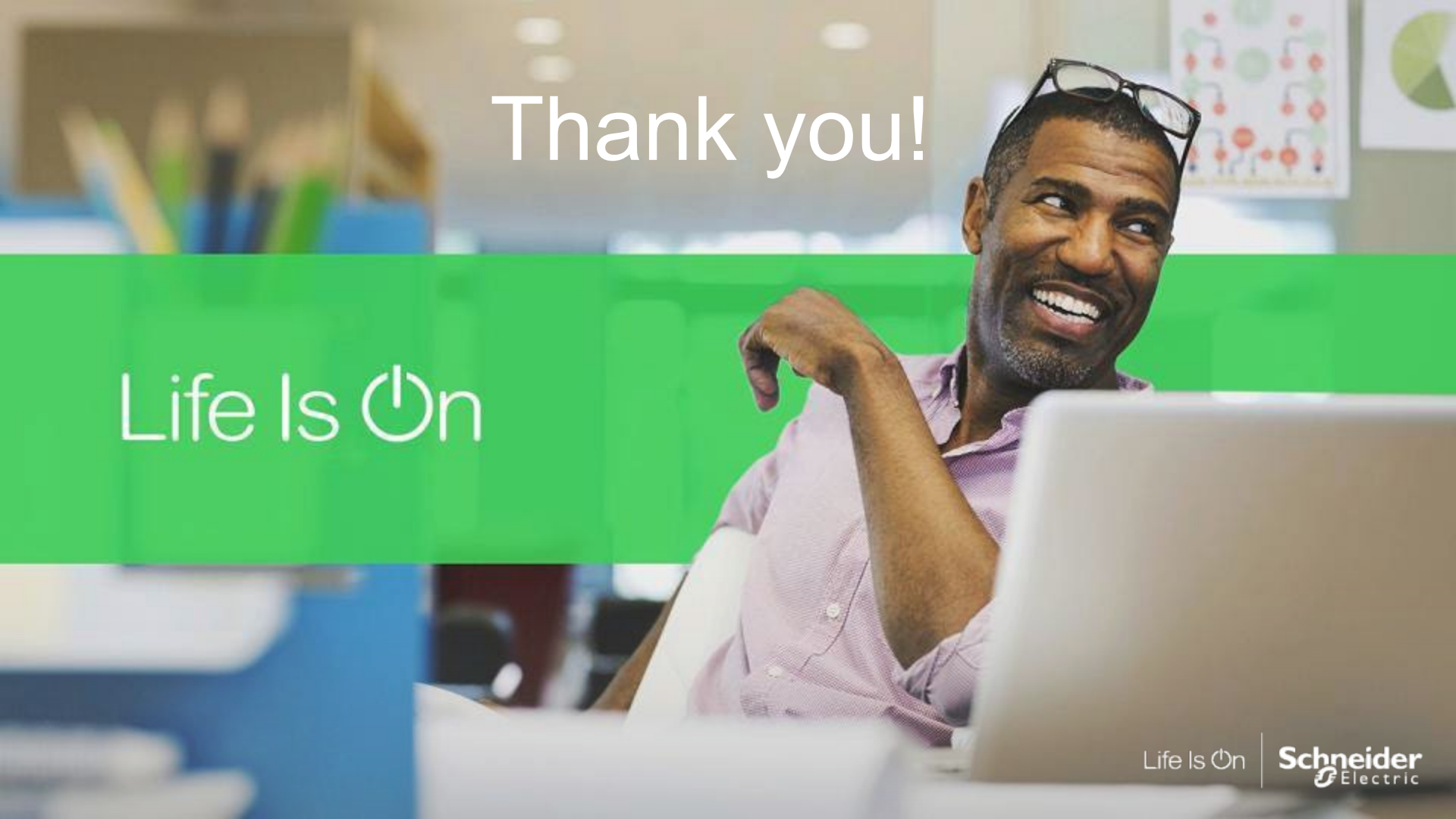
Reflex tripping

Reflex tripping curve – supplement to MA320...MA500 trip curve reflex tripping detail on previous slide.

- Use NS400 for NSJ/D frame 400 amp
- Use NS630 for NSJ/D frame 600 amp

Compact NS100 to 630 devices incorporate the exclusive reflex-tripping system. This system breaks very high fault currents by mechanically tripping the device via a "piston" actuated directly by the pressure produced in the breaking units resulting from a short-circuit. For high short-circuits, this system provides a faster break and a trip guarantee, as well as natural total discrimination. Reflex-tripping curves are exclusively a function of the circuit-breaker rating.



A smiling man with glasses on his head, wearing a pink shirt, is sitting at a desk with a laptop. A green banner is overlaid on the image. The background shows an office environment with a pen holder and some charts on the wall.

Thank you!

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