

LULEÅ UNIVERSITY OF TECHNOLOGY

# Analys av nytt byggsätt för eldistribution till datoranläggningar

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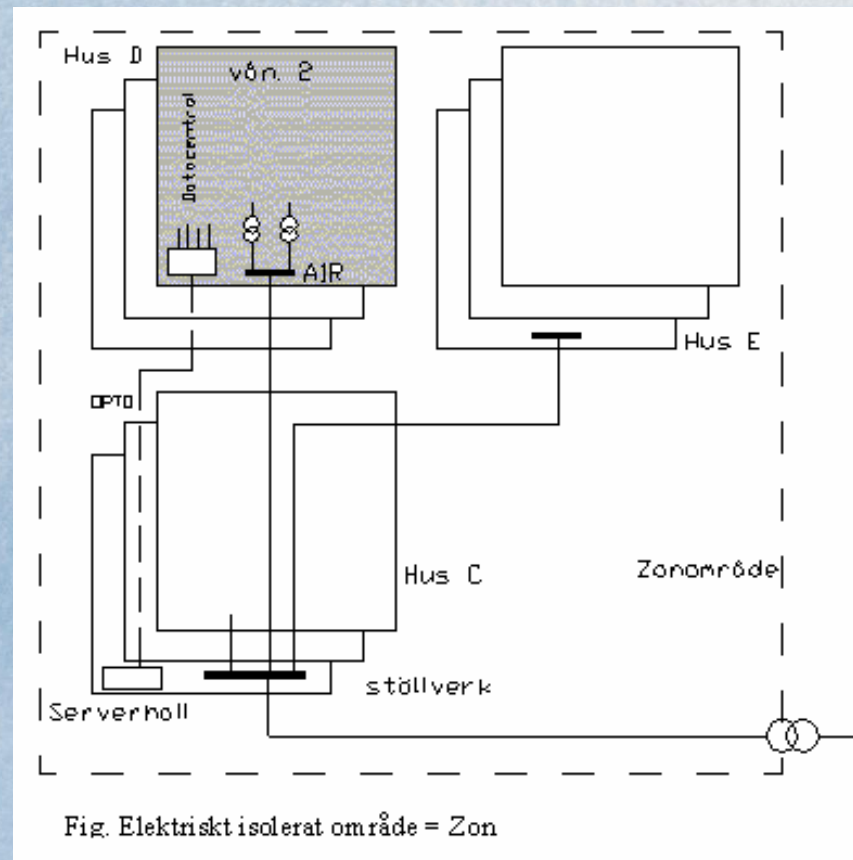
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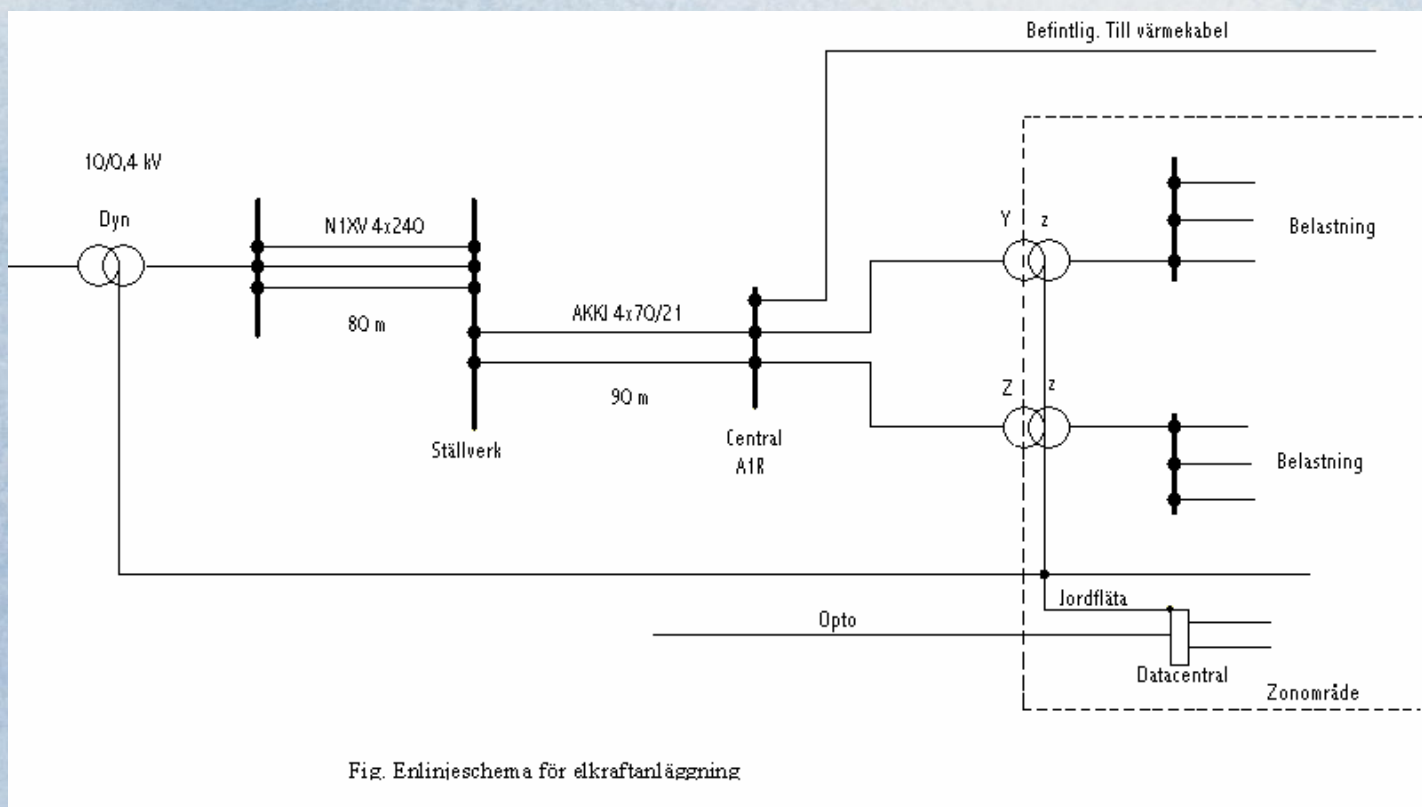
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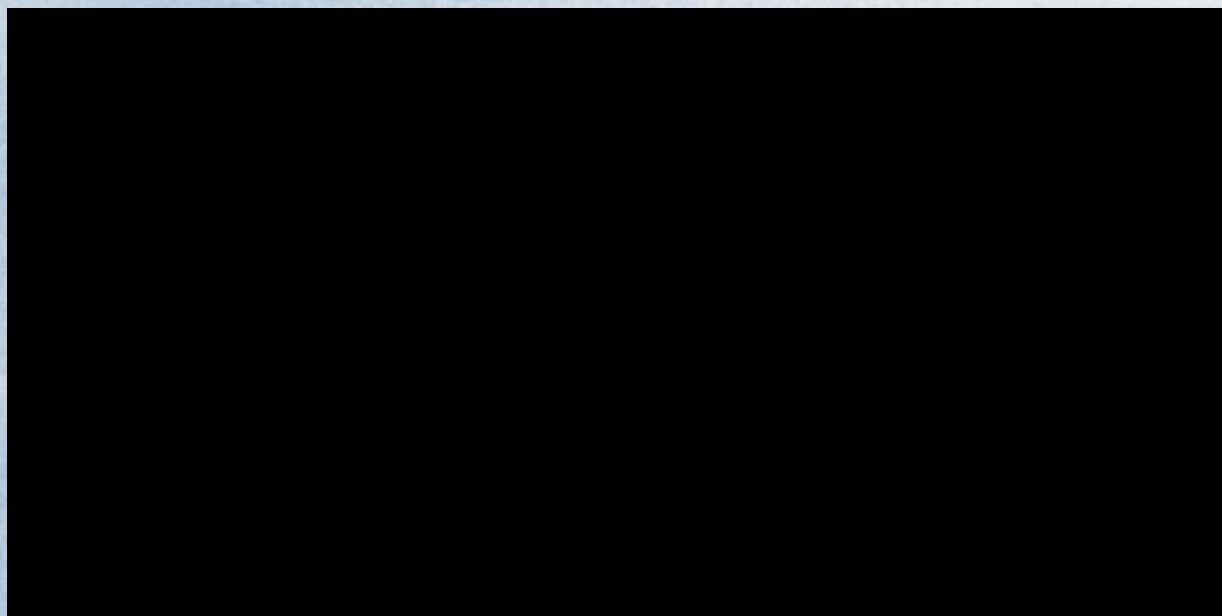
## Zon indelning



## EL och data system



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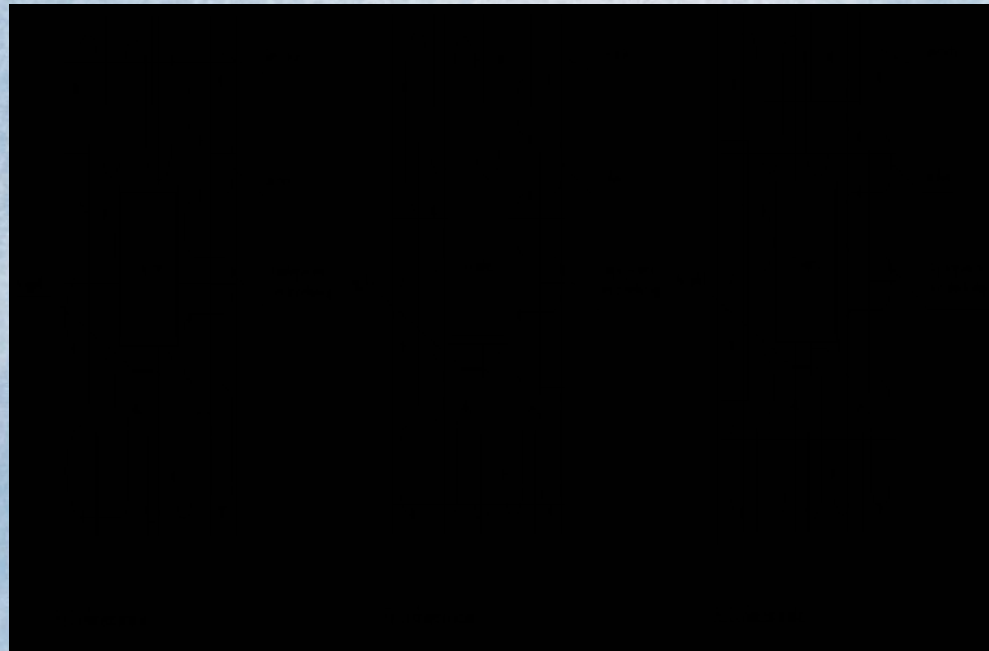


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Jordplan



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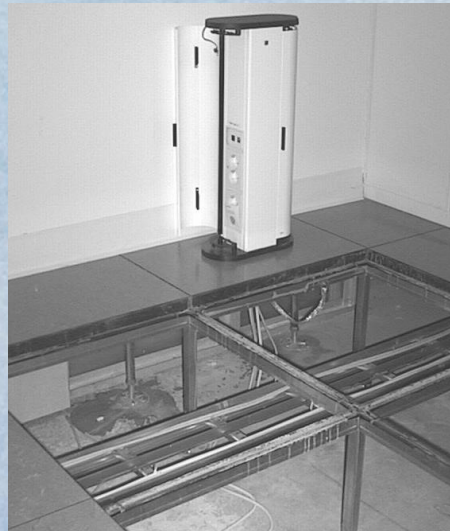
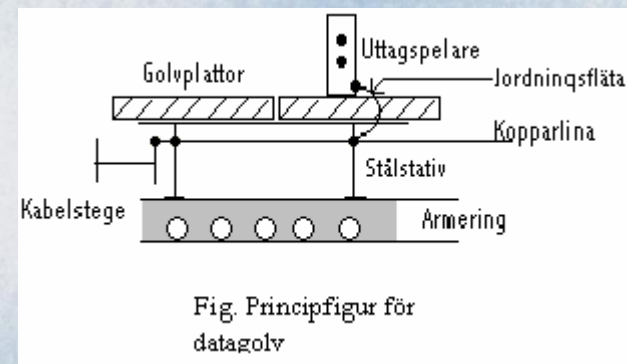


Bild. Datagolv  
Galvaniserat  
Ramverk 60x60 cm



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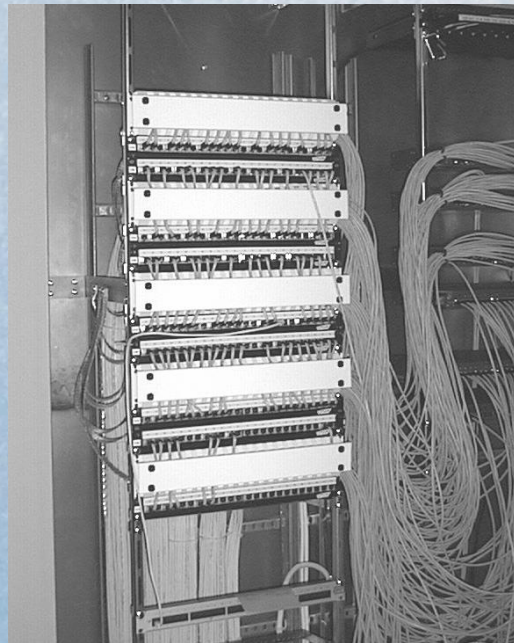
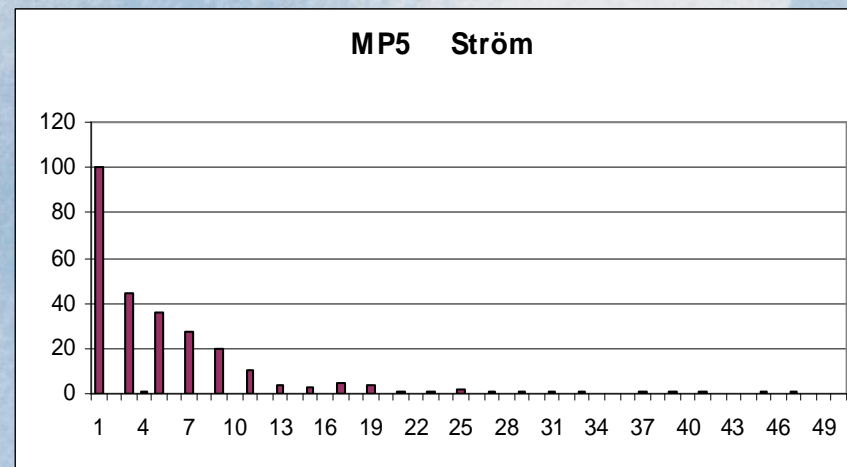
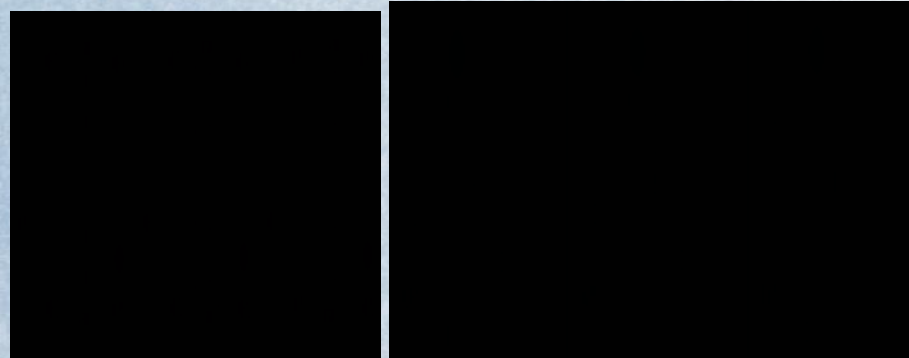


Fig. Datacentral

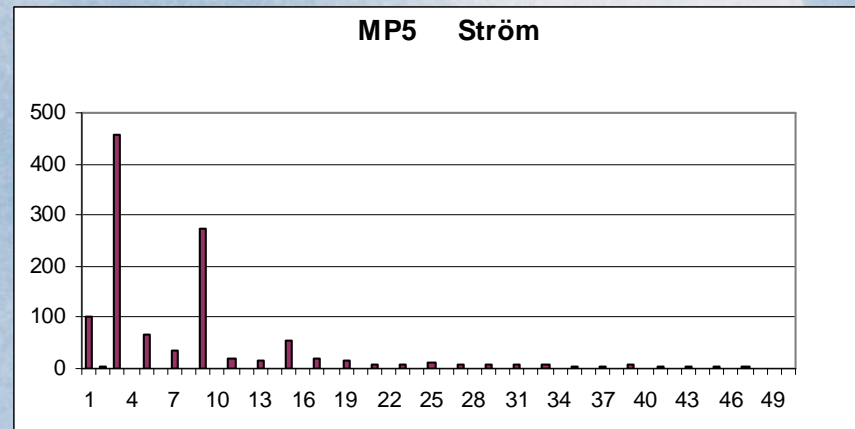
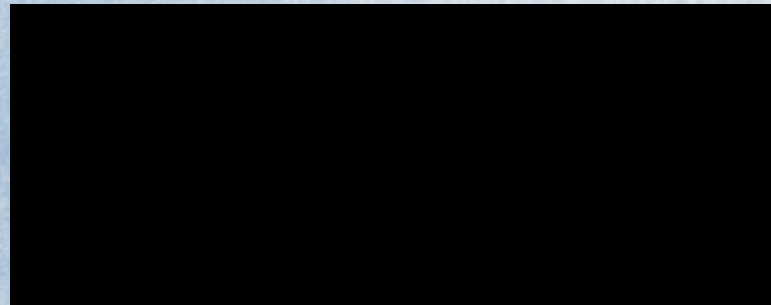
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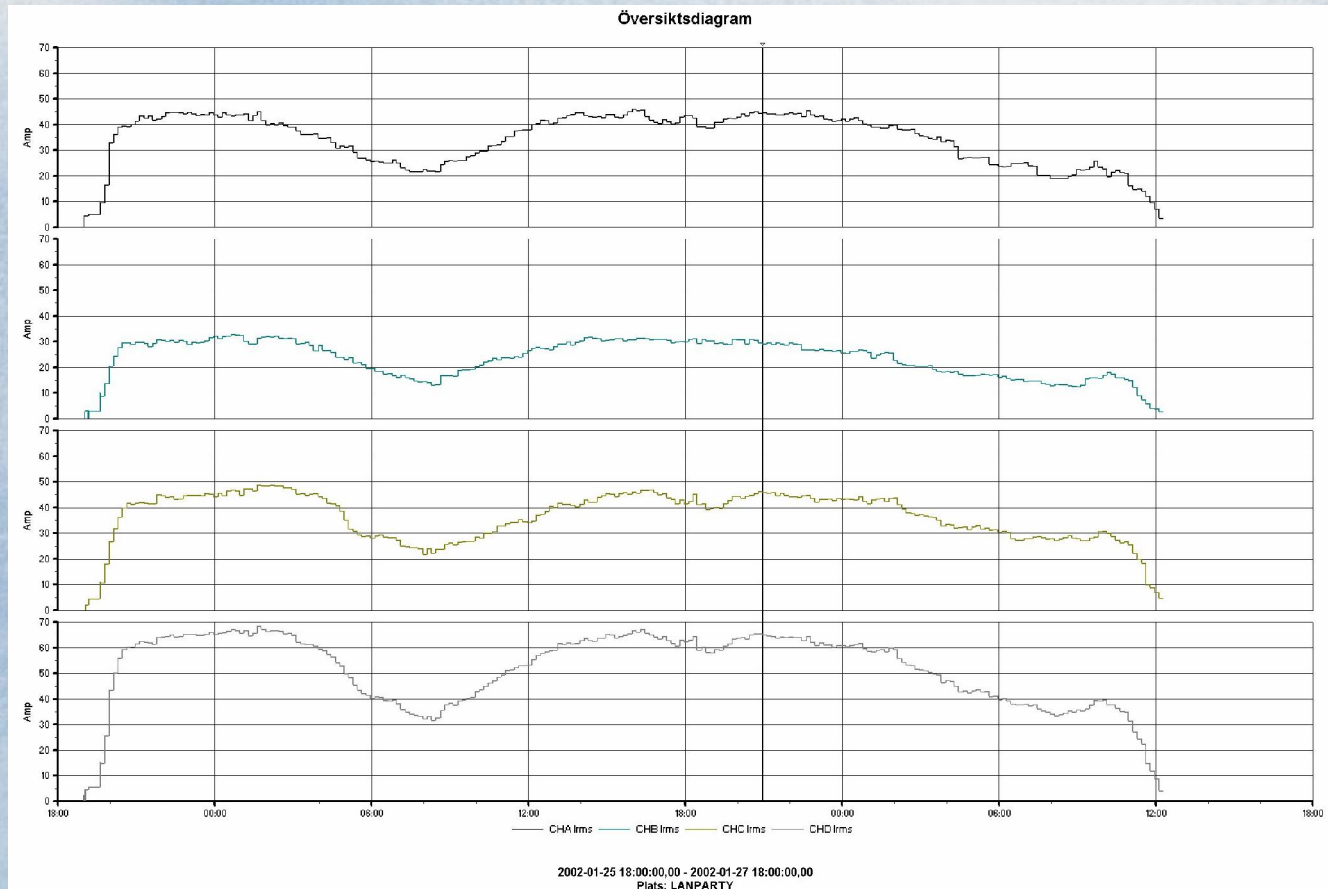


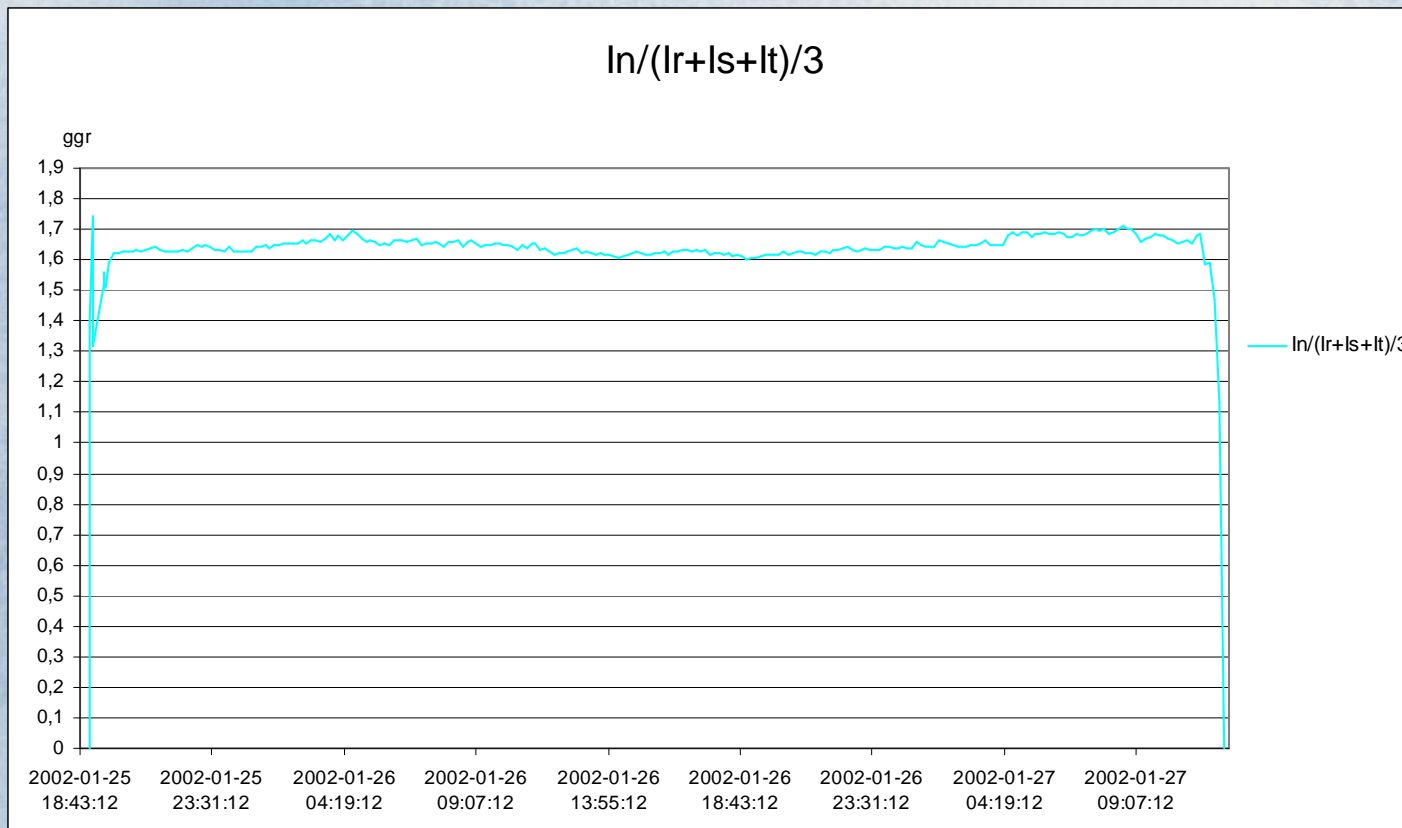
## Övertonsspektrum i Fas-ledare i MP5



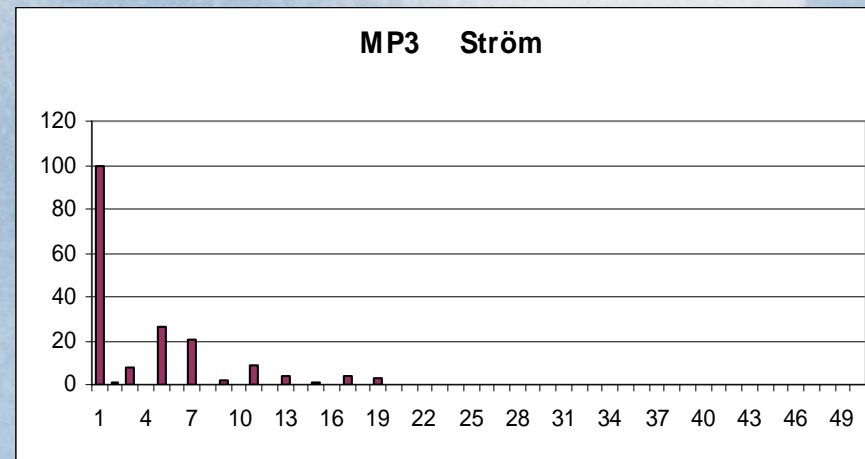
## Överttonsspektrum i PEN-ledare i MP5





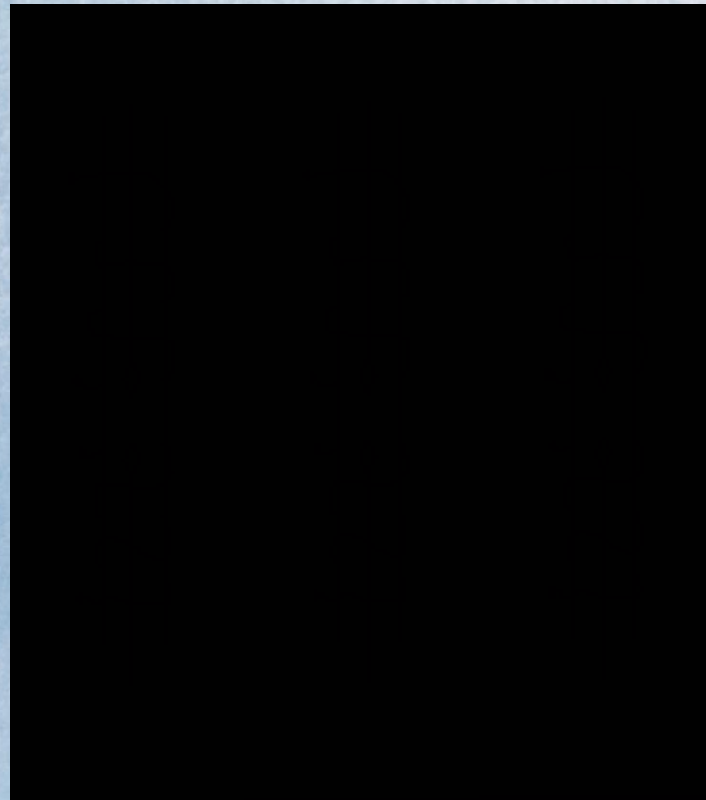


## Överttonsspektrum i fas-ledare i MP3



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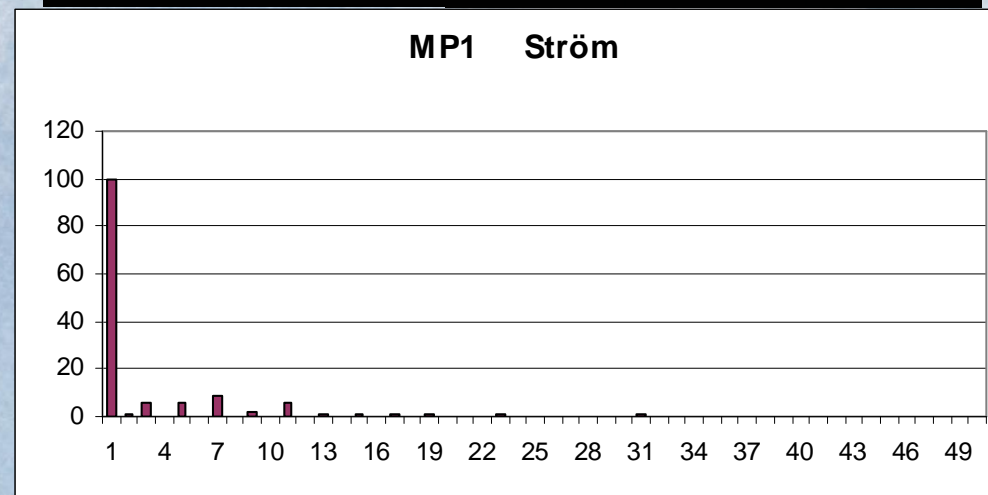
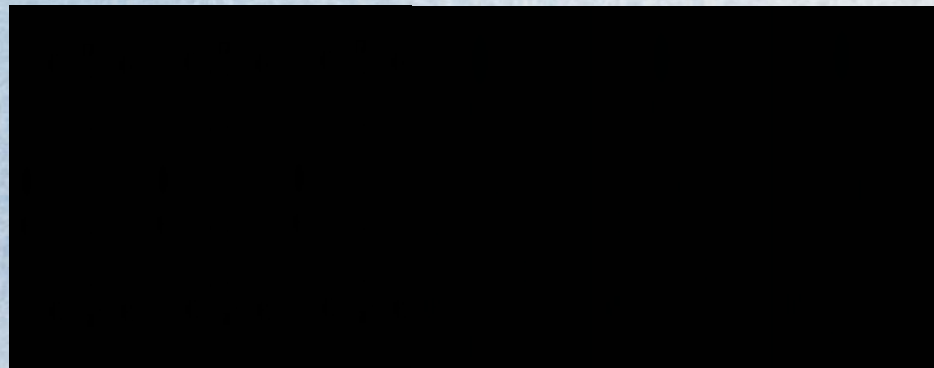
## Neutralisering av 3:e ton för Z-koppling



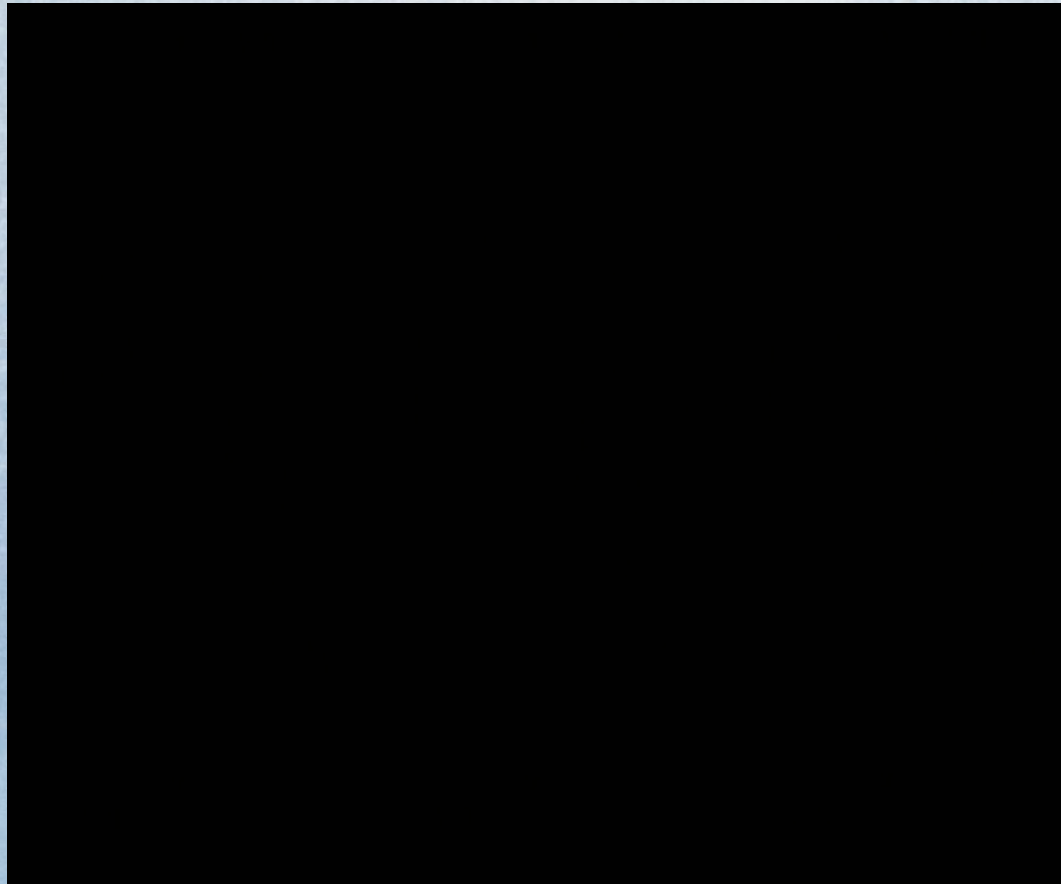
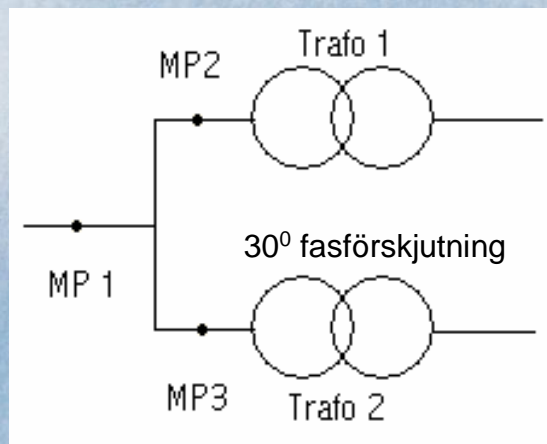
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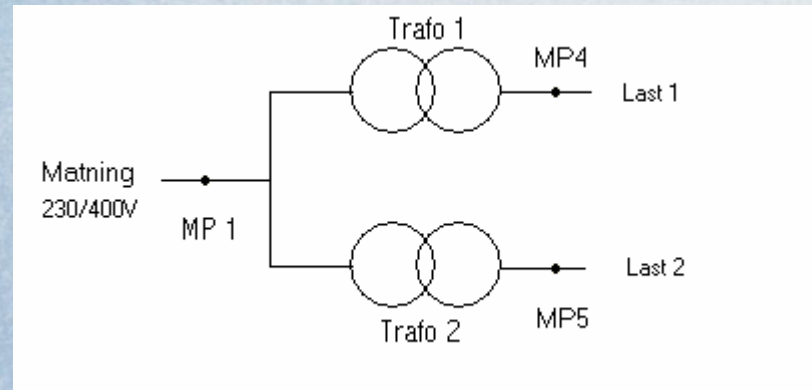


## Överttonsspektrum i fas-ledare i MP1



## Neutralisering av 5:e och 7:e ton





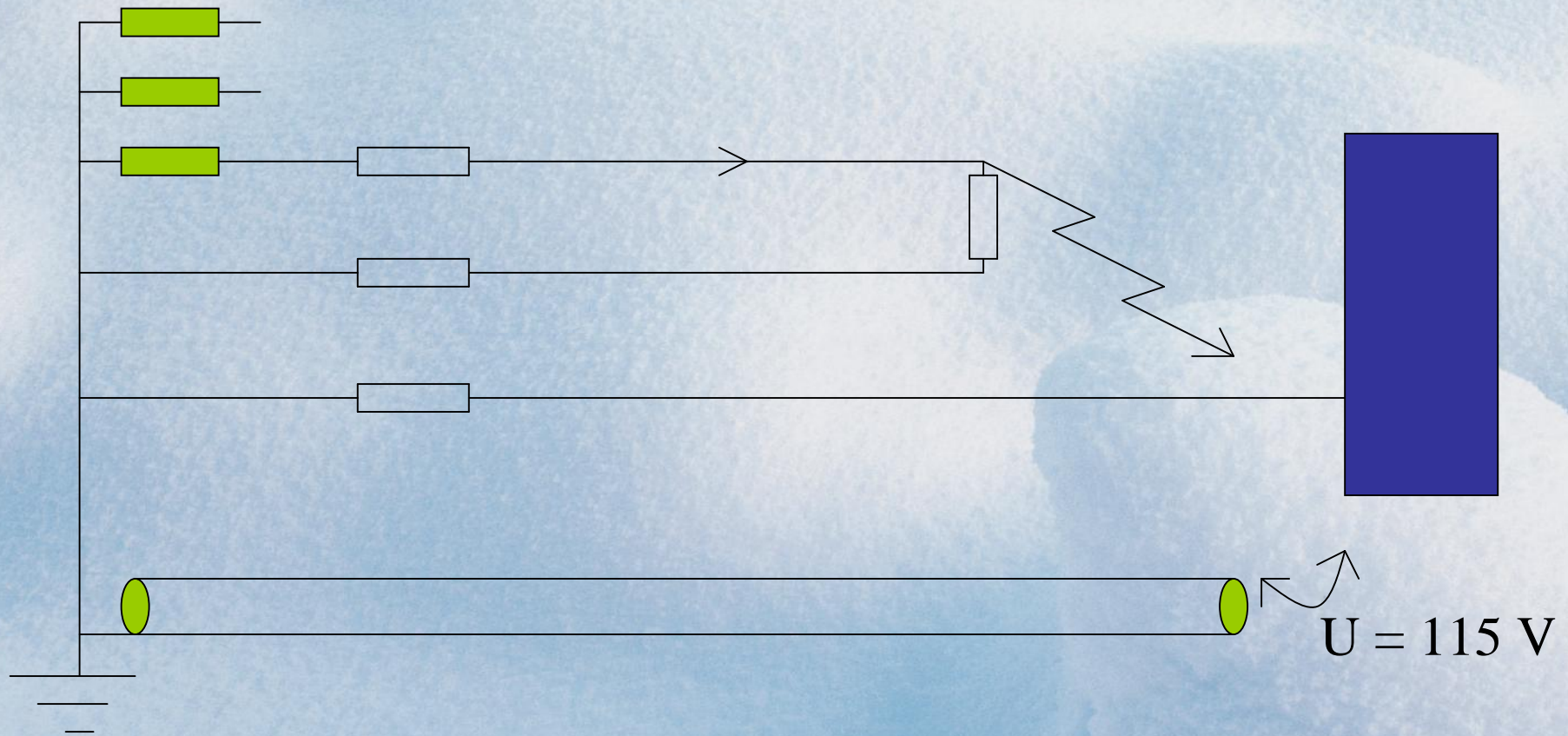
	MP 1		MP 4		MP 5	
	RMS	THD	RMS	THD	RMS	THD
Fasspänning	222V	1,8%	222V	1,9%	222V	1,2%
Fasström	44,4	13,9%	25,4A	53,9%	25,5A	60,5%
N/PE ström	0,2A	0%	26,9A	190%	27,5A	480%

Obs! För att enkelt kunna åskådliggöra resultaten har mätvärdena medelvärdesbildats.

## Kortslutning provning

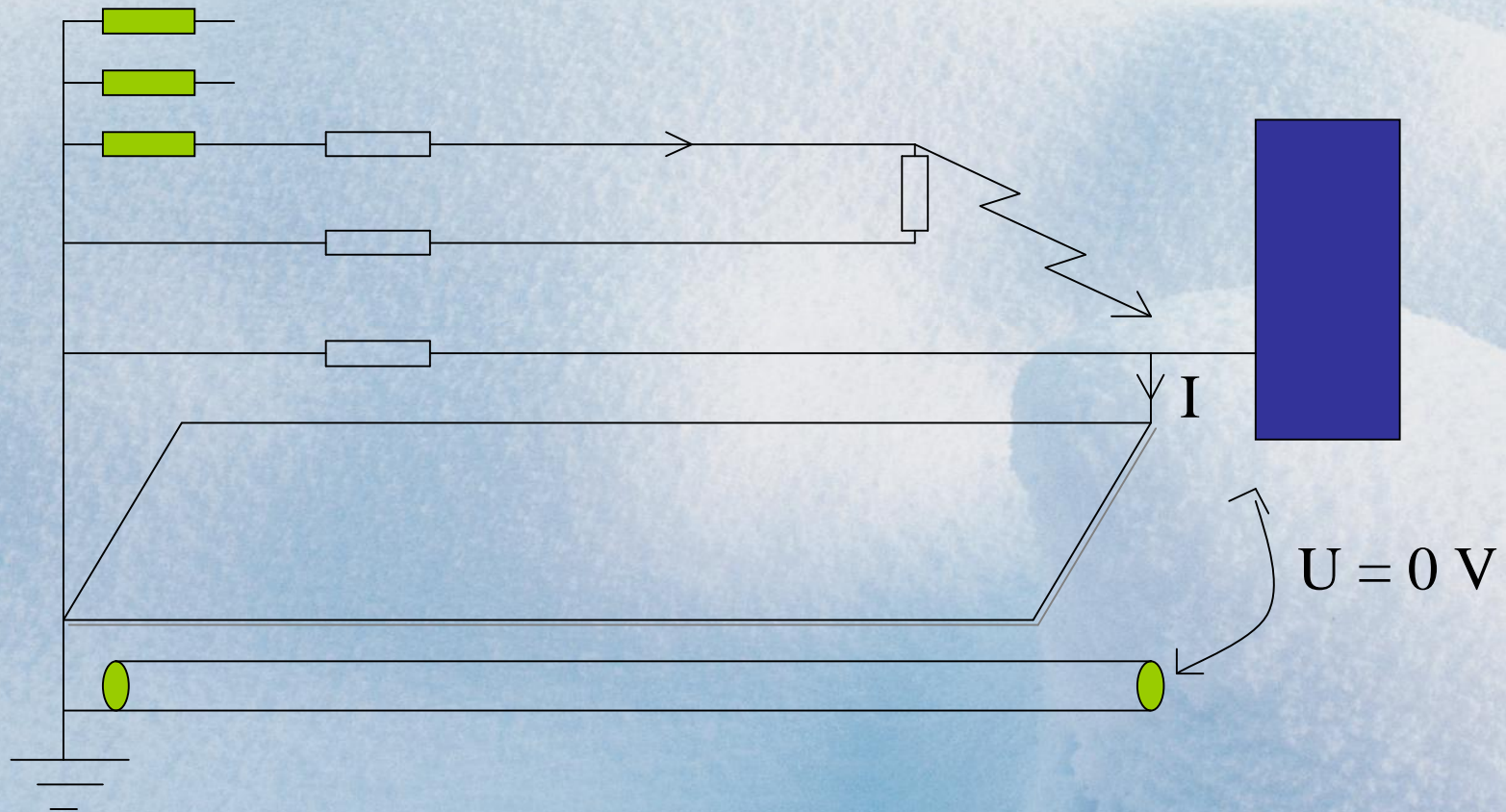
- Kontroll av utlösningvillkor
- Kontroll av jordplanets inverkan
- Kontroll av beräkningar och mätinstrument för kortslutning impedans
- Ström i datanätverk

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# Slutsatser kortslutningsmätningar

Testinstr.	Uppmätt	Beräknat	
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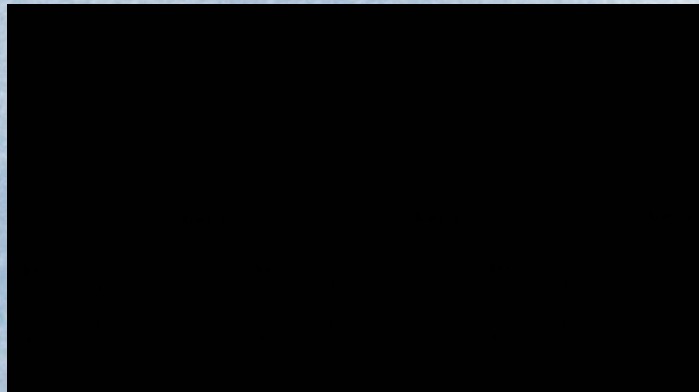
# Slutsatser kortslutningsmätningar

Testinstr.	Uppmätt	Beräknat	
294	263	294	$I_k$ A (med JP)
180	170	177	$I_k$ A (utan JP)
40	20-25	-	Sp.höjning V (med JP)
117	105	-	Sp.höjning V (utan JP)

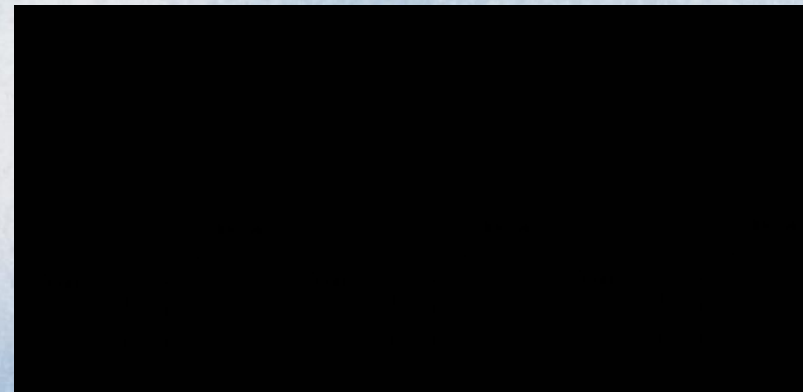
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## Koppling mellan nätverks skärm och PE-ledare

Fall 1



Fall 2



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