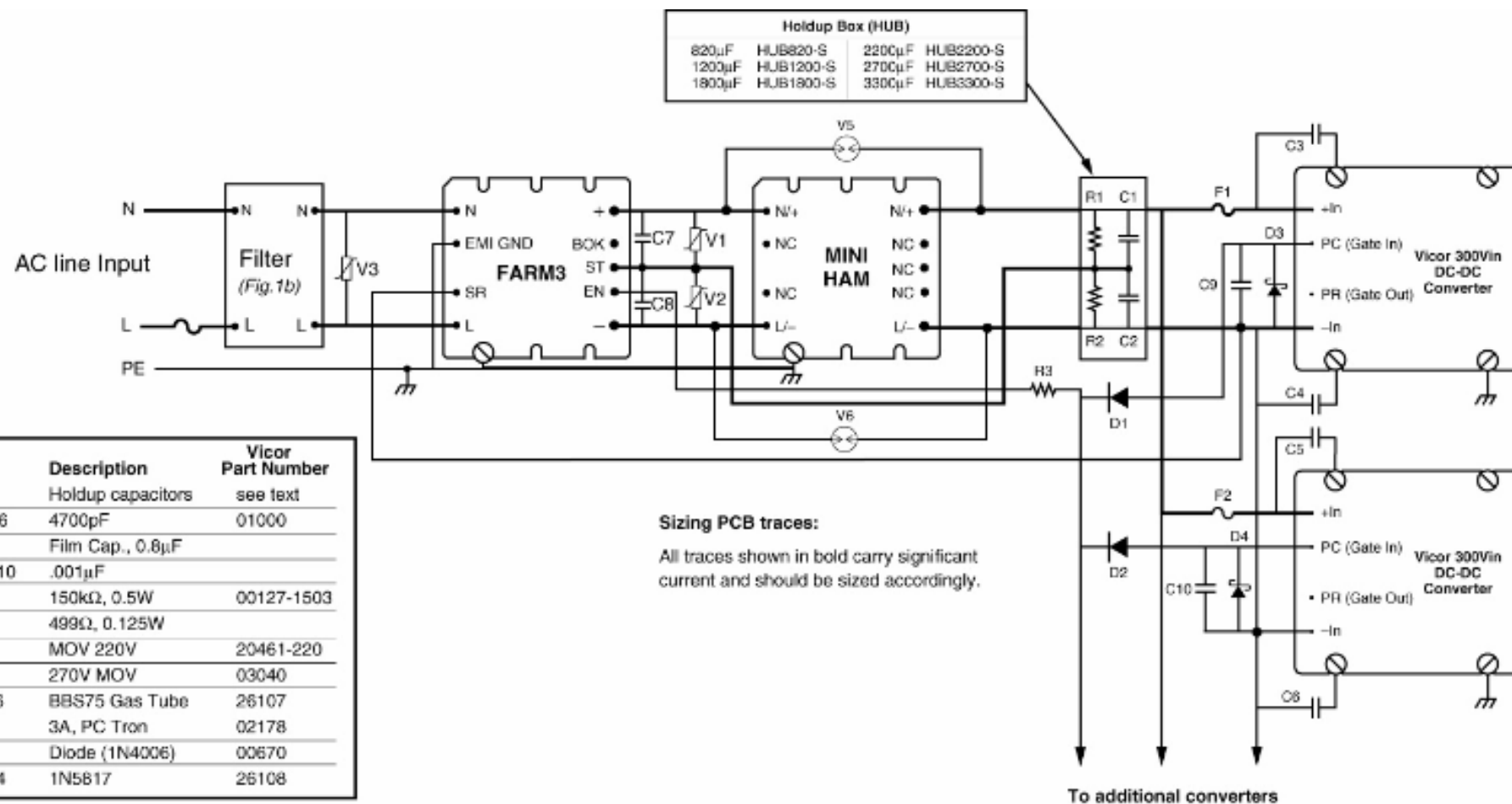


# 欧盟电磁兼容 要求及方案

Vicor/EEplace Webcast  
21 May 2003, 10:00 a.m.



# 概览

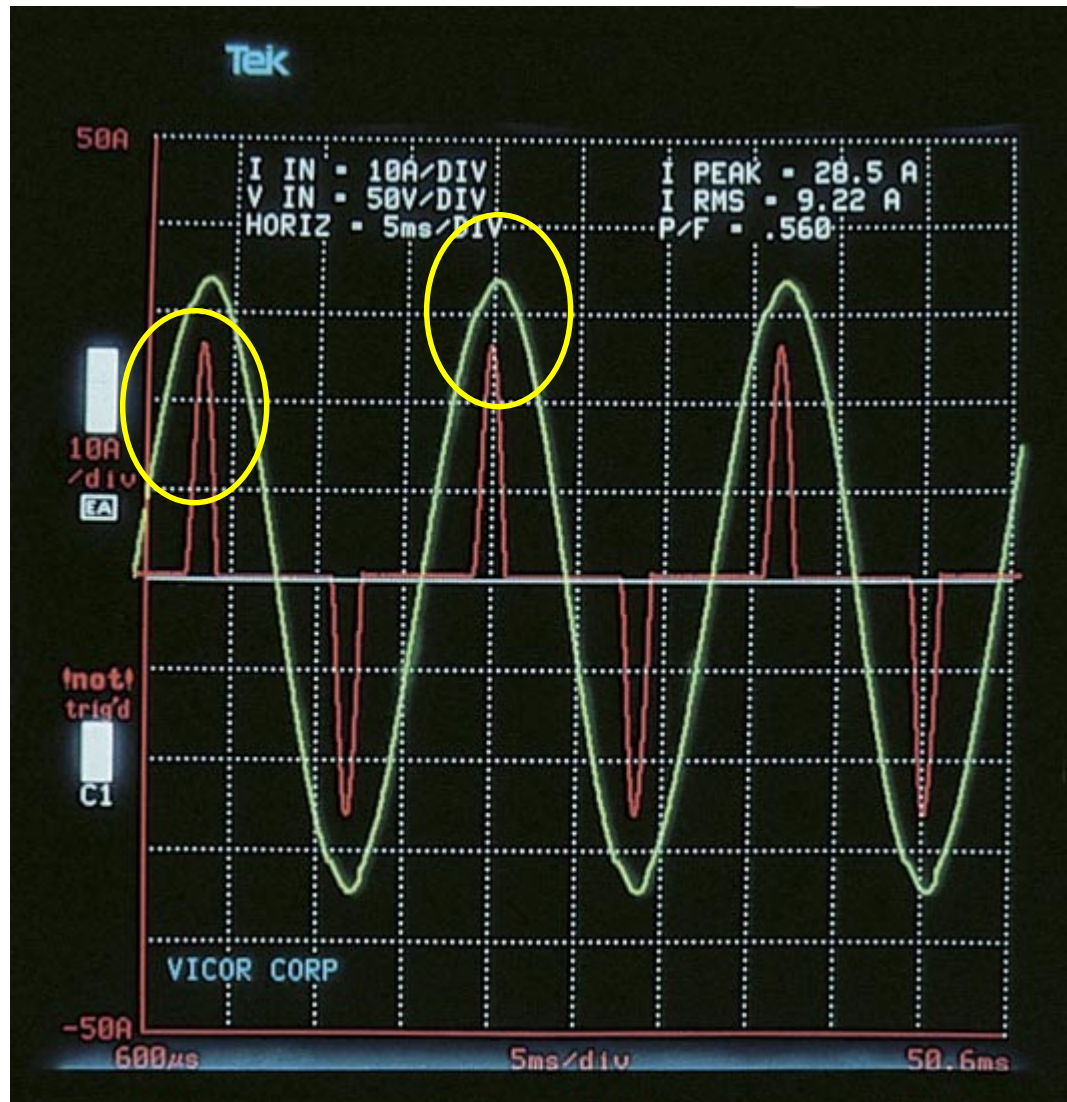
- 介绍
- 谐波 **EN61000-3-2**
- 传导噪声 **EN55022**
- 瞬态/浪涌保护 **EN61000-4-5**
- 电源中断 **EN61000-4-11**
- 闪烁 **EN61000-3-3**

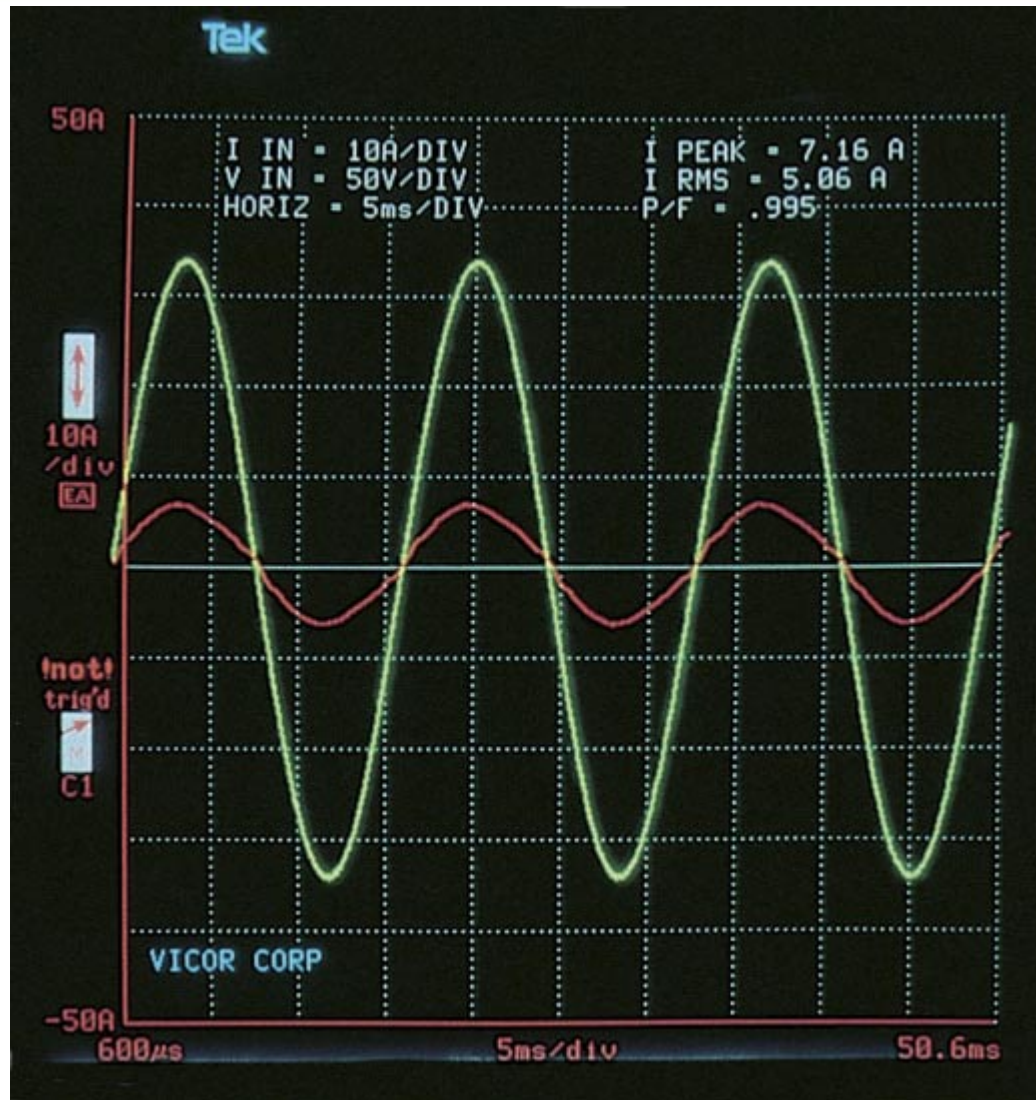
# 谐波

- 要求
- 硬件方案
- 测试

## 表1: A级设备的限定

谐波谐数 n	最大容许谐波电流 安培
单数谐波	
3	2,30
5	1,14
7	0,77
9	0,40
11	0,33
13	0,12
$15 \leq n \leq 39$	$0,15 \frac{15}{n}$
双数谐波	
2	1,08
4	0,43
$8 \leq n \leq 40$	$0,23 \frac{8}{n}$



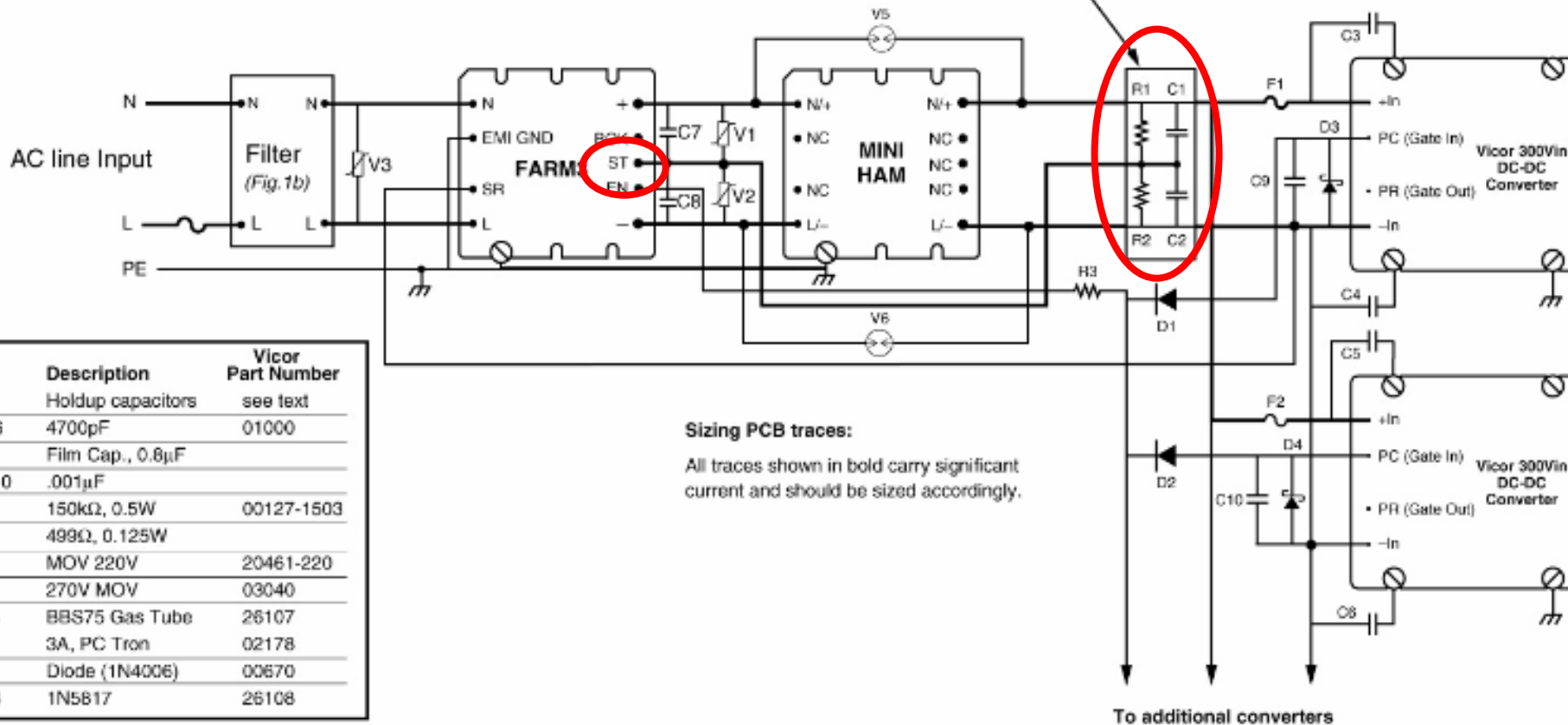


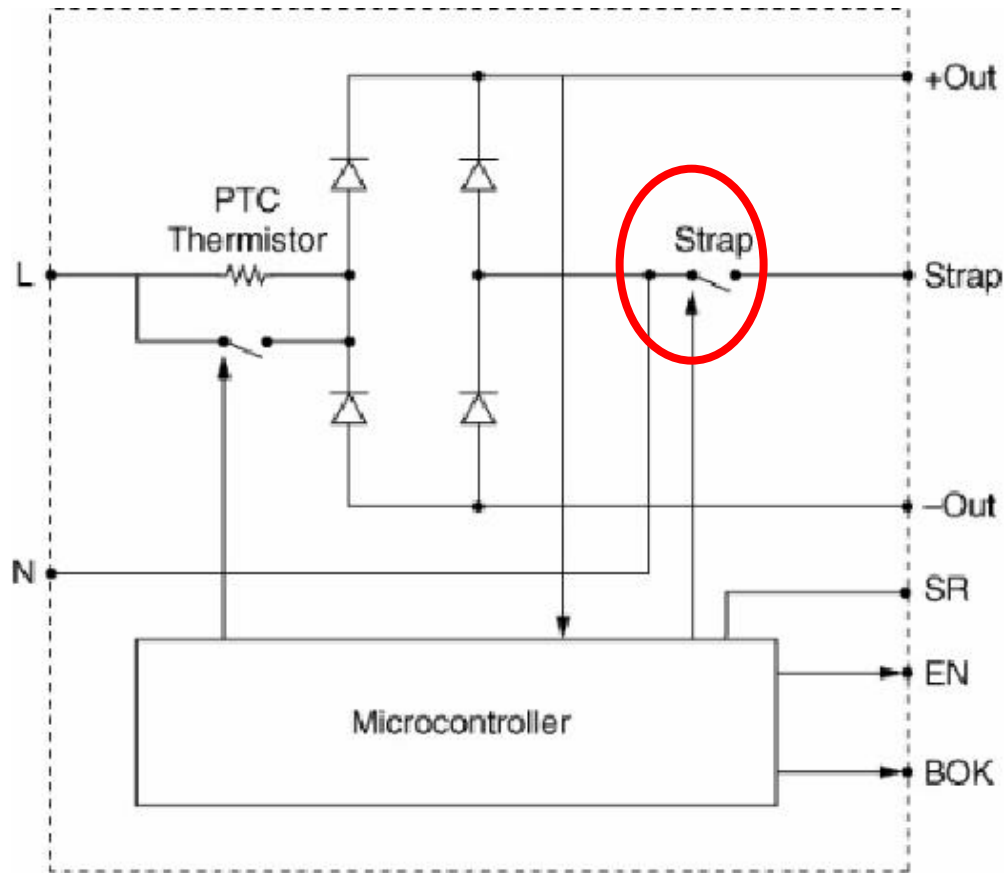
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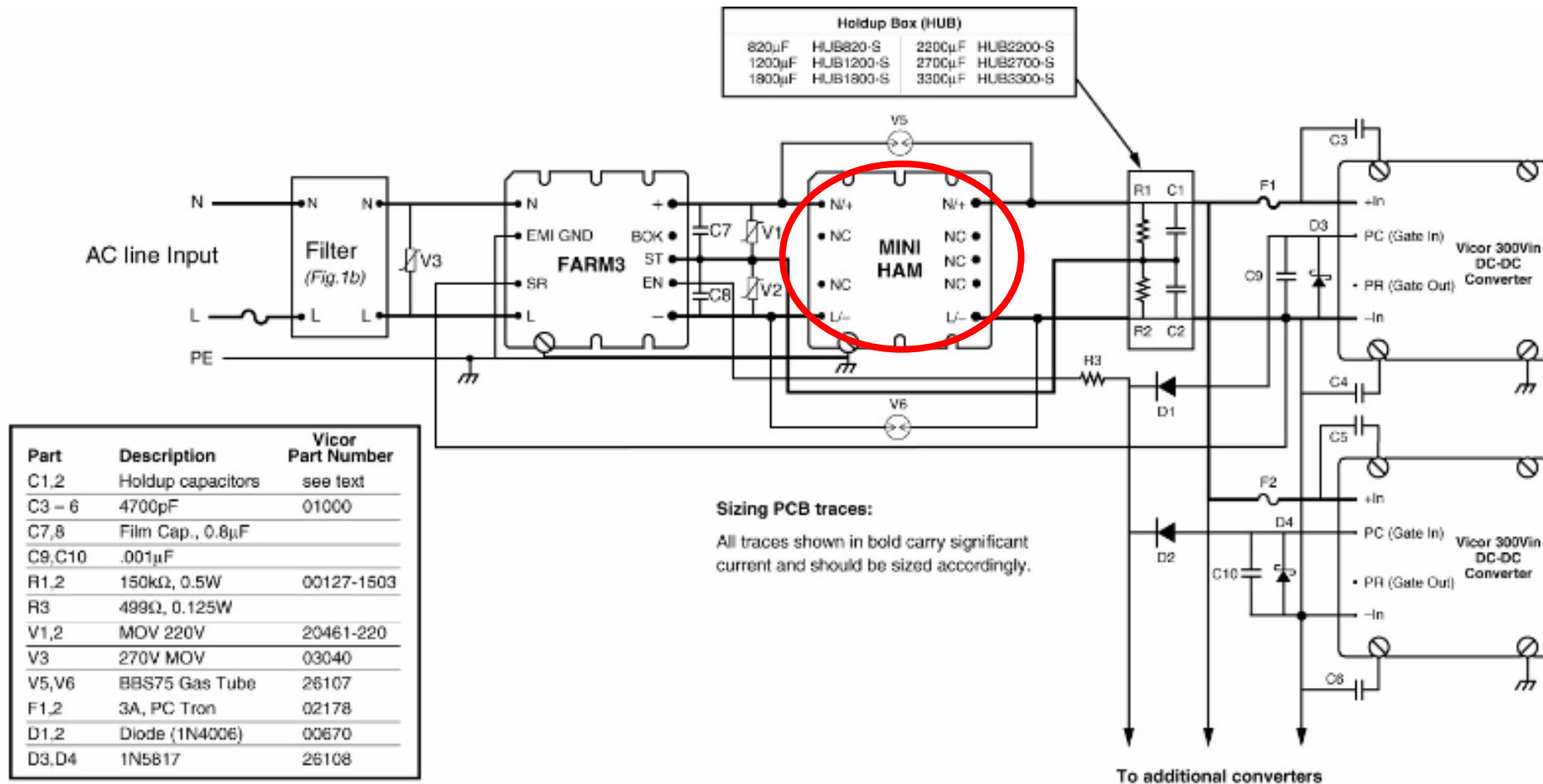


Holdup Box (HUB)			
820 $\mu$ F	HUB820-S	220 $\mu$ F	HUB2200-S
1200 $\mu$ F	HUB1200-S	270 $\mu$ F	HUB2700-S
1800 $\mu$ F	HUB1800-S	330 $\mu$ F	HUB3300-S



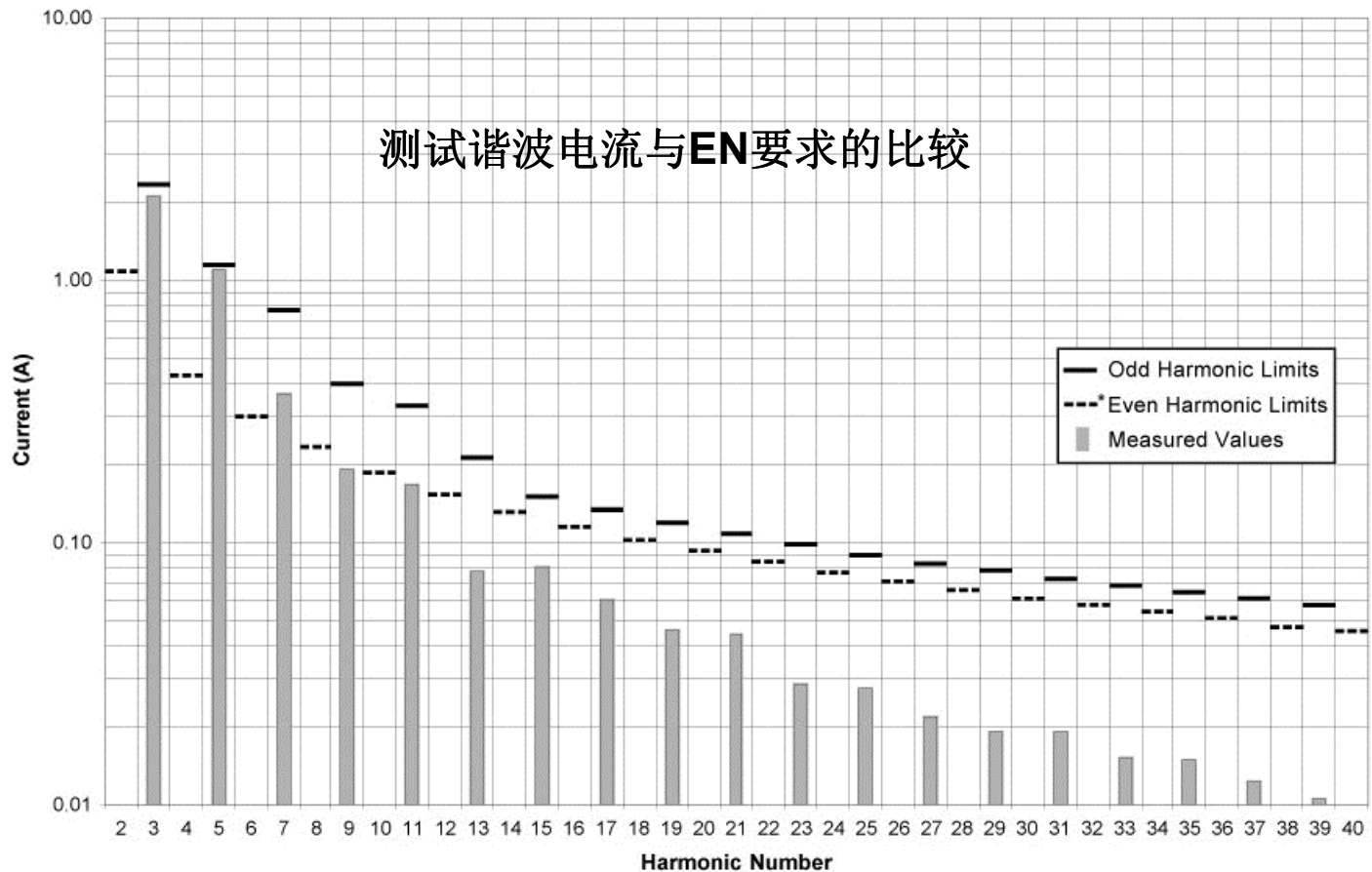


方块功能图

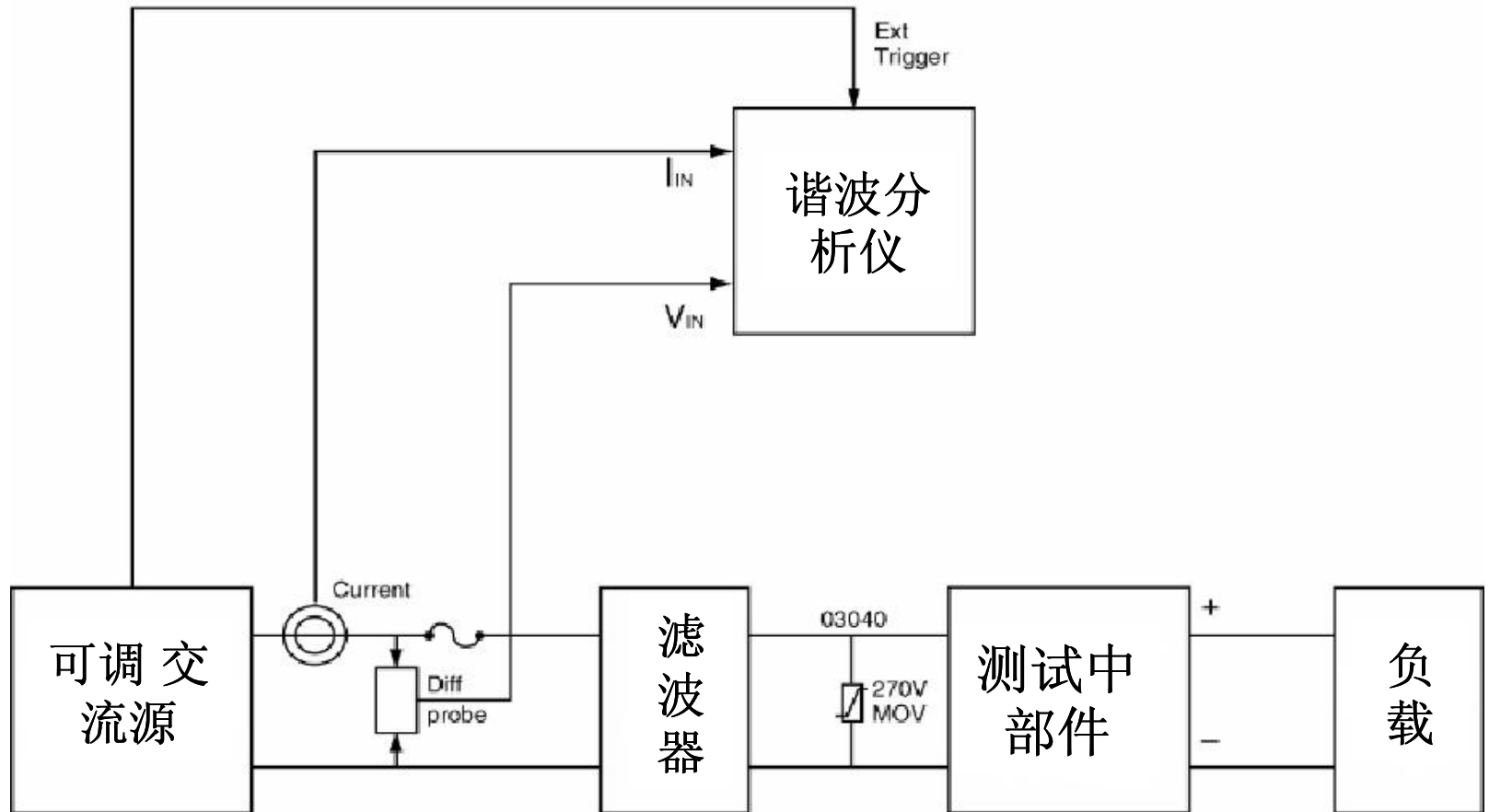


# 谐波表现

Harmonic Current



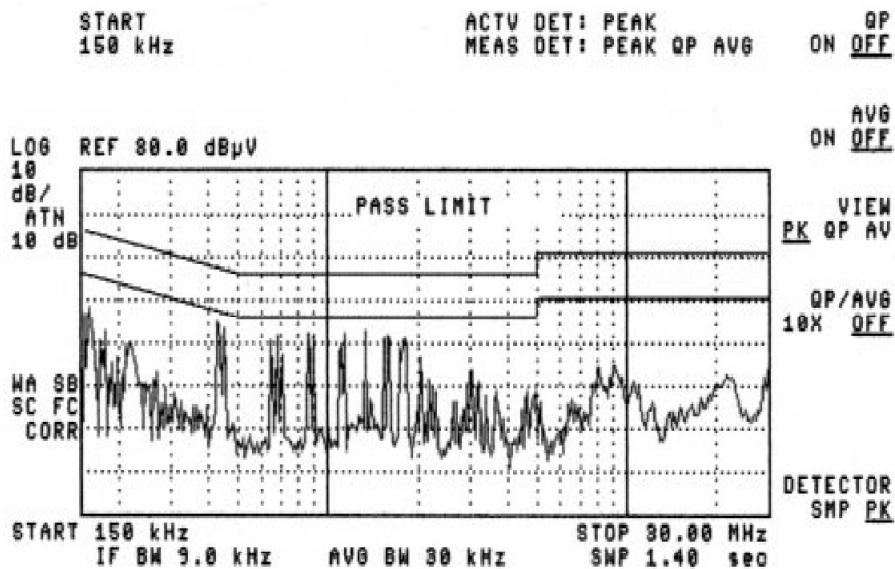
# 测试谐波设备



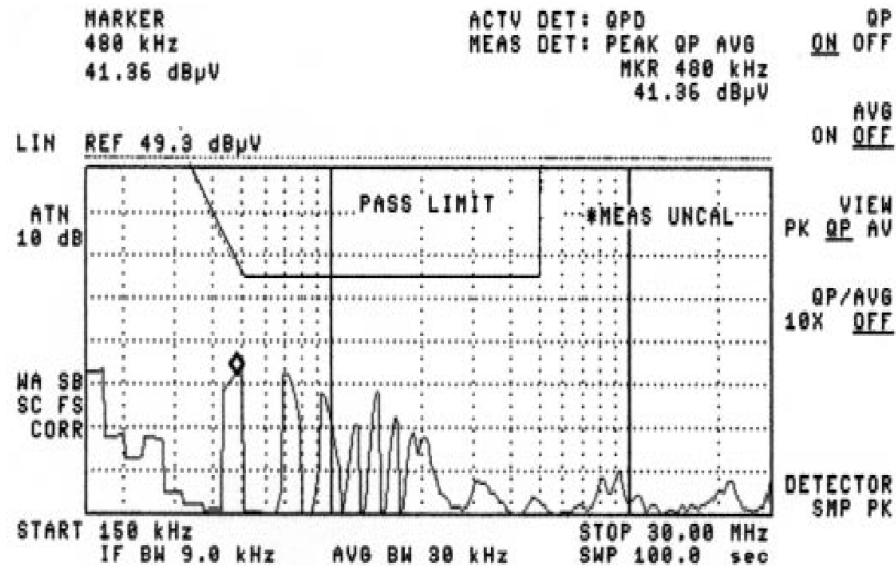
# 传导噪声

- 要求
- 硬件方案
- 测试

# EMI表现: EN55022 B级

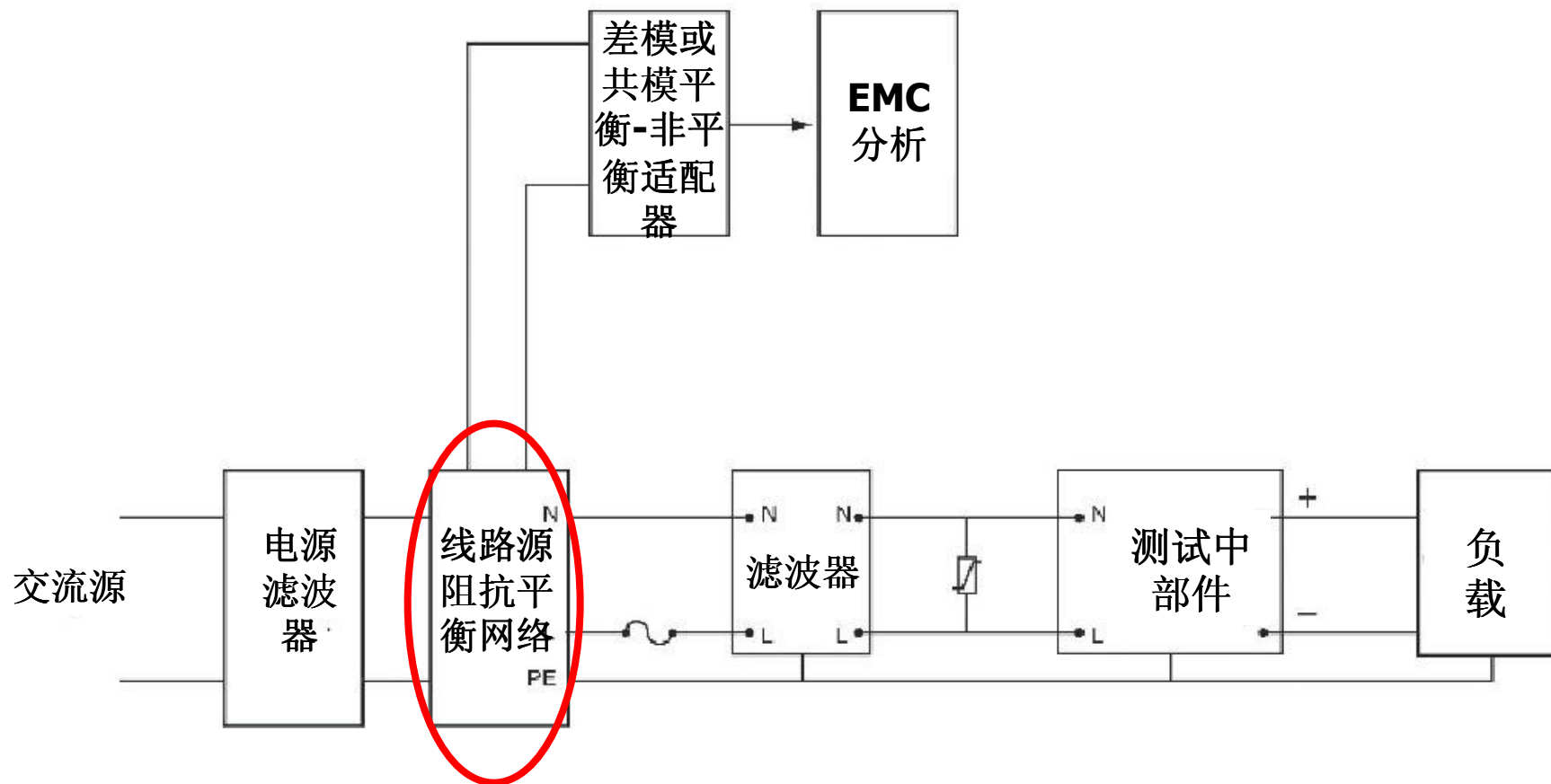


尖峰检测



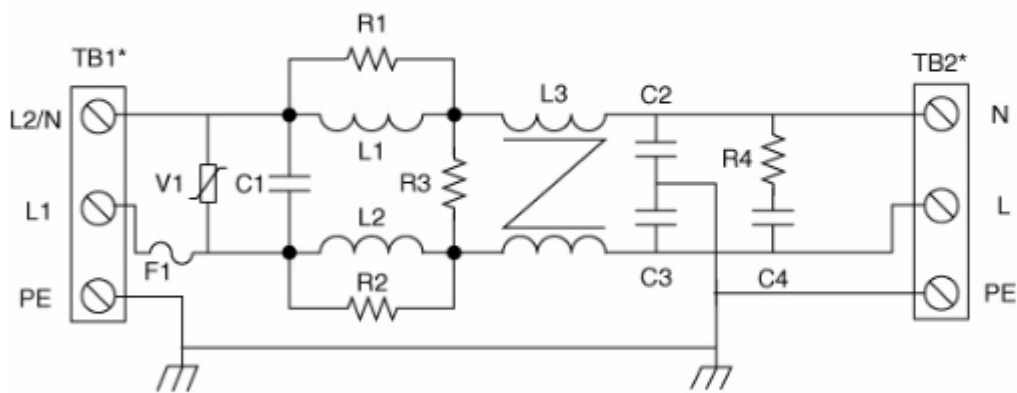
准峰值检测

# 测试传导噪声设备





# 典型的EMI滤波器



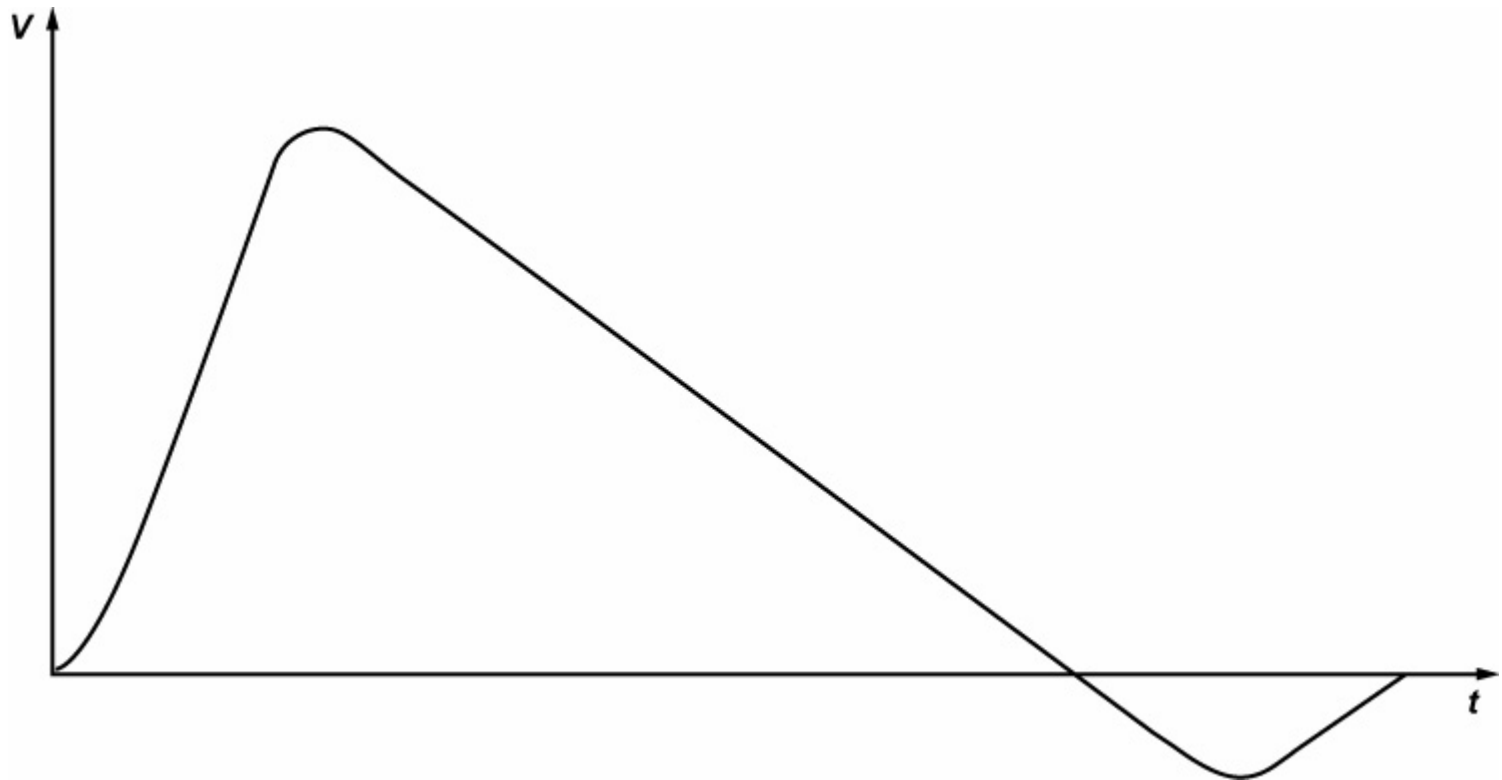
Part	Description	Vicor Part Number
C1	1.0 $\mu$ F	02573
C2, C3	4700pF	01000
C4	0.47 $\mu$ F	03047
F1	6.3A Fuse(5mm)	22985
F1	Fuse Holder	25318
L1, L2	27 $\mu$ H	14563
L3	1.3mH	15016
R1, R2	10 $\Omega$	00126-10R0
R3	150k $\Omega$ , 0.5W	00127-1503
R4	2.2 $\Omega$	00126-2R20
V1	MOV	03040
TB1	Connector	14588
TB2	Connector	02939

\*For PC Mounting Option substitute part# 02905 for TB1 and TB2.

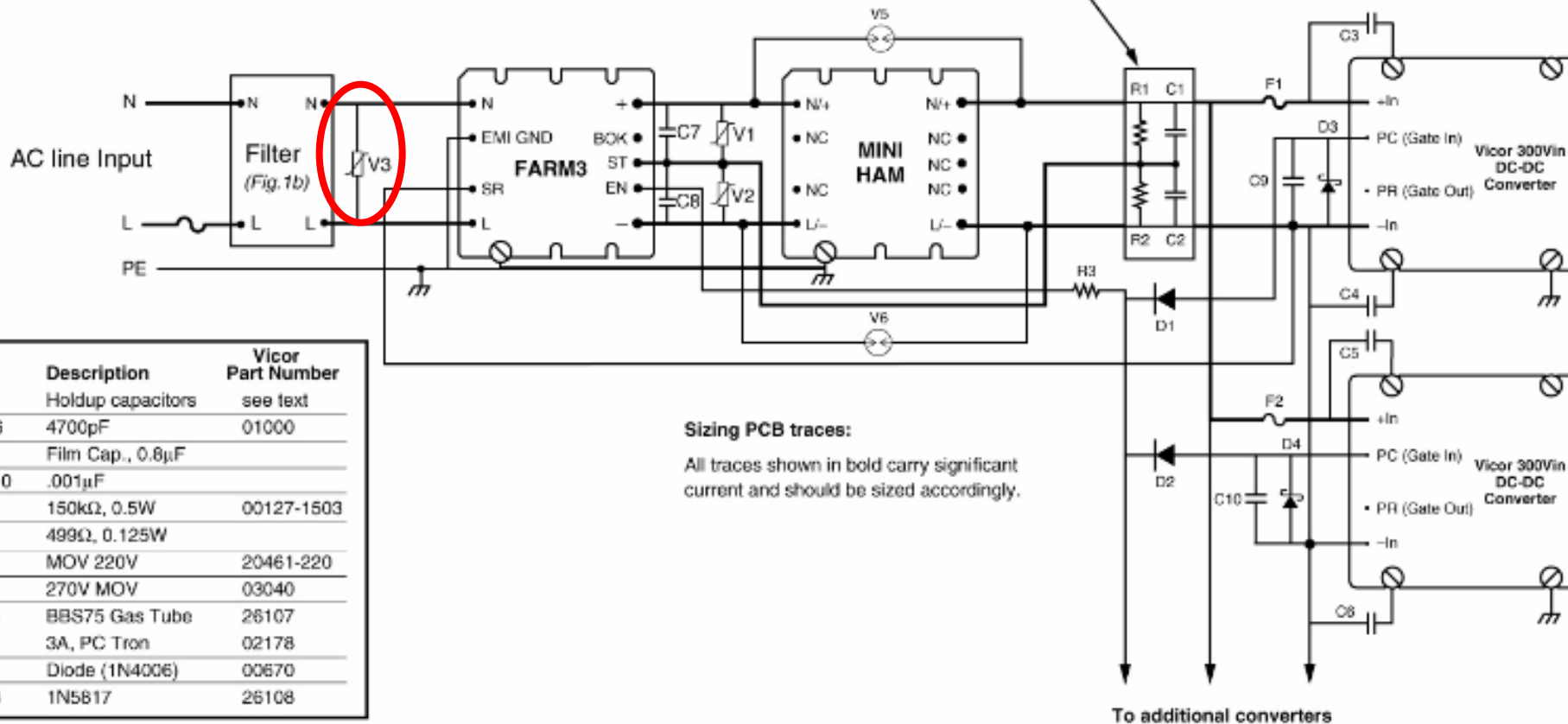
# 瞬态/浪涌保护

- 要求
- 硬件方案
- 测试

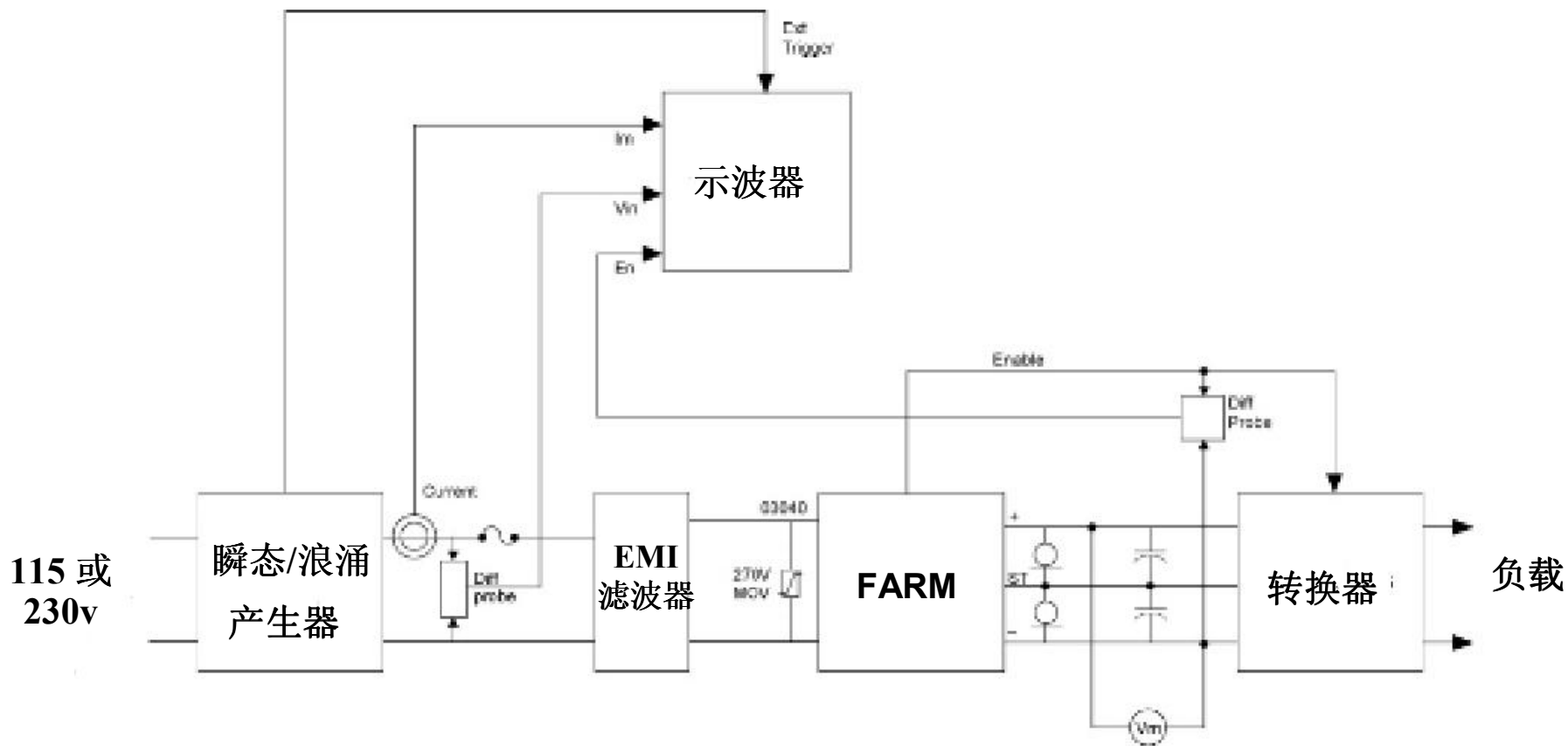
# 开路电压



Holdup Box (HUB)			
820 $\mu$ F	HUB820-S	2200 $\mu$ F	HUB2200-S
1200 $\mu$ F	HUB1200-S	2700 $\mu$ F	HUB2700-S
1800 $\mu$ F	HUB1800-S	3300 $\mu$ F	HUB3300-S



# 测试瞬态/浪涌设备



# 电源中断

- 要求
- 测试

**表1:电压急降及快速中断测试的建议测试值及持续时间**

测试值 $\%U_T$	电压急降及 快速中断 $\%U_T$	持续时间 (周期)
0	100	0,5*
40	60	1
70	30	5
		10
		25
		50
		x

**\*0.5周期应分别在正极及负极测试，即在0°及180°开始**

# 闪烁：EN61000-3-3

- 要求
- 典型分案



# 总结

- 无源式谐波衰减的优点：
  - 价钱平宜
  - 可靠性高
  - 传导及辐射噪声很低

## 联系我们

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