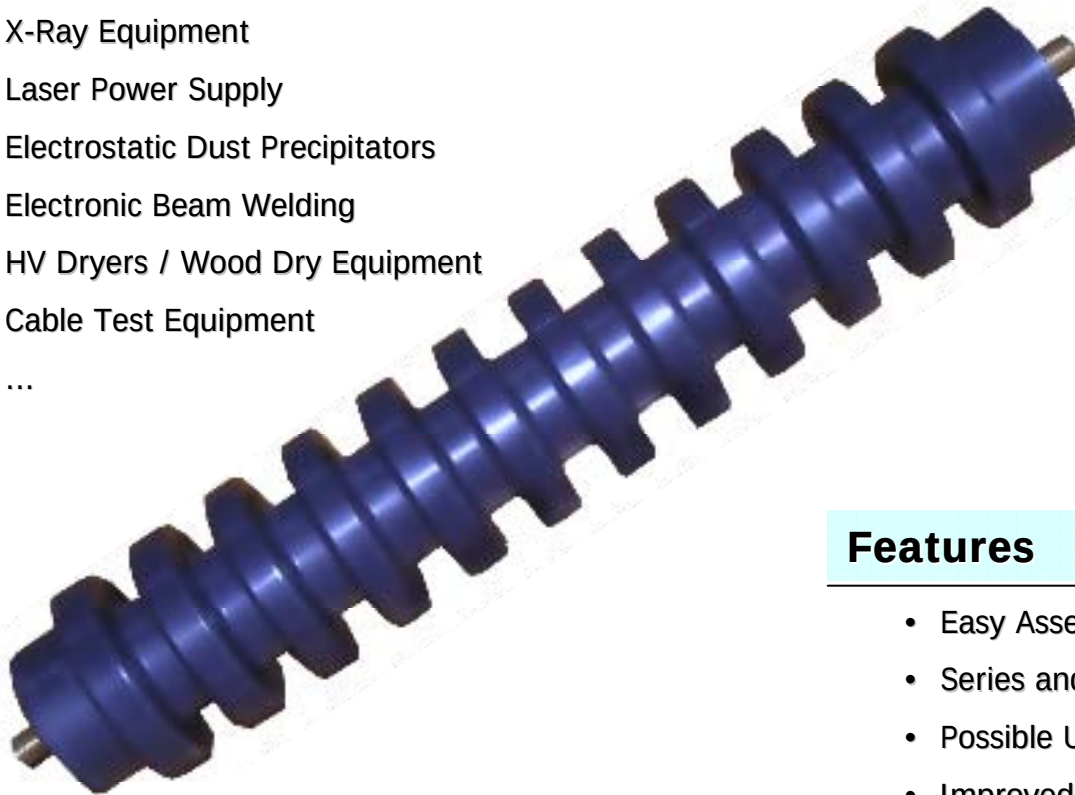


HIGH Voltage Diodes and Stacks

Application

- X-Ray Equipment
- Laser Power Supply
- Electrostatic Dust Precipitators
- Electronic Beam Welding
- HV Dryers / Wood Dry Equipment
- Cable Test Equipment
- ...



Features

- Easy Assembly
- Series and Parallel Operation
- Possible Upgrade to Stack Solutions
- Improved Power & Temperature Cycling
- Reduced Protection Circuit

Single Diode Types

Type	Alternating Input Voltage V_{VRMS} [V]	Rated DC Voltage V_{RD} [V]	Maximum Average Forward Current I_{FAV} [A]	Repetitive Peak Reverse Voltage V_{RRM} [V]	Case
Si-A1125/500-6 Si-E1125/500-6	1125	500	7.7	3200	Fig. 1
Si-A1750/775-4 Si-E1750/775-4	1750	775	4.5	4800	Fig. 1
Si-A3000/1350-2.5 Si-E3000/1350-2.5	3000	1350	3.0	8000	Fig. 1
Si-A8000/3600-1.8 Si-E8000/3600-1.8	8000	3600	1.8	24000	Fig. 1
Si-A8000/3600-4 Si-E8000/3600-4	8000	3600	4.0	24000	Fig. 2

(For complete diode specifications, please check our website www.diotec.com – „Products“)

Fig. 1

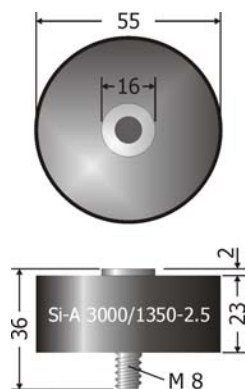
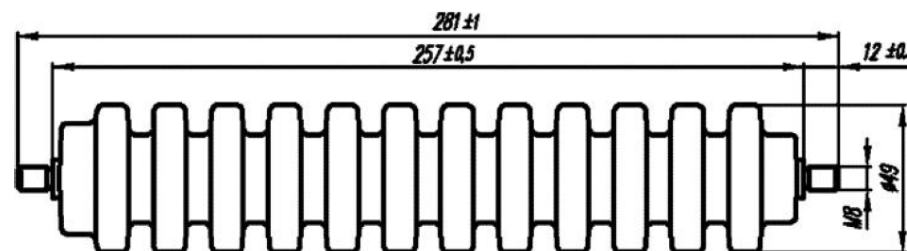


Fig. 2



Stack Solutions

Name: DS E1 3.6/4.5

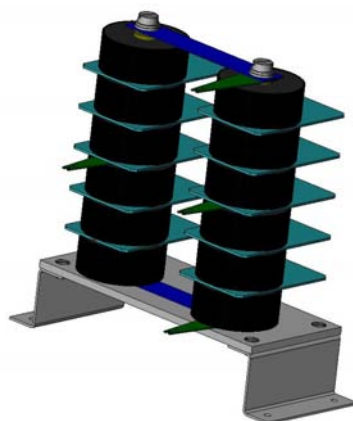
Description: Diode chain

Diodes Si -E 1125/500 – 6; air cooling; without cooling plates

$VRMS0 = \text{No. of diodes per arm} \times VRMS$; $VRMS0 = 4 \times 1125V = 4500V$

$VRD0 = F \times VRMS0$; $VRD0 = 0.45 \times 4500V = 2025 V$

$IFAV0 = n \times f \times IFAV$; $IFAV0 = 0.78 \times 0.63 \times 7.4A = 3.6A$



Name: DS B2 3.5/8.1

Description: Single phase phase HV Bridge built from

Diodes Si -E 3000/1350 – 2.5; air cooling; with cooling plates

$VRMS0 = \text{No. of diodes per arm} \times VRMS$; $VRMS0 = 3 \times 3000V = 9000V$

$VRD0 = F \times VRMS0$; $VRD0 = 0.9 \times 9000V = 8100 V$

$IFAV0 = n \times k \times IFAV$; $IFAV0 = 0.8 \times 1.27 \times 3.5A = 3.5 A$

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<http://www.diotec.com/>

Stack Solutions

Name: DS B6 14.7/4.5

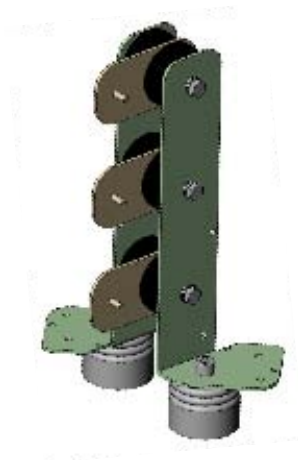
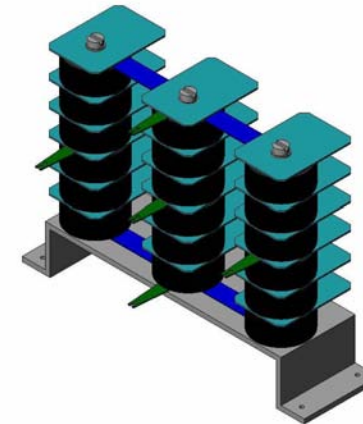
Description: Three phase HV Bridge built from

Diodes Si -E 1125/500 – 6; air cooling; with cooling plates

$VRMS0 = \text{No. of diodes} \times VRMS$; $VRMS0 = 3 \times 1125V = 3375V$

$VRD0 = F \times VRMS0$; $VRD0 = 1.35 \times 3375V = 4556.25V$

$IFAV0 = n \times k \times IFAV$; $IFAV0 = 0.8 \times 1.69 \times 10.9A = 14.74A$



Name: DS B6 6.7/4.8

Description: Three phase HV Bridge built from

Diodes Si -E 8000/3600 – 1.8; oil cooling; with cooling plates

$VRMS0 = \text{No. of diodes} \times VRMS$; $VRMS0 = 1 \times 3600 = 3600V$

$VRD0 = F \times VRMS0$; $VRD0 = 1.35 \times 3600V = 4860V$

$IFAV0 = n \times k \times IFAV$; $IFAV0 = 1 \times 1.69 \times 4A = 6.76A$

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