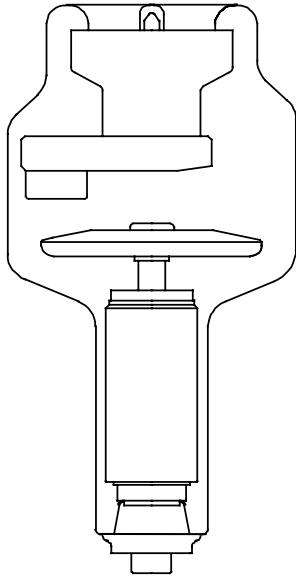




Documentazione Tubo a raggi X  
Tube Documentation  
Documentation du Tube

# RTM 90 HS 0.3/0.6



Nr. di matricola  
Tube No.  
Nr de série



Questa documentazione deve essere fornita all'utilizzatore del complesso tubo-guaina  
The contents of this documentation must be transmitted to the user of the tube-assembly  
Le contenu de cette documentation doit être transmis à l'utilisateur de la gaine équipée

Documentazione N° Documentation N° N° de Documentation	Revisione Edition Version	Data di edizione Date of release Date de l'édition	Testo originale Original text Texte original
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**I.A.E Spa**

via Fabio Filzi, 53 - 20032 CORMANO (MI) Italy  
Tel: ++39-0266303255 Fax: ++39-026152544  
<http://www.iae.it> e-mail: [iaexray@iae.it](mailto:iaexray@iae.it)





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**Dichiarazione di conformità**

Questo prodotto soddisfa i requisiti essenziali del regolamento UE 2017/745 in accordo alle norme IEC 60613, IEC 60336, IEC 60522, IEC 60526, IEC 60601-1, IEC 60601-1-3, IEC 60601-2-28.

**Declaration of conformity**

This tube fulfils the essential requirements of the regulation EU 2017/745 according to standard IEC 60613, IEC 60336, IEC 60522, IEC 60526, IEC 60601-1, IEC 60601-1-3, IEC 60601-2-28.

**Confirmation de conformité**

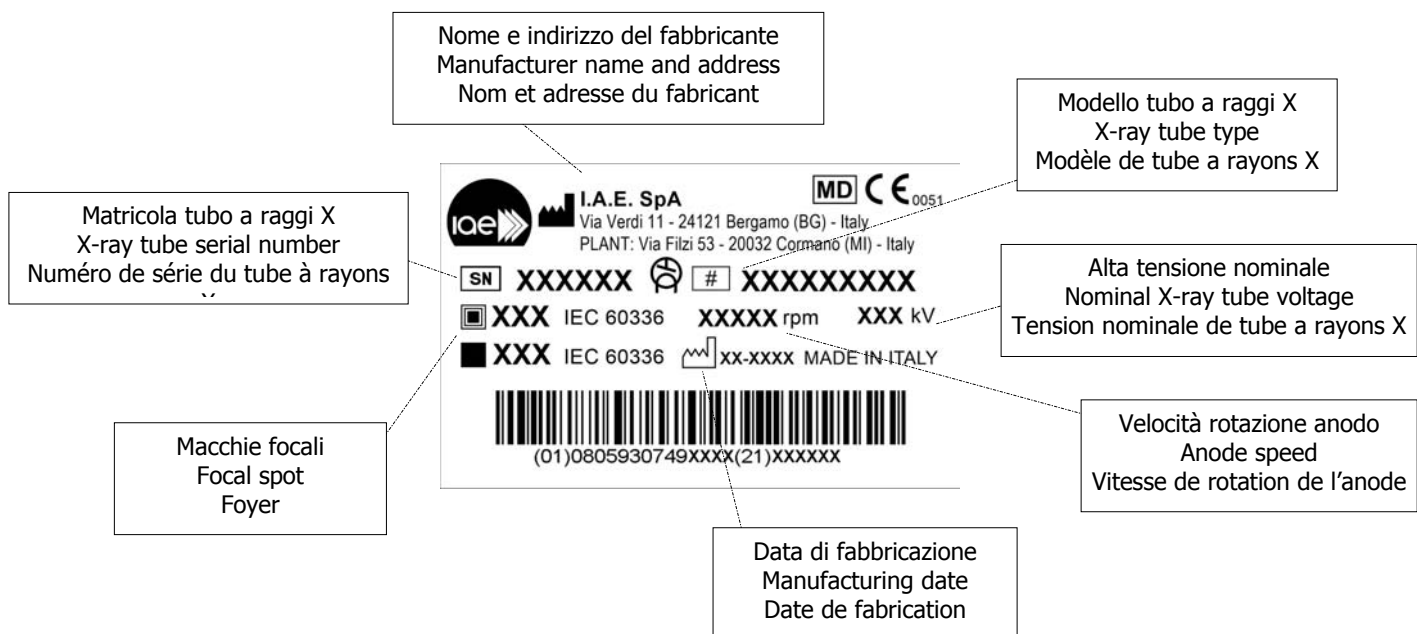
Ce tube remplit les exigences essentielles de le règlement UE 2017/745 en accord avec les normes IEC 60613, IEC 60336, IEC 60522, IEC 60526, IEC 60601-1, IEC 60601-1-3, IEC 60601-2-28.



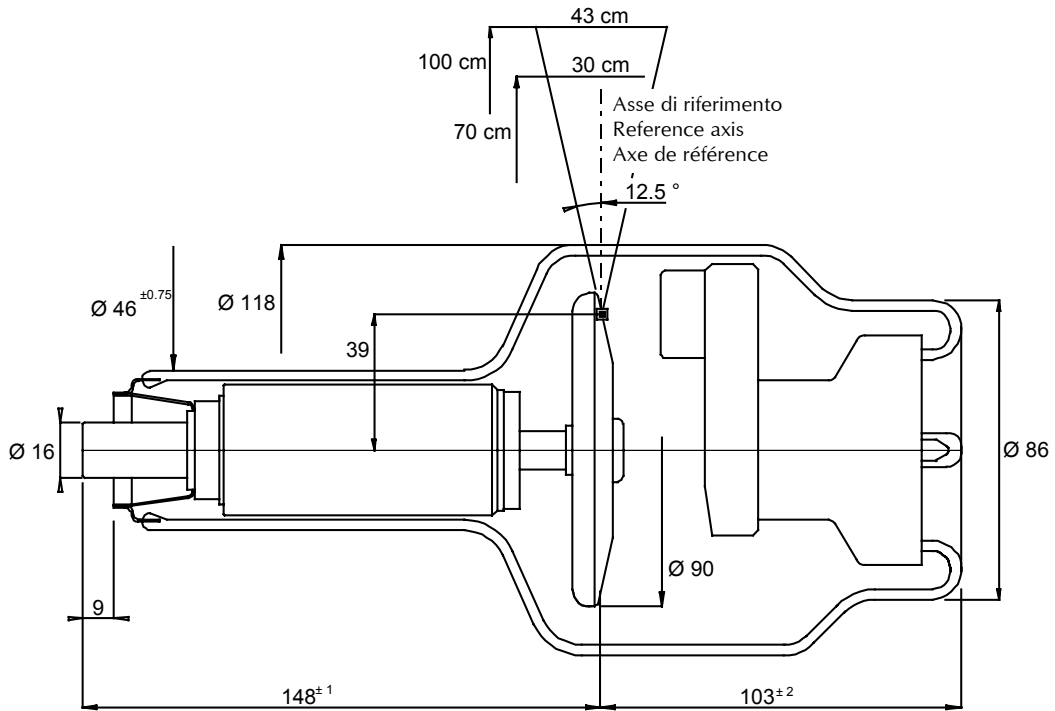
	trasporto e stoccaggio transportation and storage transport et stockage	funzionamento operation opération	
Limiti di temperatura Temperature limits Limites de température	-10°C ÷ +80°C	+10°C ÷ +40°C	
Limiti di umidità Humidity limits Limites d'humidité	max. 80%	max. 75%	
Limiti di pressione Pressure limits Limites de pression	500 ÷ 1060 hPa	700 ÷ 1060 hPa	

## Etichettatura - Labeling - Etiquetage

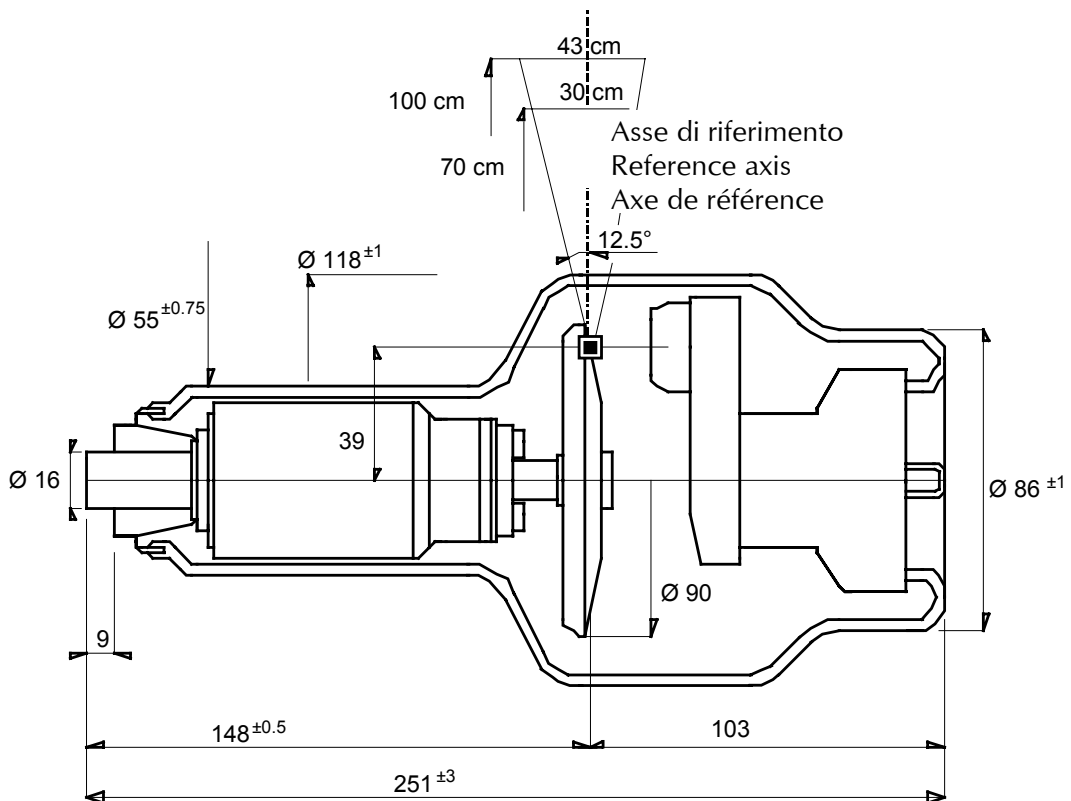
### Etichetta del tubo / Tube label / Etiquette de tube



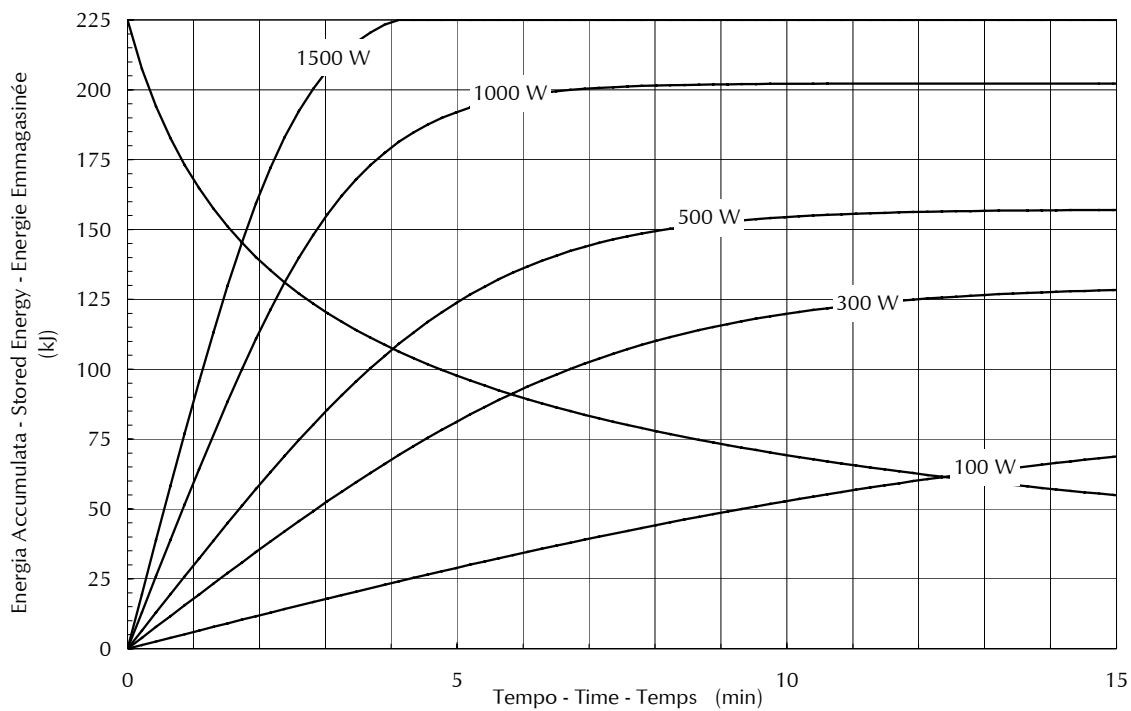
**Versione standard - Standard version - Version standard**



**Versione speciale per sostituzione in cuffie GE-CGR e SIEMENS  
 Special version for reloading in GE-CGR and SIEMENS housings  
 Version spéciale pour remise en gaine GE-CGR et SIEMENS**



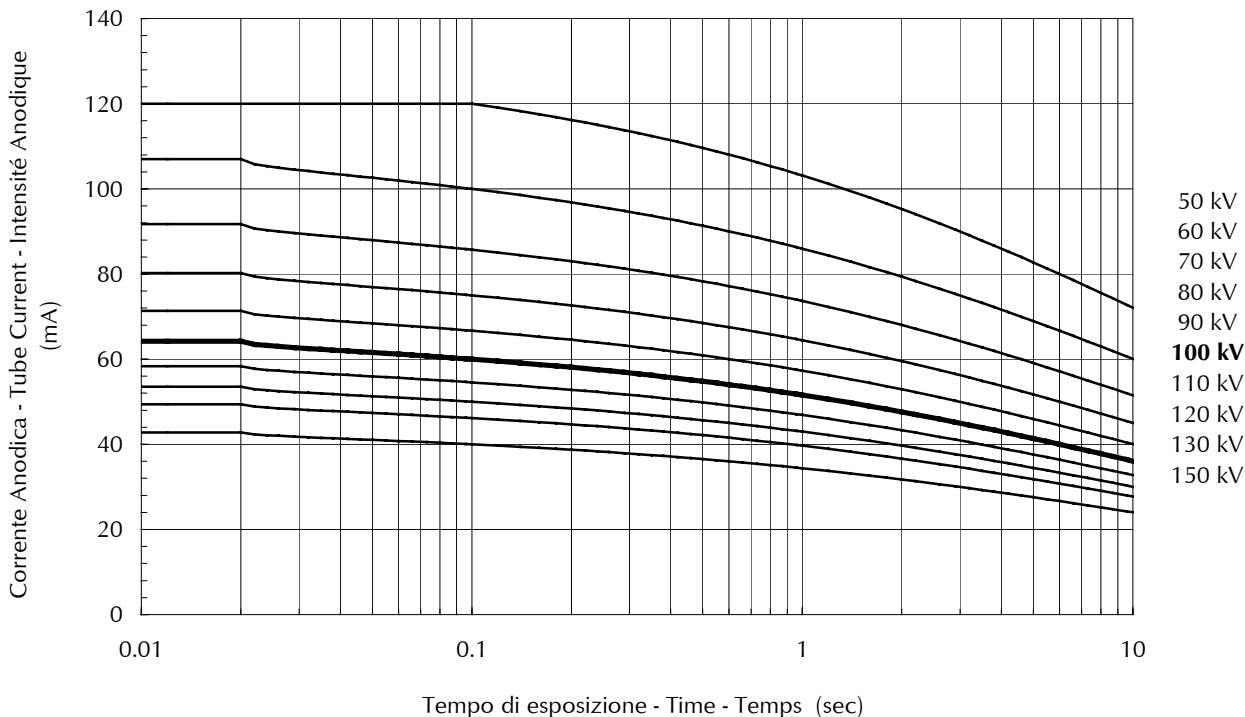
**Curve di riscaldamento e raffreddamento dell'anodo**  
**Anode heating and cooling curves**  
**Courbes d'échauffement et de refroidissement de l'anode**  
**IEC 60613 (1989)**





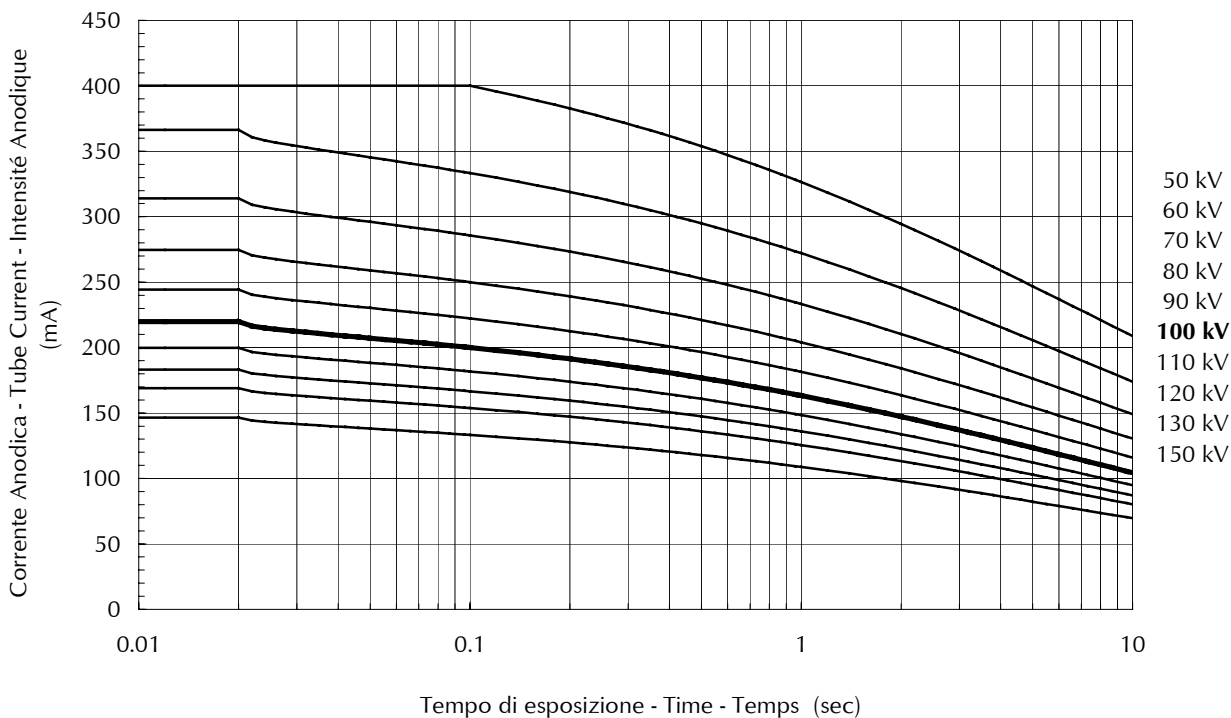
## CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE

▣ 0.3 - 3 Ø - 50 / 60 Hz - IEC 60613 (1989) (2010)



## CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE

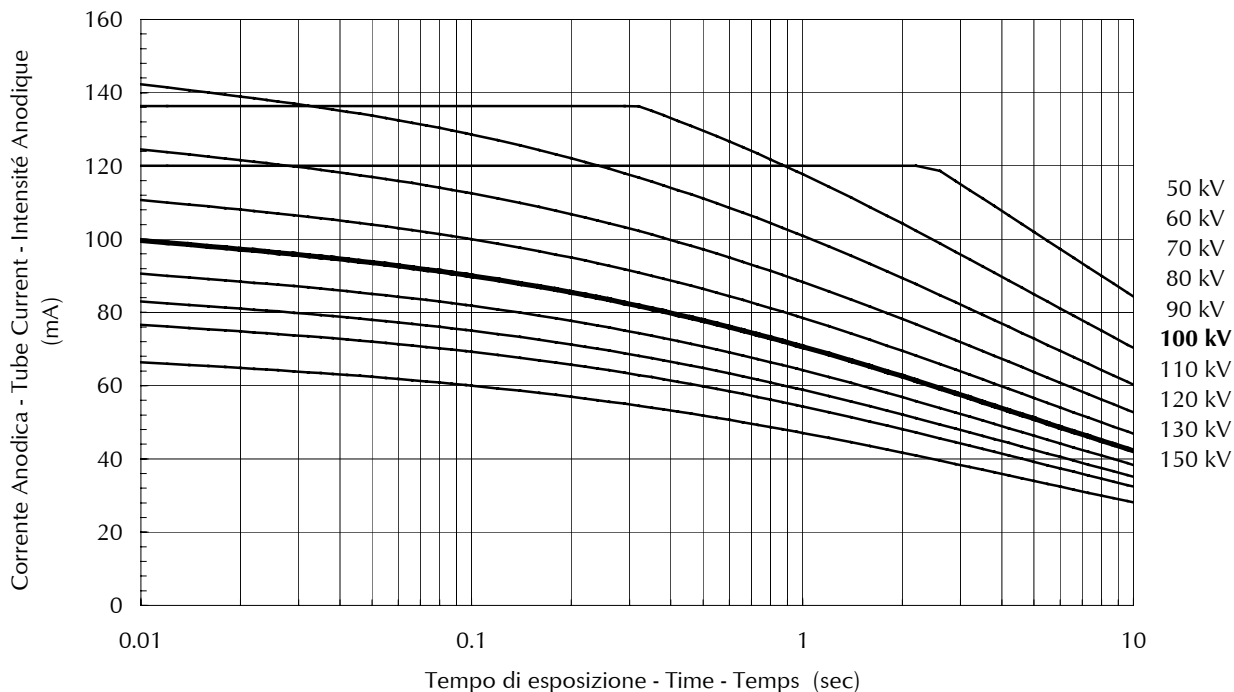
■ 0.6 - 3 Ø - 50 / 60 Hz - IEC 60613 (1989) (2010)





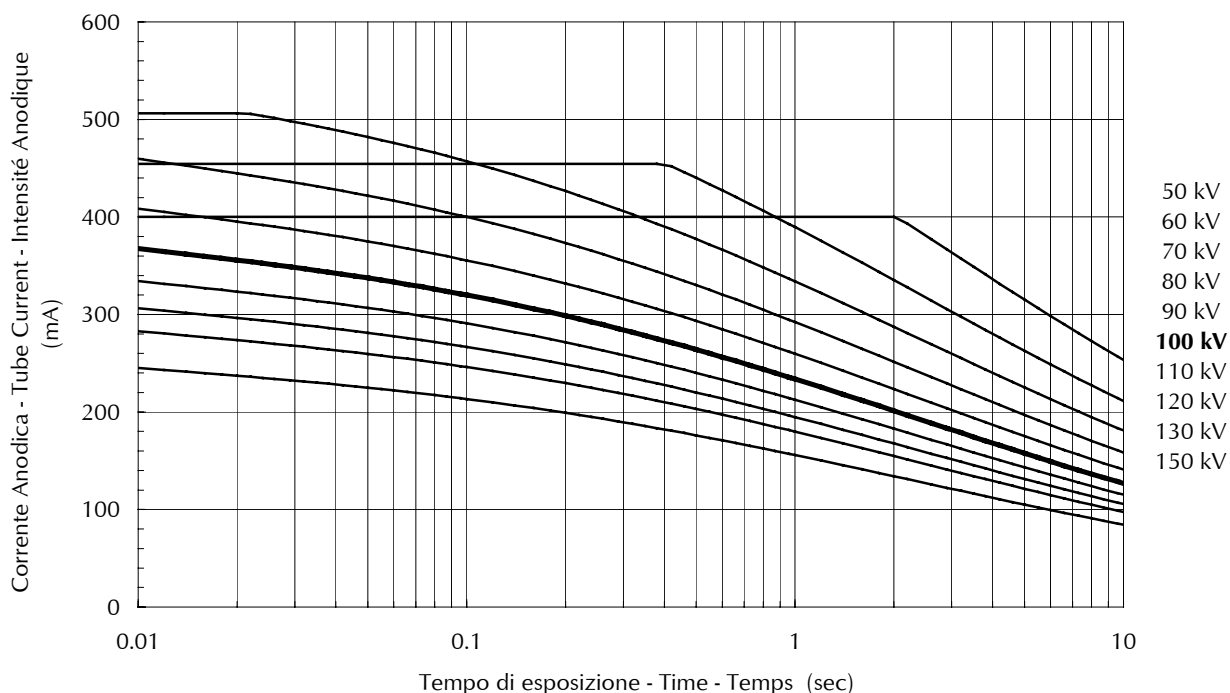
## CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE

▣ 0.3 - 3 Ø - 150 / 180 Hz - IEC 60613 (1989) (2010)



## CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE

■ 0.6 - 3 Ø - 150 / 180 Hz - IEC 60613 (1989) (2010)







**Abaco per carichi in serie - Serial load rating - Abaque de charges successives**

**▣ 0.3 - 3 Ø - 50 / 60 Hz**

Potenza ammessa sul tubo in kW, per serie di n esposizioni, con frequenza z e durata di ogni esposizione in sec Anode input power as a function of n (N° of exposures in series), z (exp. rate per sec), the exposure time (sec) Puissance anodique en fonction de n (N° d'exp. de la séries), z (cadence d'exp. par sec), temps d'exposition (sec)																
z	0.010	0.020	0.030	0.040	0.050	0.060	0.080	0.100	0.120	0.140	0.160	0.180	0.200	0.220	0.250	n
1	5.1	5.1	5.0	5.0	4.9	4.9	4.8	4.8	4.8	4.7	4.7	4.7	4.6	4.6	4.5	5
2	5.1	5.1	5.0	5.0	4.9	4.9	4.8	4.8	4.7	4.6	4.6	4.5	4.4	4.4	4.3	
3	5.0	5.0	5.0	4.9	4.9	4.9	4.8	4.7	4.6	4.5	4.5	4.4	4.3	4.2	4.1	
4	5.0	5.0	5.0	4.9	4.9	4.9	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1	4.0	
5	5.0	5.0	5.0	4.9	4.8	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1	-	-	
10	5.0	5.0	4.9	4.8	4.7	4.7	4.5	4.4	-	-	-	-	-	-	-	
15	5.0	4.9	4.8	4.7	4.7	4.6	-	-	-	-	-	-	-	-	-	
30	5.0	4.9	4.7	-	-	-	-	-	-	-	-	-	-	-	-	
1	5.1	5.1	5.0	5.0	4.9	4.9	4.8	4.8	4.7	4.6	4.6	4.5	4.4	4.4	4.3	10
2	5.0	5.0	5.0	4.9	4.9	4.8	4.7	4.6	4.5	4.4	4.4	4.3	4.2	4.1	4.0	
3	5.0	5.0	4.9	4.9	4.8	4.8	4.6	4.5	4.4	4.3	4.2	4.1	4.0	4.0	3.8	
4	5.0	5.0	4.9	4.8	4.8	4.7	4.6	4.4	4.3	4.2	4.1	4.0	3.9	3.8	3.7	
5	5.0	5.0	4.9	4.8	4.7	4.7	4.5	4.4	4.2	4.1	4.0	3.9	3.8	-	-	
10	5.0	4.9	4.8	4.7	4.6	4.5	4.3	4.1	-	-	-	-	-	-	-	
15	5.0	4.8	4.7	4.6	4.5	4.4	-	-	-	-	-	-	-	-	-	
30	4.9	4.7	4.6	-	-	-	-	-	-	-	-	-	-	-	-	
1	5.0	5.0	4.9	4.9	4.9	4.8	4.7	4.6	4.5	4.4	4.4	4.3	4.2	4.1	4.0	20
2	5.0	5.0	4.9	4.8	4.8	4.7	4.6	4.4	4.3	4.2	4.1	4.0	3.9	3.8	3.7	
3	5.0	4.9	4.9	4.8	4.7	4.6	4.5	4.3	4.2	4.1	3.9	3.8	3.7	3.6	3.5	
4	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.2	4.1	3.9	3.8	3.7	3.6	3.5	3.3	
5	5.0	4.9	4.8	4.7	4.6	4.5	4.3	4.1	4.0	3.8	3.7	3.6	3.4	-	-	
10	5.0	4.8	4.7	4.5	4.4	4.2	4.0	3.8	-	-	-	-	-	-	-	
15	4.9	4.7	4.6	4.4	4.2	4.1	-	-	-	-	-	-	-	-	-	
30	4.8	4.6	4.4	-	-	-	-	-	-	-	-	-	-	-	-	
1	5.0	5.0	4.9	4.8	4.8	4.7	4.6	4.4	4.3	4.2	4.1	4.0	3.9	3.8	3.7	40
2	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.2	4.1	3.9	3.8	3.7	3.6	3.5	3.3	
3	5.0	4.9	4.7	4.6	4.5	4.4	4.2	4.0	3.9	3.7	3.6	3.5	3.3	3.2	3.1	
4	5.0	4.8	4.7	4.6	4.4	4.3	4.1	3.9	3.7	3.6	3.4	3.3	3.2	3.0	2.9	
5	5.0	4.8	4.6	4.5	4.4	4.2	4.0	3.8	3.6	3.4	3.3	3.2	3.0	-	-	
10	4.9	4.7	4.5	4.3	4.1	4.0	3.7	3.4	-	-	-	-	-	-	-	
15	4.8	4.6	4.3	4.1	3.9	3.8	-	-	-	-	-	-	-	-	-	
30	4.7	4.4	4.1	-	-	-	-	-	-	-	-	-	-	-	-	
1	5.0	4.9	4.9	4.8	4.7	4.6	4.5	4.3	4.2	4.0	3.9	3.8	3.7	3.6	3.5	60
2	5.0	4.9	4.7	4.6	4.5	4.4	4.2	4.0	3.9	3.7	3.6	3.5	3.3	3.2	3.1	
3	5.0	4.8	4.7	4.5	4.4	4.3	4.1	3.9	3.7	3.5	3.4	3.2	3.1	3.0	2.8	
4	4.9	4.8	4.6	4.5	4.3	4.2	3.9	3.7	3.5	3.3	3.2	3.0	2.9	2.8	2.6	
5	4.9	4.7	4.6	4.4	4.2	4.1	3.8	3.6	3.4	3.2	3.0	2.9	2.8	-	-	
10	4.8	4.6	4.3	4.1	3.9	3.8	3.5	3.2	-	-	-	-	-	-	-	
15	4.8	4.5	4.2	4.0	3.7	3.6	-	-	-	-	-	-	-	-	-	
30	4.7	4.2	3.9	-	-	-	-	-	-	-	-	-	-	-	-	
1	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.2	4.1	3.9	3.8	3.7	3.6	3.5	3.3	80
2	5.0	4.8	4.7	4.6	4.4	4.3	4.1	3.9	3.7	3.6	3.4	3.3	3.2	3.0	2.9	
3	4.9	4.8	4.6	4.5	4.3	4.2	3.9	3.7	3.5	3.3	3.2	3.0	2.9	2.8	2.6	
4	4.9	4.7	4.5	4.4	4.2	4.1	3.8	3.6	3.4	3.2	3.0	2.9	2.7	2.6	2.4	
5	4.9	4.7	4.5	4.3	4.1	4.0	3.7	3.4	3.2	3.0	2.9	2.7	2.6	-	-	
10	4.8	4.5	4.2	4.0	3.8	3.6	3.3	3.0	-	-	-	-	-	-	-	
15	4.7	4.4	4.1	3.8	3.6	3.4	-	-	-	-	-	-	-	-	-	
30	4.6	4.1	3.8	-	-	-	-	-	-	-	-	-	-	-	-	
1	5.0	4.9	4.8	4.7	4.6	4.5	4.3	4.1	4.0	3.8	3.7	3.6	3.4	3.3	3.2	100
2	5.0	4.8	4.6	4.5	4.4	4.2	4.0	3.8	3.6	3.4	3.3	3.2	3.0	2.9	2.7	
3	4.9	4.7	4.6	4.4	4.2	4.1	3.8	3.6	3.4	3.2	3.0	2.9	2.8	2.6	2.5	
4	4.9	4.7	4.5	4.3	4.1	4.0	3.7	3.4	3.2	3.0	2.9	2.7	2.6	2.5	2.3	
5	4.9	4.6	4.4	4.2	4.0	3.9	3.6	3.3	3.1	2.9	2.7	2.6	2.4	-	-	
10	4.8	4.4	4.2	3.9	3.7	3.5	3.2	2.9	-	-	-	-	-	-	-	
15	4.7	4.3	4.0	3.7	3.5	3.3	-	-	-	-	-	-	-	-	-	
30	4.5	4.0	3.7	-	-	-	-	-	-	-	-	-	-	-	-	
1	5.0	4.8	4.7	4.6	4.5	4.3	4.1	3.9	3.8	3.6	3.5	3.3	3.2	3.1	2.9	150
2	4.9	4.7	4.6	4.4	4.2	4.1	3.8	3.6	3.4	3.2	3.0	2.9	2.8	2.6	2.5	
3	4.9	4.6	4.4	4.2	4.1	3.9	3.6	3.4	3.2	3.0	2.8	2.6	2.5	2.4	2.2	
4	4.8	4.6	4.3	4.1	3.9	3.8	3.5	3.2	3.0	2.8	2.6	2.5	2.3	2.2	2.0	
5	4.8	4.5	4.3	4.0	3.8	3.7	3.3	3.1	2.8	2.6	2.5	2.3	2.2	-	-	
10	4.7	4.3	4.0	3.7	3.5	3.3	2.9	2.6	-	-	-	-	-	-	-	
15	4.6	4.2	3.8	3.5	3.2	3.0	-	-	-	-	-	-	-	-	-	
30	4.4	3.9	3.4	-	-	-	-	-	-	-	-	-	-	-	-	
1	4.9	4.7	4.6	4.4	4.2	4.1	3.8	3.6	3.4	3.2	3.0	2.9	2.8	2.6	2.5	300
2	4.8	4.6	4.3	4.1	3.9	3.8	3.5	3.2	3.0	2.8	2.6	2.5	2.3	2.2	2.0	
3	4.8	4.5	4.2	4.0	3.7	3.6	3.2	2.9	2.7	2.5	2.3	2.2	2.1	2.0	1.8	
4	4.7	4.4	4.1	3.8	3.6	3.4	3.0	2.8	2.5	2.3	2.2	2.0	1.9	1.8	1.6	
5	4.7	4.3	4.0	3.7	3.5	3.3	2.9	2.6	2.4	2.2	2.0	1.9	1.8	-	-	
10	4.5	4.0	3.7	3.3	3.1	2.8	2.5	2.2	-	-	-	-	-	-	-	
15	4.4	3.9	3.4	3.1	2.8	2.6	-	-	-	-	-	-	-	-	-	
30	4.2	3.5	3.0	-	-	-	-	-	-	-	-	-	-	-	-	



**Abaco per carichi in serie - Serial load rating - Abaque de charges successives**  
■ 0.6 - 3 Ø - 50 / 60 Hz

Potenza ammessa sul tubo in kW, per serie di n esposizioni, con frequenza z e durata di ogni esposizione in sec																
Anode input power as a function of n (N° of exposures in series), z (exp. rate per sec), the exposure time (sec)																
Puissance anodique en fonction de n (N° d'exp. de la séries), z (cadence d'exp. par sec), temps d'exposition (sec)																
z	0.010	0.020	0.030	0.040	0.050	0.060	0.080	0.100	0.120	0.140	0.160	0.180	0.200	0.220	0.250	n
1	17.3	17.3	17.0	16.8	16.6	16.4	16.2	16.0	15.8	15.7	15.5	15.4	15.2	15.0	14.7	5
2	17.2	17.2	17.0	16.8	16.6	16.4	16.2	15.8	15.5	15.2	14.9	14.7	14.4	14.2	13.8	
3	17.1	17.1	16.9	16.7	16.5	16.3	15.9	15.5	15.1	14.8	14.5	14.2	13.9	13.6	13.2	
4	17.1	17.1	16.8	16.6	16.3	16.1	15.6	15.2	14.8	14.4	14.1	13.7	13.4	13.1	12.7	
5	17.0	17.0	16.7	16.4	16.2	15.9	15.4	15.0	14.6	14.2	13.8	13.4	13.1	-	-	
10	17.0	16.8	16.4	16.0	15.7	15.4	14.7	14.2	-	-	-	-	-	-	-	
15	17.0	16.6	16.2	15.7	15.3	14.9	-	-	-	-	-	-	-	-	-	
30	16.9	16.3	15.7	-	-	-	-	-	-	-	-	-	-	-	-	
1	17.2	17.2	17.0	16.8	16.6	16.4	16.2	15.8	15.5	15.2	14.9	14.7	14.4	14.1	13.8	10
2	17.1	17.1	16.8	16.5	16.3	16.1	15.6	15.2	14.8	14.4	14.1	13.7	13.4	13.1	12.6	
3	17.0	16.9	16.6	16.3	16.1	15.8	15.3	14.8	14.3	13.9	13.5	13.1	12.7	12.4	11.9	
4	17.0	16.8	16.5	16.2	15.8	15.5	14.9	14.4	13.9	13.4	13.0	12.6	12.2	11.8	11.3	
5	17.0	16.8	16.4	16.0	15.7	15.3	14.7	14.1	13.6	13.1	12.6	12.2	11.8	-	-	
10	17.0	16.4	15.9	15.4	15.0	14.6	13.8	13.1	-	-	-	-	-	-	-	
15	16.9	16.2	15.6	15.0	14.5	14.0	-	-	-	-	-	-	-	-	-	
30	16.6	15.7	14.9	-	-	-	-	-	-	-	-	-	-	-	-	
1	17.1	17.1	16.8	16.5	16.3	16.1	15.6	15.2	14.8	14.4	14.1	13.7	13.4	13.1	12.6	20
2	17.0	16.8	16.5	16.2	15.8	15.5	14.9	14.4	13.9	13.4	13.0	12.6	12.2	11.8	11.3	
3	17.0	16.7	16.3	15.9	15.5	15.1	14.5	13.8	13.3	12.8	12.3	11.8	11.4	11.0	10.5	
4	17.0	16.5	16.1	15.6	15.2	14.8	14.1	13.4	12.8	12.2	11.7	11.3	10.8	10.4	9.9	
5	17.0	16.4	15.9	15.4	15.0	14.5	13.7	13.0	12.4	11.8	11.3	10.8	10.4	-	-	
10	16.8	16.0	15.3	14.7	14.1	13.6	12.6	11.8	-	-	-	-	-	-	-	
15	16.6	15.7	14.9	14.2	13.5	12.9	-	-	-	-	-	-	-	-	-	
30	16.2	15.0	14.0	-	-	-	-	-	-	-	-	-	-	-	-	
1	17.0	16.8	16.5	16.2	15.8	15.5	14.9	14.4	13.9	13.4	13.0	12.6	12.2	11.8	11.3	40
2	17.0	16.5	16.1	15.6	15.2	14.8	14.1	13.4	12.8	12.2	11.7	11.2	10.8	10.4	9.9	
3	16.9	16.3	15.8	15.2	14.8	14.3	13.5	12.7	12.0	11.4	10.9	10.4	10.0	9.5	9.0	
4	16.8	16.2	15.5	14.9	14.4	13.9	13.0	12.2	11.5	10.9	10.3	9.8	9.3	8.9	8.4	
5	16.8	16.0	15.3	14.7	14.1	13.6	12.6	11.8	11.0	10.4	9.8	9.3	8.8	-	-	
10	16.4	15.4	14.5	13.7	13.0	12.4	11.3	10.4	-	-	-	-	-	-	-	
15	16.2	15.0	14.0	13.1	12.3	11.6	-	-	-	-	-	-	-	-	-	
30	15.7	14.2	12.9	-	-	-	-	-	-	-	-	-	-	-	-	
1	17.0	16.7	16.3	15.9	15.5	15.1	14.5	13.8	13.3	12.7	12.3	11.8	11.4	10.5	9.2	60
2	16.9	16.3	15.8	15.2	14.8	14.3	13.5	12.7	12.0	11.4	10.9	10.4	10.0	9.5	8.4	
3	16.8	16.1	15.4	14.8	14.2	13.7	12.8	12.0	11.2	10.6	10.0	9.5	9.1	8.7	8.1	
4	16.7	15.9	15.1	14.5	13.8	13.3	12.3	11.4	10.7	10.0	9.4	8.9	8.4	8.0	7.5	
5	16.6	15.7	14.9	14.2	13.5	12.9	11.8	11.0	10.2	9.5	8.9	8.4	8.0	-	-	
10	16.2	15.0	14.0	13.1	12.3	11.6	10.4	9.5	-	-	-	-	-	-	-	
15	15.9	14.5	13.4	12.4	11.5	10.8	-	-	-	-	-	-	-	-	-	
30	15.3	13.6	12.2	-	-	-	-	-	-	-	-	-	-	-	-	
1	17.0	16.5	16.1	15.6	15.2	14.8	14.1	13.4	12.8	12.2	11.5	10.2	9.2	8.4	7.4	80
2	16.8	16.2	15.5	14.9	14.4	13.9	13.0	12.2	11.5	10.9	10.1	9.0	8.1	7.4	6.5	
3	16.7	15.9	15.1	14.5	13.8	13.3	12.3	11.4	10.7	10.0	9.4	8.6	7.7	7.0	6.2	
4	16.5	15.6	14.8	14.1	13.4	12.8	11.7	10.8	10.0	9.4	8.8	8.3	7.6	6.9	6.1	
5	16.4	15.4	14.5	13.7	13.0	12.4	11.3	10.3	9.6	8.9	8.3	7.8	7.3	-	-	
10	16.0	14.7	13.6	12.6	11.8	11.0	9.8	8.8	-	-	-	-	-	-	-	
15	15.7	14.2	12.9	11.8	11.0	10.2	-	-	-	-	-	-	-	-	-	
30	15.0	13.1	11.6	-	-	-	-	-	-	-	-	-	-	-	-	
1	17.0	16.4	15.9	15.4	15.0	14.5	13.7	13.0	12.4	11.1	9.7	8.7	7.8	7.1	6.2	100
2	16.8	16.0	15.3	14.7	14.1	13.6	12.6	11.8	11.0	9.6	8.4	7.5	6.7	6.1	5.4	
3	16.6	15.7	14.9	14.2	13.5	12.9	11.8	10.9	10.2	9.1	7.9	7.0	6.3	5.8	5.1	
4	16.4	15.4	14.5	13.7	13.0	12.4	11.3	10.3	9.6	8.8	7.7	6.8	6.2	5.6	4.9	
5	16.3	15.2	14.2	13.4	12.6	12.0	10.8	9.9	9.1	8.4	7.6	6.7	6.1	-	-	
10	15.8	14.4	13.2	12.2	11.3	10.6	9.3	8.4	-	-	-	-	-	-	-	
15	15.5	13.8	12.5	11.4	10.5	9.7	-	-	-	-	-	-	-	-	-	
30	14.8	12.7	11.2	-	-	-	-	-	-	-	-	-	-	-	-	
1	16.9	16.2	15.6	15.0	14.5	14.0	13.1	11.8	9.9	8.5	7.4	6.6	5.9	5.4	4.7	150
2	16.6	15.7	14.9	14.2	13.5	12.9	11.8	9.7	8.1	6.9	6.0	5.4	4.8	4.4	3.9	
3	16.4	15.3	14.4	13.6	12.8	12.2	11.0	8.9	7.5	6.4	5.6	5.0	4.5	4.1	3.6	
4	16.2	15.0	14.0	13.1	12.3	11.6	10.4	8.6	7.1	6.1	5.4	4.8	4.3	3.9	3.4	
5	16.0	14.8	13.7	12.7	11.9	11.2	10.0	8.4	7.0	6.0	5.2	4.6	4.2	-	-	
10	15.5	13.8	12.5	11.4	10.5	9.7	8.4	7.5	-	-	-	-	-	-	-	
15	15.1	13.2	11.7	10.6	9.6	8.8	-	-	-	-	-	-	-	-	-	
30	14.2	12.0	10.3	-	-	-	-	-	-	-	-	-	-	-	-	
1	16.6	15.7	14.9	14.2	13.5	12.9	10.1	8.1	6.8	5.8	5.1	4.5	4.1	3.7	3.2	300
2	16.2	15.0	14.0	13.1	11.8	9.9	7.4	5.9	4.9	4.2	3.7	3.3	3.0	2.7	2.4	
3	15.9	14.5	13.4	12.4	10.4	8.7	6.5	5.2	4.3	3.7	3.2	2.9	2.6	2.4	2.1	
4	15.7	14.2	12.9	11.8	9.7	8.1	6.0	4.8	4.0	3.5	3.0	2.7	2.4	2.2	1.9	
5	15.5	13.8	12.5	11.4	9.2	7.7	5.8	4.6	3.8	3.3	2.9	2.6	2.3	-	-	
10	14.8	12.7	11.2	10.0	8.4	7.0	5.2	4.2	-	-	-	-	-	-	-	
15	14.2	12.0	10.3	9.1	8.1	6.7	-	-	-	-	-	-	-	-	-	
30	13.2	10.6	8.8	-	-	-	-	-	-	-	-	-	-	-	-	



**Abaco per carichi in serie - Serial load rating - Abaque de charges successives**

▣ **0.3 - 3 Ø - 150 / 180 Hz**

Potenza ammessa sul tubo in kW, per serie di n esposizioni, con frequenza z e durata di ogni esposizione in sec																
Anode input power as a function of n (N° of exposures in series), z (exp. rate per sec), the exposure time (sec)																
Puissance anodique en fonction de n (N° d'exp. de la séries), z (cadence d'exp. par sec), temps d'exposition (sec)																
z	0.010	0.020	0.030	0.040	0.050	0.060	0.080	0.100	0.120	0.140	0.160	0.180	0.200	0.220	0.250	n
1	8.0	7.8	7.7	7.6	7.5	7.4	7.3	7.2	7.1	7.0	6.9	6.8	6.7	6.5	6.5	5
2	8.0	7.8	7.7	7.6	7.5	7.4	7.3	7.2	7.0	6.8	6.7	6.5	6.4	6.2	6.0	
3	8.0	7.8	7.7	7.6	7.5	7.4	7.2	7.0	6.8	6.6	6.4	6.2	6.1	5.9	5.7	
4	8.0	7.8	7.7	7.6	7.4	7.3	7.1	6.8	6.6	6.4	6.2	6.0	5.8	5.7	5.5	
5	8.0	7.8	7.7	7.5	7.4	7.2	6.9	6.7	6.5	6.2	-	-	-	-	-	
10	7.9	7.7	7.5	7.3	7.1	6.9	6.5	6.2	-	-	-	-	-	-	-	
15	7.9	7.6	7.3	7.1	6.9	6.7	-	-	-	-	-	-	-	-	-	
30	7.8	7.4	7.0	-	-	-	-	-	-	-	-	-	-	-	-	
1	8.0	7.8	7.7	7.6	7.5	7.4	7.3	7.2	7.0	6.8	6.7	6.5	6.4	6.2	6.0	10
2	8.0	7.8	7.7	7.6	7.4	7.3	7.1	6.8	6.6	6.4	6.2	6.0	5.8	5.7	5.4	
3	8.0	7.8	7.6	7.5	7.3	7.1	6.8	6.6	6.3	6.1	5.9	5.7	5.5	5.3	5.1	
4	8.0	7.8	7.6	7.4	7.2	7.0	6.7	6.4	6.1	5.9	5.6	5.4	5.2	5.0	4.8	
5	7.9	7.7	7.5	7.3	7.1	6.9	6.5	6.2	5.9	5.7	5.4	5.2	5.0	-	-	
10	7.8	7.5	7.2	6.9	6.7	6.5	6.0	5.7	-	-	-	-	-	-	-	
15	7.8	7.4	7.0	6.7	6.4	6.2	-	-	-	-	-	-	-	-	-	
30	7.6	7.1	6.7	-	-	-	-	-	-	-	-	-	-	-	-	
1	8.0	7.8	7.7	7.6	7.4	7.3	7.1	6.8	6.6	6.4	6.2	6.0	5.8	5.7	5.4	20
2	8.0	7.8	7.6	7.4	7.2	7.0	6.7	6.4	6.1	5.9	5.6	5.4	5.2	5.0	4.8	
3	7.9	7.7	7.4	7.2	7.0	6.8	6.4	6.1	5.8	5.5	5.3	5.0	4.8	4.6	4.4	
4	7.9	7.6	7.3	7.1	6.8	6.6	6.2	5.8	5.5	5.2	5.0	4.7	4.5	4.3	4.1	
5	7.8	7.5	7.2	6.9	6.7	6.5	6.0	5.6	5.3	5.0	4.8	4.5	4.3	-	-	
10	7.7	7.3	6.9	6.5	6.2	5.9	5.4	5.0	-	-	-	-	-	-	-	
15	7.6	7.1	6.6	6.2	5.9	5.6	-	-	-	-	-	-	-	-	-	
30	7.4	6.7	6.2	-	-	-	-	-	-	-	-	-	-	-	-	
1	8.0	7.8	7.6	7.4	7.2	7.0	6.7	6.4	6.1	5.9	5.6	5.4	5.2	5.0	4.8	40
2	7.9	7.6	7.3	7.1	6.8	6.6	6.2	5.8	5.5	5.2	5.0	4.7	4.5	4.3	4.1	
3	7.8	7.5	7.1	6.8	6.6	6.3	5.9	5.5	5.1	4.8	4.6	4.3	4.1	3.9	3.7	
4	7.8	7.4	7.0	6.7	6.4	6.1	5.6	5.2	4.9	4.6	4.3	4.0	3.8	3.6	3.4	
5	7.7	7.3	6.9	6.5	6.2	5.9	5.4	5.0	4.6	4.3	4.1	3.8	3.6	-	-	
10	7.5	6.9	6.5	6.0	5.6	5.3	4.8	4.3	-	-	-	-	-	-	-	
15	7.4	6.7	6.2	5.7	5.3	4.9	-	-	-	-	-	-	-	-	-	
30	7.1	6.2	5.6	-	-	-	-	-	-	-	-	-	-	-	-	
1	7.9	7.7	7.4	7.2	7.0	6.8	6.4	6.1	5.8	5.5	5.3	5.0	4.8	4.6	4.4	60
2	7.8	7.5	7.1	6.8	6.6	6.3	5.9	5.5	5.1	4.8	4.6	4.3	4.1	3.9	3.7	
3	7.7	7.3	6.9	6.6	6.3	6.0	5.5	5.1	4.7	4.4	4.2	3.9	3.7	3.5	3.3	
4	7.7	7.2	6.8	6.4	6.1	5.8	5.3	4.8	4.5	4.1	3.9	3.6	3.4	3.2	3.0	
5	7.6	7.1	6.6	6.2	5.9	5.6	5.0	4.6	4.2	3.9	3.6	3.4	3.2	-	-	
10	7.4	6.7	6.2	5.7	5.3	4.9	4.3	3.9	-	-	-	-	-	-	-	
15	7.2	6.5	5.8	5.3	4.9	4.5	-	-	-	-	-	-	-	-	-	
30	6.9	5.9	5.2	-	-	-	-	-	-	-	-	-	-	-	-	
1	7.9	7.6	7.3	7.1	6.8	6.6	6.2	5.8	5.5	5.2	5.0	4.7	4.5	4.3	4.1	80
2	7.8	7.4	7.0	6.7	6.4	6.1	5.6	5.2	4.9	4.6	4.3	4.0	3.8	3.6	3.4	
3	7.7	7.2	6.8	6.4	6.1	5.8	5.3	4.8	4.5	4.1	3.9	3.6	3.4	3.2	3.0	
4	7.6	7.1	6.6	6.2	5.8	5.5	5.0	4.5	4.2	3.8	3.6	3.3	3.1	3.0	2.7	
5	7.5	6.9	6.4	6.0	5.6	5.3	4.8	4.3	3.9	3.6	3.4	3.1	2.9	-	-	
10	7.3	6.5	5.9	5.4	5.0	4.6	4.1	3.6	-	-	-	-	-	-	-	
15	7.1	6.2	5.6	5.0	4.6	4.2	-	-	-	-	-	-	-	-	-	
30	6.7	5.7	4.9	-	-	-	-	-	-	-	-	-	-	-	-	
1	7.8	7.5	7.2	6.9	6.7	6.4	6.0	5.6	5.3	5.0	4.8	4.5	4.3	4.1	3.8	100
2	7.7	7.3	6.9	6.5	6.2	5.9	5.4	5.0	4.6	4.3	4.1	3.8	3.6	3.4	3.2	
3	7.6	7.1	6.6	6.2	5.9	5.6	5.0	4.6	4.2	3.9	3.6	3.4	3.2	3.0	2.8	
4	7.5	6.9	6.4	6.0	5.6	5.3	4.8	4.3	3.9	3.6	3.4	3.1	2.9	2.7	2.5	
5	7.4	6.8	6.3	5.8	5.4	5.1	4.5	4.1	3.7	3.4	3.1	2.9	2.7	-	-	
10	7.2	6.4	5.7	5.2	4.8	4.4	3.8	3.4	-	-	-	-	-	-	-	
15	7.0	6.1	5.4	4.8	4.4	4.0	-	-	-	-	-	-	-	-	-	
30	6.6	5.5	4.7	-	-	-	-	-	-	-	-	-	-	-	-	
1	7.8	7.4	7.0	6.7	6.4	6.2	5.7	5.3	4.9	4.6	4.3	4.1	3.9	3.7	3.4	150
2	7.6	7.1	6.6	6.2	5.9	5.6	5.0	4.6	4.2	3.9	3.6	3.4	3.2	3.0	2.8	
3	7.5	6.9	6.4	5.9	5.5	5.2	4.6	4.2	3.8	3.5	3.2	3.0	2.8	2.6	2.4	
4	7.4	6.7	6.2	5.7	5.3	4.9	4.3	3.9	3.5	3.2	3.0	2.7	2.6	2.4	2.2	
5	7.3	6.6	6.0	5.5	5.1	4.7	4.1	3.7	3.3	3.0	2.8	2.5	2.4	-	-	
10	7.0	6.1	5.4	4.8	4.4	4.0	3.4	3.0	-	-	-	-	-	-	-	
15	6.8	5.7	5.0	4.4	4.0	3.6	-	-	-	-	-	-	-	-	-	
30	6.3	5.1	4.3	-	-	-	-	-	-	-	-	-	-	-	-	
1	7.6	7.1	6.6	6.2	5.9	5.6	5.0	4.6	4.2	3.9	3.6	3.4	3.2	3.0	2.8	300
2	7.4	6.7	6.2	5.7	5.3	4.9	4.3	3.9	3.5	3.2	3.0	2.7	2.6	2.4	2.2	
3	7.2	6.4	5.8	5.3	4.9	4.5	3.9	3.5	3.1	2.8	2.6	2.4	2.2	2.1	1.9	
4	7.1	6.2	5.6	5.0	4.6	4.2	3.6	3.2	2.8	2.6	2.3	2.1	2.0	1.8	1.7	
5	7.0	6.1	5.4	4.8	4.4	4.0	3.4	3.0	2.6	2.4	2.2	2.0	1.8	-	-	
10	6.6	5.5	4.7	4.1	3.7	3.3	2.8	2.4	-	-	-	-	-	-	-	
15	6.3	5.1	4.3	3.7	3.3	2.9	-	-	-	-	-	-	-	-	-	
30	5.7	4.4	3.6	-	-	-	-	-	-	-	-	-	-	-	-	

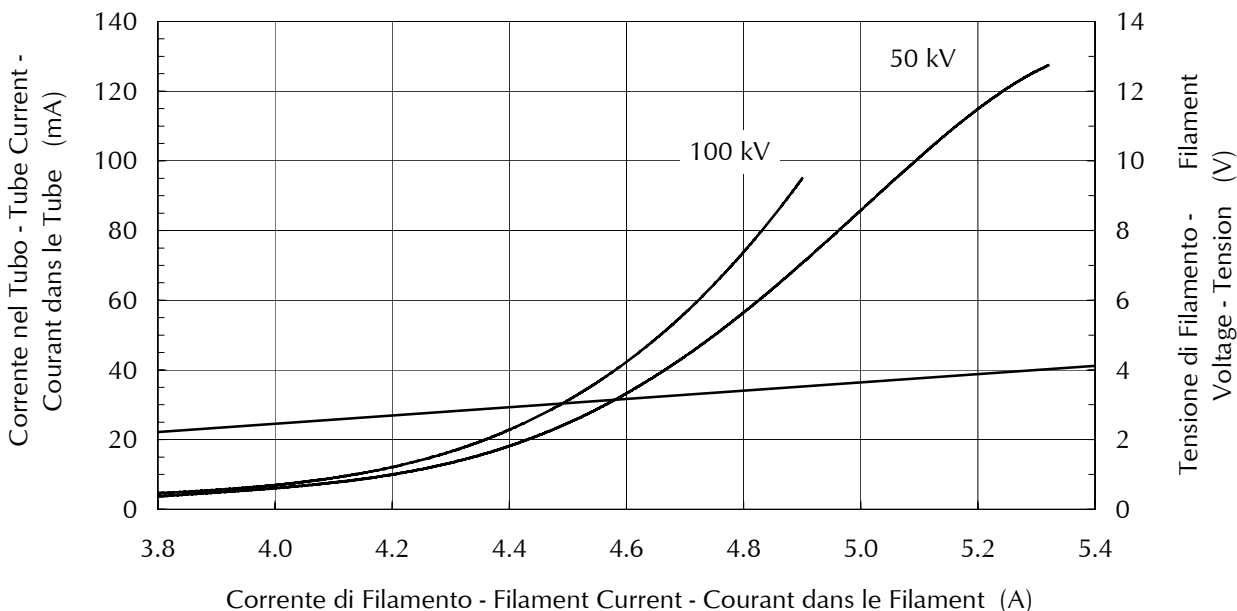


**Abaco per carichi in serie - Serial load rating - Abaque de charges successives**  
**■ 0.6 - 3 Ø - 150 / 180 Hz**

Potenza ammessa sul tubo in kW, per serie di n esposizioni, con frequenza z e durata di ogni esposizione in sec																
Anode input power as a function of n (N° of exposures in series), z (exp. rate per sec), the exposure time (sec)																
Puissance anodique en fonction de n (N° d'exp. de la séries), z (cadence d'exp. par sec), temps d'exposition (sec)																
z	0.010	0.020	0.030	0.040	0.050	0.060	0.080	0.100	0.120	0.140	0.160	0.180	0.200	0.220	0.250	n
1	29.4	28.5	27.9	27.4	27.0	26.7	26.1	25.6	25.2	24.8	24.5	24.2	23.8	23.3	22.6	5
2	29.4	28.5	27.9	27.4	27.0	26.7	26.1	25.5	24.6	23.9	23.1	22.5	21.8	21.2	20.3	
3	29.4	28.5	27.9	27.4	27.0	26.7	25.6	24.6	23.6	22.7	21.9	21.2	20.5	19.8	18.9	
4	29.4	28.5	27.9	27.4	26.8	26.1	24.9	23.8	22.8	21.9	21.0	20.2	19.5	18.8	17.9	
5	29.4	28.5	27.9	27.2	26.4	25.7	24.4	23.2	22.1	21.2	20.3	19.5	18.7	-	-	
10	29.3	28.1	27.0	26.0	25.0	24.1	22.5	21.1	-	-	-	-	-	-	-	
15	29.0	27.6	26.3	25.1	24.0	23.0	-	-	-	-	-	-	-	-	-	
30	28.4	26.5	24.9	-	-	-	-	-	-	-	-	-	-	-	-	
1	29.4	28.5	27.9	27.4	27.0	26.7	26.1	25.5	24.6	23.9	23.1	22.5	21.8	21.2	20.3	10
2	29.4	28.5	27.9	27.4	26.8	26.1	24.9	23.8	22.8	21.9	21.0	20.2	19.5	18.8	17.9	
3	29.4	28.5	27.7	26.9	26.1	25.3	23.9	22.7	21.6	20.6	19.6	18.8	18.0	17.3	16.3	
4	29.4	28.3	27.3	26.4	25.5	24.6	23.1	21.8	20.6	19.6	18.6	17.7	16.9	16.2	15.2	
5	29.3	28.1	27.0	25.9	25.0	24.1	22.5	21.1	19.9	18.8	17.8	16.9	16.1	-	-	
10	28.8	27.2	25.7	24.4	23.2	22.1	20.3	18.7	-	-	-	-	-	-	-	
15	28.4	26.5	24.8	23.3	22.0	20.9	-	-	-	-	-	-	-	-	-	
30	27.6	25.1	23.0	-	-	-	-	-	-	-	-	-	-	-	-	
1	29.4	28.5	27.9	27.4	26.8	26.1	24.9	23.8	22.8	21.9	21.0	20.2	19.5	18.8	17.9	20
2	29.4	28.3	27.3	26.4	25.5	24.6	23.1	21.8	20.6	19.6	18.6	17.7	16.9	16.2	15.2	
3	29.2	27.9	26.7	25.6	24.5	23.6	21.9	20.5	19.2	18.1	17.1	16.2	15.4	14.7	13.7	
4	29.0	27.5	26.1	24.9	23.8	22.8	21.0	19.5	18.2	17.0	16.0	15.1	14.3	13.6	12.6	
5	28.8	27.1	25.7	24.4	23.2	22.1	20.3	18.7	17.3	16.2	15.1	14.2	13.4	-	-	
10	28.1	25.9	24.1	22.5	21.1	19.9	17.8	16.1	-	-	-	-	-	-	-	
15	27.6	25.1	23.0	21.2	19.7	18.4	-	-	-	-	-	-	-	-	-	
30	26.5	23.3	20.9	-	-	-	-	-	-	-	-	-	-	-	-	
1	29.4	28.3	27.3	26.4	25.5	24.6	23.1	21.8	20.6	19.6	18.6	17.7	16.2	14.7	13.0	40
2	29.0	27.5	26.1	24.9	23.8	22.8	21.0	19.5	18.2	17.0	16.0	15.1	14.3	13.6	12.1	
3	28.6	26.9	25.3	23.9	22.7	21.6	19.6	18.0	16.6	15.5	14.4	13.5	12.8	12.1	11.1	
4	28.3	26.4	24.6	23.1	21.8	20.6	18.6	16.9	15.5	14.4	13.4	12.5	11.7	11.0	10.1	
5	28.1	25.9	24.1	22.5	21.1	19.9	17.8	16.1	14.7	13.5	12.5	11.7	10.9	-	-	
10	27.1	24.4	22.1	20.3	18.7	17.3	15.1	13.4	-	-	-	-	-	-	-	
15	26.5	23.3	20.8	18.8	17.2	15.8	-	-	-	-	-	-	-	-	-	
30	25.1	21.2	18.4	-	-	-	-	-	-	-	-	-	-	-	-	
1	29.2	27.9	26.7	25.6	24.5	23.6	21.9	20.5	19.2	16.5	14.4	12.8	11.5	10.5	9.2	60
2	28.6	26.9	25.3	23.9	22.7	21.6	19.6	18.0	16.6	14.9	13.1	11.6	10.5	9.5	8.4	
3	28.2	26.1	24.4	22.8	21.4	20.2	18.2	16.5	15.1	13.9	12.6	11.2	10.1	9.2	8.1	
4	27.9	25.6	23.6	21.9	20.5	19.2	17.1	15.4	14.0	12.8	11.9	11.0	9.9	9.0	7.9	
5	27.6	25.1	23.0	21.2	19.7	18.4	16.2	14.5	13.2	12.0	11.1	10.2	9.5	-	-	
10	26.5	23.3	20.8	18.8	17.2	15.8	13.6	11.9	-	-	-	-	-	-	-	
15	25.7	22.1	19.4	17.3	15.6	14.2	-	-	-	-	-	-	-	-	-	
30	24.1	19.9	16.9	-	-	-	-	-	-	-	-	-	-	-	-	
1	29.0	27.5	26.1	24.9	23.8	22.8	21.0	18.4	15.3	13.1	11.5	10.2	9.2	8.4	7.4	80
2	28.3	26.4	24.6	23.1	21.8	20.6	18.6	16.2	13.5	11.6	10.1	9.0	8.1	7.4	6.5	
3	27.9	25.6	23.6	21.9	20.5	19.2	17.1	15.4	12.9	11.1	9.7	8.6	7.7	7.0	6.2	
4	27.5	24.9	22.8	21.0	19.5	18.2	16.0	14.3	12.6	10.8	9.5	8.4	7.6	6.9	6.1	
5	27.1	24.4	22.1	20.3	18.7	17.3	15.1	13.4	12.1	10.7	9.3	8.3	7.5	-	-	
10	25.9	22.5	19.9	17.8	16.1	14.7	12.5	10.9	-	-	-	-	-	-	-	
15	25.1	21.2	18.4	16.2	14.5	13.2	-	-	-	-	-	-	-	-	-	
30	23.3	18.8	15.8	-	-	-	-	-	-	-	-	-	-	-	-	
1	28.8	27.1	25.7	24.4	23.2	22.1	19.5	15.6	13.0	11.1	9.7	8.7	7.8	7.1	6.2	100
2	28.1	25.9	24.1	22.5	21.1	19.9	16.8	13.4	11.2	9.6	8.4	7.5	6.7	6.1	5.4	
3	27.6	25.1	23.0	21.2	19.7	18.4	15.9	12.7	10.6	9.1	7.9	7.0	6.3	5.8	5.1	
4	27.1	24.4	22.1	20.3	18.7	17.3	15.1	12.3	10.3	8.8	7.7	6.8	6.2	5.6	4.9	
5	26.8	23.8	21.4	19.5	17.9	16.5	14.3	12.1	10.1	8.6	7.6	6.7	6.1	-	-	
10	25.5	21.8	19.1	16.9	15.2	13.8	11.7	10.1	-	-	-	-	-	-	-	
15	24.5	20.5	17.6	15.4	13.7	12.3	-	-	-	-	-	-	-	-	-	
30	22.7	18.0	14.9	-	-	-	-	-	-	-	-	-	-	-	-	
1	28.4	26.5	24.8	23.3	22.0	19.7	14.8	11.8	9.9	8.5	7.4	6.6	5.9	5.4	4.7	150
2	27.6	25.1	23.0	21.2	19.3	16.1	12.1	9.7	8.1	6.9	6.0	5.4	4.8	4.4	3.9	
3	27.0	24.1	21.8	19.9	17.9	14.9	11.2	8.9	7.5	6.4	5.6	5.0	4.5	4.1	3.6	
4	26.5	23.3	20.8	18.8	17.2	14.3	10.7	8.6	7.1	6.1	5.4	4.8	4.3	3.9	3.4	
5	26.1	22.7	20.1	18.0	16.3	13.9	10.5	8.4	7.0	6.0	5.2	4.6	4.2	-	-	
10	24.5	20.5	17.6	15.4	13.7	12.3	9.9	7.9	-	-	-	-	-	-	-	
15	23.5	19.1	16.0	13.8	12.2	10.9	-	-	-	-	-	-	-	-	-	
30	21.4	16.5	13.4	-	-	-	-	-	-	-	-	-	-	-	-	
1	27.6	25.1	23.0	20.3	16.2	13.5	10.1	8.1	6.8	5.8	5.1	4.5	4.1	3.7	3.2	300
2	26.5	23.3	19.7	14.8	11.8	9.9	7.4	5.9	4.9	4.2	3.7	3.3	3.0	2.7	2.4	
3	25.7	22.1	17.3	13.0	10.4	8.7	6.5	5.2	4.3	3.7	3.2	2.9	2.6	2.4	2.1	
4	25.1	21.2	16.1	12.1	9.7	8.1	6.0	4.8	4.0	3.5	3.0	2.7	2.4	2.2	1.9	
5	24.5	20.5	15.4	11.5	9.2	7.7	5.8	4.6	3.8	3.3	2.9	2.6	2.3	-	-	
10	22.7	18.0	13.9	10.5	8.4	7.0	5.2	4.2	-	-	-	-	-	-	-	
15	21.4	16.5	13.4	10.1	8.1	6.7	-	-	-	-	-	-	-	-	-	
30	19.1	13.8	10.9	-	-	-	-	-	-	-	-	-	-	-	-	

**Caratteristica di emissione del catodo**  
**Cathode emission characteristic**  
**Caractéristique d'émission de la cathode**

▣ **0.3 - 3 Ø - (± 0.2 A) - IEC 60613 (1989) (2010)**



**Caratteristica di emissione del catodo**  
**Cathode emission characteristic**  
**Caractéristique d'émission de la cathode**

■ **0.6 - 3 Ø - (± 0.2 A) - IEC 60613 (1989) (2010)**

