

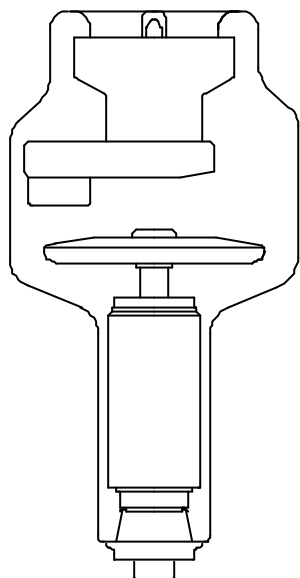


# Documentazione Tubo a raggi X

## Tube Documentation

### Documentation du Tube

# RTC 1000 HS 1.0/2.0



Nr. di matricola  
Tube No.  
Nr de série

CE 0051

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°<br>Documentation N°<br>N° de Documentation | Revisione<br>Edition<br>Version | Data di edizione<br>Date of release<br>Date de l'édition | Testo originale<br>Original text<br>Texte original |
|--|---------------------------------|--|--|
| 100SAK   | A                               | 10.07.2000   | italiano / italian / italien                       |

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)






**Sommario - Table of contents - Table des matières**


Sommario - Table of contents - Table des matières..... 2


Caratteristiche - Specifications - Spécifications ..... 3


Dimensioni - Dimension - Dimensions ..... 4


Curve di riscaldamento e raffreddamento dell'anodo Anode heating and cooling curves Courbes d'échauffement et de refroidissement de l'anode..... 4


CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  0.6 - 1 ~ - 3000 min<sup>-1</sup> ..... 5


CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  1.2 - 1 ~ - 3000 min<sup>-1</sup> ..... 5


CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  0.6 - 3 ~ - 3000 min<sup>-1</sup> ..... 6


CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  1.2 - 3 ~ - 3000 min<sup>-1</sup> ..... 6


CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  0.6 - 1 ~ - 10000 min<sup>-1</sup> ..... 7


CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  1.2 - 1 ~ - 10000 min<sup>-1</sup> ..... 7


CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  0.6 - 3 ~ - 10000 min<sup>-1</sup> ..... 8


CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  1.2 - 3 ~ - 10000 min<sup>-1</sup> ..... 8


Abaco per carichi in serie - Serial load rating - Abaque de charges successives  0.6 - 1 ~ - 3000 min<sup>-1</sup> ..... 9


Abaco per carichi in serie - Serial load rating - Abaque de charges successives  1.2 - 1 ~ - 3000 min<sup>-1</sup> ..... 10


Abaco per carichi in serie - Serial load rating - Abaque de charges successives  0.6 - 3 ~ - 3000 min<sup>-1</sup> ..... 11


Abaco per carichi in serie - Serial load rating - Abaque de charges successives  1.2 - 3 ~ - 3000 min<sup>-1</sup> ..... 12


Abaco per carichi in serie - Serial load rating - Abaque de charges successives  0.6 - 1 ~ - 10000 min<sup>-1</sup> ..... 13

Abaco per carichi in serie - Serial load rating - Abaque de charges successives  1.2 - 1 ~ - 10000 min<sup>-1</sup> ..... 14

Abaco per carichi in serie - Serial load rating - Abaque de charges successives  0.6 - 3 ~ - 10000 min<sup>-1</sup> ..... 15

Abaco per carichi in serie - Serial load rating - Abaque de charges successives  1.2 - 3 ~ - 10000 min<sup>-1</sup> ..... 16

Caratteristica di emissione del catodo Cathode emission characteristic Caractéristique d'émission de la cathode  0.6 - 3 ~ - (± 0.2 A)..... 17

Caratteristica di emissione del catodo Cathode emission characteristic Caractéristique d'émission de la cathode  1.2 - 3 ~ - (± 0.2 A)..... 17

**Dichiarazione di conformità**

Questo prodotto soddisfa i requisiti essenziali della direttiva 93/42/CEE in  
 accordo alle norme EN 60613 (IEC 613) e EN 60336 (IEC 336)

**Declaration of conformity**





This tube fulfils the essential requirements of the directive 93/42/EEC  
 according to standard EN 60613 (IEC 613) and EN 60336 (IEC 336).

**Confirmation de conformité**

Ce tube remplit les exigences essentielles de la directive 93/42/CEE en  
 accord avec les normes EN 60613 (IEC 613) et EN 60336 (IEC 336).



**Caratteristiche - Specifications - Spécifications**

|   |   |                     |
|---|---|---------------------|
| Macchie focali<br>Focal spot<br>Foyer   |  1.0<br> 2.0                  | (IEC 336, EN 60336) |
| Velocità di rotazione dell'anodo<br>Anode speed<br>Vitesse de l'anode                             | 3000 min <sup>-1</sup> 10000 min <sup>-1</sup>  |                     |
| Potenza anodica nominale<br>Nominal anode input power<br>Puissance anodique nominale              |  40 kW 68 kW<br> 90 kW 150 kW | (IEC 613, EN 60613) |
| Diametro anodico<br>Anode diameter<br>Diamètre de l'anode   | 110 mm  |                     |
| Materiale anodico<br>Anode material<br>Matériau de l'anode  | RT-TZM-C  |                     |
| Angolo anodico<br>Anode angle<br>Pente de l'anode   | 12.5°   |                     |
| Campo di radiazione<br>Radiation field<br>Champ de rayonnement                                    | a 70 cm 30 cm<br>a 100 cm 43 cm   |                     |
| Filtrazione inerente<br>Inherent filtration<br>Filtration inhérente                               | 0.7 mm Al eq  | (IEC 522)           |
| Capacità termica anodica<br>Maximum anode heat content<br>Chaleur maximale accumulée dans l'anode | 840 kJ 1120 kHU   |                     |
| Dissipazione termica continua<br>Continuous heat dissipation<br>Dissipation thermique continue    | 1200 W 96 000 HU/min  |                     |
| Dissipazione termica massima<br>Maximum heat dissipation<br>Dissipation thermique maximale        | 2000 W 160 000 HU/min   |                     |
| Alta tensione nominale<br>Nominal X-ray tube voltage<br>Haute tension nominale                    | 150 kV  |                     |
| Massima corrente di filamento<br>Max. filament current<br>Courant dans le filament max.           | 5.4 A   |                     |

I dati forniti nella presente documentazione si intendono riferiti a:

The data indicated in this documentation refer to:

Les données indiquées dans cette documentation sont calculées pour:

Potenza anodica di equilibrio termico

Equivalent anode input power

Puissance anodique d'équilibre thermique

300 W =

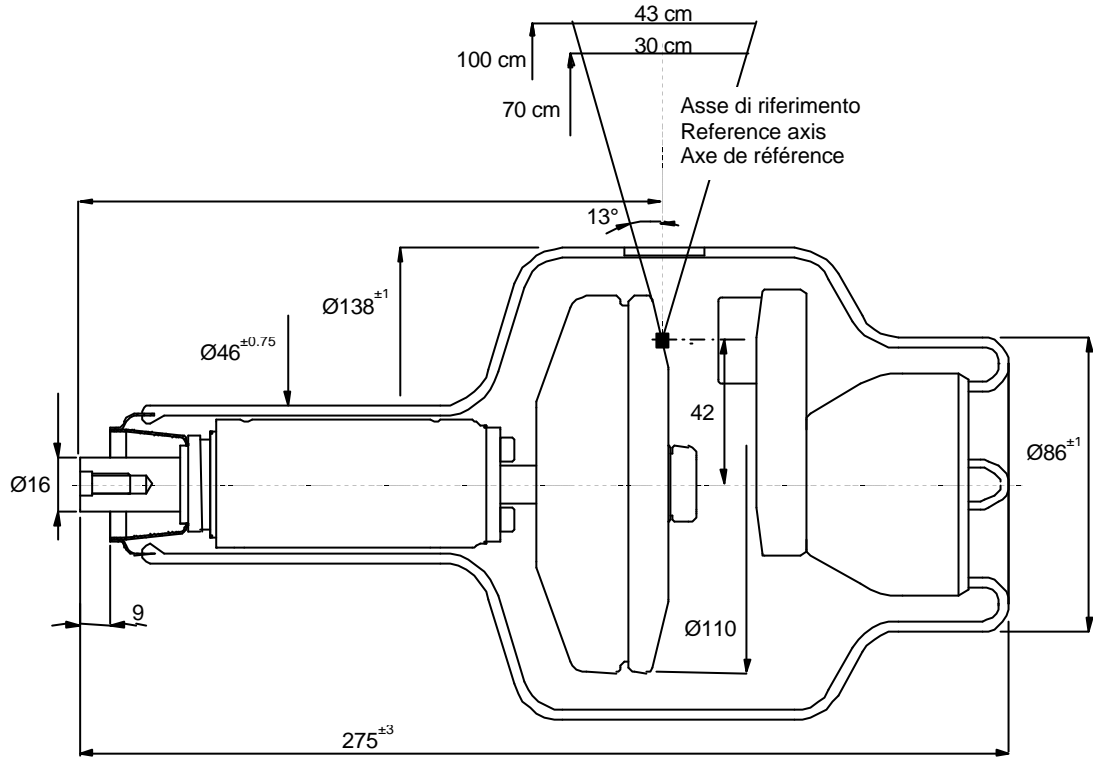
% della capacità termica anodica

% of maximum anode heat content

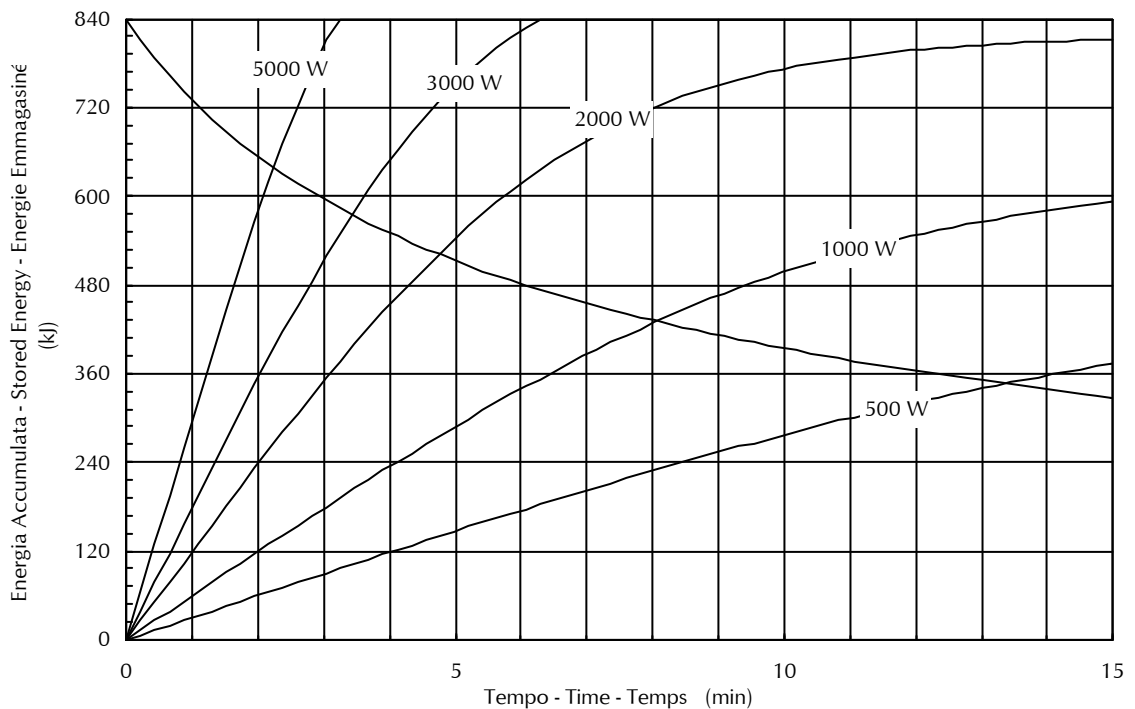
% de chaleur max. accumulée dans l'anode

48%

## Dimensioni - Dimension - Dimensions



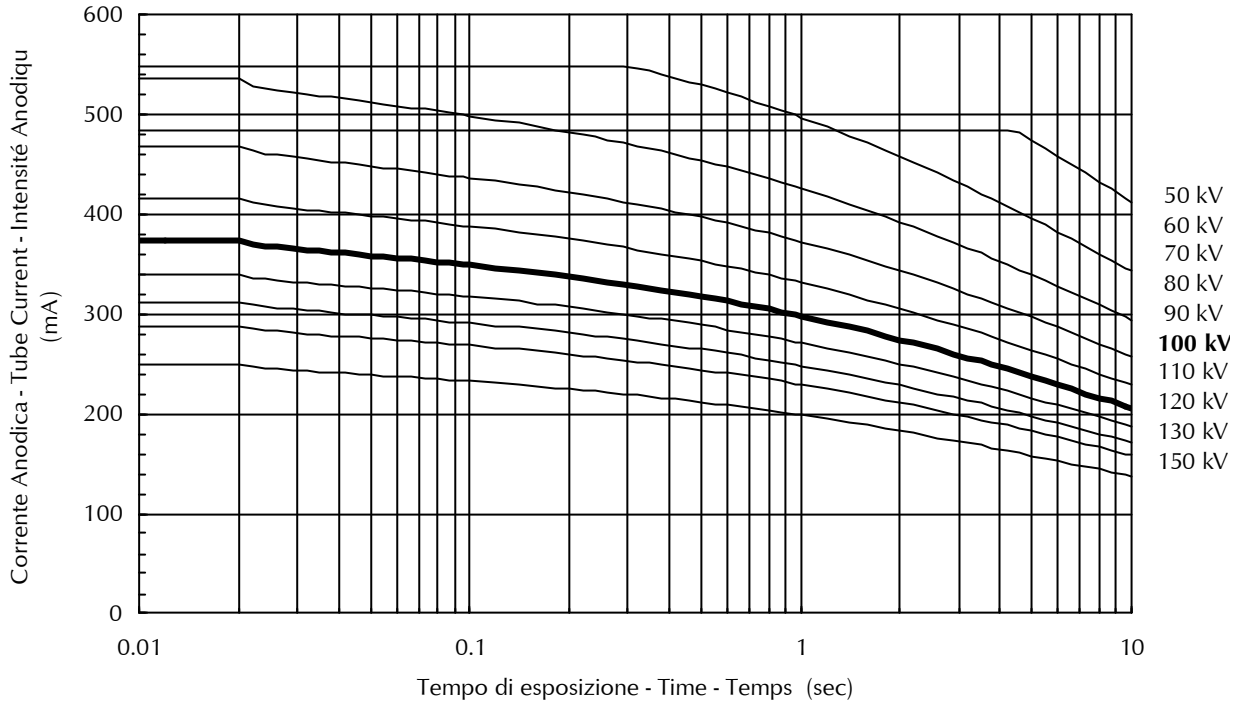
## Curve di riscaldamento e raffreddamento dell'anodo Anode heating and cooling curves Courbes d'échauffement et de refroidissement de l'anode





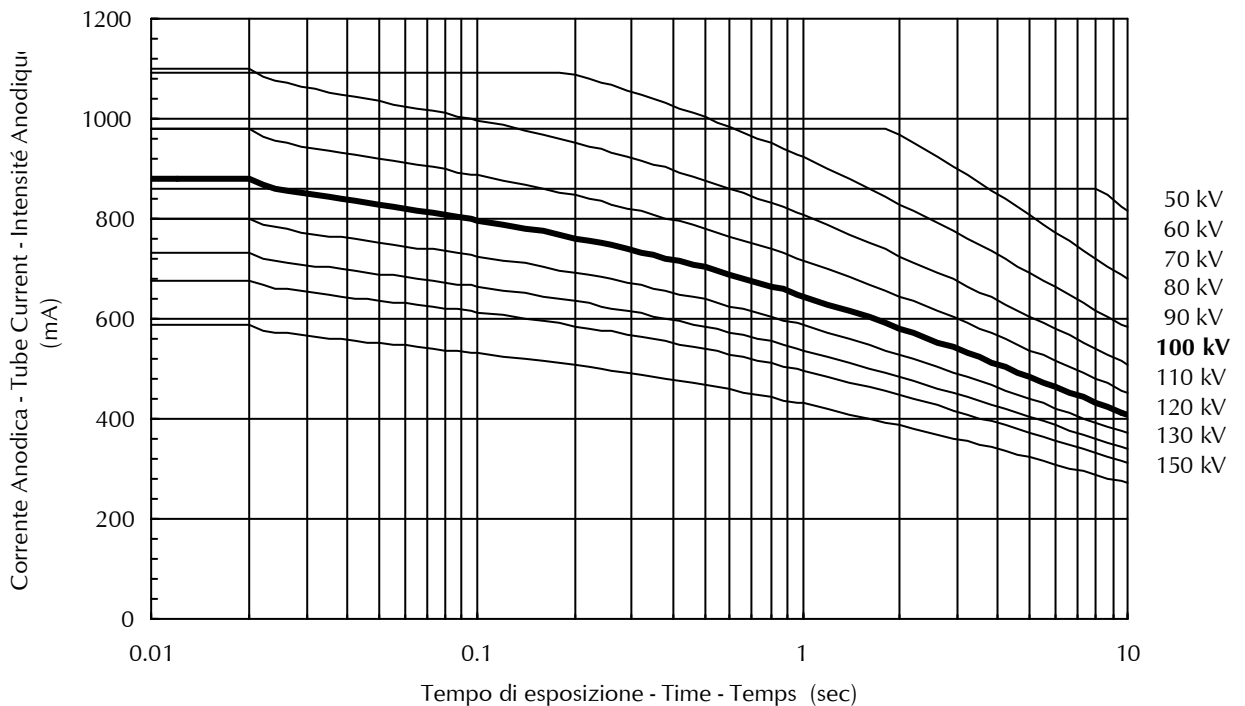
**CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE**

▣ 1.0 - 1 ~ - 3000 min<sup>-1</sup>



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

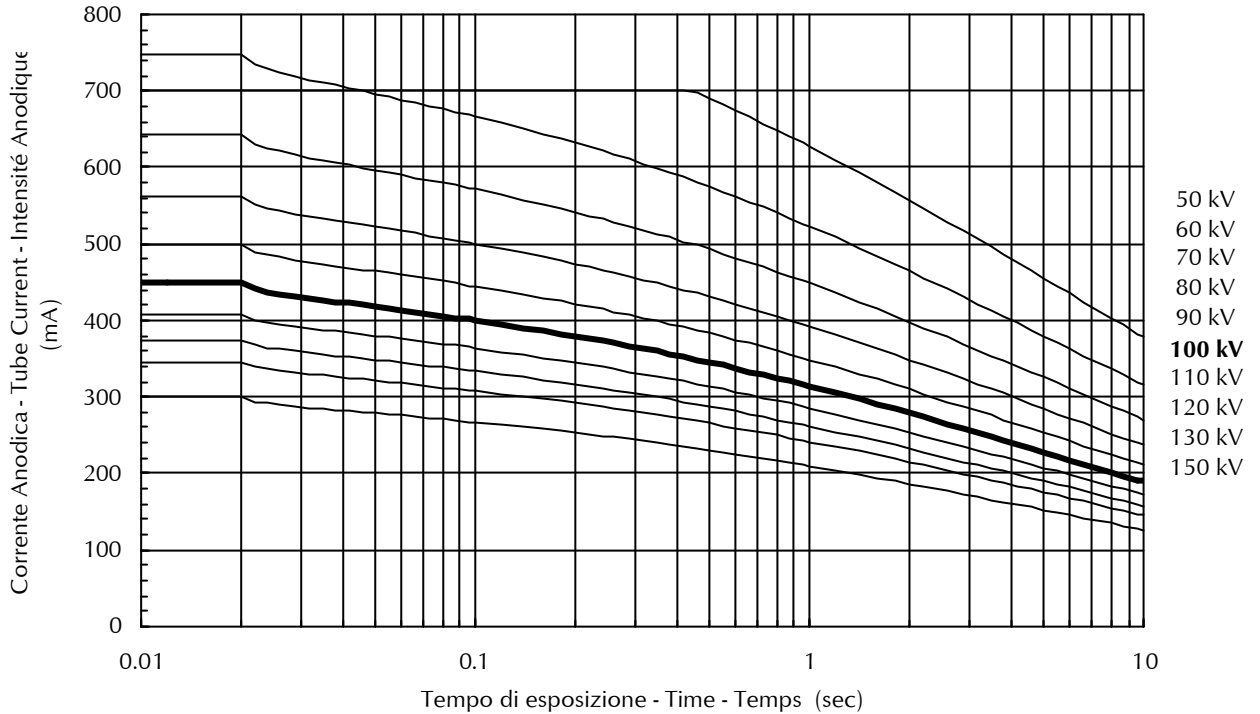
■ 2.0 - 1 ~ - 3000 min<sup>-1</sup>





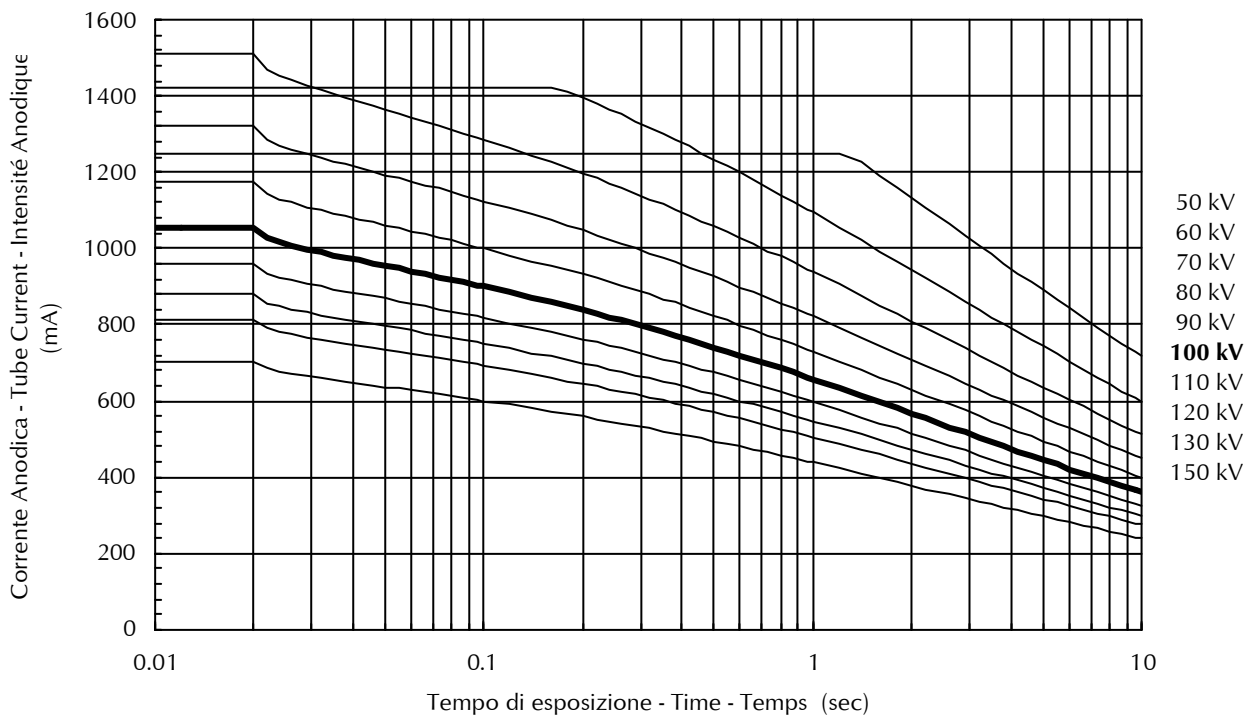
**CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE**

▣ 1.0 - 3 ~ - 3000 min<sup>-1</sup>



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

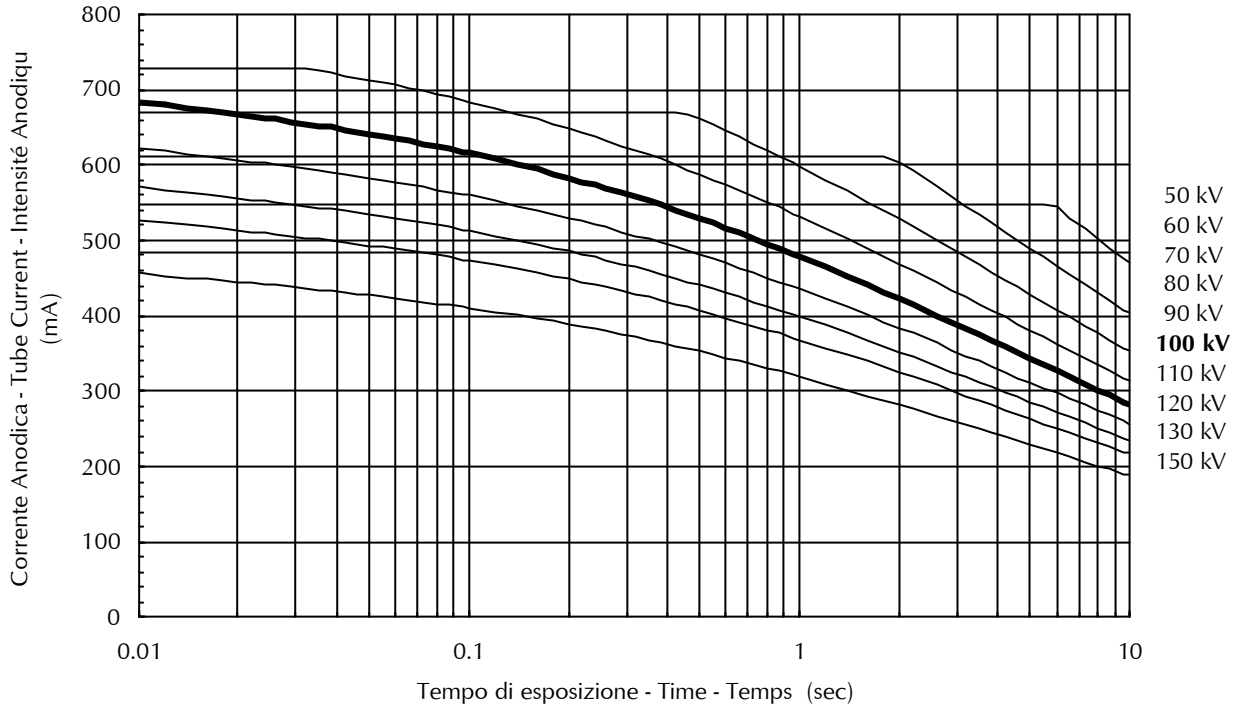
■ 2.0 - 3 ~ - 3000 min<sup>-1</sup>





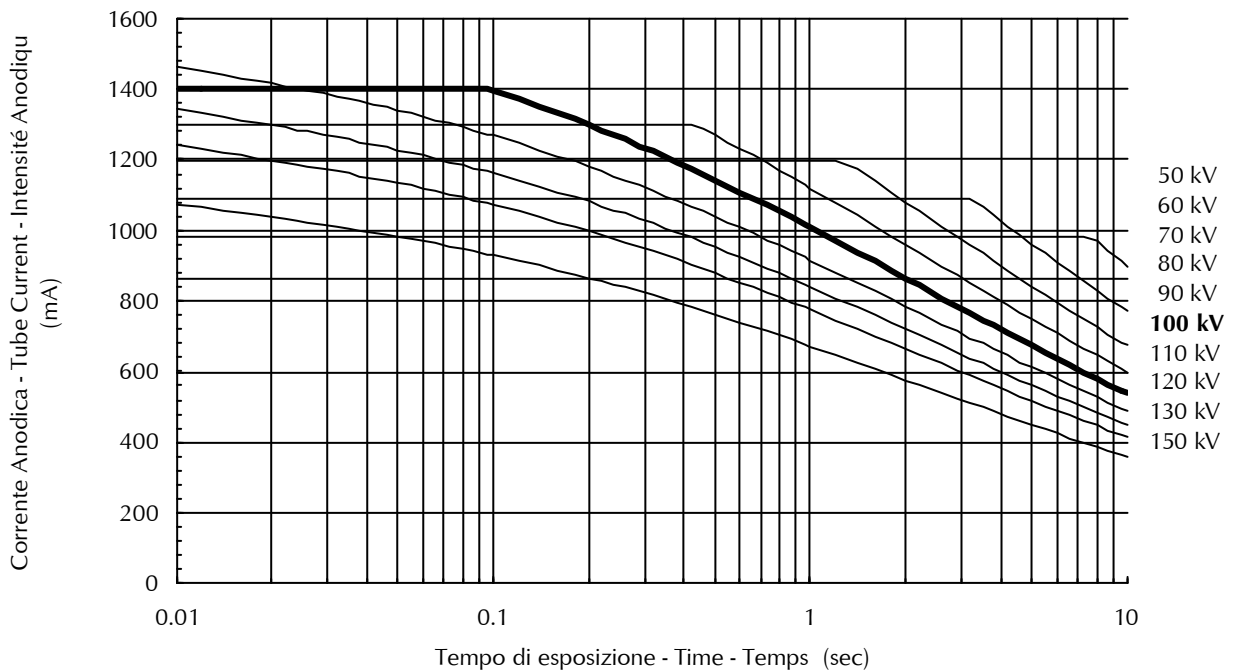
**CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE**

▣ 1.0 - 1 ~ - 10000 min<sup>-1</sup>



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

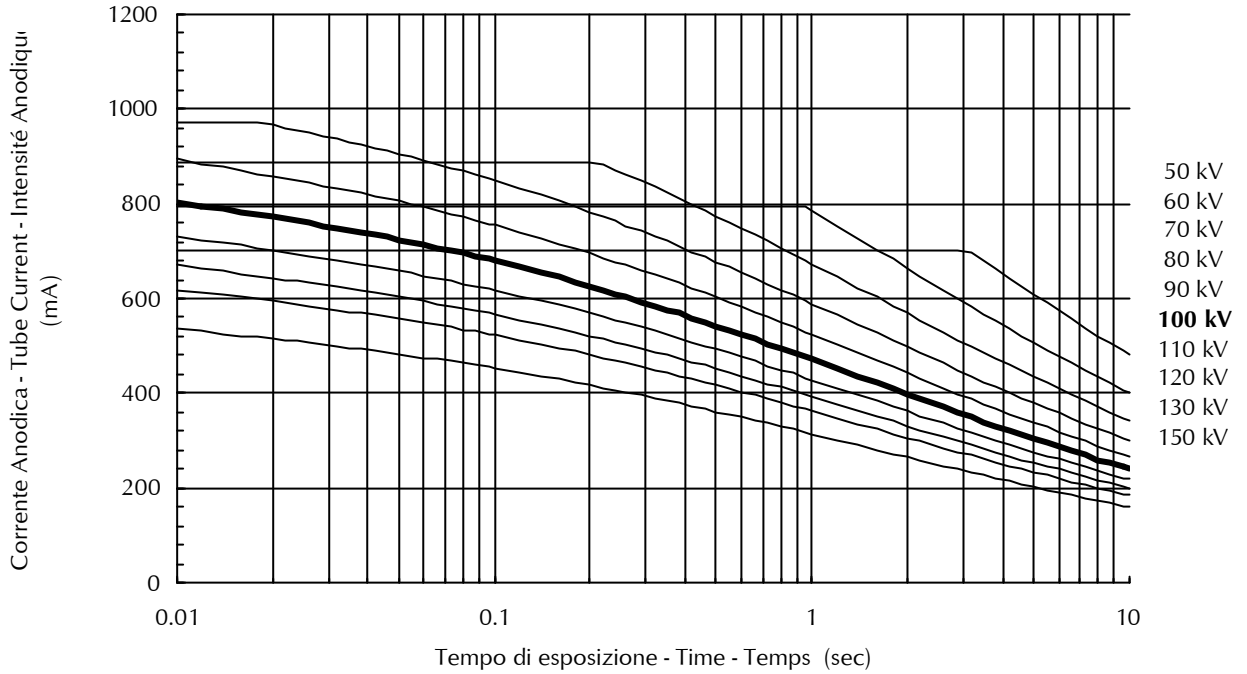
■ 2.0 - 1 ~ - 10000 min<sup>-1</sup>





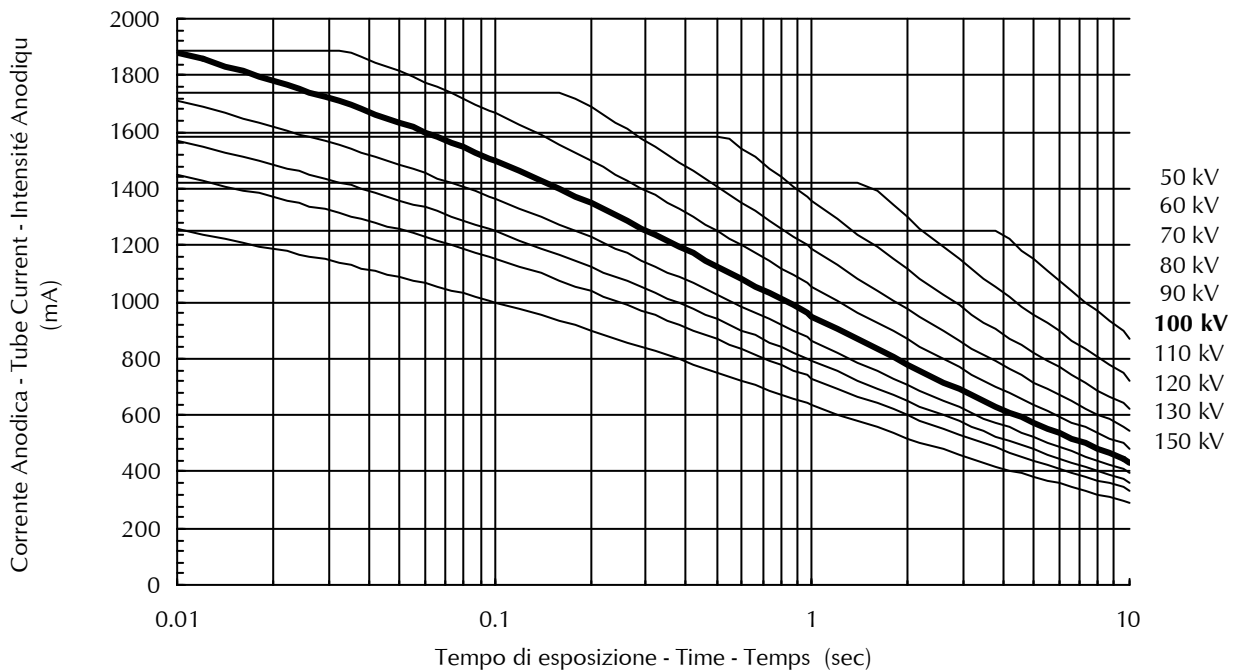
**CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE**

▣ 1.0 - 3 ~ - 10000 min<sup>-1</sup>



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

■ 2.0 - 3 ~ - 10000 min<sup>-1</sup>





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

▣ 1.0 - 1 ~ - 3000 min<sup>-1</sup>

| 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  | 15.9  | 15.9  | 15.6  | 15.5  | 15.3  | 15.2  | 15.0  | 14.9  | 14.8  | 14.6  | 14.5  | 14.4  | 14.3  | 14.1  | 13.9  | 5   |
| 2  | 15.8  | 15.8  | 15.6  | 15.5  | 15.3  | 15.2  | 15.0  | 14.8  | 14.5  | 14.3  | 14.1  | 13.9  | 13.6  | 13.4  | 13.2  |     |
| 3  | 15.7  | 15.7  | 15.6  | 15.4  | 15.2  | 15.1  | 14.8  | 14.5  | 14.2  | 14.0  | 13.7  | 13.4  | 13.2  | 13.0  | 12.6  |     |
| 4  | 15.7  | 15.7  | 15.5  | 15.3  | 15.1  | 14.9  | 14.6  | 14.3  | 14.0  | 13.7  | 13.4  | 13.1  | 12.9  | 12.6  | 12.2  |     |
| 5  | 15.6  | 15.6  | 15.4  | 15.2  | 15.0  | 14.8  | 14.5  | 14.1  | 13.8  | 13.4  | 13.1  | 12.8  | 12.6  | -     | -     |     |
| 10   | 15.6  | 15.5  | 15.2  | 14.9  | 14.6  | 14.4  | 13.9  | 13.4  | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 15.6  | 15.3  | 15.0  | 14.7  | 14.4  | 14.1  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 15.6  | 15.1  | 14.6  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 15.8  | 15.8  | 15.6  | 15.5  | 15.3  | 15.2  | 15.0  | 14.8  | 14.5  | 14.3  | 14.1  | 13.9  | 13.6  | 13.4  | 13.1  | 10  |
| 2  | 15.7  | 15.7  | 15.5  | 15.3  | 15.1  | 14.9  | 14.6  | 14.3  | 14.0  | 13.7  | 13.4  | 13.1  | 12.8  | 12.6  | 12.2  |     |
| 3  | 15.6  | 15.6  | 15.4  | 15.1  | 14.9  | 14.7  | 14.3  | 13.9  | 13.6  | 13.2  | 12.9  | 12.6  | 12.3  | 12.0  | 11.6  |     |
| 4  | 15.6  | 15.5  | 15.3  | 15.0  | 14.8  | 14.5  | 14.1  | 13.6  | 13.3  | 12.9  | 12.5  | 12.2  | 11.9  | 11.6  | 11.1  |     |
| 5  | 15.6  | 15.5  | 15.2  | 14.9  | 14.6  | 14.4  | 13.9  | 13.4  | 13.0  | 12.6  | 12.2  | 11.8  | 11.5  | -     | -     |     |
| 10   | 15.6  | 15.2  | 14.8  | 14.5  | 14.1  | 13.8  | 13.1  | 12.6  | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 15.5  | 15.0  | 14.6  | 14.1  | 13.7  | 13.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 15.3  | 14.7  | 14.1  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 15.7  | 15.7  | 15.5  | 15.3  | 15.1  | 14.9  | 14.6  | 14.3  | 14.0  | 13.7  | 13.4  | 13.1  | 12.8  | 12.6  | 12.2  | 20  |
| 2  | 15.6  | 15.5  | 15.3  | 15.0  | 14.8  | 14.5  | 14.1  | 13.6  | 13.2  | 12.9  | 12.5  | 12.2  | 11.9  | 11.6  | 11.1  |     |
| 3  | 15.6  | 15.4  | 15.1  | 14.8  | 14.5  | 14.2  | 13.7  | 13.2  | 12.7  | 12.3  | 11.9  | 11.5  | 11.2  | 10.9  | 10.4  |     |
| 4  | 15.6  | 15.3  | 14.9  | 14.6  | 14.3  | 14.0  | 13.4  | 12.8  | 12.3  | 11.9  | 11.5  | 11.1  | 10.7  | 10.4  | 9.9   |     |
| 5  | 15.6  | 15.2  | 14.8  | 14.4  | 14.1  | 13.8  | 13.1  | 12.5  | 12.0  | 11.5  | 11.1  | 10.7  | 10.3  | -     | -     |     |
| 10   | 15.5  | 14.9  | 14.4  | 13.9  | 13.4  | 13.0  | 12.2  | 11.5  | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 15.3  | 14.7  | 14.0  | 13.5  | 12.9  | 12.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 15.0  | 14.1  | 13.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 15.6  | 15.5  | 15.3  | 15.0  | 14.8  | 14.5  | 14.1  | 13.6  | 13.2  | 12.9  | 12.5  | 12.2  | 11.9  | 11.6  | 11.1  | 40  |
| 2  | 15.6  | 15.3  | 14.9  | 14.6  | 14.3  | 14.0  | 13.4  | 12.8  | 12.3  | 11.9  | 11.5  | 11.1  | 10.7  | 10.3  | 9.9   |     |
| 3  | 15.6  | 15.1  | 14.7  | 14.3  | 13.9  | 13.6  | 12.9  | 12.3  | 11.7  | 11.2  | 10.8  | 10.3  | 9.9   | 9.6   | 9.1   |     |
| 4  | 15.5  | 15.0  | 14.5  | 14.1  | 13.6  | 13.2  | 12.5  | 11.9  | 11.3  | 10.7  | 10.2  | 9.8   | 9.4   | 9.0   | 8.5   |     |
| 5  | 15.5  | 14.9  | 14.4  | 13.9  | 13.4  | 13.0  | 12.2  | 11.5  | 10.9  | 10.3  | 9.8   | 9.4   | 9.0   | -     | -     |     |
| 10   | 15.2  | 14.4  | 13.8  | 13.1  | 12.5  | 12.0  | 11.1  | 10.3  | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 15.0  | 14.1  | 13.3  | 12.6  | 12.0  | 11.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 14.7  | 13.5  | 12.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 15.6  | 15.4  | 15.1  | 14.8  | 14.5  | 14.2  | 13.7  | 13.2  | 12.7  | 12.3  | 11.9  | 11.5  | 11.2  | 10.9  | 10.4  | 60  |
| 2  | 15.6  | 15.1  | 14.7  | 14.3  | 13.9  | 13.6  | 12.9  | 12.3  | 11.7  | 11.2  | 10.8  | 10.3  | 9.9   | 9.6   | 9.1   |     |
| 3  | 15.5  | 14.9  | 14.4  | 14.0  | 13.5  | 13.1  | 12.3  | 11.7  | 11.1  | 10.5  | 10.0  | 9.6   | 9.2   | 8.8   | 8.3   |     |
| 4  | 15.4  | 14.8  | 14.2  | 13.7  | 13.2  | 12.7  | 11.9  | 11.2  | 10.6  | 10.0  | 9.5   | 9.0   | 8.6   | 8.2   | 7.7   |     |
| 5  | 15.3  | 14.6  | 14.0  | 13.4  | 12.9  | 12.4  | 11.6  | 10.8  | 10.1  | 9.6   | 9.0   | 8.6   | 8.1   | -     | -     |     |
| 10   | 15.0  | 14.1  | 13.3  | 12.6  | 12.0  | 11.4  | 10.4  | 9.5   | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 14.8  | 13.8  | 12.8  | 12.0  | 11.3  | 10.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 14.4  | 13.0  | 11.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 15.6  | 15.3  | 14.9  | 14.6  | 14.3  | 14.0  | 13.4  | 12.8  | 12.3  | 11.9  | 11.5  | 11.1  | 10.7  | 10.3  | 9.9   | 80  |
| 2  | 15.5  | 15.0  | 14.5  | 14.1  | 13.6  | 13.2  | 12.5  | 11.9  | 11.3  | 10.7  | 10.2  | 9.8   | 9.4   | 9.0   | 8.5   |     |
| 3  | 15.4  | 14.8  | 14.2  | 13.7  | 13.2  | 12.7  | 11.9  | 11.2  | 10.6  | 10.0  | 9.5   | 9.0   | 8.6   | 8.2   | 7.7   |     |
| 4  | 15.3  | 14.6  | 14.0  | 13.4  | 12.8  | 12.3  | 11.5  | 10.7  | 10.0  | 9.4   | 8.9   | 8.4   | 8.0   | 7.6   | 7.1   |     |
| 5  | 15.2  | 14.4  | 13.7  | 13.1  | 12.5  | 12.0  | 11.1  | 10.3  | 9.6   | 9.0   | 8.5   | 8.0   | 7.6   | -     | -     |     |
| 10   | 14.9  | 13.9  | 13.0  | 12.2  | 11.5  | 10.9  | 9.8   | 9.0   | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 14.6  | 13.5  | 12.4  | 11.6  | 10.8  | 10.1  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 14.1  | 12.6  | 11.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 15.6  | 15.2  | 14.8  | 14.4  | 14.1  | 13.7  | 13.1  | 12.5  | 12.0  | 11.5  | 11.1  | 10.7  | 10.3  | 9.8   | 8.6   | 100 |
| 2  | 15.5  | 14.9  | 14.4  | 13.9  | 13.4  | 13.0  | 12.2  | 11.5  | 10.9  | 10.3  | 9.8   | 9.4   | 9.0   | 8.5   | 7.5   |     |
| 3  | 15.3  | 14.6  | 14.0  | 13.4  | 12.9  | 12.4  | 11.6  | 10.8  | 10.1  | 9.6   | 9.0   | 8.6   | 8.1   | 7.8   | 7.1   |     |
| 4  | 15.2  | 14.4  | 13.7  | 13.1  | 12.5  | 12.0  | 11.1  | 10.3  | 9.6   | 9.0   | 8.5   | 8.0   | 7.6   | 7.2   | 6.7   |     |
| 5  | 15.1  | 14.3  | 13.5  | 12.8  | 12.2  | 11.7  | 10.7  | 9.9   | 9.2   | 8.5   | 8.0   | 7.5   | 7.1   | -     | -     |     |
| 10   | 14.8  | 13.6  | 12.7  | 11.9  | 11.1  | 10.5  | 9.4   | 8.5   | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 14.5  | 13.2  | 12.1  | 11.2  | 10.4  | 9.7   | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 13.9  | 12.3  | 11.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 15.5  | 15.0  | 14.6  | 14.1  | 13.7  | 13.3  | 12.6  | 12.0  | 11.4  | 10.8  | 10.1  | 9.0   | 8.1   | 7.3   | 6.5   | 150 |
| 2  | 15.3  | 14.6  | 14.0  | 13.4  | 12.9  | 12.4  | 11.6  | 10.8  | 10.1  | 9.6   | 8.4   | 7.4   | 6.7   | 6.1   | 5.4   |     |
| 3  | 15.2  | 14.4  | 13.6  | 13.0  | 12.4  | 11.8  | 10.9  | 10.1  | 9.4   | 8.8   | 7.8   | 6.9   | 6.2   | 5.7   | 5.0   |     |
| 4  | 15.0  | 14.1  | 13.3  | 12.6  | 12.0  | 11.4  | 10.4  | 9.5   | 8.8   | 8.2   | 7.5   | 6.7   | 6.0   | 5.5   | 4.8   |     |
| 5  | 14.9  | 13.9  | 13.1  | 12.3  | 11.6  | 11.0  | 9.9   | 9.1   | 8.4   | 7.7   | 7.2   | 6.5   | 5.9   | -     | -     |     |
| 10   | 14.5  | 13.2  | 12.1  | 11.2  | 10.4  | 9.7   | 8.6   | 7.7   | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 14.2  | 12.7  | 11.5  | 10.5  | 9.6   | 8.9   | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 13.5  | 11.7  | 10.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 15.3  | 14.6  | 14.0  | 13.4  | 12.9  | 12.4  | 11.6  | 10.8  | 9.0   | 7.7   | 6.8   | 6.0   | 5.4   | 4.9   | 4.3   | 300 |
| 2  | 15.0  | 14.1  | 13.3  | 12.6  | 12.0  | 11.4  | 10.1  | 8.1   | 6.7   | 5.8   | 5.0   | 4.5   | 4.0   | 3.7   | 3.2   |     |
| 3  | 14.8  | 13.7  | 12.8  | 12.0  | 11.3  | 10.7  | 8.9   | 7.2   | 6.0   | 5.1   | 4.5   | 4.0   | 3.6   | 3.3   | 2.9   |     |
| 4  | 14.6  | 13.4  | 12.4  | 11.6  | 10.8  | 10.1  | 8.4   | 6.7   | 5.6   | 4.8   | 4.2   | 3.7   | 3.3   | 3.0   | 2.7   |     |
| 5  | 14.5  | 13.2  | 12.1  | 11.2  | 10.4  | 9.7   | 8.0   | 6.4   | 5.4   | 4.6   | 4.0   | 3.6   | 3.2   | -     | -     |     |
| 10   | 13.9  | 12.3  | 11.0  | 9.9   | 9.1   | 8.4   | 7.2   | 5.9   | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 13.5  | 11.7  | 10.3  | 9.2   | 8.3   | 7.5   | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 12.7  | 10.5  | 8.9   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |



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

■ 2.0 - 1 ~ - 3000 min<sup>-1</sup>

| 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 série), 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   | 29.5  | 29.5  | 28.9  | 28.5  | 28.2  | 27.9  | 27.5  | 27.2  | 26.9  | 26.6  | 26.4  | 26.1  | 25.8  | 25.4  | 24.9  | 5   |
| 2   | 29.3  | 29.3  | 28.9  | 28.5  | 28.2  | 27.9  | 27.4  | 26.9  | 26.3  | 25.8  | 25.3  | 24.8  | 24.4  | 23.9  | 23.3  |     |
| 3   | 29.1  | 29.1  | 28.7  | 28.4  | 28.0  | 27.6  | 26.9  | 26.3  | 25.7  | 25.1  | 24.5  | 23.9  | 23.4  | 22.9  | 22.2  |     |
| 4   | 29.0  | 29.0  | 28.6  | 28.1  | 27.7  | 27.3  | 26.5  | 25.8  | 25.1  | 24.4  | 23.8  | 23.2  | 22.7  | 22.1  | 21.4  |     |
| 5   | 28.9  | 28.9  | 28.4  | 27.9  | 27.5  | 27.0  | 26.2  | 25.4  | 24.6  | 23.9  | 23.3  | 22.6  | 22.0  | -     | -     |     |
| 10  | 28.9  | 28.5  | 27.9  | 27.2  | 26.6  | 26.0  | 24.9  | 23.9  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 28.9  | 28.2  | 27.4  | 26.7  | 26.0  | 25.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 28.8  | 27.6  | 26.6  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 29.3  | 29.3  | 28.9  | 28.5  | 28.2  | 27.9  | 27.4  | 26.9  | 26.3  | 25.8  | 25.3  | 24.8  | 24.4  | 23.9  | 23.3  | 10  |
| 2   | 29.0  | 29.0  | 28.6  | 28.1  | 27.7  | 27.3  | 26.5  | 25.8  | 25.1  | 24.4  | 23.8  | 23.2  | 22.6  | 22.1  | 21.3  |     |
| 3   | 28.9  | 28.8  | 28.3  | 27.8  | 27.3  | 26.8  | 25.9  | 25.0  | 24.2  | 23.4  | 22.7  | 22.1  | 21.5  | 20.9  | 20.0  |     |
| 4   | 28.9  | 28.6  | 28.0  | 27.4  | 26.9  | 26.3  | 25.3  | 24.4  | 23.5  | 22.7  | 21.9  | 21.2  | 20.6  | 19.9  | 19.1  |     |
| 5   | 28.9  | 28.5  | 27.8  | 27.2  | 26.6  | 26.0  | 24.9  | 23.9  | 22.9  | 22.1  | 21.3  | 20.5  | 19.8  | -     | -     |     |
| 10  | 28.9  | 27.9  | 27.0  | 26.2  | 25.4  | 24.6  | 23.3  | 22.0  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 28.7  | 27.5  | 26.5  | 25.5  | 24.6  | 23.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 28.2  | 26.7  | 25.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 29.0  | 29.0  | 28.6  | 28.1  | 27.7  | 27.3  | 26.5  | 25.8  | 25.1  | 24.4  | 23.8  | 23.2  | 22.6  | 22.1  | 21.3  | 20  |
| 2   | 28.9  | 28.6  | 28.0  | 27.4  | 26.9  | 26.3  | 25.3  | 24.4  | 23.5  | 22.7  | 21.9  | 21.2  | 20.5  | 19.9  | 19.0  |     |
| 3   | 28.9  | 28.4  | 27.6  | 26.9  | 26.3  | 25.6  | 24.5  | 23.4  | 22.4  | 21.5  | 20.7  | 19.9  | 19.2  | 18.5  | 17.6  |     |
| 4   | 28.9  | 28.1  | 27.3  | 26.5  | 25.8  | 25.1  | 23.8  | 22.6  | 21.6  | 20.6  | 19.7  | 18.9  | 18.2  | 17.5  | 16.6  |     |
| 5   | 28.9  | 27.9  | 27.0  | 26.2  | 25.4  | 24.6  | 23.2  | 22.0  | 20.9  | 19.9  | 19.0  | 18.1  | 17.4  | -     | -     |     |
| 10  | 28.5  | 27.2  | 26.0  | 24.9  | 23.9  | 22.9  | 21.3  | 19.8  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 28.2  | 26.6  | 25.2  | 24.0  | 22.8  | 21.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 27.5  | 25.5  | 23.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 28.9  | 28.6  | 28.0  | 27.4  | 26.9  | 26.3  | 25.3  | 24.4  | 23.5  | 22.7  | 21.9  | 21.2  | 20.5  | 19.9  | 18.2  | 40  |
| 2   | 28.9  | 28.1  | 27.3  | 26.5  | 25.8  | 25.1  | 23.8  | 22.6  | 21.6  | 20.6  | 19.7  | 18.9  | 18.2  | 17.5  | 16.5  |     |
| 3   | 28.8  | 27.7  | 26.8  | 25.8  | 25.0  | 24.2  | 22.7  | 21.4  | 20.3  | 19.2  | 18.3  | 17.5  | 16.7  | 16.0  | 15.0  |     |
| 4   | 28.6  | 27.4  | 26.3  | 25.3  | 24.4  | 23.5  | 21.9  | 20.5  | 19.3  | 18.2  | 17.3  | 16.4  | 15.6  | 14.9  | 14.0  |     |
| 5   | 28.5  | 27.2  | 26.0  | 24.9  | 23.8  | 22.9  | 21.2  | 19.8  | 18.5  | 17.4  | 16.5  | 15.6  | 14.8  | -     | -     |     |
| 10  | 27.9  | 26.2  | 24.6  | 23.2  | 22.0  | 20.9  | 19.0  | 17.4  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 27.5  | 25.4  | 23.7  | 22.1  | 20.8  | 19.6  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 26.6  | 24.0  | 21.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 28.9  | 28.4  | 27.6  | 26.9  | 26.3  | 25.6  | 24.5  | 23.4  | 22.4  | 21.5  | 20.1  | 17.8  | 16.1  | 14.6  | 12.8  | 60  |
| 2   | 28.8  | 27.7  | 26.8  | 25.8  | 25.0  | 24.2  | 22.7  | 21.4  | 20.3  | 19.2  | 18.3  | 16.3  | 14.7  | 13.4  | 11.8  |     |
| 3   | 28.6  | 27.3  | 26.1  | 25.1  | 24.1  | 23.2  | 21.6  | 20.1  | 18.9  | 17.8  | 16.8  | 15.8  | 14.2  | 12.9  | 11.4  |     |
| 4   | 28.4  | 26.9  | 25.6  | 24.5  | 23.4  | 22.4  | 20.7  | 19.2  | 17.9  | 16.8  | 15.8  | 14.9  | 14.0  | 12.7  | 11.2  |     |
| 5   | 28.2  | 26.6  | 25.2  | 23.9  | 22.8  | 21.8  | 19.9  | 18.4  | 17.1  | 15.9  | 14.9  | 14.1  | 13.3  | -     | -     |     |
| 10  | 27.5  | 25.4  | 23.7  | 22.1  | 20.7  | 19.5  | 17.5  | 15.9  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 27.0  | 24.6  | 22.6  | 20.9  | 19.4  | 18.1  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 26.0  | 22.9  | 20.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 28.9  | 28.1  | 27.3  | 26.5  | 25.8  | 25.1  | 23.8  | 22.6  | 21.2  | 18.2  | 15.9  | 14.1  | 12.7  | 11.6  | 10.2  | 80  |
| 2   | 28.6  | 27.4  | 26.3  | 25.3  | 24.4  | 23.5  | 21.9  | 20.5  | 18.9  | 16.2  | 14.2  | 12.6  | 11.4  | 10.3  | 9.1   |     |
| 3   | 28.4  | 26.9  | 25.6  | 24.5  | 23.4  | 22.4  | 20.7  | 19.2  | 17.9  | 15.6  | 13.6  | 12.1  | 10.9  | 9.9   | 8.7   |     |
| 4   | 28.1  | 26.5  | 25.1  | 23.8  | 22.6  | 21.6  | 19.7  | 18.2  | 16.8  | 15.3  | 13.3  | 11.9  | 10.7  | 9.7   | 8.5   |     |
| 5   | 27.9  | 26.2  | 24.6  | 23.2  | 22.0  | 20.9  | 19.0  | 17.4  | 16.0  | 14.9  | 13.2  | 11.7  | 10.5  | -     | -     |     |
| 10  | 27.2  | 24.9  | 22.9  | 21.2  | 19.8  | 18.5  | 16.5  | 14.8  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 26.6  | 23.9  | 21.8  | 19.9  | 18.4  | 17.1  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 25.4  | 22.1  | 19.6  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 28.9  | 27.9  | 27.0  | 26.2  | 25.4  | 24.6  | 23.2  | 21.5  | 17.9  | 15.3  | 13.4  | 11.9  | 10.7  | 9.8   | 8.6   | 100 |
| 2   | 28.5  | 27.2  | 26.0  | 24.9  | 23.8  | 22.9  | 21.2  | 18.7  | 15.6  | 13.4  | 11.7  | 10.4  | 9.4   | 8.5   | 7.5   |     |
| 3   | 28.2  | 26.6  | 25.2  | 23.9  | 22.8  | 21.8  | 19.9  | 17.8  | 14.8  | 12.7  | 11.1  | 9.9   | 8.9   | 8.1   | 7.1   |     |
| 4   | 27.9  | 26.2  | 24.6  | 23.2  | 22.0  | 20.9  | 19.0  | 17.4  | 14.5  | 12.4  | 10.8  | 9.6   | 8.7   | 7.9   | 6.9   |     |
| 5   | 27.7  | 25.8  | 24.1  | 22.6  | 21.3  | 20.1  | 18.2  | 16.5  | 14.2  | 12.2  | 10.7  | 9.5   | 8.5   | -     | -     |     |
| 10  | 26.9  | 24.4  | 22.3  | 20.5  | 19.0  | 17.7  | 15.6  | 14.0  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 26.3  | 23.4  | 21.1  | 19.2  | 17.6  | 16.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 25.0  | 21.5  | 18.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 28.7  | 27.5  | 26.4  | 25.4  | 24.5  | 23.6  | 20.2  | 16.1  | 13.4  | 11.5  | 10.1  | 9.0   | 8.1   | 7.3   | 6.5   | 150 |
| 2   | 28.2  | 26.6  | 25.2  | 23.9  | 22.8  | 21.8  | 16.7  | 13.4  | 11.2  | 9.6   | 8.4   | 7.4   | 6.7   | 6.1   | 5.4   |     |
| 3   | 27.8  | 26.0  | 24.3  | 22.9  | 21.6  | 20.5  | 15.6  | 12.5  | 10.4  | 8.9   | 7.8   | 6.9   | 6.2   | 5.7   | 5.0   |     |
| 4   | 27.5  | 25.4  | 23.6  | 22.1  | 20.7  | 19.5  | 15.0  | 12.0  | 10.0  | 8.6   | 7.5   | 6.7   | 6.0   | 5.5   | 4.8   |     |
| 5   | 27.2  | 25.0  | 23.1  | 21.4  | 20.0  | 18.8  | 14.7  | 11.8  | 9.8   | 8.4   | 7.3   | 6.5   | 5.9   | -     | -     |     |
| 10  | 26.3  | 23.4  | 21.1  | 19.2  | 17.6  | 16.3  | 14.0  | 11.2  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 25.6  | 22.3  | 19.8  | 17.7  | 16.1  | 14.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 24.1  | 20.2  | 17.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 28.2  | 26.6  | 25.2  | 23.9  | 21.6  | 18.0  | 13.5  | 10.8  | 9.0   | 7.7   | 6.8   | 6.0   | 5.4   | 4.9   | 4.3   | 300 |
| 2   | 27.5  | 25.4  | 23.6  | 20.2  | 16.1  | 13.4  | 10.1  | 8.1   | 6.7   | 5.8   | 5.0   | 4.5   | 4.0   | 3.7   | 3.2   |     |
| 3   | 27.0  | 24.6  | 22.6  | 17.9  | 14.3  | 11.9  | 8.9   | 7.2   | 6.0   | 5.1   | 4.5   | 4.0   | 3.6   | 3.3   | 2.9   |     |
| 4   | 26.6  | 23.9  | 21.8  | 16.7  | 13.4  | 11.2  | 8.4   | 6.7   | 5.6   | 4.8   | 4.2   | 3.7   | 3.3   | 3.0   | 2.7   |     |
| 5   | 26.3  | 23.4  | 21.1  | 16.1  | 12.8  | 10.7  | 8.0   | 6.4   | 5.4   | 4.6   | 4.0   | 3.6   | 3.2   | -     | -     |     |
| 10  | 25.0  | 21.4  | 18.8  | 14.7  | 11.8  | 9.8   | 7.3   | 5.9   | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 24.1  | 20.1  | 17.3  | 14.2  | 11.4  | 9.5   | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 22.3  | 17.7  | 14.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |



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

▣ 1.0 - 3 ~ - 3000 min<sup>-1</sup>

| Potenza ammessa sul tubo in kW, per serie di n esposizioni, con frequenza z e durata di ogni esposizione in sec<br>Anode input power as a function of n (N° of exposures in series), z (exp. rate per sec), the exposure time (sec)<br>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   | 19.0  | 19.0  | 18.6  | 18.4  | 18.2  | 18.1  | 17.8  | 17.6  | 17.4  | 17.3  | 17.1  | 17.0  | 16.8  | 16.5  | 16.2  | 5   |
| 2   | 18.9  | 18.9  | 18.6  | 18.4  | 18.2  | 18.1  | 17.8  | 17.4  | 17.1  | 16.8  | 16.5  | 16.2  | 15.9  | 15.6  | 15.2  |     |
| 3   | 18.8  | 18.8  | 18.6  | 18.3  | 18.1  | 17.9  | 17.5  | 17.1  | 16.7  | 16.3  | 16.0  | 15.6  | 15.3  | 15.0  | 14.6  |     |
| 4   | 18.7  | 18.7  | 18.5  | 18.2  | 17.9  | 17.7  | 17.2  | 16.8  | 16.3  | 15.9  | 15.6  | 15.2  | 14.8  | 14.5  | 14.0  |     |
| 5   | 18.7  | 18.7  | 18.4  | 18.1  | 17.8  | 17.5  | 17.0  | 16.5  | 16.1  | 15.6  | -     | -     | -     | -     | -     |     |
| 10  | 18.6  | 18.4  | 18.0  | 17.6  | 17.3  | 16.9  | 16.2  | 15.6  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 18.6  | 18.2  | 17.8  | 17.3  | 16.9  | 16.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 18.6  | 17.9  | 17.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 18.9  | 18.9  | 18.6  | 18.4  | 18.2  | 18.1  | 17.8  | 17.4  | 17.1  | 16.8  | 16.5  | 16.2  | 15.9  | 15.6  | 15.2  | 10  |
| 2   | 18.7  | 18.7  | 18.4  | 18.2  | 17.9  | 17.7  | 17.2  | 16.8  | 16.3  | 15.9  | 15.5  | 15.2  | 14.8  | 14.5  | 14.0  |     |
| 3   | 18.6  | 18.6  | 18.3  | 18.0  | 17.7  | 17.4  | 16.8  | 16.3  | 15.8  | 15.3  | 14.9  | 14.5  | 14.1  | 13.7  | 13.2  |     |
| 4   | 18.6  | 18.5  | 18.1  | 17.8  | 17.4  | 17.1  | 16.5  | 15.9  | 15.4  | 14.9  | 14.4  | 13.9  | 13.5  | 13.1  | 12.6  |     |
| 5   | 18.6  | 18.4  | 18.0  | 17.6  | 17.2  | 16.9  | 16.2  | 15.6  | 15.0  | 14.5  | 14.0  | 13.5  | 13.1  | -     | -     |     |
| 10  | 18.6  | 18.1  | 17.5  | 17.0  | 16.5  | 16.1  | 15.2  | 14.5  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 18.5  | 17.8  | 17.2  | 16.6  | 16.0  | 15.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 18.2  | 17.3  | 16.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 18.7  | 18.7  | 18.4  | 18.2  | 17.9  | 17.7  | 17.2  | 16.8  | 16.3  | 15.9  | 15.5  | 15.2  | 14.8  | 14.5  | 14.0  | 20  |
| 2   | 18.6  | 18.5  | 18.1  | 17.8  | 17.4  | 17.1  | 16.5  | 15.9  | 15.4  | 14.8  | 14.4  | 13.9  | 13.5  | 13.1  | 12.6  |     |
| 3   | 18.6  | 18.3  | 17.9  | 17.5  | 17.1  | 16.7  | 16.0  | 15.3  | 14.7  | 14.1  | 13.6  | 13.1  | 12.7  | 12.3  | 11.7  |     |
| 4   | 18.6  | 18.2  | 17.7  | 17.2  | 16.8  | 16.3  | 15.5  | 14.8  | 14.2  | 13.6  | 13.0  | 12.5  | 12.0  | 11.6  | 11.0  |     |
| 5   | 18.6  | 18.1  | 17.5  | 17.0  | 16.5  | 16.0  | 15.2  | 14.4  | 13.7  | 13.1  | 12.5  | 12.0  | 11.5  | -     | -     |     |
| 10  | 18.4  | 17.6  | 16.9  | 16.2  | 15.6  | 15.0  | 14.0  | 13.1  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 18.2  | 17.3  | 16.4  | 15.7  | 14.9  | 14.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 17.8  | 16.6  | 15.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 18.6  | 18.5  | 18.1  | 17.8  | 17.4  | 17.1  | 16.5  | 15.9  | 15.4  | 14.8  | 14.4  | 13.9  | 13.5  | 13.1  | 12.6  | 40  |
| 2   | 18.6  | 18.2  | 17.7  | 17.2  | 16.8  | 16.3  | 15.5  | 14.8  | 14.2  | 13.6  | 13.0  | 12.5  | 12.0  | 11.6  | 11.0  |     |
| 3   | 18.6  | 18.0  | 17.4  | 16.8  | 16.3  | 15.8  | 14.9  | 14.1  | 13.4  | 12.7  | 12.1  | 11.6  | 11.1  | 10.6  | 10.0  |     |
| 4   | 18.5  | 17.8  | 17.1  | 16.5  | 15.9  | 15.4  | 14.4  | 13.5  | 12.8  | 12.1  | 11.5  | 10.9  | 10.4  | 10.0  | 9.3   |     |
| 5   | 18.4  | 17.6  | 16.9  | 16.2  | 15.6  | 15.0  | 14.0  | 13.1  | 12.3  | 11.6  | 10.9  | 10.4  | 9.9   | -     | -     |     |
| 10  | 18.1  | 17.0  | 16.0  | 15.2  | 14.4  | 13.7  | 12.5  | 11.5  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 17.8  | 16.6  | 15.5  | 14.5  | 13.7  | 12.9  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 17.3  | 15.7  | 14.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 18.6  | 18.3  | 17.9  | 17.5  | 17.1  | 16.7  | 15.9  | 15.3  | 14.7  | 14.1  | 13.6  | 13.1  | 12.7  | 12.2  | 11.7  | 60  |
| 2   | 18.6  | 18.0  | 17.4  | 16.8  | 16.3  | 15.8  | 14.9  | 14.1  | 13.4  | 12.7  | 12.1  | 11.6  | 11.1  | 10.6  | 10.0  |     |
| 3   | 18.4  | 17.7  | 17.0  | 16.3  | 15.7  | 15.2  | 14.2  | 13.3  | 12.5  | 11.8  | 11.2  | 10.6  | 10.1  | 9.7   | 9.0   |     |
| 4   | 18.3  | 17.5  | 16.7  | 15.9  | 15.3  | 14.7  | 13.6  | 12.7  | 11.9  | 11.1  | 10.5  | 9.9   | 9.4   | 9.0   | 8.4   |     |
| 5   | 18.2  | 17.3  | 16.4  | 15.6  | 14.9  | 14.3  | 13.1  | 12.2  | 11.3  | 10.6  | 10.0  | 9.4   | 8.9   | -     | -     |     |
| 10  | 17.8  | 16.5  | 15.5  | 14.5  | 13.7  | 12.9  | 11.6  | 10.6  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 17.5  | 16.0  | 14.8  | 13.7  | 12.8  | 12.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 16.9  | 15.0  | 13.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 18.6  | 18.2  | 17.7  | 17.2  | 16.8  | 16.3  | 15.5  | 14.8  | 14.2  | 13.6  | 13.0  | 12.5  | 12.0  | 11.6  | 10.2  | 80  |
| 2   | 18.5  | 17.8  | 17.1  | 16.5  | 15.9  | 15.4  | 14.4  | 13.5  | 12.8  | 12.1  | 11.5  | 10.9  | 10.4  | 9.9   | 9.1   |     |
| 3   | 18.3  | 17.5  | 16.7  | 15.9  | 15.3  | 14.7  | 13.6  | 12.7  | 11.9  | 11.1  | 10.5  | 9.9   | 9.4   | 9.0   | 8.4   |     |
| 4   | 18.2  | 17.2  | 16.3  | 15.5  | 14.8  | 14.2  | 13.0  | 12.0  | 11.2  | 10.5  | 9.8   | 9.2   | 8.7   | 8.3   | 7.7   |     |
| 5   | 18.1  | 17.0  | 16.0  | 15.2  | 14.4  | 13.7  | 12.5  | 11.5  | 10.7  | 9.9   | 9.3   | 8.7   | 8.2   | -     | -     |     |
| 10  | 17.6  | 16.2  | 15.0  | 14.0  | 13.1  | 12.3  | 10.9  | 9.9   | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 17.3  | 15.6  | 14.3  | 13.1  | 12.2  | 11.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 16.6  | 14.5  | 12.9  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 18.6  | 18.1  | 17.5  | 17.0  | 16.5  | 16.0  | 15.2  | 14.4  | 13.7  | 13.1  | 12.5  | 11.9  | 10.7  | 9.8   | 8.6   | 100 |
| 2   | 18.4  | 17.6  | 16.9  | 16.2  | 15.6  | 15.0  | 14.0  | 13.1  | 12.3  | 11.6  | 10.9  | 10.4  | 9.4   | 8.5   | 7.5   |     |
| 3   | 18.2  | 17.3  | 16.4  | 15.6  | 14.9  | 14.3  | 13.1  | 12.2  | 11.3  | 10.6  | 10.0  | 9.4   | 8.9   | 8.1   | 7.1   |     |
| 4   | 18.1  | 17.0  | 16.0  | 15.2  | 14.4  | 13.7  | 12.5  | 11.5  | 10.7  | 9.9   | 9.3   | 8.7   | 8.2   | 7.8   | 6.9   |     |
| 5   | 17.9  | 16.8  | 15.7  | 14.8  | 14.0  | 13.3  | 12.0  | 11.0  | 10.1  | 9.4   | 8.7   | 8.2   | 7.7   | -     | -     |     |
| 10  | 17.4  | 15.9  | 14.6  | 13.5  | 12.6  | 11.8  | 10.4  | 9.3   | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 17.1  | 15.3  | 13.9  | 12.7  | 11.7  | 10.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 16.3  | 14.1  | 12.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 18.5  | 17.8  | 17.2  | 16.5  | 16.0  | 15.5  | 14.5  | 13.6  | 12.9  | 11.5  | 10.1  | 9.0   | 8.1   | 7.3   | 6.5   | 150 |
| 2   | 18.2  | 17.3  | 16.4  | 15.6  | 14.9  | 14.3  | 13.1  | 12.2  | 11.2  | 10.4  | 9.6   | 8.4   | 7.4   | 6.7   | 5.4   |     |
| 3   | 18.0  | 16.9  | 15.9  | 15.0  | 14.2  | 13.5  | 12.3  | 11.2  | 10.4  | 8.9   | 7.8   | 6.9   | 6.2   | 5.7   | 5.0   |     |
| 4   | 17.8  | 16.5  | 15.5  | 14.5  | 13.6  | 12.9  | 11.6  | 10.6  | 9.7   | 8.6   | 7.5   | 6.7   | 6.0   | 5.5   | 4.8   |     |
| 5   | 17.6  | 16.3  | 15.1  | 14.1  | 13.2  | 12.4  | 11.1  | 10.0  | 9.1   | 8.4   | 7.3   | 6.5   | 5.9   | -     | -     |     |
| 10  | 17.1  | 15.3  | 13.9  | 12.7  | 11.7  | 10.8  | 9.4   | 8.4   | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 16.6  | 14.6  | 13.0  | 11.8  | 10.7  | 9.8   | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 15.7  | 13.3  | 11.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 18.2  | 17.3  | 16.4  | 15.6  | 14.9  | 14.3  | 13.1  | 10.8  | 9.0   | 7.7   | 6.8   | 6.0   | 5.4   | 4.9   | 4.3   | 300 |
| 2   | 17.8  | 16.5  | 15.5  | 14.5  | 13.6  | 12.9  | 10.1  | 8.1   | 6.7   | 5.8   | 5.0   | 4.5   | 4.0   | 3.7   | 3.2   |     |
| 3   | 17.5  | 16.0  | 14.8  | 13.7  | 12.8  | 11.9  | 8.9   | 7.2   | 6.0   | 5.1   | 4.5   | 4.0   | 3.6   | 3.3   | 2.9   |     |
| 4   | 17.3  | 15.6  | 14.3  | 13.1  | 12.2  | 11.2  | 8.4   | 6.7   | 5.6   | 4.8   | 4.2   | 3.7   | 3.3   | 3.0   | 2.7   |     |
| 5   | 17.1  | 15.3  | 13.9  | 12.7  | 11.7  | 10.7  | 8.0   | 6.4   | 5.4   | 4.6   | 4.0   | 3.6   | 3.2   | -     | -     |     |
| 10  | 16.3  | 14.1  | 12.4  | 11.1  | 10.0  | 9.1   | 7.3   | 5.9   | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 15.7  | 13.3  | 11.5  | 10.1  | 9.0   | 8.2   | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 14.6  | 11.8  | 9.8   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |



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

■ 2.0 - 3 ~ - 3000 min<sup>-1</sup>

| 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 série), 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   | 35.3  | 35.3  | 34.4  | 33.9  | 33.4  | 33.1  | 32.5  | 32.0  | 31.6  | 31.2  | 30.9  | 30.6  | 30.1  | 29.6  | 28.9  | 5   |
| 2   | 35.0  | 35.0  | 34.4  | 33.9  | 33.4  | 33.1  | 32.4  | 31.6  | 30.9  | 30.2  | 29.5  | 28.8  | 28.2  | 27.6  | 26.8  |     |
| 3   | 34.8  | 34.8  | 34.2  | 33.7  | 33.2  | 32.7  | 31.7  | 30.8  | 29.9  | 29.1  | 28.3  | 27.6  | 26.9  | 26.3  | 25.3  |     |
| 4   | 34.6  | 34.6  | 34.0  | 33.4  | 32.8  | 32.2  | 31.1  | 30.1  | 29.2  | 28.3  | 27.5  | 26.7  | 25.9  | 25.2  | 24.2  |     |
| 5   | 34.5  | 34.5  | 33.8  | 33.1  | 32.4  | 31.8  | 30.7  | 29.6  | 28.6  | 27.6  | 26.7  | 25.9  | 25.1  | -     | -     |     |
| 10  | 34.4  | 33.9  | 33.0  | 32.1  | 31.2  | 30.4  | 29.0  | 27.6  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 34.4  | 33.5  | 32.4  | 31.4  | 30.4  | 29.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 34.2  | 32.7  | 31.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 35.0  | 35.0  | 34.4  | 33.9  | 33.4  | 33.1  | 32.4  | 31.6  | 30.8  | 30.1  | 29.5  | 28.8  | 28.2  | 27.6  | 26.7  | 10  |
| 2   | 34.6  | 34.6  | 34.0  | 33.3  | 32.8  | 32.2  | 31.1  | 30.1  | 29.1  | 28.3  | 27.4  | 26.6  | 25.9  | 25.2  | 24.2  |     |
| 3   | 34.4  | 34.3  | 33.5  | 32.8  | 32.1  | 31.5  | 30.2  | 29.0  | 28.0  | 27.0  | 26.0  | 25.2  | 24.4  | 23.6  | 22.5  |     |
| 4   | 34.4  | 34.1  | 33.2  | 32.4  | 31.6  | 30.9  | 29.5  | 28.2  | 27.0  | 26.0  | 25.0  | 24.1  | 23.2  | 22.4  | 21.3  |     |
| 5   | 34.4  | 33.9  | 32.9  | 32.0  | 31.2  | 30.4  | 28.9  | 27.5  | 26.3  | 25.2  | 24.1  | 23.2  | 22.3  | -     | -     |     |
| 10  | 34.4  | 33.1  | 31.8  | 30.7  | 29.6  | 28.6  | 26.7  | 25.1  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 34.1  | 32.5  | 31.0  | 29.7  | 28.5  | 27.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 33.5  | 31.4  | 29.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 34.6  | 34.6  | 34.0  | 33.3  | 32.8  | 32.2  | 31.1  | 30.1  | 29.1  | 28.2  | 27.4  | 26.6  | 25.9  | 25.2  | 24.2  | 20  |
| 2   | 34.4  | 34.1  | 33.2  | 32.4  | 31.6  | 30.8  | 29.5  | 28.2  | 27.0  | 25.9  | 25.0  | 24.0  | 23.2  | 22.4  | 21.3  |     |
| 3   | 34.4  | 33.7  | 32.6  | 31.7  | 30.8  | 29.9  | 28.3  | 26.9  | 25.6  | 24.4  | 23.4  | 22.4  | 21.5  | 20.6  | 19.5  |     |
| 4   | 34.4  | 33.3  | 32.2  | 31.1  | 30.1  | 29.1  | 27.4  | 25.9  | 24.5  | 23.3  | 22.2  | 21.1  | 20.2  | 19.4  | 18.2  |     |
| 5   | 34.4  | 33.1  | 31.8  | 30.6  | 29.5  | 28.5  | 26.7  | 25.1  | 23.6  | 22.4  | 21.2  | 20.2  | 19.2  | -     | -     |     |
| 10  | 33.9  | 32.0  | 30.4  | 28.9  | 27.5  | 26.3  | 24.1  | 22.3  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 33.4  | 31.3  | 29.4  | 27.7  | 26.2  | 24.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 32.5  | 29.7  | 27.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 34.4  | 34.1  | 33.2  | 32.4  | 31.6  | 30.8  | 29.5  | 28.2  | 27.0  | 25.9  | 25.0  | 24.0  | 22.7  | 20.7  | 18.2  | 40  |
| 2   | 34.4  | 33.3  | 32.2  | 31.1  | 30.1  | 29.1  | 27.4  | 25.9  | 24.5  | 23.3  | 22.1  | 21.1  | 20.2  | 19.4  | 17.1  |     |
| 3   | 34.3  | 32.8  | 31.4  | 30.2  | 29.0  | 27.9  | 26.0  | 24.3  | 22.9  | 21.6  | 20.4  | 19.3  | 18.4  | 17.5  | 16.4  |     |
| 4   | 34.1  | 32.4  | 30.8  | 29.5  | 28.2  | 27.0  | 25.0  | 23.2  | 21.6  | 20.3  | 19.1  | 18.1  | 17.1  | 16.3  | 15.1  |     |
| 5   | 33.9  | 32.0  | 30.3  | 28.8  | 27.5  | 26.3  | 24.1  | 22.3  | 20.7  | 19.3  | 18.1  | 17.1  | 16.1  | -     | -     |     |
| 10  | 33.1  | 30.6  | 28.5  | 26.7  | 25.1  | 23.6  | 21.2  | 19.2  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 32.5  | 29.6  | 27.3  | 25.2  | 23.5  | 22.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 31.3  | 27.7  | 24.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 34.4  | 33.7  | 32.6  | 31.7  | 30.8  | 29.9  | 28.3  | 26.9  | 25.6  | 22.9  | 20.1  | 17.8  | 16.1  | 14.6  | 12.8  | 60  |
| 2   | 34.3  | 32.8  | 31.4  | 30.2  | 29.0  | 27.9  | 26.0  | 24.3  | 22.9  | 21.0  | 18.4  | 16.3  | 14.7  | 13.4  | 11.8  |     |
| 3   | 34.0  | 32.2  | 30.6  | 29.1  | 27.8  | 26.6  | 24.5  | 22.7  | 21.1  | 19.8  | 17.8  | 15.8  | 14.2  | 12.9  | 11.4  |     |
| 4   | 33.7  | 31.7  | 29.9  | 28.3  | 26.9  | 25.6  | 23.4  | 21.5  | 19.9  | 18.5  | 17.3  | 15.6  | 14.0  | 12.7  | 11.2  |     |
| 5   | 33.4  | 31.2  | 29.3  | 27.6  | 26.1  | 24.8  | 22.4  | 20.5  | 18.9  | 17.5  | 16.3  | 15.3  | 13.9  | -     | -     |     |
| 10  | 32.5  | 29.6  | 27.2  | 25.2  | 23.5  | 21.9  | 19.4  | 17.4  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 31.8  | 28.5  | 25.8  | 23.6  | 21.8  | 20.2  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 30.4  | 26.3  | 23.2  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 34.4  | 33.3  | 32.2  | 31.1  | 30.1  | 29.1  | 27.4  | 25.5  | 21.2  | 18.2  | 15.9  | 14.1  | 12.7  | 11.6  | 10.2  | 80  |
| 2   | 34.1  | 32.4  | 30.8  | 29.5  | 28.2  | 27.0  | 25.0  | 22.7  | 18.9  | 16.2  | 14.2  | 12.6  | 11.4  | 10.3  | 9.1   |     |
| 3   | 33.7  | 31.7  | 29.9  | 28.3  | 26.9  | 25.6  | 23.3  | 21.5  | 18.2  | 15.6  | 13.6  | 12.1  | 10.9  | 9.9   | 8.7   |     |
| 4   | 33.3  | 31.1  | 29.1  | 27.4  | 25.9  | 24.5  | 22.1  | 20.2  | 17.8  | 15.3  | 13.3  | 11.9  | 10.7  | 9.7   | 8.5   |     |
| 5   | 33.1  | 30.6  | 28.5  | 26.7  | 25.0  | 23.6  | 21.2  | 19.2  | 17.6  | 15.1  | 13.2  | 11.7  | 10.5  | -     | -     |     |
| 10  | 32.0  | 28.8  | 26.3  | 24.1  | 22.3  | 20.7  | 18.1  | 16.1  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 31.2  | 27.6  | 24.8  | 22.4  | 20.5  | 18.9  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 29.6  | 25.2  | 22.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 34.4  | 33.1  | 31.8  | 30.6  | 29.5  | 28.5  | 26.7  | 21.5  | 17.9  | 15.3  | 13.4  | 11.9  | 10.7  | 9.8   | 8.6   | 100 |
| 2   | 33.9  | 32.0  | 30.3  | 28.8  | 27.5  | 26.2  | 23.4  | 18.7  | 15.6  | 13.4  | 11.7  | 10.4  | 9.4   | 8.5   | 7.5   |     |
| 3   | 33.4  | 31.2  | 29.3  | 27.6  | 26.1  | 24.7  | 22.3  | 17.8  | 14.8  | 12.7  | 11.1  | 9.9   | 8.9   | 8.1   | 7.1   |     |
| 4   | 33.1  | 30.6  | 28.5  | 26.7  | 25.0  | 23.6  | 21.2  | 17.4  | 14.5  | 12.4  | 10.8  | 9.6   | 8.7   | 7.9   | 6.9   |     |
| 5   | 32.8  | 30.1  | 27.8  | 25.9  | 24.2  | 22.7  | 20.2  | 17.1  | 14.2  | 12.2  | 10.7  | 9.5   | 8.5   | -     | -     |     |
| 10  | 31.6  | 28.2  | 25.4  | 23.2  | 21.3  | 19.7  | 17.1  | 15.1  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 30.8  | 26.9  | 23.9  | 21.5  | 19.5  | 17.9  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 29.0  | 24.4  | 21.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 34.1  | 32.5  | 31.0  | 29.6  | 28.4  | 26.9  | 20.2  | 16.1  | 13.4  | 11.5  | 10.1  | 9.0   | 8.1   | 7.3   | 6.5   | 150 |
| 2   | 33.4  | 31.2  | 29.3  | 27.6  | 26.1  | 22.3  | 16.7  | 13.4  | 11.2  | 9.6   | 8.4   | 7.4   | 6.7   | 6.1   | 5.4   |     |
| 3   | 32.9  | 30.3  | 28.1  | 26.2  | 24.6  | 20.8  | 15.6  | 12.5  | 10.4  | 8.9   | 7.8   | 6.9   | 6.2   | 5.7   | 5.0   |     |
| 4   | 32.5  | 29.6  | 27.2  | 25.2  | 23.4  | 20.0  | 15.0  | 12.0  | 10.0  | 8.6   | 7.5   | 6.7   | 6.0   | 5.5   | 4.8   |     |
| 5   | 32.1  | 29.0  | 26.5  | 24.3  | 22.5  | 19.6  | 14.7  | 11.8  | 9.8   | 8.4   | 7.3   | 6.5   | 5.9   | -     | -     |     |
| 10  | 30.8  | 26.9  | 23.9  | 21.5  | 19.5  | 17.9  | 14.0  | 11.2  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 29.8  | 25.4  | 22.2  | 19.7  | 17.7  | 16.1  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 27.8  | 22.7  | 19.2  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 33.4  | 31.2  | 29.3  | 27.0  | 21.6  | 18.0  | 13.5  | 10.8  | 9.0   | 7.7   | 6.8   | 6.0   | 5.4   | 4.9   | 4.3   | 300 |
| 2   | 32.5  | 29.6  | 26.9  | 20.2  | 16.1  | 13.4  | 10.1  | 8.1   | 6.7   | 5.8   | 5.0   | 4.5   | 4.0   | 3.7   | 3.2   |     |
| 3   | 31.8  | 28.5  | 23.8  | 17.9  | 14.3  | 11.9  | 8.9   | 7.2   | 6.0   | 5.1   | 4.5   | 4.0   | 3.6   | 3.3   | 2.9   |     |
| 4   | 31.2  | 27.6  | 22.3  | 16.7  | 13.4  | 11.2  | 8.4   | 6.7   | 5.6   | 4.8   | 4.2   | 3.7   | 3.3   | 3.0   | 2.7   |     |
| 5   | 30.8  | 26.9  | 21.4  | 16.1  | 12.8  | 10.7  | 8.0   | 6.4   | 5.4   | 4.6   | 4.0   | 3.6   | 3.2   | -     | -     |     |
| 10  | 29.0  | 24.3  | 19.6  | 14.7  | 11.8  | 9.8   | 7.3   | 5.9   | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 27.8  | 22.7  | 19.0  | 14.2  | 11.4  | 9.5   | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 25.4  | 19.7  | 16.1  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |



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

▣ 1.0 - 1 ~ - 10000 min<sup>-1</sup>

| Potenza ammessa sul tubo in kW, per serie di n esposizioni, con frequenza z e durata di ogni esposizione in sec<br>Anode input power as a function of n (N° of exposures in series), z (exp. rate per sec), the exposure time (sec)<br>Puissance admissible en fonction de n (N° d'exp. de la série), 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  | 28.4  | 27.6  | 27.2  | 26.8  | 26.5  | 26.2  | 25.7  | 25.3  | 25.0  | 24.7  | 24.4  | 24.2  | 23.9  | 23.4  | 22.8  | 5   |
| 2  | 28.4  | 27.6  | 27.2  | 26.8  | 26.5  | 26.2  | 25.7  | 25.2  | 24.5  | 23.9  | 23.3  | 22.7  | 22.1  | 21.6  | 20.9  |     |
| 3  | 28.4  | 27.6  | 27.2  | 26.8  | 26.5  | 26.2  | 25.3  | 24.5  | 23.7  | 23.0  | 22.3  | 21.6  | 21.0  | 20.4  | 19.6  |     |
| 4  | 28.4  | 27.6  | 27.2  | 26.8  | 26.3  | 25.8  | 24.8  | 23.9  | 23.0  | 22.2  | 21.5  | 20.8  | 20.1  | 19.5  | 18.7  |     |
| 5  | 28.4  | 27.6  | 27.2  | 26.6  | 26.0  | 25.4  | 24.3  | 23.4  | 22.4  | 21.6  | 20.8  | 20.1  | 19.4  | -     | -     |     |
| 10   | 28.3  | 27.3  | 26.5  | 25.6  | 24.8  | 24.1  | 22.8  | 21.6  | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 28.1  | 26.9  | 25.9  | 24.9  | 24.0  | 23.2  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 27.6  | 26.1  | 24.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 28.4  | 27.6  | 27.2  | 26.8  | 26.5  | 26.2  | 25.7  | 25.2  | 24.5  | 23.9  | 23.3  | 22.7  | 22.1  | 21.6  | 20.9  | 10  |
| 2  | 28.4  | 27.6  | 27.2  | 26.8  | 26.3  | 25.8  | 24.8  | 23.9  | 23.0  | 22.2  | 21.5  | 20.8  | 20.1  | 19.5  | 18.6  |     |
| 3  | 28.4  | 27.6  | 27.0  | 26.4  | 25.7  | 25.1  | 23.9  | 22.9  | 21.9  | 21.0  | 20.2  | 19.5  | 18.8  | 18.1  | 17.2  |     |
| 4  | 28.4  | 27.5  | 26.7  | 26.0  | 25.2  | 24.5  | 23.3  | 22.1  | 21.1  | 20.2  | 19.3  | 18.5  | 17.8  | 17.1  | 16.2  |     |
| 5  | 28.3  | 27.3  | 26.4  | 25.6  | 24.8  | 24.1  | 22.7  | 21.5  | 20.4  | 19.5  | 18.6  | 17.8  | 17.0  | -     | -     |     |
| 10   | 27.9  | 26.6  | 25.4  | 24.3  | 23.4  | 22.4  | 20.8  | 19.4  | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 27.6  | 26.1  | 24.7  | 23.5  | 22.3  | 21.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 26.9  | 24.9  | 23.2  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 28.4  | 27.6  | 27.2  | 26.8  | 26.3  | 25.8  | 24.8  | 23.9  | 23.0  | 22.2  | 21.4  | 20.8  | 20.1  | 19.5  | 18.6  | 20  |
| 2  | 28.4  | 27.5  | 26.7  | 26.0  | 25.2  | 24.5  | 23.3  | 22.1  | 21.1  | 20.2  | 19.3  | 18.5  | 17.8  | 17.1  | 16.2  |     |
| 3  | 28.2  | 27.2  | 26.2  | 25.3  | 24.5  | 23.7  | 22.3  | 21.0  | 19.9  | 18.8  | 17.9  | 17.1  | 16.3  | 15.6  | 14.7  |     |
| 4  | 28.0  | 26.9  | 25.8  | 24.8  | 23.9  | 23.0  | 21.5  | 20.1  | 18.9  | 17.9  | 16.9  | 16.1  | 15.3  | 14.6  | 13.7  |     |
| 5  | 27.9  | 26.6  | 25.4  | 24.3  | 23.3  | 22.4  | 20.8  | 19.4  | 18.2  | 17.1  | 16.1  | 15.3  | 14.5  | -     | -     |     |
| 10   | 27.3  | 25.6  | 24.1  | 22.7  | 21.5  | 20.4  | 18.6  | 17.0  | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 26.9  | 24.9  | 23.2  | 21.6  | 20.3  | 19.1  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 26.1  | 23.5  | 21.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 28.4  | 27.5  | 26.7  | 26.0  | 25.2  | 24.5  | 23.3  | 22.1  | 21.1  | 20.2  | 19.3  | 18.5  | 17.8  | 17.1  | 16.2  | 40  |
| 2  | 28.0  | 26.9  | 25.8  | 24.8  | 23.9  | 23.0  | 21.4  | 20.1  | 18.9  | 17.9  | 16.9  | 16.1  | 15.3  | 14.6  | 13.7  |     |
| 3  | 27.8  | 26.4  | 25.1  | 23.9  | 22.9  | 21.9  | 20.2  | 18.8  | 17.5  | 16.4  | 15.4  | 14.6  | 13.8  | 13.1  | 12.2  |     |
| 4  | 27.5  | 26.0  | 24.5  | 23.3  | 22.1  | 21.1  | 19.3  | 17.8  | 16.5  | 15.4  | 14.4  | 13.5  | 12.8  | 12.1  | 11.2  |     |
| 5  | 27.3  | 25.6  | 24.1  | 22.7  | 21.5  | 20.4  | 18.6  | 17.0  | 15.7  | 14.5  | 13.6  | 12.7  | 12.0  | -     | -     |     |
| 10   | 26.6  | 24.3  | 22.4  | 20.8  | 19.4  | 18.2  | 16.1  | 14.5  | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 26.1  | 23.4  | 21.3  | 19.5  | 18.0  | 16.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 24.9  | 21.6  | 19.1  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 28.2  | 27.2  | 26.2  | 25.3  | 24.5  | 23.7  | 22.2  | 21.0  | 19.9  | 18.8  | 17.9  | 17.1  | 16.1  | 14.6  | 12.8  | 60  |
| 2  | 27.8  | 26.4  | 25.1  | 23.9  | 22.9  | 21.9  | 20.2  | 18.8  | 17.5  | 16.4  | 15.4  | 14.6  | 13.8  | 13.1  | 11.8  |     |
| 3  | 27.4  | 25.8  | 24.3  | 23.0  | 21.8  | 20.8  | 18.9  | 17.4  | 16.1  | 14.9  | 14.0  | 13.1  | 12.3  | 11.7  | 10.8  |     |
| 4  | 27.2  | 25.3  | 23.7  | 22.3  | 21.0  | 19.9  | 17.9  | 16.3  | 15.0  | 13.9  | 12.9  | 12.1  | 11.3  | 10.7  | 9.8   |     |
| 5  | 26.9  | 24.9  | 23.2  | 21.6  | 20.3  | 19.1  | 17.1  | 15.5  | 14.2  | 13.1  | 12.1  | 11.3  | 10.6  | -     | -     |     |
| 10   | 26.1  | 23.4  | 21.3  | 19.5  | 18.0  | 16.7  | 14.6  | 13.0  | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 25.4  | 22.4  | 20.1  | 18.2  | 16.6  | 15.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 24.1  | 20.4  | 17.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 28.0  | 26.9  | 25.8  | 24.8  | 23.9  | 23.0  | 21.4  | 20.1  | 18.9  | 17.9  | 15.9  | 14.1  | 12.7  | 11.6  | 10.2  | 80  |
| 2  | 27.5  | 26.0  | 24.5  | 23.3  | 22.1  | 21.1  | 19.3  | 17.8  | 16.5  | 15.4  | 14.2  | 12.6  | 11.4  | 10.3  | 9.1   |     |
| 3  | 27.2  | 25.3  | 23.7  | 22.2  | 21.0  | 19.9  | 17.9  | 16.3  | 15.0  | 13.9  | 12.9  | 12.1  | 10.9  | 9.9   | 8.7   |     |
| 4  | 26.9  | 24.8  | 23.0  | 21.4  | 20.1  | 18.9  | 16.9  | 15.3  | 14.0  | 12.8  | 11.9  | 11.1  | 10.3  | 9.7   | 8.5   |     |
| 5  | 26.6  | 24.3  | 22.4  | 20.8  | 19.4  | 18.2  | 16.1  | 14.5  | 13.1  | 12.0  | 11.1  | 10.3  | 9.6   | -     | -     |     |
| 10   | 25.6  | 22.7  | 20.4  | 18.6  | 17.0  | 15.7  | 13.6  | 12.0  | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 24.9  | 21.6  | 19.1  | 17.1  | 15.5  | 14.2  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 23.4  | 19.5  | 16.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 27.9  | 26.6  | 25.4  | 24.3  | 23.3  | 22.4  | 20.8  | 19.4  | 17.9  | 15.3  | 13.4  | 11.9  | 10.7  | 9.8   | 8.6   | 100 |
| 2  | 27.3  | 25.6  | 24.1  | 22.7  | 21.5  | 20.4  | 18.6  | 17.0  | 15.6  | 13.4  | 11.7  | 10.4  | 9.4   | 8.5   | 7.5   |     |
| 3  | 26.9  | 24.9  | 23.2  | 21.6  | 20.3  | 19.1  | 17.1  | 15.5  | 14.2  | 12.7  | 11.1  | 9.9   | 8.9   | 8.1   | 7.1   |     |
| 4  | 26.6  | 24.3  | 22.4  | 20.8  | 19.4  | 18.2  | 16.1  | 14.5  | 13.1  | 12.0  | 10.8  | 9.6   | 8.7   | 7.9   | 6.9   |     |
| 5  | 26.3  | 23.9  | 21.8  | 20.1  | 18.6  | 17.4  | 15.3  | 13.7  | 12.3  | 11.3  | 10.3  | 9.5   | 8.5   | -     | -     |     |
| 10   | 25.2  | 22.1  | 19.7  | 17.8  | 16.2  | 14.9  | 12.8  | 11.2  | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 24.5  | 21.0  | 18.4  | 16.3  | 14.7  | 13.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 22.9  | 18.8  | 15.9  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 27.6  | 26.0  | 24.7  | 23.4  | 22.3  | 21.3  | 19.5  | 16.1  | 13.4  | 11.5  | 10.1  | 9.0   | 8.1   | 7.3   | 6.5   | 150 |
| 2  | 26.9  | 24.9  | 23.2  | 21.6  | 20.3  | 19.1  | 16.7  | 13.4  | 11.2  | 9.6   | 8.4   | 7.4   | 6.7   | 6.1   | 5.4   |     |
| 3  | 26.4  | 24.1  | 22.1  | 20.4  | 19.0  | 17.7  | 15.6  | 12.5  | 10.4  | 8.9   | 7.8   | 6.9   | 6.2   | 5.7   | 5.0   |     |
| 4  | 26.0  | 23.4  | 21.3  | 19.5  | 18.0  | 16.7  | 14.6  | 12.0  | 10.0  | 8.6   | 7.5   | 6.7   | 6.0   | 5.5   | 4.8   |     |
| 5  | 25.7  | 22.9  | 20.6  | 18.8  | 17.2  | 15.9  | 13.8  | 11.8  | 9.8   | 8.4   | 7.3   | 6.5   | 5.9   | -     | -     |     |
| 10   | 24.5  | 21.0  | 18.4  | 16.3  | 14.7  | 13.4  | 11.3  | 9.8   | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 23.6  | 19.7  | 17.0  | 14.9  | 13.2  | 11.9  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 21.8  | 17.4  | 14.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1  | 26.9  | 24.9  | 23.2  | 21.6  | 20.3  | 18.0  | 13.5  | 10.8  | 9.0   | 7.7   | 6.8   | 6.0   | 5.4   | 4.9   | 4.3   | 300 |
| 2  | 26.0  | 23.4  | 21.3  | 19.5  | 16.1  | 13.4  | 10.1  | 8.1   | 6.7   | 5.8   | 5.0   | 4.5   | 4.0   | 3.7   | 3.2   |     |
| 3  | 25.4  | 22.4  | 20.1  | 17.9  | 14.3  | 11.9  | 8.9   | 7.2   | 6.0   | 5.1   | 4.5   | 4.0   | 3.6   | 3.3   | 2.9   |     |
| 4  | 24.9  | 21.6  | 19.1  | 16.7  | 13.4  | 11.2  | 8.4   | 6.7   | 5.6   | 4.8   | 4.2   | 3.7   | 3.3   | 3.0   | 2.7   |     |
| 5  | 24.5  | 21.0  | 18.4  | 16.1  | 12.8  | 10.7  | 8.0   | 6.4   | 5.4   | 4.6   | 4.0   | 3.6   | 3.2   | -     | -     |     |
| 10   | 22.9  | 18.8  | 15.9  | 13.8  | 11.8  | 9.8   | 7.3   | 5.9   | -     | -     | -     | -     | -     | -     | -     |     |
| 15   | 21.8  | 17.4  | 14.4  | 12.3  | 10.8  | 9.5   | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30   | 19.7  | 14.9  | 11.9  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |



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

■ 2.0 - 1 ~ - 10000 min<sup>-1</sup>

| 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 série), 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   | 54.1  | 52.3  | 51.1  | 50.2  | 49.5  | 48.9  | 47.8  | 46.9  | 46.1  | 45.4  | 44.7  | 44.2  | 43.5  | 42.5  | 41.2  | 5   |
| 2   | 54.1  | 52.3  | 51.1  | 50.2  | 49.5  | 48.9  | 47.8  | 46.6  | 45.1  | 43.6  | 42.2  | 41.0  | 39.7  | 38.6  | 37.0  |     |
| 3   | 54.1  | 52.3  | 51.1  | 50.2  | 49.5  | 48.9  | 46.8  | 44.9  | 43.1  | 41.5  | 40.0  | 38.6  | 37.3  | 36.1  | 34.4  |     |
| 4   | 54.1  | 52.3  | 51.1  | 50.2  | 49.1  | 47.9  | 45.6  | 43.5  | 41.6  | 39.9  | 38.3  | 36.8  | 35.4  | 34.2  | 32.4  |     |
| 5   | 54.1  | 52.3  | 51.1  | 49.8  | 48.4  | 47.1  | 44.6  | 42.4  | 40.4  | 38.6  | 36.9  | 35.4  | 34.0  | -     | -     |     |
| 10  | 53.9  | 51.6  | 49.5  | 47.5  | 45.7  | 44.1  | 41.1  | 38.5  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 53.3  | 50.6  | 48.2  | 45.9  | 43.9  | 42.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 52.2  | 48.6  | 45.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 54.1  | 52.3  | 51.1  | 50.2  | 49.5  | 48.9  | 47.8  | 46.6  | 45.1  | 43.6  | 42.2  | 40.9  | 39.7  | 38.6  | 37.0  | 10  |
| 2   | 54.1  | 52.3  | 51.1  | 50.2  | 49.1  | 47.9  | 45.6  | 43.5  | 41.6  | 39.9  | 38.3  | 36.8  | 35.4  | 34.1  | 32.4  |     |
| 3   | 54.1  | 52.3  | 50.9  | 49.2  | 47.7  | 46.3  | 43.7  | 41.4  | 39.3  | 37.4  | 35.7  | 34.1  | 32.7  | 31.4  | 29.6  |     |
| 4   | 54.1  | 52.0  | 50.1  | 48.3  | 46.6  | 45.1  | 42.2  | 39.7  | 37.5  | 35.6  | 33.8  | 32.2  | 30.7  | 29.4  | 27.6  |     |
| 5   | 53.9  | 51.6  | 49.4  | 47.5  | 45.7  | 44.0  | 41.0  | 38.4  | 36.1  | 34.1  | 32.3  | 30.6  | 29.1  | -     | -     |     |
| 10  | 52.9  | 49.8  | 47.1  | 44.6  | 42.4  | 40.4  | 36.9  | 34.0  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 52.2  | 48.5  | 45.4  | 42.6  | 40.2  | 38.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 50.6  | 45.9  | 42.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 54.1  | 52.3  | 51.1  | 50.2  | 49.1  | 47.9  | 45.6  | 43.5  | 41.6  | 39.9  | 38.3  | 36.8  | 35.4  | 34.1  | 32.4  | 20  |
| 2   | 54.1  | 52.0  | 50.1  | 48.3  | 46.6  | 45.1  | 42.2  | 39.7  | 37.5  | 35.5  | 33.8  | 32.1  | 30.7  | 29.3  | 27.5  |     |
| 3   | 53.6  | 51.1  | 48.9  | 46.8  | 44.9  | 43.1  | 40.0  | 37.3  | 34.9  | 32.8  | 31.0  | 29.3  | 27.8  | 26.5  | 24.7  |     |
| 4   | 53.2  | 50.4  | 47.9  | 45.6  | 43.5  | 41.6  | 38.3  | 35.4  | 33.0  | 30.8  | 29.0  | 27.3  | 25.8  | 24.5  | 22.7  |     |
| 5   | 52.9  | 49.8  | 47.0  | 44.6  | 42.4  | 40.4  | 36.9  | 33.9  | 31.4  | 29.3  | 27.4  | 25.7  | 24.3  | -     | -     |     |
| 10  | 51.6  | 47.5  | 44.0  | 41.0  | 38.4  | 36.1  | 32.3  | 29.1  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 50.6  | 45.9  | 42.0  | 38.7  | 35.9  | 33.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 48.5  | 42.6  | 38.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 54.1  | 52.0  | 50.1  | 48.3  | 46.6  | 45.1  | 42.2  | 39.7  | 37.5  | 32.5  | 28.4  | 25.2  | 22.7  | 20.7  | 18.2  | 40  |
| 2   | 53.2  | 50.4  | 47.9  | 45.6  | 43.5  | 41.6  | 38.3  | 35.4  | 33.0  | 30.5  | 26.7  | 23.7  | 21.4  | 19.4  | 17.1  |     |
| 3   | 52.6  | 49.2  | 46.3  | 43.7  | 41.4  | 39.3  | 35.7  | 32.7  | 30.1  | 28.0  | 26.1  | 23.2  | 20.9  | 19.0  | 16.7  |     |
| 4   | 52.0  | 48.3  | 45.1  | 42.2  | 39.7  | 37.5  | 33.8  | 30.7  | 28.1  | 26.0  | 24.1  | 22.5  | 20.7  | 18.8  | 16.5  |     |
| 5   | 51.6  | 47.5  | 44.0  | 41.0  | 38.4  | 36.1  | 32.2  | 29.1  | 26.6  | 24.4  | 22.6  | 21.0  | 19.6  | -     | -     |     |
| 10  | 49.8  | 44.6  | 40.4  | 36.9  | 33.9  | 31.4  | 27.4  | 24.3  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 48.5  | 42.6  | 37.9  | 34.2  | 31.1  | 28.6  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 45.9  | 38.7  | 33.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 53.6  | 51.1  | 48.9  | 46.8  | 44.9  | 43.1  | 40.0  | 32.1  | 26.8  | 22.9  | 20.1  | 17.8  | 16.1  | 14.6  | 12.8  | 60  |
| 2   | 52.6  | 49.2  | 46.3  | 43.7  | 41.4  | 39.3  | 35.7  | 29.4  | 24.5  | 21.0  | 18.4  | 16.3  | 14.7  | 13.4  | 11.8  |     |
| 3   | 51.8  | 47.9  | 44.5  | 41.6  | 39.0  | 36.8  | 33.0  | 28.5  | 23.7  | 20.3  | 17.8  | 15.8  | 14.2  | 12.9  | 11.4  |     |
| 4   | 51.1  | 46.8  | 43.1  | 40.0  | 37.3  | 34.9  | 31.0  | 27.8  | 23.3  | 20.0  | 17.5  | 15.6  | 14.0  | 12.7  | 11.2  |     |
| 5   | 50.6  | 45.9  | 41.9  | 38.6  | 35.8  | 33.4  | 29.4  | 26.3  | 23.1  | 19.8  | 17.3  | 15.4  | 13.9  | -     | -     |     |
| 10  | 48.5  | 42.6  | 37.9  | 34.2  | 31.1  | 28.6  | 24.5  | 21.5  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 47.0  | 40.4  | 35.3  | 31.4  | 28.3  | 25.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 44.0  | 36.1  | 30.6  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 53.2  | 50.4  | 47.9  | 45.6  | 43.5  | 41.6  | 31.8  | 25.5  | 21.2  | 18.2  | 15.9  | 14.1  | 12.7  | 11.6  | 10.2  | 80  |
| 2   | 52.0  | 48.3  | 45.1  | 42.2  | 39.7  | 37.5  | 28.4  | 22.7  | 18.9  | 16.2  | 14.2  | 12.6  | 11.4  | 10.3  | 9.1   |     |
| 3   | 51.1  | 46.8  | 43.1  | 40.0  | 37.3  | 34.9  | 27.3  | 21.8  | 18.2  | 15.6  | 13.6  | 12.1  | 10.9  | 9.9   | 8.7   |     |
| 4   | 50.4  | 45.6  | 41.6  | 38.3  | 35.4  | 33.0  | 26.7  | 21.4  | 17.8  | 15.3  | 13.3  | 11.9  | 10.7  | 9.7   | 8.5   |     |
| 5   | 49.8  | 44.6  | 40.3  | 36.9  | 33.9  | 31.4  | 26.3  | 21.1  | 17.6  | 15.1  | 13.2  | 11.7  | 10.5  | -     | -     |     |
| 10  | 47.5  | 41.0  | 36.1  | 32.2  | 29.1  | 26.6  | 22.6  | 19.6  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 45.9  | 38.7  | 33.4  | 29.4  | 26.3  | 23.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 42.6  | 34.2  | 28.6  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 52.9  | 49.8  | 47.0  | 44.6  | 42.4  | 35.8  | 26.8  | 21.5  | 17.9  | 15.3  | 13.4  | 11.9  | 10.7  | 9.8   | 8.6   | 100 |
| 2   | 51.6  | 47.5  | 44.0  | 41.0  | 37.4  | 31.2  | 23.4  | 18.7  | 15.6  | 13.4  | 11.7  | 10.4  | 9.4   | 8.5   | 7.5   |     |
| 3   | 50.6  | 45.9  | 41.9  | 38.6  | 35.6  | 29.7  | 22.3  | 17.8  | 14.8  | 12.7  | 11.1  | 9.9   | 8.9   | 8.1   | 7.1   |     |
| 4   | 49.8  | 44.6  | 40.3  | 36.9  | 33.9  | 28.9  | 21.7  | 17.4  | 14.5  | 12.4  | 10.8  | 9.6   | 8.7   | 7.9   | 6.9   |     |
| 5   | 49.1  | 43.5  | 39.0  | 35.4  | 32.4  | 28.5  | 21.4  | 17.1  | 14.2  | 12.2  | 10.7  | 9.5   | 8.5   | -     | -     |     |
| 10  | 46.6  | 39.7  | 34.6  | 30.7  | 27.5  | 25.0  | 20.7  | 16.5  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 44.9  | 37.3  | 31.9  | 27.8  | 24.7  | 22.2  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 41.4  | 32.7  | 27.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 52.1  | 48.5  | 45.3  | 40.3  | 32.3  | 26.9  | 20.2  | 16.1  | 13.4  | 11.5  | 10.1  | 9.0   | 8.1   | 7.3   | 6.5   | 150 |
| 2   | 50.6  | 45.9  | 41.9  | 33.5  | 26.8  | 22.3  | 16.7  | 13.4  | 11.2  | 9.6   | 8.4   | 7.4   | 6.7   | 6.1   | 5.4   |     |
| 3   | 49.4  | 44.0  | 39.7  | 31.2  | 25.0  | 20.8  | 15.6  | 12.5  | 10.4  | 8.9   | 7.8   | 6.9   | 6.2   | 5.7   | 5.0   |     |
| 4   | 48.5  | 42.6  | 37.9  | 30.1  | 24.1  | 20.0  | 15.0  | 12.0  | 10.0  | 8.6   | 7.5   | 6.7   | 6.0   | 5.5   | 4.8   |     |
| 5   | 47.7  | 41.4  | 36.5  | 29.4  | 23.5  | 19.6  | 14.7  | 11.8  | 9.8   | 8.4   | 7.3   | 6.5   | 5.9   | -     | -     |     |
| 10  | 44.9  | 37.3  | 31.9  | 27.8  | 22.4  | 18.7  | 14.0  | 11.2  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 42.9  | 34.6  | 29.0  | 25.0  | 21.9  | 18.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 39.0  | 29.9  | 24.2  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 50.6  | 45.9  | 36.0  | 27.0  | 21.6  | 18.0  | 13.5  | 10.8  | 9.0   | 7.7   | 6.8   | 6.0   | 5.4   | 4.9   | 4.3   | 300 |
| 2   | 48.5  | 40.3  | 26.9  | 20.2  | 16.1  | 13.4  | 10.1  | 8.1   | 6.7   | 5.8   | 5.0   | 4.5   | 4.0   | 3.7   | 3.2   |     |
| 3   | 47.0  | 35.8  | 23.8  | 17.9  | 14.3  | 11.9  | 8.9   | 7.2   | 6.0   | 5.1   | 4.5   | 4.0   | 3.6   | 3.3   | 2.9   |     |
| 4   | 45.9  | 33.5  | 22.3  | 16.7  | 13.4  | 11.2  | 8.4   | 6.7   | 5.6   | 4.8   | 4.2   | 3.7   | 3.3   | 3.0   | 2.7   |     |
| 5   | 44.9  | 32.1  | 21.4  | 16.1  | 12.8  | 10.7  | 8.0   | 6.4   | 5.4   | 4.6   | 4.0   | 3.6   | 3.2   | -     | -     |     |
| 10  | 41.4  | 29.4  | 19.6  | 14.7  | 11.8  | 9.8   | 7.3   | 5.9   | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 39.0  | 28.5  | 19.0  | 14.2  | 11.4  | 9.5   | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 34.6  | 25.0  | 18.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |



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

▣ 1.0 - 3 ~ - 10000 min<sup>-1</sup>

| 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 série), 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   | 33.9  | 32.8  | 32.1  | 31.6  | 31.2  | 30.8  | 30.1  | 29.6  | 29.1  | 28.7  | 28.3  | 28.0  | 27.6  | 27.0  | 26.2  | 5    |    |
| 2   | 33.9  | 32.8  | 32.1  | 31.6  | 31.2  | 30.8  | 30.1  | 29.5  | 28.5  | 27.7  | 26.8  | 26.1  | 25.3  | 24.6  | 23.7  |      |    |
| 3   | 33.9  | 32.8  | 32.1  | 31.6  | 31.2  | 30.8  | 29.6  | 28.4  | 27.4  | 26.4  | 25.5  | 24.6  | 23.8  | 23.1  | 22.1  |      |    |
| 4   | 33.9  | 32.8  | 32.1  | 31.6  | 30.9  | 30.2  | 28.8  | 27.6  | 26.5  | 25.4  | 24.4  | 23.5  | 22.7  | 21.9  | 20.9  |      |    |
| 5   | 33.9  | 32.8  | 32.1  | 31.3  | 30.5  | 29.7  | 28.3  | 26.9  | 25.7  | 24.6  | 23.6  | 22.7  | 21.8  | -     | -     |      |    |
| 10  | 33.7  | 32.4  | 31.1  | 30.0  | 28.9  | 27.9  | 26.1  | 24.6  | -     | -     | -     | -     | -     | -     | -     |      |    |
| 15  | 33.4  | 31.8  | 30.4  | 29.0  | 27.8  | 26.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 30  | 32.8  | 30.6  | 28.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 1   | 33.9  | 32.8  | 32.1  | 31.6  | 31.2  | 30.8  | 30.1  | 29.5  | 28.5  | 27.7  | 26.8  | 26.1  | 25.3  | 24.6  | 23.7  | 10   |    |
| 2   | 33.9  | 32.8  | 32.1  | 31.6  | 30.9  | 30.2  | 28.8  | 27.6  | 26.5  | 25.4  | 24.4  | 23.5  | 22.7  | 21.9  | 20.8  |      |    |
| 3   | 33.9  | 32.8  | 32.0  | 31.0  | 30.1  | 29.3  | 27.7  | 26.3  | 25.1  | 23.9  | 22.9  | 21.9  | 21.0  | 20.2  | 19.1  |      |    |
| 4   | 33.9  | 32.6  | 31.5  | 30.5  | 29.5  | 28.5  | 26.8  | 25.3  | 24.0  | 22.8  | 21.7  | 20.7  | 19.8  | 19.0  | 17.8  |      |    |
| 5   | 33.7  | 32.4  | 31.1  | 30.0  | 28.9  | 27.9  | 26.1  | 24.5  | 23.1  | 21.9  | 20.8  | 19.7  | 18.8  | -     | -     |      |    |
| 10  | 33.2  | 31.3  | 29.7  | 28.3  | 26.9  | 25.7  | 23.6  | 21.8  | -     | -     | -     | -     | -     | -     | -     |      |    |
| 15  | 32.7  | 30.6  | 28.7  | 27.1  | 25.6  | 24.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 30  | 31.8  | 29.0  | 26.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 1   | 33.9  | 32.8  | 32.1  | 31.6  | 30.9  | 30.2  | 28.8  | 27.6  | 26.4  | 25.4  | 24.4  | 23.5  | 22.7  | 21.9  | 20.8  | 20   |    |
| 2   | 33.9  | 32.6  | 31.5  | 30.4  | 29.5  | 28.5  | 26.8  | 25.3  | 24.0  | 22.8  | 21.7  | 20.7  | 19.8  | 19.0  | 17.8  |      |    |
| 3   | 33.6  | 32.1  | 30.8  | 29.6  | 28.4  | 27.4  | 25.5  | 23.8  | 22.4  | 21.1  | 20.0  | 18.9  | 18.0  | 17.2  | 16.1  |      |    |
| 4   | 33.4  | 31.7  | 30.2  | 28.8  | 27.6  | 26.5  | 24.4  | 22.7  | 21.2  | 19.9  | 18.7  | 17.7  | 16.8  | 15.9  | 14.8  |      |    |
| 5   | 33.1  | 31.3  | 29.7  | 28.2  | 26.9  | 25.7  | 23.6  | 21.8  | 20.2  | 18.9  | 17.7  | 16.7  | 15.8  | -     | -     |      |    |
| 10  | 32.4  | 30.0  | 27.9  | 26.1  | 24.5  | 23.1  | 20.8  | 18.8  | -     | -     | -     | -     | -     | -     | -     |      |    |
| 15  | 31.8  | 29.0  | 26.7  | 24.7  | 23.0  | 21.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 30  | 30.6  | 27.1  | 24.3  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 1   | 33.9  | 32.6  | 31.5  | 30.4  | 29.5  | 28.5  | 26.8  | 25.3  | 24.0  | 22.8  | 21.7  | 20.7  | 19.8  | 19.0  | 17.8  | 40   |    |
| 2   | 33.4  | 31.7  | 30.2  | 28.8  | 27.6  | 26.4  | 24.4  | 22.7  | 21.2  | 19.9  | 18.7  | 17.7  | 16.7  | 15.9  | 14.8  |      |    |
| 3   | 33.0  | 31.0  | 29.3  | 27.7  | 26.3  | 25.1  | 22.9  | 21.0  | 19.5  | 18.1  | 16.9  | 15.9  | 15.0  | 14.2  | 13.1  |      |    |
| 4   | 32.6  | 30.4  | 28.5  | 26.8  | 25.3  | 24.0  | 21.7  | 19.8  | 18.2  | 16.8  | 15.7  | 14.7  | 13.8  | 13.0  | 11.9  |      |    |
| 5   | 32.4  | 30.0  | 27.9  | 26.1  | 24.5  | 23.1  | 20.7  | 18.8  | 17.2  | 15.9  | 14.7  | 13.7  | 12.8  | -     | -     |      |    |
| 10  | 31.3  | 28.2  | 25.7  | 23.6  | 21.8  | 20.2  | 17.7  | 15.8  | -     | -     | -     | -     | -     | -     | -     |      |    |
| 15  | 30.6  | 27.0  | 24.2  | 22.0  | 20.1  | 18.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 30  | 29.0  | 24.7  | 21.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 1   | 33.6  | 32.1  | 30.8  | 29.6  | 28.4  | 27.4  | 25.5  | 23.8  | 22.4  | 21.1  | 20.0  | 17.8  | 16.1  | 14.6  | 12.8  | 60   |    |
| 2   | 33.0  | 31.0  | 29.3  | 27.7  | 26.3  | 25.1  | 22.9  | 21.0  | 19.4  | 18.1  | 16.9  | 15.9  | 14.7  | 13.4  | 11.8  |      |    |
| 3   | 32.5  | 30.2  | 28.2  | 26.4  | 24.9  | 23.5  | 21.2  | 19.3  | 17.7  | 16.3  | 15.2  | 14.2  | 13.3  | 12.5  | 11.4  |      |    |
| 4   | 32.1  | 29.6  | 27.4  | 25.5  | 23.8  | 22.4  | 20.0  | 18.0  | 16.4  | 15.1  | 13.9  | 13.0  | 12.1  | 11.4  | 10.4  |      |    |
| 5   | 31.8  | 29.0  | 26.7  | 24.7  | 23.0  | 21.5  | 19.0  | 17.0  | 15.4  | 14.1  | 13.0  | 12.1  | 11.2  | -     | -     |      |    |
| 10  | 30.6  | 27.0  | 24.2  | 22.0  | 20.1  | 18.5  | 16.0  | 14.0  | -     | -     | -     | -     | -     | -     | -     |      |    |
| 15  | 29.7  | 25.7  | 22.6  | 20.2  | 18.3  | 16.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 30  | 27.9  | 23.1  | 19.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 1   | 33.4  | 31.7  | 30.2  | 28.8  | 27.6  | 26.4  | 24.4  | 22.7  | 21.2  | 18.2  | 16.2  | 15.9  | 14.1  | 12.7  | 11.6  | 10.2 | 80 |
| 2   | 32.6  | 30.4  | 28.5  | 26.8  | 25.3  | 24.0  | 21.7  | 19.8  | 18.2  | 16.2  | 14.2  | 12.6  | 11.4  | 10.3  | 9.1   |      |    |
| 3   | 32.1  | 29.6  | 27.4  | 25.5  | 23.8  | 22.4  | 20.0  | 18.0  | 16.4  | 15.1  | 13.6  | 12.1  | 10.9  | 9.9   | 8.7   |      |    |
| 4   | 31.7  | 28.8  | 26.4  | 24.4  | 22.7  | 21.2  | 18.7  | 16.7  | 15.2  | 13.8  | 12.7  | 11.8  | 10.7  | 9.7   | 8.5   |      |    |
| 5   | 31.3  | 28.2  | 25.7  | 23.6  | 21.8  | 20.2  | 17.7  | 15.8  | 14.2  | 12.9  | 11.8  | 10.9  | 10.2  | -     | -     |      |    |
| 10  | 30.0  | 26.1  | 23.1  | 20.7  | 18.8  | 17.2  | 14.7  | 12.8  | -     | -     | -     | -     | -     | -     | -     |      |    |
| 15  | 29.0  | 24.7  | 21.5  | 19.0  | 17.0  | 15.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 30  | 27.0  | 22.0  | 18.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 1   | 33.1  | 31.3  | 29.7  | 28.2  | 26.9  | 25.7  | 23.6  | 21.5  | 17.9  | 15.3  | 13.4  | 11.9  | 10.7  | 9.8   | 8.6   | 100  |    |
| 2   | 32.4  | 30.0  | 27.9  | 26.1  | 24.5  | 23.1  | 20.7  | 18.7  | 15.6  | 13.4  | 11.7  | 10.4  | 9.4   | 8.5   | 7.5   |      |    |
| 3   | 31.8  | 29.0  | 26.7  | 24.7  | 23.0  | 21.5  | 19.0  | 17.0  | 14.8  | 12.7  | 11.1  | 9.9   | 8.9   | 8.1   | 7.1   |      |    |
| 4   | 31.3  | 28.2  | 25.7  | 23.6  | 21.8  | 20.2  | 17.7  | 15.8  | 14.2  | 12.4  | 10.8  | 9.6   | 8.7   | 7.9   | 6.9   |      |    |
| 5   | 30.9  | 27.6  | 24.9  | 22.7  | 20.8  | 19.3  | 16.7  | 14.8  | 13.3  | 12.0  | 10.7  | 9.5   | 8.5   | -     | -     |      |    |
| 10  | 29.5  | 25.3  | 22.2  | 19.8  | 17.8  | 16.2  | 13.8  | 11.9  | -     | -     | -     | -     | -     | -     | -     |      |    |
| 15  | 28.4  | 23.8  | 20.5  | 18.0  | 16.1  | 14.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 30  | 26.3  | 21.0  | 17.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 1   | 32.7  | 30.6  | 28.7  | 27.0  | 25.6  | 24.2  | 20.2  | 16.1  | 13.4  | 11.5  | 10.1  | 9.0   | 8.1   | 7.3   | 6.5   | 150  |    |
| 2   | 31.8  | 29.0  | 26.7  | 24.7  | 23.0  | 21.5  | 16.7  | 13.4  | 11.2  | 9.6   | 8.4   | 7.4   | 6.7   | 6.1   | 5.4   |      |    |
| 3   | 31.1  | 27.9  | 25.3  | 23.1  | 21.3  | 19.7  | 15.6  | 12.5  | 10.4  | 8.9   | 7.8   | 6.9   | 6.2   | 5.7   | 5.0   |      |    |
| 4   | 30.6  | 27.0  | 24.2  | 21.9  | 20.1  | 18.5  | 15.0  | 12.0  | 10.0  | 8.6   | 7.5   | 6.7   | 6.0   | 5.5   | 4.8   |      |    |
| 5   | 30.1  | 26.3  | 23.4  | 21.0  | 19.1  | 17.5  | 14.7  | 11.8  | 9.8   | 8.4   | 7.3   | 6.5   | 5.9   | -     | -     |      |    |
| 10  | 28.4  | 23.8  | 20.5  | 18.0  | 16.1  | 14.5  | 12.1  | 10.4  | -     | -     | -     | -     | -     | -     | -     |      |    |
| 15  | 27.2  | 22.2  | 18.8  | 16.2  | 14.3  | 12.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 30  | 24.9  | 19.3  | 15.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 1   | 31.8  | 29.0  | 26.7  | 24.7  | 21.6  | 18.0  | 13.5  | 10.8  | 9.0   | 7.7   | 6.8   | 6.0   | 5.4   | 4.9   | 4.3   | 300  |    |
| 2   | 30.6  | 27.0  | 24.2  | 20.2  | 16.1  | 13.4  | 10.1  | 8.1   | 6.7   | 5.8   | 5.0   | 4.5   | 4.0   | 3.7   | 3.2   |      |    |
| 3   | 29.7  | 25.7  | 22.6  | 17.9  | 14.3  | 11.9  | 8.9   | 7.2   | 6.0   | 5.1   | 4.5   | 4.0   | 3.6   | 3.3   | 2.9   |      |    |
| 4   | 29.0  | 24.7  | 21.5  | 16.7  | 13.4  | 11.2  | 8.4   | 6.7   | 5.6   | 4.8   | 4.2   | 3.7   | 3.3   | 3.0   | 2.7   |      |    |
| 5   | 28.4  | 23.8  | 20.5  | 16.1  | 12.8  | 10.7  | 8.0   | 6.4   | 5.4   | 4.6   | 4.0   | 3.6   | 3.2   | -     | -     |      |    |
| 10  | 26.3  | 21.0  | 17.5  | 14.7  | 11.8  | 9.8   | 7.3   | 5.9   | -     | -     | -     | -     | -     | -     | -     |      |    |
| 15  | 24.9  | 19.3  | 15.7  | 13.3  | 11.4  | 9.5   | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |
| 30  | 22.2  | 16.2  | 12.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |      |    |

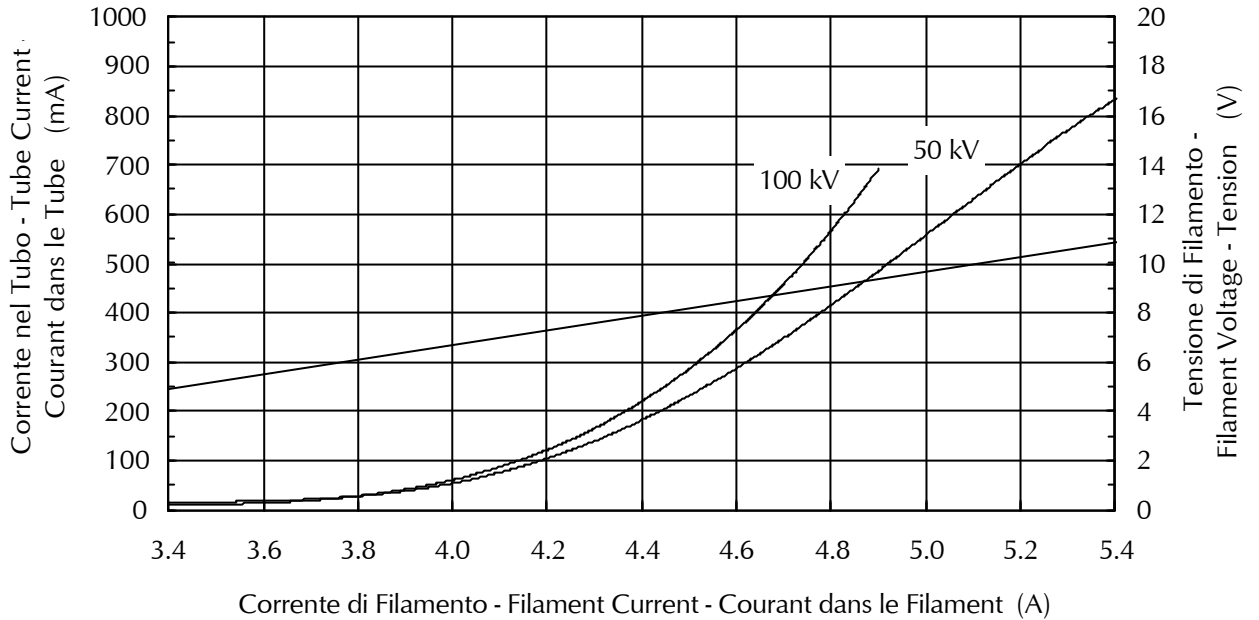


**Abaco per carichi in serie - Serial load rating - Abaque de charges successives**

■ 2.0 - 3 ~ - 10000 min<sup>-1</sup>

| 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 série), 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   | 64.4  | 61.8  | 60.2  | 59.0  | 58.0  | 57.1  | 55.6  | 54.4  | 53.3  | 52.4  | 51.6  | 50.8  | 49.9  | 48.6  | 46.9  | 5   |
| 2   | 64.4  | 61.8  | 60.2  | 59.0  | 58.0  | 57.1  | 55.6  | 54.1  | 52.0  | 50.1  | 48.3  | 46.6  | 45.0  | 43.6  | 41.6  |     |
| 3   | 64.4  | 61.8  | 60.2  | 59.0  | 58.0  | 57.1  | 54.3  | 51.8  | 49.4  | 47.3  | 45.4  | 43.6  | 41.9  | 40.4  | 38.3  |     |
| 4   | 64.4  | 61.8  | 60.2  | 59.0  | 57.5  | 55.8  | 52.7  | 49.9  | 47.5  | 45.2  | 43.2  | 41.3  | 39.6  | 38.0  | 35.9  |     |
| 5   | 64.4  | 61.8  | 60.2  | 58.4  | 56.5  | 54.7  | 51.4  | 48.5  | 45.9  | 43.5  | 41.4  | 39.5  | 37.7  | -     | -     |     |
| 10  | 64.1  | 60.9  | 57.9  | 55.3  | 52.9  | 50.7  | 46.8  | 43.4  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 63.3  | 59.5  | 56.2  | 53.2  | 50.5  | 48.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 61.8  | 56.8  | 52.6  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 64.4  | 61.8  | 60.2  | 59.0  | 58.0  | 57.1  | 55.6  | 54.1  | 52.0  | 50.1  | 48.3  | 46.6  | 45.0  | 43.6  | 41.6  | 10  |
| 2   | 64.4  | 61.8  | 60.2  | 59.0  | 57.5  | 55.8  | 52.7  | 49.9  | 47.4  | 45.2  | 43.1  | 41.3  | 39.6  | 38.0  | 35.8  |     |
| 3   | 64.4  | 61.8  | 59.8  | 57.6  | 55.6  | 53.7  | 50.2  | 47.1  | 44.5  | 42.1  | 39.9  | 37.9  | 36.2  | 34.6  | 32.4  |     |
| 4   | 64.4  | 61.5  | 58.8  | 56.3  | 54.1  | 52.0  | 48.3  | 45.0  | 42.2  | 39.7  | 37.5  | 35.5  | 33.8  | 32.1  | 30.0  |     |
| 5   | 64.1  | 60.8  | 57.9  | 55.3  | 52.8  | 50.6  | 46.7  | 43.3  | 40.4  | 37.9  | 35.6  | 33.7  | 31.9  | -     | -     |     |
| 10  | 62.7  | 58.4  | 54.7  | 51.4  | 48.5  | 45.9  | 41.4  | 37.7  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 61.7  | 56.7  | 52.4  | 48.8  | 45.6  | 42.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 59.5  | 53.2  | 48.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 64.4  | 61.8  | 60.2  | 59.0  | 57.4  | 55.8  | 52.7  | 49.9  | 47.4  | 45.2  | 43.1  | 41.3  | 39.5  | 38.0  | 34.2  | 20  |
| 2   | 64.4  | 61.5  | 58.8  | 56.3  | 54.1  | 52.0  | 48.3  | 45.0  | 42.2  | 39.7  | 37.5  | 35.5  | 33.7  | 32.1  | 30.0  |     |
| 3   | 63.7  | 60.2  | 57.1  | 54.3  | 51.7  | 49.4  | 45.3  | 41.9  | 38.9  | 36.3  | 34.1  | 32.1  | 30.3  | 28.7  | 26.7  |     |
| 4   | 63.2  | 59.2  | 55.8  | 52.7  | 49.9  | 47.4  | 43.1  | 39.6  | 36.5  | 33.9  | 31.7  | 29.7  | 27.9  | 26.4  | 24.4  |     |
| 5   | 62.7  | 58.4  | 54.6  | 51.3  | 48.4  | 45.8  | 41.4  | 37.7  | 34.6  | 32.0  | 29.8  | 27.8  | 26.1  | -     | -     |     |
| 10  | 60.8  | 55.3  | 50.6  | 46.7  | 43.3  | 40.4  | 35.6  | 31.9  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 59.5  | 53.1  | 47.9  | 43.7  | 40.1  | 37.1  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 56.7  | 48.8  | 42.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 64.4  | 61.5  | 58.8  | 56.3  | 54.1  | 52.0  | 48.3  | 45.0  | 37.9  | 32.5  | 28.4  | 25.2  | 22.7  | 20.7  | 18.2  | 40  |
| 2   | 63.2  | 59.2  | 55.8  | 52.7  | 49.9  | 47.4  | 43.1  | 39.5  | 35.6  | 30.5  | 26.7  | 23.7  | 21.4  | 19.4  | 17.1  |     |
| 3   | 62.2  | 57.6  | 53.6  | 50.2  | 47.1  | 44.4  | 39.9  | 36.2  | 33.1  | 29.9  | 26.1  | 23.2  | 20.9  | 19.0  | 16.7  |     |
| 4   | 61.5  | 56.3  | 52.0  | 48.3  | 45.0  | 42.2  | 37.5  | 33.7  | 30.7  | 28.1  | 25.8  | 23.0  | 20.7  | 18.8  | 16.5  |     |
| 5   | 60.8  | 55.2  | 50.6  | 46.7  | 43.3  | 40.4  | 35.6  | 31.9  | 28.8  | 26.3  | 24.2  | 22.4  | 20.5  | -     | -     |     |
| 10  | 58.4  | 51.3  | 45.8  | 41.4  | 37.7  | 34.6  | 29.8  | 26.1  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 56.6  | 48.7  | 42.7  | 38.1  | 34.3  | 31.2  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 53.1  | 43.7  | 37.1  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 63.7  | 60.2  | 57.1  | 54.3  | 51.7  | 49.4  | 40.1  | 32.1  | 26.8  | 22.9  | 20.1  | 17.8  | 16.1  | 14.6  | 12.8  | 60  |
| 2   | 62.2  | 57.6  | 53.6  | 50.2  | 47.1  | 44.4  | 36.7  | 29.4  | 24.5  | 21.0  | 18.4  | 16.3  | 14.7  | 13.4  | 11.8  |     |
| 3   | 61.1  | 55.8  | 51.3  | 47.4  | 44.1  | 41.3  | 35.6  | 28.5  | 23.7  | 20.3  | 17.8  | 15.8  | 14.2  | 12.9  | 11.4  |     |
| 4   | 60.2  | 54.3  | 49.4  | 45.3  | 41.9  | 38.9  | 34.1  | 28.0  | 23.3  | 20.0  | 17.5  | 15.6  | 14.0  | 12.7  | 11.2  |     |
| 5   | 59.5  | 53.1  | 47.9  | 43.6  | 40.1  | 37.1  | 32.2  | 27.7  | 23.1  | 19.8  | 17.3  | 15.4  | 13.9  | -     | -     |     |
| 10  | 56.6  | 48.7  | 42.7  | 38.0  | 34.3  | 31.2  | 26.5  | 23.0  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 54.6  | 45.8  | 39.5  | 34.6  | 30.9  | 27.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 50.6  | 40.4  | 33.7  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 63.2  | 59.2  | 55.8  | 52.7  | 49.9  | 42.4  | 31.8  | 25.5  | 21.2  | 18.2  | 15.9  | 14.1  | 12.7  | 11.6  | 10.2  | 80  |
| 2   | 61.5  | 56.3  | 52.0  | 48.3  | 45.0  | 37.9  | 28.4  | 22.7  | 18.9  | 16.2  | 14.2  | 12.6  | 11.4  | 10.3  | 9.1   |     |
| 3   | 60.2  | 54.3  | 49.4  | 45.3  | 41.9  | 36.3  | 27.3  | 21.8  | 18.2  | 15.6  | 13.6  | 12.1  | 10.9  | 9.9   | 8.7   |     |
| 4   | 59.2  | 52.7  | 47.4  | 43.1  | 39.5  | 35.6  | 26.7  | 21.4  | 17.8  | 15.3  | 13.3  | 11.9  | 10.7  | 9.7   | 8.5   |     |
| 5   | 58.4  | 51.3  | 45.8  | 41.4  | 37.7  | 34.6  | 26.3  | 21.1  | 17.6  | 15.1  | 13.2  | 11.7  | 10.5  | -     | -     |     |
| 10  | 55.2  | 46.7  | 40.4  | 35.6  | 31.9  | 28.8  | 24.2  | 20.5  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 53.1  | 43.6  | 37.1  | 32.2  | 28.5  | 25.5  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 48.7  | 38.1  | 31.2  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 62.7  | 58.4  | 54.6  | 51.3  | 42.9  | 35.8  | 26.8  | 21.5  | 17.9  | 15.3  | 13.4  | 11.9  | 10.7  | 9.8   | 8.6   | 100 |
| 2   | 60.8  | 55.2  | 50.6  | 46.7  | 37.4  | 31.2  | 23.4  | 18.7  | 15.6  | 13.4  | 11.7  | 10.4  | 9.4   | 8.5   | 7.5   |     |
| 3   | 59.5  | 53.1  | 47.9  | 43.6  | 35.6  | 29.7  | 22.3  | 17.8  | 14.8  | 12.7  | 11.1  | 9.9   | 8.9   | 8.1   | 7.1   |     |
| 4   | 58.4  | 51.3  | 45.8  | 41.4  | 34.7  | 28.9  | 21.7  | 17.4  | 14.5  | 12.4  | 10.8  | 9.6   | 8.7   | 7.9   | 6.9   |     |
| 5   | 57.4  | 49.9  | 44.1  | 39.5  | 34.2  | 28.5  | 21.4  | 17.1  | 14.2  | 12.2  | 10.7  | 9.5   | 8.5   | -     | -     |     |
| 10  | 54.1  | 45.0  | 38.6  | 33.7  | 30.0  | 27.0  | 20.7  | 16.5  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 51.7  | 41.9  | 35.2  | 30.3  | 26.7  | 23.8  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 47.1  | 36.2  | 29.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 61.7  | 56.6  | 52.4  | 40.3  | 32.3  | 26.9  | 20.2  | 16.1  | 13.4  | 11.5  | 10.1  | 9.0   | 8.1   | 7.3   | 6.5   | 150 |
| 2   | 59.5  | 53.1  | 44.6  | 33.5  | 26.8  | 22.3  | 16.7  | 13.4  | 11.2  | 9.6   | 8.4   | 7.4   | 6.7   | 6.1   | 5.4   |     |
| 3   | 57.9  | 50.6  | 41.6  | 31.2  | 25.0  | 20.8  | 15.6  | 12.5  | 10.4  | 8.9   | 7.8   | 6.9   | 6.2   | 5.7   | 5.0   |     |
| 4   | 56.6  | 48.7  | 40.1  | 30.1  | 24.1  | 20.0  | 15.0  | 12.0  | 10.0  | 8.6   | 7.5   | 6.7   | 6.0   | 5.5   | 4.8   |     |
| 5   | 55.6  | 47.1  | 39.2  | 29.4  | 23.5  | 19.6  | 14.7  | 11.8  | 9.8   | 8.4   | 7.3   | 6.5   | 5.9   | -     | -     |     |
| 10  | 51.7  | 41.9  | 35.2  | 28.0  | 22.4  | 18.7  | 14.0  | 11.2  | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 49.1  | 38.6  | 31.8  | 27.0  | 22.0  | 18.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 44.1  | 32.8  | 26.0  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 1   | 59.5  | 53.1  | 36.0  | 27.0  | 21.6  | 18.0  | 13.5  | 10.8  | 9.0   | 7.7   | 6.8   | 6.0   | 5.4   | 4.9   | 4.3   | 300 |
| 2   | 56.6  | 40.3  | 26.9  | 20.2  | 16.1  | 13.4  | 10.1  | 8.1   | 6.7   | 5.8   | 5.0   | 4.5   | 4.0   | 3.7   | 3.2   |     |
| 3   | 54.6  | 35.8  | 23.8  | 17.9  | 14.3  | 11.9  | 8.9   | 7.2   | 6.0   | 5.1   | 4.5   | 4.0   | 3.6   | 3.3   | 2.9   |     |
| 4   | 53.1  | 33.5  | 22.3  | 16.7  | 13.4  | 11.2  | 8.4   | 6.7   | 5.6   | 4.8   | 4.2   | 3.7   | 3.3   | 3.0   | 2.7   |     |
| 5   | 51.7  | 32.1  | 21.4  | 16.1  | 12.8  | 10.7  | 8.0   | 6.4   | 5.4   | 4.6   | 4.0   | 3.6   | 3.2   | -     | -     |     |
| 10  | 47.1  | 29.4  | 19.6  | 14.7  | 11.8  | 9.8   | 7.3   | 5.9   | -     | -     | -     | -     | -     | -     | -     |     |
| 15  | 44.1  | 28.5  | 19.0  | 14.2  | 11.4  | 9.5   | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |
| 30  | 38.6  | 27.0  | 18.4  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |     |

**Caratteristica di emissione del catodo**  
**Cathode emission characteristic**  
**Caractéristique d'émission de la cathode**  
 ■ 1.0 - 3 ~ - (± 0.2 A)



**Caratteristica di emissione del catodo**  
**Cathode emission characteristic**  
**Caractéristique d'émission de la cathode**  
 ■ 2.0 - 3 ~ - (± 0.2 A)

