

	iRay 奕瑞	Doc ID	042-501-01
		Version	A3
	Mars1417X Product Specification	Revision Date	2020-10-12
		Page	1 / 4

Mars1417X Product Specification

Content

1.	Product Description and Feature.....	2
2.	Basic Technical Specification	2
3.	Image Performance	2
4.	Workflow	3
5.	Environmental Requirement	3
6.	Detector Reference Drawing	4

	iRay 奕瑞	Doc ID	042-501-01
		Version	A3
	Mars1417X Product Specification	Revision Date	2020-10-12
		Page	2 / 4

1. Product Description and Feature

Mars1417X is a 14x17 cassette-size wireless portable flat panel detector designed for Human used digital radiography.

- Fast workflow
- More image details
- Excellent image quality
- Cassette-size flat panel detector

2. Basic Technical Specification

Detector Technology	Amorphous Silicon
Scintillator	CsI
Active Area	14inch*17inch
Number of Pixels	3500 x 4300
Pixel Pitch	100 um
AD Conversion	16 bit
Trigger Mode	AED (Optional) /Software
Data Interface	WiFi(802.11ac) - First Stage; Tethered - Second Stage
Dimension	384mm x 460mm x 15mm
Weight	3.0 kg
Water Proof	IP56
Drop Height	100cm @3mm PVC
Static Loading	300kg Uniformly
Battery Capacity	8.5 h
Battery Charging	4h in Charger

3. Image Performance

	Min.
Maximum Linear Dose(uGy)	80uGy
MTF @ 0 LP/mm (@RQA5)	1
MTF @ 1.0 LP/mm (@RQA5)	65%

	iRay 奕瑞	Doc ID	042-501-01
		Version	A3
	Mars1417X Product Specification	Revision Date	2020-10-12
		Page	3 / 4

MTF @ 2.0 LP/mm (@RQA5)	35%
MTF @ 3.0 LP/mm (@RQA5)	19%
MTF @ 4.0 LP/mm (@RQA5)	10%
MTF @ Nyquist (@RQA5)	6%
DQE @ 0 LP/mm (@RQA5)	68%
DQE @ 1.0 LP/mm (@RQA5)	54%
DQE @ 2.0 LP/mm (@RQA5)	38%
DQE @ 3.0 LP/mm (@RQA5)	24%
DQE @ 4.0 LP/mm (@RQA5)	14%
DQE @ Nyquist (@RQA5)	6%

4. Workflow

Trigger Mode	AED (Optional) /Software
Pre-image Time	≤ 1s
Full Image Time	≤ 3s
Cycle Time	< 8s

5. Environmental Requirement

Operating Temperature	10°C~35°C
Storage & Transport Temperature with Package	-20°C~55°C
Operating Humidity	5%~90%
Storage & Transport Humidity with Package	5%~95%
Operating Atmospheric Pressure	700mbar~1060mbar
Storage & Transport Atmospheric Pressure	600mbar~1060mbar

	iRay 奕瑞	Doc ID	042-501-01
		Version	A3
	Mars1417X Product Specification	Revision Date	2020-10-12
		Page	4 / 4

6. Detector Reference Drawing

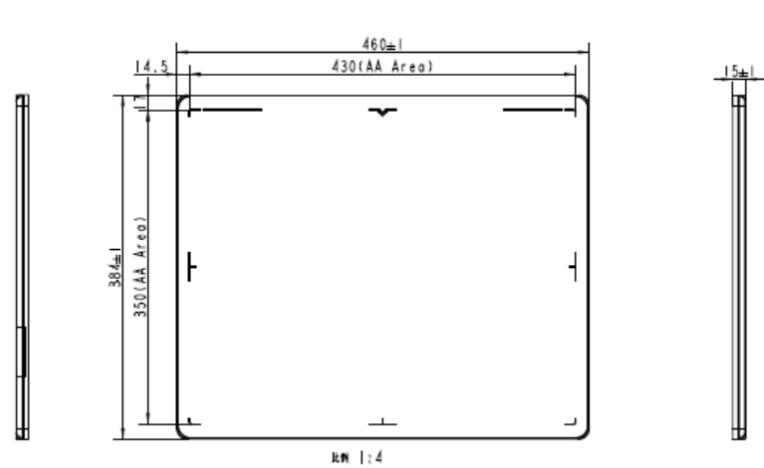


Fig1. Detector Mechanical Outline (unit:mm)

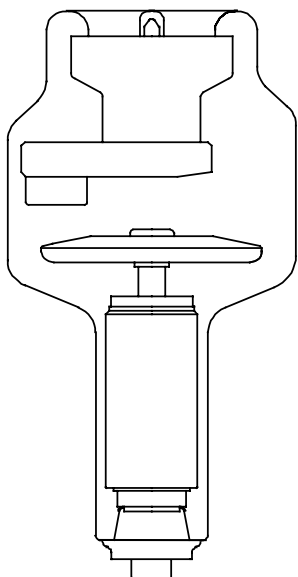


Documentazione Tubo a raggi X

Tube Documentation

Documentation du Tube

RTM 101 HS 0.6/1.2



Nr. di matricola
Tube No.
Nr de série

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

Documentazione N° Documentation N° N° de Documentation	Revisione Edition Version	Data di edizione Date of release Date de l'édition	Testo originale Original text Texte original
101S6C	B	26.03.2021	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





Sommario - Table of contents - Table des matières

Sommario - Table of contents - Table des matières	2
Caratteristiche - Specifications - Spécifications	3
Versione standard - Standard version - Version standard	5
Versione speciale per sostituzione in cuffie GE-CGR e SIEMENS Special version for reloading in GE-CGR and SIEMENS housings	
Version spéciale pour remise en gaine GE-CGR et SIEMENS	5
Curve di riscaldamento e raffreddamento dell'anodo Anode heating and cooling curves Courbes d'échauffement et de refroidissement de l'anode IEC 60613 (1989).....	6
CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  0.6 - 3 Ø - 50 / 60 Hz - IEC 60613 (1989) (2010)	7
CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  1.2 - 3 Ø - 50 / 60 Hz - IEC 60613 (1989) (2010)	7
CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  0.6 - 3 Ø - 150 / 180 Hz - IEC 60613 (1989) (2010)	8
CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE  1.2 - 3 Ø - 150 / 180 Hz - IEC 60613 (1989) (2010)	8
Abaco per carichi in serie - Serial load rating - Abaque de charges successives  0.6 - 3 Ø - 50 / 60 Hz.....	9
Abaco per carichi in serie - Serial load rating - Abaque de charges successives  1.2 - 3 Ø - 50 / 60 Hz.....	10
Abaco per carichi in serie - Serial load rating - Abaque de charges successives  0.6 - 3 Ø - 150 / 180 Hz	11
Abaco per carichi in serie - Serial load rating - Abaque de charges successives  1.2 - 3 Ø - 150 / 180 Hz	12
Caratteristica di emissione del catodo Cathode emission characteristic Caractéristique d'émission de la cathode  0.6 - 3 Ø - (± 0.2 A) - IEC 60613 (1989) (2010)	13
Caratteristica di emissione del catodo Cathode emission characteristic Caractéristique d'émission de la cathode  1.2 - 3 Ø - (± 0.2 A) - IEC 60613 (1989) (2010)	13

Dichiarazione di conformità

Questo prodotto soddisfa i requisiti essenziali della direttiva 93/42/CEE in accordo alle norme IEC 60613, IEC 60336, IEC 60522, IEC 60601-1, IEC 60601-1-3, IEC 60601-2-28.

Declaration of conformity

This tube fulfils the essential requirements of the directive 93/42/EEC according to standard IEC 60613, IEC 60336, IEC 60522, IEC 60601-1, IEC 60601-1-3, IEC 60601-2-28.

Confirmation de conformité

Ce tube remplit les exigences essentielles de la directive 93/42/CEE en accord avec les normes IEC 60613, IEC 60336, IEC 60522, IEC 60601-1, IEC 60601-1-3, IEC 60601-2-28.



Caratteristiche - Specifications - Spécifications

Macchie focali Focal spot Foyer	0.6 1.2	IEC 60336
Velocità di rotazione dell'anodo Anode speed Vitesse de l'anode	50 / 60 Hz 2450 / 2850 min⁻¹ 150 / 180 Hz 8500 / 10000 min⁻¹	
Potenza anodica nominale Nominal anode input power Puissance anodique nominale	26 kW 63 kW 40 kW 100 kW	IEC 60613 (1989)
Potenza anodica nominale in radiografia Nominal radiographic anode input power Puissance anodique radiographique nominale	27 kW 63 kW 41 kW 97 kW	IEC 60613 (2010)
Diametro anodico Anode diameter Diamètre de l'anode	102 mm	
Materiale anodico Anode material Matériau de l'anode	RT-TZM *	
RT = Tungsteno + Renio (5-10%) , TZM = Molibdeno + Titanio (0.40-0.55 %) + Zirconio (0.06-0.12 %) * RT = Tungsten + Rhenium (5-10%) , TZM = Molybdenum + Titanium (0.40-0.55 %) + Zirconium (0.06-0.12 %) RT = Tungstène + Rhénium (5-10%) , TZM = Molybdène + Titane (0.40-0.55 %) + Zirconium (0.06-0.12 %)		
Angolo anodico Anode angle Pente de l'anode	12.5 °	
Campo di radiazione Radiation field Champ de rayonnement	a 70 cm 30 cm a 100 cm 43 cm	
Filtrazione permanente Permanent filtration Filtration permanent	0.7 mm Al / 75 kV	IEC 60522
Capacità termica anodica Maximum anode heat content Chaleur maximale accumulée dans l'anode	300 kJ	400 kHU
Dissipazione termica continua Continuous heat dissipation Dissipation thermique continue	1000 W	80 000 HU/min
Dissipazione termica massima Maximum heat dissipation Dissipation thermique maximale	1500 W	120 000 HU/min
Alta tensione nominale Nominal X-ray tube voltage Haute tension nominale	150 kV	IEC 60613 (2010)
Massima corrente di filamento Max. filament current 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 calculés pour:

Potenza anodica di equilibrio termico

Equivalent anode input power

Puissance anodique d'équilibre thermique

100 W = % della capacità termica anodica

% of maximum anode heat content

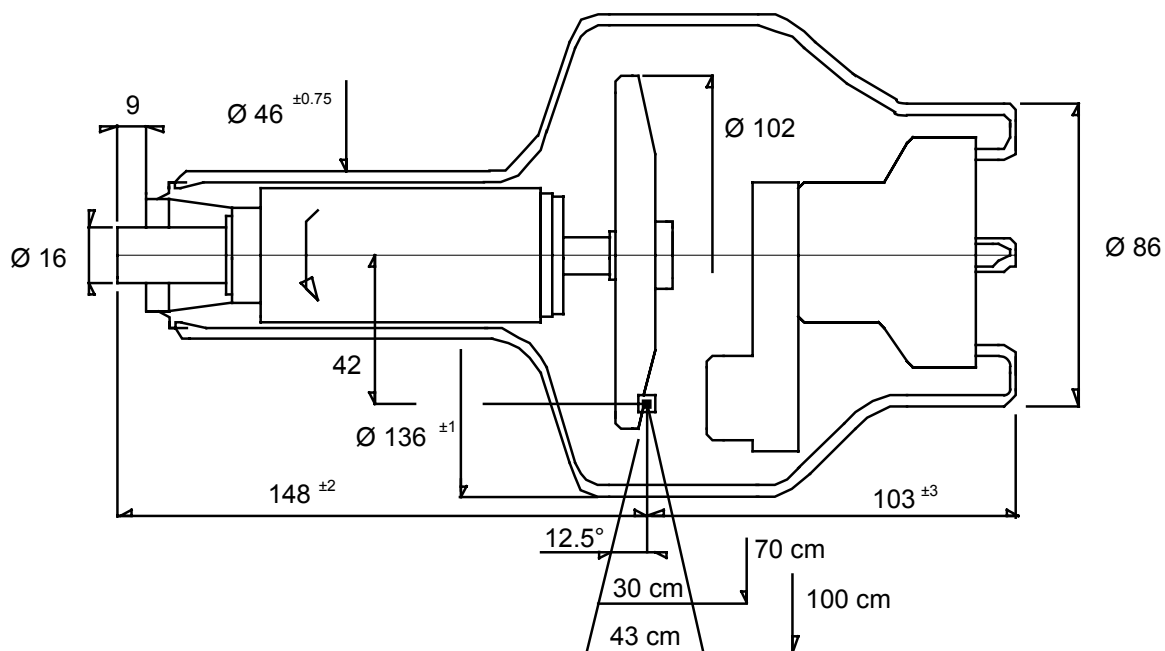
% de chaleur max. accumulée dans l'anode

33%

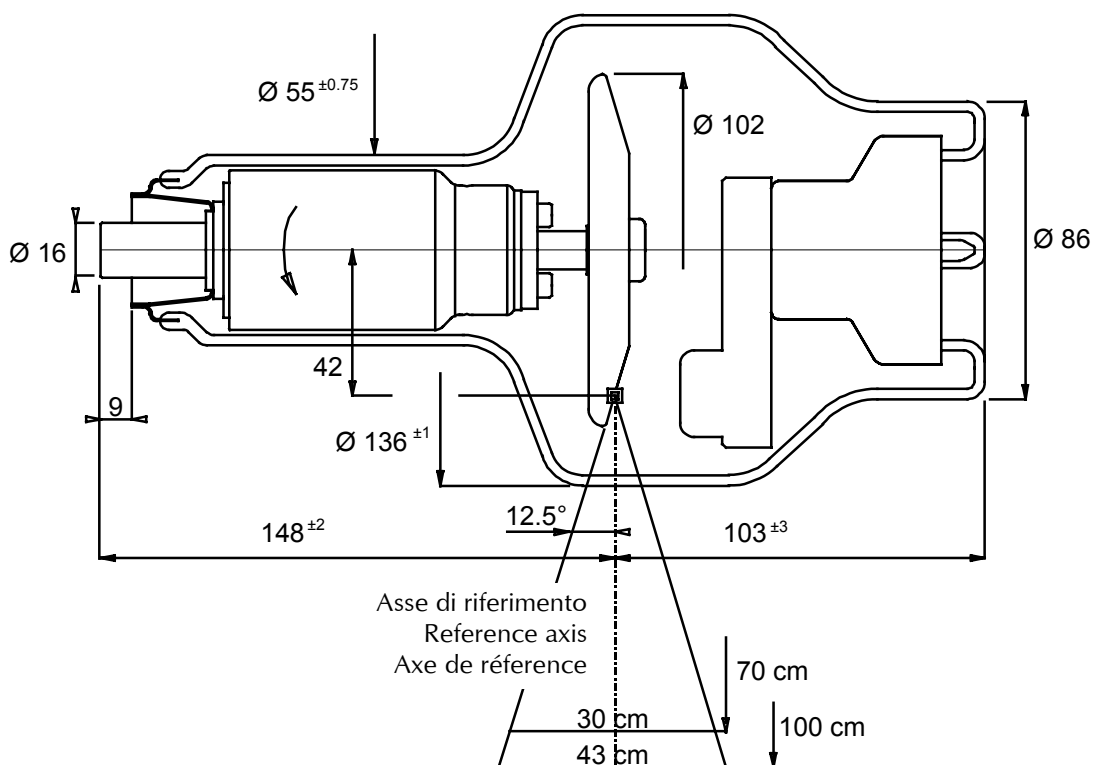


	trasporto e stoccaggio transportation and storage transport et stockage	funzionamento operation opération	
Limiti di temperatura Temperature limits Limites de température	-10°C ÷ +80°C	+10°C ÷ +40°C	
Limiti di umidità Humidity limits Limites d'humidité	max. 80%	max. 75%	
Limiti di pressione Pressure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

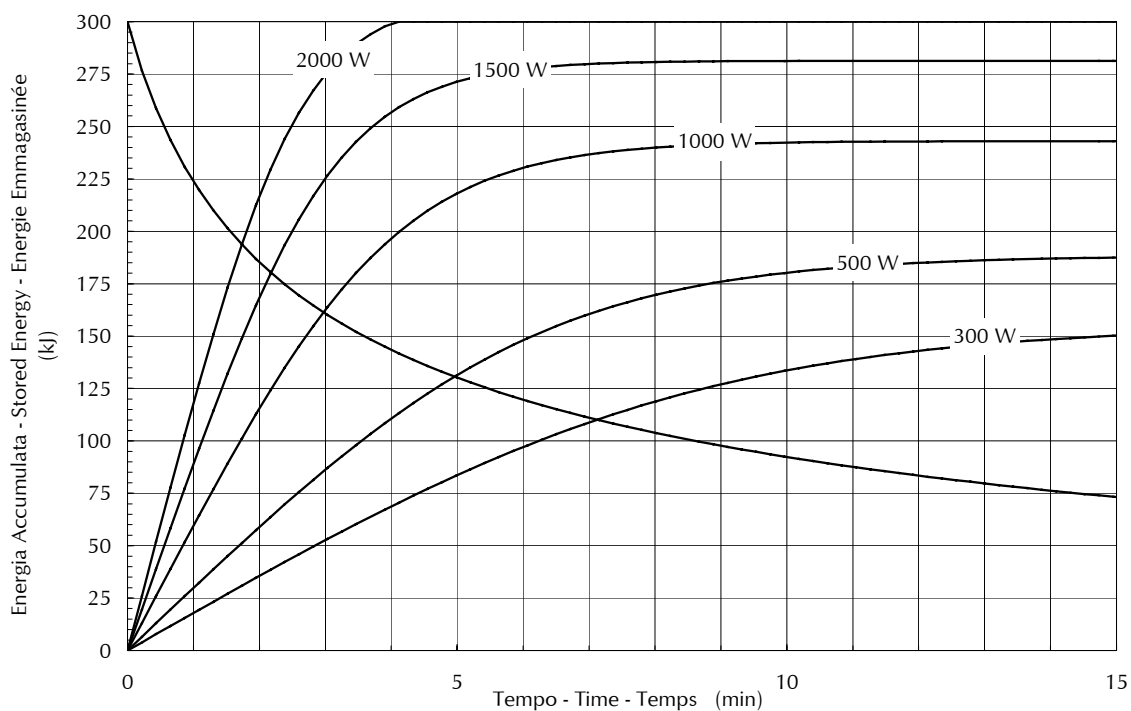
Versione standard - Standard version - Version standard



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



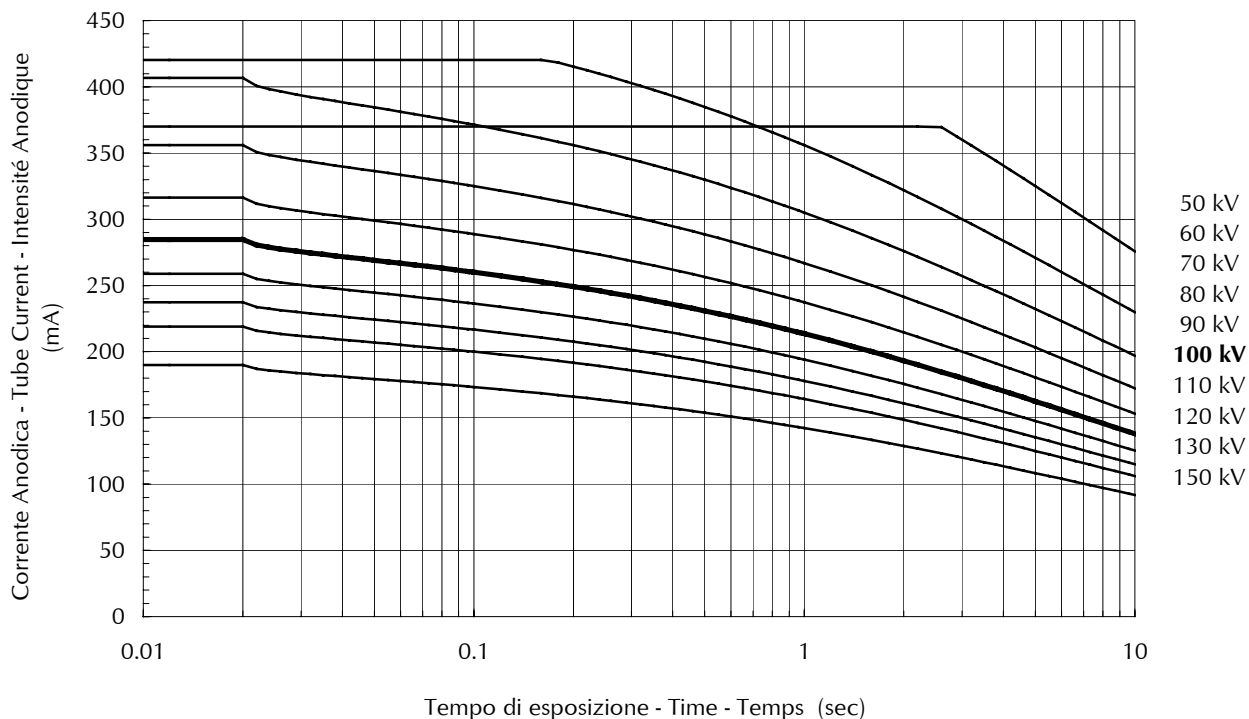
Curve di riscaldamento e raffreddamento dell'anodo
Anode heating and cooling curves
Courbes d'échauffement et de refroidissement de l'anode
IEC 60613 (1989)





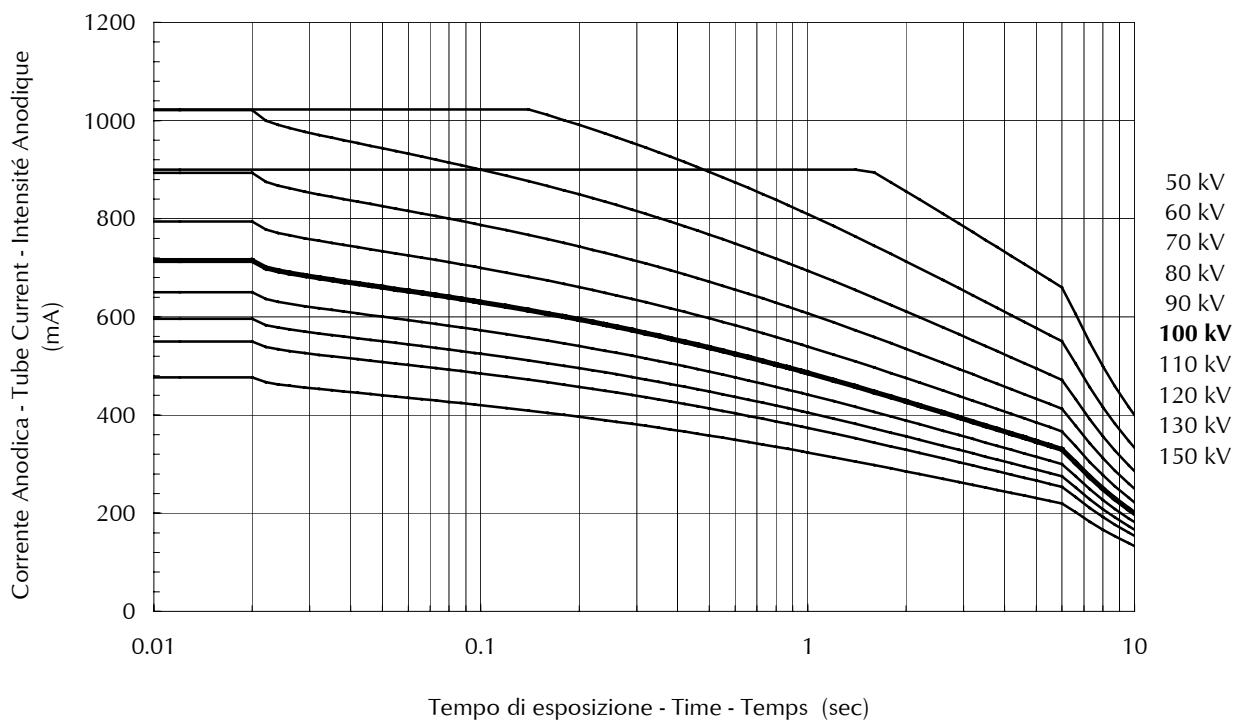
CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE

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



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

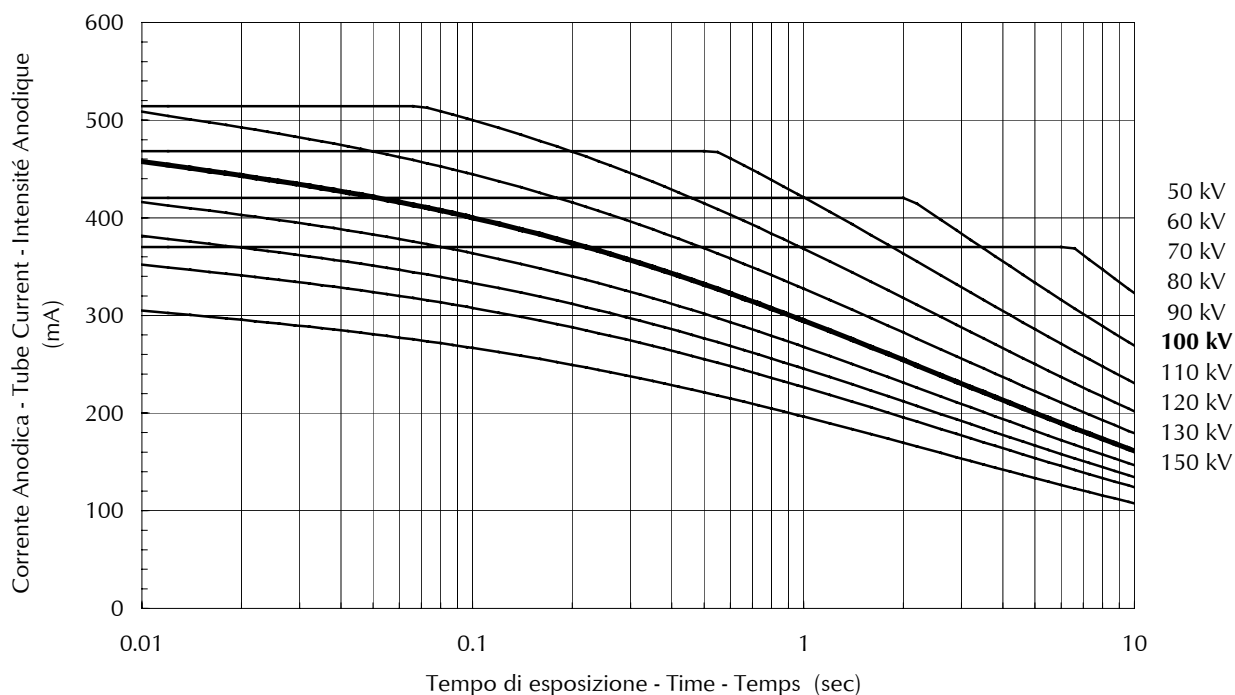
■ 1.2 - 3 Ø - 50 / 60 Hz - IEC 60613 (1989) (2010)





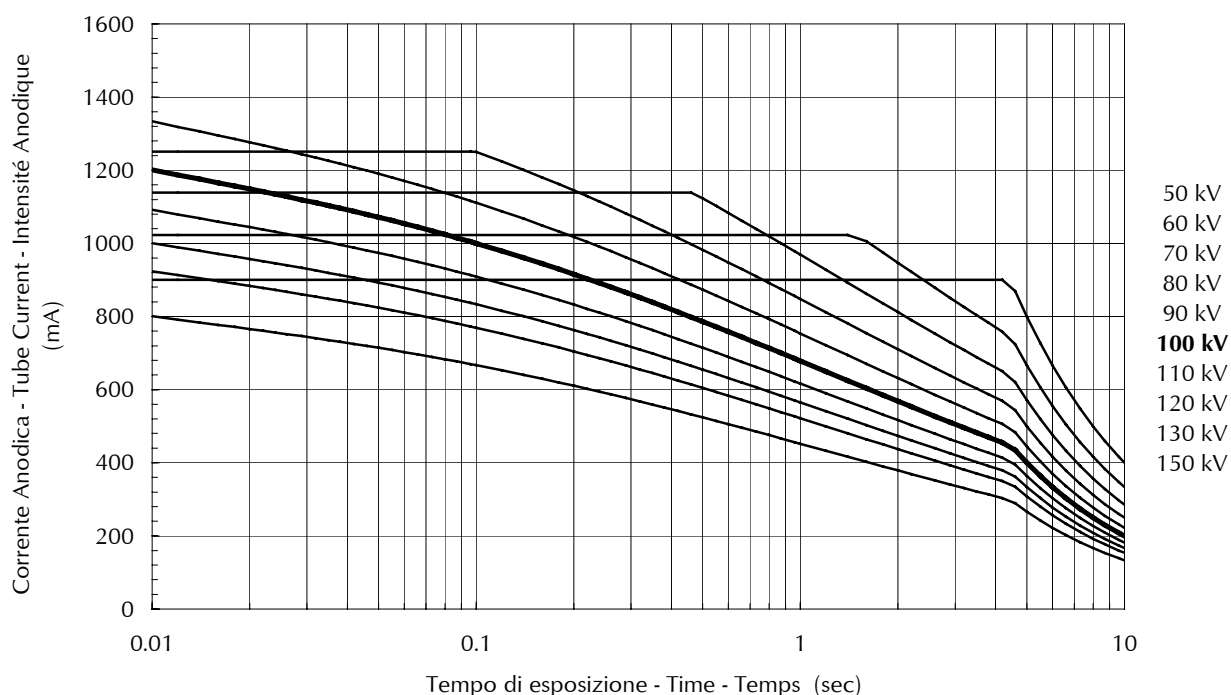
CURVE DI CARICO SINGOLO - SINGLE LOAD RATING - ABAQUE DE CHARGE UNIQUE

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



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

■ **1.2 - 3 Ø - 150 / 180 Hz - IEC 60613 (1989) (2010)**





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

0.6 - 3 Ø - 50 / 60 Hz

Potenza ammessa sul tubo in kW, per serie di n esposizioni, con frequenza z e durata di ogni esposizione in sec Anode input power as a function of n (N° of exposures in series), z (exp. rate per sec), the exposure time (sec) Puissance anodique en fonction de n (N° d'exp. de la 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	22.4	22.4	22.0	21.7	21.5	21.3	21.0	20.8	20.6	20.4	20.2	20.1	19.8	19.5	19.2	5
2	22.3	22.3	22.0	21.7	21.5	21.3	21.0	20.6	20.2	19.8	19.5	19.1	18.8	18.5	18.0	
3	22.2	22.2	21.9	21.7	21.4	21.1	20.6	20.2	19.7	19.3	18.9	18.5	18.1	17.7	17.2	
4	22.1	22.1	21.8	21.5	21.2	20.9	20.3	19.8	19.3	18.8	18.4	18.0	17.5	17.1	16.6	
5	22.0	22.0	21.7	21.4	21.0	20.7	20.1	19.5	19.0	18.5	18.0	17.5	17.1	-	-	
10	22.0	21.8	21.3	20.8	20.4	20.0	19.2	18.5	-	-	-	-	-	-	-	
15	22.0	21.6	21.0	20.5	20.0	19.5	-	-	-	-	-	-	-	-	-	
30	21.9	21.1	20.4	-	-	-	-	-	-	-	-	-	-	-	-	10
1	22.3	22.3	22.0	21.7	21.5	21.3	21.0	20.6	20.2	19.8	19.5	19.1	18.8	18.5	18.0	
2	22.1	22.1	21.8	21.5	21.2	20.9	20.3	19.8	19.3	18.8	18.4	17.9	17.5	17.1	16.6	
3	22.0	22.0	21.6	21.2	20.9	20.5	19.9	19.2	18.7	18.1	17.6	17.1	16.7	16.2	15.6	
4	22.0	21.9	21.4	21.0	20.6	20.2	19.5	18.8	18.2	17.6	17.0	16.5	16.0	15.5	14.9	
5	22.0	21.8	21.3	20.8	20.4	19.9	19.1	18.4	17.7	17.1	16.5	16.0	15.5	-	-	
10	22.0	21.4	20.7	20.1	19.5	19.0	18.0	17.1	-	-	-	-	-	-	-	
15	21.9	21.1	20.3	19.6	18.9	18.3	-	-	-	-	-	-	-	-	-	
30	21.6	20.5	19.5	-	-	-	-	-	-	-	-	-	-	-	-	20
1	22.1	22.1	21.8	21.5	21.2	20.9	20.3	19.8	19.3	18.8	18.4	17.9	17.5	17.1	16.5	
2	22.0	21.9	21.4	21.0	20.6	20.2	19.5	18.8	18.1	17.5	17.0	16.5	16.0	15.5	14.9	
3	22.0	21.7	21.1	20.6	20.2	19.7	18.9	18.1	17.4	16.7	16.1	15.5	15.0	14.5	13.8	
4	22.0	21.5	20.9	20.3	19.8	19.3	18.4	17.5	16.7	16.0	15.4	14.8	14.2	13.7	13.0	
5	22.0	21.3	20.7	20.1	19.5	19.0	18.0	17.0	16.2	15.5	14.8	14.2	13.6	-	-	
10	21.8	20.8	19.9	19.1	18.4	17.7	16.5	15.5	-	-	-	-	-	-	-	
15	21.5	20.4	19.4	18.5	17.7	16.9	-	-	-	-	-	-	-	-	-	
30	21.1	19.6	18.3	-	-	-	-	-	-	-	-	-	-	-	-	40
1	22.0	21.9	21.4	21.0	20.6	20.2	19.5	18.8	18.1	17.5	17.0	16.5	16.0	15.5	14.9	
2	22.0	21.5	20.9	20.3	19.8	19.3	18.4	17.5	16.7	16.0	15.4	14.8	14.2	13.7	13.0	
3	22.0	21.2	20.5	19.9	19.2	18.7	17.6	16.6	15.8	15.0	14.3	13.7	13.1	12.6	11.8	
4	21.9	21.0	20.2	19.5	18.8	18.1	17.0	16.0	15.1	14.3	13.5	12.9	12.3	11.8	11.0	
5	21.7	20.8	19.9	19.1	18.4	17.7	16.5	15.4	14.5	13.7	12.9	12.3	11.7	-	-	
10	21.3	20.1	19.0	18.0	17.0	16.2	14.8	13.6	-	-	-	-	-	-	-	
15	21.1	19.6	18.3	17.1	16.1	15.3	-	-	-	-	-	-	-	-	-	
30	20.4	18.5	16.9	-	-	-	-	-	-	-	-	-	-	-	-	60
1	22.0	21.7	21.1	20.6	20.2	19.7	18.8	18.1	17.3	16.7	16.1	15.5	15.0	14.5	12.8	
2	22.0	21.2	20.5	19.9	19.2	18.7	17.6	16.6	15.8	15.0	14.3	13.7	13.1	12.6	11.8	
3	21.8	20.9	20.1	19.3	18.6	17.9	16.7	15.7	14.8	14.0	13.2	12.6	12.0	11.4	10.7	
4	21.7	20.6	19.7	18.8	18.1	17.3	16.1	15.0	14.0	13.2	12.4	11.7	11.1	10.6	9.9	
5	21.5	20.4	19.4	18.5	17.6	16.9	15.5	14.4	13.4	12.5	11.8	11.1	10.5	-	-	
10	21.0	19.6	18.3	17.1	16.1	15.2	13.7	12.5	-	-	-	-	-	-	-	
15	20.7	19.0	17.5	16.2	15.1	14.2	-	-	-	-	-	-	-	-	-	
30	19.9	17.7	16.0	-	-	-	-	-	-	-	-	-	-	-	-	80
1	22.0	21.5	20.9	20.3	19.8	19.3	18.4	17.5	16.7	16.0	15.4	14.1	12.7	11.6	10.2	
2	21.9	21.0	20.2	19.5	18.8	18.1	17.0	16.0	15.1	14.3	13.5	12.6	11.4	10.3	9.1	
3	21.7	20.6	19.7	18.8	18.1	17.3	16.1	15.0	14.0	13.2	12.4	11.7	10.9	9.9	8.7	
4	21.5	20.3	19.3	18.4	17.5	16.7	15.4	14.2	13.2	12.4	11.6	10.9	10.3	9.7	8.5	
5	21.3	20.1	19.0	17.9	17.0	16.2	14.8	13.6	12.6	11.7	11.0	10.3	9.7	-	-	
10	20.8	19.1	17.7	16.5	15.4	14.5	12.9	11.7	-	-	-	-	-	-	-	
15	20.4	18.5	16.9	15.5	14.4	13.4	-	-	-	-	-	-	-	-	-	
30	19.6	17.1	15.3	-	-	-	-	-	-	-	-	-	-	-	-	100
1	22.0	21.3	20.7	20.1	19.5	19.0	17.9	17.0	16.2	15.3	13.4	11.9	10.7	9.8	8.6	
2	21.7	20.8	19.9	19.1	18.4	17.7	16.5	15.4	14.5	13.4	11.7	10.4	9.4	8.5	7.5	
3	21.5	20.4	19.4	18.5	17.6	16.9	15.5	14.4	13.4	12.5	11.1	9.9	8.9	8.1	7.1	
4	21.3	20.1	19.0	17.9	17.0	16.2	14.8	13.6	12.6	11.7	10.8	9.6	8.7	7.9	6.9	
5	21.2	19.8	18.6	17.5	16.5	15.7	14.2	13.0	12.0	11.1	10.3	9.5	8.5	-	-	
10	20.6	18.8	17.3	16.0	14.9	13.9	12.3	11.0	-	-	-	-	-	-	-	
15	20.2	18.1	16.4	15.0	13.8	12.8	-	-	-	-	-	-	-	-	-	
30	19.2	16.7	14.7	-	-	-	-	-	-	-	-	-	-	-	-	150
1	21.9	21.0	20.3	19.6	18.9	18.3	17.1	16.1	13.4	11.5	10.1	9.0	8.1	7.3	6.5	
2	21.5	20.4	19.4	18.5	17.6	16.9	15.5	13.4	11.2	9.6	8.4	7.4	6.7	6.1	5.4	
3	21.3	19.9	18.8	17.7	16.8	15.9	14.5	12.5	10.4	8.9	7.8	6.9	6.2	5.7	5.0	
4	21.0	19.6	18.3	17.1	16.1	15.2	13.7	12.0	10.0	8.6	7.5	6.7	6.0	5.5	4.8	
5	20.9	19.2	17.8	16.6	15.6	14.7	13.1	11.8	9.8	8.4	7.3	6.5	5.9	-	-	
10	20.2	18.1	16.4	15.0	13.8	12.8	11.1	9.9	-	-	-	-	-	-	-	
15	19.6	17.3	15.4	13.9	12.7	11.6	-	-	-	-	-	-	-	-	-	
30	18.6	15.7	13.6	-	-	-	-	-	-	-	-	-	-	-	-	300
1	21.5	20.4	19.4	18.5	17.6	16.9	13.5	10.8	9.0	7.7	6.8	6.0	5.4	4.9	4.3	
2	21.0	19.6	18.3	17.1	16.1	13.4	10.1	8.1	6.7	5.8	5.0	4.5	4.0	3.7	3.2	
3	20.7	19.0	17.5	16.2	14.3	11.9	8.9	7.2	6.0	5.1	4.5	4.0	3.6	3.3	2.9	
4	20.4	18.5	16.9	15.5	13.4	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.3	3.0	2.7	
5	20.2	18.1	16.4	15.0	12.8	10.7	8.0	6.4	5.4	4.6	4.0	3.6	3.2	-	-	
10	19.2	16.6	14.7	13.1	11.8	9.8	7.3	5.9	-	-	-	-	-	-	-	
15	18.6	15.7	13.6	12.0	10.7	9.5	-	-	-	-	-	-	-	-	-	
30	17.3	13.9	11.6	-	-	-	-	-	-	-	-	-	-	-	-	



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

■ 1.2 - 3 Ø - 50 / 60 Hz

Potenza ammessa sul tubo in kW, per serie di n esposizioni, con frequenza z e durata di ogni esposizione in sec Anode input power as a function of n (N° of exposures in series), z (exp. rate per sec), the exposure time (sec) Puissance anodique en fonction de n (N° d'exp. de la 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	56.0	56.0	54.6	53.6	52.8	52.2	51.2	50.4	49.7	49.1	48.5	48.0	47.2	46.3	45.2	5
2	55.5	55.5	54.6	53.6	52.8	52.2	51.1	49.7	48.5	47.3	46.1	45.0	44.0	43.0	41.6	
3	55.2	55.2	54.2	53.3	52.4	51.5	49.9	48.3	46.9	45.5	44.2	43.0	41.8	40.7	39.2	
4	54.9	54.9	53.8	52.7	51.7	50.8	48.9	47.2	45.6	44.1	42.7	41.4	40.2	39.0	37.4	
5	54.6	54.6	53.4	52.3	51.2	50.1	48.1	46.3	44.6	43.0	41.5	40.1	38.9	-	-	
10	54.6	53.7	52.0	50.5	49.1	47.7	45.2	43.0	-	-	-	-	-	-	-	
15	54.6	53.0	51.1	49.3	47.7	46.1	-	-	-	-	-	-	-	-	-	
30	54.2	51.5	49.1	-	-	-	-	-	-	-	-	-	-	-	-	10
1	55.5	55.5	54.6	53.6	52.8	52.2	51.0	49.7	48.4	47.2	46.1	45.0	44.0	43.0	41.6	
2	54.9	54.9	53.8	52.7	51.7	50.7	48.9	47.2	45.6	44.1	42.7	41.4	40.1	39.0	37.3	
3	54.6	54.4	53.1	51.8	50.6	49.5	47.3	45.4	43.6	41.9	40.4	38.9	37.6	36.4	34.6	
4	54.6	54.0	52.5	51.1	49.7	48.5	46.1	44.0	42.0	40.3	38.6	37.1	35.7	34.4	32.7	
5	54.6	53.6	52.0	50.4	49.0	47.6	45.1	42.8	40.8	38.9	37.2	35.7	34.2	-	-	
10	54.6	52.3	50.1	48.1	46.3	44.6	41.5	38.9	-	-	-	-	-	-	-	
15	54.1	51.3	48.8	46.5	44.4	42.5	-	-	-	-	-	-	-	-	-	
30	53.0	49.3	46.1	-	-	-	-	-	-	-	-	-	-	-	-	20
1	54.9	54.9	53.8	52.7	51.7	50.7	48.9	47.1	45.5	44.1	42.7	41.3	40.1	38.8	34.2	
2	54.6	53.9	52.5	51.0	49.7	48.4	46.1	44.0	42.0	40.2	38.6	37.1	35.7	34.4	32.6	
3	54.6	53.3	51.5	49.8	48.3	46.8	44.2	41.8	39.7	37.7	36.0	34.4	32.9	31.6	29.8	
4	54.6	52.7	50.7	48.9	47.2	45.6	42.7	40.1	37.9	35.8	34.0	32.4	30.9	29.5	27.7	
5	54.6	52.2	50.1	48.1	46.2	44.5	41.4	38.8	36.4	34.3	32.5	30.8	29.3	-	-	
10	53.6	50.4	47.6	45.1	42.8	40.8	37.2	34.2	-	-	-	-	-	-	-	
15	52.9	49.1	45.9	43.1	40.6	38.3	-	-	-	-	-	-	-	-	-	
30	51.3	46.5	42.5	-	-	-	-	-	-	-	-	-	-	-	-	40
1	54.6	53.9	52.5	51.0	49.7	48.4	46.1	43.9	37.9	32.5	28.4	25.2	22.7	20.7	18.2	
2	54.6	52.7	50.7	48.9	47.1	45.5	42.7	40.1	35.6	30.5	26.7	23.7	21.4	19.4	17.1	
3	54.4	51.8	49.5	47.3	45.4	43.6	40.3	37.6	34.8	29.9	26.1	23.2	20.9	19.0	16.7	
4	53.9	51.0	48.4	46.1	44.0	42.0	38.6	35.7	33.2	29.5	25.8	23.0	20.7	18.8	16.5	
5	53.6	50.4	47.6	45.1	42.8	40.7	37.2	34.2	31.6	29.3	25.7	22.8	20.5	-	-	
10	52.2	48.1	44.5	41.4	38.8	36.4	32.5	29.3	-	-	-	-	-	-	-	
15	51.2	46.4	42.4	39.0	36.2	33.7	-	-	-	-	-	-	-	-	-	
30	49.1	43.1	38.3	-	-	-	-	-	-	-	-	-	-	-	-	60
1	54.6	53.3	51.5	49.8	48.3	46.8	40.1	32.1	26.8	22.9	20.1	17.8	16.1	14.6	12.8	
2	54.4	51.8	49.5	47.3	45.4	43.6	36.7	29.4	24.5	21.0	18.4	16.3	14.7	13.4	11.8	
3	53.8	50.7	48.0	45.5	43.3	41.3	35.6	28.5	23.7	20.3	17.8	15.8	14.2	12.9	11.4	
4	53.3	49.8	46.8	44.2	41.8	39.6	35.0	28.0	23.3	20.0	17.5	15.6	14.0	12.7	11.2	
5	52.8	49.1	45.8	43.0	40.5	38.3	34.5	27.7	23.1	19.8	17.3	15.4	13.9	-	-	
10	51.2	46.4	42.4	39.0	36.1	33.7	29.6	26.4	-	-	-	-	-	-	-	
15	50.1	44.5	40.1	36.4	33.4	30.8	-	-	-	-	-	-	-	-	-	
30	47.6	40.8	35.7	-	-	-	-	-	-	-	-	-	-	-	-	80
1	54.6	52.7	50.7	48.9	47.1	42.4	31.8	25.5	21.2	18.2	15.9	14.1	12.7	11.6	10.2	
2	53.9	51.0	48.4	46.1	43.9	37.9	28.4	22.7	18.9	16.2	14.2	12.6	11.4	10.3	9.1	
3	53.3	49.8	46.8	44.2	41.8	36.3	27.3	21.8	18.2	15.6	13.6	12.1	10.9	9.9	8.7	
4	52.7	48.9	45.5	42.7	40.1	35.6	26.7	21.4	17.8	15.3	13.3	11.9	10.7	9.7	8.5	
5	52.2	48.0	44.5	41.4	38.7	35.1	26.3	21.1	17.6	15.1	13.2	11.7	10.5	-	-	
10	50.4	45.1	40.7	37.2	34.2	31.6	25.7	20.5	-	-	-	-	-	-	-	
15	49.1	43.0	38.3	34.5	31.4	28.8	-	-	-	-	-	-	-	-	-	
30	46.4	39.0	33.7	-	-	-	-	-	-	-	-	-	-	-	-	100
1	54.6	52.2	50.0	48.0	42.9	35.8	26.8	21.5	17.9	15.3	13.4	11.9	10.7	9.8	8.6	
2	53.6	50.4	47.6	45.0	37.4	31.2	23.4	18.7	15.6	13.4	11.7	10.4	9.4	8.5	7.5	
3	52.8	49.1	45.8	43.0	35.6	29.7	22.3	17.8	14.8	12.7	11.1	9.9	8.9	8.1	7.1	
4	52.2	48.0	44.5	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	51.7	47.1	43.3	40.1	34.2	28.5	21.4	17.1	14.2	12.2	10.7	9.5	8.5	-	-	
10	49.7	44.0	39.4	35.7	32.6	27.6	20.7	16.5	-	-	-	-	-	-	-	
15	48.3	41.8	36.8	32.9	29.8	27.2	-	-	-	-	-	-	-	-	-	
30	45.4	37.6	32.1	-	-	-	-	-	-	-	-	-	-	-	-	150
1	54.0	51.2	48.7	40.3	32.3	26.9	20.2	16.1	13.4	11.5	10.1	9.0	8.1	7.3	6.5	
2	52.8	49.1	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	51.9	47.6	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	51.2	46.4	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	50.6	45.4	39.2	29.4	23.5	19.6	14.7	11.8	9.8	8.4	7.3	6.5	5.9	-	-	
10	48.3	41.8	36.8	28.0	22.4	18.7	14.0	11.2	-	-	-	-	-	-	-	
15	46.7	39.4	34.1	27.6	22.0	18.4	-	-	-	-	-	-	-	-	-	
30	43.4	34.9	29.2	-	-	-	-	-	-	-	-	-	-	-	-	300
1	52.8	49.1	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	
2	51.2	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	50.0	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	49.1	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	48.3	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	45.4	29.4	19.6	14.7	11.8	9.8	7.3	5.9	-	-	-	-	-	-	-	
15	43.3	28.5	19.0	14.2	11.4	9.5	-	-	-	-	-	-	-	-	-	
30	39.4	27.6	18.4	-	-	-	-	-	-	-	-	-	-	-	-	



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

0.6 - 3 Ø - 150 / 180 Hz

Potenza ammessa sul tubo in kW, per serie di n esposizioni, con frequenza z e durata di ogni esposizione in sec Anode input power as a function of n (N° of exposures in series), z (exp. rate per sec), the exposure time (sec) Puissance anodique en fonction de n (N° d'ex. 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	36.6	35.5	34.7	34.2	33.7	33.3	32.6	32.0	31.5	31.0	30.6	30.3	29.8	29.2	28.3	5
2	36.6	35.5	34.7	34.2	33.7	33.3	32.6	31.8	30.8	29.9	29.0	28.2	27.4	26.6	25.6	
3	36.6	35.5	34.7	34.2	33.7	33.3	32.0	30.7	29.6	28.5	27.5	26.6	25.8	25.0	23.8	
4	36.6	35.5	34.7	34.2	33.4	32.7	31.2	29.8	28.6	27.5	26.4	25.5	24.6	23.7	22.6	
5	36.6	35.5	34.7	33.9	33.0	32.1	30.5	29.1	27.8	26.6	25.5	24.5	23.6	-	-	
10	36.5	35.0	33.7	32.4	31.3	30.2	28.3	26.6	-	-	-	-	-	-	-	
15	36.1	34.4	32.8	31.4	30.1	28.9	-	-	-	-	-	-	-	-	-	
30	35.4	33.1	31.1	-	-	-	-	-	-	-	-	-	-	-	-	10
1	36.6	35.5	34.7	34.2	33.7	33.3	32.6	31.8	30.8	29.9	29.0	28.2	27.4	26.6	25.6	
2	36.6	35.5	34.7	34.2	33.4	32.6	31.2	29.8	28.6	27.5	26.4	25.4	24.5	23.7	22.5	
3	36.6	35.5	34.5	33.5	32.6	31.6	30.0	28.5	27.1	25.8	24.7	23.7	22.7	21.8	20.6	
4	36.6	35.3	34.1	32.9	31.8	30.8	29.0	27.4	25.9	24.6	23.4	22.4	21.4	20.5	19.3	
5	36.5	35.0	33.7	32.4	31.2	30.2	28.2	26.5	25.0	23.6	22.4	21.3	20.4	-	-	
10	35.8	33.9	32.1	30.5	29.1	27.8	25.5	23.6	-	-	-	-	-	-	-	
15	35.4	33.1	31.0	29.3	27.7	26.2	-	-	-	-	-	-	-	-	-	
30	34.4	31.4	28.9	-	-	-	-	-	-	-	-	-	-	-	-	20
1	36.6	35.5	34.7	34.2	33.4	32.6	31.2	29.8	28.6	27.5	26.4	25.4	24.5	23.7	22.5	
2	36.6	35.3	34.1	32.9	31.8	30.8	29.0	27.4	25.9	24.6	23.4	22.4	21.4	20.5	19.3	
3	36.3	34.7	33.3	31.9	30.7	29.6	27.5	25.8	24.2	22.8	21.6	20.5	19.5	18.6	17.4	
4	36.1	34.3	32.6	31.2	29.8	28.6	26.4	24.5	22.9	21.5	20.2	19.1	18.1	17.2	16.0	
5	35.8	33.9	32.1	30.5	29.1	27.8	25.5	23.6	21.9	20.4	19.2	18.1	17.1	-	-	
10	35.0	32.4	30.2	28.2	26.5	25.0	22.4	20.4	-	-	-	-	-	-	-	
15	34.4	31.4	28.8	26.7	24.8	23.2	-	-	-	-	-	-	-	-	-	
30	33.1	29.3	26.2	-	-	-	-	-	-	-	-	-	-	-	-	40
1	36.6	35.3	34.1	32.9	31.8	30.8	29.0	27.4	25.9	24.6	23.4	22.4	21.4	20.5	18.2	
2	36.1	34.3	32.6	31.2	29.8	28.6	26.4	24.5	22.9	21.5	20.2	19.1	18.1	17.2	16.0	
3	35.6	33.5	31.6	30.0	28.4	27.1	24.7	22.7	21.0	19.6	18.3	17.2	16.2	15.3	14.2	
4	35.3	32.9	30.8	29.0	27.4	25.9	23.4	21.4	19.7	18.2	16.9	15.8	14.9	14.0	12.9	
5	35.0	32.4	30.2	28.2	26.5	25.0	22.4	20.3	18.6	17.1	15.9	14.8	13.9	-	-	
10	33.9	30.5	27.8	25.5	23.6	21.9	19.2	17.1	-	-	-	-	-	-	-	
15	33.1	29.2	26.2	23.7	21.7	20.0	-	-	-	-	-	-	-	-	-	
30	31.4	26.7	23.2	-	-	-	-	-	-	-	-	-	-	-	-	60
1	36.3	34.7	33.3	31.9	30.7	29.6	27.5	25.8	24.2	22.8	20.1	17.8	16.1	14.6	12.8	
2	35.6	33.5	31.6	30.0	28.4	27.1	24.7	22.7	21.0	19.6	18.3	16.3	14.7	13.4	11.8	
3	35.1	32.6	30.5	28.6	26.9	25.4	22.9	20.8	19.1	17.6	16.4	15.3	14.2	12.9	11.4	
4	34.7	31.9	29.6	27.5	25.8	24.2	21.6	19.5	17.7	16.3	15.1	14.0	13.1	12.3	11.2	
5	34.4	31.4	28.8	26.7	24.8	23.2	20.5	18.4	16.7	15.3	14.1	13.0	12.1	-	-	
10	33.1	29.2	26.2	23.7	21.7	20.0	17.2	15.2	-	-	-	-	-	-	-	
15	32.1	27.8	24.5	21.9	19.8	18.1	-	-	-	-	-	-	-	-	-	
30	30.2	25.0	21.3	-	-	-	-	-	-	-	-	-	-	-	-	80
1	36.1	34.3	32.6	31.2	29.8	28.6	26.4	24.5	21.2	18.2	15.9	14.1	12.7	11.6	10.2	
2	35.3	32.9	30.8	29.0	27.4	25.9	23.4	21.4	18.9	16.2	14.2	12.6	11.4	10.3	9.1	
3	34.7	31.9	29.6	27.5	25.8	24.2	21.6	19.5	17.7	15.6	13.6	12.1	10.9	9.9	8.7	
4	34.3	31.2	28.6	26.4	24.5	22.9	20.2	18.1	16.4	15.0	13.3	11.9	10.7	9.7	8.5	
5	33.9	30.5	27.8	25.5	23.5	21.9	19.2	17.1	15.4	14.0	12.8	11.7	10.5	-	-	
10	32.4	28.2	25.0	22.4	20.3	18.6	15.9	13.9	-	-	-	-	-	-	-	
15	31.4	26.7	23.2	20.5	18.4	16.7	-	-	-	-	-	-	-	-	-	
30	29.2	23.7	20.0	-	-	-	-	-	-	-	-	-	-	-	-	100
1	35.8	33.9	32.1	30.5	29.1	27.8	25.5	21.5	17.9	15.3	13.4	11.9	10.7	9.8	8.6	
2	35.0	32.4	30.2	28.2	26.5	25.0	22.4	18.7	15.6	13.4	11.7	10.4	9.4	8.5	7.5	
3	34.4	31.4	28.8	26.7	24.8	23.2	20.5	17.8	14.8	12.7	11.1	9.9	8.9	8.1	7.1	
4	33.9	30.5	27.8	25.5	23.5	21.9	19.2	17.1	14.5	12.4	10.8	9.6	8.7	7.9	6.9	
5	33.4	29.8	26.9	24.5	22.5	20.8	18.1	16.0	14.2	12.2	10.7	9.5	8.5	-	-	
10	31.8	27.4	24.0	21.4	19.3	17.5	14.9	12.9	-	-	-	-	-	-	-	
15	30.7	25.8	22.2	19.5	17.4	15.7	-	-	-	-	-	-	-	-	-	
30	28.5	22.7	18.9	-	-	-	-	-	-	-	-	-	-	-	-	150
1	35.4	33.1	31.0	29.2	27.6	26.2	20.2	16.1	13.4	11.5	10.1	9.0	8.1	7.3	6.5	
2	34.4	31.4	28.8	26.7	24.8	22.3	16.7	13.4	11.2	9.6	8.4	7.4	6.7	6.1	5.4	
3	33.6	30.2	27.3	25.0	23.0	20.8	15.6	12.5	10.4	8.9	7.8	6.9	6.2	5.7	5.0	
4	33.1	29.2	26.2	23.7	21.7	20.0	15.0	12.0	10.0	8.6	7.5	6.7	6.0	5.5	4.8	
5	32.6	28.4	25.3	22.7	20.6	18.9	14.7	11.8	9.8	8.4	7.3	6.5	5.9	-	-	
10	30.7	25.8	22.2	19.5	17.4	15.7	13.1	11.2	-	-	-	-	-	-	-	
15	29.4	24.0	20.3	17.5	15.5	13.8	-	-	-	-	-	-	-	-	-	
30	26.9	20.8	17.0	-	-	-	-	-	-	-	-	-	-	-	-	300
1	34.4	31.4	28.8	26.7	21.6	18.0	13.5	10.8	9.0	7.7	6.8	6.0	5.4	4.9	4.3	
2	33.1	29.2	26.2	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	32.1	27.8	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	31.4	26.7	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	30.7	25.8	21.4	16.1	12.8	10.7	8.0	6.4	5.4	4.6	4.0	3.6	3.2	-	-	
10	28.4	22.7	18.9	14.7	11.8	9.8	7.3	5.9	-	-	-	-	-	-	-	
15	26.9	20.8	17.0	14.2	11.4	9.5	-	-	-	-	-	-	-	-	-	
30	24.0	17.5	13.8	-	-	-	-	-	-	-	-	-	-	-	-	



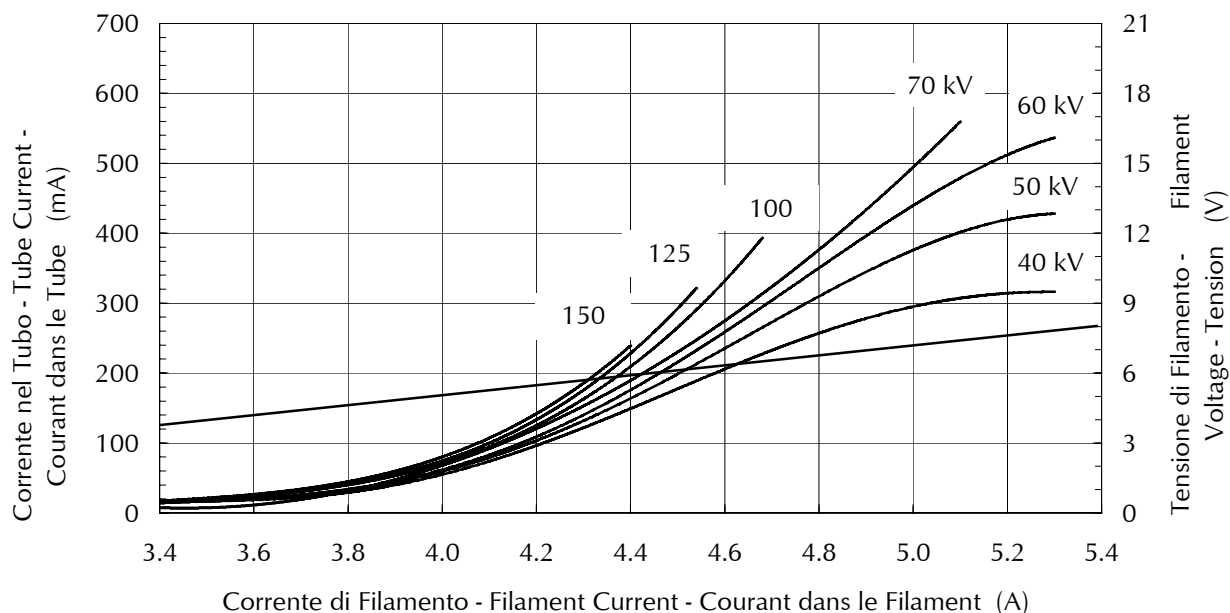
Abaco per carichi in serie - Serial load rating - Abaque de charges successives

■ 1.2 - 3 Ø - 150 / 180 Hz

Potenza ammessa sul tubo in kW, per serie di n esposizioni, con frequenza z e durata di ogni esposizione in sec Anode input power as a function of n (N° of exposures in series), z (exp. rate per sec), the exposure time (sec) Puissance anodique en fonction de n (N° d'exp. de la 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	96.1	91.9	89.3	87.3	85.7	84.3	81.9	80.0	78.3	76.9	75.5	74.4	73.0	71.0	68.2	5
2	96.1	91.9	89.3	87.3	85.7	84.3	81.9	79.5	76.2	73.2	70.4	67.8	65.4	63.2	60.1	
3	96.1	91.9	89.3	87.3	85.7	84.3	79.9	75.8	72.2	68.9	65.9	63.1	60.6	58.2	55.0	
4	96.1	91.9	89.3	87.3	84.9	82.2	77.3	73.0	69.1	65.7	62.5	59.7	57.0	54.7	51.4	
5	96.1	91.9	89.3	86.4	83.3	80.4	75.2	70.7	66.6	63.0	59.8	56.9	54.3	-	-	
10	95.5	90.3	85.6	81.4	77.6	74.1	68.0	62.9	-	-	-	-	-	-	-	
15	94.3	88.2	82.8	78.0	73.8	70.0	-	-	-	-	-	-	-	-	-	
30	91.7	83.8	77.1	-	-	-	-	-	-	-	-	-	-	-	-	10
1	96.1	91.9	89.3	87.3	85.7	84.3	81.9	79.5	76.2	73.2	70.4	67.8	65.4	63.1	60.0	
2	96.1	91.9	89.3	87.3	84.8	82.2	77.3	73.0	69.1	65.6	62.5	59.6	57.0	54.6	51.4	
3	96.1	91.9	88.7	85.1	81.9	78.8	73.4	68.6	64.5	60.8	57.5	54.6	51.9	49.5	46.3	
4	96.1	91.3	87.0	83.1	79.5	76.2	70.4	65.4	61.1	57.3	53.9	50.9	48.3	45.9	42.7	
5	95.5	90.3	85.6	81.4	77.5	74.0	67.9	62.8	58.3	54.5	51.1	48.1	45.5	-	-	
10	93.3	86.4	80.4	75.2	70.7	66.6	59.8	54.3	-	-	-	-	-	-	-	
15	91.6	83.6	76.9	71.1	66.2	61.9	-	-	-	-	-	-	-	-	-	
30	88.2	78.0	70.0	-	-	-	-	-	-	-	-	-	-	-	-	20
1	96.1	91.9	89.3	87.3	84.8	82.2	77.3	73.0	69.1	61.0	53.4	47.5	42.7	38.8	34.2	
2	96.1	91.3	87.0	83.1	79.5	76.2	70.4	65.4	61.0	57.2	51.7	45.9	41.3	37.6	33.1	
3	95.0	89.3	84.3	79.8	75.8	72.2	65.8	60.5	56.0	52.1	48.8	45.4	40.9	37.2	32.7	
4	94.0	87.7	82.2	77.3	73.0	69.1	62.5	57.0	52.4	48.5	45.1	42.2	39.6	37.0	32.5	
5	93.2	86.3	80.4	75.2	70.6	66.6	59.8	54.2	49.6	45.7	42.4	39.5	37.0	-	-	
10	90.3	81.4	74.0	67.9	62.8	58.3	51.1	45.5	-	-	-	-	-	-	-	
15	88.1	77.9	69.8	63.3	57.8	53.3	-	-	-	-	-	-	-	-	-	40
30	83.6	71.1	61.9	-	-	-	-	-	-	-	-	-	-	-	-	
1	96.1	91.3	87.0	83.1	79.5	75.7	56.8	45.4	37.9	32.5	28.4	25.2	22.7	20.7	18.2	
2	94.0	87.7	82.2	77.3	73.0	69.1	53.4	42.7	35.6	30.5	26.7	23.7	21.4	19.4	17.1	
3	92.5	85.1	78.8	73.4	68.6	64.5	52.2	41.8	34.8	29.9	26.1	23.2	20.9	19.0	16.7	
4	91.3	83.1	76.2	70.4	65.4	61.0	51.7	41.3	34.4	29.5	25.8	23.0	20.7	18.8	16.5	
5	90.2	81.3	74.0	67.9	62.7	58.3	51.1	41.1	34.2	29.3	25.7	22.8	20.5	-	-	
10	86.3	75.2	66.6	59.8	54.2	49.6	42.4	37.0	-	-	-	-	-	-	-	60
15	83.6	71.1	61.8	54.7	49.1	44.5	-	-	-	-	-	-	-	-	-	
30	77.9	63.3	53.3	-	-	-	-	-	-	-	-	-	-	-	-	
1	95.0	89.3	84.3	79.8	64.2	53.5	40.1	32.1	26.8	22.9	20.1	17.8	16.1	14.6	12.8	
2	92.5	85.1	78.8	73.4	58.8	49.0	36.7	29.4	24.5	21.0	18.4	16.3	14.7	13.4	11.8	
3	90.8	82.2	75.1	69.1	56.9	47.5	35.6	28.5	23.7	20.3	17.8	15.8	14.2	12.9	11.4	
4	89.3	79.8	72.2	65.8	56.0	46.7	35.0	28.0	23.3	20.0	17.5	15.6	14.0	12.7	11.2	80
5	88.1	77.9	69.8	63.2	55.5	46.2	34.7	27.7	23.1	19.8	17.3	15.4	13.9	-	-	
10	83.5	71.1	61.8	54.7	49.1	44.5	34.0	27.2	-	-	-	-	-	-	-	
15	80.4	66.6	56.8	49.6	44.0	39.5	-	-	-	-	-	-	-	-	-	
30	74.0	58.3	48.1	-	-	-	-	-	-	-	-	-	-	-	-	
1	94.0	87.7	82.2	63.6	50.9	42.4	31.8	25.5	21.2	18.2	15.9	14.1	12.7	11.6	10.2	
2	91.3	83.1	75.7	56.8	45.4	37.9	28.4	22.7	18.9	16.2	14.2	12.6	11.4	10.3	9.1	100
3	89.3	79.8	72.2	54.5	43.6	36.3	27.3	21.8	18.2	15.6	13.6	12.1	10.9	9.9	8.7	
4	87.7	77.3	69.1	53.4	42.7	35.6	26.7	21.4	17.8	15.3	13.3	11.9	10.7	9.7	8.5	
5	86.3	75.2	66.6	52.7	42.2	35.1	26.3	21.1	17.6	15.1	13.2	11.7	10.5	-	-	
10	81.3	67.9	58.3	51.1	41.1	34.2	25.7	20.5	-	-	-	-	-	-	-	
15	77.9	63.2	53.2	46.0	40.4	33.9	-	-	-	-	-	-	-	-	-	
30	71.1	54.7	44.5	-	-	-	-	-	-	-	-	-	-	-	-	
1	93.2	86.3	71.5	53.7	42.9	35.8	26.8	21.5	17.9	15.3	13.4	11.9	10.7	9.8	8.6	150
2	90.2	81.3	62.4	46.8	37.4	31.2	23.4	18.7	15.6	13.4	11.7	10.4	9.4	8.5	7.5	
3	88.1	77.9	59.4	44.5	35.6	29.7	22.3	17.8	14.8	12.7	11.1	9.9	8.9	8.1	7.1	
4	86.3	75.2	57.9	43.4	34.7	28.9	21.7	17.4	14.5	12.4	10.8	9.6	8.7	7.9	6.9	
5	84.8	73.0	56.9	42.7	34.2	28.5	21.4	17.1	14.2	12.2	10.7	9.5	8.5	-	-	
10	79.5	65.4	55.1	41.3	33.1	27.6	20.7	16.5	-	-	-	-	-	-	-	
15	75.8	60.5	50.4	40.9	32.7	27.3	-	-	-	-	-	-	-	-	-	
30	68.6	51.9	41.7	-	-	-	-	-	-	-	-	-	-	-	-	300
1	91.6	80.7	53.8	40.3	32.3	26.9	20.2	16.1	13.4	11.5	10.1	9.0	8.1	7.3	6.5	
2	88.1	67.0	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	85.6	62.4	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	83.5	60.1	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	81.8	58.8	39.2	29.4	23.5	19.6	14.7	11.8	9.8	8.4	7.3	6.5	5.9	-	-	
10	75.8	56.0	37.4	28.0	22.4	18.7	14.0	11.2	-	-	-	-	-	-	-	
15	71.7	55.1	36.7	27.6	22.0	18.4	-	-	-	-	-	-	-	-	-	
30	64.0	46.8	36.1	-	-	-	-	-	-	-	-	-	-	-	-	300
1	88.1	54.0	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	
2	80.7	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	71.5	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	67.0	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	64.2	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	58.8	29.4	19.6	14.7	11.8	9.8	7.3	5.9	-	-	-	-	-	-	-	
15	56.9	28.5	19.0	14.2	11.4	9.5	-	-	-	-	-	-	-	-	-	
30	55.1	27.6	18.4	-	-	-	-	-	-	-	-	-	-	-	-	

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

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



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

■ **1.2 - 3 Ø - (± 0.2 A) - IEC 60613 (1989) (2010)**

