POWER SEMICONDUCTOR ASSEMBLIES

ASSEMBLAGES DE SEMICONDUCTEURS DE PUISSANCE

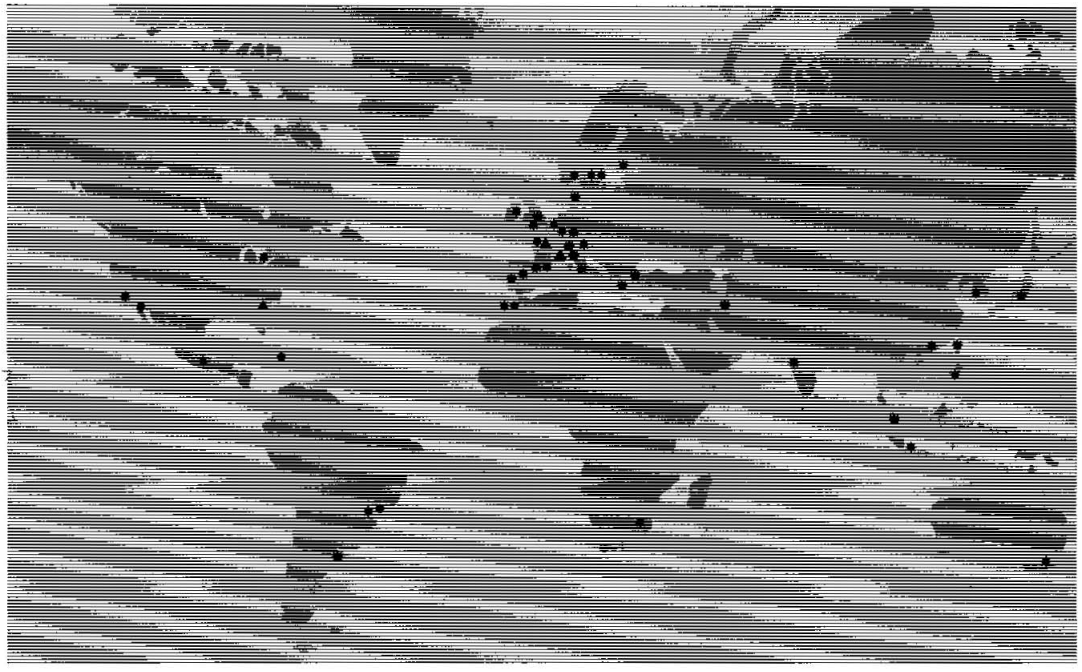
DIVISION SEMICONDUCTEURS

1984

THOMSON COMPOSANTS

THOMSON-CSF

DIVISION SEMICONDUCTEURS



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contents
sommaire

library

Catalogs
Catalogues

Power transistors Transistors de puissance	1983	(Bil. E/F)
RF and microwaves power transistors Transistors de puissance RF et hyperfréquence	1982	(Bil. E/F)
Micropackaged discrete semiconductors Semiconducteurs discrets en microboitiers	1982	(E)
Fast recovery rectifier diodes Diodes de redressement rapides	1984	(Bil. E/F)
High power Thyristors and rectifiers Thyristors et redresseurs de puissance	1984	(Bil. E/F)
Power semiconductor assemblies Assemblages de semiconducteurs de puissance	1984	(Bil. E/F)

Manuals
Manuels d'applications

Le transistor de puissance dans son environnement	(F)
Power transistors in its environment	(E)
Handbuch Schalttransistoren	(D)
Le transistor de puissance dans la conversion d'énergie	(F)

Technical information
Information technique

TI 11	Transistorized chopper for 300 A output current	(E)
TI 12	Concept for improved low cost fly-back converter	(E)
TI 13	High voltage transistors chopping the 380/420 V mains	(E)
TI 14	Fast switching with power transistors	(E)
TI 15	Short circuit protection of transistors	(E)
TI 16	Transistor or thyristor	(E)
IT 16	Transistor ou thyristor	(F)
TI 17	600 A transistor chopper for high efficiency motor speed control	(E)
TI 18	Which is the best switch	(E)
TI 19	New developments in asymmetrical power thyristors	(E)
IT 19	Nouveaux développements dans le domaine des thyristors asymétriques de puissance	(F)
IT 24	Comment choisir une Transil	(F)
TI 24	How to choose a Transil	(E)
TI 25	How to improve transistorized bridge convertors	(E)
TI 26	Parallel operation of switching power transistors	(E)
TI 27	Understanding the gate assisted turn-off of an interdigitated ultra-fast, asymmetrical power thyristor (G.A.T.A.S.C.R.)	(E)
TI 28	How to optimize the darlington switch	(E)
IT 29	A propos des diodes rapides utilisées dans les alimentations à découpage	(F)
IT 30	Choix des semiconducteurs de puissance dans les alimentations à découpage fonctionnant sur le réseau 220 V	(F)
TI 31	Improving the turn-on of the gate assisted turn-off asymmetrical power thyristor (G.A.T.A.S.C.R.)	(E)
TI 32	The Triac	(E)
TI 33	For energy conversion and motor control triacs or alternistors	(E)
TI 34	Have a closer look to switching losses	(E)
TI 35	How to improve operating reliability of transistorized equipments	(E)
IT 36	Commande par triac sur charge inductive. Quelle solution choisir ?	(F)

(Bil. E/F) Bilingue English/Français (F) Français
(E) English (D) Deutsch

numerical alphabetical index
index numérique alphabétique

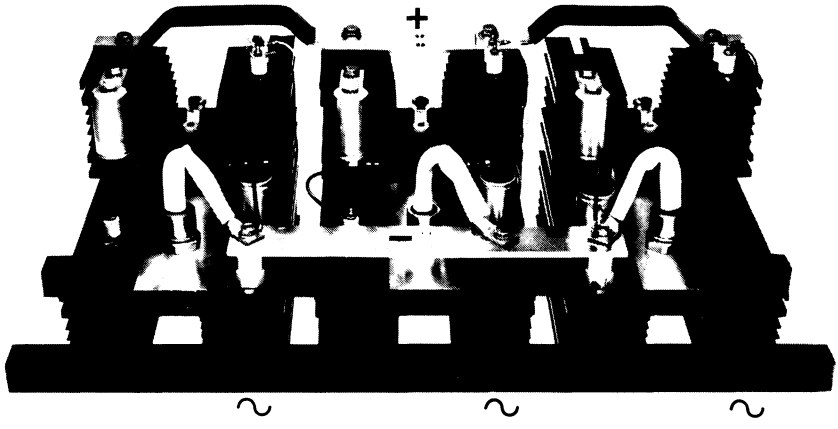
numerical alphabetical index
index numérique alphabétique

numerical alphabetical index
index numérique alphabétique

numerical alphabetical index
index numérique alphabétique

symbols
symboles

Critical rate of rise of on-state current of a thyristor	**di/dt**	*Vitesse critique de croissance du courant à l'état passant d'un thyristor*
Critical rate of rise of off-state voltage of a thyristor	**dv/dt**	*Vitesse critique de croissance de la tension à l'état bloqué d'un thyristor*
Average output current of a rectifier bridge (resistive or inductive load)	I_d	*Courant moyen redressé de sortie du pont (charge résistive ou selfique)*
Average forward current of a diode	I_{FAV}	*Courant moyen à l'état passant d'une diode*
Peak forward current of a diode	I_{FM}	*Courant direct de crête d'une diode*
Surge non repetitive forward current of a diode	I_{FSM}	*Courant direct de pointe de surcharge accidentelle d'une diode*
Gate trigger current of a thyristor	I_{GT}	*Courant de gâchette d'amorçage d'un thyristor*
Continuous holding current of a thyristor	I_H	*Courant continu hypostatique d'un thyristor*
Continuous reverse current of a diode or a thyristor	I_R	*Courant inverse continu d'une diode ou d'un thyristor*
Mean on-state current of a thyristor	I_{TAV}	*Courant moyen à l'état passant d'un thyristor*
Peak on-state current of a thyristor	I_{TM}	*Courant de crête à l'état passant d'un thyristor*
Surge non repetitive on-state current of a thyristor	I_{TSM}	*Courant de surcharge de pointe accidentelle à l'état passant d'un thyristor*
RMS on-state current of a thyristor	I_{TRMS}	*Courant efficace à l'état passant d'un thyristor*
I^2t value	I^2t	*Valeur de la constante I^2t*
Total power dissipation	P_{tot}	*Puissance totale dissipée*
Slope resistance	r_D, r_T	*Résistance dynamique*
Junction to case thermal resistance for DC	$R_{th\ j\text{-}c}$ DC	*Résistance thermique jonction-boîtier en continu*
Contact thermal resistance	$R_{th}CS$	*Résistance thermique de contact*
Ambient temperature	T_{amb}	*Température ambiante*
Case temperature	T_{case}	*Température boîtier*
Junction temperature	T_j	*Température de jonction*
Circuit commutated recovery time of a thyristor	t_q	*Temps de désamorçage par commutation du circuit, d'un thyristor*
Repetitive peak off-state voltage of a thyristor	V_{DRM}	*Tension de pointe répétitive à l'état bloqué d'un thyristor*
Peak on-state voltage of a diode	V_{FM}	*Tension de crête à l'état passant d'une diode*
RMS input voltage	V_{RMS}/V_{EFF}	*Valeur efficace de la tension d'alimentation*
Repetitive peak reverse voltage	V_{RRM}	*Tension inverse de pointe répétitive*
Peak on-state voltage of a thyristor	V_{TM}	*Tension de crête à l'état passant d'un thyristor*
Threshold voltage	V_{TO}	*Tension de seuil*



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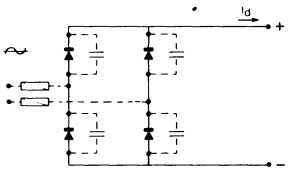
selector guides
guides de sélection

- **single phase diode bridges**
  ponts monophasés tout diodes — **BDD**
- **three phase diode bridges**
  ponts triphasés tout diodes — **GDD**
- **single phase half-controlled bridges**
  ponts monophasés mixtes — **BDT**
- **three phase half-controlled bridges**
  ponts triphasés mixtes — **GDT**
- **single phase thyristor bridges**
  ponts monophasés tout thyristors — **BTT**
- **three phase thyristor bridges**
  ponts triphasés tout thyristors — **GTT**
- **A.C. switches**
  gradateurs - interrupteurs statiques — **RTT/RDT**
- **outlines for thyristor bridges and A.C. switches**
  plans d'encombrement des ponts tout thyristors - gradateurs et interrupteurs statiques

single phase diode bridges
ponts monophasés tout diodes

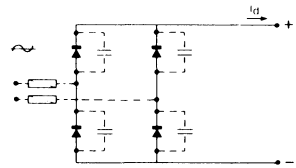


Types	Average output current *Courant moyen de sortie* T_{amb} = 40°C (A)	V_{RRM} (V)	Diodes	Heatsinks *Convecteurs*	Pages
BDD 20 200 (C,F) BDD 20 400 (C,F) BDD 20 600 (C,F) BDD 20 800 (C,F) BDD 20 1000 (C,F) BDD 20 1200 (C,F)	20	200 400 600 800 1000 1200	G 2010 G 4010 G 6010 G 8010 G 1110 G 1210	2 fins *2 ailettes*	43-44
BDD 40 200 (C,F) BDD 40 400 (C,F) BDD 40 600 (C,F) BDD 40 800 (C,F) BDD 40 1000 (C,F) BDD 40 1200 (C,F)	40	200 400 600 800 1000 1200	RP 2040 RP 4040 RP 6040 RP 8040 RP 1140 RP 1240	2 fins *2 ailettes*	45-46
BDD 60 200 (C,F) BDD 60 400 (C,F) BDD 60 600 (C,F) BDD 60 800 (C,F) BDD 60 1000 (C,F) BDD 60 1200 (C,F)	70	200 400 600 800 1000 1200	RP 2040 RP 4040 RP 6040 RP 8040 RP 1140 RP 1240	2 × KNF 150	47-48
BDD 100 200 (C,F) BDD 100 400 (C,F) BDD 100 600 (C,F) BDD 100 800 (C,F) BDD 100 1000 (C,F) BDD 100 1200 (C,F)	100	200 400 600 800 1000 1200	KU 1002 KU 1004 KU 1006 KU 1008 KU 1010 KU 1012	2 × KNF 150	49-50
BDD 150 200 (C,F) BDD 150 400 (C,F) BDD 150 600 (C,F) BDD 150 800 (C,F) BDD 150 1000 (C,F) BDD 150 1200 (C,F)	150	200 400 600 800 1000 1200	KU 1002 KU 1004 KU 1006 KU 1008 KU 1010 KU 1012	2 × TNF 200	51-52
BDD 200 200 (C,F) BDD 200 400 (C,F) BDD 200 600 (C,F) BDD 200 800 (C,F) BDD 200 1000 (C,F) BDD 200 1200 (C,F)	200	200 400 600 800 1000 1200	KU 1502 KU 1504 KU 1506 KU 1508 KU 1510 KU 1512	2 × TNF 250	53-54

(C) : With capacitor protection
(F) : With fuses

(C) : *Avec protection capacité*
(F) : *Avec fusibles*

single phase diode bridges
ponts monophasés tout diodes



Types	Average output current *Courant moyen de sortie* T_{amb} = 40°C (A)	V_{RRM} (V)	Diodes	Heatsinks *Convecteurs*	Pages
BDD 250 200 (C,F) BDD 250 400 (C,F) BDD 250 600 (C,F) BDD 250 800 (C,F) BDD 250 1000 (C,F) BDD 250 1200 (C,F)	250	200 400 600 800 1000 1200	KU 2402 KU 2404 KU 2406 KU 2408 TV 3010 TV 3012	2 × TNF 200	55-56
BDD 340 200 (C,F) BDD 340 400 (C,F) BDD 340 600 (C,F) BDD 340 800 (C,F) BDD 340 1000 (C,F) BDD 340 1200 (C,F)	340	200 400 600 800 1000 1200	KU 2402 KU 2404 KU 2406 KU 2408 TV 3010 TV 3012	2 × TNF 300	57-58
BDD 480 200 (C,F) BDD 480 400 (C,F) BDD 480 600 (C,F) BDD 480 800 (C,F) BDD 480 1000 (C,F) BDD 480 1200 (C,F)	480	200 400 600 800 1000 1200	TV 3002 TV 3004 TV 3006 TV 3008 TV 3010 TV 3012	2 × R 300	59-60
BDD 700 200 (C,F) BDD 700 400 (C,F) BDD 700 600 (C,F) BDD 700 800 (C,F) BDD 700 1000 (C,F) BDD 700 1200 (C,F)	700	200 400 600 800 1000 1200	DN 662 02 DN 662 04 DN 662 06 DN 662 08 DN 662 10 DN 662 12	2 × WM 320	61-62
BDD 1050 200 (C,F) BDD 1050 400 (C,F) BDD 1050 600 (C,F) BDD 1050 800 (C,F) BDD 1050 1000 (C,F) BDD 1050 1200 (C,F)	1050	200 400 600 800 1000 1200	DN 762 02 DN 762 04 DN 762 06 DN 762 08 DN 762 10 DN 762 12	2 × WSA 450	63-64
BDD 1200 200 (C,F) BDD 1200 400 (C,F) BDD 1200 600 (C,F) BDD 1200 800 (C,F) BDD 1200 1000 (C,F) BDD 1200 1200 (C,F)	1200	200 400 600 800 1000 1200	DN 962 02 DN 962 04 DN 962 06 DN 962 08 DN 962 10 DN 962 12	2 × WSA 450	65-66

(C) : With capacitor protection
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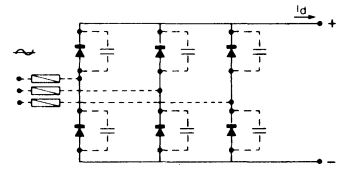
(F) : *Avec fusibles*

three phase diode bridges
ponts triphasés tout diodes



Types	Average output current *Courant moyen de sortie* T_{amb} = 40°C (A)	V_{RRM} (V)	Diodes	Heatsinks *Convecteurs*	Pages
GDD 20 200 (C,F) GDD 20 400 (C,F) GDD 20 600 (C,F) GDD 20 800 (C,F) GDD 20 1000 (C,F) GDD 20 1200 (C,F)	25	200 400 600 800 1000 1200	G 2010 G 4010 G 6010 G 8010 G 1110 G 1210	2 fins *2 ailettes*	69-70
GDD 45 200 (C,F) GDD 45 400 (C,F) GDD 45 600 (C,F) GDD 45 800 (C,F) GDD 45 1000 (C,F) GDD 45 1200 (C,F)	45	200 400 600 800 1000 1200	RP 2020 RP 4020 RP 6020 RP 8020 RP 1120 RP 1220	2 fins *2 ailettes*	71-72
GDD 70 200 (C,F) GDD 70 400 (C,F) GDD 70 600 (C,F) GDD 70 800 (C,F) GDD 70 1000 (C,F) GDD 70 1200 (C,F)	70	200 400 600 800 1000 1200	RP 2040 RP 4040 RP 6040 RP 8040 RP 1140 RP 1240	2 × KNF 150	73-74
GDD 100 200 (C,F) GDD 100 400 (C,F) GDD 100 600 (C,F) GDD 100 800 (C,F) GDD 100 1000 (C,F) GDD 100 1200 (C,F)	110	200 400 600 800 1000 1200	KU 1002 KU 1004 KU 1006 KU 1008 KU 1010 KU 1012	2 × KNF 150	75-76
GDD 150 200 (C,F) GDD 150 400 (C,F) GDD 150 600 (C,F) GDD 150 800 (C,F) GDD 150 1000 (C,F) GDD 150 1200 (C,F)	150	200 400 600 800 1000 1200	KU 1002 KU 1004 KU 1006 KU 1008 KU 1010 KU 1012	2 × KNF 200	77-78
GDD 250 200 (C,F) GDD 250 400 (C,F) GDD 250 600 (C,F) GDD 250 800 (C,F) GDD 250 1000 (C,F) GDD 250 1200 (C,F)	250	200 400 600 800 1000 1200	KU 1502 KU 1504 KU 1506 KU 1508 KU 1510 KU 1512	2 × TNF 300	79-80

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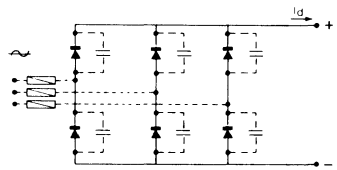
three phase diode bridges
ponts triphasés tout diodes



Types	Average output current *Courant moyen de sortie* T_{amb} = 40°C (A)	V_{RRM} (V)	Diodes	Heatsinks *Convecteurs*	Pages
GDD 300 200 (C,F) GDD 300 400 (C,F) GDD 300 600 (C,F) GDD 300 800 (C,F) GDD 300 1000 (C,F) GDD 300 1200 (C,F)	300	200 400 600 800 1000 1200	KU 1502 KU 1504 KU 1506 KU 1508 KU 1510 KU 1512	3 × TNF 300	81-82
GDD 440 200 (C,F) GDD 440 400 (C,F) GDD 440 600 (C,F) GDD 440 800 (C,F) GDD 440 1000 (C,F) GDD 440 1200 (C,F)	440	200 400 600 800 1000 1200	KU 2402 KU 2404 KU 2406 KU 2408 TV 3010 TV 3012	3 × TNF 300	83-84
GDD 650 200 (C,F) GDD 650 400 (C,F) GDD 650 600 (C,F) GDD 650 800 (C,F) GDD 650 1000 (C,F) GDD 650 1200 (C,F)	650	200 400 600 800 1000 1200	TV 3002 TV 3004 TV 3006 TV 3008 TV 3010 TV 3012	3 × R 300	85-86
GDD 980 200 (C,F) GDD 980 400 (C,F) GDD 980 600 (C,F) GDD 980 800 (C,F) GDD 980 1000 (C,F) GDD 980 1200 (C,F)	980	200 400 600 800 1000 1200	DN 662 02 DN 662 04 DN 662 06 DN 662 08 DN 662 10 DN 662 12	3 × WM 320	87-88
GDD 1400 200 (C,F) GDD 1400 400 (C,F) GDD 1400 600 (C,F) GDD 1400 800 (C,F) GDD 1400 1000 (C,F) GDD 1400 1200 (C,F)	1400	200 400 600 800 1000 1200	DN 762 02 DN 762 04 DN 762 06 DN 762 08 DN 762 10 DN 762 12	3 × WSA 450	89-90
GDD 1600 200 (C,F) GDD 1600 400 (C,F) GDD 1600 600 (C,F) GDD 1600 800 (C,F) GDD 1600 1000 (C,F) GDD 1600 1200 (C,F)	1600	200 400 600 800 1000 1200	DN 962 02 DN 962 04 DN 962 06 DN 962 08 DN 962 10 DN 962 12	3 × WSA 450	91-92

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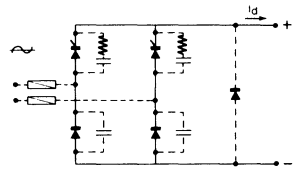
single phase half-controlled bridges
ponts monophasés mixtes

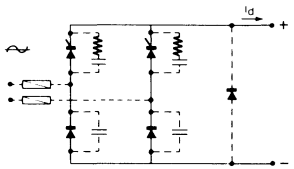


Types	Average output current *Courant moyen de sortie* T_{amb} = 40°C (A)	V_{DRM} = V_{RRM} (V)	Diodes	Thyristors	Heatsinks *Convecteurs*	Pages
BDT 15 200 (C,RL,F)	15	200	G 2010	BTW 39-200	2 fins *2 ailettes*	95-96
BDT 15 400 (C,RL,F)		400	G 4010	BTW 39-400		
BDT 15 600 (C,RL,F)		600	G 6010	BTW 39-600		
BDT 15 800 (C,RL,F)		800	G 8010	BTW 39-800		
BDT 15 1000 (C,RL,F)		1000	G 1110	BTW 39-1000		
BDT 15 1200 (C,RL,F)		1200	G 1210	BTW 39-1200		
BDT 30 200 (C,RL,F)	30	200	RP 2020	BTW 48-200	2 fins *2 ailettes*	97-98
BDT 30 400 (C,RL,F)		400	RP 4020	BTW 48-400		
BDT 30 600 (C,RL,F)		600	RP 6020	BTW 48-600		
BDT 30 800 (C,RL,F)		800	RP 8020	BTW 48-800		
BDT 30 1000 (C,RL,F)		1000	RP 1120	BTW 48-1000		
BDT 30 1200 (C,RL,F)		1200	RP 1220	BTW 48-1200		
BDT 60 200 (C,RL,F)	60	200	RP 2040	BTW 50-200	2 × KNF 180	99-100
BDT 60 400 (C,RL,F)		400	RP 4040	BTW 50-400		
BDT 60 600 (C,RL,F)		600	RP 6040	BTW 50-600		
BDT 60 800 (C,RL,F)		800	RP 8040	BTW 50-800		
BDT 60 1000 (C,RL,F)		1000	RP 1140	BTW 50-1000		
BDT 60 1200 (C,RL,F)		1200	RP 1240	BTW 50-1200		
BDT 100 200 (C,RL,F)	100	200	KU 1002	TKE 1202	2 × TNF 180	101-102
BDT 100 400 (C,RL,F)		400	KU 1004	TKE 1204		
BDT 100 600 (C,RL,F)		600	KU 1006	TKE 1206		
BDT 100 800 (C,RL,F)		800	KU 1008	TK 1408		
BDT 100 1000 (C,RL,F)		1000	KU 1010	TK 1410		
BDT 100 1200 (C,RL,F)		1200	KU 1012	TK 1412		
BDT 150 200 (C,RL,F)	150	200	KU 1502	TK 2602	2 × TNF 250	103-104
BDT 150 400 (C,RL,F)		400	KU 1504	TK 2604		
BDT 150 600 (C,RL,F)		600	KU 1506	TK 2606		
BDT 150 800 (C,RL,F)		800	KU 1508	TK 2608		
BDT 150 1000 (C,RL,F)		1000	KU 1510	TK 2610		
BDT 150 1200 (C,RL,F)		1200	KU 1512	TK 2612		

(C) : With RC snubber circuit.
(RL) : With free wheel diode mounted without heatsink.
(F) : With fuses.

(C) : *Avec protection RC.*
(RL) : *Avec diode roue libre montee sans convecteur.*
(F) : *Avec fusibles.*

single phase half-controlled bridges
ponts monophasés mixtes



Types	Average output current *Courant moyen de sortie* T_{amb} = 40°C (A)	V_{DRM} = V_{RRM} (V)	Diodes	Thyristors	Heatsinks *Convecteurs*	Pages
BDT 250 200 (C,RL,F) BDT 250 400 (C,RL,F) BDT 250 600 (C,RL,F) BDT 250 800 (C,RL,F) BDT 250 1000 (C,RL,F) BDT 250 1200 (C,RL,F)	250	200 400 600 800 1000 1200	KU 2402 KU 2404 KU 2406 KU 2408 TV 3010 TV 3012	TK 3602 TK 3604 TK 3606 TK 3608 TK 3610 TK 3612	2 × P 300	105-106
BDT 330 200 (C,RL,F) BDT 330 400 (C,RL,F) BDT 330 600 (C,RL,F) BDT 330 800 (C,RL,F) BDT 330 1000 (C,RL,F) BDT 330 1200 (C,RL,F)	330	200 400 600 800 1000 1200	KU 2402 KU 2404 KU 2406 KU 2408 TV 3010 TV 3012	TN 433 02 TN 433 04 **TN 433 06** **TN 433 08** **TN 433 10** **TN 433 12**	2 × WM 250	107-108
BDT 420 200 (C,RL,F) BDT 420 400 (C,RL,F) BDT 420 600 (C,RL,F) BDT 420 800 (C,RL,F) BDT 420 1000 (C,RL,F) BDT 420 1200 (C,RL,F)	420	200 400 600 800 1000 1200	DN 462 02 DN 462 04 DN 462 06 DN 462 08 DN 462 10 DN 462 12	TN 633 02 TN 633 04 TN 633 06 TN 633 08 TN 633 10 TN 633 12	2 × WM 280	109-110
BDT 550 200 (C,RL,F) BDT 550 400 (C,RL,F) BDT 550 600 (C,RL,F) BDT 550 800 (C,RL,F) BDT 550 1000 (C,RL,F) BDT 550 1200 (C,RL,F)	550	200 400 600 800 1000 1200	DN 662 02 DN 662 04 DN 662 06 DN 662 08 DN 662 10 DN 662 12	TN 733 02 TN 733 04 TN 733 06 TN 733 08 TN 733 10 TN 733 12	2 × WM 380	111-112
BDT 800 200 (C,RL,F) BDT 800 400 (C,RL,F) BDT 800 600 (C,RL,F) BDT 800 800 (C,RL,F) BDT 800 1000 (C,RL,F) BDT 800 1200 (C,RL,F)	800	200 400 600 800 1000 1200	DN 762 02 DN 762 04 DN 762 06 DN 762 08 DN 762 10 DN 762 12	TN 933 02 TN 933 04 TN 933 06 TN 933 08 TN 933 10 TN 933 12	2 × WSA 550	113-114

(C) : With RC snubber circuit.
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(C) : *Avec protection RC.*
(RL) : *Avec diode roue libre montée sans convecteur.*
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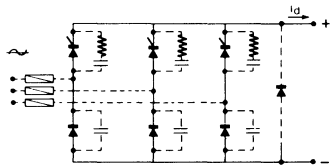
three phase half-controlled bridges
ponts triphasés mixtes

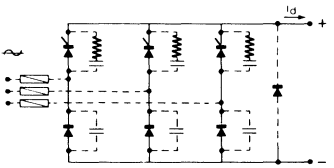


Types	Average output current *Courant moyen de sortie* T_{amb} = 40°C (A)	V_{DRM} = V_{RRM} (V)	Diodes	Thyristors	Heatsinks *Convecteurs*	Pages
GDT 20 200 (C,RL,F) GDT 20 400 (C,RL,F) GDT 20 600 (C,RL,F) GDT 20 800 (C,RL,F) GDT 20 1000 (C,RL,F) GDT 20 1200 (C,RL,F)	20	200 400 600 800 1000 1200	G 2010 G 4010 G 6010 G 8010 G 1110 G 1210	BTW 39-200 BTW 39-400 BTW 39-600 BTW 39-800 BTW 39-1000 BTW 39-1200	2 fins *2 ailettes*	117-118
GDT 40 200 (C,RL,F) GDT 40 400 (C,RL,F) GDT 40 600 (C,RL,F) GDT 40 800 (C,RL,F) GDT 40 1000 (C,RL,F) GDT 40 1200 (C,RL,F)	40	200 400 600 800 1000 1200	RP 2020 RP 4020 RP 6020 RP 8020 RP 1120 RP 1220	BTW 48-200 BTW 48-400 BTW 48-600 BTW 48-800 BTW 48-1000 BTW 48-1200	2 fins *2 ailettes*	119-120
GDT 70 200 (C,RL,F) GDT 70 400 (C,RL,F) GDT 70 600 (C,RL,F) GDT 70 800 (C,RL,F) GDT 70 1000 (C,RL,F) GDT 70 1200 (C,RL,F)	70	200 400 600 800 1000 1200	RP 2040 RP 4040 RP 6040 RP 8040 RP 1140 RP 1240	BTW 50-200 BTW 50-400 BTW 50-600 BTW 50-800 BTW 50-1000 BTW 50-1200	3 × KNF 150	121-122
GDT 100 200 (C,RL,F) GDT 100 400 (C,RL,F) GDT 100 600 (C,RL,F) GDT 100 800 (C,RL,F) GDT 100 1000 (C,RL,F) GDT 100 1200 (C,RL,F)	100	200 400 600 800 1000 1200	KU 1002 KU 1004 KU 1006 KU 1008 KU 1010 KU 1012	TKE 1202 TKE 1204 TKE 1206 TK 1408 TK 1410 TK 1412	3 × KNF 160	123-124
GDT 150 200 (C,RL,F) GDT 150 400 (C,RL,F) GDT 150 600 (C,RL,F) GDT 150 800 (C,RL,F) GDT 150 1000 (C,RL,F) GDT 150 1200 (C,RL,F)	160	200 400 600 800 1000 1200	KU 1002 KU 1004 KU 1006 KU 1008 KU 1010 KU 1012	TK 1802 TK 1804 TK 1806 TK 1808 TK 1810 TK 1812	3 × TNF 200	125-126
GDT 250 200 (C,RL,F) GDT 250 400 (C,RL,F) GDT 250 600 (C,RL,F) GDT 250 800 (C,RL,F) GDT 250 1000 (C,RL,F) GDT 250 1200 (C,RL,F)	250	200 400 600 800 1000 1200	KU 1502 KU 1504 KU 1506 KU 1508 KU 1510 KU 1512	TK 3002 TK 3004 TK 3006 TK 3008 TK 3010 TK 3012	3 × TNF 300	127-128

(C) : With RC snubber circuit.
(RL) : With free wheel diode mounted without heatsink.
(F) : With fuses.

(C) : *Avec protection RC.*
(RL) : *Avec diode roue libre montee sans convecteur.*
(F) : *Avec fusibles.*

three phase half-controlled bridges
ponts triphasés mixtes



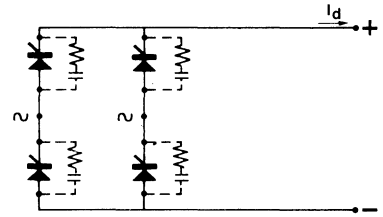
Types	Average output current *Courant moyen de sortie* T_{amb} = 40°C (A)	V_{DRM} = V_{RRM} (V)	Diodes	Thyristors	Heatsinks *Convecteurs*	Pages
GDT 400 200 (C,RL,F) GDT 400 400 (C,RL,F) GDT 400 600 (C,RL,F) GDT 400 800 (C,RL,F) GDT 400 1000 (C,RL,F) GDT 400 1200 (C,RL,F)	400	200 400 600 800 1000 1200	TV 3002 TV 3004 TV 3006 TV 3008 TV 3010 TV 3012	TK 3602 TK 3604 TK 3606 TK 3608 TK 3610 TK 3612	3 × Z 400	129-130
GDT 450 200 (C,RL,F) GDT 450 400 (C,RL,F) GDT 450 600 (C,RL,F) GDT 450 800 (C,RL,F) GDT 450 1000 (C,RL,F) GDT 450 1200 (C,RL,F)	450	200 400 600 800 1000 1200	KU 2402 KU 2404 KU 2406 KU 2408 TV 3010 TV 3012	TN 433 02 TN 433 04 TN 433 06 TN 433 08 TN 433 10 TN 433 12	3 × WM 250	131-132
GDT 600 200 (C,RL,F) GDT 600 400 (C,RL,F) GDT 600 600 (C,RL,F) GDT 600 800 (C,RL,F) GDT 600 1000 (C,RL,F) GDT 600 1200 (C,RL,F)	600	200 400 600 800 1000 1200	DN 462 02 DN 462 04 DN 462 06 DN 462 08 DN 462 10 DN 462 12	TN 633 02 TN 633 04 TN 633 06 TN 633 08 TN 633 10 TN 633 12	3 × WM 280	133-134
GDT 750 200 (C,RL,F) GDT 750 400 (C,RL,F) GDT 750 600 (C,RL,F) GDT 750 800 (C,RL,F) GDT 750 1000 (C,RL,F) GDT 750 1200 (C,RL,F)	750	200 400 600 800 1000 1200	DN 662 02 DN 662 04 DN 662 06 DN 662 08 DN 662 10 DN 662 12	TN 733 02 TN 733 04 TN 733 06 TN 733 08 TN 733 10 TN 733 12	3 × WM 380	135-136
GDT 1150 200 (C,RL,F) GDT 1150 400 (C,RL,F) GDT 1150 600 (C,RL,F) GDT 1150 800 (C,RL,F) GDT 1150 1000 (C,RL,F) GDT 1150 1200 (C,RL,F)	1150	200 400 600 800 1000 1200	DN 762 02 DN 762 04 DN 762 06 DN 762 08 DN 762 10 DN 762 12	TN 933 02 TN 933 04 TN 933 06 TN 933 08 TN 933 10 TN 933 12	3 × WSA 550	137-138

(C) : With RC snubber circuit.
(RL) : With free wheel diode mounted without heatsink.
(F) : With fuses.

(C) : *Avec protection RC.*
(RL) : *Avec diode roue libre montée sans convecteur.*
(F) : *Avec fusibles.*

single phase thyristor bridges

ponts monophasés tout thyristors

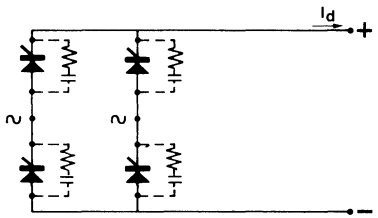


Types	Average output current *Courant moyen de sortie* $T_{amb} = 40$ °C (A)	$V_{DRM} = V_{RRM}$ (V)	Thyristors	Heatsinks *Convecteurs*	Weight Poids (kg)	Mechanical code *Code mécanique* (pages 27 – 29)
BTT 15 100 (C) BTT 15 200 (C) BTT 15 400 (C) BTT 15 600 (C) BTT 15 800 (C) BTT 15 1000 (C) BTT 15 1200 (C)	15	100 200 400 600 800 1000 1200	BTW 39-100 BTW 39-200 BTW 39-400 BTW 39-600 BTW 39-800 BTW 39-1000 BTW 39-1200	fins *ailettes*	0,35	Figure 1
BTT 30 100 (C) BTT 30 200 (C) BTT 30 400 (C) BTT 30 600 (C) BTT 30 800 (C) BTT 30 1000 (C) BTT 30 1200 (C)	30	100 200 400 600 800 1000 1200	BTW 48-100 BTW 48-200 BTW 48-400 BTW 48-600 BTW 48-800 BTW 48-1000 BTW 48-1200	fins *ailettes*	0,73	
BTT 55 100 (C) BTT 55 200 (C) BTT 55 400 (C) BTT 55 600 (C) BTT 55 800 (C) BTT 55 1000 (C) BTT 55 1200 (C)	55	100 200 400 600 800 1000 1200	BTW 50-100 BTW 50-200 BTW 50-400 BTW 50-600 BTW 50-800 BTW 50-1000 BTW 50-1200	KNF	2,34	Figure 2
BTT 75 100 (C) BTT 75 200 (C) BTT 75 400 (C) BTT 75 600 (C) BTT 75 800 (C) BTT 75 1000 (C) BTT 75 1200 (C)	75	100 200 400 600 800 1000 1200	TKE 1201 TKE 1202 TKE 1204 TKE 1206 TK 1408 TK 1410 TK 1412	KNF	2,8	
BTT 120 100 (C) BTT 120 200 (C) BTT 120 400 (C) BTT 120 600 (C) BTT 120 800 (C) BTT 120 1000 (C) BTT 120 1200 (C)	120	100 200 400 600 800 1000 1200	TK 1801 TK 1802 TK 1804 TK 1806 TK 1808 TK 1810 TK 1812	TNF	4,2	
BTT 180 100 (C) BTT 180 200 (C) BTT 180 400 (C) BTT 180 600 (C) BTT 180 800 (C) BTT 180 1000 (C) BTT 180 1200 (C)	180	100 200 400 600 800 1000 1200	TK 3001 TK 3002 TK 3004 TK 3006 TK 3008 TK 3010 TK 3012	TNF	8,1	

(C) : With RC snubber circuit.

(C) : *Avec protection RC*

single phase thyristor bridges
pont monophasés tout thyristors

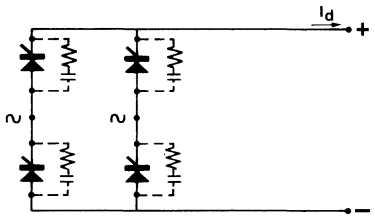


Types	Average output current *Courant moyen de sortie* $T_{amb} = 40°C$ (A)	$V_{DRM} = V_{RRM}$ (V)	Thyristors	Heatsinks *Convecteurs*	Weight Poids (kg)	Mechanical code *Code mécanique* (pages 27 → 29)
BTT 275 100 (C) BTT 275 200 (C) BTT 275 400 (C) BTT 275 600 (C) BTT 275 800 (C) BTT 275 1000 (C) BTT 275 1200 (C)	275	100 200 400 600 800 1000 1200	TK 3601 TK 3602 TK 3604 TK 3606 TK 3608 TK 3610 TK 3612	Z	16,1	Figure 2
BTT 330 100 (C) BTT 330 200 (C) BTT 330 400 (C) BTT 330 600 (C) BTT 330 800 (C) BTT 330 1000 (C) BTT 330 1200 (C)	330	100 200 400 600 800 1000 1200	TN 433 01 TN 433 02 TN 433 04 TN 433 06 TN 433 08 TN 433 10 TN 433 12	WM	21,6	Figure 3
BTTV 400 100 (C) BTTV 400 200 (C) BTTV 400 400 (C) BTTV 400 600 (C) BTTV 400 800 (C) BTTV 400 1000 (C) BTTV 400 1200 (C)	400 (FC)	100 200 400 600 800 1000 1200	TK 3601 TK 3602 TK 3604 TK 3606 TK 3608 TK 3610 TK 3612	Z	30,5	Figure 4
BTT 440 100 (C) BTT 440 200 (C) BTT 440 400 (C) BTT 440 600 (C) BTT 440 800 (C) BTT 440 1000 (C) BTT 440 1200 (C)	440	100 200 400 600 800 1000 1200	TN 633 01 TN 633 02 TN 633 04 TN 633 06 TN 633 08 TN 633 10 TN 633 12	WM	18,3	Figure 3
BTTV 520 100 (C) BTTV 520 200 (C) BTTV 520 400 (C) BTTV 520 600 (C) BTTV 520 800 (C) BTTV 520 1000 (C) BTTV 520 1200 (C)	520 (FC)	100 200 400 600 800 1000 1200	TN 433 01 TN 433 02 TN 433 04 TN 433 06 TN 433 08 TN 433 10 TN 433 12	WM	24,6	Figure 5
BTT 560 100 (C) BTT 560 200 (C) BTT 560 400 (C) BTT 560 600 (C) BTT 560 800 (C) BTT 560 1000 (C) BTT 560 1200 (C)	560	100 200 400 600 800 1000 1200	TN 733 01 TN 733 02 TN 733 04 TN 733 06 TN 733 08 TN 733 10 TN 733 12	WM	36,2	Figure 3

(C) : With RC snubber circuit.
(FC) : Forced cooling - Cooling system included

(C) : *Avec protection RC*
(FC) : *Ventilation forcée - Système de ventilation inclus*

single phase thyristor bridges
ponts monophasés tout thyristors

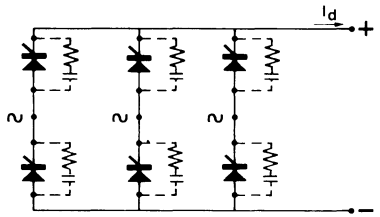


Types	Average output current *Courant moyen de sortie* $T_{amb} = 40\,°C$ (A)	$V_{DRM} = V_{RRM}$ (V)	Thyristors	Heatsinks *Convecteurs*	Weight Poids (kg)	Mechanical code *Code mécanique* (pages 27 → 29)
BTTV 650 100 (C)	650 (FC)	100	TN 633 01	WM	33,6	Figure 5
BTTV 650 200 (C)		200	TN 633 02			
BTTV 650 400 (C)		400	TN 633 04			
BTTV 650 600 (C)		600	TN 633 06			
BTTV 650 800 (C)		800	TN 633 08			
BTTV 650 1000 (C)		1000	TN 633 10			
BTTV 650 1200 (C)		1200	TN 633 12			
BTTV 800 100 (C)	800 (FC)	100	TN 733 01	WM	39,2	Figure 5
BTTV 800 200 (C)		200	TN 733 02			
BTTV 800 400 (C)		400	TN 733 04			
BTTV 800 600 (C)		600	TN 733 06			
BTTV 800 800 (C)		800	TN 733 08			
BTTV 800 1000 (C)		1000	TN 733 10			
BTTV 800 1200 (C)		1200	TN 733 12			
BTT 830 100 (C)	830	100	TN 933 01	WSA	69,5	Figure 3
BTT 830 200 (C)		200	TN 933 02			
BTT 830 400 (C)		400	TN 933 04			
BTT 830 600 (C)		600	TN 933 06			
BTT 830 800 (C)		800	TN 933 08			
BTT 830 1000 (C)		1000	TN 933 10			
BTT 830 1200 (C)		1200	TN 933 12			
BTTV 1200 100 (C)	1200 (FC)	100	TN 933 01	WSA	52,8	Figure 5
BTTV 1200 200 (C)		200	TN 933 02			
BTTV 1200 400 (C)		400	TN 933 04			
BTTV 1200 600 (C)		600	TN 933 06			
BTTV 1200 800 (C)		800	TN 933 08			
BTTV 1200 1000 (C)		1000	TN 933 10			
BTTV 1200 1200 (C)		1200	TN 933 12			
BTTV 1450 100 (C)	1450 (FC)	100	TN 933 01	WSA	50	Figure 6
BTTV 1450 200 (C)		200	TN 933 02			
BTTV 1450 400 (C)		400	TN 933 04			
BTTV 1450 600 (C)		600	TN 933 06			
BTTV 1450 800 (C)		800	TN 933 08			
BTTV 1450 1000 (C)		1000	TN 933 10			
BTTV 1450 1200 (C)		1200	TN 933 12			

(C) : With RC snubber circuit.
(FC) : Forced cooling - Cooling system included

(C) : *Avec protection RC*
(FC) : Ventilation forcée - Système de ventilation inclus.

three phase thyristor bridges
ponts triphasés tout thyristors

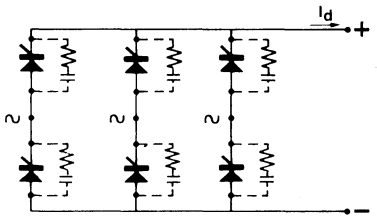


Types	Average output current *Courant moyen de sortie* $T_{amb} = 40$ °C (A)	$V_{DRM} = V_{RRM}$ (V)	Thyristors	Heatsinks *Convecteurs*	Weight Poids (kg)	Mechanical code *Code mécanique* (pages 30 → 32)
GTT 20 100 (C)	20	100	BTW 39-100	Fins *ailettes*	0,55	Figure 7
GTT 20 200 (C)		200	BTW 39-200			
GTT 20 400 (C)		400	BTW 39-400			
GTT 20 600 (C)		600	BTW 39-600			
GTT 20 800 (C)		800	BTW 39-800			
GTT 20 1000 (C)		1000	BTW 39-1000			
GTT 20 1200 (C)		1200	BTW 39-1200			
GTT 40 100 (C)	40	100	BTW 48-100	Fins *ailettes*	1,05	
GTT 40 200 (C)		200	BTW 48-200			
GTT 40 400 (C)		400	BTW 48-400			
GTT 40 600 (C)		600	BTW 48-600			
GTT 40 800 (C)		800	BTW 48-800			
GTT 40 1000 (C)		1000	BTW 48-1000			
GTT 40 1200 (C)		1200	BTW 48-1200			
GTT 70 100 (C)	70	100	BTW 50-100	KNF	3,22	Figure 8
GTT 70 200 (C)		200	BTW 50-200			
GTT 70 400 (C)		400	BTW 50-400			
GTT 70 600 (C)		600	BTW 50-600			
GTT 70 800 (C)		800	BTW 50-800			
GTT 70 1000 (C)		1000	BTW 50-1000			
GTT 70 1200 (C)		1200	BTW 50-1200			
GTT 100 100 (C)	100	100	TKE 1201	KNF	3,9	
GTT 100 200 (C)		200	TKE 1202			
GTT 100 400 (C)		400	TKE 1204			
GTT 100 600 (C)		600	TKE 1206			
GTT 100 800 (C)		800	TK 1408			
GTT 100 1000 (C)		1000	TK 1410			
GTT 100 1200 (C)		1200	TK 1412			
GTT 150 100 (C)	160	100	TK 1801	TNF	6,04	
GTT 150 200 (C)		200	TK 1802			
GTT 150 400 (C)		400	TK 1804			
GTT 150 600 (C)		600	TK 1806			
GTT 150 800 (C)		800	TK 1808			
GTT 150 1000 (C)		1000	TK 1810			
GTT 150 1200 (C)		1200	TK 1812			
GTT 250 100 (C)	250	100	TK 3001	TNF	11,1	
GTT 250 200 (C)		200	TK 3002			
GTT 250 400 (C)		400	TK 3004			
GTT 250 600 (C)		600	TK 3006			
GTT 250 800 (C)		800	TK 3008			
GTT 250 1000 (C)		1000	TK 3010			
GTT 250 1200 (C)		1200	TK 3012			

(C) : With RC snubber circuit.

(C) : *Avec protection RC.*

three phase thyristor bridges
ponts triphasés tout thyristors

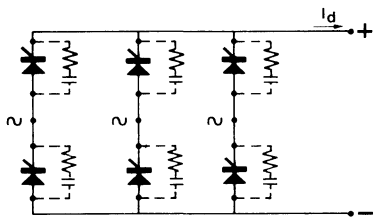


Types	Average output current *Courant moyen de sortie* $T_{amb} = 40°C$ (A)	$V_{DRM} = V_{RRM}$ (V)	Thyristors	Heatsinks *Convecteurs*	Weight Poids (kg)	Mechanical code *Code mécanique* (pages 30→32)
GTT 380 100 (C) GTT 380 200 (C) GTT 380 400 (C) GTT 380 600 (C) GTT 380 800 (C) GTT 380 1000 (C) GTT 380 1200 (C)	380	100 200 400 600 800 1000 1200	TK 3601 TK 3602 TK 3604 TK 3606 TK 3608 TK 3610 TK 3612	Z	23,6	Figure 8
GTT 450 100 (C) GTT 450 200 (C) GTT 450 400 (C) GTT 450 600 (C) GTT 450 800 (C) GTT 450 1000 (C) GTT 450 1200 (C)	450	100 200 400 600 800 1000 1200	TN 433 01 TN 433 02 TN 433 04 TN 433 06 TN 433 08 TN 433 10 TN 433 12	WM	29,6	Figure 9
GTTV 550 100 (C) GTTV 550 200 (C) GTTV 550 400 (C) GTTV 550 600 (C) GTTV 550 800 (C) GTTV 550 1000 (C) GTTV 550 1200 (C)	550 (FC)	100 200 400 600 800 1000 1200	TK 3601 TK 3602 TK 3604 TK 3606 TK 3608 TK 3610 TK 3612	Z	26,9	Figure 10
GTT 600 100 (C) GTT 600 200 (C) GTT 600 400 (C) GTT 600 600 (C) GTT 600 800 (C) GTT 600 1000 (C) GTT 600 1200 (C)	600	100 200 400 600 800 1000 1200	TN 633 01 TN 633 02 TN 633 04 TN 633 06 TN 633 08 TN 633 10 TN 633 12	WM	43,4	*Figure 9*
GTTV 650 100 (C) GTTV 650 200 (C) GTTV 650 400 (C) GTTV 650 600 (C) GTTV 650 800 (C) GTTV 650 1000 (C) GTTV 650 1200 (C)	650 (FC)	100 200 400 600 800 1000 1200	TN 433 01 TN 433 02 TN 433 04 TN 433 06 TN 433 08 TN 433 10 TN 433 12	WM	33,5	Figure 11
GTT 750 100 (C) GTT 750 200 (C) GTT 750 400 (C) GTT 750 600 (C) GTT 750 800 (C) GTT 750 1000 (C) GTT 750 1200 (C)	750 (FC)	100 200 400 600 800 1000 1200	TN 733 01 TN 733 02 TN 733 04 TN 733 06 TN 733 08 TN 733 10 TN 733 12	WM	46	Figure 9

(C) : With RC snubber circuit.
(FC) : Forced cooling - Cooling system included.

(C) : *Avec protection RC.*
(FC) : *Ventilation forcée - Système de ventilation inclus.*

three phase thyristor bridges
ponts triphasés tout thyristors

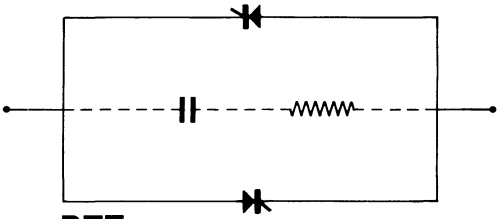


Types	Average output current *Courant moyen de sortie* $T_{amb} = 40\,°C$ (A)	$V_{DRM} = V_{RRM}$ (V)	Thyristors	Heatsinks *Convecteurs*	Weight Poids (kg)	Mechanical code *Code mécanique* (pages 30→32)
GTTV 900 100 (C) GTTV 900 200 (C) GTTV 900 400 (C) GTVV 900 600 (C) GTTV 900 800 (C) GTTV 900 1000 (C) GTTV 900 1200 (C)	900 (FC)	100 200 400 600 800 1000 1200	TN 633 01 TN 633 02 TN 633 04 TN 633 06 TN 633 08 TN 633 10 TN 633 12	WM	48,4	Figure 11
GTTV 1100 100 (C) GTTV 1100 200 (C) GTTV 1100 400 (C) GTTV 1100 600 (C) GTTV 1100 800 (C) GTTV 1100 1000 (C) GTTV 1100 1200 (C)	1100 (FC)	100 200 400 600 800 1000 1200	TN 733 01 TN 733 02 TN 733 04 TN 733 06 TN 733 08 TN 733 10 TN 733 12	WM	51,5	
GTT 1150 100 (C) GTT 1150 200 (C) GTT 1150 400 (C) GTT 1150 600 (C) GTT 1150 800 (C) GTT 1150 1000 (C) GTT 1150 2000 (C)	1150	100 200 400 600 800 1000 1200	TN 933 01 TN 933 02 TN 933 04 TN 933 06 TN 933 08 TN 933 10 TN 933 12	WSA	80	Figure 9
GTTV 1600 100 (C) GTTV 1600 200 (C) GTTV 1600 400 (C) GTTV 1600 600 (C) GTTV 1600 800 (C) GTTV 1600 1000 (C) GTTV 1600 1200 (C)	1600 (FC)	100 200 400 600 800 1000 1200	TN 933 01 TN 933 02 TN 933 04 TN 933 06 TN 933 08 TN 933 10 TN 933 12	WSA	79	Figure 11
GTTV 2000 100 (C) GTTV 2000 200 (C) GTTV 2000 400 (C) GTTV 2000 600 (C) GTTV 2000 800 (C) GTTV 2000 1000 (C) GTTV 2000 1200 (C)	2000 (FC)	100 200 400 600 800 1000 1200	TN 933 01 TN 933 02 TN 933 04 TN 933 06 TN 933 08 TN 933 10 TN 933 12	WSA	68,6	Figure 12

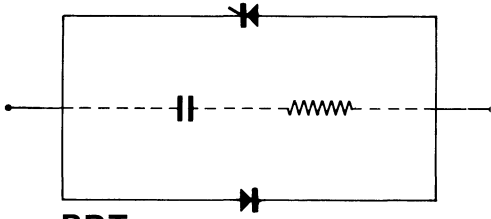
(C) : With RC snubber circuit.
(FC) : Forced cooling - Cooling system included.

(C) : *Avec protection RC.*
(FC) : *Ventilation forcée - Système de ventilation inclus.*

A.C. switches
gradateurs - interrupteurs statiques



RTT



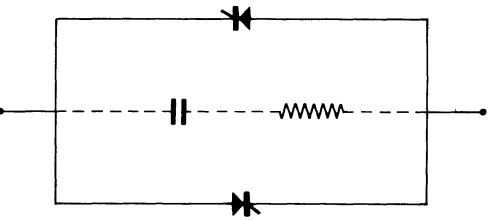
RDT

Types		RMS output line current *Courant efficace de ligne* $T_{amb} = 40$ °C (Arms)	V_{DRM} or V_{RRM} (V)	Constitution of the stack *Composition du montage*		Heatsinks *Convecteurs*	Weight *Poids* (kg)	Mechanical code *Code mécanique* (pages 33 → 37)
				Thyristors	Diodes			
RTT 20 100 (C)	RDT 20 100 (C)	20	100	BTW 39-100	G 1010	fins *ailettes*	RTT : 0,16 RDT : 0,16	Figure 13
RTT 20 200 (C)	RDT 20 200 (C)		200	BTW 39-200	G 2010			
RTT 20 400 (C)	RDT 20 400 (C)		400	BTW 39-400	G 4010			
RTT 20 600 (C)	RDT 20 600 (C)		600	BTW 39-600	G 6010			
RTT 20 800 (C)	RDT 20 800 (C)		800	BTW 39-800	G 8010			
RTT 20 1000 (C)	RDT 20 1000 (C)		1000	BTW 39-1000	G 1110			
RTT 20 1200 (C)	RDT 20 1200 (C)		1200	BTW 39-1200	G 1210			
RTT 40 100 (C)	RDT 40 100 (C)	40	100	BTW 48-100	RP 1020	fins *ailettes*	RTT : 0,27 RDT : 0,27	
RTT 40 200 (C)	RDT 40 200 (C)		200	BTW 48-200	RP 2020			
RTT 40 400 (C)	RDT 40 400 (C)		400	BTW 48-400	RP 4020			
RTT 40 600 (C)	RDT 40 600 (C)		600	BTW 48-600	RP 6020			
RTT 40 800 (C)	RDT 40 800 (C)		800	BTW 48-800	RP 8020			
RTT 40 1000 (C)	RDT 40 1000 (C)		1000	BTW 48-1000	RP 1120			
RTT 40 1200 (C)	RDT 40 1200 (C)		1200	BTW 48-1200	RP 1220			
RTT 80 100 (C)	RDT 80 100 (C)	80	100	BTW 50-100	RP 1040	KNF	RTT : 1,42 RDT : 1,20	RTT : Figure 14 RDT : Figure 15
RTT 80 200 (C)	RDT 80 200 (C)		200	BTW 50-200	RP 2040			
RTT 80 400 (C)	RDT 80 400 (C)		400	BTW 50-400	RP 4040			
RTT 80 600 (C)	RDT 80 600 (C)		600	BTW 50-600	RP 6040			
RTT 80 800 (C)	RDT 80 800 (C)		800	BTW 50-800	RP 8040			
RTT 80 1000 (C)	RDT 80 1000 (C)		1000	BTW 50-1000	RP 1140			
RTT 80 1200 (C)	RDT 80 1200 (C)		1200	BTW 50-1200	RP 1240			
RTT 125 100 (C)	RDT 125 100 (C)	125	100	TKE 1201	KU 1002	TNF	RTT : 2,45 RDT : 1,40	
RTT 125 200 (C)	RDT 125 200 (C)		200	TKE 1202	KU 1002			
RTT 125 400 (C)	RDT 125 400 (C)		400	TKE 1204	KU 1004			
RTT 125 600 (C)	RDT 125 600 (C)		600	TKE 1206	KU 1006			
RTT 125 800 (C)	RDT 125 800 (C)		800	TK 1408	KU 1008			
RTT 125 1000 (C)	RDT 125 1000 (C)		1000	TK 1410	KU 1010			
RTT 125 1200 (C)	RDT 125 1200 (C)		1200	TK 1412	KU 1012			
RTT 200 100 (C)	RDT 200 100 (C)	200	100	TK 3001	KU 1502	TNF	RTT : 3,40 RDT : 3,30	RTT : Figure 14 RDT : Figure 16
RTT 200 200 (C)	RDT 200 200 (C)		200	TK 3002	KU 1502			
RTT 200 400 (C)	RDT 200 400 (C)		400	TK 3004	KU 1504			
RTT 200 600 (C)	RDT 200 600 (C)		600	TK 3006	KU 1506			
RTT 200 800 (C)	RDT 200 800 (C)		800	TK 3008	KU 1508			
RTT 200 1000 (C)	RDT 200 1000 (C)		1000	TK 3010	KU 1510			
RTT 200 1200 (C)	RDT 200 1200 (C)		1200	TK 3012	KU 1512			
RTT 300 100 (C)	RDT 300 100 (C)	300	100	TK 3601	KU 2402	Z	RTT : 8,50 RDT : 7,90	
RTT 300 200 (C)	RDT 300 200 (C)		200	TK 3602	KU 2402			
RTT 300 400 (C)	RDT 300 400 (C)		400	TK 3604	KU 2404			
RTT 300 600 (C)	RDT 300 600 (C)		600	TK 3606	KU 2406			
RTT 300 800 (C)	RDT 300 800 (C)		800	TK 3608	KU 2408			
RTT 300 1000 (C)	RDT 300 1000 (C)		1000	TK 3610	TV 3010			
RTT 300 1200 (C)	RDT 300 1200 (C)		1200	TK 3612	TV 3012			

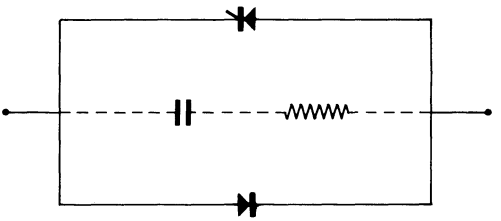
(C) : With RC snubber circuit.

(C) : *Avec protection RC.*

A.C. switches
gradateurs - interrupteurs statiques



RTT



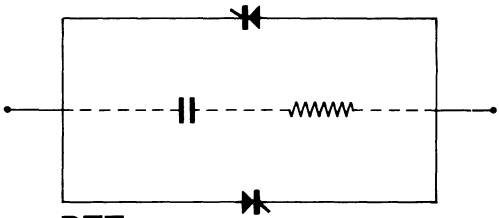
RDT

Types		RMS output line current *Courant efficace de ligne* $T_{amb} = 40$ °C (Arms)	V_{DRM} or V_{RRM} (V)	Constitution of the stack *Composition du montage*		Heatsinks *Convecteurs*	Weight *Poids* (kg)	Mechanical code *Code mécanique* (pages 33 → 37)
				Thyristors	Diodes			
RTT 380 100 (C)	RDT 380 100 (C)	380	100	TN 433 01	TV 3002	WM	RTT : 10,6 RDT : 11,8	Figure 17
RTT 380 200 (C)	RDT 380 200 (C)		200	TN 433 02	TV 3002			
RTT 380 400 (C)	RDT 380 400 (C)		400	TN 433 04	TV 3004			
RTT 380 600 (C)	RDT 380 600 (C)		600	TN 433 06	TV 3006			
RTT 380 800 (C)	RDT 380 800 (C)		800	TN 433 08	TV 3008			
RTT 380 1000 (C)	RDT 380 1000 (C)		1000	TN 433 10	TV 3010			
RTT 380 1200 (C)	RDT 380 1200 (C)		1200	TN 433 12	TV 3012			
RTTV 440 100 (C)	RDTV 440 100 (C)	440 (FC)	100	TK 3601	KU 2402	Z	RTTV : 9,2 RDTV : 7,3	RTT Figure 18 RDT Figure 19
RTTV 440 200 (C)	RDTV 440 200 (C)		200	TK 3602	KU 2402			
RTTV 440 400 (C)	RDTV 440 400 (C)		400	TK 3604	KU 2404			
RTTV 440 600 (C)	RDTV 440 600 (C)		600	TK 3606	KU 2406			
RTTV 440 800 (C)	RDTV 440 800 (C)		800	TK 3608	KU 2408			
RTTV 440 1000 (C)	RDTV 440 1000 (C)		1000	TK 3610	TV 3010			
RTTV 440 1200 (C)	RDTV 440 1200 (C)		1200	TK 3612	TV 3012			
RTT 500 100 (C)	RDT 500 100 (C)	500	100	TN 633 01	DN 462 02	WR	RTT : 15,4 RDT : 12,9	Figure 17
RTT 500 200 (C)	RDT 500 200 (C)		200	TN 633 02	DN 462 02			
RTT 500 400 (C)	RDT 500 400 (C)		400	TN 633 04	DN 462 04			
RTT 500 600 (C)	RDT 500 600 (C)		600	TN 633 06	DN 462 06			
RTT 500 800 (C)	RDT 500 800 (C)		800	TN 633 08	DN 462 08			
RTT 500 1000 (C)	RDT 500 1000 (C)		1000	TN 633 10	DN 462 10			
RTT 500 1200 (C)	RDT 500 1200 (C)		1200	TN 633 12	DN 462 12			
RTTV 600 100 (C)	RDTV 600 100 (C)	600 (FC)	100	TN 433 01	DN 262 02	WR	RTTV : 15,9 RDTV : 14,7	Figure 20
RTTV 600 200 (C)	RDTV 600 200 (C)		200	TN 433 02	DN 262 02			
RTTV 600 400 (C)	RDTV 600 400 (C)		400	TN 433 04	DN 262 04			
RTTV 600 600 (C)	RDTV 600 600 (C)		600	TN 433 06	DN 262 06			
RTTV 600 800 (C)	RDTV 600 800 (C)		800	TN 433 08	DN 262 08			
RTTV 600 1000 (C)	RDTV 600 1000 (C)		1000	TN 433 10	DN 262 10			
RTTV 600 1200 (C)	RDTV 600 1200 (C)		1200	TN 433 12	DN 262 12			
RTT 650 100 (C)	RDT 650 100 (C)	650	100	TN 733 01	DN 662 02	WR	RTT : 22,5 RDT : 15,2	Figure 17
RTT 650 200 (C)	RDT 650 200 (C)		200	TN 733 02	DN 662 02			
RTT 650 400 (C)	RDT 650 400 (C)		400	TN 733 04	DN 662 04			
RTT 650 600 (C)	RDT 650 600 (C)		600	TN 733 06	DN 662 06			
RTT 650 800 (C)	RDT 650 800 (C)		800	TN 733 08	DN 662 08			
RTT 650 1000 (C)	RDT 650 1000 (C)		1000	TN 733 10	DN 662 10			
RTT 650 1200 (C)	RDT 650 1200 (C)		1200	TN 733 12	DN 662 12			
RTTV 750 100 (C)	RDTV 750 100 (C)	750 (FC)	100	TN 633 01	DN 462 02	WR	RTTV : 17,2 RDTV : 16	Figure 20
RTTV 750 200 (C)	RDTV 750 200 (C)		200	TN 633 02	DN 462 02			
RTTV 750 400 (C)	RDTV 750 400 (C)		400	TN 633 04	DN 462 04			
RTTV 750 600 (C)	RDTV 750 600 (C)		600	TN 633 06	DN 462 06			
RTTV 750 800 (C)	RDTV 750 800 (C)		800	TN 633 08	DN 462 08			
RTTV 750 1000 (C)	RDTV 750 1000 (C)		1000	TN 633 10	DN 462 10			
RTTV 750 1200 (C)	RDTV 750 1200 (C)		1200	TN 633 12	DN 462 12			

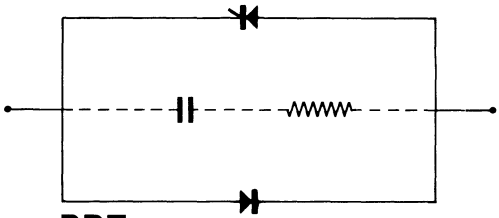
(C) : With RC snubber circuit.
(FC) : Forced cooling - Cooling system included.

(C) : *Avec protection RC.*
(FC) : *Ventilation forcée - Système de ventilation inclus.*

A.C. switches
gradateurs - interrupteurs statiques



RTT



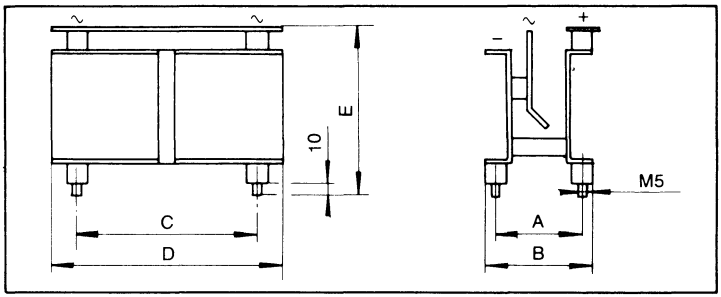
RDT

Types		RMS output line current *Courant efficace de ligne* $T_{amb} = 40$ °C (Arms)	V_{DRM} or V_{RRM} (V)	Constitution of the stack *Composition du montage*		Heatsinks *Convecteurs*	Weight *Poids* (kg)	Mechanical code *Code mécanique* (pages 33 → 37)
				Thyristors	Diodes			
RTTV 900 100 (C)	RDTV 900 100 (C)	900 (FC)	100	TN 733 01	DN 662 02	WR	RTTV: 26,9 RDTV: 17,9	Figure 20
RTTV 900 200 (C)	RDTV 900 200 (C)		200	TN 733 02	DN 662 02			
RTTV 900 400 (C)	RDTV 900 400 (C)		400	TN 733 04	DN 662 04			
RTTV 900 600 (C)	RDTV 900 600 (C)		600	TN 733 06	DN 662 06			
RTTV 900 800 (C)	RDTV 900 800 (C)		800	TN 733 08	DN 662 08			
RTTV 900 1000 (C)	RDTV 900 1000 (C)		1000	TN 733 10	DN 662 10			
RTTV 900 1200 (C)	RDTV 900 1200 (C)		1200	TN 733 12	DN 662 12			
RTT 950 100 (C)	RDT 950 100 (C)	950	100	TN 933 01	DN 762 02	WSA	RTT : 34,4 RDT : 25,2	Figure 17
RTT 950 200 (C)	RDT 950 200 (C)		200	TN 933 02	DN 762 02			
RTT 950 400 (C)	RDT 950 400 (C)		400	TN 933 04	DN 762 04			
RTT 950 600 (C)	RDT 950 600 (C)		600	TN 933 06	DN 762 06			
RTT 950 800 (C)	RDT 950 800 (C)		800	TN 933 08	DN 762 08			
RTT 950 1000 (C)	RDT 950 1000 (C)		1000	TN 933 10	DN 762 10			
RTT 950 1200 (C)	RDT 950 1200 (C)		1200	TN 933 12	DN 762 12			
RTTV 1400 100 (C)	RDTV 1400 100 (C)	1400 (FC)	100	TN 933 01	DN 762 02	WR	RTTV : 24 RDTV : 24	Figure 21
RTTV 1400 200 (C)	RDTV 1400 200 (C)		200	TN 933 02	DN 762 02			
RTTV 1400 400 (C)	RDTV 1400 400 (C)		400	TN 933 04	DN 762 04			
RTTV 1400 600 (C)	RDTV 1400 600 (C)		600	TN 933 06	DN 762 06			
RTTV 1400 800 (C)	RDTV 1400 800 (C)		800	TN 933 08	DN 762 08			
RTTV 1400 1000 (C)	RDTV 1400 1000 (C)		1000	TN 933 10	DN 762 10			
RTTV 1400 1200 (C)	RDTV 1400 1200 (C)		1200	TN 933 12	DN 762 12			
RTTV 2000 100 (C)	RDTV 2000 100 (C)	2000 (FC)	100	TN 933 01	DN 762 02	WSA	RTTV : 35 RDTV : 28	
RTTV 2000 200 (C)	RDTV 2000 200 (C)		200	TN 933 02	DN 762 02			
RTTV 2000 400 (C)	RDTV 2000 400 (C)		400	TN 933 04	DN 762 04			
RTTV 2000 600 (C)	RDTV 2000 600 (C)		600	TN 933 06	DN 762 06			
RTTV 2000 800 (C)	RDTV 2000 800 (C)		800	TN 933 08	DN 762 08			
RTTV 2000 1000 (C)	RDTV 2000 1000 (C)		1000	TN 933 10	DN 762 10			
RTTV 2000 1200 (C)	RDTV 2000 1200 (C)		1200	TN 933 12	DN 762 12			

(C) : With RC snubber circuit.
(FC) : Forced cooling - Cooling system included.

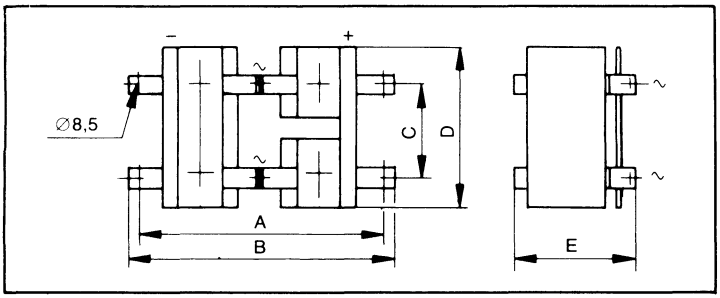
(C) : *Avec protection RC.*
(FC) : *Ventilation forcée - Système de ventilation inclus.*

single phase thyristor bridge outlines
plans d'encombrement des ponts monophasés tout thyristors



Reference	A	B	C	D	E
BTT 15	62	80	117	133	128
BTT 30	92	120	154	170	168

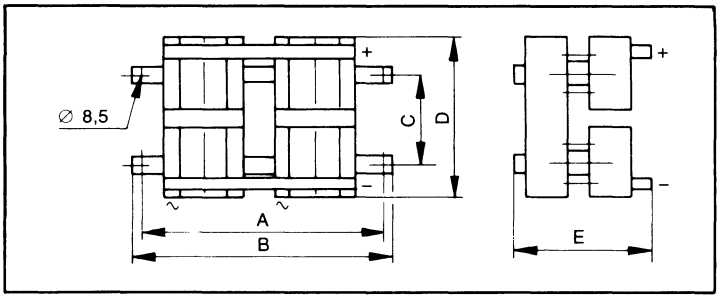
- Figure 1 -



Reference	A	B	C	D	E
BTT 55	265	295	80	150	175
BTT 75	265	295	100	190	175
BTT 120	365	395	100	190	195
BTT 180	365	395	180	350	195
BTT 275	390	420	190	370	240

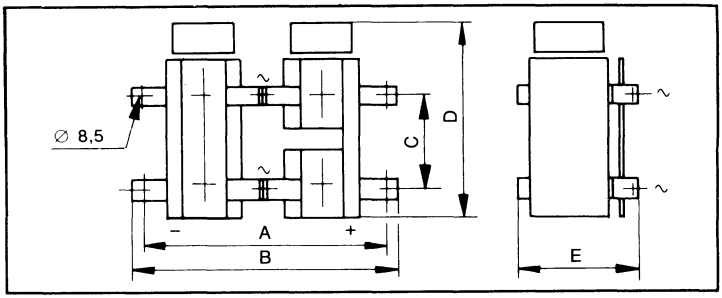
- Figure 2 -

single phase thyristor bridge outlines
plans d'encombrement des ponts monophasés tout thyristors



Reference	A	B	C	D	E
BTT 330	465	495	120	230	280
BTT 440	465	495	200	330	280
BTT 560	465	495	300	430	280
BTT 830	665	695	500	630	310

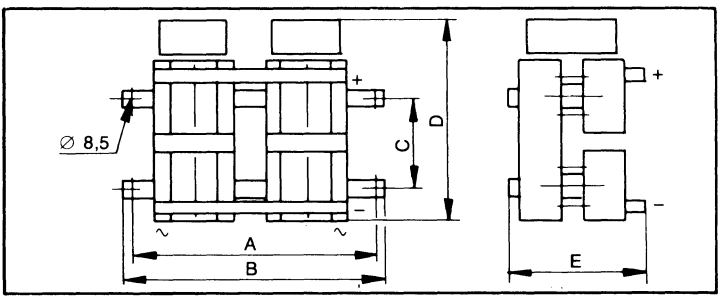
- Figure 3 -



Reference	A	B	C	D	E
BTTV 400	390	420	190	445	240

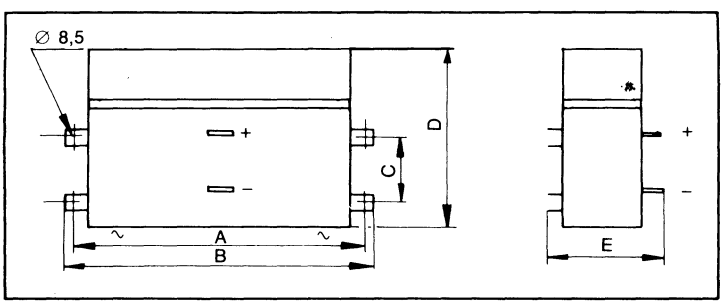
- Figure 4 -

single phase thyristor bridge outlines
plans d'encombrement des ponts monophasés tout thyristors



Reference	A	B	C	D	E
BTTV 520	465	495	120	305	280
BTTV 650	465	495	200	405	280
BTTV 800	465	495	300	505	280
BTTV 1200	665	695	300	505	310

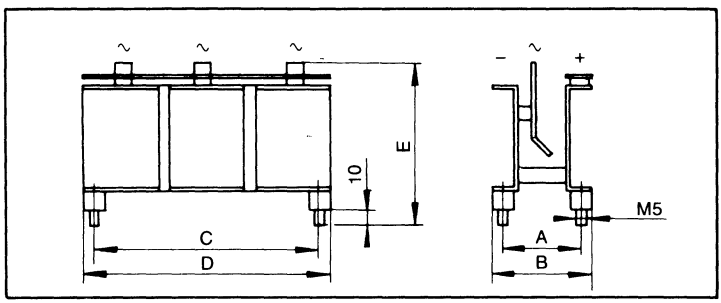
- Figure 5 -



Reference	A	B	C	D	E
BTTV 1450	645	675	320	695	450

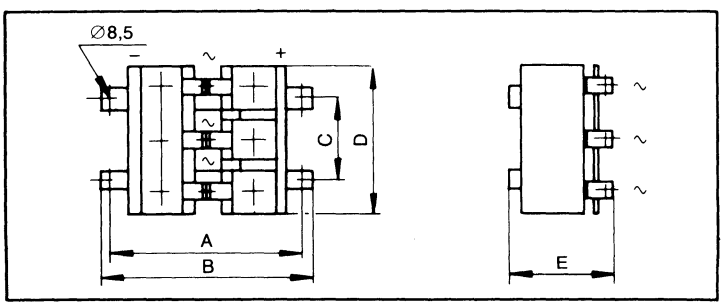
- Figure 6 -

three phase thyristor bridge outlines
plans d'encombrement des ponts triphasés tout thyristors



Reference	A	B	C	D	E
GTT 20	62	80	180	196	128
GTT 40	92	120	234	250	168

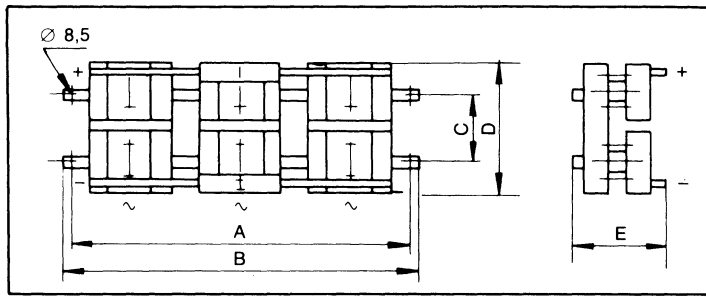
- Figure 7 -



Reference	A	B	C	D	E
GTT 70	265	295	180	230	175
GTT 100	265	295	200	290	175
GTT 150	365	395	200	290	195
GTT 250	365	395	280	530	195
GTT 380	390	420	290	560	240

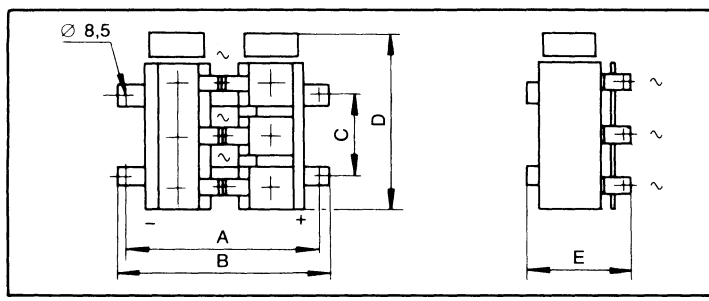
- Figure 8 -

three phase thyristor bridge outlines
plans d'encombrement des ponts triphasés tout thyristors



Reference	A	B	C	D	E
GTT 450	670	700	120	230	280
GTT 600	670	700	200	330	280
GTT 750	670	700	300	430	280
GTT 1150	870	900	500	630	310

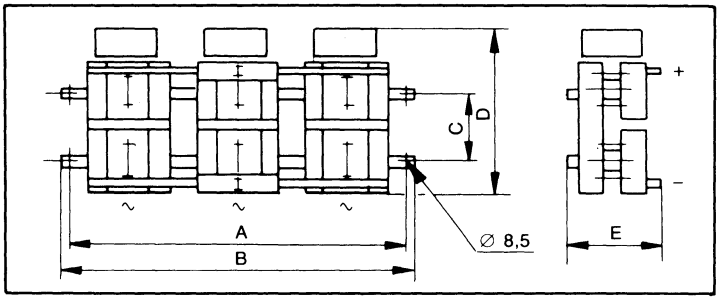
- Figure 9 -



Reference	A	B	C	D	E
GTTV 550	390	420	290	640	240

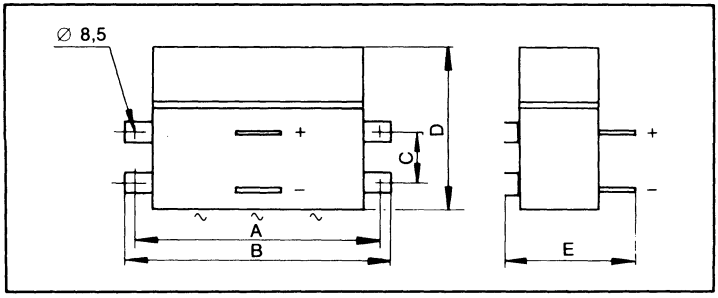
- Figure 10 -

three phase thyristor bridge outlines
plans d'encombrement des ponts triphasés tout thyristors



Reference	A	B	C	D	E
GTTV 650	670	700	120	310	280
GTTV 900	670	700	200	410	280
GTTV 1100	670	700	300	510	280
GTTV 1600	870	900	500	510	310

- Figure 11 -

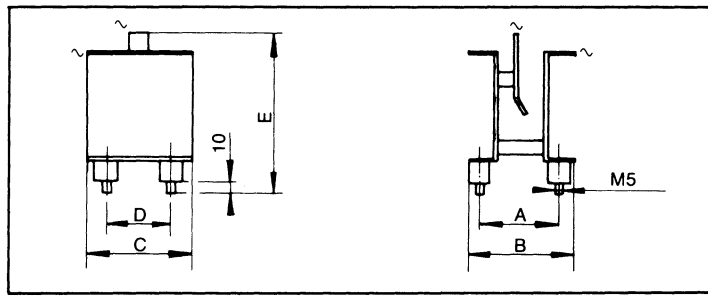


Reference	A	B	C	D	E
GTTV 2000	870	900	320	695	470

- Figure 12 -

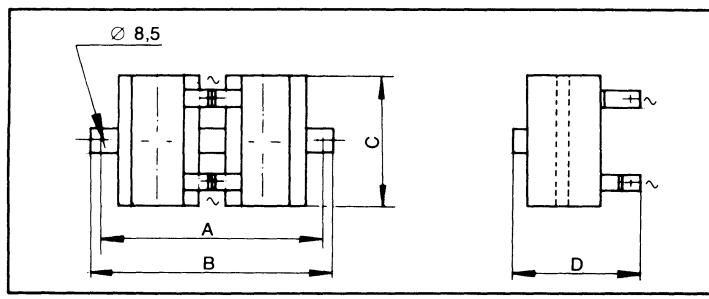
A.C. switch outlines

plans d'encombrement des gradateurs et interrupteurs statiques



Reference	A	B	C	D	E
RTT 20	60	80	60	40	120
RTT 40	90	120	80	60	166
RDT 20	60	80	60	40	120
RDT 40	90	120	80	60	166

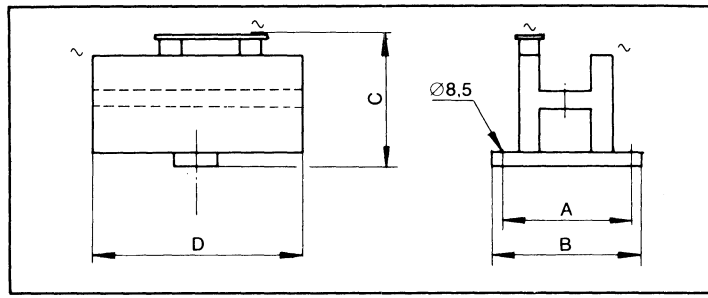
- Figure 13 -



Reference	A	B	C	D
RTT 80	265	295	80	175
RTT 125	365	395	100	195
RTT 200	365	395	150	195
RTT 300	390	420	180	240

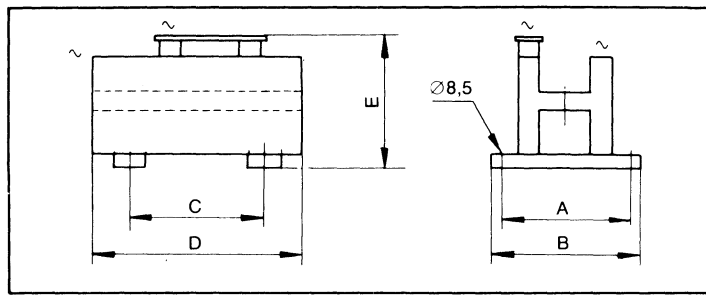
- Figure 14 -

A.C. switch outlines
plans d'encombrement des gradateurs et interrupteurs statiques



Reference	A	B	C	D
RDT 80	140	170	150	160
RDT 125	180	210	210	130

- Figure 15 -

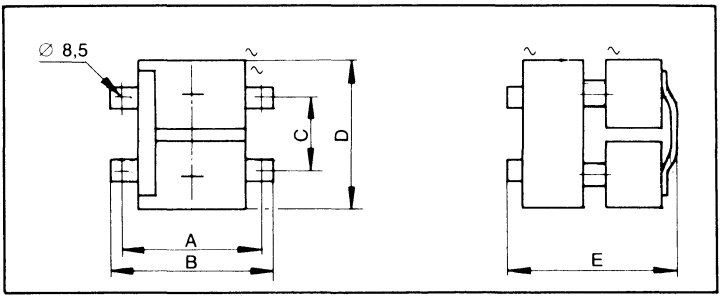


Reference	A	B	C	D	E
RDT 200	180	210	150	300	150
RDT 300	210	240	200	360	210

- Figure 16 -

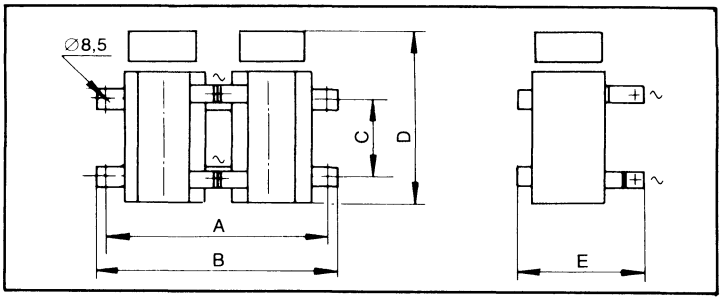
A.C. switch outlines

plans d'encombrement des gradateurs et interrupteurs statiques



Reference	A	B	C	D	E
RTT 380	250	280	100	230	280
RTT 500	250	280	200	330	280
RTT 650	250	280	300	490	280
RTT 950	300	330	450	630	310
RDT 380	250	280	150	280	280
RDT 500	250	280	150	280	280
RDT 650	250	280	200	360	280
RDT 950	300	330	300	480	310

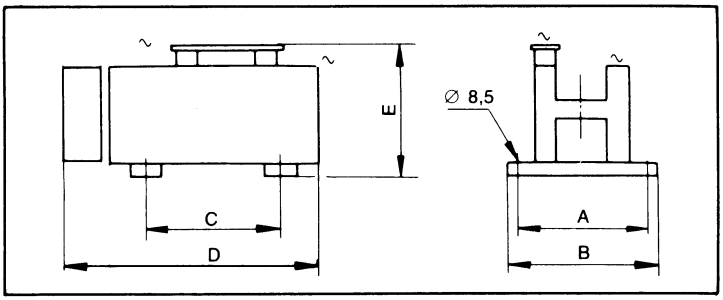
- Figure 17 -



Reference	A	B	C	D	E
RTTV 440	390	420	180	270	240

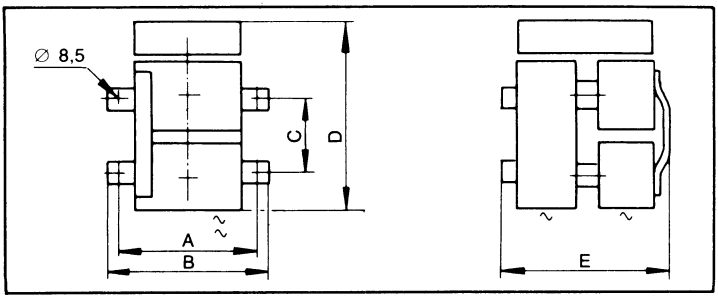
- Figure 18 -

A.C. switch outlines
plans d'encombrement des gradateurs et interrupteurs statiques



Reference	A	B	C	D	E
RDTV 440	210	240	150	360	210

- Figure 19 -

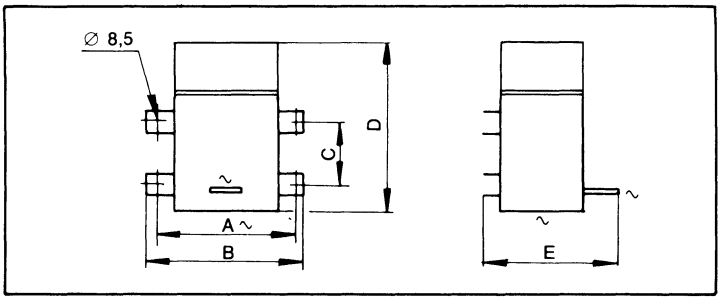


Reference	A	B	C	D	E
RTTV 600	250	280	200	410	280
RTTV 750	250	280	200	410	280
RTTV 900	250	280	300	500	280
RDTV 600	250	280	150	360	280
RDTV 750	250	280	150	360	280
RDTV 900	250	280	200	410	280

- Figure 20 -

A.C. switch outlines

plans d'encombrement des gradateurs et interrupteurs statiques



Reference	A	B	C	D	E
RTTV 1400	235	265	250	695	390
RTTV 2000	300	330	430	995	450
RDTV 1400	235	265	250	695	390
RDTV 2000	300	330	430	995	450

- Figure 21 -

THOMSON-CSF
DIVISION SEMICONDUCTEURS

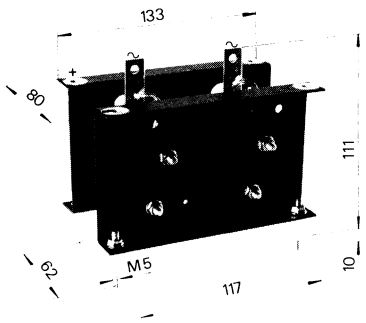
data sheets
notices

single phase diode bridges
ponts monophasés tout diodes

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDD 20

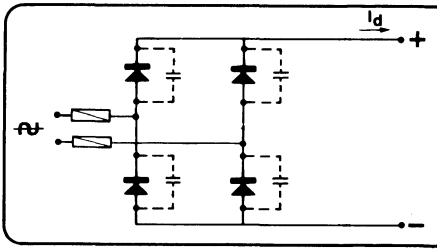
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 20 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 20	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type BDD 20 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
BDD 20	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geq V_{RRM}$.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDD 20

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **G 10**

Black heatsinks
Radiateurs peints : **2 fins (ailettes)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **0.35 kg**

Dimensions
Encombrement : **133 x 80 x 111 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **47 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6 21cpURC14x51/Q32A**
up to 800V	380V	
up to 1200V	550V	

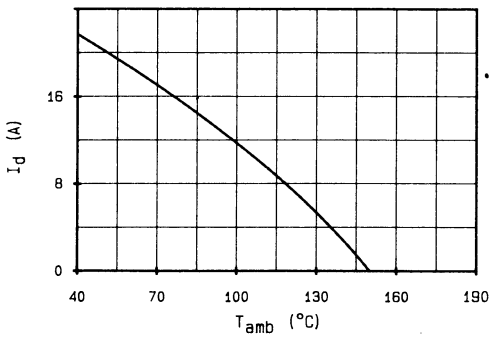


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

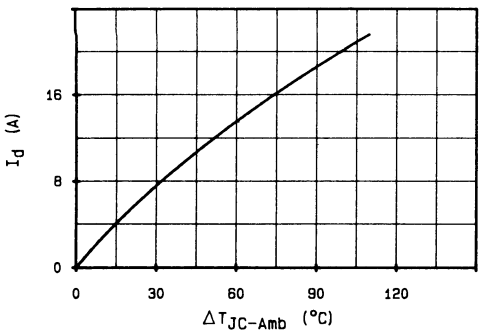


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

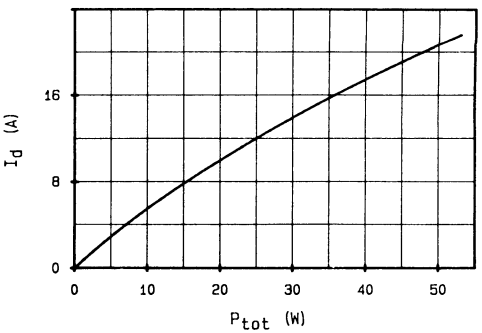
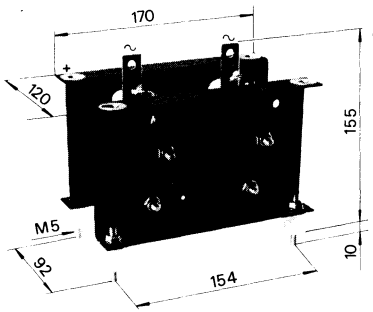


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDD 40

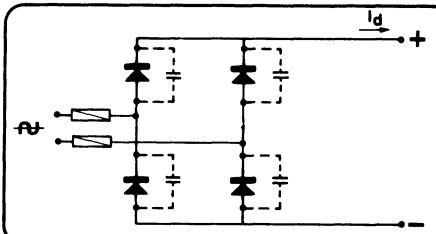
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 40 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 40	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type BDD 40 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
BDD 40	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$.

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THOMSON COMPOSANTS

BDD 40

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **RP 40**

Black heatsinks
Radiateurs peints : **2 fins (ailettes)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **0.54 kg**

Dimensions
Encombrement : **170 x 120 x 155 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURD22x58/063A** **170N2016**
up to 800V	380V	
up to 1200V	550V	

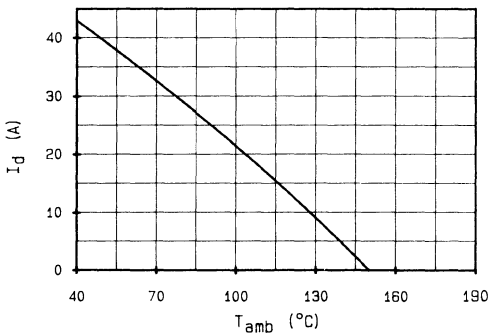


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

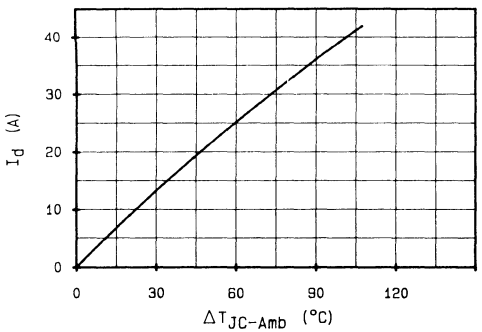


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

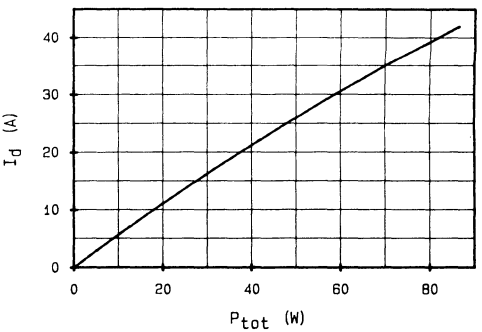
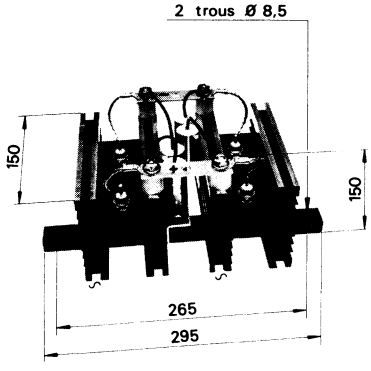


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDD 60

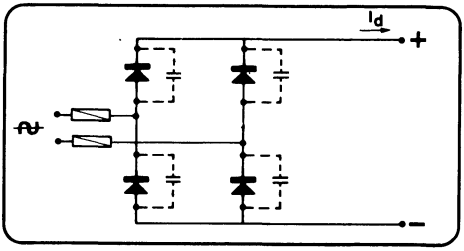
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 70 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 60	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type BDD 60 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
BDD 60	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDD 60

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **RP 40**

Black heatsinks
Radiateurs peints : **2 KNF150**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **2.1 kg**

Dimensions
Encombrement : **295 x 150 x 150 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURQ27x60/Q100A**
up to 800V	380V	
up to 1200V	550V	

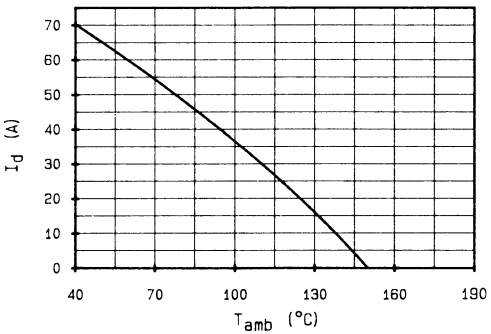


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

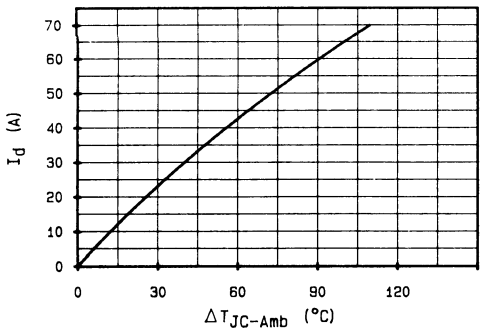


FIG.2-INCREASE T(JC-Amb).
ELEVATION T(JC-Amb).

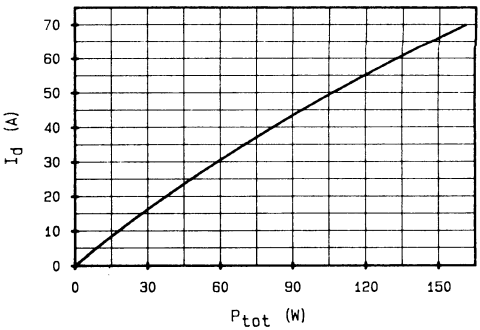
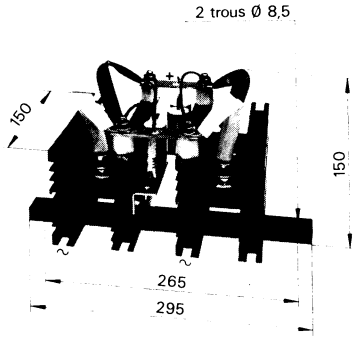


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDD 100

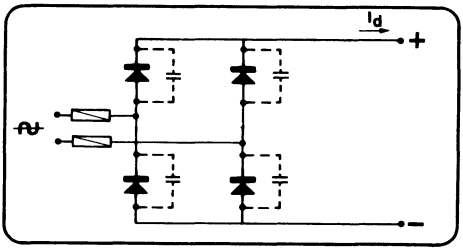
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 100 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 100	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type BDD 100 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
BDD 100	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDD 100

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **KU 100**

Black heatsinks : **2 KNF150**
Radiateurs peints

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack : **2.6 kg**
Poids du montage

Dimensions : **295 x 150 x 150 mm**
Encombrement

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX / V_{eff} MAX	Fuses references / *References fusibles*
up to 400V	250V	**6.621cpUR6D27x60/0160A**
up to 800V	380V	
up to 1200V	550V	

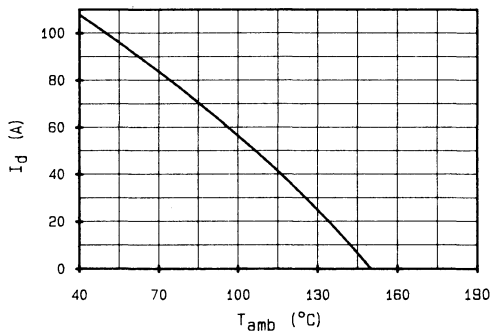


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

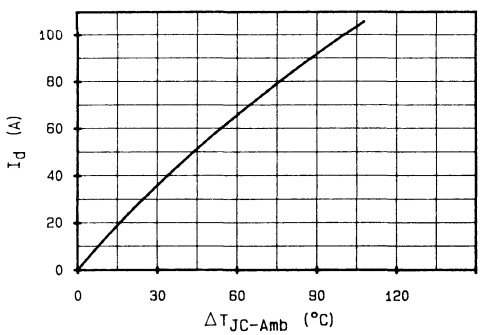


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

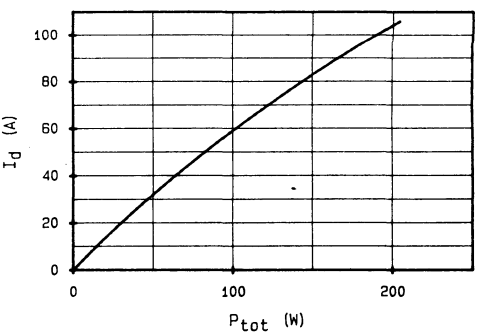
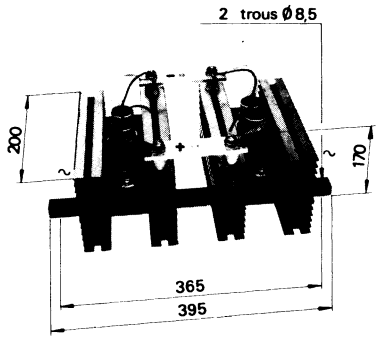


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDD 150

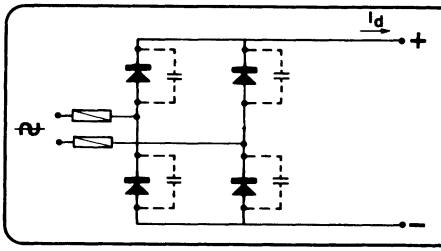
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 150 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 150	200	**200**	C (Capacitor*)	F
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example : Type BDD 150 with V_{RRM} = 1000 V, protection network and fuses, order as:	Type	Voltage	Protection network	Fuses
	BDD 150	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDD 150

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **KU 100**

Black heatsinks
Radiateurs peints : **2 TNF200**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **3.7 kg**

Dimensions
Encombrement : **395 x 170 x 200 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB31Ttc/200A** **170L3762**
up to 800V	380V	
up to 1200V	550V	

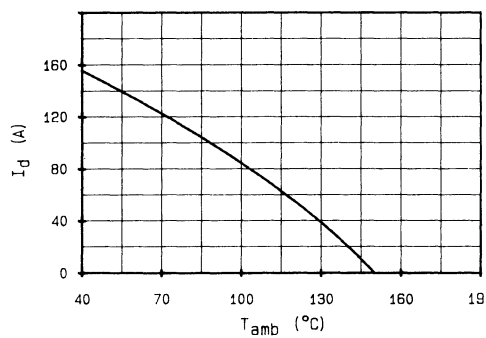


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

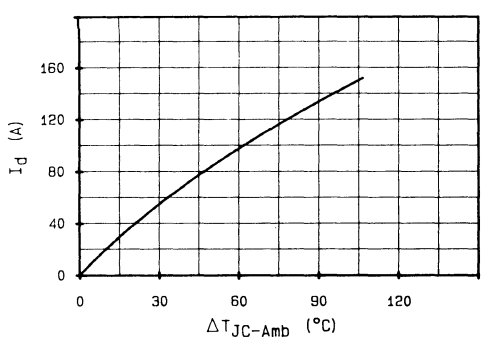


FIG.2-INCREASE T(JC-Amb).
ELEVATION T(JC-Amb).

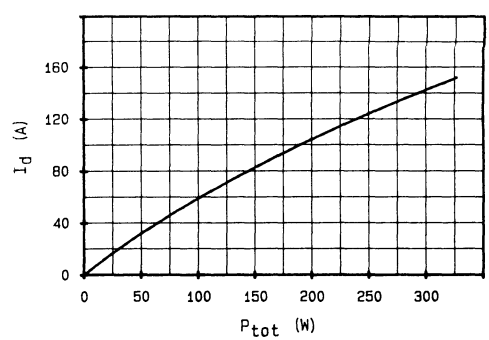
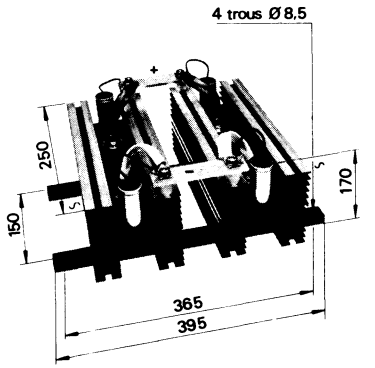


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDD 200

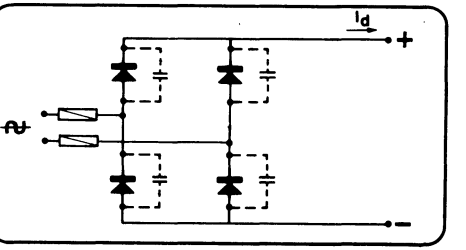
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 200 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 200	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type BDD 200 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
BDD 200	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDD 200

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **KU 150**

Black heatsinks
Radiateurs peints : **2 TNF250**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **5.6 kg**

Dimensions
Encombrement : **385 x 170 x 250 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB31Ttc/315A** **170L3764**
up to 800V	380V	
up to 1200V	550V	

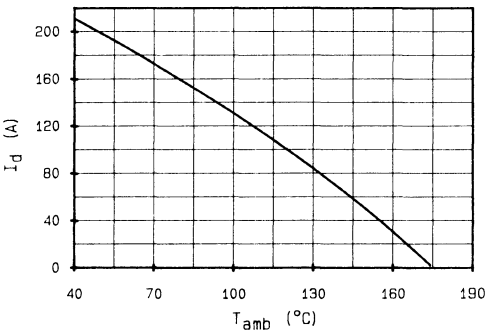


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

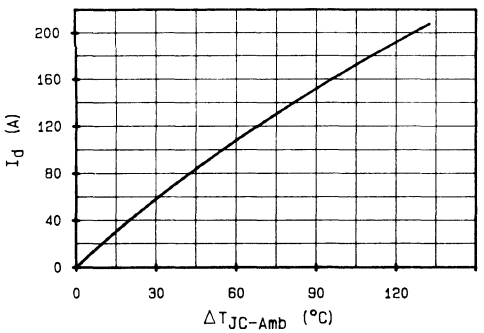


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

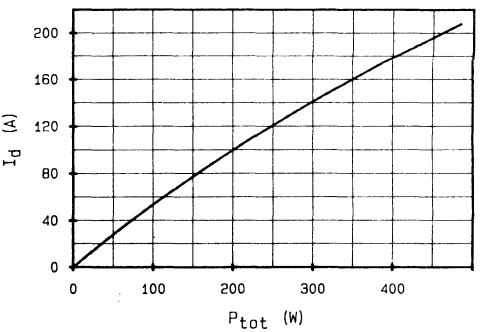
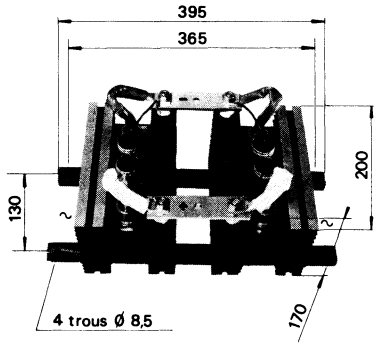


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDD 250

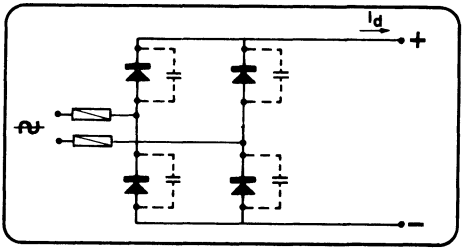
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 250 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 250	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type BDD 250 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
BDD 250	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDD 250

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **KU 240**

Black heatsinks : **2 TNF200**
Radiateurs peints

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack : **4.8 kg**
Poids du montage

Dimensions : **385 x 170 x 200 mm**
Encombrement

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6BodKC3UR6633Tc/500A** **170L3788**
up to 800V	380V	
up to 1200V	550V	

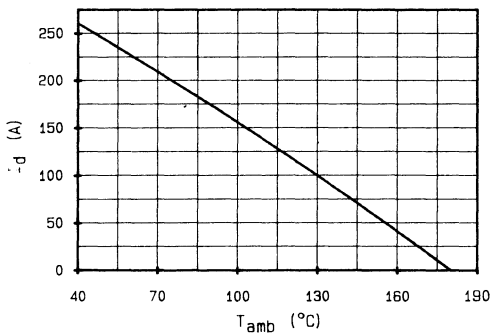


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

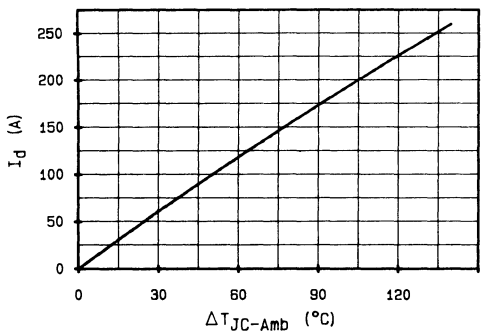


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

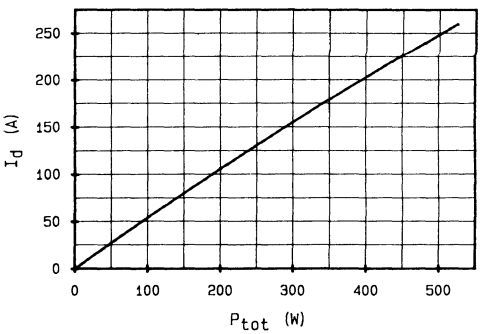
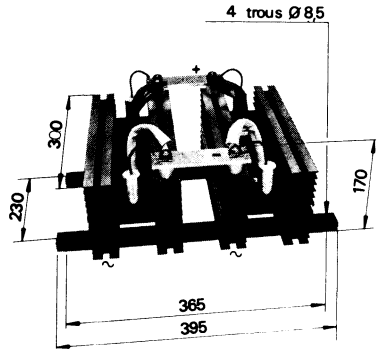


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDD 340

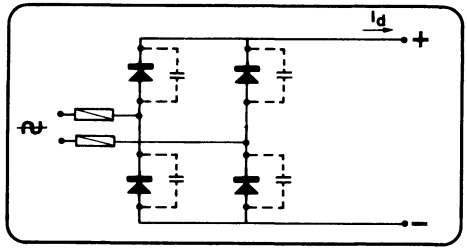
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 340 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 340	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type BDD 340 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
BDD 340	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDD 340

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **KU 240**

Black heatsinks : **2 TNF300**
Radiateurs peints

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack : **8.7 kg**
Poids du montage

Dimensions : **395 x 170 x 300 mm**
Encombrement

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6BodKC3URGG33Tc/500A** **170L3774**
up to 800V	380V	
up to 1200V	550V	

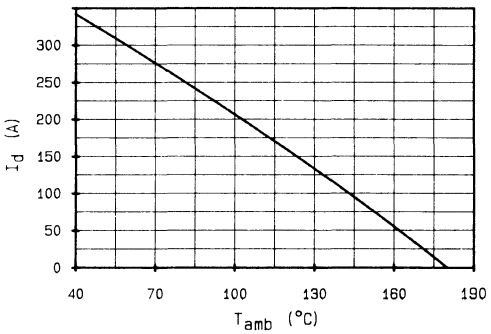


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

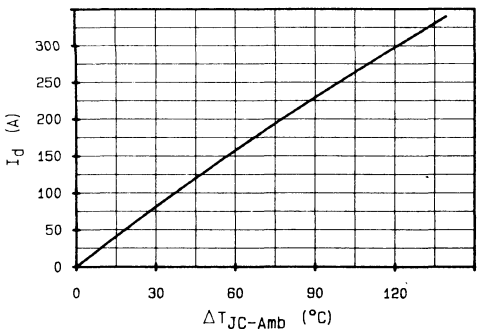


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

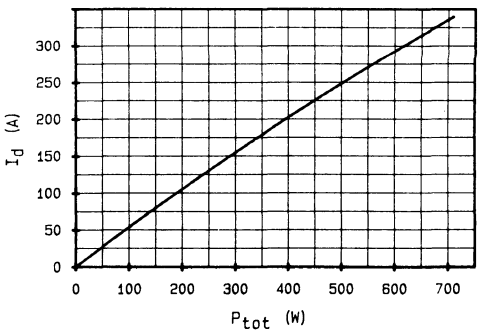
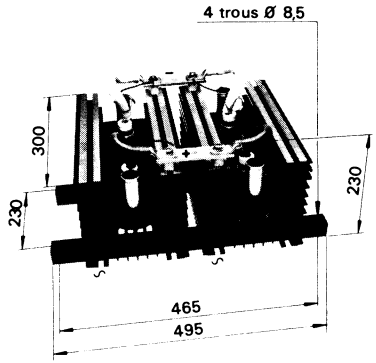


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDD 480

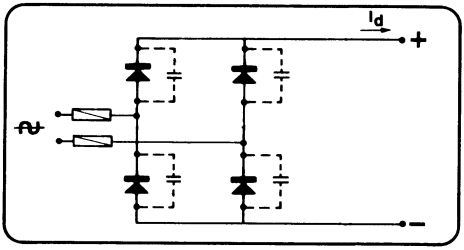
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 480 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 480	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type BDD 480 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
BDD 480	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDD 480

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **TV 30**

Black heatsinks
Radiateurs peints : **2 R300**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **20.5 kg**

Dimensions
Encombrement : **495 x 230 x 300 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB33Ttc/700A** **170L7036**
up to 800V	380V	
up to 1200V	550V	

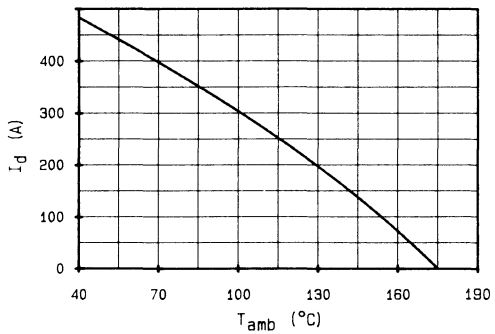


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

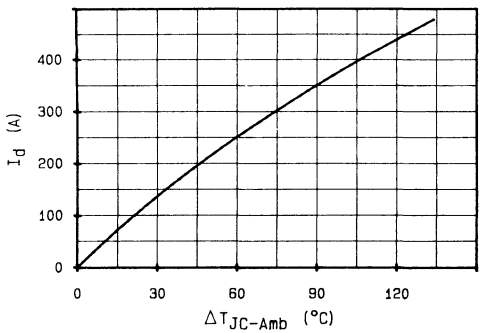


FIG.2-INCREASE T(JC-Amb).
ELEVATION T(JC-Amb).

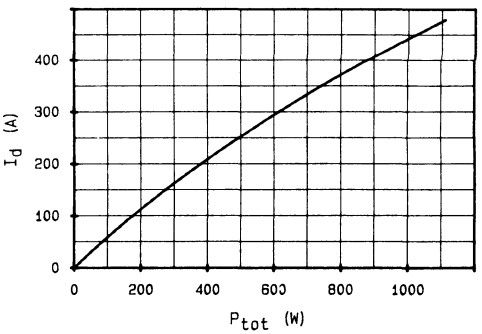
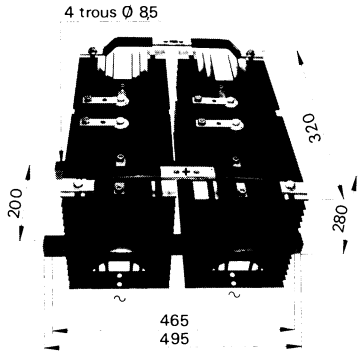


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDD 700

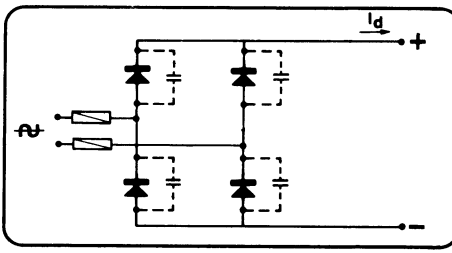
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 700 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 700	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type BDD 700 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
BDD 700	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDD 700

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **DN682**

Black heatsinks
Radiateurs peints : **2 WM320 (150/150)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **30 kg**

Dimensions
Encombrement : **485 x 280 x 320 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB33Ttc/1000A** **170L8961**
up to 800V	380V	
up to 1200V	550V	

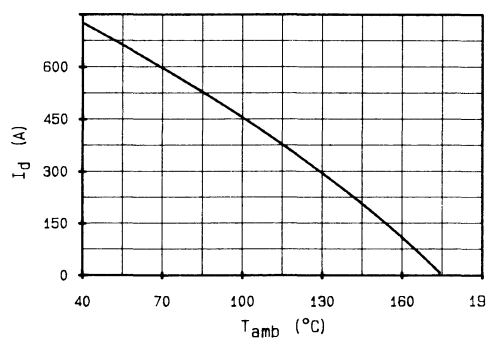


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

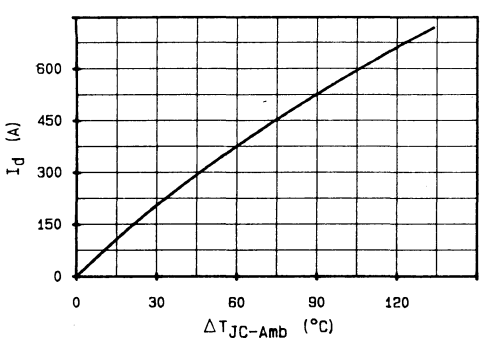


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

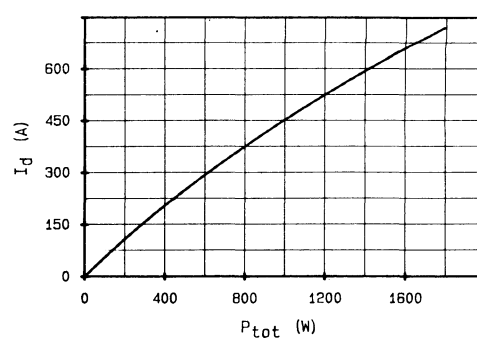
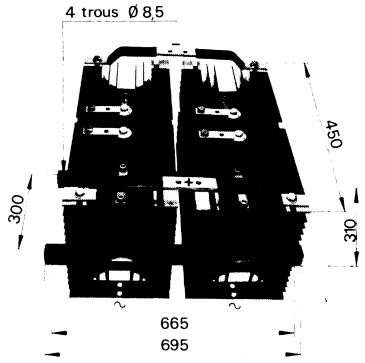


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDD 1050

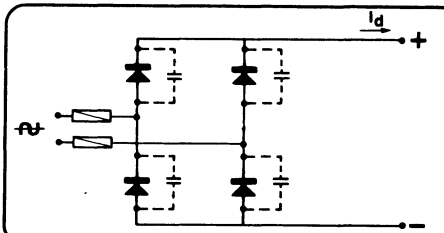
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 1050 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 1050	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type BDD 1050 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
BDD 1050	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geq V_{RRM}$.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDD 1050

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **DN 762**

Black heatsinks
Radiateurs peints : **2 WSA450 (215/215)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **50 kg**

Dimensions
Encombrement : **685 x 310 x 450 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **1000 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6BddKC3URGG2x33Tc/1400A** **2x170L8500**
up to 800V	380V	
up to 1200V	550V	

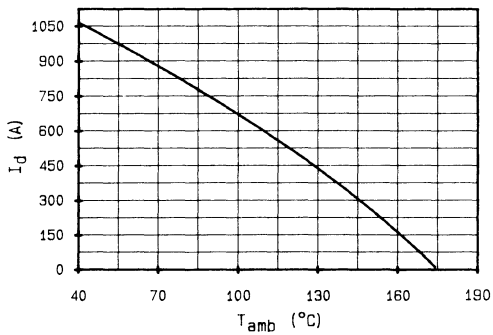


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

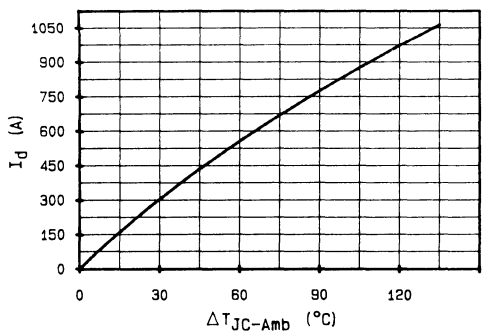


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

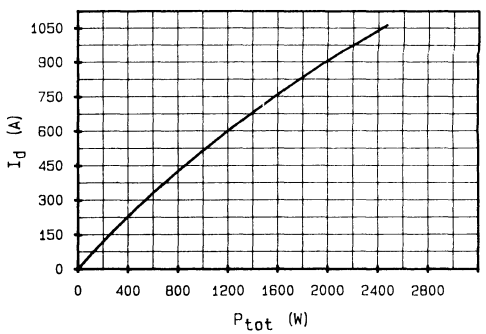
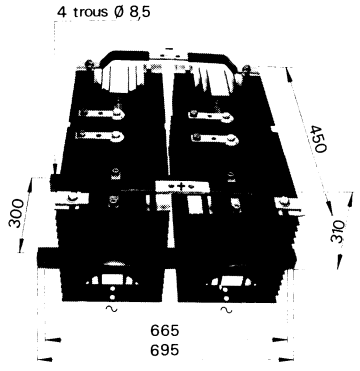


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

BDD 1200

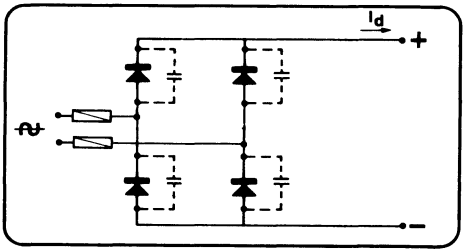
SINGLE PHASE BRIDGE
PONT MONOPHASE



Natural convection
Convection naturelle

I_d 1200 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
BDD 1200	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type BDD 1200 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
BDD 1200	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$.

June 1983 - 1/2

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BDD 1200

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

4 diodes : **DN 962**

Black heatsinks
Radiateurs peints : **2 WSA450 (215/215)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **50 kg**

Dimensions
Encombrement : **695 X 310 X 450 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **1000 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BddKCAURB2x33PLSP/1800** **2x170L8501**
up to 800V	380V	
up to 1200V	550V	

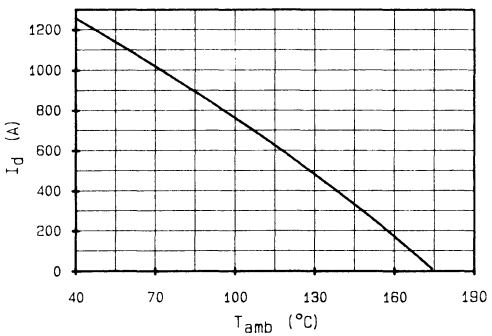


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

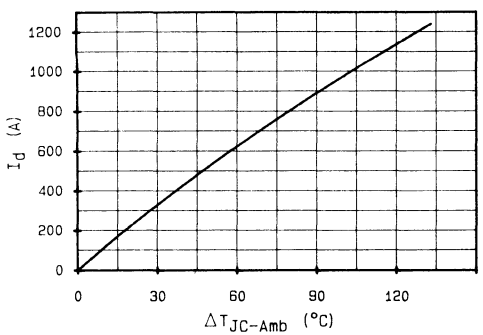


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

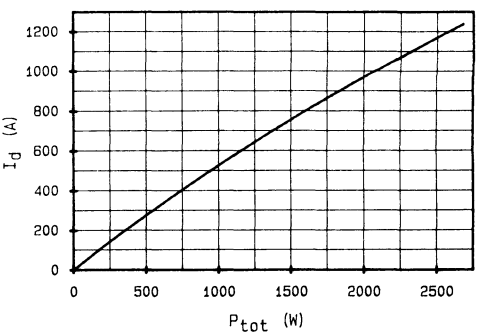


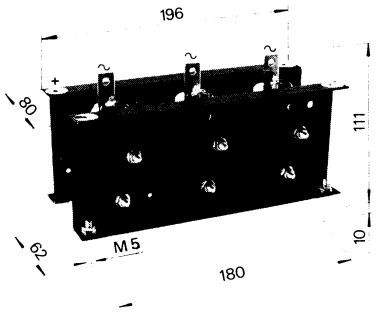
FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

three phase diode bridges
ponts triphasés tout diodes

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 20

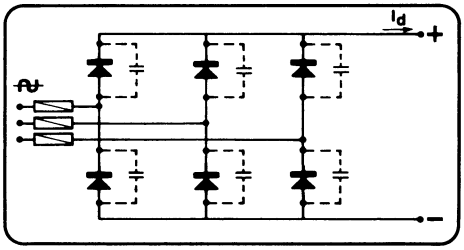
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 25 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 20	200	200	C (Capacitor*)	F
	400	400		
	600	600		
	800	800		
	1000	1000		
	1200	1200		

Example : Type GDD 20 with V_{RRM} = 1000 V, protection network and fuses, order as:	Type	Voltage	Protection network	Fuses
	GDD 20	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$

June 1983 - 1/2

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THOMSON COMPOSANTS

GDD 20

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **G 10**

Black heatsinks : **2 fins (ailettes)**
Radiateurs peints

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack : **0.35 kg**
Poids du montage

Dimensions : **186 x 80 x 111 mm**
Encombrement

OPTIONS

Protection capacitors
Condensateurs de protection
C = **47 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURC14x51/G25A**
up to 800V	380V	
up to 1200V	550V	

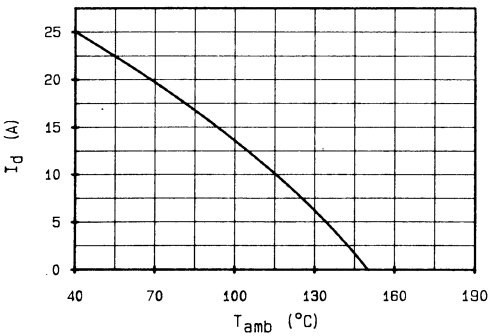


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

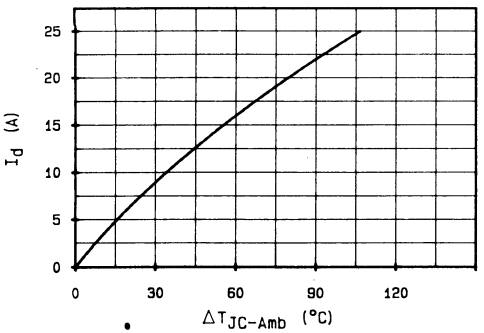


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

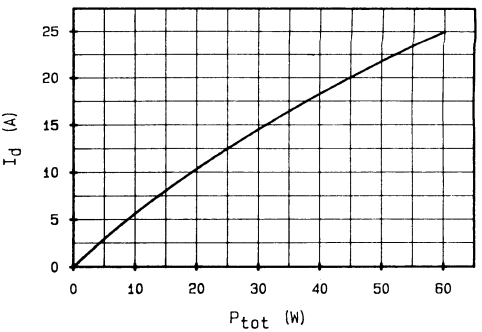
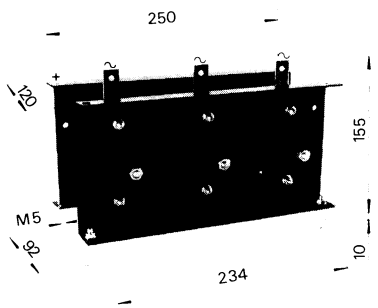


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 45

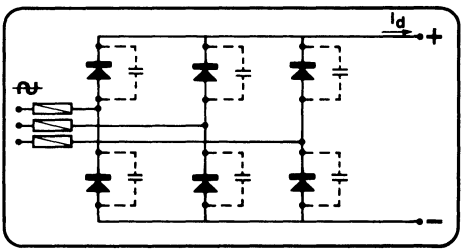
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 45 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 45	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type GDD 45 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
GDD 45	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$

June 1983 - 1/2

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THOMSON COMPOSANTS

GDD 45

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **RP 20**

Black heatsinks : **2 fins (ailettes)**
Radiateurs peints

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack : **0.77 kg**
Poids du montage

Dimensions : **250 x 120 x 155 mm**
Encombrement

OPTIONS

Protection capacitors
Condensateurs de protection
C = **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURD22x58/Q50A** **170N2014**
up to 800V	380V	
up to 1200V	550V	

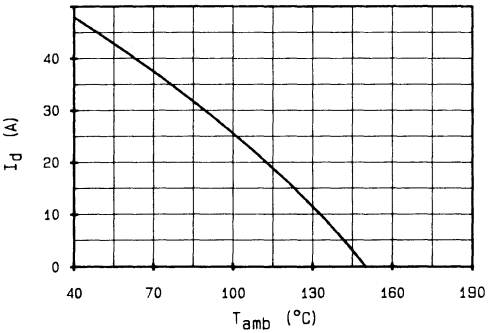


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

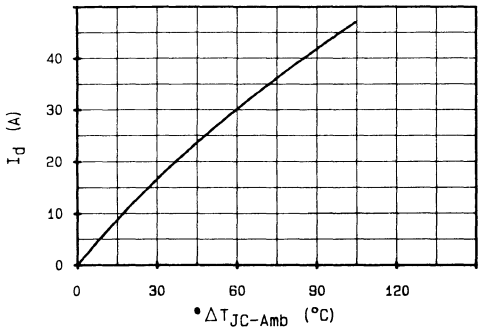


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

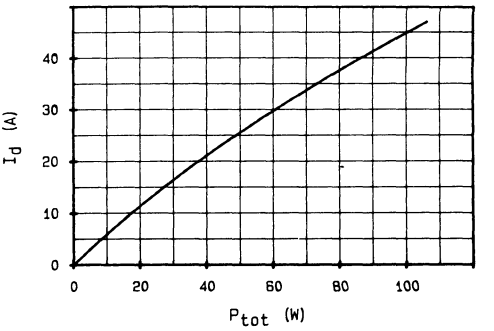
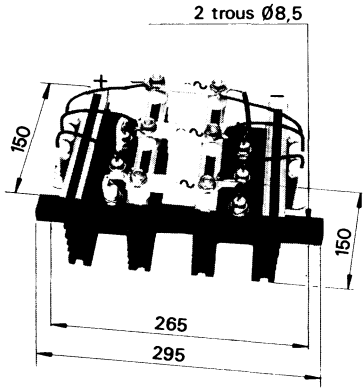


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 70

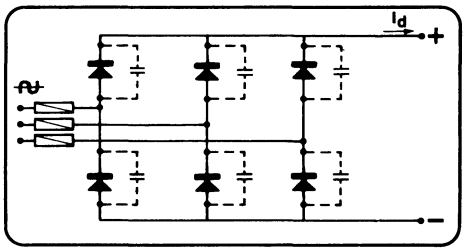
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 70 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 70	200	200	C (Capacitor*)	F
	400	400		
	600	600		
	800	800		
	1000	1000		
	1200	1200		

Example :
Type GDD 70 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
GDD 70	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geq V_{RRM}$

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THOMSON COMPOSANTS

GDD 70

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **RP 40**

Black heatsinks
Radiateurs peints : **2 KNF150**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **2.05 kg**

Dimensions
Encombrement : **295 x 150 x 150 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURD22x58/080A**
up to 800V	380V	
up to 1200V	550V	

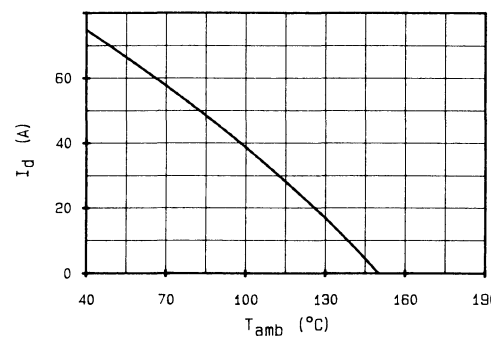


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

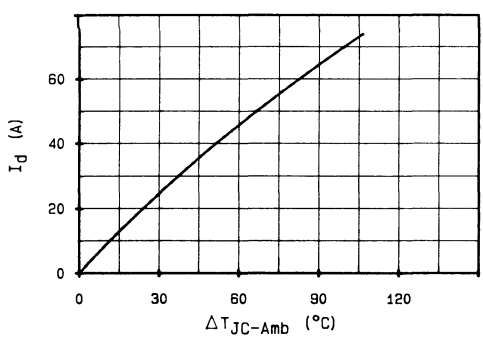


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

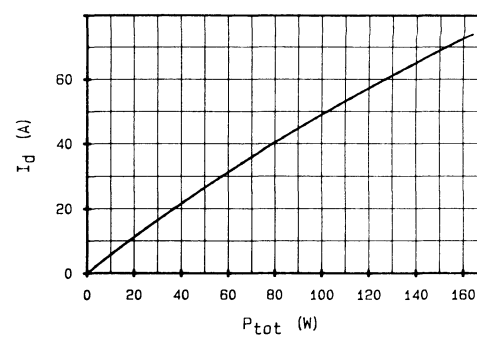
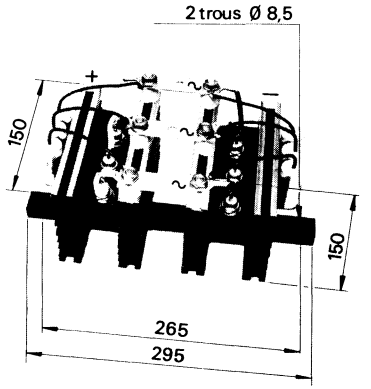


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 100

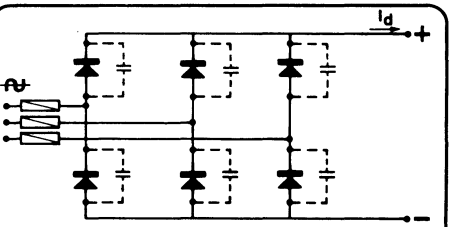
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 110 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 100	200	**200**	C (Capacitor*)	F
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type GDD 100 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
GDD 100	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geq V_{RRM}$

June 1983 - 1/2

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THOMSON COMPOSANTS

GDD 100

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **KU 100**

Black heatsinks
Radiateurs peints : **2 KNF150**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **2.1 kg**

Dimensions
Encombrement : **285 x 150 x 150 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6 21cpURGD27x60/G125A 170N2018**
up to 800V	380V	
up to 1200V	550V	

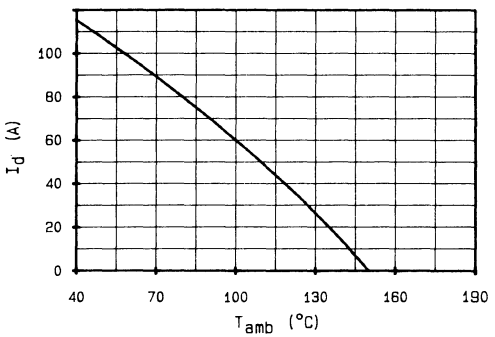


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

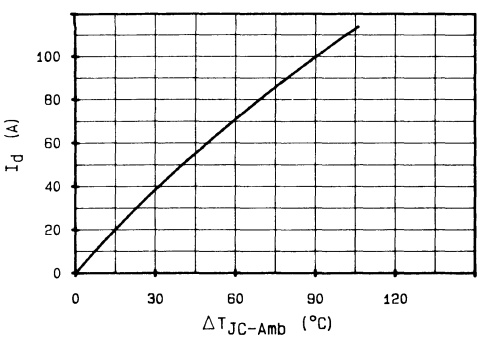


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

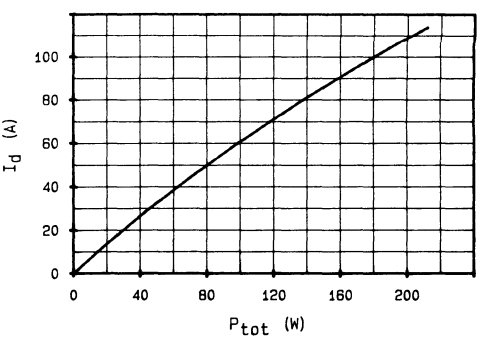
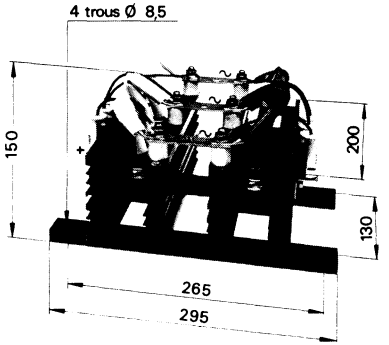


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 150

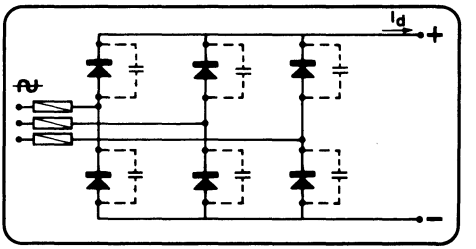
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 150 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 150	200	200	C (Capacitor*)	F
	400	400		
	600	600		
	800	800		
	1000	1000		
	1200	1200		

Example :
Type GDD 150 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
GDD 150	1000	C	F

* For capacitor, working voltage $V_C \geqslant V_{RRM}$

June 1983 - 1/2

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THOMSON COMPOSANTS

GDD 150

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **KU 100**

Black heatsinks
Radiateurs peints : **2 KNF200**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **3 kg**

Dimensions
Encombrement : **285 x 150 x 200 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURGD27x60/Q160A**
up to 800V	380V	
up to 1200V	550V	

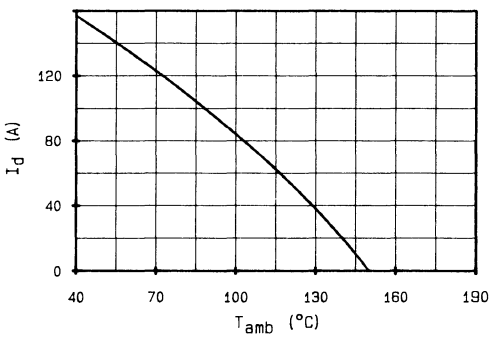


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

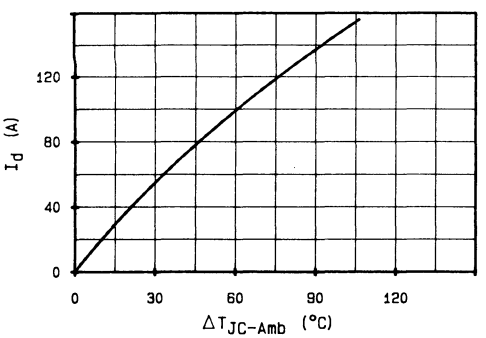


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

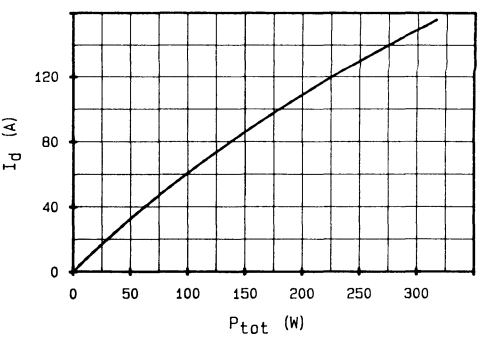
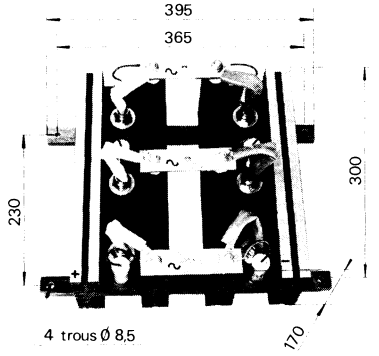


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 250

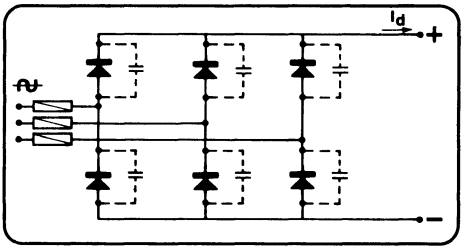
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 250 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 250	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type GDD 250 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
GDD 250	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geq V_{RRM}$

June 1983 - 1/2

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THOMSON COMPOSANTS

GDD 250

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **KU 150**

Black heatsinks
Radiateurs peints : **2 TNF300**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **8.5 kg**

Dimensions
Encombrement : **385 x 170 x 300 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAUR831Ttc/315A** **170L3764**
up to 800V	380V	
up to 1200V	550V	

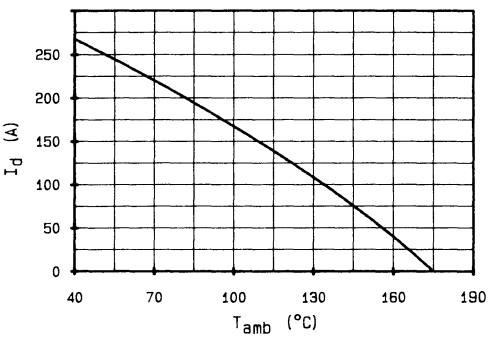


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

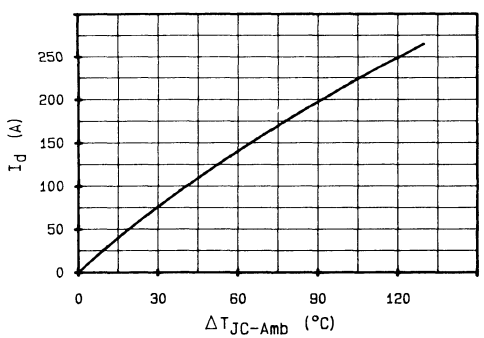


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

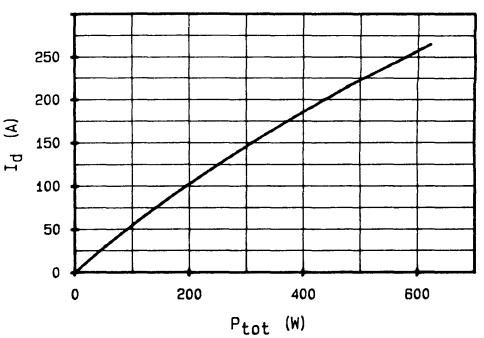
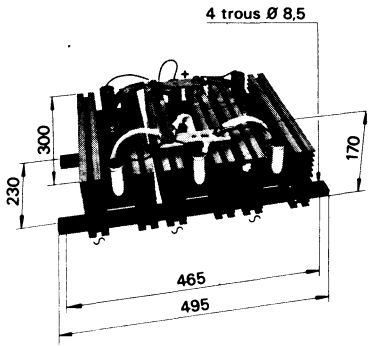


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 300

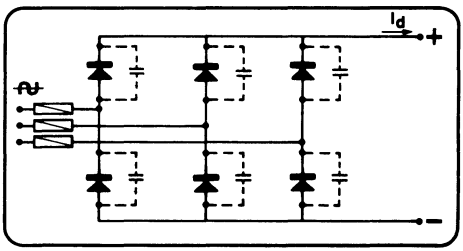
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 300 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 300	200	200	C (Capacitor*)	F
	400	400		
	600	600		
	800	800		
	1000	1000		
	1200	1200		

Example :
Type GDD 300 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
GDD 300	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$

June 1983 - 1/2

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THOMSON COMPOSANTS

GDD 300

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **KU 150**

Black heatsinks : **3 TNF300**
Radiateurs peints

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack : **9.8 kg**
Poids du montage

Dimensions : **495 x 170 x 300 mm**
Encombrement

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB31Ttc/315A** **170L5555**
up to 800V	380V	
up to 1200V	550V	

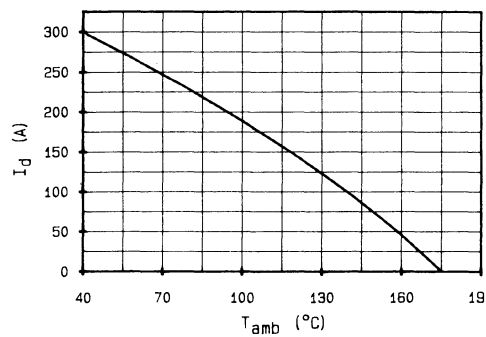


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

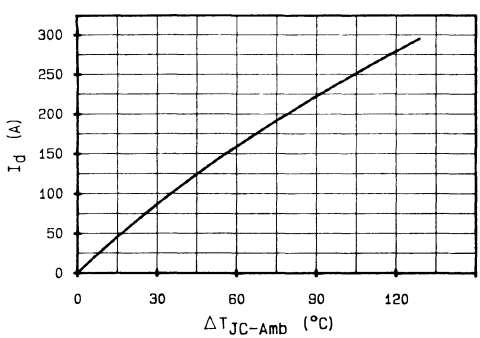


FIG.2-INCREASE T(JC-Amb).
ELEVATION T(JC-Amb).

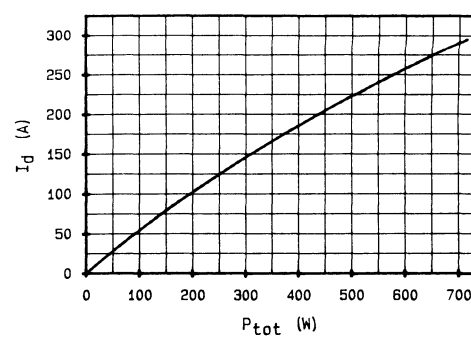
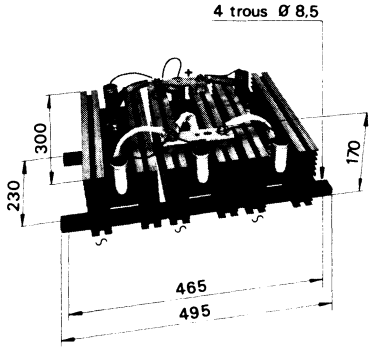


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 440

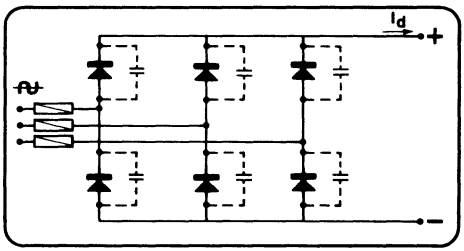
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 440 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 400	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type GDD 400 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
GDD 400	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$

June 1983 - 1/2

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THOMSON COMPOSANTS

GDD 440

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **KU 240**

Black heatsinks
Radiateurs peints : **3 TNF300**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **10 kg**

Dimensions
Encombrement : **495 x 170 x 300 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6BodKC3URG33Tc/500A** **170L5558**
up to 800V	380V	
up to 1200V	550V	

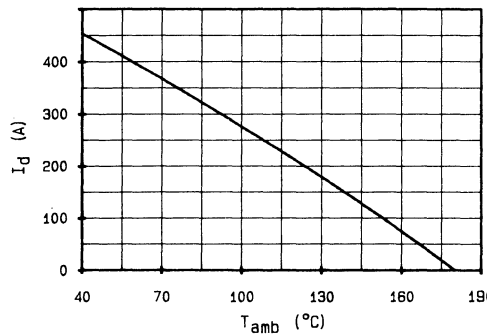


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

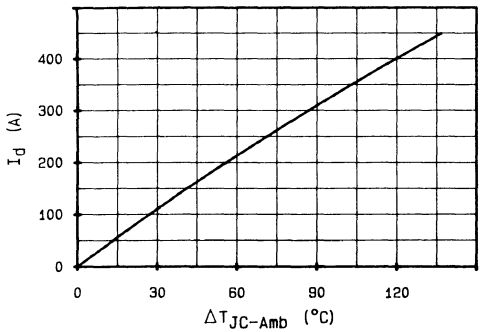


FIG.2-INCREASE T(JC-Amb).
ELEVATION T(JC-Amb).

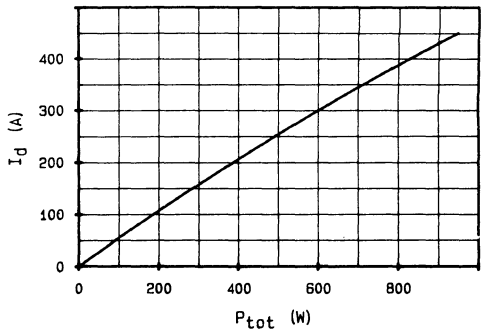
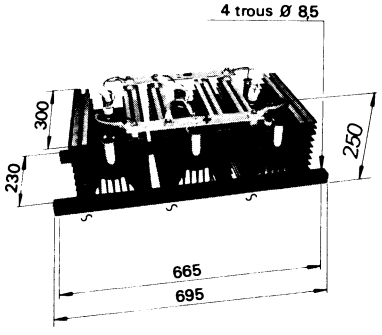


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 650

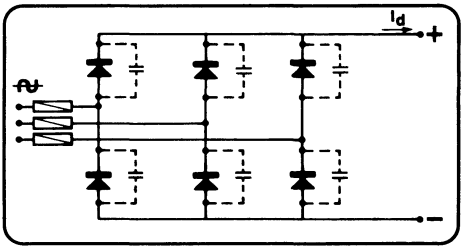
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 650 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 650	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type GDD 650 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
GDD 650	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geq V_{RRM}$

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THOMSON COMPOSANTS

GDD 650

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **TV 30**

Black heatsinks : **3 R300**
Radiateurs peints

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack : **30 kg**
Poids du montage

Dimensions : **685 x 250 x 300 mm**
Encombrement

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB33Ttc/700A** **170L7036**
up to 800V	380V	
up to 1200V	550V	

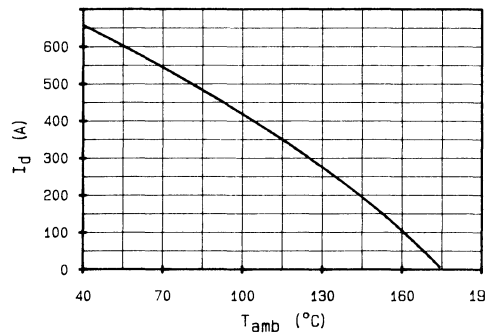


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

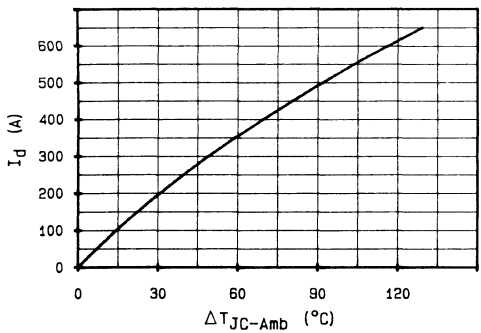


FIG.2-INCREASE T(JC-Amb).
ELEVATION T(JC-Amb).

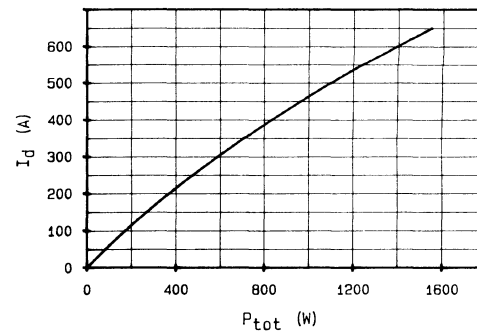
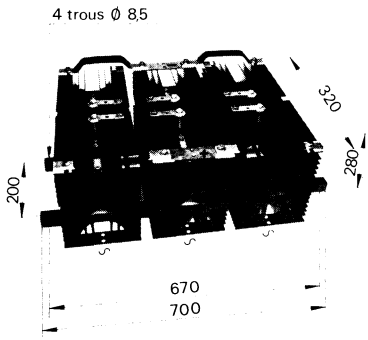


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 980

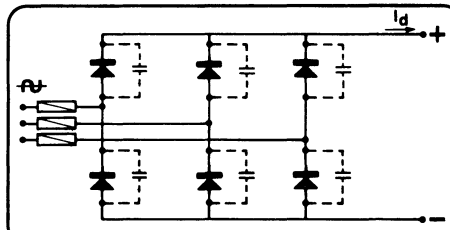
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 980 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 980	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type GDD 980 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
GDD 980	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$

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THOMSON COMPOSANTS

GDD 980

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **DN 882**

Black heatsinks
Radiateurs peints : **3 WM320 (150/150)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **41.5 kg**

Dimensions
Encombrement : **700 X 280 x 320 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.8BodKCAURB33Ttc/1000A** **170L7896**
up to 800V	380V	
up to 1200V	550V	

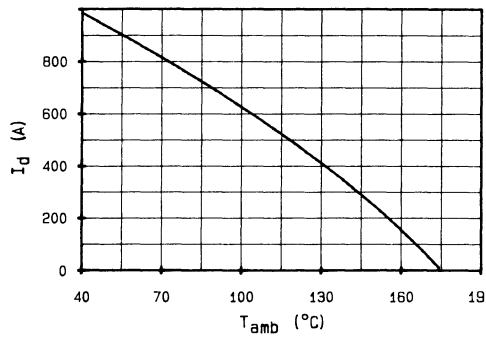


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

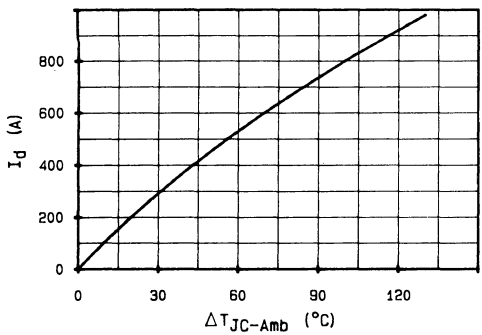


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

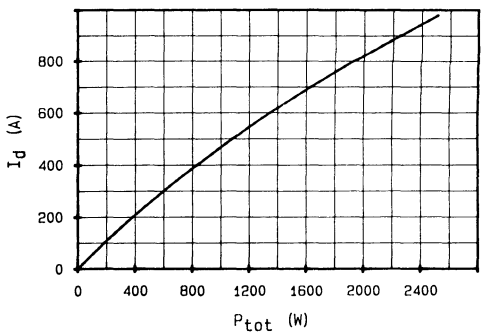
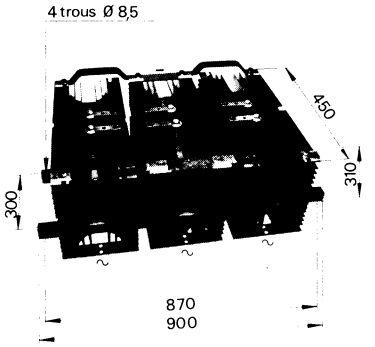


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 1400

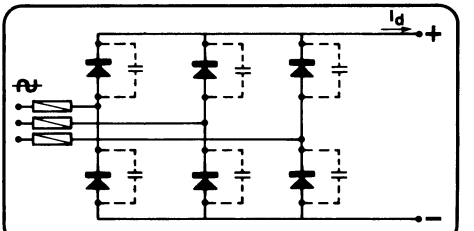
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 1400 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 1400	200	**200**	**C** (Capacitor*)	**F**
	400	**400**		
	600	**600**		
	800	**800**		
	1000	**1000**		
	1200	**1200**		

Example :
Type GDD 1400 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
GDD 1400	**1000**	**C**	**F**

* For capacitor, working voltage $V_C \geqslant V_{RRM}$

June 1983 - 1/2

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THOMSON COMPOSANTS

GDD 1400

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **DN 762**

Black heatsinks : **3 WSA450 (215/215)**
Radiateurs peints

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack : **88 kg**
Poids du montage

Dimensions : **900 x 310 x 450 mm**
Encombrement

OPTIONS

Protection capacitors
Condensateurs de protection
C = **1000 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX / V_{eff} MAX	Fuses references / *References fusibles*
up to 400V	250V	**6BddKC3UR662x33Tc/1400A 2x170L8500**
up to 800V	380V	
up to 1200V	550V	

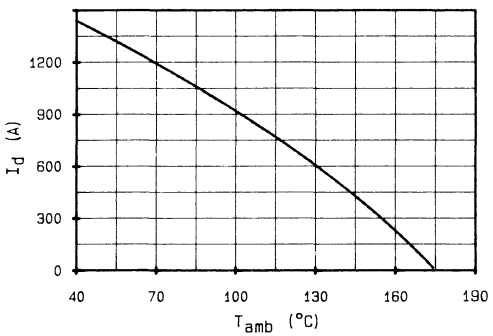


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

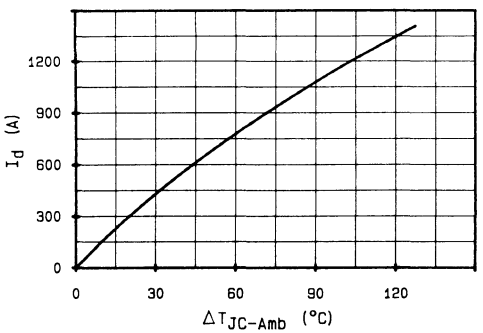


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

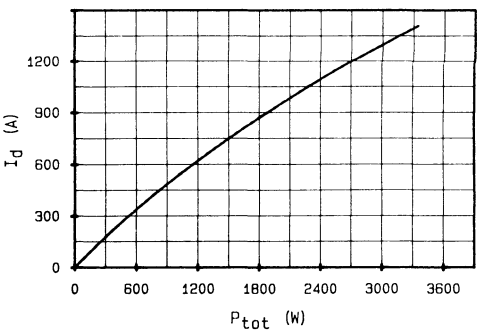
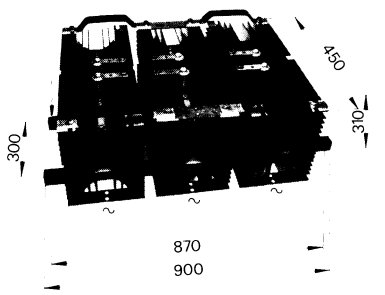


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDD 1600

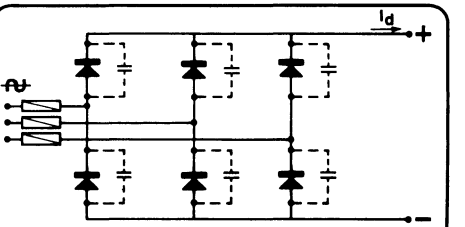
THREE PHASE BRIDGE
PONT TRIPHASE



Natural convection
Convection naturelle

I_d 1600 A
T_{amb} 40 °C

V_{RRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network	Fuses
Code	V_{RRM} (V)	Code	Code	Code
GDD 1600	200	200	C (Capacitor*)	F
	400	400		
	600	600		
	800	800		
	1000	1000		
	1200	1200		

Example :
Type GDD 1600 with V_{RRM} = 1000 V, protection network and fuses, order as:

Type	Voltage	Protection network	Fuses
GDD 1600	1000	C	F

* For capacitor, working voltage $V_C \geqslant V_{RRM}$

June 1983 - 1/2

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THOMSON COMPOSANTS

GDD 1600

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

6 diodes : **DN 862**

Black heatsinks
Radiateurs peints : **3 WSA450 (215/215)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **68 kg**

Dimensions
Encombrement : **800 x 310 x 450 mm**

OPTIONS

Protection capacitors
Condensateurs de protection
C = **1000 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BddKCAUR82x33PLSP/1800 2x170L8501**
up to 800V	380V	
up to 1200V	550V	

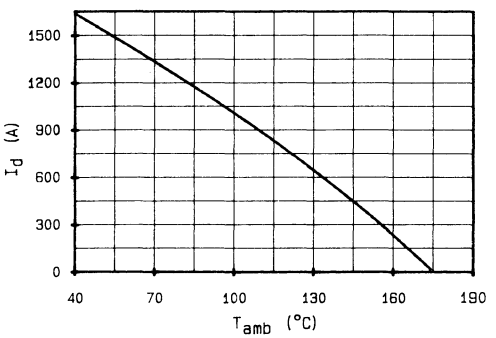


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

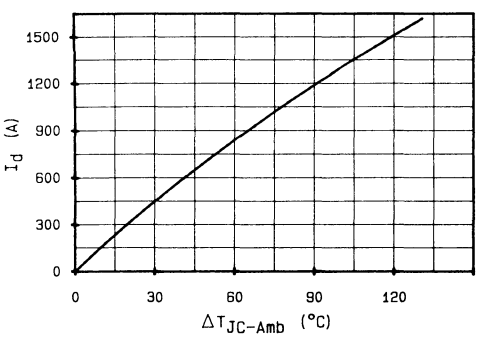


FIG.2-INCREASE T (JC-Amb).
ELEVATION T (JC-Amb).

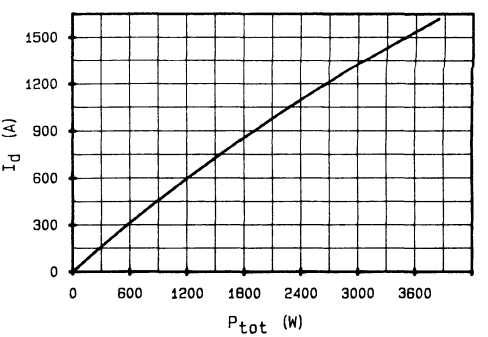


FIG.3 - TOTAL POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE.

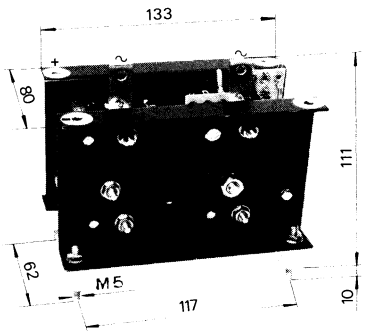
THOMSON-CSF
DIVISION SEMICONDUCTEURS

single phase half-controlled bridges
ponts monophasés mixtes

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDT 15

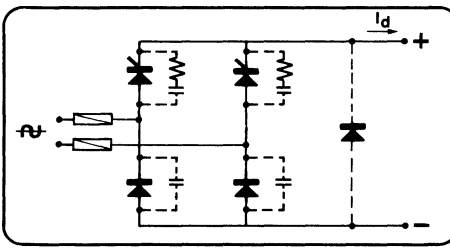
SINGLE PHASE HALF-CONTROLLED BRIDGE
PONT MONOPHASE MIXTE



Natural convection
Convection naturelle

I_d 15 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
BDT 15	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type BDT 15 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
BDT 15	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDT 15

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

2 thyristors : **BTW 39** 2 diodes : **G 10** Black heatsinks *Radiateurs peints* : **2fins (ailettes)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **0.35 kg** Dimensions *Encombrement* : **133 x 80 x 111 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **G 10**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **220 nF**
Diode : C= **47 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURC14x51/G25A 170N1008**
up to 800V	380V	
up to 1200V	550V	

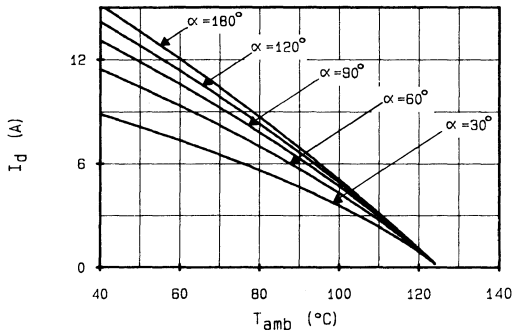


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

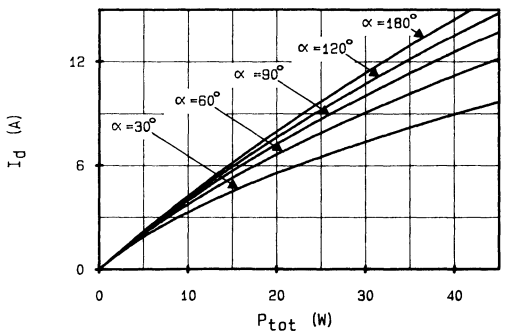
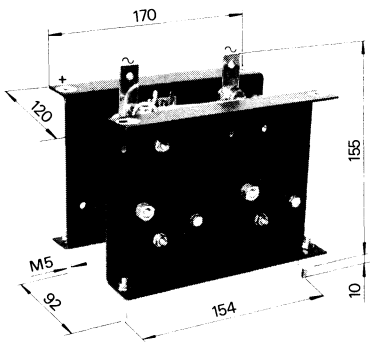


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDT 30

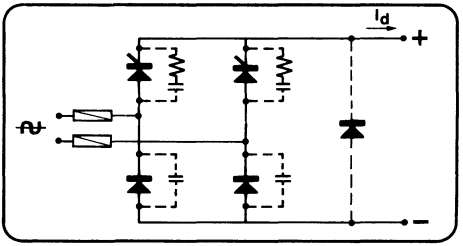
SINGLE PHASE HALF-CONTROLLED BRIDGE
PONT MONOPHASE MIXTE



Natural convection
Convection naturelle

I_d 30 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
BDT 30	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type BDT 30 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
BDT 30	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geq V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDT 30

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

2 thyristors : **BTW 48** 2 diodes : **RP 20** Black heatsinks *Radiateurs peints* : **2fins (ailettes)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **0.73 kg** Dimensions *Encombrement* : **170 x 120 x 155 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **RP 20**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **220 nF**
Diode : C= **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURD22x58/Q50A**
up to 800V	380V	
up to 1200V	550V	

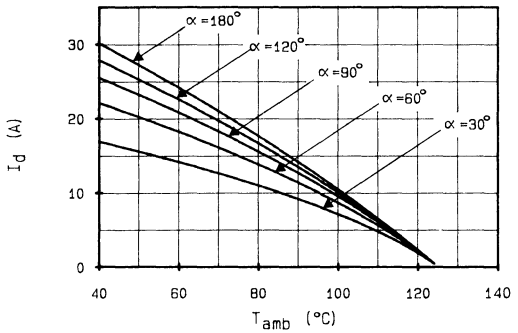


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

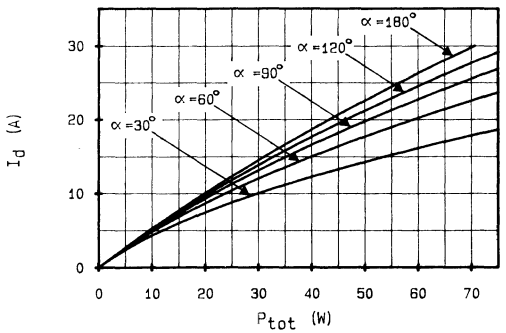
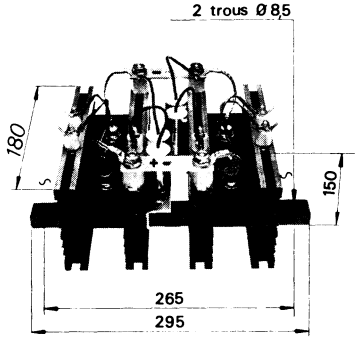


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDT 60

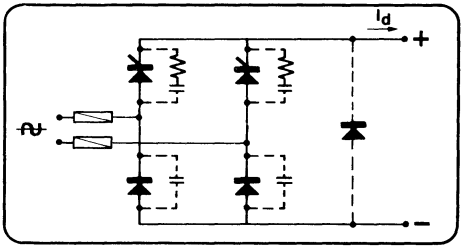
SINGLE PHASE HALF-CONTROLLED BRIDGE
PONT MONOPHASE MIXTE



Natural convection
Convection naturelle

I_d 60 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
BDT 60	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type BDT 60 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
BDT 60	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geq V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDT 60

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

2 thyristors : **BTW 50**

2 diodes : **RP 40**

Black heatsinks
Radiateurs peints : **2 KNF180**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **2.6 kg**

Dimensions
Encombrement : **295 x 150 x 180 mm**

OPTIONS

1 free wheel diode
1 diode de roue libre : **RP 40**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **220 nF**
Diode : C= **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6 21cpURGD27x60/G100A 170N2017**
up to 800V	380V	
up to 1200V	550V	

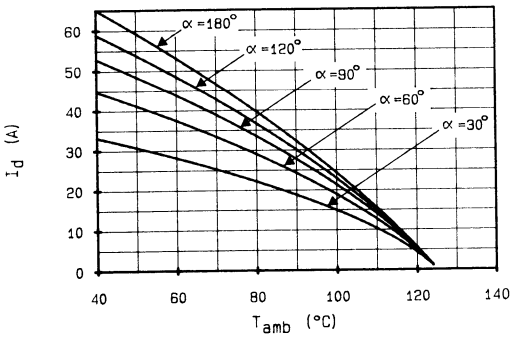


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

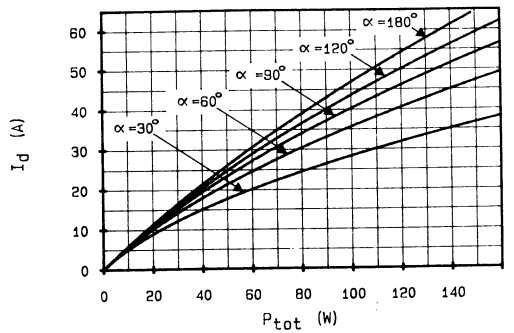
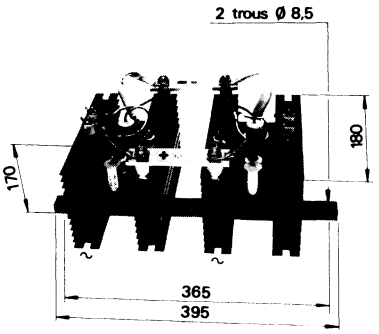


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDT 100

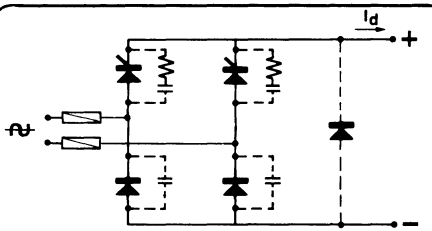
SINGLE PHASE HALF-CONTROLLED BRIDGE
PONT MONOPHASE MIXTE



Natural convection
Convection naturelle

I_d 100 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
BDT 100	200	200	Thyristor Resistance Capacitor Diode Capacitor	C	RL** (Please, consult us)	F
	400	400				
	600	600				
	800	800				
	1000	1000				
	1200	1200				

Example :
Type BDT 100 with $V_{DRM} = V_{RRM} = 1000$ V. protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
BDT 100	1000	C	RL	F

* For capacitor, working voltage $V_C \geq V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDT 100

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

2 thyristors : **TKE 120** 2 diodes : **KU 100** Black heatsinks *Radiateurs peints* : **2 TNF180**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **4.33 kg** Dimensions *Encombrement* : **385 x 170 x 180 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **KU 100**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **470 nF**
Diode : C= **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURGD27x60/0160A**
up to 800V	380V	
up to 1200V	550V	

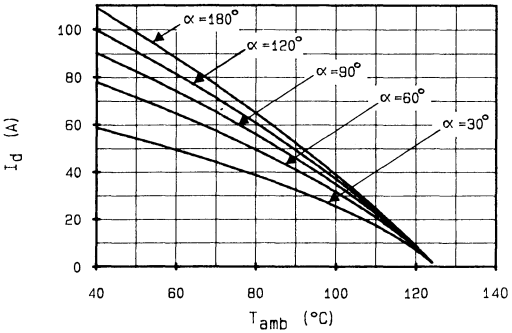


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

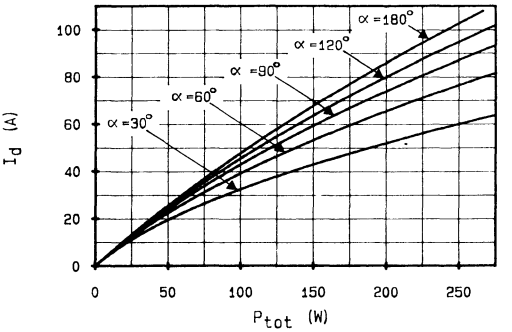
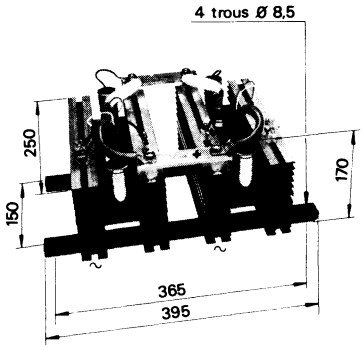


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDT 150

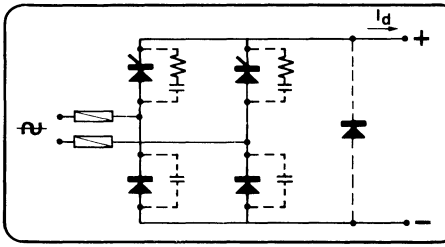
SINGLE PHASE HALF-CONTROLLED BRIDGE
PONT MONOPHASE MIXTE



Natural convection
Convection naturelle

I_d 150 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
BDT 150	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type BDT 150 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
BDT 150	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDT 150

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

2 thyristors : **TK 26** 2 diodes : **KU 150** Black heatsinks *Radiateurs peints* : **2 TNF250**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **5.85 kg** Dimensions *Encombrement* : **395 x 170 x 250 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **KU 150**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **470 nF**
Diode : C= **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURQ27x60/Q200A**
up to 800V	380V	
up to 1200V	550V	

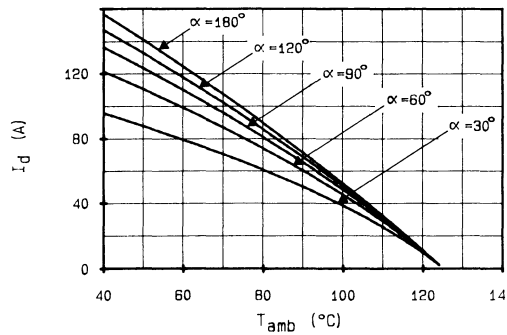


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

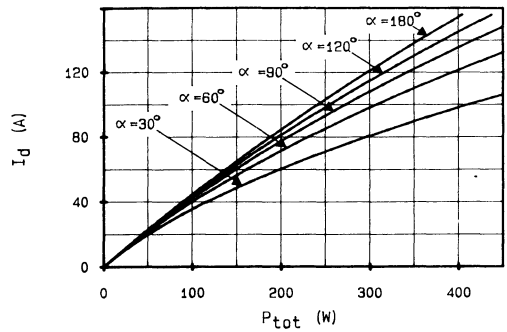
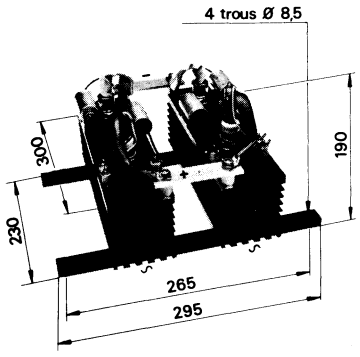


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDT 250

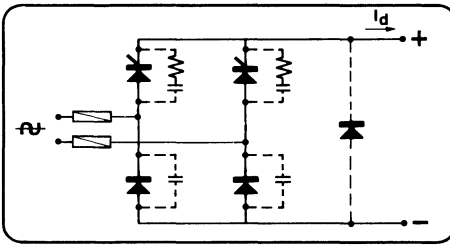
SINGLE PHASE HALF-CONTROLLED BRIDGE
PONT MONOPHASE MIXTE



Natural convection
Convection naturelle

I_d 250 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
BDT 250	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type BDT 250 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
BDT 250	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDT 250

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

2 thyristors : **TK 36** 2 diodes : **KU 240** Black heatsinks *Radiateurs peints* : **2 P300**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **8.8 kg** Dimensions *Encombrement* : **295 x 180 x 300 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **KU 240**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **470 nF**
Diode : C= **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6BodKC3UR6G32Tc/400A 170L3766**
up to 800V	380V	
up to 1200V	550V	

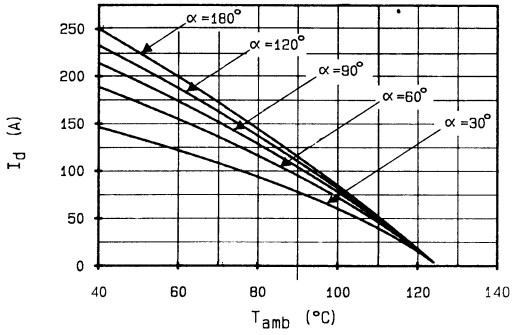


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

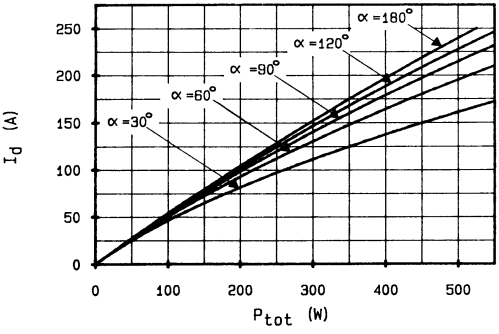
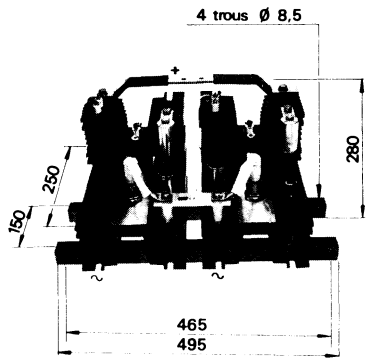


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDT 330

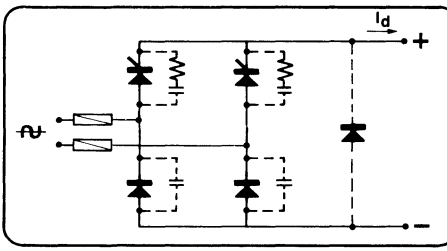
SINGLE PHASE HALF-CONTROLLED BRIDGE
PONT MONOPHASE MIXTE



Natural convection
Convection naturelle

I_d 330 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
BDT 330	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type BDT 330 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
BDT 330	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
**. Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDT 330

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

2 thyristors : **TN 433** 2 diodes : **KU 240** Black heatsinks *Radiateurs peints* : **2 WM250 (100/-)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **17.7 kg** Dimensions *Encombrement* : **495 x 280 x 250 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **KU 240**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **470 nF**
Diode : C= **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6BodKC3URGG33Tc/500A 170L5558**
up to 800V	380V	
up to 1200V	550V	

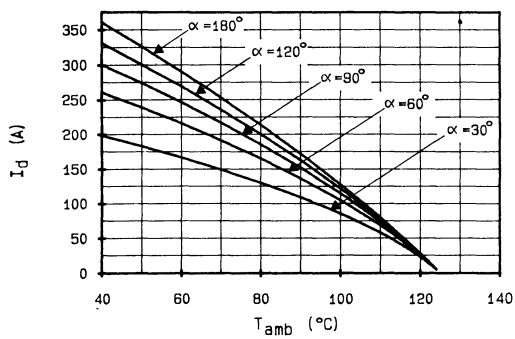


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

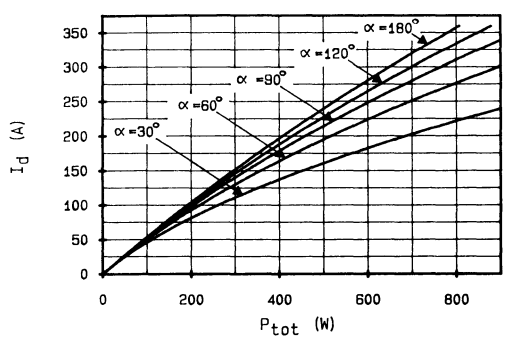
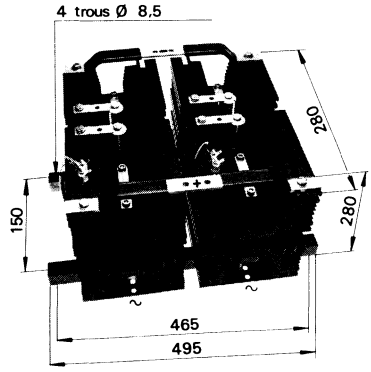


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDT 420

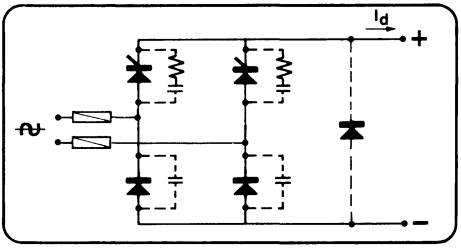
SINGLE PHASE HALF-CONTROLLED BRIDGE
PONT MONOPHASE MIXTE



Natural convection
Convection naturelle

I_d 420 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
BDT 420	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type BDT 420 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
BDT 420	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDT 420

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

2 thyristors : **TN 633** 2 diodes : **DN 462** Black heatsinks *Radiateurs peints* : **2 WM280 (150/100)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **26.7 kg** Dimensions *Encombrement* : **495 x 280 x 280 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **TV 30**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **470 nF**
Diode : C= **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB33Ttc/630A 170L4885**
up to 800V	380V	
up to 1200V	550V	

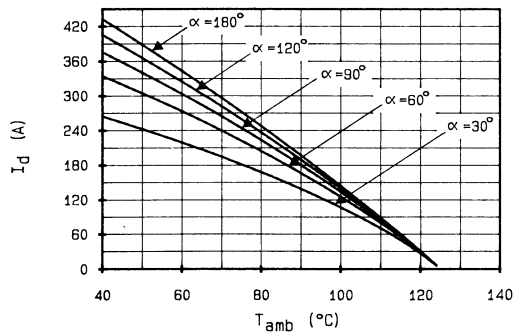


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

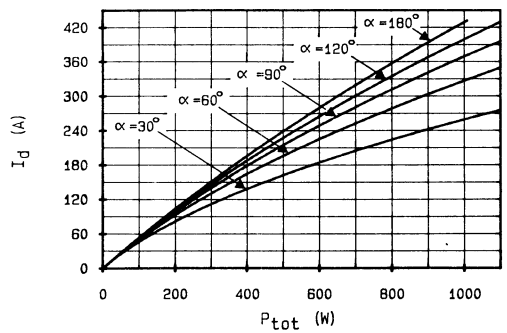
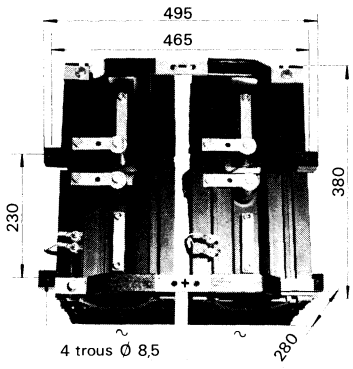


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDT 550

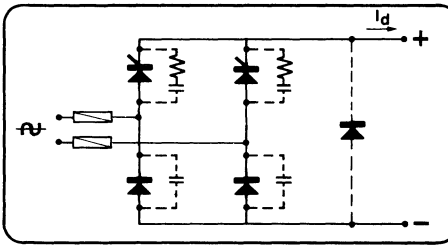
SINGLE PHASE HALF-CONTROLLED BRIDGE
PONT MONOPHASE MIXTE



Natural convection
Convection naturelle

I_d 550 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
BDT 550	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type BDT 550 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
BDT 550	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDT 550

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

2 thyristors : **TN 733** 2 diodes : **DN 662** Black heatsinks *Radiateurs peints* : **2 WM380 (200/150)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **33.8 kg** Dimensions *Encombrement* : **495 x 280 x 380 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **TV 30**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **1000 nF**
Diode : C= **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB33Ttc/800A 170L8500**
up to 800V	380V	
up to 1200V	550V	

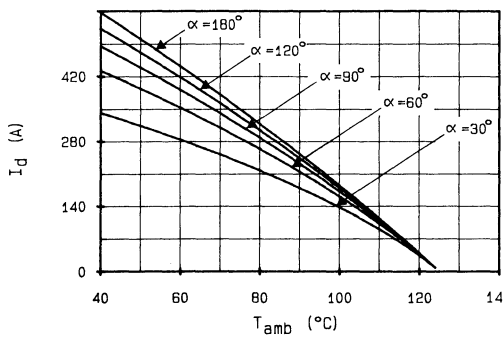


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

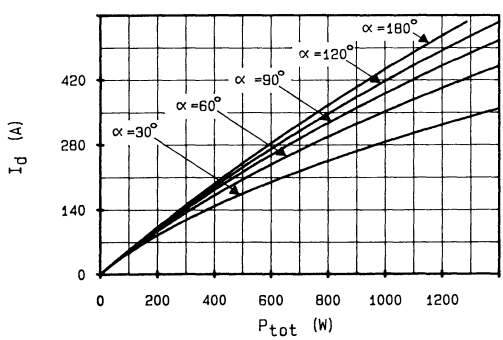
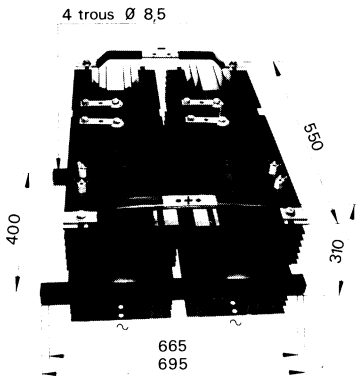


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

BDT 800

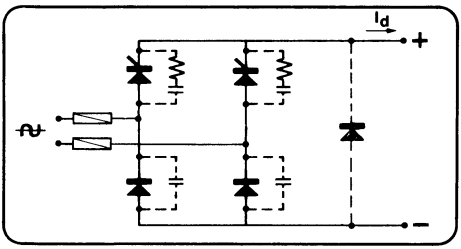
SINGLE PHASE HALF-CONTROLLED BRIDGE
PONT MONOPHASE MIXTE



Natural convection
Convection naturelle

I_d 800 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
BDT 800	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type BDT 800 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
BDT 800	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geq V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

BDT 800

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

2 thyristors : **TN 933** 2 diodes : **DN 762** Black heatsinks *Radiateurs peints* : **2 MSA550 (320-200)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **60 kg** Dimensions *Encombrement* : **685 x 310 x 550 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **TV 30**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **1000 nF**
Diode : C= **1000 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB33Ttd/1250A 170L7696**
up to 800V	380V	
up to 1200V	550V	

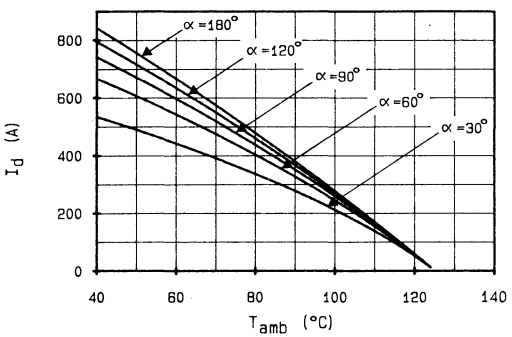


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

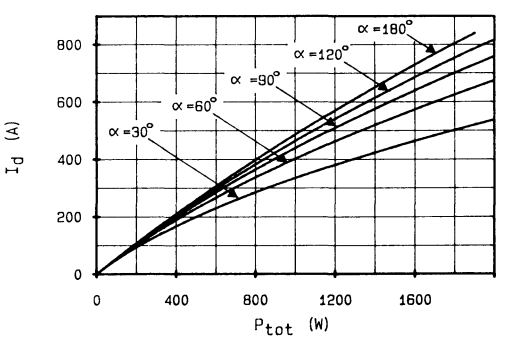


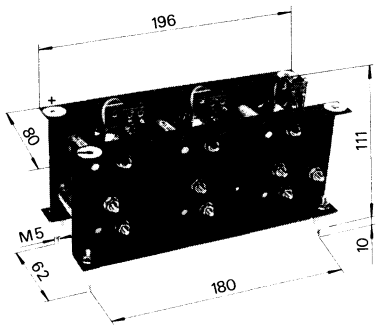
FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

three phase half-controlled bridges
ponts triphasés mixtes

GDT 20

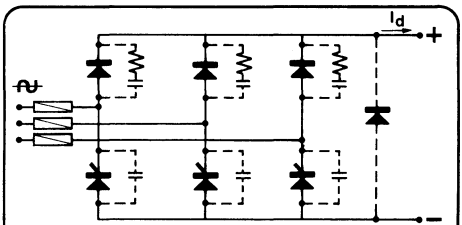
THREE PHASE HALF-CONTROLLED BRIDGE
PONT TRIPHASE MIXTE



Natural convection
Convection naturelle

I_d 20 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
GDT 20	200	200	Thyristor Resistance Capacitor Diode Capacitor	C	RL** (Please, consult us)	F
	400	400				
	600	600				
	800	800				
	1000	1000				
	1200	1200				

Example :
Type GDT 20 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
GDT 20	1000	C	RL	F

* For capacitor, working voltage $V_C \geq V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

GDT 20

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

3 thyristors : **BTW 39** 3 diodes : **G 10** Black heatsinks *Radiateurs peints* : **2 fins (ailettes)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **0.55 kg** Dimensions *Encombrement* : **196 x 80 x 111 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **G 10**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **220 nF**
Diode : C= **47 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURC14x51/Q25A**
up to 800V	380V	
up to 1200V	550V	

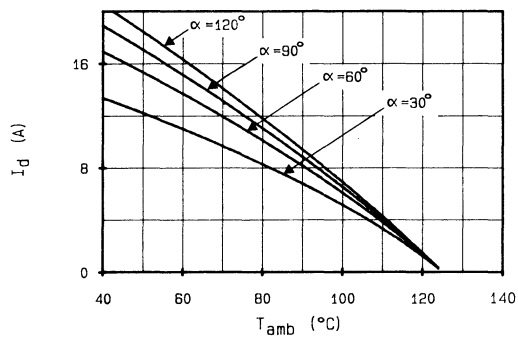


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

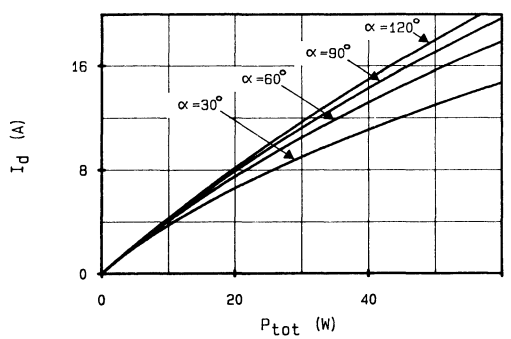
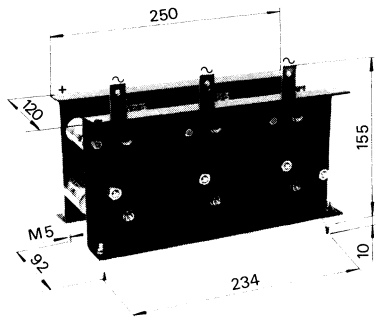


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDT 40

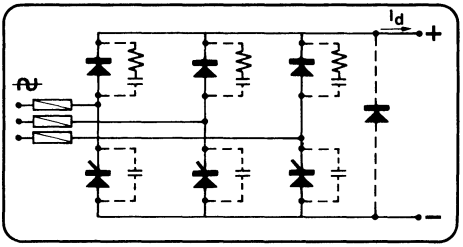
THREE PHASE HALF-CONTROLLED BRIDGE
PONT TRIPHASE MIXTE



Natural convection
Convection naturelle

I_d 40 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
GDT 40	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type GDT 40 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
GDT 40	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

GDT 40

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

3 thyristors : **BTW 48** 3 diodes : **RP 20** Black heatsinks *Radiateurs peints* : **2 fins (ailettes)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **1.05 kg** Dimensions *Encombrement* : **250 x 120 x 155 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **RP 20**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **220 nF**
Diode : C= **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURD22x58/050A**
up to 800V	380V	
up to 1200V	550V	

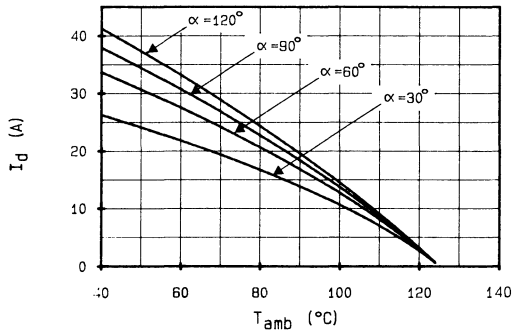


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

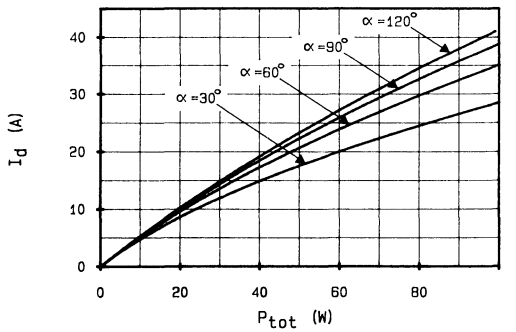
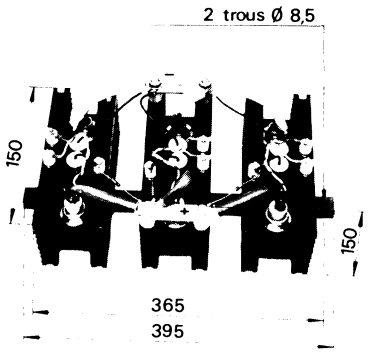


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDT 70

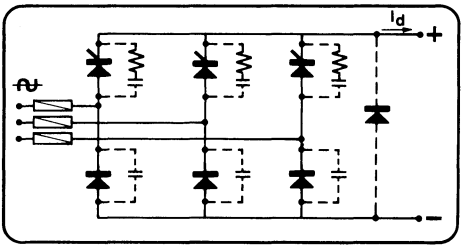
THREE PHASE HALF-CONTROLLED BRIDGE
PONT TRIPHASE MIXTE



Natural convection
Convection naturelle

I_d 70 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
GDT 70	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type GDT 70 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
GDT 70	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

GDT 70

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

3 thyristors : **BTW 50** 3 diodes : **RP 40** Black heatsinks *Radiateurs peints* : **3 KNF150**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **3 kg** Dimensions *Encombrement* : **395 x 150 x 150 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **RP 40**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **220 nF**
Diode : C= **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURD22x58/G80A 170N2017**
up to 800V	380V	
up to 1200V	550V	

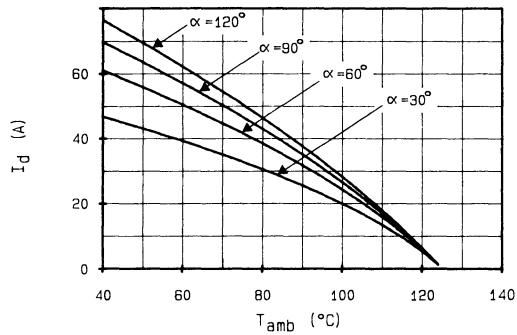


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

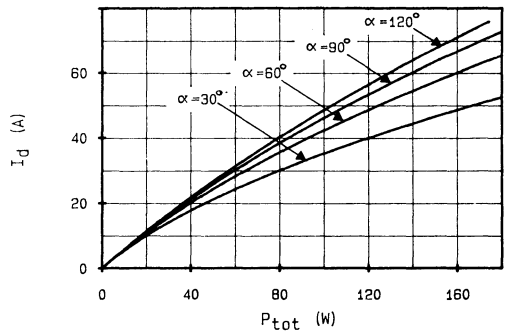
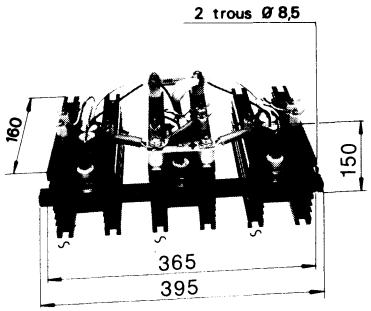


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDT 100

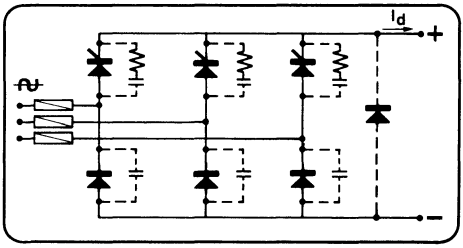
THREE PHASE HALF-CONTROLLED BRIDGE
PONT TRIPHASE MIXTE



Natural convection
Convection naturelle

I_d 100 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
GDT 100	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type GDT 100 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
GDT 100	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

GDT 100

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

3 thyristors : **TKE 120** 3 diodes : **KU 100** Black heatsinks *Radiateurs peints* : **3 KNF160**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **3.2 kg** Dimensions *Encombrement* : **395 x 150 x 160 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **KU 100**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **470 nF**
Diode : C= **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpURQ27x60/Q125A**
up to 800V	380V	
up to 1200V	550V	

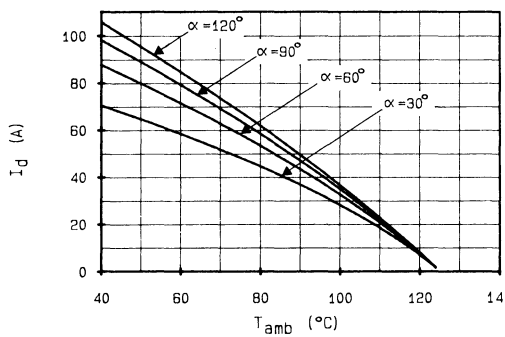


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

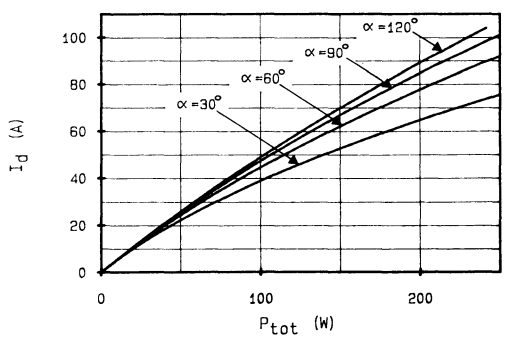
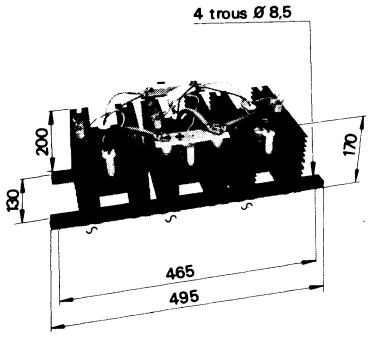


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDT 150

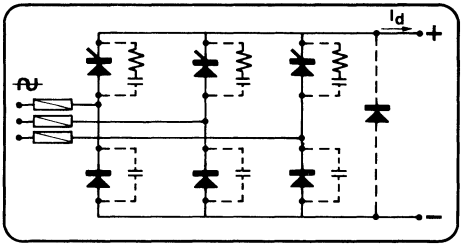
THREE PHASE HALF-CONTROLLED BRIDGE
PONT TRIPHASE MIXTE



Natural convection
Convection naturelle

I_d 160 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
GDT 150	200	200	Thyristor Resistance Capacitor Diode Capacitor	C	RL** (Please, consult us)	F
	400	400				
	600	600				
	800	800				
	1000	1000				
	1200	1200				

Example :
Type GDT 150 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
GDT 150	1000	C	RL	F

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

GDT 150

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

3 thyristors : **TK 18** 3 diodes : **KU 100** Black heatsinks *Radiateurs peints* : **3 TNF200**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **8.7 kg** Dimensions *Encombrement* : **485 x 170 x 200 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **KU 100**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **470 nF**
Diode : C= **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.621cpUR6D27x60/G160A**
up to 800V	380V	
up to 1200V	550V	

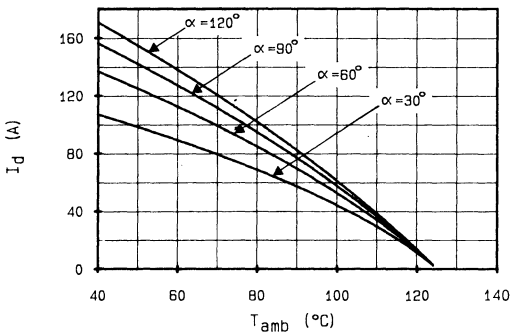


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

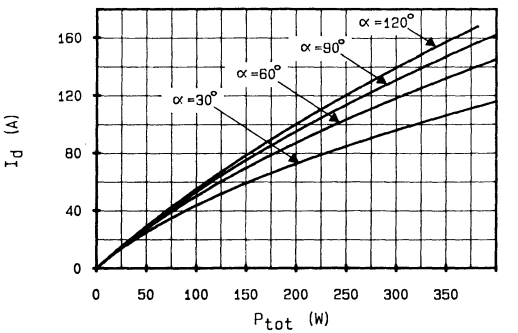
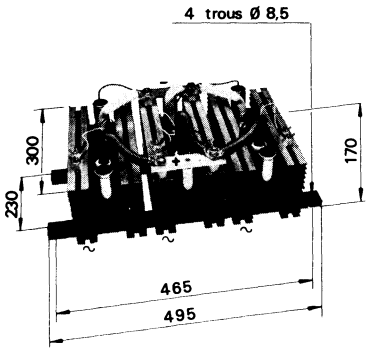


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDT 250

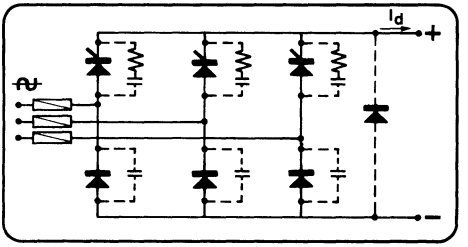
THREE PHASE HALF-CONTROLLED BRIDGE
PONT TRIPHASE MIXTE



Natural convection
Convection naturelle

I_d 250 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
GDT 250	200	200	Thyristor Resistance Capacitor Diode Capacitor	C	RL** (Please, consult us)	F
	400	400				
	600	600				
	800	800				
	1000	1000				
	1200	1200				

Example :
Type GDT 250 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
GDT 250	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geq V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

GDT 250

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

3 thyristors : **TK 30**

3 diodes : **KU 150**

Black heatsinks
Radiateurs peints : **3 TNF300**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack
Poids du montage : **9.5 kg**

Dimensions
Encombrement : **495 x 170 x 300 mm**

OPTIONS

1 free wheel diode
1 diode de roue libre : **KU 150**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **470 nF**
Diode : C= **220 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB31Ttc/315A** **170L3764**
up to 800V	380V	
up to 1200V	550V	

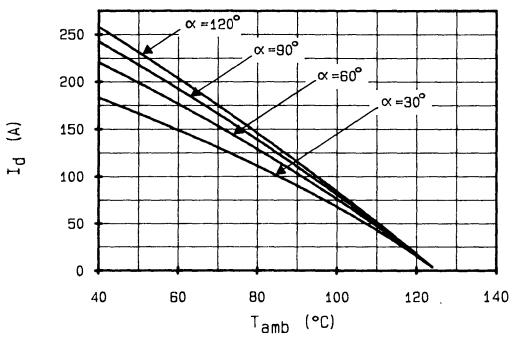


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

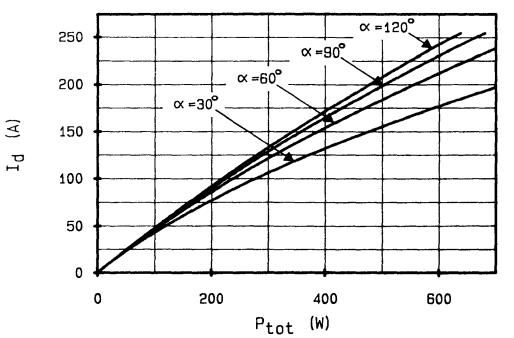
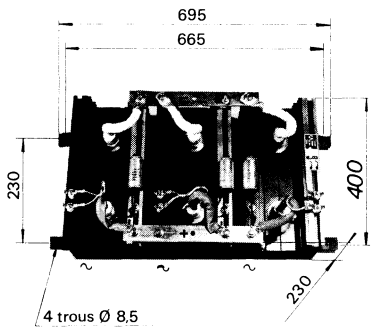


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDT 400

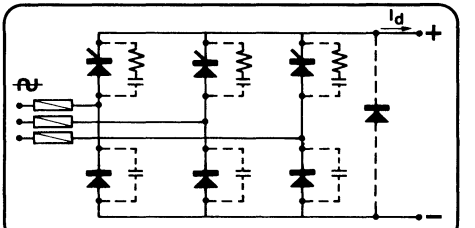
THREE PHASE HALF-CONTROLLED BRIDGE
PONT TRIPHASE MIXTE



Natural convection
Convection naturelle

I_d 400 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
GDT 400	200	**200**	Thyristor Resistance Capacitor Diode Capacitor	**C**	**RL**** (Please, consult us)	**F**
	400	**400**				
	600	**600**				
	800	**800**				
	1000	**1000**				
	1200	**1200**				

Example :
Type GDT 400 with $V_{DRM} = V_{RRM}$ = 1000 V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
GDT 400	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geq V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

GDT 400

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

3 thyristors : **TK 36** 3 diodes : **TV 30** Black heatsinks *Radiateurs peints* : **3 Z400**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **27 kg** Dimensions *Encombrement* : **685 x 230 x 400 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **TV 30**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **470 nF**
Diode : C= **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6BodKC3URGG32Tc/450A 170L3774**
up to 800V	380V	
up to 1200V	550V	

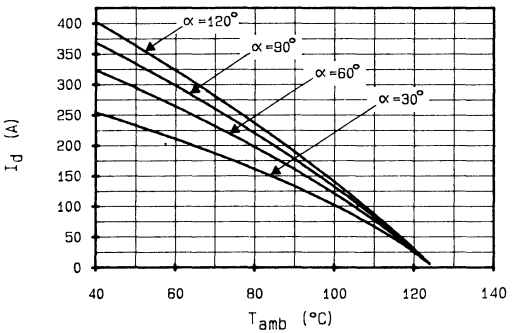


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

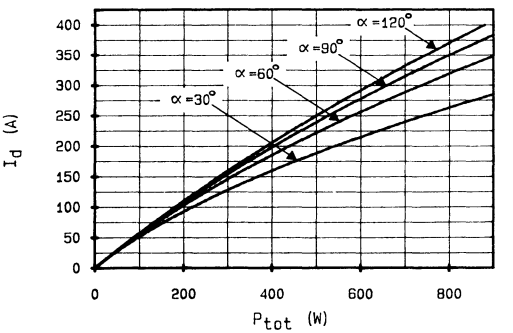
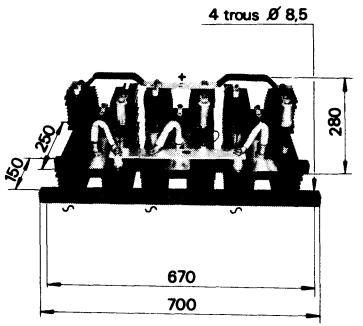


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDT 450

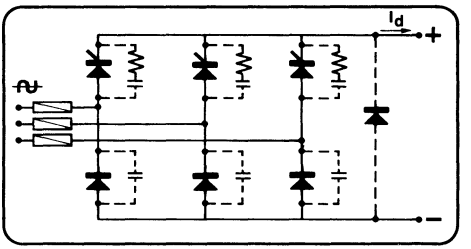
THREE PHASE HALF-CONTROLLED BRIDGE
PONT TRIPHASE MIXTE



Natural convection
Convection naturelle

I_d 450 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
GDT 450	200	200	Thyristor Resistance Capacitor Diode Capacitor	C	RL** (Please, consult us)	F
	400	400				
	600	600				
	800	800				
	1000	1000				
	1200	1200				

Example :
Type GDT 450 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
GDT 450	1000	C	RL	F

* For capacitor, working voltage $V_C \geq V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

GDT 450

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

3 thyristors : **TN 433** 3 diodes : **KU 240** Black heatsinks *Radiateurs peints* : **3 WM 250 (100/-)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **27.4 kg** Dimensions *Encombrement* : **700 x 280 x 250 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **KU 240**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **470 nF**
Diode : C= **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *Références fusibles*
up to 400V	250V	**6BodKC3UR6G33Tc/500A** **170L5558**
up to 800V	380V	
up to 1200V	550V	

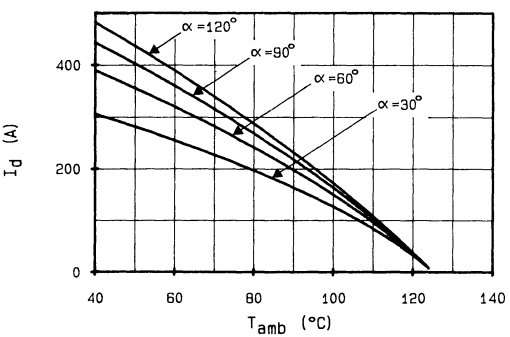


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

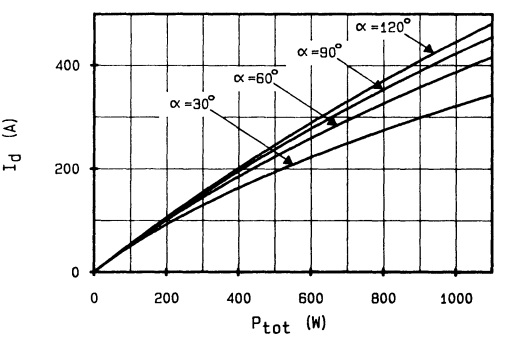
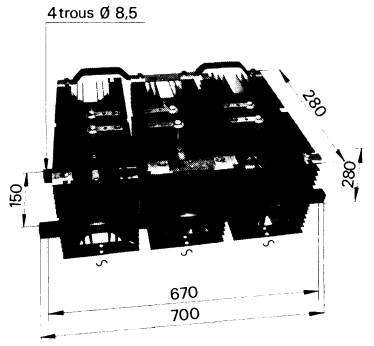


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDT 600

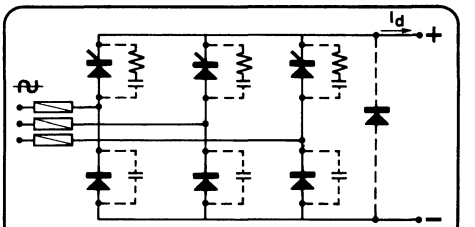
THREE PHASE HALF-CONTROLLED BRIDGE
PONT TRIPHASE MIXTE



Natural convection
Convection naturelle

I_d 600 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
GDT 600	200	200	Thyristor Resistance Capacitor Diode Capacitor	C	RL** (Please, consult us)	F
	400	400				
	600	600				
	800	800				
	1000	1000				
	1200	1200				

Example :
Type GDT 600 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
GDT 600	1000	C	RL	F

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

GDT 600

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

3 thyristors : **TN 633** 3 diodes : **DN 462** Black heatsinks *Radiateurs peints* : **3 WM 280 (150/100)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **40.1 kg** Dimensions *Encombrement* : **700 x 280 x 280 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **TV 30**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **1000 nF**
Diode : C= **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB33Ttc/630A 170L4885**
up to 800V	380V	
up to 1200V	550V	

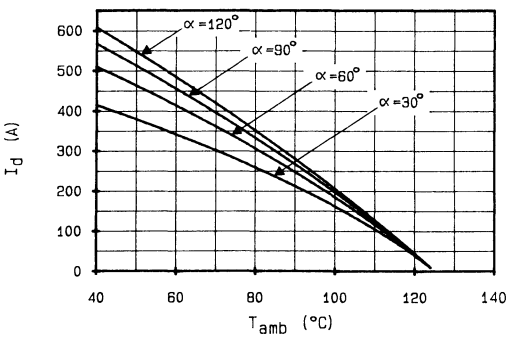


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

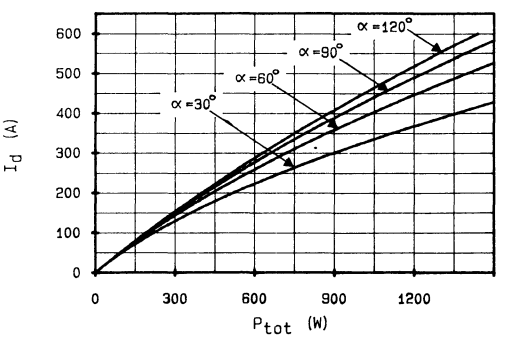
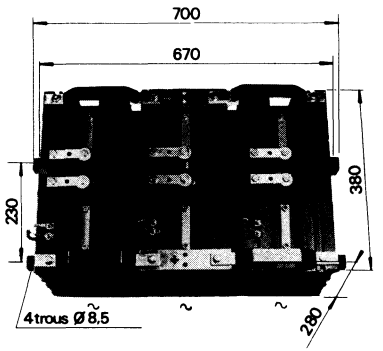


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDT 750

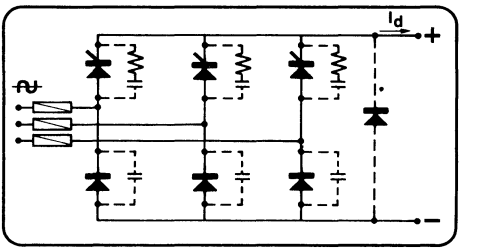
THREE PHASE HALF-CONTROLLED BRIDGE
PONT TRIPHASE MIXTE



Natural convection
Convection naturelle

I_d 750 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
GDT 750	200	200	Thyristor Resistance Capacitor Diode Capacitor	C	RL** (Please, consult us)	F
	400	400				
	600	600				
	800	800				
	1000	1000				
	1200	1200				

Example :
Type GDT 750 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
GDT 750	**1000**	**C**	**RL**	**F**

* For capacitor, working voltage $V_C \geq V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

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THOMSON COMPOSANTS

GDT 750

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

3 thyristors : **TN 733** 3 diodes : **DN 882** Black heatsinks *Radiateurs peints* : **3 WM 380 (200/150)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **51 kg** Dimensions *Encombrement* : **700 x 280 x 380 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **TV 30**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **1000 nF**
Diode : C= **470 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB33Ttc/800A 170L4943**
up to 800V	380V	
up to 1200V	550V	

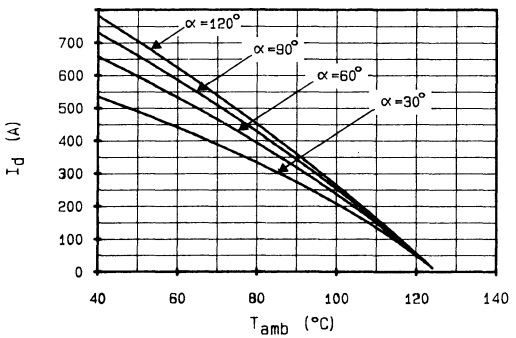


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

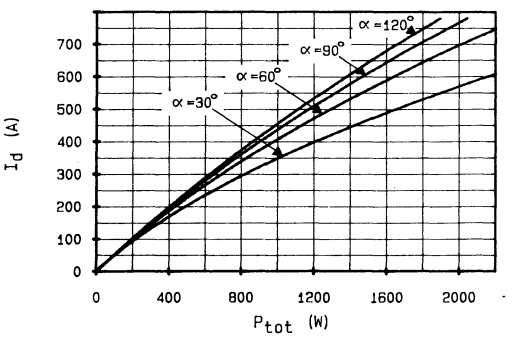
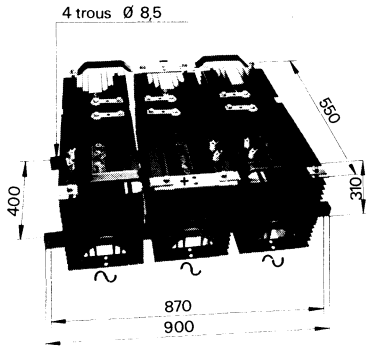


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

GDT 1150

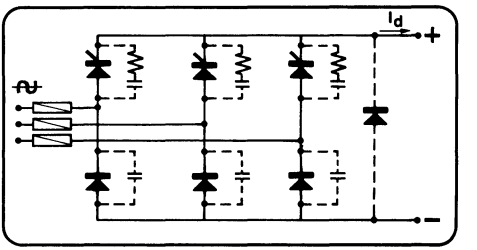
THREE PHASE HALF-CONTROLLED BRIDGE
PONT TRIPHASE MIXTE



Natural convection
Convection naturelle

I_d 1150 A
T_{amb} 40 °C

V_{RRM}
V_{DRM} up to 1200 V



ORDERING INFORMATION
APPELLATION

Type	Voltage per leg		Protection network		Free wheel diode	Fuses
Code	$V_{DRM} = V_{RRM}$ (V)	Code	Resistance Capacitor*	Code	Code	Code
GDT 1150	200	200	Thyristor Resistance Capacitor Diode Capacitor	C	RL** (Please, consult us)	F
	400	400				
	600	600				
	800	800				
	1000	1000				
	1200	1200				

Example :
Type GDT 1150 with $V_{DRM} = V_{RRM} = 1000$ V, protection network, free wheel diode and fuses, order as:

Type	Voltage	Protection network	Free wheel diode	Fuses
GDT 1150	1000	C	RL	F

* For capacitor, working voltage $V_C \geqslant V_{DRM}$ or V_{RRM}.
** Free wheel diode is mounted without heatsink.

June 1983 - 1/2

50, rue Jean-Pierre Timbaud - B.P. 5
F - 92403 Courbevoie Cedex FRANCE
Tél. : (1) 788-50-01 Telex : 610560 F

THOMSON COMPOSANTS

GDT 1150

CONSTITUTION OF THE STACK
COMPOSITION DU MONTAGE

3 thyristors : **TN 933** 3 diodes : **DN 762** Black heatsinks *Radiateurs peints* : **3 WSA 550 (320/200)**

MECHANICAL CHARACTERISTICS
CARACTERISTIQUES MECANIQUES

Weight of the stack *Poids du montage* : **87 kg** Dimensions *Encombrement* : **900 x 310 x 550 mm**

OPTIONS

1 free wheel diode *1 diode de roue libre* : **TV 30**

Protection network
Reseau R/C
Thyristor : R= **33 Ω** C= **1000 nF**
Diode : C= **1000 nF**

V_{DRM}-V_{RRM}	V_{RMS} MAX V_{eff} MAX	Fuses references *References fusibles*
up to 400V	250V	**6.6BodKCAURB33Ttd/1250A 170L8327**
up to 800V	380V	
up to 1200V	550V	

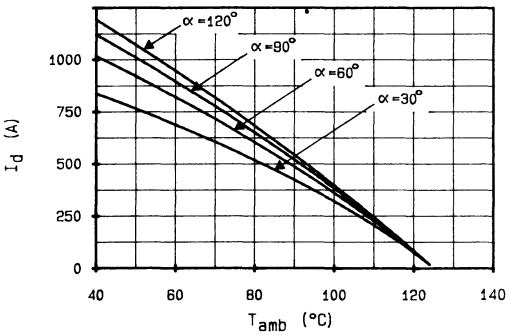


FIG.1 - MAXIMUM ALLOWABLE AMBIENT TEMPERATURE.
TEMPERATURE AMBIANTE MAXIMALE ADMISE.

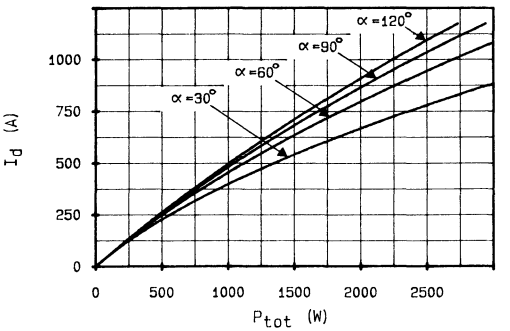


FIG.2 - TOTAL STACK POWER DISSIPATION.
PUISSANCE TOTALE DISSIPEE DU MONTAGE.

THOMSON-CSF
DIVISION SEMICONDUCTEURS

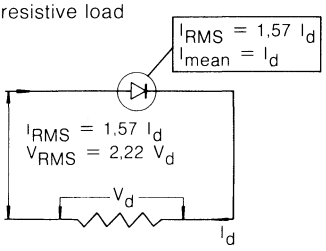
technical information
données techniques

rectifier circuit diagrams
diagrammes des montages redresseurs

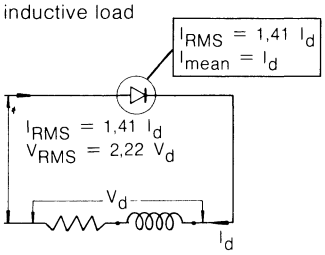
single phase
monophasé

half-wave
1 alternance

resistive load



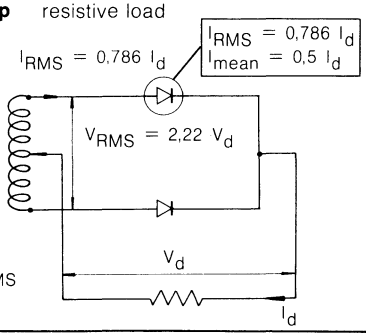
inductive load



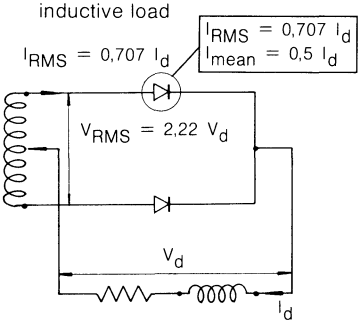
$\alpha = 180°$
$E_{RM} = 1,41\ V_{RMS}$
$F_r = F_i$

full-wave centre tap
2 alternances point milieu

resistive load



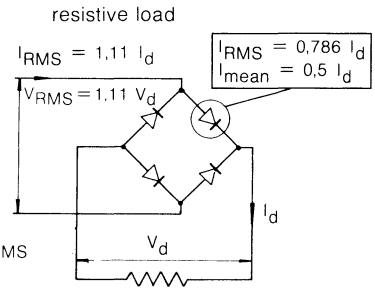
inductive load



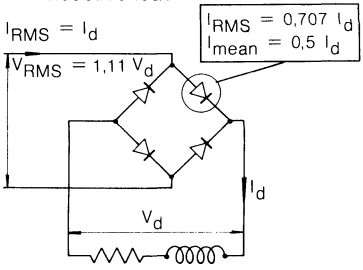
$\alpha = 180°$
$E_{RM} = 1,41\ V_{RMS}$
$F_r = 2\ F_i$

full-wave
2 alternances

resistive load



inductive load



$\alpha = 180°$
$E_{RM} = 1,41\ V_{RMS}$
$F_r = 2\ F_i$

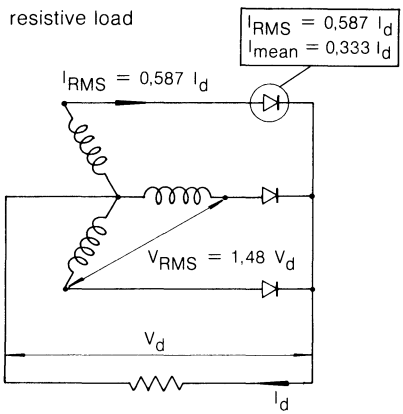
Maximum device conduction angle	α	*Angle de conduction maximum du courant*
Maximum peak repetitive voltage accross device	E_{RM}	*Tension crête répétitive sur le composant*
Line frequency	F_i	*Fréquence d'alimentation*
Ripple frequency	F_r	*Fréquence d'ondulation*
Mean output rectifier current	I_d	*Courant de sortie moyen redressé*
Mean output rectifier voltage	V_d	*Tension de sortie moyenne redressée*
Input RMS rectifier voltage	V_{RMS}	*Tension efficace d'alimentation du redresseur*

rectifier circuit diagrams
diagrammes des montages redresseurs

three phase
triphasé

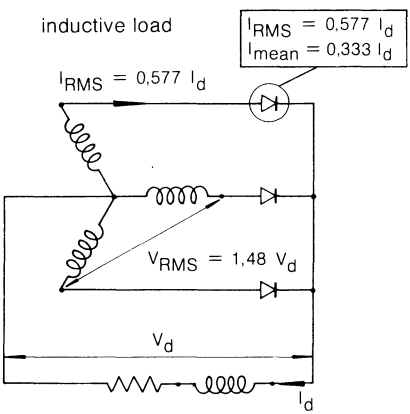
star
étoile

resistive load



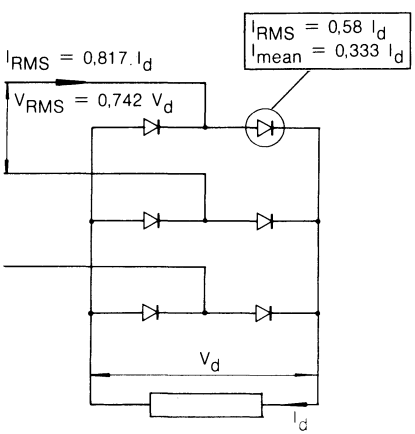
$\alpha = 120°$
$E_{RM} = 1,41\ V_{RMS}$
$F_r = 3\ F_i$

inductive load



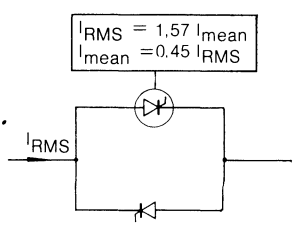
bridge
pont triphasé (graetz)

resistive or inductive load



$\alpha = 120°$
$E_{RM} = 1,41\ V_{RMS}$
$F_r = 6\ F_i$

A.C. regulator
gradateur



$\alpha = 180°$
$E_{RM} = 1,41\ V_{RMS}$
$F_r = F_i$

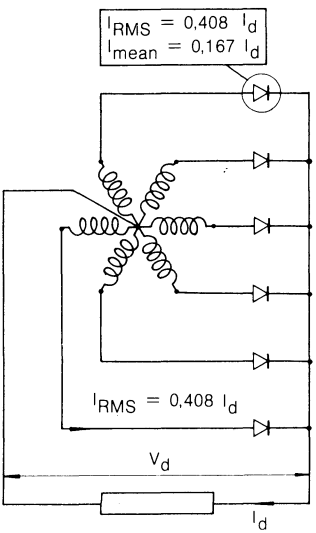
Maximum device conduction angle	α	*Angle de conduction maximum du courant*
Maximum peak repetitive voltage accross device	E_{RM}	*Tension crête répétitive sur le composant*
Line frequency	F_i	*Fréquence d'alimentation*
Ripple frequency	F_r	*Fréquence d'ondulation*
Mean output rectifier current	I_d	*Courant de sortie moyen redressé*
Mean output rectifier voltage	V_d	*Tension de sortie moyenne redressée*
Input RMS rectifier voltage	V_{RMS}	*Tension efficace d'alimentation du redresseur*

rectifier circuit diagrams
diagrammes des montages redresseurs

six phase
hexaphasé

six phase bridge
pont hexaphasé

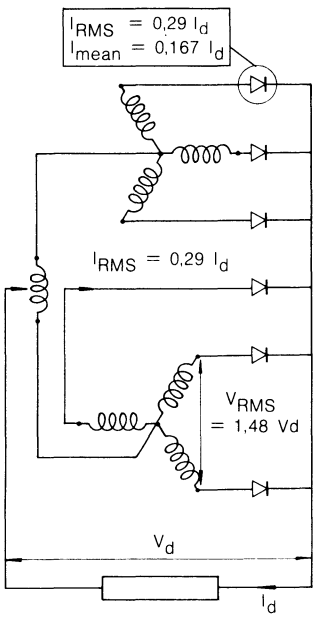
resistive or inductive load



α = 60°
E_{RM} = 1,63 V_{RMS}
F_r = 6 F_i

double star (with I.P.T.)
double étoile (avec self inter phase)

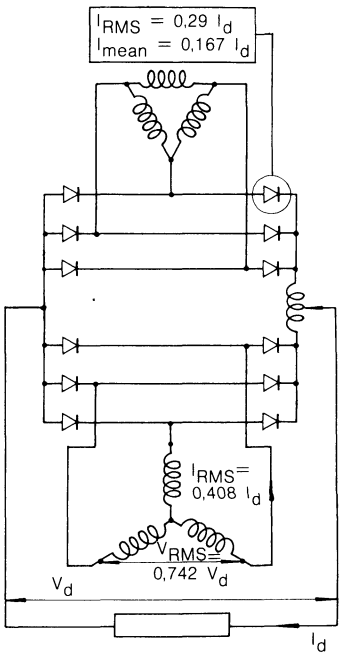
resistive or inductive load



α = 120°
E_{RM} = 1,63 V_{RMS}
F_r = 6 F_i

parallel bridge (with I.P.T.)
montage parallèle (avec self)

resistive or inductive load



α = 120°
E_{RM} = 1,52 V_{RMS}
F_r = 12 F_i

Maximum device conduction angle	α	*Angle de conduction maximum du courant*
Maximum peak repetitive voltage accross device	E_{RM}	*Tension crête répétitive sur le composant*
Line frequency	F_i	*Fréquence d'alimentation*
Ripple frequency	F_r	*Fréquence d'ondulation*
Mean output rectifier current	I_d	*Courant de sortie moyen redressé*
Mean output rectifier voltage	V_d	*Tension de sortie moyenne redressée*
Input RMS rectifier voltage	V_{RMS}	*Tension efficace d'alimentation du redresseur*

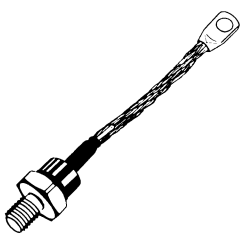
rectifier diodes
diodes de redressement

Types	V_{RRM}	I_R @ V_{RRM} @ Tj max	Tj max	I_{FAV} @ T_{case}		I_{FSM} @ Tj max	I^2t @ Tj ma
	V	mA	°C	A	°C	A	kA^2s
G ..10 (R)	50 → 1200	3*	150	12	125	230	0,26
RP ..20 (R)	100 → 1200	5	150	20	125	450	1
RP ..40 (R)	100 → 1200	5	150	40	125	700	2,5
SV 10.. R	1600 → 2500	20	175	100	140	2 200	24,2
KU 10 (R)	200 → 1400	20	150	100	100	1 500	24,2
KU 13 (R)	200 → 1400	20	175	130	100	2 000	20
KU 15 (R)	200 → 1400	20	175	150	100	2 500	31,25
SV 20 (R)	200 → 2000	20	175	200	110	4 000	80
KU 24 (R)	200 → 800	30 §	180	240	125	5 000	125
TV 30 (R)	200 → 2000	30	175	300	110	6 000	180
DN 262	200 → 2000	20	175	360	110	4 000	80
DN 462	200 → 2000	30	175	540	110	6 000	180
DN 662	200 → 2500	45	175	800	110	12 000	720
DN 761	2000 → 3400	40 §	175	800	100	12 000	720
DN 762	200 → 2000	60	175	1 100	110	15 000	1 125

* @ Tj = 125 °C
§ @ Tj = 150 °C

DO 4

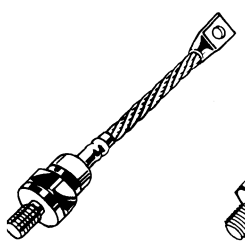
DO 5



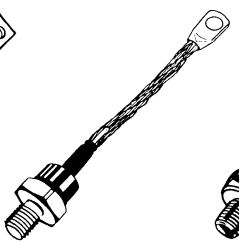
F 62 m

device characteristic tables
tableaux des caractéristiques des composants

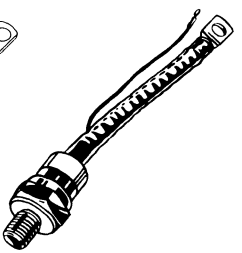
V_{FM} @ I_{FM}		V_{TO}	r_D	$R_{th\ (j\text{-}c)}$ DC	R_{th} CS	Stud torque	Mounting force	Case
@ Tj = 25 °C		@ Tj max				min - max		
V	A	V	mΩ	°C/W	°C/W	Nm	kN	
1,25	35	0,8	20	3	0,5	2		DO 4
1,5	70	0,8	7	1,2	0,3	3,5		DO 5
1,5	120	0,85	3,45	0,8	0,3	3,5		DO 5
1,5	300	1,1	1,3	0,23	0,08	12 - 15		DO 8
1,4	300	0,7	2	0,39	0,1	10 - 15		F 62 m
1,5	400	0,7	2	0,39	0,1	10 - 15		F 62 m
1,4	450	0,85	1,3	0,33	0,1	10 - 15		F 62 m
1,4	600	0,8	1	0,23	0,08	12 - 15		DO 8
1,3	750	0,9	0,34	0,19	0,06	30 - 38		DO 9 KU 24
1,4	1 000	0,8	0,6	0,16	0,06	30 - 35		DO 9
1,4	600	0,8	1	0,1	0,02		3,5 ± 10 %	M 771
1,4	1 000	0,8	0,6	0,07	0,02		5 ± 10 %	M 771
1,5	1 500	0,87	0,42	0,045	0,01		10 ± 5 %	M 779 b
1,58	2 000	0,86	0,36	0,036	0,01		15 ± 5 %	M 779 b
1,35	2 000	0,79	0,28	0,036	0,01		15 ± 5 %	M 779 b



DO 8



DO 9 (KU 24)



DO 9 (TV)

M 771

M 779 b

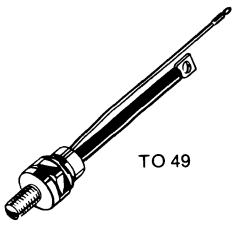
phase control thyristors
thyristors contrôle de phase

Types	V_{DRM} V_{RRM}	I_{DRM} @ V_{DRM} I_{RRM} @ V_{RRM} @ Tj max*	I_{TRMS} @ T_{case}		I_{TSM} @ Tj max*	V_{TM} @ I_{TM} @ Tj = 25 °C		V_{TO} @ Tj max*	r_T @ Tj max*
	V	mA	A	°C	A	V	A	V	mΩ
BTW 39	50 → 1200	5	25	75	200	2,2	50	1,4	16
2N 681	25 → 800	3	25	70	200	2	50	1,2	16
2N 5204	600 → 1200	3,3	35	75	330	2,2	70	1,08	16
TS .35	100 → 1200	6	35	75	330	2,2	70	1,08	16
BTW 48	200 → 1200	5	50	85	500	1,8	100	1	8
BTW 50	100 → 1200	12	63	105	910	3	500	0,87	5
TKE 12	100 → 600	10	120	90	1 500	1,8	500	1	1,6
TK 12	100 → 1600	10	120	80	1 400	2	150	1,4	4
TK 14	100 → 1600	10	150	80	1 750	2	300	1,1	3
TK 18	100 → 1400	10	180	80	2 000	1,5	300	0,9	2
TK 26	100 → 2000	25	275	80	4 000	1,85	450	1,25	1,33
TK 30	100 → 1600	25	325	80	5 000	1,6	600	1,15	0,75
TK 36	100 → 1200	25	385	80	5 500	1,3	600	0,88	0,70
TN 232	100 → 1600	10	280	80	1 750	2	300	1,1	3
TN 431	100 → 2000	25	430	80	4 000	1,85	450	1,25	1,33
TN 432	100 → 1600	25	525	80	5 000	1,6	600	1,15	0,75
TN 433	100 → 1200	25	600	80	5 500	1,3	600	0,88	0,70
TN 631	100 → 2400	30	600	80	7 000	2,65	1500	1,15	1
TN 632	100 → 2000	30	700	80	9 000	2,2	1500	1,15	0,7
TN 633	100 → 1400	30	850	80	12 000	1,6	1500	1	0,4
TN 731	1200 → 2200	36	900	80	11 000	2,15	2000	1,15	0,5
TN 733	200 → 1400	36	1 100	80	14 000	1,6	2000	1	0,3
TN 931	100 → 2000	40	1 400	80	15 000	1,95	2000	1,15	0,4
TN 933	100 → 1400	40	1 900	80	25 000	1,35	2000	1	0,175

* Tj max = 125 °C

TO 48

TO 65

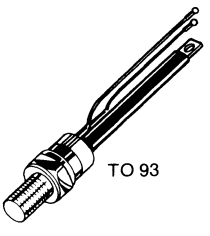


TO 49

device characteristic tables
tableaux des caractéristiques des composants

dv/dt	di/dt repetitive	I_{GT}	V_{GT}	I_H typ	tq typ.	$R_{th\ (jc)\ DC}$	$R_{th\ CS}$	Stud torque min - max	Mounting force	Case
V/μs	A/μs	mA	V	mA	μs	°C/W	°C/W	Nm	kN	
200	100	80	3	20	100	1,4	0,4	3,5 - 3,8		TO 48
50	20	40	1	20	100	1,7	0,4	3,5 - 3,8		TO 48
100	100	40	1	100	100	1,1	0,4	3,5 - 3,8		TO 48
100	100	80	3	20	100	1,1	0,4	3,5 - 3,8		TO 48
200	100	60	3	30	50	0,7	0,4	3,5 - 3,8		TO 48
200	100	150	3	50	125	0,35	0,3	3,5 - 3,8		TO 65
200	100	150	3,5	100	100	0,3	0,08	12 - 15		TO 49
200	500	125	3	50	100	0,24	0,08	12 - 15		TO 94
200	500	125	3	50	100	0,24	0,08	12 - 15		TO 94
200	500	125	3	50	100	0,24	0,08	12 - 15		TO 94
200	800	200	3	50	100	0,13	0,06	30 - 35		TO 93
200	800	200	3	50	100	0,13	0,06	30 - 35		TO 93
200	800	200	3	50	100	0,13	0,06	30 - 35		TO 93
200	500	125	3	50	100	0,1	0,02		3,5 ± 10 %	MU 86
200	500	200	3	50	100	0,07	0,02		5 ± 10 %	MU 86
200	500	200	3	50	100	0,07	0,02		5 ± 10 %	MU 86
200	500	200	3	50	100	0,07	0,02		5 ± 10 %	MU 86
300	500	200	3	70	125	0,05	0,01		10 ± 5 %	MU 171
300	500	200	3	70	125	0,05	0,01		10 ± 5 %	MU 171
300	500	200	3	70	125	0,05	0,01		10 ± 5 %	MU 171
300	500	200	3	80	200	0,04	0,01		15 ± 5 %	MU 171
300	500	200	3	80	200	0,04	0,01		15 ± 5 %	MU 171
300	500	200	3	80	200	0,023	0,006		23,5 ± 5 %	MU 169
300	500	200	3	80	200	0,023	0,006		23,5 ± 5 %	MU 169


TO 94


TO 93

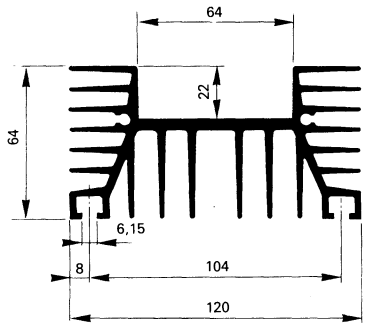

MU 86


MU 171


MU 169

heatsinks
convecteurs

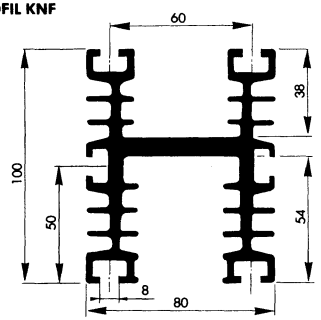
PROFIL RA



Types	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
RA 150	150	0,6	0,35	0,2
RA 200	200	0,55	0,32	0,18

Weight : 5,51 kg/m

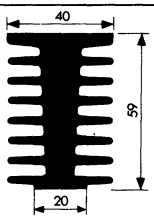
PROFIL KNF



Types	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
KNF 80	80	1,1	0,60	0,30
KNF 100	100	0,95	0,50	0,25
KNF 150	150	0,8	0,40	0,20
KNF 200	200	0,75	0,36	0,18

Weight : 5,67 kg/m

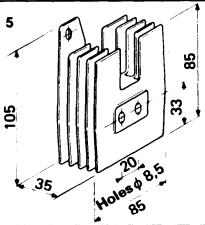
PROFIL CB



Type	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
CB 80	80	2,8	1,5	0,4

Weight : 3,55 kg/m

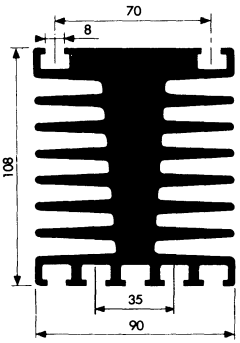
MOULDING M 5



Type	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
M 5	35	1,8	0,42	0,22

Weight : 0,27 kg

PROFIL P



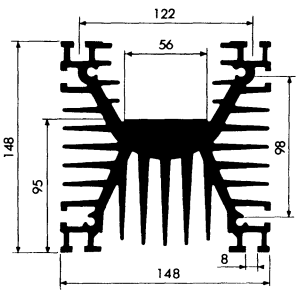
Types	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
P 80	80	0,70	0,32	0,15
P 100	100	0,60	0,28	0,14
P 150	150	0,46	0,25	0,13
P 200	200	0,42	0,23	0,125
P 250	250	0,40	0,22	0,121

Weight : 13,5 kg/m

Slot width : 13,2 mm (square nut for 8 mm nut)
Largeur des rainures de fixation : 13,2 mm (écrou carré pour vis de 8 mm)

heatsinks
convecteurs

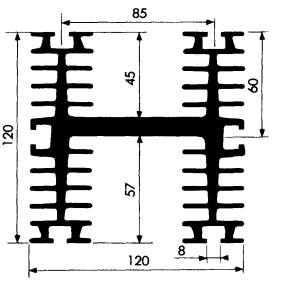
PROFIL Z



Types	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
Z 100	100	0,46	0,25	0,12
Z 150	150	0,39	0,19	0,10
Z 200	200	0,34	0,17	0,09
Z 300	300	0,29	0,15	0,08

Weight : 20 kg/m

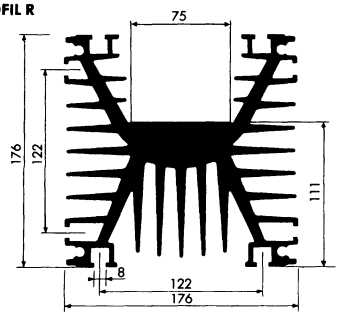
PROFIL TNF



Types	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
TNF 80	80	0,7	0,31	0,17
TNF 100	100	0,62	0,27	0,16
TNF 150	150	0,51	0,25	0,15
TNF 200	200	0,42	0,24	0,138
TNF 250	250	0,40	0,23	0,13

Weight : 12 kg/m

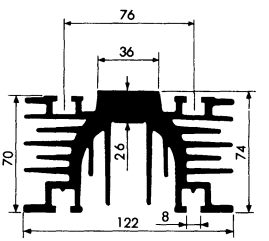
PROFIL R



Types	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
R 150	150	0,30	0,18	0,09
R 200	200	0,27	0,17	0,08
R 300	300	0,23	0,15	0,07

Weight : 30 kg/m

PROFIL WK



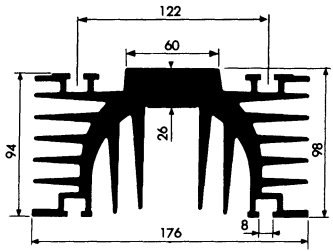
Types	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
2xWK 100	100	0,50	0,23	0,11
2xWK 150	150	0,38	0,19	0,09

Weight : 10 kg/m

Slot width : 13,2 mm (square nut for 8 mm nut)
Largeur des rainures de fixation : 13,2 mm (écrou carré pour vis de 8 mm)

heatsinks
convecteurs

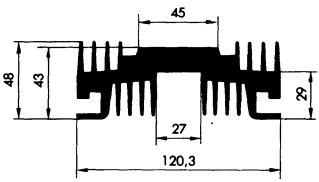
PROFIL WR - AR 8



Types	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
2xWR 100	100	0,33	0,17	0,09
2xWR 150	150	0,26	0,13	0,07
2xWR 200	200	0,20	0,124	0,065
2xWR 250	250	0,18	0,12	0,06

Weight : 20 kg/m

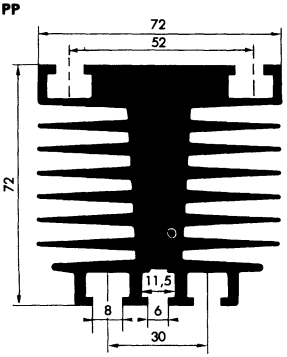
PROFIL SR



Types	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
2xSR 100	100	0,6	0,28	0,14
2xSR 120	120	0,5	0,22	0,11
2xSR 150	150	0,44	0,19	0,09

Weight : 8 kg/m

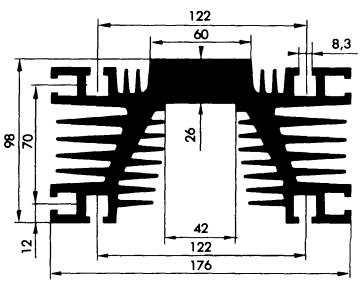
PROFIL PP



Types	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
PP 80	80	1,2	0,59	0,30
PP 100	100	1,1	0,49	0,24
PP 150	150	0,95	0,39	0,19
PP 200	200	0,83	0,35	0,17

Weight : 7,2 kg/m

PROFIL WM - AR 82



Types	Lmm	R_{th} °C/W natural cooling	R_{th} °C/W forced cooling	
			1 m/s	5 m/s
2xWM 100	100	0,33	0,17	0,09
2xWM 150	150	0,27	0,13	0,075
2xWM 200	200	0,21	0,126	0,07
2xWM 250	250	0,19	0,122	0,068

Weight : 20 kg/m

Slot width : 13,2 mm (square nut for 8 mm nut)
Largeur des rainures de fixation : 13,2 mm (écrou carré pour vis de 8 mm)

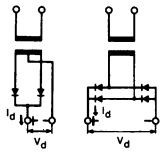
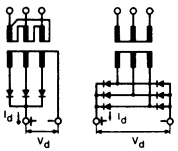
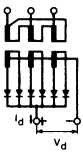
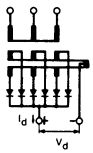
I_d for various device / heatsink combinations
I_d en fonction des combinaisons composants / convecteurs

diode / heatsink ratings
montages à diodes

NC = natural cooling
FC = forced cooling

T_{amb} = 45 °C
V_{air} = 5 m/s

V_d = d.c. output voltage
I_d = d.c. output current

Circuits							
Current rating (A)	**Diode type**	**Heatsinks**	**Id (A)**	**Id (A)**	**Id (A)**	**Id (A)**	**Id (A)**
			NC FC	**NC FC**	**NC FC**	**NC FC**	**NC FC**
12	G 10 DO 4	CB 80 PP 66 KNF 66	13 15 16	26 31 32	34 39 40	49 56 56	67 79 80
20	RP 20 DO 5	CB 80 PP 80 KNF 80	21 29 30	41 58 59	56 76 78	87 112 114	112 152 155
40	RP 40 DO 5	CB 80 PP 80 KNF 80	25 38 39	50 76 78	69 102 105	114 158 162	138 203 210
100	KU 100 F 62 m	M 5 PP 100 KNF 100 PP 150 KNF 150 P 100 TNF 150 P 150	47 106 63 66 68 73 112 80 118 85 117 87 119	94 213 126 132 135 146 223 160 236 170 234 175 239	131 273 171 179 183 196 286 213 300 225 298 231 302	211 392 267 277 282 300 409 321 426 336 423 343 429	261 545 342 357 366 393 571 425 600 450 595 461 605
150	KU 150 F 62 m	PP 100 KNF 100 PP 150 KNF 150 P 100 TNF 150 P 150	78 82 84 93 154 103 165 111 163 114 167	155 164 169 185 305 205 330 221 326 228 334	215 226 232 253 399 278 424 297 420 306 429	350 366 374 403 589 436 620 462 614 473 625	430 452 464 506 797 555 849 594 840 612 858
200	SV 20 DO 8	TNF 150 P 150 Z 150 R 120	132 207 137 214 154 224 176 230	263 415 273 428 307 449 352 460	358 539 370 554 412 577 466 590	561 790 577 807 632 835 701 850	716 1078 740 1107 824 1155 933 1180
240	KU 240 DO 9/KU 24	P 100 TNF 150 P 150	144 291 160 286 167 297	289 583 320 571 335 595	404 765 445 751 463 779	691 1188 751 1171 779 1205	808 1530 889 1503 927 1557
300	TV 30 DO 9	TNF 150 P 150 Z 150 R 120	160 280 170 291 193 310 228 321	320 560 345 583 385 621 455 642	443 737 474 764 525 808 612 832	718 1106 768 1138 832 1192 947 1221	886 1474 960 1527 1050 1615 1224 1663

I_d for various device / heatsink combinations
I_d en fonction des combinaisons composants / convecteurs

diode / heatsink ratings
montages à diodes

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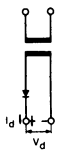
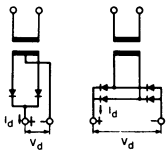
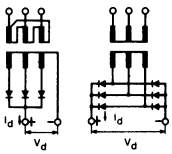
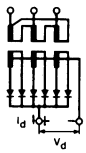
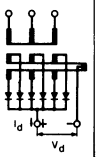
Circuits												
Current rating (A)	Diode type	Heatsinks	Id (A)		Id (A)		Id (A)		Id (A)		Id (A)	
			NC	FC	NC	FC	NC	FC	NC	FC	NC	FC
360	DN 262 M 771	2 WK 150 2 WM 150	199 250	356 379	397 500	712 758	543 671	924 976	836 1005	1316 1378	1086 1342	1847 1952
500	DN 462 M 771	2 WK 150 2 WM 150	238 309	469 520	475 617	939 1040	660 843	1237 1355	1051 1302	1807 1950	1319 1685	2473 2709
800	DN 662 M 779 b	2 WM 150 2 WSA 150	352 388	654 732	705 776	1308 1465	979 1071	1734 1919	1564 1693	2561 2789	1959 2143	3468 3838
1100	DN 762 M 779 b	2 WM 150 2 WSA 150	418 462	841 919	835 924	1682 1838	1169 1286	2243 2431	1897 2064	3342 3577	2338 2573	4486 4862
with box clamp avec boîte de serrage												
360	DN 262 M 771	P 150 WR 150	146 151	242 237	293 302	483 475	397 408	623 613	618 633	900 888	795 817	1246 1226
500	DN 462 M 771	P 150 WM 150	174 180	313 306	347 360	626 613	479 495	819 804	772 794	1215 1196	958 990	1639 1607

I_d for various device / heatsink combinations
I_d en fonction des combinaisons composants / convecteurs

thyristor / heatsink ratings
montages à thyristors

NC = natural cooling
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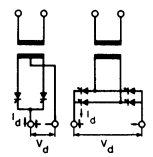
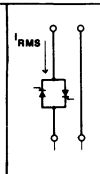
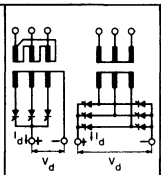
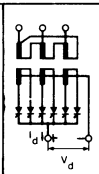
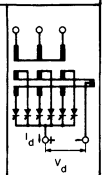
V_d = d.c. output voltage
I_d = d.c. output current

Circuits														
Current rating (Arms)	Thyristor type	Heatsinks	Id (A)		Id (A)		I_{RMS} (Arms)		Id (A)		Id (A)		Id (A)	
			NC	FC	NC	FC	NC	FC	NC	FC	NC	FC	NC	FC
25	BTW 39 TO 48	CB 80 PP 80. KNF 80	10 13 14		19 27 27		21 30 30		26 35 36		42 53 54		52 70 72	
35	TS 35 TO 48	CB 80 PP 80 KNF 80	12 17 17		24 33 34		27 37 38		32 44 45		50 65 66		64 87 90	
50	BTW 48 TO 48	CB 80 PP 80 KNF 80	15 23 24		31 47 48		34 52 53		43 63 65		70 97 99		86 126 129	
63	BTW 50 TO 65	CB 80 PP 100 KNF 100 P 50	22 36 39 39	 57 61	43 72 77 79	 115 122	48 80 86 88		61 99 105 107	 151 159	100 153 162 165	 220 231	122 198 210 215	 302 319
120	TKE 120 TO 49	PP 150 KNF 150 P 100 TNF 150 P 150	49 55 61 66 69	 96 104 103 106	99 109 121 133 138	 192 209 206 212	110 121 134 148 153	 232 228 235	137 151 166 180 186	 250 269 265 272	228 247 269 288 296	 378 401 397 405	274 301 331 360 372	 500 537 531 544
120	TK 12 TO 94	PP 150 P 100 TNF 150 P 150	35 44 48 50	 77 76 78	71 87 96 100	 155 152 157	79 97 107 111	 172 169 174	99 120 131 135	 200 198 203	163 193 207 213	 296 293 299	197 240 262 271	 401 395 406
150	TK 14 TO 94	P 100 TNF 150 P 150	54 59 61	93 92 95	107 117 122	187 184 190	119 130 136	207 204 211	147 159 165	242 239 245	233 250 257	354 350 358	293 319 329	483 477 490
180	TK 18 TO 94	P 100 TNF 150 P 150	70 72 79	114 113 116	140 144 158	228 225 232	156 160 175	254 250 258	191 195 214	296 292 300	299 306 330	433 428 438	382 390 428	592 584 599
275	TK 26 TO 93	P 100 TNF 150 P 150 Z 150 R 150	64 72 75 88 110	138 135 141 152 161	127 144 151 176 221	276 270 283 305 321	141 160 168 196 245	307 300 314 338 357	180 201 210 244 300	368 360 375 401 420	307 339 354 401 479	568 559 578 611 635	360 403 421 487 600	735 720 751 802 841
325	TK 30 TO 93	P 100 TNF 150 P 150 Z 150 R 150	72 82 86 101 128	162 158 166 180 190	145 164 172 203 256	324 317 332 359 380	161 182 191 225 285	360 352 369 399 422	206 231 242 282 350	433 424 443 475 499	359 399 415 475 572	685 673 698 739 770	411 462 484 564 700	867 848 886 950 998
385	TK 36 TO 93	P 100 TNF 150 TNF 200 P 200 Z 150 R 150	90 101 113 119 124 155	194 189 213 201 213 225	180 202 226 238 248 310	387 379 427 401 427 450	200 224 251 264 275 344	430 474 446 474 500	253 283 314 330 343 421	515 505 562 532 562 589	432 476 521 543 562 670	794 781 853 815 853 886	507 567 628 659 685 842	1030 1010 1124 1063 1124 1177

I_d *for various device / heatsink combinations*
I_d en fonction des combinaisons composants / convecteurs

thyristor / heatsink ratings
montages à thyristors

NC = natural cooling
FC = forced cooling

T_{amb} = 45 °C
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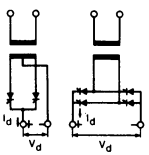
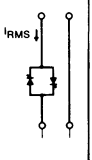
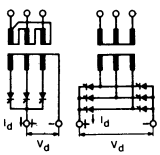
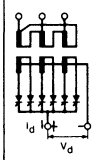
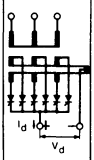
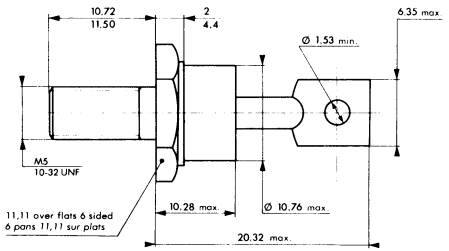
V_d = d.c. output voltage
I_d = d.c. output current

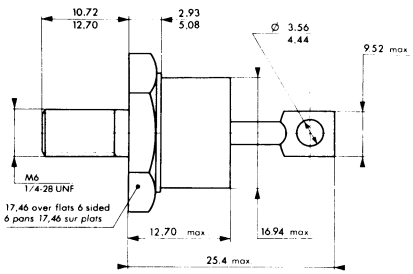
Circuits								
Current rating (Arms)	Thyristor type	Heatsinks	Id (A)	Id (A)	I_{RMS} (Arms)	Id (A)	Id (A)	Id (A)
			NC FC	NC FC	NC FC	NC FC	NC FC	NC FC
430	TN 431 MU 86	WK 150 WM 100 WK 200	105 219 111 219 118 238	211 438 222 438 235 476	234 487 247 487 262 529	295 580 311 580 328 625	487 871 509 871 534 926	591 1161 621 1161 655 1250
600	TN 433 MU 86	WK 150 WM 100 WK 200	148 306 156 306 165 333	296 613 312 613 331 665	329 680 347 680 367 739	415 811 436 811 460 873	682 1212 712 1212 746 1289	829 1622 872 1622 919 1745
850	TN 633 MU 171	WK 150 WM 150	156 379 217 437	312 757 434 971	347 841 482 874	445 1018 608 1159	772 1587 1018 1768	891 2036 1216 2318
1100	TN 733 MU 171	WM 150 WM 200	233 499 264 520	466 998 529 1040	517 1108 587 1155	659 1338 743 1389	1128 2081 1254 2147	1318 2676 1487 2777
1900	TN 933 MU 169	WM 200 WM 250 WSA 200 WSA 250	306 693 332 748 339 748 366 832	612 1387 664 1497 678 1497 732 1663	680 1541 738 1663 753 1663 818 1848	872 1896 948 2033 968 2033 1041 2238	1542 3039 1654 3226 1684 3226 1798 3499	1755 3792 1897 4067 1936 4067 2082 4476
with box clamp avec boîte de serrage								
430	TN 431 MU 86	P 150 WM 150 P 200 WM 200	75 139 78 136 84 141 86 143	149 279 155 272 168 282 172 286	165 310 172 186 313 191	208 366 215 358 231 370 237 373	346 558 356 549 379 563 387 568	415 731 429 717 462 739 473 747
600	TN 433 MU 86	P 150 WM 150 P 200 WM 200	105 196 109 191 118 198 121 200	210 391 218 382 236 396 242 400	233 434 242 262 439 269	292 513 302 502 325 518 333 523	485 780 499 767 531 786 543 793	584 1025 604 1005 649 1036 666 1047

device outlines
plans d'encombrement des composants

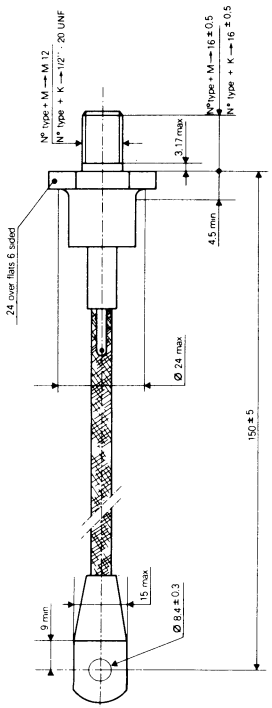
DO 4 (CB-33)



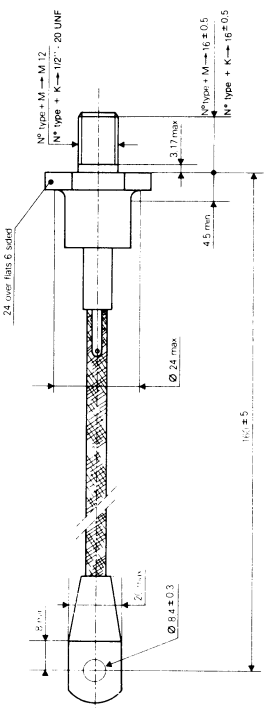
DO 5 (CB-34)



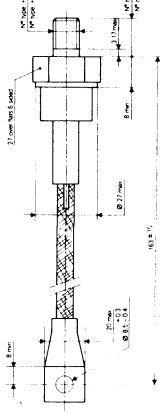
F 62 m
CB-252 (KU 10)



F 62 m
CB-254 (KU 13-KU 15)

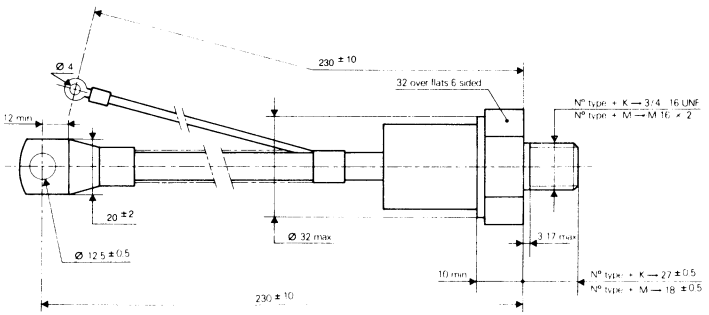


DO 8 (CB-272)

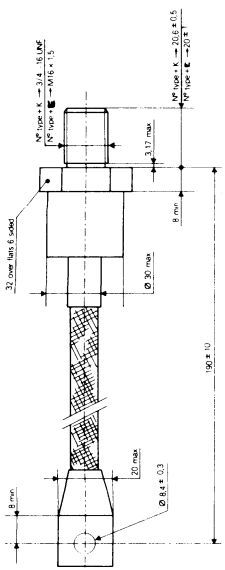


device outlines
plans d'encombrement des composants

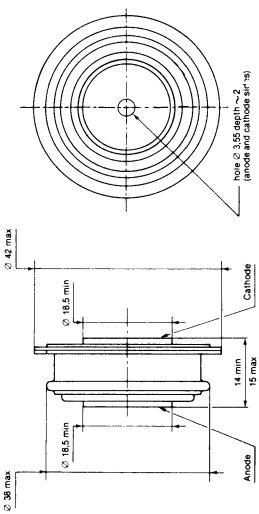
DO 9 (CB-270 : TV)



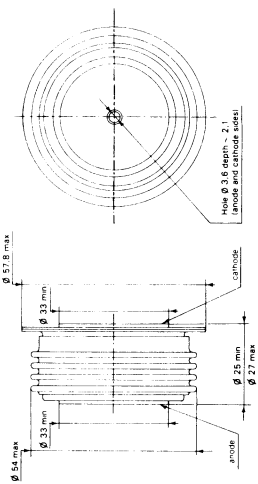
DO 9 (CB-362 : KU 24)



M 771 (CB-262)

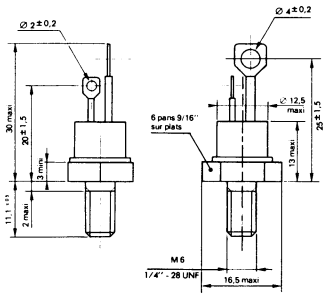


M 779 b (CB-261)

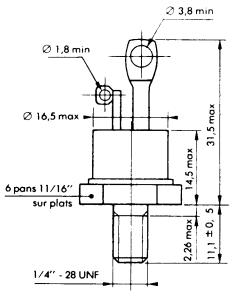


device outlines
plans d'encombrement des composants

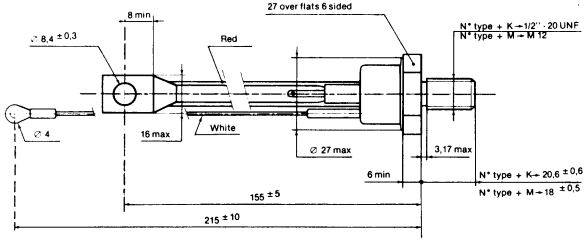
TO 48 (CB-267)



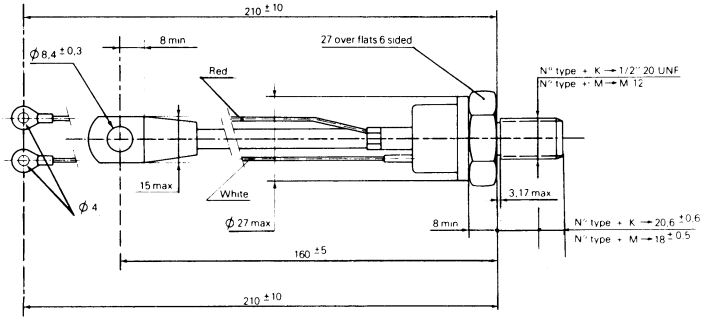
TO 65 (CB-269)



TO 49 (CB-67)

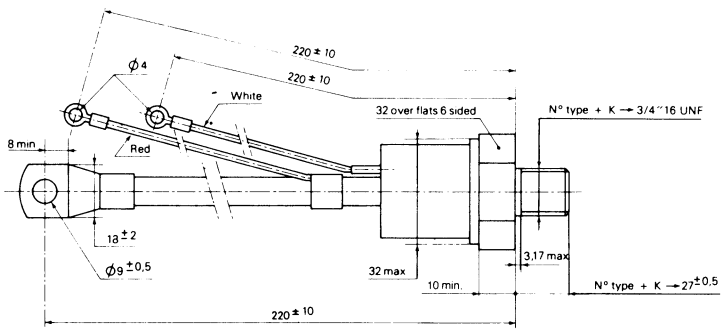


TO 94 (CB-315)

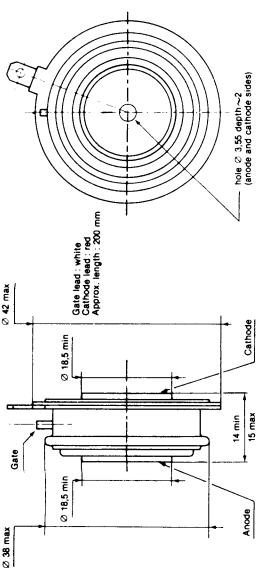


device outlines
plans d'encombrement des composants

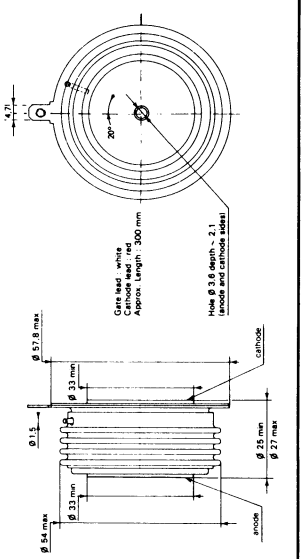
TO 93 (CB-260)



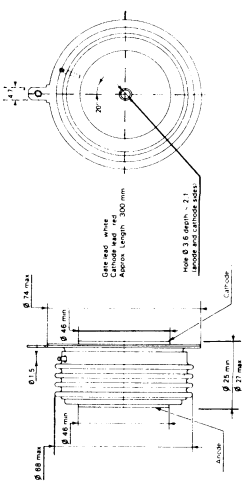
MU 86 (CB-263)



MU 171 (CB-264)



MU 169 (CB-265)



box clamps for disc case power semiconductors

boîtes de serrage pour semiconducteurs de puissance en boîtier à disque

THOMSON-CSF's box clamps are designed for use with disc case power semiconductors (MU 86 for thyristors and transistors - M 771 for diodes), when single sided cooling is required, in reverse or direct polarity. Three connection types are possible :

Les boîtes de serrage THOMSON-CSF sont étudiées pour permettre le montage en refroidissement simple face des composants de puissance en boîtier disque (MU 86 pour thyristors et transistors - M 771 pour diodes), en polarité directe ou inverse. Trois types de connections sont possibles :

Types	Terminal connection *Sortie*	Clamping force *Force de serrage* (kN)	See figure *Voir figure*
BSA 35 BSA 55	Axial *Axiale*	3,5 5,5	1
BST 35 BST 55	Flexible lead *Tresse flexible*	3,5 5,5	2
BSR 35 BSR 55	Radial *Radiale*	3,5 5,5	3

FIG. 1

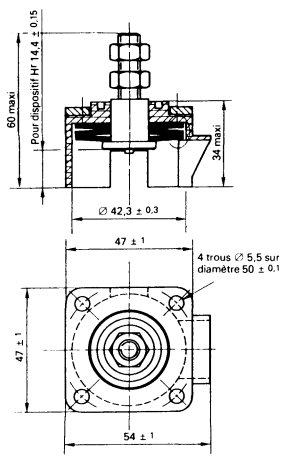


FIG. 2

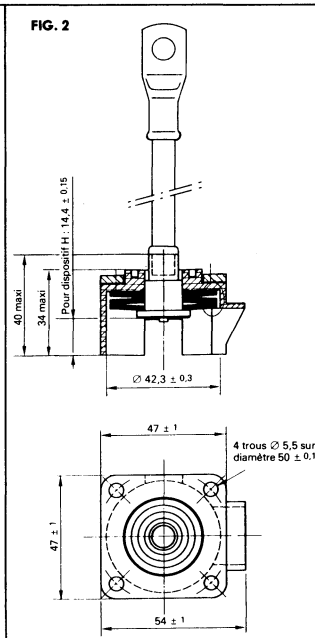
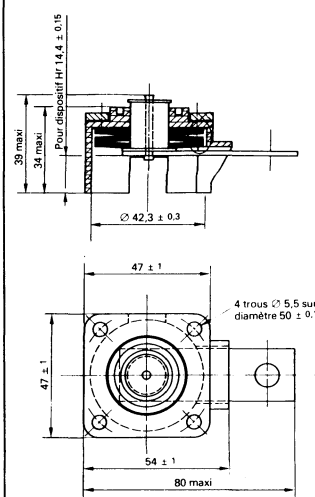
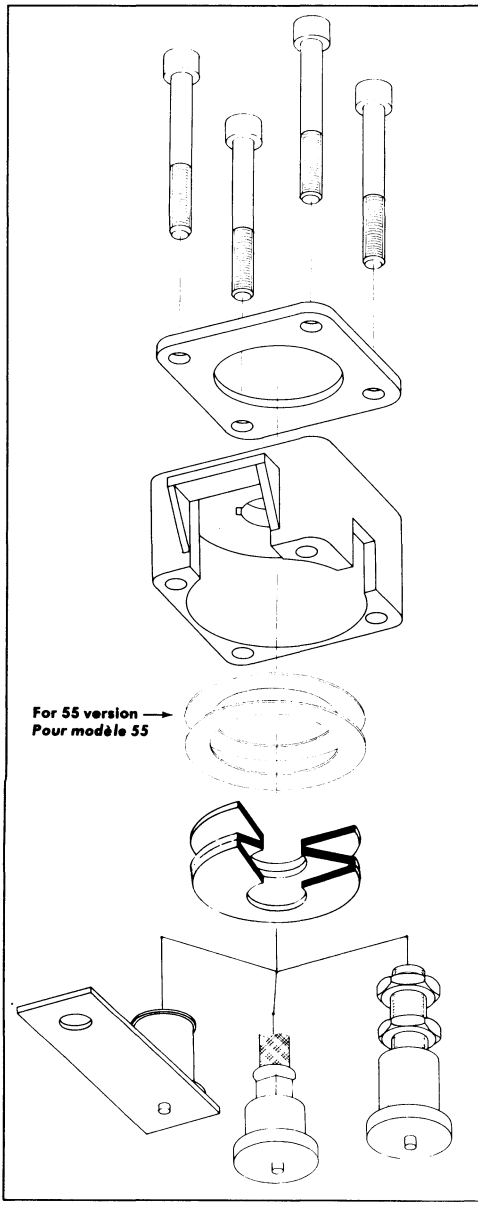


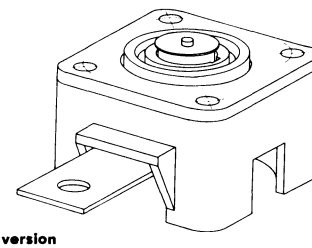
FIG. 3



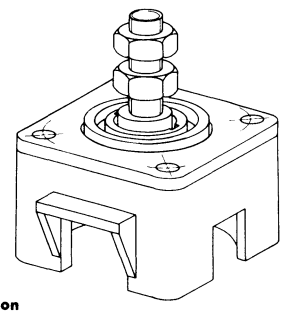
box clamps for disc case power semiconductors

boîtes de serrage pour semiconducteurs de puissance en boîtier à disque

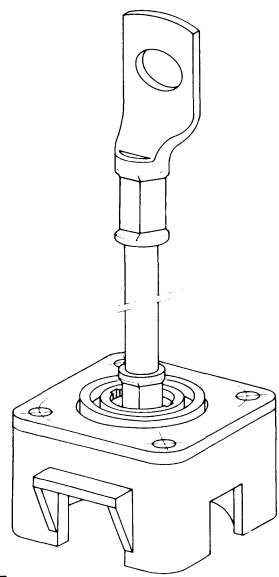




BSR version

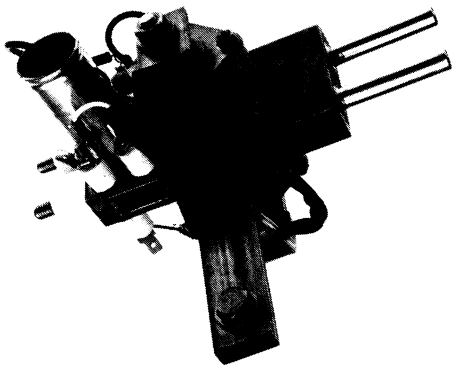


BSA version

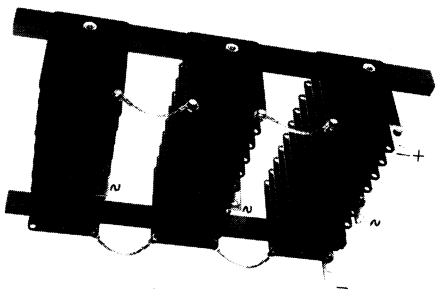


BST version

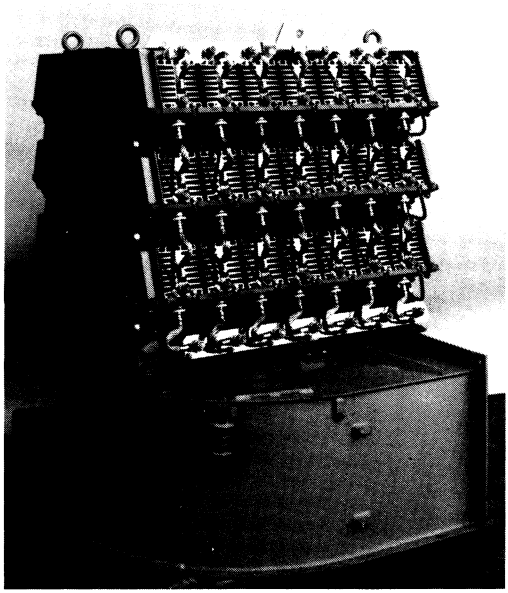
examples of stacks on demand
exemples de réalisations à la demande



Water cooling 500 Arms A-C switch
Interrupteur statique 500 Aeff à refroidissement par eau



Three phase bridge 70 A - 5000 V - controlled avalanche diodes
Pont triphasé 70 A - 5000 V - diodes à avalanche contrôlée



Common cathode rectifier for SNCF BB 16000 and 12000 - 1800 A
Bivalves SNCF pour locomotives BB 16000 et 12000 - 1800 A

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