

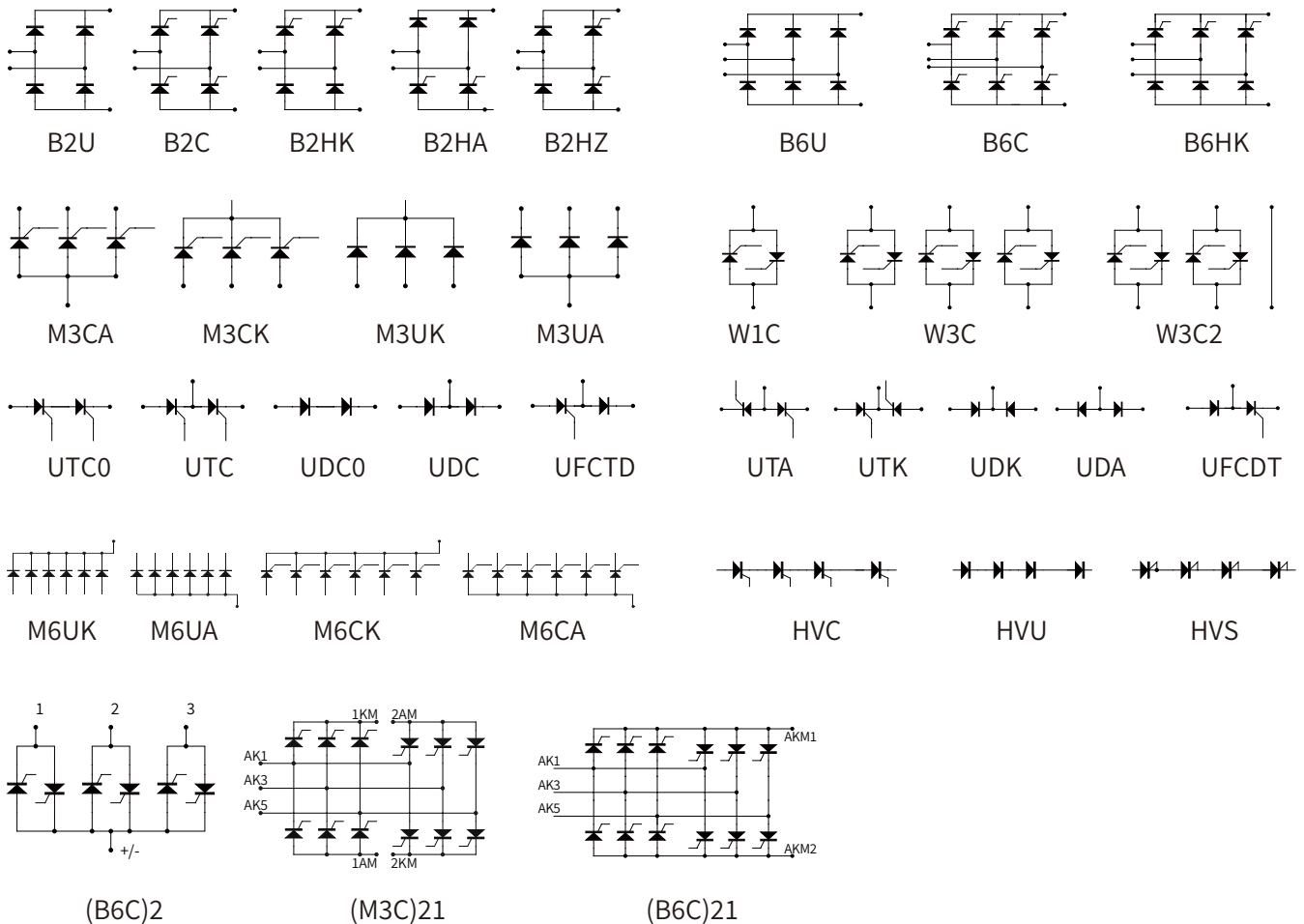
The naming of power semiconductor assembly

$\frac{B6C}{1} \frac{-800}{2} \frac{-100}{3} \frac{FB}{4}$

- 1: Electrical connector form and code;
- 2: Component voltage VDRM/RRM;
- 3: Rated output current I;
- 4: Heatsink; Fx: air swept cooling; Sx: water cooling.

Power semiconductor assemblies have a series of advantages, easy to use and install, attractive appearance, high reliability, low integrated cost, beneficial for set, simple design, shorten the development circle, etc. For user of power electrical equipment manufacturer, the most power assemblies electrical connector form can be available from our assemblies products or the combination of the assemblies. The user can choose the assemblies directly, which saves the design and selection of the components and heatsinks, so that it becomes much easier for set manufacture.

Power Semiconductor assemblies electrical connector form and code



Selection of the assembly voltage

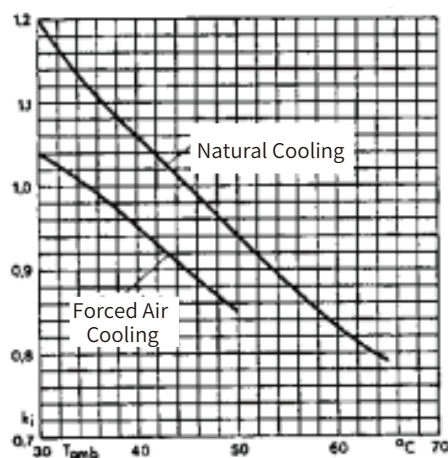
The assembly voltage noted in this manual is the rated blocking voltage of semiconductor component mounted for assembly. When select the assembly voltage, the user should base on the assembly electrical connector form and input voltage and consider a certain degree of safety margin. The below form is the value of assembly blocking voltage of the several common assembly that we suggest according to the difficult input and output voltage.

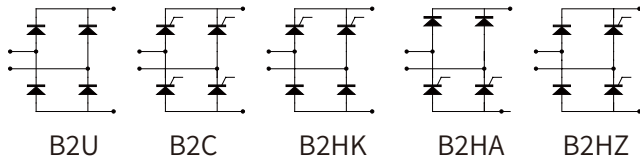
Input line voltage $V_{VN(V)}$	DC output voltage $V_d(V)$					Component blocking voltage
	B2	B6	M3	M6-free balance reactor	M6 with a balance reactor	
60	50	78	38	38	32	200
110	97	147	73	73	62	400
125	110	165	80	80	70	400
220	195	295	145	145	125	800
250	220	335	165	165	140	800
380	340	510	250	250	215	1200
400	360	540	270	270	225	1400
440	390	590	290	290	250	1400
460	410	620	310	310	260	1600
500	450	670	330	330	285	1600
575	515	770				1800
660	590	885				2200
1000	900	1350				3000

Selection of the assembly rated current

The power semiconductor assembly rated current given in the parameter form, as to forced air swept heatsink assembly, means the current value in the condition of fan speed: 6m/s, ambient temperature 40°C. Refer to water cooling assembly, means the current value in water flux 4L/Min, water temperature 40°C. When the actual ambient temperature exceeds the providing value, the user should lower the rated current. The actual rated output current is its nominal current times lower value factor K_i . Please refer to the below chart to check the lower value factor K_i .

In order to make the reliability when using, the user should be sure of the cooling method and make the assembly current 1.5-2.0 times of the actual current.



Connection form and code

Air cooling

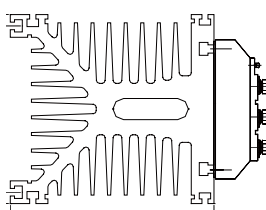
- Speed of fan: 6m/s
- Temperature $\leq 40^{\circ}\text{C}$

Water cooling

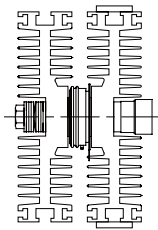
- Flux: 4L/min
- Temp.: $\leq 40^{\circ}\text{C}$

Single phase full controlled bridge rectifier B2C, single phase half controlled bridge rectifier B2Hx series

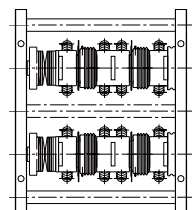
Order #	VRRM (V)	Rated output current Id (A)			Dimensions (mm)	Fig
		With fan	without fan	Water cooling		
B2x-xxx-40FA	100-1800	40	30	-	175x125x180	A
B2x-xxx-60FA	100-1800	60	50	-	175x125x180	A
B2x-xxx-120FA	100-1800	120	80	-	175x125x180	A
B2x-xxx-160FA	100-1800	160	100	-	175x125x180	A
B2x-xxx-180FB	100-1800	180	10	-	175x125x260	A
B2x-xxx-200FB	100-1800	200	120	-	175x125x260	A
B2x-xxx-250FC	100-1800	250	150	-	314x152x200	A
B2x-xxx-300FC	100-1800	300	180	-	314x152x200	A
B2x-xxx-350FC	100-1800	350	200	-	314x152x200	A
B2x-xxx-300FD	100-1800	300	200	-	370x360x285	B
B2x-xxx-400FD	100-1800	400	250	-	370x360x285	B
B2x-xxx-600FD	100-1800	600	300	-	370x360x285	B
B2x-xxx-800FE	100-1800	800	400	-	438x460x322	B
B2x-xxx-1000FE	100-1800	1000	450	-	438x460x322	B
B2x-xxx-1200FF	100-1200	1200	500	-	613x600x340	B
B2x-xxx-1500FF	100-1200	1500	600	-	613x600x340	B
B2x-xxx-xxxSA	100-1800	-	-	100-800	219x127x260	C
B2x-xxx-xxxSB	100-1800	-	-	800-1200	226x169x280	C
B2x-xxx-xxxSC	100-1800	-	-	1200-1800	226x169x320	C
B2x-xxx-xxxSD	100-1800	-	-	1800-2200	245x192x350	C
B2x-xxx-xxxSE	100-1800	-	-	100-800	439x124x169	D
B2x-xxx-xxxSF	100-1800	-	-	800-1200	439x124x169	D
B2x-xxx-xxxSG	100-1800	-	-	1200-1800	460x124x169	D
B2x-xxx-xxxSH	100-1800	-	-	1800-2200	499x124x195	D

Dimensions


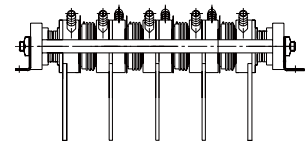
A



B



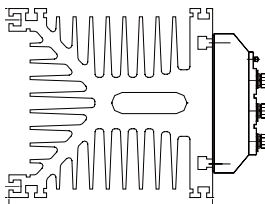
C



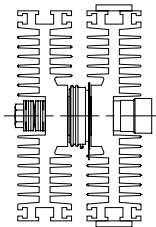
D

Single phase bridge rectifier (diode bridge) B2U series

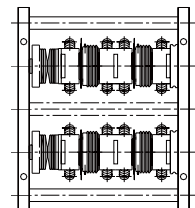
Order #	VRRM (V)	Rated output current Id (A)			Dimensions (mm)	Fig
		With fan	without fan	Water cooling		
B2U-xxx-40FA	100-1800	40	30	-	175x125x180	A
B2U-xxx-80FA	100-1800	80	60	-	175x125x180	A
B2U-xxx-120FA	100-1800	120	90	-	175x125x180	A
B2U-xxx-180FB	100-1800	180	120	-	175x125x260	A
B2U-xxx-20FB	100-1800	200	140	-	175x125x260	A
B2U-xxx-250FC	100-1800	250	160	-	314x152x200	A
B2U-xxx-300FC	100-1800	300	180	-	314x152x200	A
B2U-xxx-400FC	100-1800	400	240	-	314x152x200	A
B2U-xxx-500FD	100-1800	500	300	-	370x360x285	B
B2U-xxx-800FD	100-1800	800	400	-	370x360x285	B
B2U-xxx-1000FE	100-1800	1000	420	-	438x460x322	B
B2U-xxx-1200FE	100-1800	1200	500	-	438x460x322	B
B2U-xxx-1500FF	100-1800	1500	600	-	613x600x340	B
B2U-xxx-2200FF	100-1800	2200	800	-	613x600x340	B
B2x-xxx-xxxSA	100-1800	-	-	100-1000	219x127x260	C
B2x-xxx-xxxSB	100-1800	-	-	1000-1500	226x169x280	C
B2x-xxx-xxxSC	100-1800	-	-	1500-2000	226x169x320	C
B2x-xxx-xxxSD	100-1800	-	-	2000-3000	245x192x350	C
B2x-xxx-xxxSE	100-1800	-	-	100-1000	439x124x169	D
B2x-xxx-xxxSF	100-1800	-	-	1000-1500	460x124x169	D
B2x-xxx-xxxSG	100-1800	-	-	1500-2000	439x124x169	D
B2x-xxx-xxxSH	100-1800	-	-	2000-3000	499x124x195	D

Dimensions


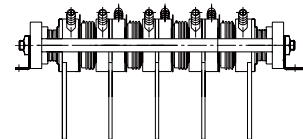
A



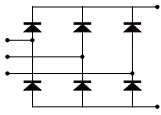
B



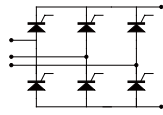
C



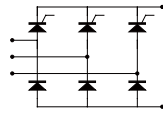
D

Connection form and code


B6U



B6C



B6HK

Air cooling

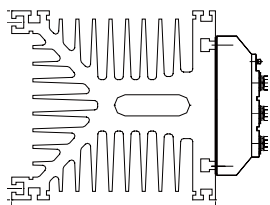
- Speed of fan: 6m/s
- Temperature $\leq 40^{\circ}\text{C}$

Water cooling

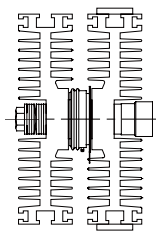
- Flux: 4L/min
- Temp.: $\leq 40^{\circ}\text{C}$

Three phase full controlled bridge rectifier B6C, three phase half controlled bridge rectifier B6Hx series

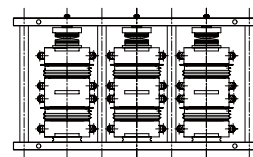
Order #	VRRM (V)	Rated output current Id (A)			Dimensions (mm)	Fig
		With fan	without fan	Water cooling		
B6x-xxx-80FA	100-1800	80	60	-	175x125x180	A
B6x-xxx-150FA	100-1800	150	80	-	175x125x180	A
B6x-xxx-200FB	100-1800	200	100	-	175x125x260	A
B6x-xxx-260FB	100-1800	260	150	-	175x125x260	A
B6x-xxx-300FC	100-1800	300	180	-	314x152x230	A
B6x-xxx-400FC	100-1800	400	220	-	314x152x230	A
B6x-xxx-500FC	100-1800	500	250	-	314x152x230	A
B6x-xxx-400FD	100-1800	400	250	-	500x360x285	B
B6x-xxx-500FD	100-1800	500	280	-	500x360x285	B
B6x-xxx-800FD	100-1800	800	350	-	500x360x285	B
B6x-xxx-1000FE	100-1800	1000	450	-	594x460x322	B
B6x-xxx-1200FE	100-1800	1200	500	-	594x460x322	B
B6x-xxx-1500FF	100-1800	1500	600	-	850x600x340	B
B6x-xxx-2000FF	100-1200	2000	800	-	850x600x340	B
B6x-xxx-2500FF	100-1200	2500	1100	-	850x600x340	B
B6x-xxx-xxxSA	100-1800	-	-	300-1000	219x370x127	E
B6x-xxx-xxxSB	100-1800	-	-	1000-1500	226x400x169	E
B6x-xxx-xxxSC	100-1800	-	-	1500-2000	226x460x169	E
B6x-xxx-xxxSD	100-1800	-	-	2000-3000	245x500x192	E

Dimensions


A



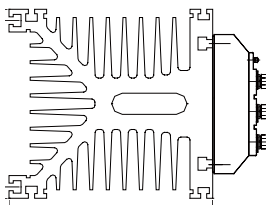
B



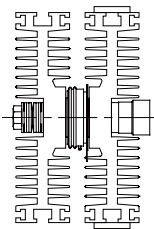
E

Three phase full controlled bridge rectifier B6C, three phase half controlled bridge rectifier B6Hx series

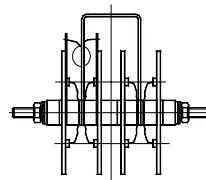
Order #	VRRM (V)	Rated output current Id (A)			Dimensions (mm)	Fig
		With fan	without fan	Water cooling		
B6U-xxx-100FA	100-1800	100	80	-	175x125x180	A
B6U-xxx-200FA	100-1800	200	150	-	175x125x180	A
B6U-xxx-250FB	100-1800	250	180	-	175x125x260	A
B6U-xxx-300FB	100-1800	300	200	-	175x125x260	A
B6U-xxx-400FC	100-1800	400	250	-	314x152x230	A
B6U-xxx-500FC	100-1800	500	300	-	314x152x230	A
B6U-xxx-600FD	100-1800	600	450	-	500x360x285	B
B6U-xxx-800FD	100-1800	800	500	-	500x360x285	B
B6U-xxx-1200FD	100-1800	1200	600	-	500x360x285	B
B6U-xxx-1600FD	100-1800	1600	650	-	500x360x285	B
B6U-xxx-1800FE	100-1800	1800	800	-	594x460x322	B
B6U-xxx-2000FE	100-1800	2000	900	-	594x460x322	B
B6U-xxx-2500FF	100-1200	2500	1100	-	850x600x340	B
B6U-xxx-3000FF	100-1200	3000	1300	-	850x600x340	B
B6U-xxx-3500FF	100-1200	3500	1400	-	850x600x340	B
UQD200A	150-500	200	-	-	357x130x160	F
UQD300A	150-500	300	-	-	357x130x160	F
UQD400A	150-500	400	-	-	357x130x160	F
UQD500A	150-500	500	-	-	357x130x160	F
UQD200B	150-500	200	-	-	200x125x121	F
UQD300B	150-500	300	-	-	200x125x121	F
UQD400B	150-500	400	-	-	200x125x121	F
UQD200C	150-500	200	-	-	254x146x210	F
UQD300C	150-500	300	-	-	254x146x210	F
UQD400C	150-500	400	-	-	254x146x210	F
B6U-xxx-xxxSA	100-1800			300-1500	219x370x127	E
B6U-xxx-xxxSB	100-1800			1000-2200	226x400x169	E
B6U-xxx-xxxSC	100-1800			1500-3500	226x460x169	E
B6U-xxx-xxxSD	100-1800			2000-4200	245x500x192	E

Dimensions


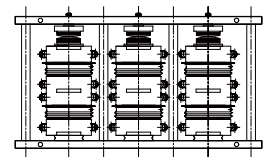
A



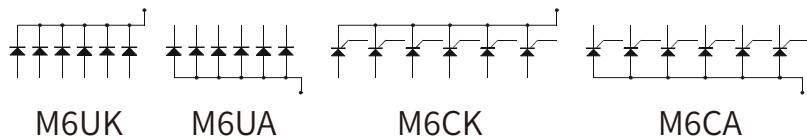
B



F



E

Connection form and code

Air cooling

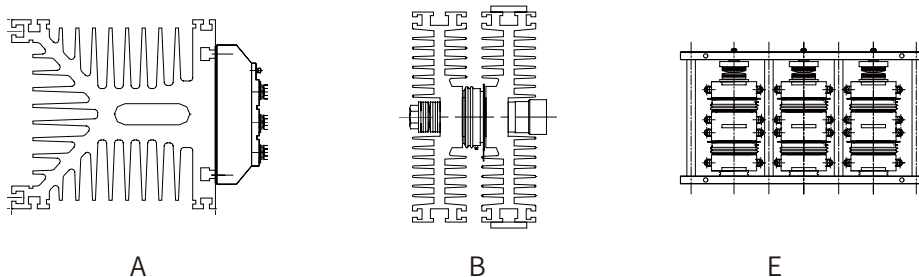
- Speed of fan: 6m/s
- Temperature $\leq 40^{\circ}\text{C}$

Water cooling

- Flux: 4L/min
- Temp.: $\leq 40^{\circ}\text{C}$

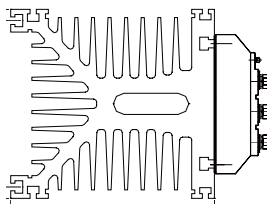
6 phase bridge M6U series (rectifier diodes)

Order #	VRRM (V)	Id(A) Double star type with balance reactor			Id(A) Double star type without balance reactor			Dimensions (mm)	Fig
		With fan	without fan	Water cooling	With fan	without fan	Water cooling		
M6U-xxx-150FA	100-1800	150	120	-	130	100	-	175x125x180	A
M6U-xxx-250FA	100-1800	250	180	-	260	150	-	175x125x180	A
M6U-xxx-350FA	100-1800	350	250	-	300	200	-	175x125x180	A
M6U-xxx-450FB	100-1800	450	300	-	350	250	-	175x125x260	A
M6U-xxx-600FB	100-1800	600	400	-	500	300	-	175x125x260	A
M6U-xxx-800FC	100-1800	800	500	-	600	400	-	314x152x230	A
M6U-xxx-1200FC	100-1800	1200	600	-	800	500	-	314x152x230	A
M6U-xxx-1500FD	100-1800	1500	700	-	1200	600	-	500x360x285	B
M6U-xxx-2000FD	100-1800	2000	900	-	1500	800	-	500x360x285	B
M6U-xxx-2500FD	100-1800	2500	1200	-	2000	1000	-	500x360x285	B
M6U-xxx-3000FE	100-1800	3000	1300	-	2500	1100	-	594x460x322	B
M6U-xxx-3500FE	100-1800	3500	1500	-	3000	1200	-	594x460x322	B
M6U-xxx-4000FE	100-1200	4000	1800	-	3400	1600	-	594x460x322	B
M6U-xxx-5000FF	100-1200	5000	2400	-	4000	1800	-	850x600x340	B
M6U-xxx-6000FF	100-1200	6000	2700	-	5000	2400	-	850x600x340	B
M6U-xxx-1500FG	100-1200	1500	700	-	1200	600	-	454x351x160	B
M6U-xxx-1800FG	100-1200	1800	900	-	1500	800	-	454x351x160	B
M6U-xxx-xxxSA	100-1800	-	-	500-3000	-	-	400-2400	219x370x127	E
M6U-xxx-xxxSB	100-1800	-	-	3000-4500	-	-	2400-3200	226x400x169	E
M6U-xxx-xxxSC	100-1800	-	-	4500-6000	-	-	3200-4500	226x460x169	E
M6U-xxx-xxxSD	100-41800	-	-	6000-8000	-	-	4500-5200	226x500x192	E

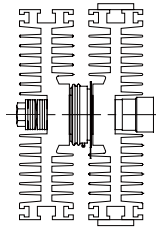
Dimensions


6 phase bridge M6C series (thyristor scr)

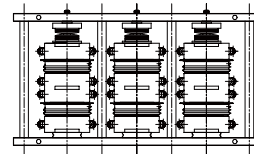
Order #	VRRM (V)	Id(A) Double star type with balance reactor			Id(A) Double star type without balance reactor			Dimensions (mm)	Fig
		With fan	without fan	Water cooling	With fan	without fan	Water cooling		
M6C-xxx-150FA	100-1800	150	100	-	130	90	-	175x125x180	A
M6C-xxx-300FA	100-1800	300	180	-	200	150	-	175x125x180	A
M6C-xxx-400FB	100-1800	400	250	-	300	200	-	175x125x260	A
M6C-xxx-500FB	100-1800	500	250	-	400	250	-	175x125x260	A
M6C-xxx-600FC	100-1800	600	400	-	500	300	-	314x152x230	A
M6C-xxx-800FC	100-1800	800	450	-	600	350	-	314x152x230	A
M6C-xxx-100FC	100-1800	1000	500	-	800	400	-	314x152x230	A
M6C-xxx-800FD	100-1800	800	500	-	600	400	-	500x360x285	B
M6C-xxx-1000FD	100-1800	1000	550	-	800	450	-	500x360x285	B
M6C-xxx-1500FD	100-1800	1500	600	-	1000	500	-	500x360x285	B
M6C-xxx-2000FE	100-1800	2000	700	-	1200	600	-	594x460x322	B
M6C-xxx-2500FE	100-1800	2500	1000	-	1800	800	-	594x460x322	B
M6C-xxx-3000FF	100-1800	3000	1200	-	2400	1000	-	850x600x340	B
M6C-xxx-3500FF	100-1800	3500	1500	-	3000	1200	-	850x600x340	B
M6C-xxx-4000FF	100-1800	4000	1800	-	3500	1500	-	850x600x340	B
M6C-xxx-4500FF	100-1800	4500	2000	-	4000	1800	-	850x600x340	B
M6C-xxx-1200FG	100-1200	1200	600	-	1000	500	-	454x351x160	B
M6C-xxx-1500FG	100-1200	1500	800	-	1200	600	-	454x351x160	B
M6C-xxx-xxxSA	100-1800	-	-	500-2000	-	-	400-1500	219x370x127	E
M6C-xxx-xxxSB	100-1800	-	-	2000-3000	-	-	1500-2000	226x400x169	E
M6C-xxx-xxxSC	100-1800	-	-	3000-3500	-	-	2000-3500	226x460x169	E
M6C-xxx-xxxSD	100-1800	-	-	3500-6000	-	-	3500-4500	245x500x192	E

Dimensions


A



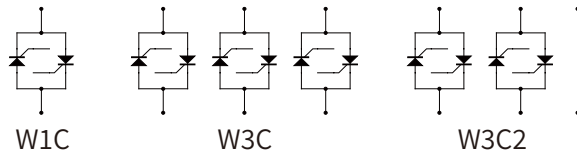
B



E

AC switching assemblies series W1C (single phase)

09



Air cooling

- Speed of fan: 6m/s
- Temperature $\leq 40^{\circ}\text{C}$

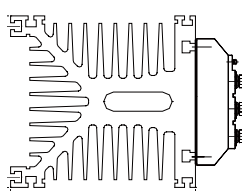
Water cooling

- Flux: 4L/min
- Temp.: $\leq 40^{\circ}\text{C}$

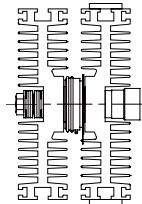
6 phase bridge M6U series (rectifier diodes)

Order #	VRRM (V)	Rated output current Id (A)			Dimensions (mm)	Fig
		With fan	without fan	Water cooling		
W1C-xxx-90FA	100-1800	90	60	-	175x125x180	A
W1C-xxx-150FA	100-1800	150	80	-	175x125x180	A
W1C-xxx-200FB	100-1800	200	100	-	175x125x260	A
W1C-xxx-250FB	100-1800	250	120	-	175x125x260	A
W1C-xxx-400FD	100-1800	400	200	-	300x195x114	B
W1C-xxx-500FD	100-1800	500	250	-	300x195x114	B
W1C-xxx-800FD	100-1800	800	300	-	300x195x114	B
W1C-xxx-1000FE	100-1800	1000	400	-	420x218x136	B
W1C-xxx-1200FE	100-1800	1200	500	-	420x218x136	B
W1C-xxx-1500FF	100-1800	1500	600	-	520x220x230	B
W1C-xxx-1800FF	100-1800	1800	700	-	520x220x230	B
W1C-xxx-800SI	100-1800	-	-	800	118x140x133	G
W1C-xxx-1000SJ	100-1800	-	-	1000	130x166x155	G
W1C-xxx-1200SK	100-1800	-	-	1200	190x220x160	G
W1C-xxx-600SA	100-1800	-	-	600	215x135x140	H
W1C-xxx-1000SB	100-1800	-	-	1000	220x160x190	H
W1C-xxx-1500SC	100-1800	-	-	1500	220x160x190	H
W1C-xxx-2000SD	100-1800	-	-	2000	270x195x220	H
W1C-xxx-2500S	100-1800	-	-	2500	330x260x263	H
W1C-xxx-800SL	100-1800	-	-	800	104x150x180	I

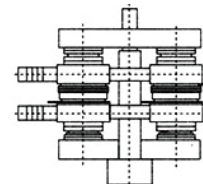
Dimensions



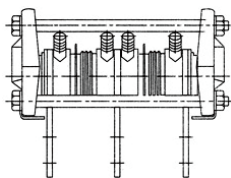
A



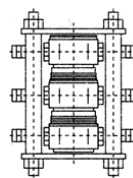
B



G



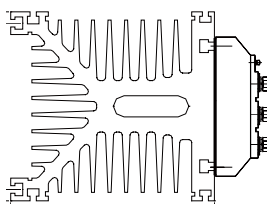
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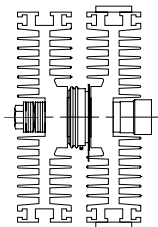
H

AC switching assemblies series W3C (three phase)

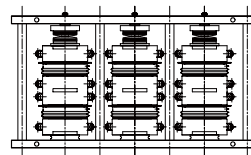
Order #	VRRM (V)	Rated output current Id (A)			Dimensions (mm)	Fig
		With fan	without fan	Water cooling		
W3C-xxx-90FA	100-1800	90	60	-	175x125x180	A
W3C-xxx-150FA	100-1800	150	80	-	175x125x180	A
W3C-xxx-200FB	100-1800	200	100	-	175x125x260	A
W3C-xxx-250FB	100-1800	250	120	-	175x125x260	A
W3C-xxx-300FC	100-1800	300	150	-	297x152x230	A
W3C-xxx-400FD	100-1800	400	200	-	450x202x420	B
W3C-xxx-500FD	100-1800	500	250	-	450x202x420	B
W3C-xxx-800FD	100-1800	800	300	-	450x202x420	B
W3C-xxx-1000FE	100-1800	1000	400	-	540x540x224	B
W3C-xx-1200FE	100-1800	1200	500	-	540x540x224	B
W3C-xxx-1500FF	100-1800	1500	600	-	800x680x240	B
W3C-xxx-1800FF	100-1800	1800	700	-	800x680x240	B
W3C-xxx-1000SA	100-1800	-	-	1000	370x100x219	E
W3C-xxx-1600SB	100-1800	-	-	1600	400x120x226	E
W3C-xxx-2000SC	100-1800	-	-	2000	460x150x226	E
W3C-xxx-2000SD	100-1800			3000	500x180x245	

Dimensions


A

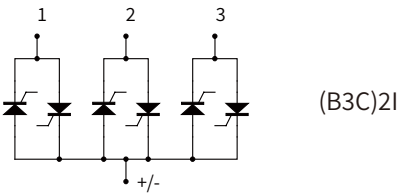


B



E

Connection form and code



Air cooling

- Speed of fan: 6m/s
- Temperature $\leq 40^{\circ}\text{C}$

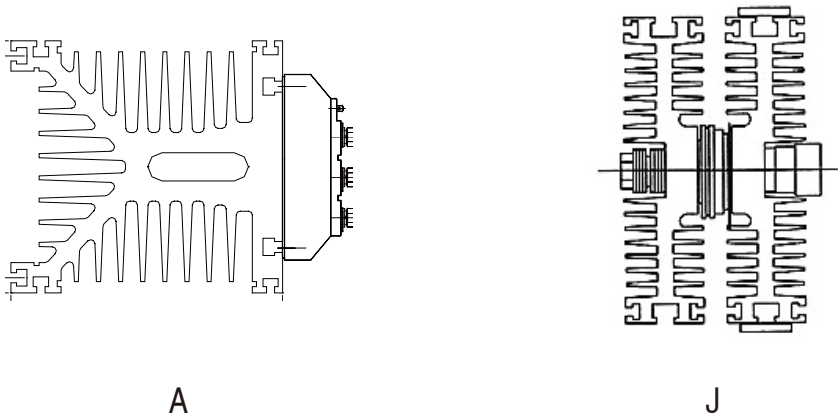
Water cooling

- Flux: 4L/min
- Temp.: $\leq 40^{\circ}\text{C}$

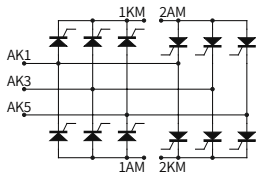
6 phase bridge M6U series (rectifier diodes)

Order #	VRRM (V)	Rated output current Id (A)		Dimensions (mm)	Fig
		With fan	without fan		
(M3C)21-xxx-80FA	100-1800	80	60	175x125x180	A
(M3C)21-xxx-150FA	100-1800	150	80	175x125x180	A
(M3C)21-xxx-200FB	100-1800	200	100	175x125x260	A
(M3C)21-xxx-260FB	100-1800	260	150	175x125x260	A
(M3C)21-xxx-800FE	100-1800	800	400	890x206x140	J
(M3C)21-xxx-1200FE	100-1800	1200	600	890x206x140	J
(M3C)21-xxx-1500FF	100-1800	1500	700	885x220x220	J
(M3C)21-xxx-2000FF	100-1800	2000	1000	885x220x220	J

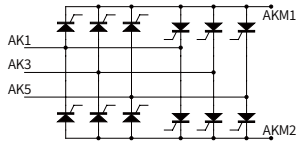
Dimensions



Connection form and code



(B6C)2



(B6C)21

Air cooling

- Speed of fan: 6m/s
- Temperature $\leq 40^{\circ}\text{C}$

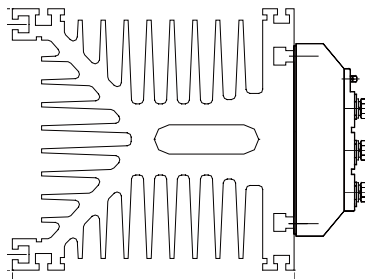
Water cooling

- Flux: 4L/min
- Temp.: $\leq 40^{\circ}\text{C}$

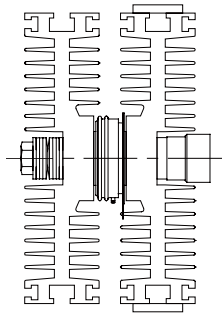
6 phase bridge M6U series (rectifier diodes)

Order #	VRRM (V)	Rated output current Id (A)		Dimensions (mm)	Fig
		With fan	without fan		
(B6C)2x-xxx-80FA	100-1800	80	60	175x310x180	A
(B6C)2x-xxx-150FA	100-1800	150	80	175x310x180	A
(B6C)2x-xxx-200FB	100-1800	200	100	175x310x260	A
(B6C)2x-xxx-260FB	100-1800	260	150	175x310x260	A
(B6C)2x-xxx-800FE	100-2200	800	400	890x380x240	B
(B6C)2x-xxx-1200FE	100-2200	1200	600	890x380x240	B
(B6C)2x-xxx-1500FF	100-2200	1500	700	885x514x270	B
(B6C)2x-xxx-2000FF	100-2200	2000	1000	885x514x270	B

Dimensions



A



B