## **SIEMENS**

Data sheet 3RV2011-0EA40



Circuit breaker size S00 for motor protection, CLASS 10 A-release 0.28...0.4 A N-release 5.2 A ring cable lug connection Standard switching capacity

December 2011   December 3	product brand name	SIRIUS
Separal technical data	product designation	Circuit breaker
size of the circuit-breaker  size of contactor can be combined company-specific product extension auxiliary switch  power loss [W] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between main and auxiliary circuit • of auxiliary contacts typical • of auxiliary contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage • ambient temperature during transport temperature compensation relative humidity during operation  Main circuit number of poles for main current circuit  3 800 V  800 V	design of the product	For motor protection
size of the circuit-breaker  size of contactor can be combined company-specific product extension auxiliary switch  power loss [W] for rated value of the current  at AC in hot operating state  at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point  between main and auxiliary circuit  between	product type designation	3RV2
size of contactor can be combined company-specific product extension auxiliary switch  power loss [W] for rated value of the current  • at AC in hot operating state 5.5 W  • at AC in hot operating state per pole 1.8 W  insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value 680 V  maximum permissible voltage for safe isolation in networks with grounded star point 0 between main and auxiliary circuit 400 V  • between main and auxiliary circuit 400 V  shock resistance acc. to IEC 60068-2-27 25g / 11 ms  mechanical service life (switching cycles) of the main contacts typical 100 000 100 00	General technical data	
product extension auxiliary switch  power loss [M] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole  insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value  maximum permissible voltage for safe isolation in networks with grounded star point • between main and auxiliary circuit • between main and suxiliary circuit • between main and suxiliary circuit • of the main contacts typical • of the main contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2 Q Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage • ambient temperature during poperation  temperature compensation  100 000  200 m  200 m  400 V  50 L/10 M  400 V  50 L/20 J/10 M  50 L/20 J/10 M  50 L/20 J/10 M  60 L/20 J/10	size of the circuit-breaker	S00
power loss [W] for rated value of the current  • at AC in hot operating state   5.5 W  insulation voltage with degree of pollution 3 at AC rated value   690 V  surge voltage resistance rated value   6 kV  maximum permissible voltage for safe isolation in networks with grounded star point   400 V  • between main and auxiliary circuit   400 V  shock resistance acc. to IEC 60068-2-27   25g / 11 ms  mechanical service life (switching cycles)   100 000    • of the main contacts typical   100 000    • of auxiliary contacts typical   100 000    electrical endurance (switching cycles) typical   100 000    type of protection according to ATEX directive   2014/34/EU    reference code acc. to IEC 81346-2   Q  Ambient conditions    installation altitude at height above sea level maximum   2 000 m    • ambient temperature during operation   -20 +60 °C   • ambient temperature during storage   -50 +80 °C   • ambient temperature during peration   -20 +60 °C   relative humidity during operation   -20 +60 °C	size of contactor can be combined company-specific	S00, S0
at AC in hot operating state  at AC in hot operating state per pole  insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value  maximum permissible voltage for safe isolation in networks with grounded star point  between main and auxiliary circuit  between main and auxiliary circuit  between main and auxiliary circuit  contains a service life (switching cycles)  of the main contacts typical  of auxiliary contacts typical  electrical endurance (switching cycles) typical  type of protection according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature during operation  ambient temperature during storage  ambient temperature during storage  ambient temperature during operation  relative humidity during operation  altitude to poles for main current circuit  at AC in hot operating state per pole  for V  480 V  400 V	product extension auxiliary switch	Yes
at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value  asurge voltage resistance rated value  between main and auxiliary circuit between main auxiliary circuit between main and auxiliary circuit between main auxiliary circuit between main and a	power loss [W] for rated value of the current	
insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value  maximum permissible voltage for safe isolation in networks with grounded star point  • between main and auxiliary circuit • both resistance acc. to IEC 60068-2-27  shock resistance acc. to IEC 60068-2-27  e of the main contacts typical • of auxiliary contacts typical • of auxiliary contacts typical • of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2  Q  Ambient conditions installation altitude at height above sea level maximum  • ambient temperature during operation • ambient temperature during storage • ambient temperature during transport  -50 +80 °C  • ambient temperature during transport  -50 +80 °C  relative humidity during operation 10 95 %  Main circuit number of poles for main current circuit  3	<ul> <li>at AC in hot operating state</li> </ul>	5.5 W
value  surge voltage resistance rated value  maximum permissible voltage for safe isolation in networks with grounded star point  • between main and auxiliary circuit  • obetween main and auxiliary circuit  • of the main contacts typical  • of auxiliary contacts typical  • bo 000  • of auxiliary contacts typical  • bo 000  • catificate of suitability according to ATEX directive  2014/34/EU   reference code acc. to IEC 81346-2  Q  Ambient conditions  installation altitude at height above sea level maximum  • ambient temperature during operation  • ambient temperature during operation  • ambient temperature during storage  • ambient temperature during transport  • 50 +60 °C  • ambient temperature during transport  • 50 +80 °C  • ambient temperature during transport  • 20 +60 °C  • ambient temperature during transport  • 50 +80 °C  • ambient temperature during transport  • 50 +80 °C  • ambient temperature during transport  • 50 +80 °C  • ambient temperature during transport  • 50 +80 °C  • ambient temperature during transport  • 50 +80 °C  • ambient temperature during transport  • 50 +80 °C  • ambient temperature during transport  • 50 +80 °C  • ambient temperature during transport  • 50 +80 °C	at AC in hot operating state per pole	1.8 W
maximum permissible voltage for safe isolation in networks with grounded star point  • between main and auxiliary circuit • between main and auxiliary circuit 400 V  shock resistance acc. to IEC 60068-2-27 25g / 11 ms  mechanical service life (switching cycles) • of the main contacts typical • of auxiliary contacts typical 100 000 electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2 Q  Ambient conditions installation altitude at height above sea level maximum • ambient temperature during operation • ambient temperature during storage • ambient temperature during transport  -50 +80 °C  -ambient temperature during transport relative humidity during operation  10 95 %  Main circuit number of poles for main current circuit  3	0 0 1	690 V
networks with grounded star point  • between main and auxiliary circuit  • between main and auxiliary circuit  • between main and auxiliary circuit  400 V  shock resistance acc. to IEC 60068-2-27  prechanical service life (switching cycles)  • of the main contacts typical  • of auxiliary contacts typical  • of auxiliary contacts typical  electrical endurance (switching cycles) typical  type of protection according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2  Q  Ambient conditions  installation altitude at height above sea level maximum  • ambient temperature during operation  • ambient temperature during storage  • ambient temperature during storage  • ambient temperature during transport  • ambient temperature during transport  • ambient temperature during transport  • 50 +80 °C  • ambient temperature during operation  -20 +60 °C  relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit  3	surge voltage resistance rated value	6 kV
between main and auxiliary circuit     shock resistance acc. to IEC 60068-2-27     25g / 11 ms  mechanical service life (switching cycles)     of the main contacts typical     of auxiliary contacts typical     electrical endurance (switching cycles) typical     type of protection according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2  Q  Ambient conditions  installation altitude at height above sea level maximum      one ambient temperature during operation     one ambient temperature during storage     one ambient temperature during storage     one ambient temperature during transport  temperature compensation  relative humidity during operation  Main circuit  number of poles for main current circuit  3		
shock resistance acc. to IEC 60068-2-27  mechanical service life (switching cycles)  of the main contacts typical of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2  Q  Ambient conditions installation altitude at height above sea level maximum  ambient temperature during operation ambient temperature during storage ambient temperature during transport  temperature compensation  relative humidity during operation  10 000  EX II (2) GD  DMT 02 ATEX F 001  DMT 02 ATEX F 001  2 000 m  2 000 m  - 20 +60 °C  - 50 +80 °C  temperature compensation - 20 +60 °C  relative humidity during operation - 20 +60 °C  relative humidity during operation - 20 +60 °C  relative humidity during operation - 3 %  Main circuit  number of poles for main current circuit  3	<ul> <li>between main and auxiliary circuit</li> </ul>	400 V
mechanical service life (switching cycles)  of the main contacts typical of auxiliary contacts typical low 000 electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2 Q  Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage ambient temperature during transport ambient temperature during transport temperature compensation relative humidity during operation 10 95 %  Main circuit number of poles for main current circuit  3	<ul> <li>between main and auxiliary circuit</li> </ul>	400 V
of the main contacts typical     of auxiliary contacts typical     electrical endurance (switching cycles) typical     type of protection according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2  Ambient conditions  installation altitude at height above sea level maximum      o ambient temperature during operation     o ambient temperature during storage     o ambient temperature during transport  temperature compensation  relative humidity during operation  number of poles for main current circuit  100 000  Ex II (2) GD  DMT 02 ATEX F 001  DMT 02 ATEX F 001  200 m  2 000 m  3 000	shock resistance acc. to IEC 60068-2-27	25g / 11 ms
of auxiliary contacts typical electrical endurance (switching cycles) typical type of protection according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2  Ambient conditions installation altitude at height above sea level maximum      o ambient temperature during operation     o ambient temperature during storage     o ambient temperature during transport  temperature compensation  relative humidity during operation  100 000  EX II (2) GD  DMT 02 ATEX F 001  Q  ATEX F 001  2 000 m  3	mechanical service life (switching cycles)	
electrical endurance (switching cycles) typical  type of protection according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2  Ambient conditions  installation altitude at height above sea level maximum  • ambient temperature during operation • ambient temperature during storage • ambient temperature during storage • ambient temperature during transport  temperature compensation  relative humidity during operation  Main circuit  number of poles for main current circuit  100 000  Ex II (2) GD  DMT 02 ATEX F 001  DMT 02 ATEX F 001  2 000 m  - 20 +60 °C  - 20 +60 °C  - 20 +60 °C  - 20 +60 °C  - 20 +80 °C  - 20 +60 °C	<ul> <li>of the main contacts typical</li> </ul>	100 000
type of protection according to ATEX directive 2014/34/EU  certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2  Q  Ambient conditions  installation altitude at height above sea level maximum 2 000 m  • ambient temperature during operation -20 +60 °C  • ambient temperature during storage -50 +80 °C  • ambient temperature during transport -50 +80 °C  temperature compensation -20 +60 °C  relative humidity during operation -20 +60 °C  relative humidity during operation 3	of auxiliary contacts typical	100 000
certificate of suitability according to ATEX directive 2014/34/EU  reference code acc. to IEC 81346-2  Q  Ambient conditions installation altitude at height above sea level maximum  • ambient temperature during operation • ambient temperature during storage • ambient temperature during transport  • ambient temperature during transport  -50 +80 °C  temperature compensation -20 +60 °C  relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit  3	electrical endurance (switching cycles) typical	100 000
reference code acc. to IEC 81346-2  Ambient conditions installation altitude at height above sea level maximum  • ambient temperature during operation • ambient temperature during storage • ambient temperature during transport • ambient temperature during transport • 50 +80 °C  temperature compensation -20 +60 °C  relative humidity during operation 10 95 %  Main circuit  number of poles for main current circuit  3		Ex II (2) GD
installation altitude at height above sea level maximum  • ambient temperature during operation • ambient temperature during storage • ambient temperature during storage • ambient temperature during transport • 50 +80 °C  • ambient temperature during transport -50 +80 °C  temperature compensation -20 +60 °C  relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit  3		DMT 02 ATEX F 001
installation altitude at height above sea level maximum  • ambient temperature during operation  • ambient temperature during storage  • ambient temperature during transport  • ambient temperature during transport  -50 +80 °C  temperature compensation  -20 +60 °C  relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit  3	reference code acc. to IEC 81346-2	Q
<ul> <li>ambient temperature during operation</li> <li>ambient temperature during storage</li> <li>ambient temperature during transport</li> <li>ambient temperature during transport</li> <li>-50 +80 °C</li> <li>temperature compensation</li> <li>-20 +60 °C</li> <li>relative humidity during operation</li> <li>10 95 %</li> <li>Main circuit</li> <li>number of poles for main current circuit</li> <li>3</li> </ul>	Ambient conditions	
<ul> <li>ambient temperature during storage</li> <li>ambient temperature during transport</li> <li>ambient temperature during storage</li> <li>ambie</li></ul>	installation altitude at height above sea level maximum	2 000 m
<ul> <li>ambient temperature during transport</li> <li>-50 +80 °C</li> <li>temperature compensation</li> <li>relative humidity during operation</li> <li>Main circuit</li> <li>number of poles for main current circuit</li> <li>3</li> </ul>	<ul> <li>ambient temperature during operation</li> </ul>	-20 +60 °C
temperature compensation -20 +60 °C relative humidity during operation 10 95 %  Main circuit number of poles for main current circuit 3	<ul> <li>ambient temperature during storage</li> </ul>	-50 +80 °C
relative humidity during operation 10 95 %  Main circuit  number of poles for main current circuit 3	ambient temperature during transport	-50 +80 °C
Main circuit number of poles for main current circuit 3	temperature compensation	-20 +60 °C
number of poles for main current circuit 3	relative humidity during operation	10 95 %
·	Main circuit	
adjustable current response value current of the 0.28 0.4 A	number of poles for main current circuit	3
	adjustable current response value current of the	0.28 0.4 A

current-dependent overload release			
<ul> <li>operating voltage rated value</li> </ul>	690 V		
<ul> <li>operating voltage at AC-3 rated value maximum</li> </ul>	690 V		
operating frequency rated value	50 60 Hz		
operational current rated value	0.4 A		
operational current at AC-3 at 400 V rated value	0.4 A		
operating power at AC-3			
<ul> <li>at 230 V rated value</li> </ul>	60 W		
<ul><li>at 400 V rated value</li></ul>	90 W		
• at 500 V rated value	120 W		
• at 690 V rated value	180 W		
operating frequency at AC-3 maximum	15 1/h		
Auxiliary circuit			
number of NC contacts for auxiliary contacts	0		
number of NO contacts for auxiliary contacts	0		
number of CO contacts for auxiliary contacts	0		
Protective and monitoring functions			
product function			
ground fault detection	No		
phase failure detection	Yes		
trip class	CLASS 10		
design of the overload release	thermal		
breaking capacity operating short-circuit current (lcs)			
at AC  • at 240 V rated value	100 kA		
at 400 V rated value	100 kA		
at 500 V rated value     at 500 V rated value	100 KA		
at 690 V rated value     at 690 V rated value	100 KA		
	100 KA		
breaking capacity maximum short-circuit current (Icu)  • at AC at 240 V rated value	100 kA		
at AC at 400 V rated value	100 kA		
at AC at 500 V rated value      at AC at 500 V rated value	100 KA		
at AC at 500 V rated value     at AC at 690 V rated value	100 KA		
response value current of instantaneous short-circuit trip	5.2 A		
unit	5.2 A		
UL/CSA ratings			
full-load current (FLA) for 3-phase AC motor			
<ul> <li>at 480 V rated value</li> </ul>	0.4 A		
• at 600 V rated value	0.4 A		
Short-circuit protection			
product function short circuit protection	Yes		
design of the short-circuit trip	magnetic		
Installation/ mounting/ dimensions			
mounting position	any		
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715		
height	97 mm		
width	45 mm		
depth	97 mm		
required spacing			
• for grounded parts at 400 V			
— downwards	30 mm		
— upwards	30 mm		
— at the side	9 mm		
• for live parts at 400 V	•		
— downwards	30 mm		
— upwards	30 mm		
— upwards — at the side	9 mm		
at the olde	V		



General Product Approval		For use in hazardous locations
Certificates/ approvals		
display version for switching status	Handle	
protection class IP on the front acc. to IEC 60529	IP00	
T1 value for proof test interval or service life acc. to IEC 61508	10 y	
with low demand rate acc. to SN 31920	50 FIT	
failure rate [FIT]		
with high demand rate acc. to SN 31920	50 %	
with low demand rate acc. to SN 31920	50 %	
proportion of dangerous failures		
with high demand rate acc. to SN 31920	5 000	
B10 value		
Safety related data		
of the auxiliary and control contacts	M3	
• for main contacts	M3	
design of the thread of the connection screw	C.L.J Z GITG I OZIGITY Z	
size of the screwdriver tip	Size 2 and Pozidriv 2	
outer diameter of the usable ring cable lug maximum design of screwdriver shaft	7.5 mm  Diameter 5 to 6 mm	
— for auxiliary contacts for ring cable lug	7.5 mm	
— for main contacts for ring cable lug	0.8 1.2 N·m 1.2 0.8 N·m	
tightening torque  for main contracts for ring cable lug	0.9 1.2 N.m	
circuit		
arrangement of electrical connectors for main current	Top and bottom	
for auxiliary and control circuit	ring cable connection	
for main current circuit	Ring cable lug connection	
type of electrical connection		
product function removable terminal for auxiliary and control circuit	No	
Connections/ Terminals	No	
	0 mm	
— at the side — forwards	30 mm	
— backwards	0 mm	
— upwards	50 mm	
— downwards	50 mm	
• for live parts at 690 V	50	
— forwards	0 mm	
— at the side	30 mm	
— backwards	0 mm	
— upwards	50 mm	
— downwards	50 mm	
<ul> <li>for grounded parts at 690 V</li> </ul>		
— at the side	9 mm	
— upwards	30 mm	
— downwards	30 mm	
<ul> <li>for live parts at 500 V</li> </ul>		
— at the side	9 mm	
— upwards	30 mm	
— downwards	30 mm	
• for grounded parts at 500 V		













For use in hazardous locations

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping





**Miscellaneous** 

**Special Test Certificate** 

Type Test Certificates/Test Report



## Marine / Shipping













other

Railway

Confirmation



Confirmation

Vibration and Shock

## **Further information**

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2011-0EA40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-0EA40

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0EA40

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2011-0EA40&lang=en

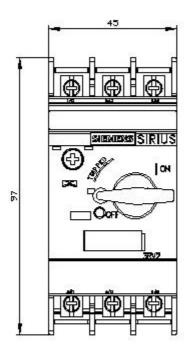
Characteristic: Tripping characteristics, I2t, Let-through current

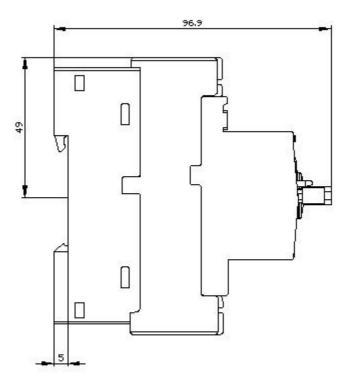
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0EA40/char

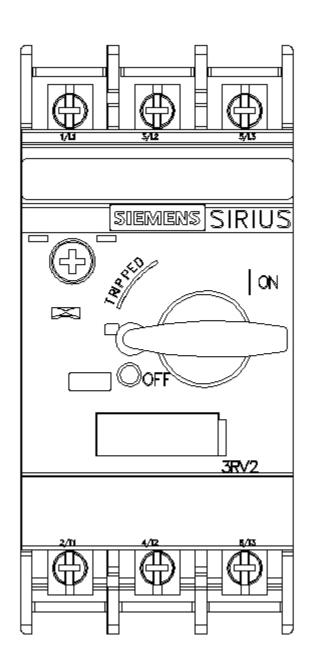
Further characteristics (e.g. electrical endurance, switching frequency)

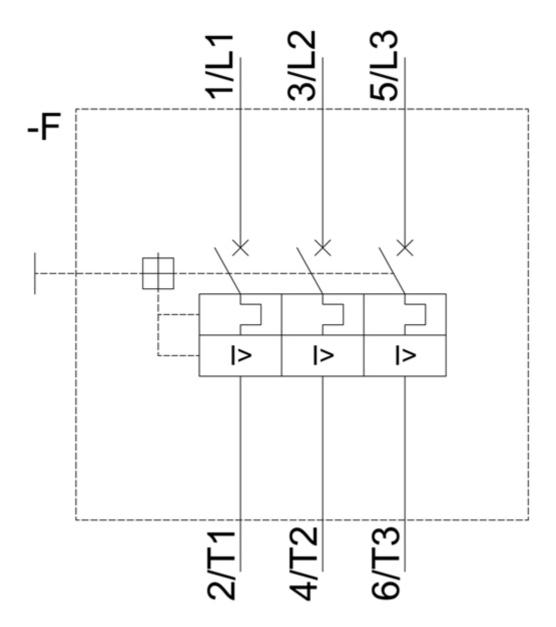
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-0EA40&objecttype=14&gridview=view1











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