PuroAire
by Quartz



Elite series of Cassette Fan Coils

Engineered for Pure Performance

HERONHILL
Conditioned environments since 1997

The next generation Cassette, Engineered for Pure Performance

UK Manufactured by Quartz



Who We Are

Quartz, a division of TEV, has a long pedigree in the HVAC sector supplying product to the UK and European markets for over 50 years. Our new manufacturing plant is ideally located for national distribution, in West Yorkshire. Boasting excellent facilities, customers are welcome to visit the production facility, as well as Quartz's thermal and acoustic testing facilities.

Achieved through close attention to market needs, design detail and material specification, Quartz relies on its strong positioning, industry experience and high volume production to deliver quality products to the market.

Quartz is a brand built by engineers and now this team brings you their next generation of fan coils, PuroAire units not only offer energy efficiency and performance, everyone is fitted with Quartz Shield, our own Bi-Polar Ionisation unit, so the focus is on indoor air quality too.

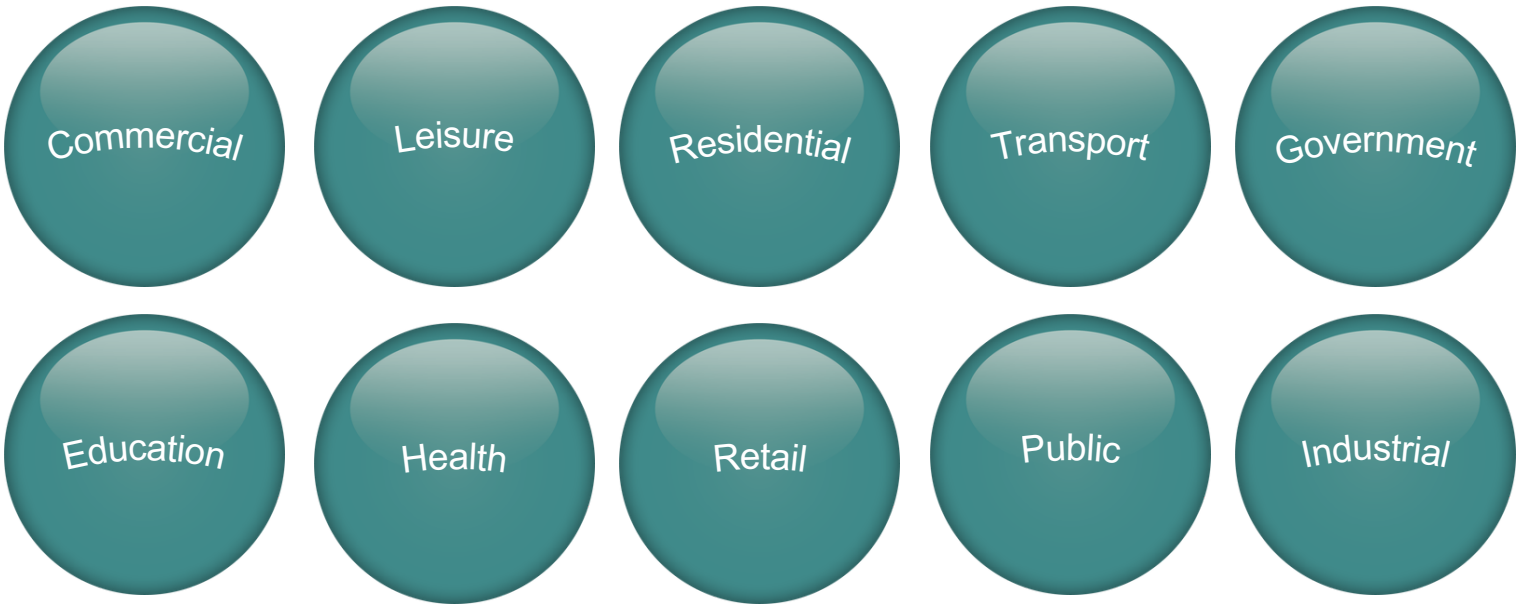
Our flagship unit the, PuroAire$_{\text{Elite}}$, is a unit intended for the modern world we live in, low energy, architectural and designed to work with heat pumps. Our product can offer a packaged solution to include controls and valves, but can also offer the flexibility to be factory fitted with components that are in line with the rest of the project.

Innovative designs and outstanding build quality mean that your project is in safe hands. Quartz continues to be specified for many prestigious projects, where clients, architects and M&E consultants have chosen Quartz for the quality, performance and features that the products offers.

A MARKET LEADER IN CHILLED WATER PRODUCTS DESIGNED TO MEET ALL APPLICATIONS

Who We Work With

Quartz PuroAire$_{Elite}$ represent the next generation of HVAC solutions, engineered for efficiency, built for reliability, and designed with comfort in mind. Whether for commercial buildings, hospitality, healthcare, or residential environments our Fancoils deliver exceptional indoor climate control with whisper-quiet operation and outstanding energy performance.



PuroAire$_{Elite}$ (2 Sizes available)

The PuroAire$_{Elite}$ range of Fan coils are engineered to complement modern design aesthetics while delivering high-efficiency performance and whisper-quiet comfort. Our units integrate seamlessly into a wide range of architectural environments, from luxury residences and boutique hotels to commercial spaces and institutional buildings.

6 models with cooling up to 6.2kW

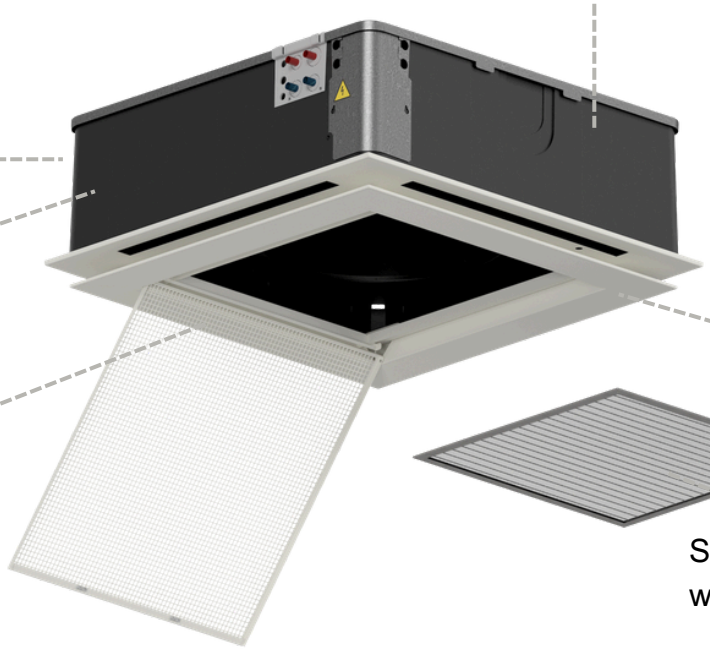
Heat pump optimised heating outputs up to 9.3kW

Optimised heat exchanger compatible with heat pumps

Quiet Operations

4 Pipe as Standard

Bi-Polar Quartz Shield



Sleek, Architectural Fascia

Stainless steel washable filter

Simple maintenance cleaning and disinfection, ideal for medical applications

DESIGNED AND BUILT IN THE UK

QUARTZ 3 Year PARTS WARRANTY AS STANDARD

QUARTZ SHIELD

Key Features

- Low Energy & Zero External Resistance
- UK Manufactured – Low Embodied Carbon
- Standard Quartz Shield Bi-Polar Ionisation
- Low Hydraulic Pressures
- Standard Lead Time 4 Weeks
- Heat Pump Compatible
- Long Life Washable Stainless Steel Filter
- One piece chassis – Fresh air inlet + branch duct connections available
- Valve options available including fully fitted Compact PICV
- High Performance EC/DC Fans Producing Long Air Throws
- Architectural fascia with 4-way discharge available in standard RAL9016, with other options upon request.
- Easy Install & Maintenance – Serviceable items accessible from below

With sleek profiles and compact footprints the PuroAire$_{Elite}$ gives architects the freedom to design without compromise, ensuring our systems enhance rather than interrupt the spatial experience



Performance Output PuroAire 600 & 875 Elite

Standard UK conditions

Model	Speed	Airflow (l/s)	Cooling (kW)		Heating (kW)	Power (W)	SFP (W/l/s)	NR	FLC (A)	SC (A)
			Sensible	Total	Total					
600-45	Whisper	75	0.9	0.9	1.5	2	0.02	20	0.39	1.2
	Low	100	1.1	1.1	1.9	5	0.05	25		
	Low-Med	125	1.4	1.4	2.3	9	0.07	30		
	Med	150	1.6	1.6	2.6	15	0.1	33		
	Med-High	200	2.0	2.0	3.0	32	0.16	40		
	High	250	2.3	2.4	3.4	55	0.22	45		
600-65	Whisper	75	1.0	1.1	1.5	2	0.02	20		
	Low	100	1.3	1.4	1.9	5	0.05	25		
	Low-Med	125	1.7	1.8	2.3	10	0.08	30		
	Med	150	1.9	2.1	2.6	17	0.11	33		
	Med-High	200	2.4	2.6	3.0	36	0.18	40		
	High	250	2.8	3.0	3.4	63	0.25	45		
600-75	Whisper	75	1.1	1.3	2.0	2	0.02	20		
	Low	100	1.4	1.6	2.6	5	0.05	25		
	Low-Med	125	1.7	1.9	3.2	10	0.08	30		
	Med	150	2.1	2.3	3.7	18	0.12	33		
	Med-High	200	2.7	2.9	4.5	38	0.19	40		
	High	250	3.2	3.4	5.2	65	0.26	45		
875-95	Whisper	100	0.9	1.0	1.9	1	0.01	20	0.6	1.8
	Low	140	1.3	1.3	2.6	1	0.01	24		
	Low-Med	200	1.7	1.7	3.4	4	0.02	27		
	Med	300	2.3	2.4	4.5	12	0.04	33		
	Med-High	400	2.8	2.9	5.3	28	0.07	37		
	High	540	3.3	3.4	6.2	59	0.11	43		
875-135	Whisper	100	1.3	1.5	1.9	1	0.01	20		
	Low	140	1.7	1.8	2.6	1	0.01	24		
	Low-Med	200	2.4	2.5	3.4	4	0.02	27		
	Med	300	3.4	3.7	4.5	12	0.04	33		
	Med-High	400	4.3	4.6	5.3	28	0.07	37		
	High	540	5.3	5.6	6.2	65	0.12	43		
875-155	Whisper	100	1.5	1.7	2.6	1	0.01	20		
	Low	140	1.9	2.1	3.5	1	0.01	24		
	Low-Med	200	2.7	2.9	4.6	6	0.03	27		
	Med	300	3.9	4.3	6.4	15	0.05	33		
	Med-High	400	5.0	5.4	7.7	32	0.08	37		
	High	540	6.2	6.7	9.3	76	0.14	43		

Cooling

Entering air temperature = 23°C db / 50%
Entering water temperature = 6°C
Leaving water temperature = 12°C

Heating

Entering air temperature = 21°C
Entering water temperature = 50°C
Leaving water temperature = 40°C

Performance Output PuroAire 600 & 875 Elite

Standard EUROVENT conditions

Model	Speed	Airflow (l/s)	Cooling (kW)		Heating (kW)	Power (W)	SFP (W/l/s)	NR	FLC (A)	SC (A)
			Sensible	Total	Total					
600-45	Whisper	75	1.2	1.5	1.5	2	0.02	20	0.39	1.2
	Low	100	1.6	2.0	1.9	5	0.05	25		
	Low-Med	125	2.0	2.4	2.3	9	0.07	30		
	Med	150	2.3	2.8	2.6	15	0.1	33		
	Med-High	200	2.9	3.4	3.1	32	0.16	40		
	High	250	3.3	3.9	3.5	55	0.22	45		
600-65	Whisper	75	1.4	1.8	1.5	2	0.02	20		
	Low	100	1.9	2.4	1.9	5	0.05	25		
	Low-Med	125	2.3	3.0	2.3	10	0.08	30		
	Med	150	2.7	3.5	2.6	17	0.11	33		
	Med-High	200	3.3	4.3	3.1	36	0.18	40		
	High	250	3.9	5.0	3.5	63	0.25	45		
600-75	Whisper	75	1.5	2.0	2.0	2	0.02	20		
	Low	100	1.9	2.6	2.6	5	0.05	25		
	Low-Med	125	2.4	3.3	3.1	10	0.08	30		
	Med	150	2.9	3.8	3.6	18	0.12	33		
	Med-High	200	3.7	4.8	4.5	38	0.19	40		
	High	250	4.4	5.7	5.2	65	0.26	45		
875-95	Whisper	100	1.4	1.7	2.0	1	0.01	20	0.6	1.8
	Low	140	1.8	2.3	2.6	1	0.01	24		
	Low-Med	200	2.3	3.0	3.3	4	0.02	27		
	Med	300	3.2	4.0	4.5	12	0.04	33		
	Med-High	400	3.7	4.6	5.3	28	0.07	37		
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875-135	Whisper	100	1.8	2.3	2.0	1	0.01	20		
	Low	140	2.4	3.2	2.6	1	0.01	24		
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875-155	Whisper	100	1.9	2.6	2.6	1	0.01	20		
	Low	140	2.7	3.6	3.4	1	0.01	24		
	Low-Med	200	3.8	5.0	4.6	6	0.03	27		
	Med	300	5.4	7.1	6.3	15	0.05	33		
	Med-High	400	6.8	8.7	7.7	32	0.08	37		
	High	540	8.5	10.6	9.3	76	0.14	43		

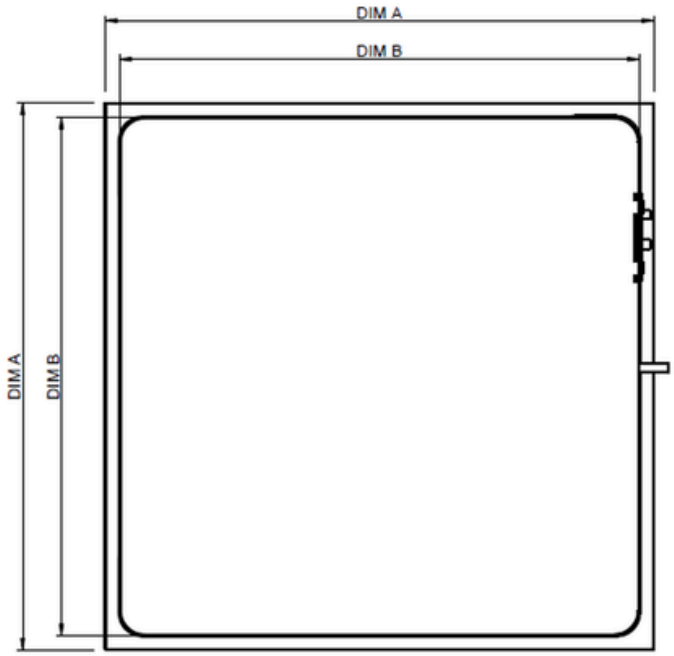
Cooling

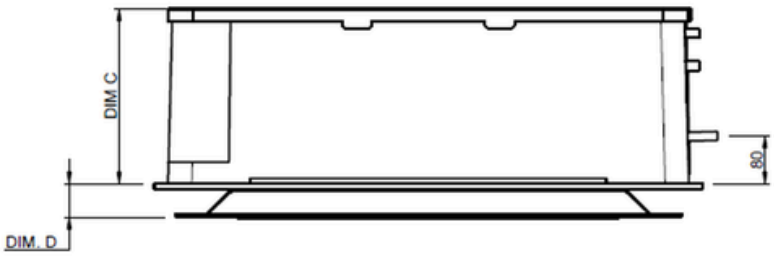
Entering air temperature = 27°C db / 19°C wb
Entering water temperature = 7°C
Leaving water temperature = 12°C

Heating

Entering air temperature = 20°C
Entering water temperature = 45°C
Leaving water temperature = 40°C

Model Dimension

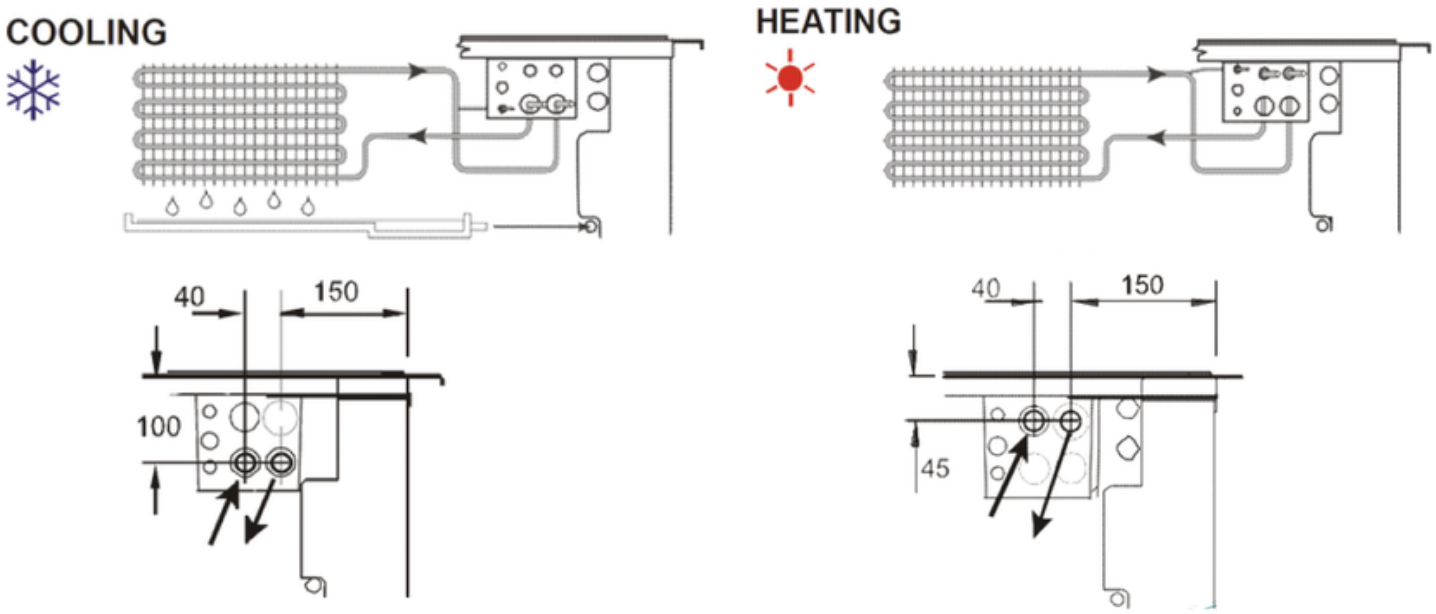




Model	A	B	C	D	Max Weight Kg
PuroAire ELITE 600	622	580	306	40	28
PuroAire ELITE 875	923	880	314	60	46

All dimensions in mm
Net weight including Fascia

Hydraulic Connections



Pipe Sizes (mm)

Model	Cooling	Heating
PuroAire ELITE 600	15	15
PuroAire ELITE 875	22	15

Qualification of NR predictions

N.R. guide figures quoted in the schedule are intended to show the levels which may be expected in a typical office environment.
The room effect is calculated using the Schultz method and the resultant NR calculation requires that the following conditions be met.

- Room sizes are based on a cooling load of 120W/m2 with a chilled water flow temperature of 6°C and a return of 12°C
- Rooms should be carpeted, with no more than 20% glazed or highly reflective surfaces
- In open plan areas units should be mounted not less than 6m apart
- Height from the floor to the unit fascia is not less than 2.5m

The foregoing should ensure that the ‘guide’ NR Levels are met when measured at 2.5m from the nearest unit.

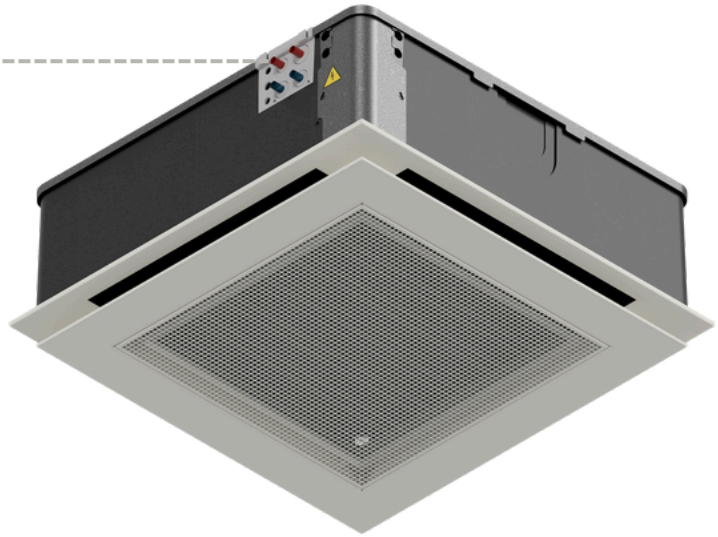


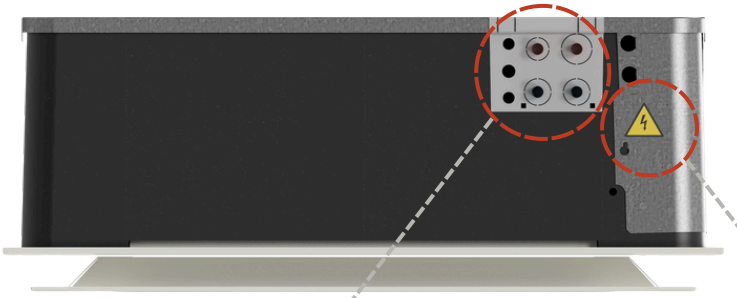
Our Environmental and Acoustic purpose built test facilities ensure our products are designed and optimised for the next generation building

Access Requirements

Recommended access requirements needed for PuroAire$_{Elite}$ Cassettes

600mm x 600mm minimum access on all size units





Access will be needed to maintain any valves and actuators

Access will be needed for any electrical / control connections

Maintenance

All maintenance checks should be carried out in accordance with SFG20

Inspection	3 Months	6 Months	12 Months
Visually inspect unit for damage, corrosion, and firmness of fixings		X	
Ensure condensate pump is operational and able to discharge condensate to the drainage pipework. If gravity fed must also check correct fall to allow full drainage		X	
Permanent filters to be cleaned and retrofitted. In a very dirty atmosphere, the filters will need cleaning more regularly	X	X	
Disposable filters to be withdraw and clean (or replace if necessary) filter media from dirty side with vacuum cleaner	X	X	
Check airflow is normal at correct speed setting, check unit operates without undue noise or vibration and check operation of controller		X	
CHW/HW control valves. Check operation and check that any connections including flexible hoses are in good condition (if fitted)		X	
Cooling/Heating heat exchanger should be checked for leaks and cleaned by applying a jet of air to the leaving face. All connections headers, air vents and drains should be checked			X
If strainers are fitted to control valves of FCU these should be checked, cleaned, seals checked and replaced if necessary			X
Check the fan blades/housings and clean, if necessary, with a soft brush or vacuum- check for shaft lift and clean interior of unit in fan section and discharge section			X
Electrical connections in enclosure are to be checked for tightness, visually inspect cable insulation. Check operation of thermostats if necessary. Earth Continuity and Insulation resistance should also be checked			X
Wall thermostats should be checked to ensure they operate when moved			X

X – Should be 3-month interval if in a dirty atmosphere

Quartz Shield
Built in Virus Protection



Quartz SHIELD now provides the solution by significantly improving indoor air quality (IAQ) in buildings through a wide range of product innovations.

- Inhibits the transmission of viruses
- Inhibits the growth of bacteria, mould and allergens
- Kills pollutants within the room
- Oxidises odorous gasses
- Balances static electricity
- Superior performance over air filtration systems
- Reduction of cleaning chemical use
- Safeguarding employees in the workplace
- Promoting well-being to employees
- Reduced sick pay and loss of resource
- Reduced cleaning costs
- Can be retro-fitted to existing installer fan coils

Employer confidence in protecting the workforce in the workplace has never been more important.

The capability to destroy viruses, bacteria and mould, can now be realised through the widespread deployment of ‘Bipolar ionisation’ technology.

QUARTZ SHIELD
BUILT-IN VIRUS PROTECTION



Total peace of mind, built in Britain, built to last.



Notes

Notes

Continued Professional Development

Fan Coils

- Air Conditioning and Fan Coil Units
- Types of Fan Coil Units
- F Gas Regulations
- Design Parameters

Acoustics

- Sound Pressure vs Sound Power
- NR Qualifications
- Acoustic Measurements
- Absorption

Quartz Shield

- What is Quartz Shield
- How does it work
- Testing and Results
- Case Studies

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