## **Freya** Cinema at home Series





Barco Residential's Freya projector is based on Barco's known Series 4 platform. Freya is also the wife of Odin, the most powerful god in Northern mythology and the mother of Balder. That alone should be enough to understand the power of this projector.

The core of the projector is using our known Pulse platform, combining that with Alchemy and you get a very smart and easy to use projector. Freya is exclusively created for high-end home theaters, with more contrast and a wider color gamut, at the level of our reference Thor projector. It features the latest in native 4K DLP® chipsets from Texas Instruments and the acclaimed Barco Alchemy Integrated Cinema Media Processor (ICMP)



# Freya

### Key features

#### Cinema at home

As the opening credits roll, the audience is transported into an unexpected world of superior movie realism, embraced by ultimate image quality and immersive sound. This compelling universe is created by Barco's Freya residential projector.

#### High-end simplicity

Freya combines media server functionalities with the latest in cinema processing electronics: Barco Alchemy Integrated Cinema Media Processor (ICMP) with 2 x HDMI inputs (2.0a and HDCP 2.2).

Freya offers advanced processing power combined with media server functionality, integrated playback and content management. Barco Alchemy enables showings of 4K 2D content at 60fps and 4K 3D at 30fps. Reducing the required hardware makes installation simpler and makes the system more reliable and easier to use. Freya is also the first DCI projector that is certified for risk group 2.

#### 4K at the highest level

Freya has inherited a lot from our award winning Pulse platform and combined with the Alchemy ICMP we have created a smart and powerful projector. A dedicated 4K (4 x 3Gb/s) input board enables playback of native 4K content. Thanks to its unique RGB laser illumination it creates Barco's renowned DCI-compliant image quality with outstanding uniformity.

Freya smartly manages its power consumption of only 8 Im/W. In eco-mode it consumes even less than 3 Watt.

#### Best image quality

The Smart Laser projectors show improved image quality on your dedicated screen and are fully compatible with popular 3D systems. Additionally, the projector's light output remains constant over time when used according to recommended practices.

Barco's Residential's Cinema at home Freya offers even higher contrast, 5,500:1 full field / 1000:1 ANSI contrast.

## Technical specifications

Native resolution	4096 x 2160 px
Display technology	Native 4K cinema at home DLP® projector
Housing	integrated cooling design and patented sealed optical assembly
Image device technology	3 x 0.98" DMD
Input compatibility	up to full DCI level 4K
Light output	7500 lumens
Color Gamut	DCI P3 (98.5% of Rec.2020; when measured in xy-color coordinates)
Contrast	5,500:1 Full field / 1000:1 ANSI (with all lenses)
Light Engine	RGB Laser
Lenses	Type C lenses: TLD+ VHC short throw LENS 1.09 -1.40 R98620053* TLD+ VHC standard throw 1.28 - 1.74:1 R98620103* Type B lenses: Zoom Lens 1.38" VHC 4K: 1.58 - 2.41 (motorized) R98565253* Zoom Lens 1.38" VHC 4K: 1.89 - 2.6 (motorized) R98565263* Zoom Lens 1.38" VHC 4K: 2.0 - 2.94 (motorized) R98565273* Zoom Lens 1.38" VHC 4K: 2.3 - 3.65 (motorized) R98565283* Zoom Lens 1.38" VHC 4K: 2.8 - 4.69 (motorized) R98565293*
Lens shift range	Up to 55% for all B lenses up and down Up to 50% for the two C lens alternatives (down) and 21% (up) (Left right) 30% for B lens alternatives and 10% for C Lenses.
Inputs	2 x HDMI2.0a (up to 4K 2D 60fps) 2 x 3G-SDI inputs 16 x AES/EBU audio channels (2x RJ45) 8 x GPI, 8x GPO (4 x RJ45) 2 x Gbe for content connectivity & ingest 2 x front-access USB 3.0 for fast ingest & 2 x front-access USB 2.0
	DCI 4K 2D up to 60fps & DCI 4K 3D (24 or 30 fps per eye) DCI High Frame Rates 2K 3D up to 120fps (60fps per eye) JPEG 2000, up to 625Mbps and MPEG-2 (4:2:0 and 4:2:2 up to 60fps)
Control	DCI 4K 2D up to 60fps & DCI 4K 3D (24 or 30 fps per eye) DCI High Frame Rates 2K 3D up to 120fps (60fps per eye)
Control 3D	DCI 4K 2D up to 60fps & DCI 4K 3D (24 or 30 fps per eye) DCI High Frame Rates 2K 3D up to 120fps (60fps per eye) JPEG 2000, up to 625Mbps and MPEG-2 (4:2:0 and 4:2:2 up to 60fps)
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3D	DCI 4K 2D up to 60fps & DCI 4K 3D (24 or 30 fps per eye) DCI High Frame Rates 2K 3D up to 120fps (60fps per eye) JPEG 2000, up to 625Mbps and MPEG-2 (4:2:0 and 4:2:2 up to 60fps) Ethernet, 8x GPI0, Serial RS232 Active glasses systems and polarization systems on silver screens are
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3D Dimensions Weight Power requirements Power consumption	DCI 4K 2D up to 60fps & DCI 4K 3D (24 or 30 fps per eye) DCI High Frame Rates 2K 3D up to 120fps (60fps per eye) JPEG 2000, up to 625Mbps and MPEG-2 (4:2:0 and 4:2:2 up to 60fps) Ethernet, 8x GPIO, Serial RS232 Active glasses systems and polarization systems on silver screens are supported. Color separation systems are not supported. Projector incl feet: 710 x 1070 x 547 mm/ 27,95 x 42,13 x 21,54 inches (710 x 1132x 547 mm/ 27,95 x 44.55x 21,54 inches with B-lensholder) 90kg / 198.5lbs Single phase: 200-240 VAC, L1+N+PE, 9A, 50-60hz (Y) Three Phase: 200-240 VAC, L1+N+PE, 8A 50/60hz Three Phase: 200-240V, 3W+PE 8A 50/60hz
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3D Dimensions Weight Power requirements Power consumption BTU per Hour Exhaust airflow	DCI 4K 2D up to 60fps & DCI 4K 3D (24 or 30 fps per eye) DCI High Frame Rates 2K 3D up to 120fps (60fps per eye) JPEG 2000, up to 625Mbps and MPEG-2 (4:2:0 and 4:2:2 up to 60fps) Ethernet, 8x GPIO, Serial RS232 Active glasses systems and polarization systems on silver screens are supported. Color separation systems are not supported. Projector incl feet: 710 x 1070 x 547 mm/ 27,95 x 42,13 x 21,54 inches (710 x 1132x 547 mm/ 27,95 x 44.55x 21,54 inches with B-lensholder) 90kg / 198.5lbs Single phase: 200-240 VAC, L1+N+PE, 9A, 50-60hz (Y) Three Phase: 200-240 VAC, L1+N+PE, 8A 50/60hz Three Phase: 200-240V, 3W+PE 8A 50/60hz 1.4kW (3W in Eco mode) 4600 BTU/h
3D Dimensions Weight Power requirements Power consumption BTU per Hour Exhaust airflow Noise level (typical at 25°C/77°F)	DCI 4K 2D up to 60fps & DCI 4K 3D (24 or 30 fps per eye) DCI High Frame Rates 2K 3D up to 120fps (60fps per eye) JPEG 2000, up to 625Mbps and MPEG-2 (4:2:0 and 4:2:2 up to 60fps) Ethernet, 8x GPIO, Serial RS232 Active glasses systems and polarization systems on silver screens are supported. Color separation systems are not supported. Projector incl feet: 710 x 1070 x 547 mm/ 27,95 x 42,13 x 21,54 inches (710 x 1132x 547 mm/ 27,95 x 44.55x 21,54 inches with B-lensholder) 90kg / 198.5lbs Single phase: 200-240 VAC, L1+N+PE, 9A, 50-60hz (Y) Three Phase: 200-240 VAC, L1+N+PE, 8A 50/60hz Three Phase: 200-240V, 3W+PE 8A 50/60hz 1.4kW (3W in Eco mode) 4600 BTU/h 300 CFM
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3D Dimensions Weight Power requirements Power consumption BTU per Hour Exhaust airflow Noise level (typical at 25°C/77°F) Operating temperature	DCI 4K 2D up to 60fps & DCI 4K 3D (24 or 30 fps per eye) DCI High Frame Rates 2K 3D up to 120fps (60fps per eye) JPEG 2000, up to 625Mbps and MPEG-2 (4:2:0 and 4:2:2 up to 60fps) Ethernet, 8x GPIO, Serial RS232 Active glasses systems and polarization systems on silver screens are supported. Color separation systems are not supported. Projector incl feet: 710 x 1070 x 547 mm/ 27,95 x 42,13 x 21,54 inches (710 x 1132x 547 mm/ 27,95 x 44.55x 21,54 inches with B-lensholder) 90kg / 198.5lbs Single phase: 200-240 VAC, L1+N+PE, 9A, 50-60hz (Y) Three Phase: 200-240 VAC, L1+N+PE, 8A 50/60hz 1.4kW (3W in Eco mode) 4600 BTU/h 300 CFM 50dB(A) @1m and 25°C ambient temperature 10 - 40°C (104F) Max. (at Sea Level)
3D Dimensions Weight Power requirements Power consumption BTU per Hour Exhaust airflow Noise level (typical at 25°C/77°F) Operating temperature Operating humidity	OCDCI 4K 2D up to 60fps & DCI 4K 3D (24 or 30 fps per eye)DCI High Frame Rates 2K 3D up to 120fps (60fps per eye)JPEG 2000, up to 625Mbps and MPEG-2 (4:2:0 and 4:2:2 up to 60fps)Ethernet, 8x GPIO, Serial RS232Active glasses systems and polarization systems on silver screens are supported. Color separation systems are not supported.Projector incl feet: 710 x 1070 x 547 mm/ 27,95 x 42,13 x 21,54 inches (710 x 1132x 547 mm/ 27,95 x 44.55x 21,54 inches with B-lensholder)90kg / 198.5lbsSingle phase: 200-240 VAC, L1+N+PE, 9A, 50-60hz (Y)Three Phase: 200-240 VAC, L1+N+PE, 8A 50/60hz1.4kW (3W in Eco mode)4600 BTU/h300 CFM50dB(A) @1m and 25°C ambient temperature10 - 40°C (104F) Max. (at Sea Level)20 - 80% Relative Humidity
3D Dimensions Weight Power requirements Power consumption BTU per Hour Exhaust airflow Noise level (typical at 25°C/77°F) Operating temperature Operating humidity Installation	DCI 4K 2D up to 60fps & DCI 4K 3D (24 or 30 fps per eye) DCI High Frame Rates 2K 3D up to 120fps (60fps per eye) JPEG 2000, up to 625Mbps and MPEG-2 (4:2:0 and 4:2:2 up to 60fps) Ethernet, 8x GPIO, Serial RS232 Active glasses systems and polarization systems on silver screens are supported. Color separation systems are not supported. Projector incl feet: 710 x 1070 x 547 mm/ 27,95 x 42,13 x 21,54 inches (710 x 1132x 547 mm/ 27,95 x 44.55x 21,54 inches with B-lensholder) 90kg / 198.5lbs Single phase: 200-240 VAC, L1+N+PE, 9A, 50-60hz (Y) Three Phase: 200-240 VAC, L1+N+PE, 9A, 50-60hz Three Phase: 200-240V, 3W+PE 8A 50/60hz 1.4kW (3W in Eco mode) 4600 BTU/h 300 CFM 50dB(A) @1m and 25°C ambient temperature 10 - 40°C (104F) Max. (at Sea Level) 20 - 80% Relative Humidity Desktop front

\*All lens throw ratio's are +/- 5%



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CINEMA AT HOME