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).
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 lm/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 - 1.741 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**

- Ethernet, 8x GPIO, Serial RS232

**3D**

Active glasses systems and polarization systems on silver screens are supported. Color separation systems are not supported.

**Dimensions**

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)

**Weight**

90kg / 198.5lbs

**Power requirements**

- Single phase: 200-240 VAC, L1+N+PE, 9A, 50-60hz (Y)
- Three Phase: 200-240 / 346-415V, 3W+N+PE, 8A 50/60hz
- Three Phase: 200-240, 3W+PE 8A 50/60hz

**Power consumption**

1.4kW (3W in Eco mode)

**BTU per Hour**

4600 BTU/h

**Exhaust airflow**

300 CFM

**Noise level (typical at 25°C/77°F)**

50dB(A) @ 1m and 25°C ambient temperature

**Operating temperature**

10 - 40°C (104°F) Max. (at Sea Level)

**Operating humidity**

20 - 80% Relative Humidity

**Installation**

Desktop front

**Warranty**

Limited 3 years parts and labor.

**Safety requirements**

- Risk Group 2 up to throw of 2.1(EUR) / 1.8(USA) - Risk Group 3 above.
- Lifetime 40,000 hours

*All lens throw ratios are +/- 5%