

# The Barco Galaxy Family

## Classic

GALAXY 7 Classic+

- 7000 / 4650 lumens
- 1600:1

## High Brightness

GALAXY 12 HB+

- 12000 / 9000 lumens
- 1600:1 / 1800:1



## Stereo dedicated 3-chip DLP™ projectors with built-in color matching and WARP™ predistortion



The Barco GALAXY family has a proven record for active and passive stereo technology. It is the only 3-chip DLP™ projector offering the unrivaled platform for Infitec+™, the superior stereo separation technology combining high contrast with excellent stereo separation. These stereo projectors are also available in mono version.

- SXGA+ resolution (1400x1050)
- 4:3 aspect ratio: compatible with all widely used resolutions
- Built-in STEREO-CREATOR™, including DVI sources
- I-Blend™ supports up to three channels



**BARCO**

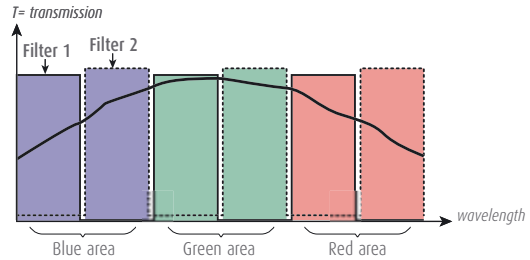
Visibly yours

# Unrivaled stereo separation

Barco's optimized Infitec+™  
Full freedom of motion. No ghosting



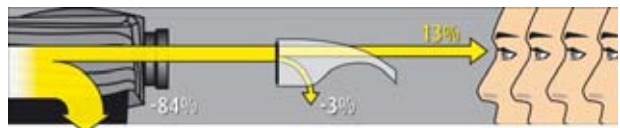
Projection on standard screen, no need for non-depolarizing screen



Two optical filters (illustrated by a thick and a dotted line) split the color spectrum in two parts: one for the left and one for the right eye.

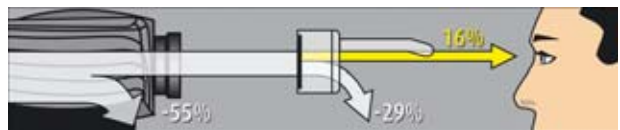
Barco positioned the Infitec+™ filters at the ideal location inside its DLP™ and LCD projectors. The matching Infitec+™ filters in the pair of Infitec+™ glasses make sure the correct information passes through to the corresponding eye.

**Active Infitec+™** achieves its optimal performance with 3-chip DLP™, **an exclusive Barco development**. Infitec+™ is completely free of flickering.



GALAXY with Active Infitec+™: 13% overall efficiency

**GALAXY with DLP™ active stereo:** Extra fast refresh rate (118 Hz) allows for high-resolution active stereo with minimal flicker.



GALAXY with DLP™ active stereo: 16% overall efficiency

**Barco GALAXY with passive circular or linear polarization.** Especially suited for stereo presentation to large audiences. Different brightness versions depending on room size and environmental lighting conditions.

## Barco Galaxy family... One consistent projection platform

Two choices for optimum performance



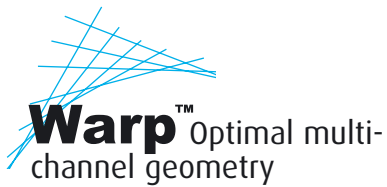
### Classic

- GALAXY 7 Classic+
- 7000 ANSI lumens
- 1600:1

### High Brightness

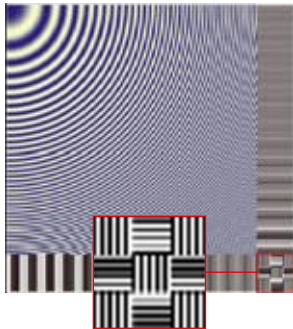
- GALAXY12 HB+
- 12000 ANSI lumens
- 1600:1

# The Barco Galaxy family: Developed for high-

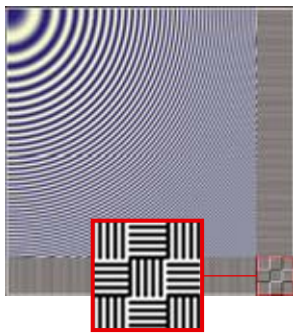


SXGA+ resolution  
(1400x1050)

Enhanced contrast ratio  
from 1600:1 to 1800:1



Test charts scaled using generic bilinear algorithm as used in most common projectors.



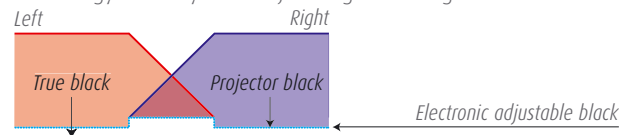
Test charts scaled using WARP™ algorithm with proprietary bi-cubic interpolation to preserve fine detail in the image and suppress resampling artifacts.



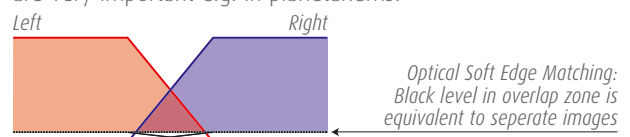
Thanks to WARP™, all GALAXY projectors can be used with flat screens (CADWalls) cylindrical and conical screens (e.g. Decision Centers) and hemispherical screens (Dome constructions, planetariums).

## Optimized Soft Edge Matching

Multi-channel setups of light valve projectors lead to brighter overlap zones. Barco's standard **ELECTRONIC SOFT EDGE MATCHING** technology allows you to adjust edge blending to uniform level.



Barco's proprietary **OPTICAL SOFT EDGE MATCHING** blending maintains the black level in the overlap zone to that of the separate images. This solution is preferred when deep blacks are very important e.g. in planetariums.



# High-resolution, multi-channel visualization

Light output:  
from 4650 to 12000 ANSI lumens

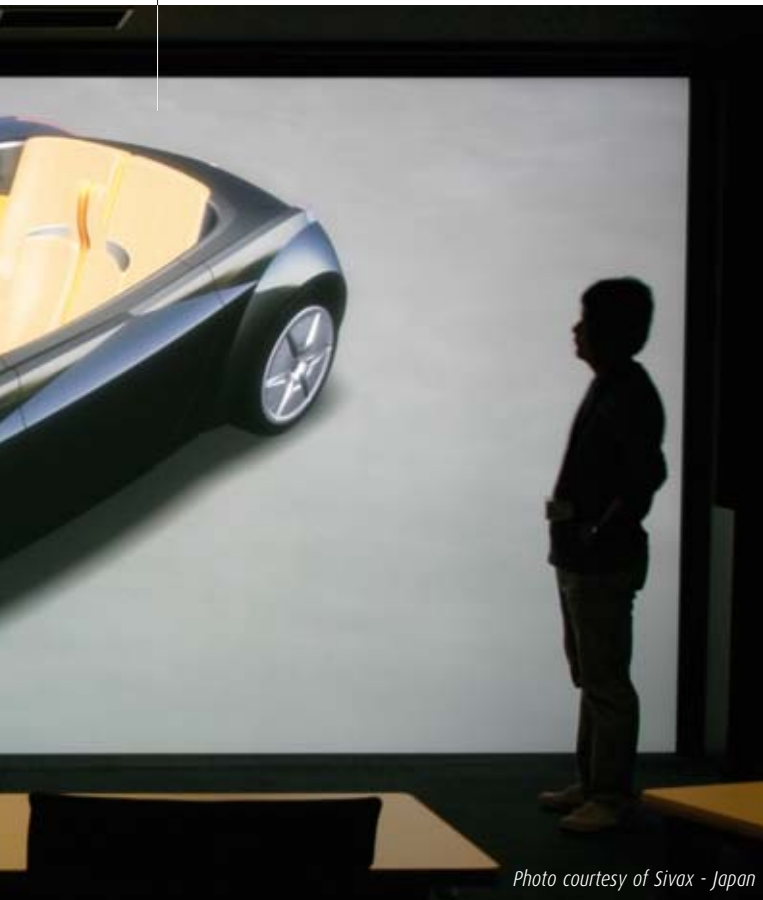


Photo courtesy of Sivax - Japan

## DynaColor™ color matching



DYNACOLOR™ provides the ultimate **electronic fine tuning** to digitally set the primary and secondary color coordinates to obtain perfect color matching across a system. Part of DYNACOLOR™ is the **improved grayscale tracking** controlling the black, white and grays across the different channels of the multi-channel setup.

**Linked DYNACOLOR™** automatically aligns the projector to a common color triangle. This ensures that all projectors in the entire system have exactly the same primary and secondary color coordinates. The system auto-senses the addition of a new projector to a system and updates the common color triangle as required.

*The linked DYNACOLOR™ option is enabled with the linked CLO option*

## Constant Light Output (CLO) option



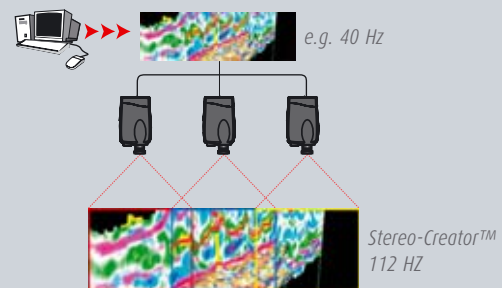
An integrated, calibrated light meter measures and controls the light output. A projector set at e.g. 4000 lumen maintains this brightness over time, independent of lamp life.

- New and used lamps can be mixed, brightness controlled
- Not all lamps need to be changed at the same time

With the **Linked CLO** the brightness of all linked projectors is monitored and adjusted to the lowest value.

# Unique visualization system

## i-Blend™: Three channels with a single PC



A single high-bandwidth PC or workstation output (>170 MHz) generates a wide high-resolution image, that is fed to all projectors. Each then selects the area to display - including overlap - using the i-BLEND™ functionality. Depending on the application, ELECTRONIC or OPTICAL SOFT EDGE MATCHING can be used. The initial low-refresh rate image is upconverted to 112 Hz using the built-in Stereo-Creator.

## GISCU™: Multi-system and multi-site color matching



Barco's Global Inter System Color Uniformity (GISCU™) guarantees that all colors (e.g. sapphire black metallic on a car) are perfectly matched on all Barco systems, even if located in geographically different sites.



As Barco develops and manufactures all of its system components (projectors, screens, mirrors) in-house, products with almost **identical color gamut** can be selected to obtain optimal color uniformity in a single system and even between various systems.

Barco's **Optcolor™ software tool** calculates optimal common color values for multiple systems. Using DYNACOLOR™ existing color uniformity can then be further enhanced to reach an optimal match between all systems.

A **GISCU™ maintenance contract** covers the multi-system and multi-site color matching, including:

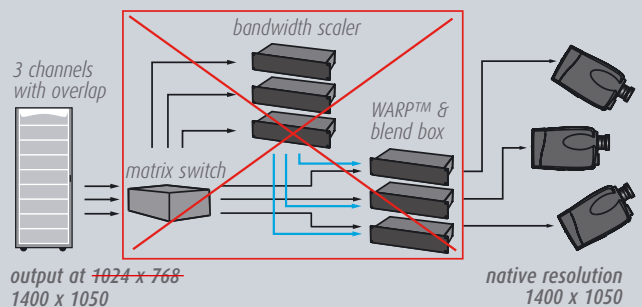
- the Color Gamut Matching of all new systems
- the color matching initialization of all systems
- regular tune-up and color adjustment of all systems

## em upgrades

### Stereo-Creator™: Three channel stereo with a single-pipe IG. Native SXGA+ resolution

The STEREO-CREATOR™ is a market-leading, patented Barco technology, which enables you to drive up to three blended stereo GALAXY projectors in native SXGA+ resolution with a single pipe image generator, without any need for external equipment.

A major advantage for the user is **the GALAXY SXGA+ projectors' direct feed of native SXGA+ high-resolution information**. It contains far more detail while omitting possible artifacts and delays caused by external scalars, warping or blending boxes.



# Specifications

	GALAXY 7 Classic+		GALAXY 12 HB+	
	Normal	Economy	Normal	High Contrast
Light output (ANSI lumens)	7000	4650	12000	9000
Brightness uniformity (for the total screen area)	>90%	>90%	>90%	>80%
Contrast ratio (full white/full black)	1600:1	1600:1	1600:1	1800:1
Lamp power (Xenon illumination system)	1.2 kW	800 W	2.2 kW	2.2 kW
• Typical lifetime	1200 hours	1700 hours	800 hours	800 hours
• Max. lifetime	1500 hours	2000 hours	1200 hours	1200 hours
CLO/Linked CLO	yes		yes	
Power consumption	1700 Watts	1400 Watts	2750 Watts	2750 Watts
Ambient temperature	Max. 35°C	Max. 35°C	Max. 35°C	Max. 35°C
Order number	R9040361		R9040371	

**Digital Micromirror Device™**  
3 high-resolution SXGA+ active stereo DMD™s

**Native resolution**  
1400 x 1050 (SXGA+)

**Standard features**

- Bi-cubical WARP™
- Synchronous and asynchronous active stereo display
- DYNACOLOR™ / Linked DynaColor™
- STEREO-CREATOR™ on RGB and DVI
- i-Blend™ (three-channel)
- Economy mode
- Shutter

**Optional features**

- OPTICAL SOFT EDGE MATCHING (OSEM)
- INFITEC™ (switchable)
- External polarization (linear or circular)
- GISCU™: multi-system and multi-site color matching

**Compatibility**

- Active Stereo capabilities up to SXGA+ at 118 Hz
- WARP 6™ based pixel map processor using bi-cubic interpolation algorithms for advanced geometry correction up to a pixelclock of 205 MHz
- All current video sources in RGB or DVI

**Noise level**

< 60 dBA at 40°C  
< 54 dBA at 20°C

**Fixed analog inputs**



- 1 multifunctional 5-Cable input (high bandwidth) for the connection of:
- RGB analog signals with standard sync (BNC connectors), sync on green or separate sync
  - 1 Stereo sync input (mini din)
  - 2 Stereo sync outputs (coax)
  - 1 DVI input

**Communication**

- RS232 or RS422 loop-through input (D9-connector) for PC-based projector control
- Communication input (D9 connector) for peripherals

**Lens type**

**Fixed Lens (Manual Focus)**

TLD (0.8:1) HB\* - 9842040      0.75  
TLD+ (1.2:1) - 9840775      1.23

**Motorized Zoom and Focus**

TLD (1.6-2.0:1) HB\* - 9842060      1.5 to 1.8  
TLD (2.0-2.8:1) HB\* - 9842080      1.8 to 2.6  
TLD (2.8-5.0:1) HB\* - 9842100      2.6 to 4.6  
TLD (5.0-8.0:1) HB\* - 9842120      4.6 to 7.3

\* High brightness lens

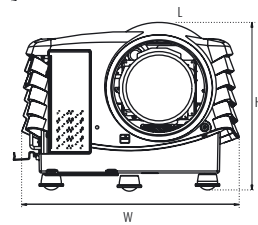
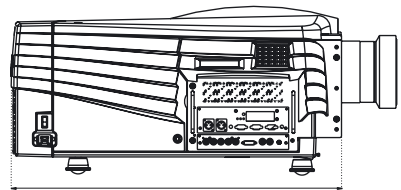
**Shift**

Motorized V shift: up to 100%  
Motorized H shift: up to 65%

**AC Power**

230V (tolerance 180V - 255V)

Weight	lbs	kg
Net weight	124	56
Shipping weight	210	95



Dimensions	Inch	mm
W	20.84	529
L	31.29	795
H	16.05	408

Shipping dimensions	Inch	mm
W	31.50	800
L	47.24	1200
H	29.52	750

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