

15" LCD MARINE HEAD MONITOR

29LM151030

DATASHEET

HIGH QUALITY, RUGGED METAL CONSTRUCTION

This custom monitor has been designed to comply with marine standards. Using a TFT Liquid Crystal Display it is fitted with interface circuits that allow it to be connected easily to standard PC graphics video source.

The TFT LCD has a 15.1" display diagonal with a native resolution of 1024 x 768 pixels (XGA) but it can accept signals of lower resolution, such as VGA and SVGA scaled so that they are displayed full screen.

An advanced brightness dimming technique, with a 1000:1 dynamic range, is employed to meet the demanding needs of night-time operation in maritime environments. The front panel houses all the user controls as well as the Power on Indication, which is embedded in the power button.

The monitor has 3 fans in the sun shield housing, which automatically detect the ambient temperature and switch them ON and OFF accordingly.

SOLUTIONS FOR MARINE APPROVED MONITORS

- > **IP65 sealed housing with protective sunscreen**
The monitor is sealed to IP65 rating for water and dust resistance.
- > **Advanced Brightness Dimming 1000:1**
KME has developed a brightness dimming solution for the marine range which provides smooth consistent dimming to 1000:1.
- > **Certified & Approved**
The marine range is designed to comply with EN 60945 and EN 60950.
- > **Specially designed as a bridge wing monitor**
- > **Inputs**
Special 14W terminal plug.
Power - 15 - 30V DC. AC option available



15" LCD MARINE HEAD MONITOR

29LM151030

DATASHEET

Electrical Description		Mechanical Description	
TFT Characteristics:		Dimensions:	Monitor: 430(w) x 363(h) x 89(d) mm Weight: 9kg
Type:	15" a-Si AM TFT	Input Connectors:	Special 14W terminal plug
Max Resolution:	1024 x 768 pixels		
Active Display Area:	304.1 x 228.1mm	User Controls:	Front Mounted
Response Time:	13ms	Housing:	Aluminium
*Contrast Ratio:	500:1 typical	Sealing:	IP65 on front
*Brightness:	250cd/m ² typical	Approvals	
Viewing Angles (at CR>10):	130° / 130°	ECDIS & Radar Compliance:	
Backlight Life:	50,000 typical	IEC 61174:	Designed to comply
No. Colours:	16.7 million	EMC & Safety:	
Video Signal:	RGB 0.7-1.0Vp-p	EN 60950	Designed to comply
		Marine Communications:	
Signal Sync:	Separate H & V (=ve) TTL or Composite (-ve) TTL or Sync - on - Green (-ve) 0.3V	IEC 60945:	Designed to comply
Synchronisation Range:			
Horizontal scan:	31-75 kHz		
Vertical Scan:	60-75 Hz		
Display modes:	640 x 480 VGA 800 x 600 SVGA 1024 x 768 XGA _(recommended)		
Power Supply:	15 - 30V DC	Part Numbers:	
Power Consumption:	50W (Max)		
Environmental: **Operating Temp:	-15 to +55 °C (IEC 60945 tests)	Ancillaries:	Monitor: 29LM151030
Storage Temp:	-20 to +60 °C		
Operating Humidity:	30% to 90% (non condensing)		
Storage Humidity:	10% to 90% (non condensing)		
Shock:	10g, 11msec ½ sine		
Vibration:	+/-1mm, 2 to 13Hz: 0.7g, 13 to 100Hz		
**Quoted EN60945 test. We do not recommend routine operation at extreme temperatures			
* Brightness and Contrast refer to naked LCD panel			

Due to a policy of continuous product development KME reserves the right to change specifications and descriptions without prior notification. All trademarks acknowledged.

19" LCD MARINE HEAD MONITOR

29LM190003/x

DATASHEET

* The slash number behind the part number refers to the version number. A different TFT panel could be used. Therefore these values may vary.

HIGH QUALITY, RUGGED METAL CONSTRUCTION

Developed primarily for applications where operator view ability is at a premium. Compact design and a versatile mounting system optimises both operator viewing angles and 'Lines Of Sight'. Resolutions up to 1280 x 1024 pixels and PIP can be displayed with superb image quality. The 'Marinised' TFT Monitor is manufactured in full compliance with IACS E10.

Designed to meet the stringent demands of Shock, Vibration, EMC, EMI defined in the IEC60945 International Standard for Maritime Navigation and Radio communications Equipment & Systems. The monitor offers continuity by design for all Navigation and Ship Automation applications.

SOLUTIONS FOR MARINE APPROVED MONITORS

- > **Versatile Display Head (VESA)**
- > **IP65 sealed housing with protective sunscreen**
The front is sealed to IP65 rating for water and dust resistance.
- > **Advanced Deep Dimming 2000:1**
KME has developed a deep dimming solution for the marine range which provides smooth consistent dimming to 2000:1.
- > **Certified & Approved**
The marine range is designed to comply with EN 60945 and EN 60950. In the case of the 17" and 19" monitors some are already certified and approved to these standards.
- > **Inputs**
All monitors have VGA (multi scanning), DVI and PAL.
Power 90-265V AC.



19" LCD MARINE HEAD MONITOR

29LM190003/x

DATASHEET

* The slash number behind the part number refers to the version number. A different TFT panel could be used. Therefore these values may vary.

Electrical Description		Mechanical Description	
TFT Characteristics:		Dimensions:	
Type:	19" a-Si AM TFT	Monitor:	453(W) x 397(H) x 83.9(D) mm
		Weight:	10kg
		Input Connectors:	
		Audio:	2 x Phono
		RGB Signal:	15-pin HD Female D-Type
		Video Signal:	RCA + S-video socket
		RS232 Remote Control:	9-pin Male D-Type
		Power:	3-Pin IEC Male
Max Resolution:	1280 x 1024 pixels	Output Connectors:	
		Video Buffer (Multi-Drop): RS232 Remote Control:	15-pin HD Female D-9-pin Male D-Type
Active Display Area:	376.3 x 301.1mm	User Controls:	
		Front Mounted	
Response Time:	13ms	Housing:	
		Aluminium	
*Contrast Ratio:	500:1 typical	Sealing:	
		IP65 on front	
*Brightness:	250cd/m ² typical	Approvals	
Viewing Angles (at CR>10):	170 ° / 170 °	ECDIS & Radar Compliance:	
Backlight Life:	50,000 typical	IEC 61174:	Designed to comply
No. Colours:	16.7 million	EMC & Safety:	
Video Signal:	RGB 0.7-1.0Vp-p	EN 60950	Designed to comply
Composite Video Inputs:	PAL/NTSC & SECAM with 'Picture In Picture' (PIP) facility	Marine Communications:	
Signal Sync:	Separate H & V (=ve) TTL or Composite (-ve) TTL or Sync - on - Green (-ve) 0.3V	IEC 60945:	Designed to comply
Synchronisation Range:	Horizontal scan: 31-91 kHz Vertical Scan: 60-85 Hz		
Display modes:	640 x 480 VGA 800 x 600 SVGA 1024 x 768 XGA 1280 x 1024 SXGA(recommended)		
Power Supply:	90-265V AC 50/60Hz	Part Numbers:	
Power Consumption:	65 W (Max)		
Environmental: **Operating Temp:	-15 to +55 °C (IEC 60945 tests)	Monitor (Black finish):	29LM190003/1
Storage Temp:	-20 to +60 °C		
Operating Humidity:	30% to 90% (non condensing)		
Storage Humidity:	10% to 90% (non condensing)		
Shock:	10g, 11msec ½ sine		
Vibration:	+/-1mm, 2 to 13Hz: 0.7g, 13 to 100Hz		
**Quoted EN60945 test. We do not recommend routine operation at extreme temperatures			
* Brightness and Contrast refer to naked LCD panel			

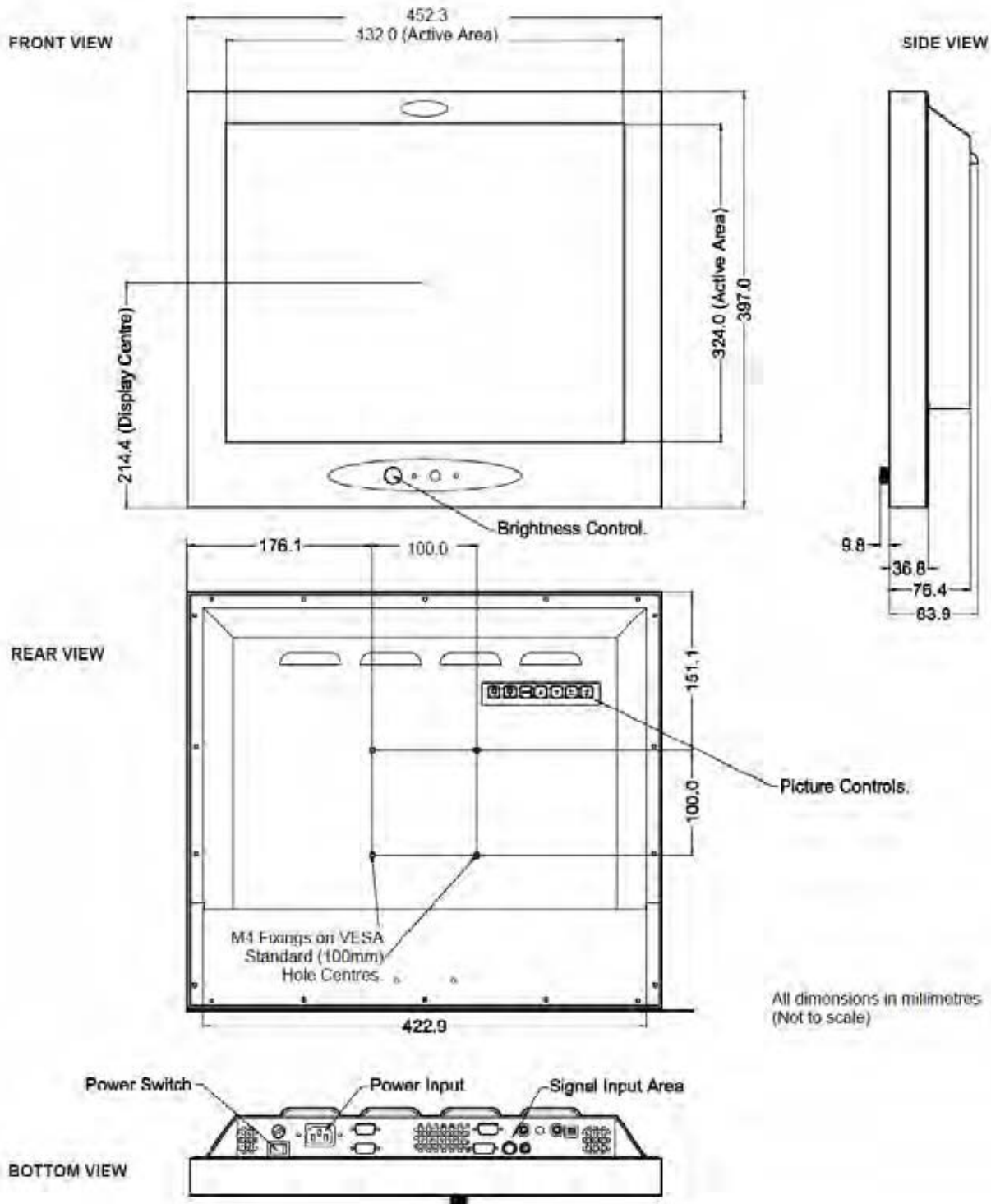
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19" LCD MARINE HEAD MONITOR

29LM190003/x

DATASHEET

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21.3" LCD MARINE HEAD MONITOR

29LM213003/x

* The slash number behind the part number refers to the version number. A different TFT panel could be used. Therefore these values may vary.

HIGH QUALITY, RUGGED METAL CONSTRUCTION

Developed primarily for applications where operator view ability is at a premium. Compact design and a versatile mounting system optimises both operator viewing angles and 'Lines Of Sight'. Resolutions up to 1600 x 1200 pixels and PIP can be displayed with superb image quality. The 'Marinised' TFT Monitor is manufactured in full compliance with IACS E10.

Designed to specifically meet the stringent demands of Shock, Vibration, EMC, EMI defined in the IEC 60945 International Standard for Maritime Navigation and Radio communications Equipment & Systems. The monitor offers continuity by design for all Navigation and Ship Automation applications.

SOLUTIONS FOR MARINE APPROVED MONITORS

- > **Versatile Display Head (VESA)**
- > **IP65 sealed housing with protective sunscreen**
The front is sealed to IP65 rating for water and dust resistance.
- > **Advanced Deep Dimming 2000:1**
KME has developed a deep dimming solution for the marine range which provides smooth consistent dimming to 2000:1.
- > **Certified & Approved**
The marine range is designed to comply with EN 60945 and EN 60950. In the case of the 17" and 19" monitors some are already certified and approved to these standards.
- > **Inputs**
All monitors have VGA (multi scanning), DVI and PAL.
Power 90-265V AC.



21.3" LCD MARINE HEAD MONITOR

29LM213003/x

DATASHEET

*The slash number behind the part number refers to the version number. A different TFT panel could be used. Therefore these values may vary.

Electrical Description		Mechanical Description	
TFT Characteristics:		Dimensions:	
Type:	21.3" a-Si AM TFT	Monitor:	508(W) x 420(H) x 83.9(D) mm
		Weight:	10.6kg (approx)
		Input Connectors:	
		Audio:	2 x Phono
		RGB Signal:	15-pin HD Female D-Type
		Video Signal:	RCA + S-video socket
		RS232 Remote Control:	9-pin Male D-Type
		Power:	3-Pin IEC Male
Max Resolution:	1600 x 1200 pixels	Output Connectors:	
		Video Buffer (Multi-Drop): RS232 Remote Control:	15-pin HD Female D-9-pin Male D-Type
Active Display Area:	432 x 324mm	User Controls:	
		Front Mounted	
Response Time:	25ms average, typical	Housing:	
		Aluminium	
*Contrast Ratio:	500:1 typical	Sealing:	
		IP65 on front	
*Brightness:	250cd/m ² typical	Approvals	
Viewing Angles (at CR>10):	170° / 170°	ECDIS & Radar Compliance:	
Backlight Life:	50,000 typical	IEC 61174:	Designed to comply
No. Colours:	16.7 million	EMC & Safety:	
Video Signal:	RGB 0.7-1.0Vp-p	EN 60950	Designed to comply
Composite Video Inputs:	PAL/NTSC & SECAM with 'Picture In Picture' (PIP) facility	Marine Communications:	
Signal Sync:	Separate H & V (=ve) TTL or Composite (-ve) TTL or Sync - on - Green (-ve) 0.3V	IEC 60945:	Designed to comply
Synchronisation Range:	Horizontal scan: 31-75 kHz Vertical Scan: 60-75 Hz		
Display modes:	640 x 480 VGA 800 x 600 SVGA 1024 x 768 XGA 1280 x 1024 SXGA 1600 x 1200 UXGA(recommended)		
Power Supply:	90-265V AC 50/60Hz	Part Numbers:	
Power Consumption:	65 W (Max)		
Environmental: **Operating Temp:	-15 to +55 °C (IEC 60945 tests)	Monitor (Black finish):	29LM213003/1
Storage Temp:	-20 to +60 °C		
Operating Humidity:	30% to 90% (non condensing)		
Storage Humidity:	10% to 90% (non condensing)		
Shock:	10g, 11msec ½ sine		
Vibration:	+/-1mm, 2 to 13Hz: 0.7g, 13 to 100Hz		
**Quoted EN60945 test. We do not recommend routine operation at extreme temperatures			
* Brightness and Contrast refer to naked LCD panel			

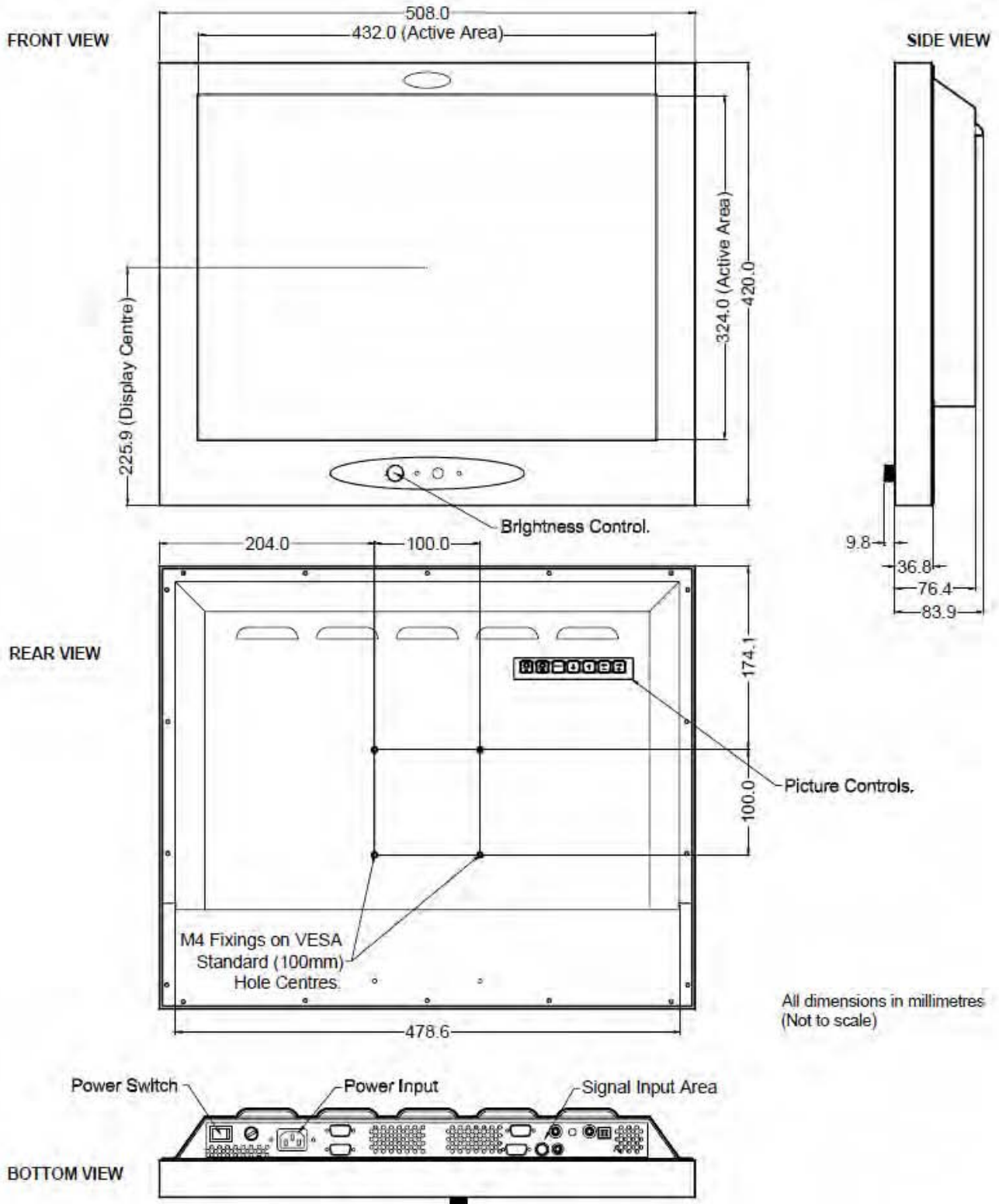
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21.3" LCD MARINE HEAD MONITOR

29LM213003/x

DATASHEET

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23.1" LCD MARINE HEAD MONITOR

29LM233A35MP/x

DATASHEET

* The slash number behind the part number refers to the version number. A different TFT panel could be used. Therefore these values may vary.

HIGH QUALITY, RUGGED METAL CONSTRUCTION

KME has 'Marinised' a high resolution TFT panel to suit the demanding marine application. Resolutions up to 1600 x 1200 pixels can be displayed with superb image quality.

Designed with ECDIS and Radar in mind and to specifically meet the stringent demands of Shock, Vibration, EMC, EMI defined in the IEC 60945 International Standard for Maritime Navigation and Radio communications Equipment & Systems. The monitor offers continuity by design for all Navigation and Ship Automation applications.

SOLUTIONS FOR MARINE APPROVED MONITORS

- > **Versatile Display Head**
- > **IP65 sealed housing with protective sunscreen**
The front is sealed to IP65 rating for water and dust resistance.
- > **Advanced Deep Dimming 2000:1**
KME has developed a deep dimming solution for the marine range which provides smooth consistent dimming to 2000:1.
- > **Certified & Approved**
The marine range is designed to comply with EN 60945 and EN 60950. In the case of the 17" and 19" monitors some are already certified and approved to these standards.
- > **Inputs**
All monitors have VGA (multi scanning), DVI and PAL.
Power 90-265V AC.



23.1" LCD MARINE HEAD MONITOR

29LM233A35MP/X

DATASHEET

* The slash number behind the part number refers to the version number. A different TFT panel could be used. Therefore these values may vary.

Electrical Description		Mechanical Description	
TFT Characteristics:		Dimensions:	
Type:	23.1" a-Si AM TFT	Monitor:	547(w) x 450(h) x 106(d) mm
		Weight:	16kg (approx)
		Input Connectors:	
		VGA 15-WAY D DVI PAL/BNC S-VIDEO	
Max Resolution:	1600 x 1200 pixels		
Active Display Area:	470.4 x 352.8 mm	User Controls:	Front Mounted
Response Time:	20ms average, typical	Housing:	Aluminium
*Contrast Ratio:	500:1 typical	Sealing:	IP65 on front
*Brightness:	250cd/m ² typical	Approvals	
Viewing Angles (at CR>10):	170° / 170°	ECDIS & Radar Compliance:	
Backlight Life:	50,000 typical	IEC 61174:	Designed to comply
No. Colours:	16.7 million	EMC & Safety:	
Video Signal:	RGB 0.7-1.0Vp-p	EN 60950	Designed to comply
Composite Video Inputs:	PAL/NTSC & SECAM with 'Picture In Picture' (PIP) facility	Marine Communications:	
Signal Sync:	Separate H & V (=ve) TTL or Composite (-ve) TTL or Sync - on - Green (-ve) 0.3V	IEC 60945:	Designed to comply
Synchronisation Range:	Horizontal scan: 31-75 kHz Vertical Scan: 60-75 Hz		
Display modes:	640 x 480 VGA 800 x 600 SVGA 1024 x 768 XGA 1280 x 1024 SXGA 1600 x 1200 UXGA(recommended)		
Power Supply:	90-265V AC 50/60Hz	Part Numbers:	
Power Consumption:	65 W (Max)		
Environmental:	**Operating Temp: -15 to +55 °C (IEC 60945 tests) Storage Temp: -20 to +60 °C Operating Humidity: 30% to 90% (non condensing) Storage Humidity: 10% to 90% (non condensing) Shock: 10g, 11msec ½ sine Vibration: +/-1mm, 2 to 13Hz: 0.7g, 13 to 100Hz	Monitor (Black finish):	29LM233A35MP/4
**Quoted EN60945 test. We do not recommend routine operation at extreme temperatures * Brightness and Contrast refer to naked LCD panel			

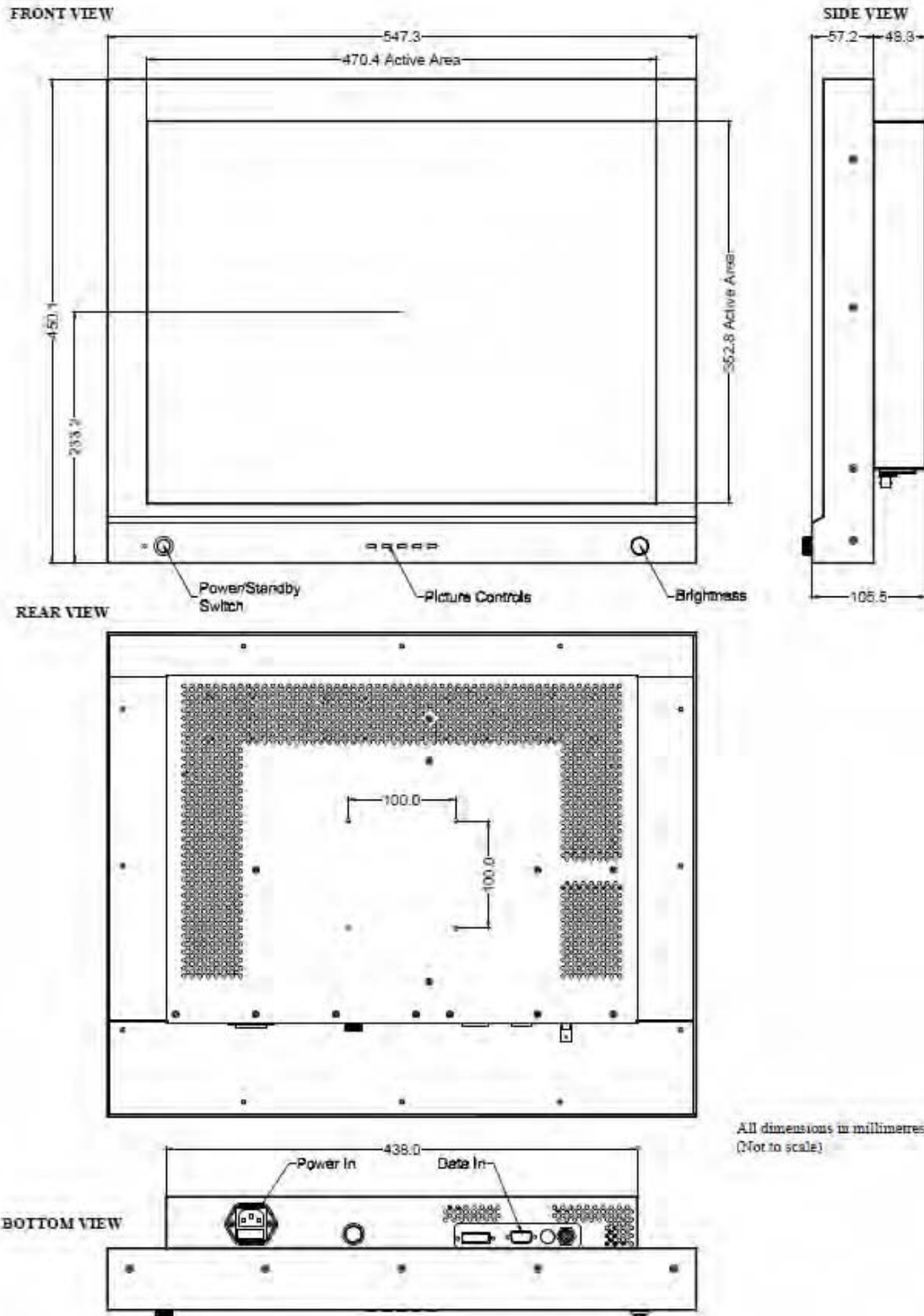
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23.1" LCD MARINE HEAD MONITOR

29LM233A35MP/X

DATASHEET

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40" WIDESCREEN LCD MARINE HEAD MONITOR

29LM403003

DATASHEET

HIGH QUALITY, RUGGED METAL CONSTRUCTION

The 29LM403003 Series of 40" LCD monitors has been designed primarily for information applications in the maritime environment. They utilise WXGA TFT panels with KME designed mechanical enhancements to give superior image performance and ruggedness. The IP model provides additional sealing to IP65 in a rugged metal housing with glass protection screen making it suitable for sheltered external usage. User controls and the AC power supply are integrated in the monitor head.

The monitor is suitable for use with 16:9, 4:3 and 5:4 aspect ratio video; its multiple video inputs make it usable in a range of applications with simple interfacing to most video and data systems.



SOLUTIONS FOR MARINE APPROVED MONITORS

- > **Versatile Display Head**
- > **IP65 sealed housing with protective sunscreen**
The front is sealed to IP65 rating for water and dust resistance.
- > **Certified & Approved**
The marine range is designed to comply with EN 60945
- > **Inputs**
All monitors have VGA (multi scanning), DVI and PAL.
Power 110-220V AC.
- > **Widescreen (16:9) formats up to WXGA resolution.**



40" WIDESCREEN LCD MARINE HEAD MONITOR

29LM403003

DATASHEET

Electrical Description		Mechanical Description	
TFT Characteristics:		Dimensions:	
Type:	40" a-Si AM TFT	Monitor:	1000 x 610 x 140 mm
Max Resolution:	1366 x 768 pixels	Weight:	54kg (approx)
Active Display Area:	885 x 497 mm	Input Connectors:	HD 15 D-Sub / BNC
Response Time:	8ms average, typical		
*Contrast Ratio:	2000:1 typical	User Controls:	Rear Mounted
*Brightness:	500cd/m ² typical	Housing:	Aluminium
Viewing Angles (at CR>10):	178° / 178°	Sealing:	IP65 on front
Backlight Life:	50,000 typical	Approvals	
No. Colours:	16.7 million	ECDIS & Radar Compliance:	
		IEC 61174:	Designed to comply
		EMC & Safety:	
		EN 60950	Designed to comply
Synchronisation Range:			
Horizontal scan:	30-70 kHz		
Vertical Scan:	50-85 Hz		
Display modes:	640 x 480 VGA 800 x 600 SVGA 1024 x 768 XGA 1280 x 1024 SXGA 1360x768 1366x768 WXGA(recommended)		
Power Supply:	110/220V 50/60Hz	Part Numbers:	
Power Consumption:	280W Max.		
Environmental:	**Operating Temp: -15 to +55 °C (IEC 60945 tests) Storage Temp: -20 to +60 °C Operating Humidity: 30% to 90% (non condensing) Storage Humidity: 10% to 90% (non condensing) Shock: 10g, 11msec ½ sine Vibration: +/-1mm, 2 to 13Hz: 0.7g, 13 to 100Hz	Monitor (Black finish):	29LM403003
**Quoted EN60945 test. We do not recommend routine operation at extreme temperatures * Brightness and Contrast refer to naked LCD panel			

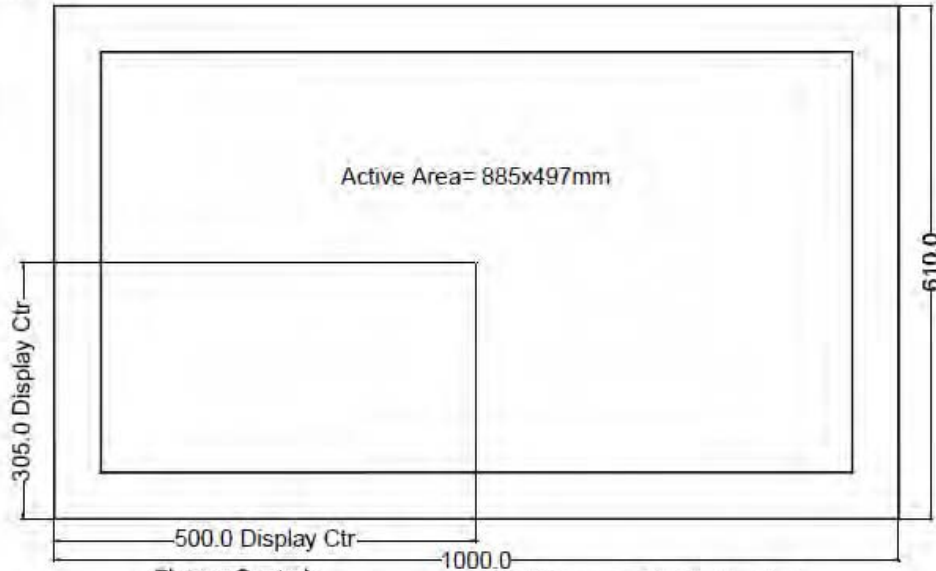
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40" WIDESCREEN LCD MARINE HEAD MONITOR

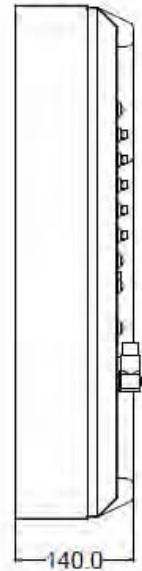
29LM403003

DATASHEET

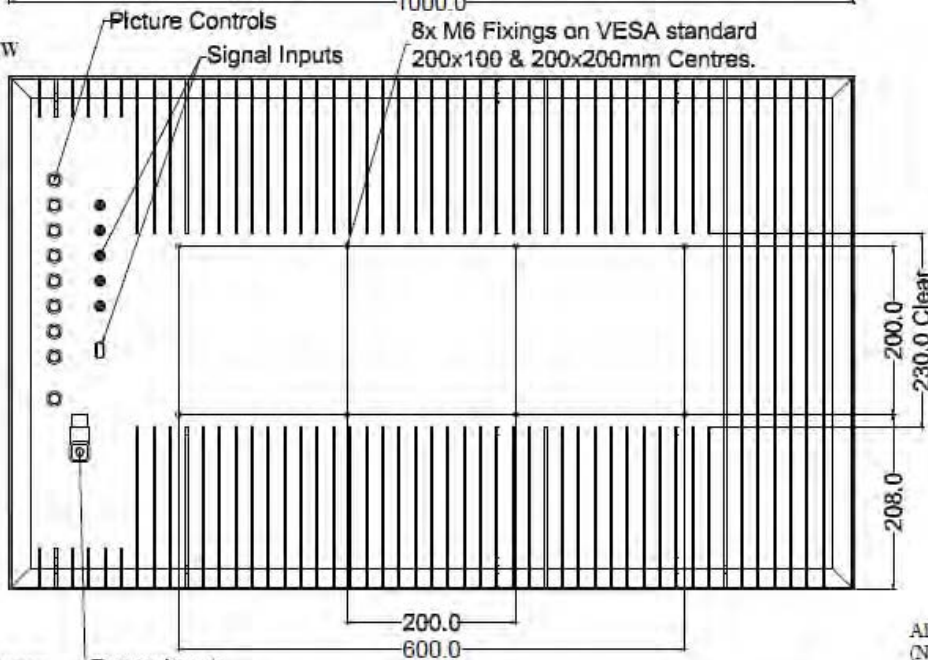
FRONT VIEW



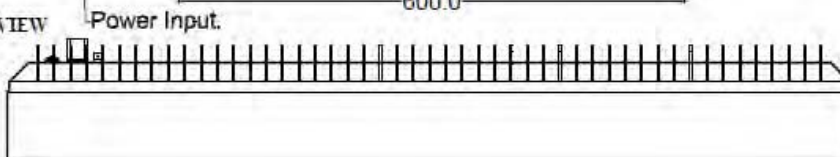
SIDE VIEW



REAR VIEW



BOTTOM VIEW



All dimensions in millimetres
(Not to scale)

46" WIDESCREEN LCD MARINE HEAD MONITOR

29LM463003

DATASHEET

WIDESCREEN XGA MULTISCAN CAPABILITY

The 29LM463003 Series of 46" LCD monitors has been designed primarily for external information applications in the maritime environment. They utilise WXGA TFT panels with KME designed mechanical enhancements to give superior image performance and ruggedness. The IP model provides additional sealing to IP65 in a rugged metal housing with glass protection making it suitable for sheltered outdoor applications.

Also available in sizes 32", 40" and 57" the high brightness and wide viewing angles enable superior image performance with rugged construction. Full user controls are provided on the monitor head with the AC power supply integrated.

The monitor is suitable for use with 16:9, 4:3 and 5:4 aspect ratio video; its multiple video inputs make it usable in a range of applications with simple interfacing to most video and data systems.



SOLUTIONS FOR MARINE APPROVED MONITORS

- > **Versatile Display Head**
- > **IP65 sealed housing with protective sunscreen**
The front is sealed to IP65 rating for water and dust resistance.
- > **Certified & Approved**
The marine range is designed to comply with EN 60945
- > **Inputs**
All monitors have VGA (multi scanning), DVI and PAL.
Power 110- 220V AC.
- > **Widescreen (16:9) formats up to WXGA resolution**
- > **Rugged Construction with Safety Faceplate**



46" WIDESCREEN LCD MARINE HEAD MONITOR

29LM463003

DATASHEET

Electrical Description		Mechanical Description	
TFT Characteristics:		Dimensions:	
Type:	40" a-Si AM TFT	Monitor:	1126 x 682 x 155 mm
		Weight:	65kg (approx)
		Input Connectors:	HD 15 D-Sub / BNC
Max Resolution:	1366 x 768 pixels		
Active Display Area:	1018.3x 572.5 mm	User Controls:	Rear Mounted
Response Time:	8ms average, typical	Housing:	Aluminium
*Contrast Ratio:	800:1 typical	Sealing:	IP65 on front
*Brightness:	500 cd/m ² typical	Approvals	
Viewing Angles (at CR>10):	178° / 178°	ECDIS & Radar Compliance:	
Backlight Life:	50,000 typical	IEC 61174:	Designed to comply
No. Colours:	16.7 million	EMC & Safety:	
		EN 60950	Designed to comply
Synchronisation Range:			
Horizontal scan:	30-70 kHz		
Vertical Scan:	50-85 Hz		
Display modes:	640 x 480 VGA 800 x 600 SVGA 1024 x 768 XGA 1280 x 1024 SXGA 1360x768 1366x768 WXGA(recommended)		
Power Supply:	110/220V 50/60Hz	Part Numbers:	
Power Consumption:	330W Max.		
Environmental: **Operating Temp:	-15 to +55 °C (IEC 60945 tests)	Monitor (Black finish):	29LM463003
Storage Temp:	-20 to +60 °C		
Operating Humidity:	30% to 90% (non condensing)		
Storage Humidity:	10% to 90% (non condensing)		
Shock:	10g, 11msec ½ sine		
Vibration:	+/-1mm, 2 to 13Hz: 0.7g, 13 to 100Hz		
**Quoted EN60945 test. We do not recommend routine operation at extreme temperatures			
* Brightness and Contrast refer to naked LCD panel			

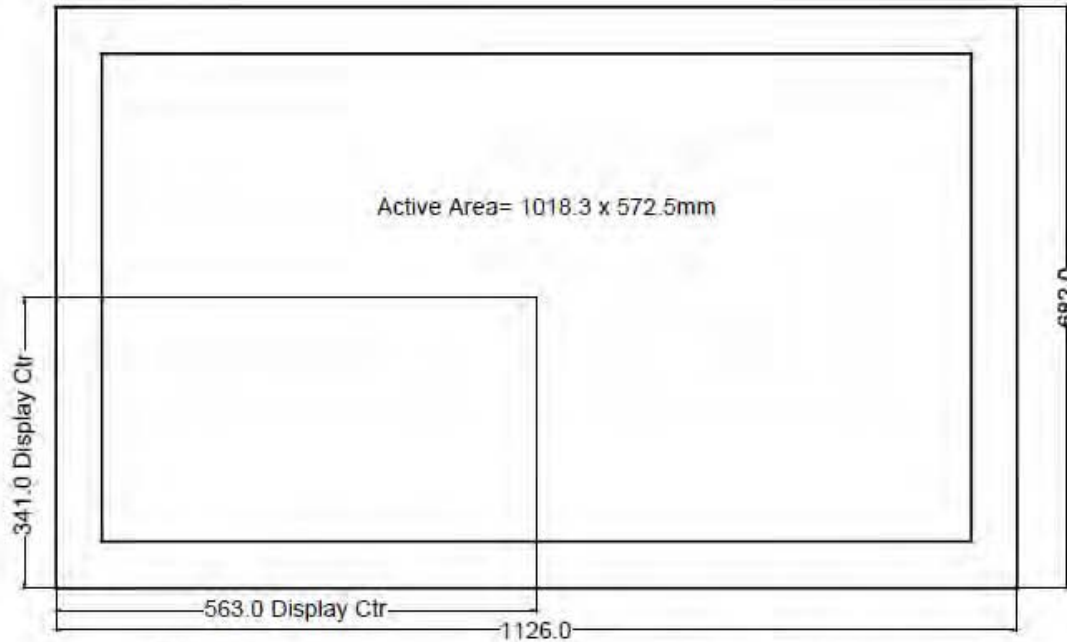
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46" WIDESCREEN LCD MARINE HEAD MONITOR

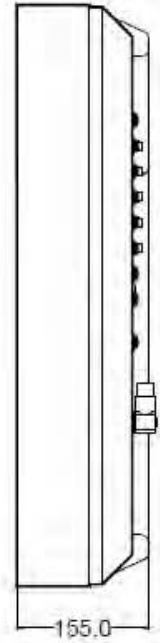
DATASHEET

29LM463003

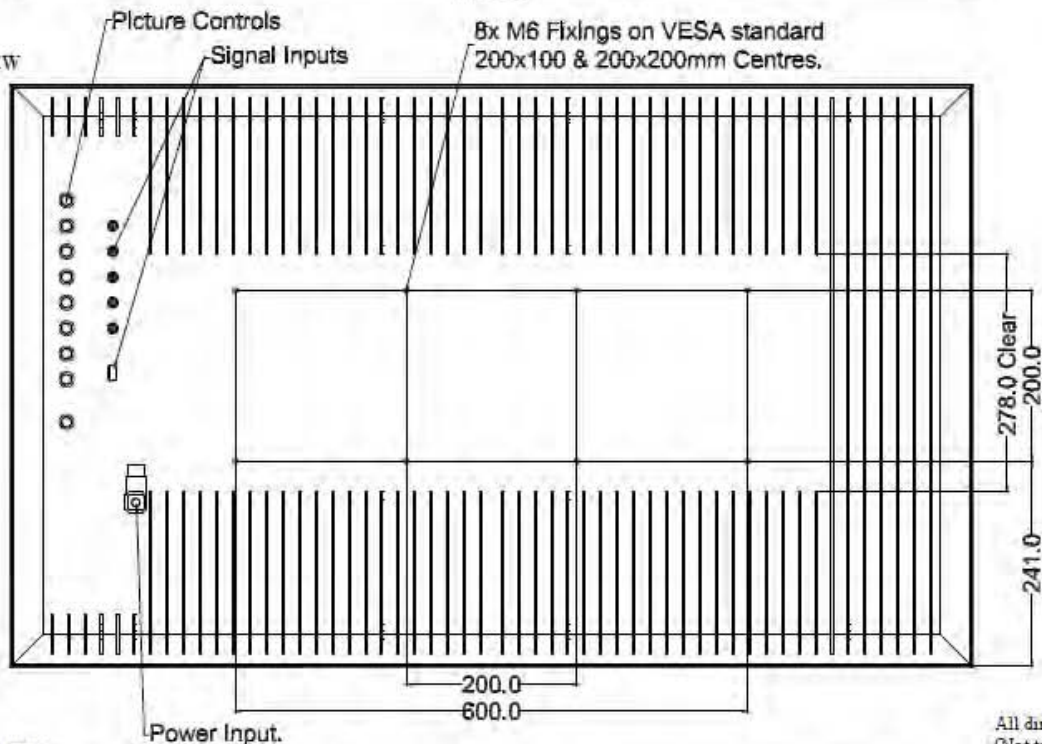
FRONT VIEW



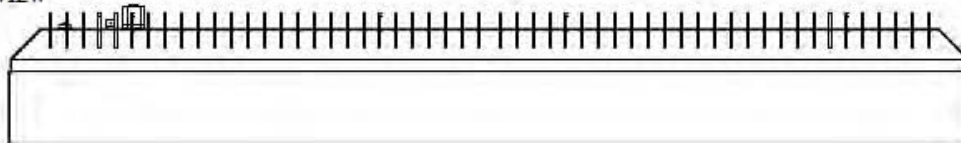
SIDE VIEW



REAR VIEW



BOTTOM VIEW



All dimensions in millimetres
(Not to scale)

52" WIDESCREEN LCD MARINE HEAD MONITOR

29LM523003

DATASHEET

HIGH QUALITY, RUGGED METAL CONSTRUCTION

The 29LM523003 Series of 52" LCD monitors has been designed primarily for external information applications in the maritime environment. They utilise WXGA TFT panels with KME designed mechanical enhancements to give superior image performance and ruggedness. The IP model provides additional sealing to IP65 in a rugged metal housing with glass protection making it suitable for sheltered outdoor applications.

Also available in sizes 40", 46" and 57" the high brightness and wide viewing angles enable superior image performance with rugged construction.

Full user controls are provided on the monitor head with the AC power supply integrated. The monitor is suitable for use with 16:9, 4:3 and 5:4 aspect ratio video; its multiple video inputs make it usable in a range of applications with simple interfacing to most video and data systems.



SOLUTIONS FOR MARINE APPROVED MONITORS

- > **Versatile Display Head**
- > **IP65 sealed housing with protective sunscreen**
The front is sealed to IP65 rating for water and dust resistance.
- > **Certified & Approved**
The marine range is designed to comply with EN 60945
- > **Inputs**
All monitors have VGA (multi scanning), DVI and PAL.
Power 110-220V AC.
- > **Widescreen (16:9) formats up to WSXGA resolution.**



52" WIDESCREEN LCD MARINE HEAD MONITOR

29LM523003

DATASHEET

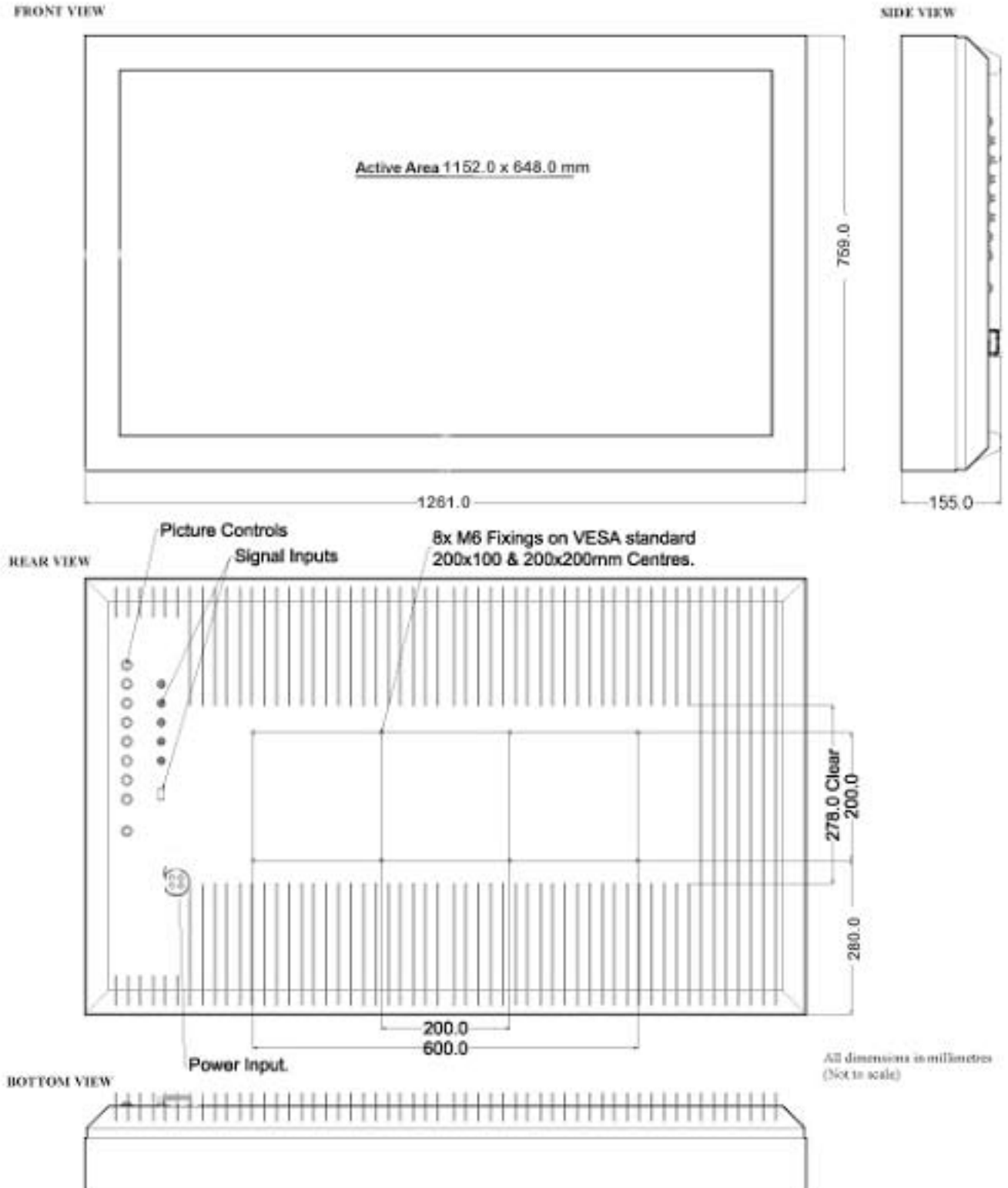
Electrical Description		Mechanical Description	
TFT Characteristics:		Dimensions:	Monitor: 1261 x 759 x 155 mm
Type:	52" a-Si AM TFT	Weight:	80kg (approx)
Max Resolution:	1920 x 1080 pixels	Input Connectors:	HD 15 D-Sub / BNC
Active Display Area:	1152.0x 648.0 mm	User Controls:	Rear Mounted
Response Time:	8ms average, typical	Housing:	Aluminium
*Contrast Ratio:	1700:1 typical	Sealing:	IP65 on front
*Brightness:	600cd/m ² typical	Approvals	
Viewing Angles (at CR>10):	175° / 175°	ECDIS & Radar Compliance:	
Backlight Life:	50,000 typical	IEC 61174:	Designed to comply
No. Colours:	16.7 million	EMC & Safety:	
		EN 60950	Designed to comply
Synchronisation Range:			
Horizontal scan:	30-70 kHz		
Vertical Scan:	50-85 Hz		
Display modes:	640 x 480 VGA 800 x 600 SVGA 1024 x 768 XGA 1280 x 1024 SXGA 1360 x 768 1366 x 768 WXGA 1920 X 1080(recommended)		
Power Supply:	110/220V 50/60Hz	Part Numbers:	
Power Consumption:	420W Max		
Environmental:	**Operating Temp: -15 to +55 °C (IEC 60945 tests) Storage Temp: -20 to +60 °C Operating Humidity: 30% to 90% (non condensing) Storage Humidity: 10% to 90% (non condensing) Shock: 10g, 11msec ½ sine Vibration: +/-1mm, 2 to 13Hz: 0.7g, 13 to 100Hz	Monitor (Black finish):	29LM523003
**Quoted EN60945 test. We do not recommend routine operation at extreme temperatures * Brightness and Contrast refer to naked LCD panel			

Due to a policy of continuous product development KME reserves the right to change specifications and descriptions without prior notification. All trademarks acknowledged.

52" WIDESCREEN LCD MARINE HEAD MONITOR

DATASHEET

29LM523003



57" WIDESCREEN LCD MARINE HEAD MONITOR

29LM573003

DATASHEET

WIDESCREEN XGA MULTISCAN CAPABILITY

The 29LM573003 Series of 57" LCD monitors has been designed primarily for external information applications in the maritime environment. They utilise WXGA TFT panels with KME designed mechanical enhancements to give superior image performance and ruggedness. The IP model provides additional sealing to IP65 in a rugged metal housing with glass protection making it suitable for sheltered outdoor applications.

Also available in sizes 40", 46" and 52" the high brightness and wide viewing angles enable superior image performance with rugged construction.

Full user controls are provided on the monitor head with the AC power supply integrated.

The monitor is suitable for use with 16:9, 4:3 and 5:4 aspect ratio video; its multiple video inputs make it usable in a range of applications with simple interfacing to most video and data systems.



SOLUTIONS FOR MARINE APPROVED MONITORS

- > **Versatile Display Head**
- > **IP65 sealed housing with protective sunscreen**
The front is sealed to IP65 rating for water and dust resistance.
- > **Certified & Approved**
The marine range is designed to comply with EN 60945
- > **Inputs**
All monitors have VGA (multi scanning), DVI and PAL.
Power 110-220V AC.
- > **Widescreen (16:9) formats up to WSXGA resolution.**



57" WIDESCREEN LCD MARINE HEAD MONITOR

29LM573003

DATASHEET

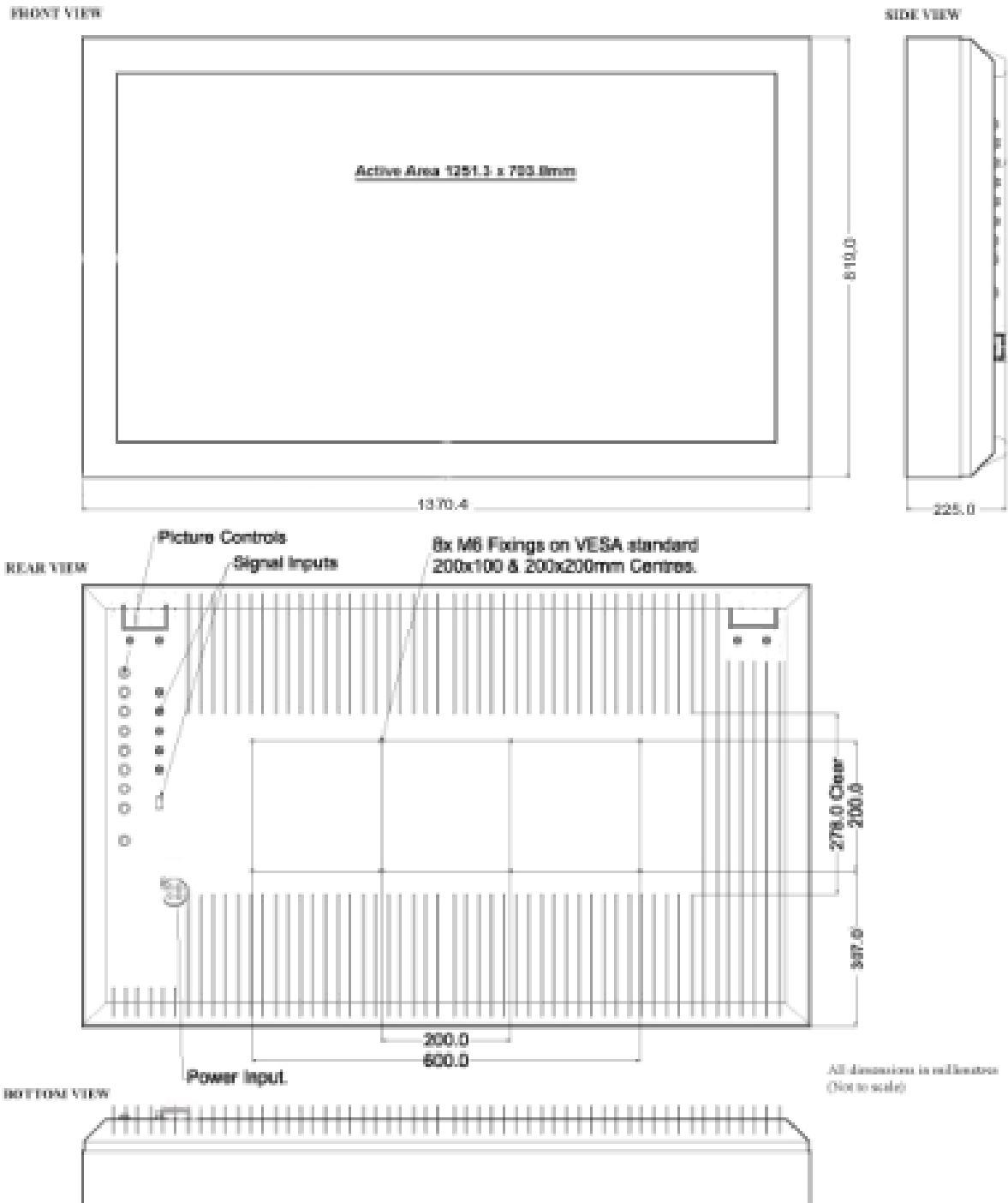
Electrical Description		Mechanical Description	
TFT Characteristics:		Dimensions:	
Type:	57" a-Si AM TFT	Monitor:	1360 x 814 x 155 mm
		Weight:	85kg (approx)
		Input Connectors:	HD 15 D-Sub / BNC
Max Resolution:	1920 x 1080 pixels		
Active Display Area:	1251.3x 703.8 mm	User Controls:	Rear Mounted
Response Time:	4ms average, typical	Housing:	Aluminium
*Contrast Ratio:	1200:1 typical	Sealing:	IP65 on front
*Brightness:	600cd/m ² typical	Approvals	
Viewing Angles (at CR>10):	170° / 170°	ECDIS & Radar Compliance:	
Backlight Life:	50,000 typical	IEC 61174:	Designed to comply
No. Colours:	16.7 million	EMC & Safety:	
		EN 60950	Designed to comply
Synchronisation Range:			
Horizontal scan:	30-70 kHz		
Vertical Scan:	50-85 Hz		
Display modes:	640 x 480 VGA 800 x 600 SVGA 1024 x 768 XGA 1280 x 1024 SXGA 1360 x 768 1920 X 1080(recommended)		
Power Supply:	110/220V 50/60Hz	Part Numbers:	
Power Consumption:	420W Max		
Environmental: **Operating Temp:	-15 to +55 °C (IEC 60945 tests)	Monitor (Black finish):	29LM573003
Storage Temp:	-20 to +60 °C		
Operating Humidity:	30% to 90% (non condensing)		
Storage Humidity:	10% to 90% (non condensing)		
Shock:	10g, 11msec ½ sine		
Vibration:	+/-1mm, 2 to 13Hz: 0.7g, 13 to 100Hz		
**Quoted EN60945 test. We do not recommend routine operation at extreme temperatures			
* Brightness and Contrast refer to naked LCD panel			

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57" WIDESCREEN LCD MARINE HEAD MONITOR

DATASHEET

29LM573003



40" NAVAL CHART DISPLAY TABLE

29LMC403A31MP

DATASHEET

HIGH QUALITY, RUGGED METAL CONSTRUCTION

New to KME's marine range is the 40" Naval Chart Display. This monitor has a resolution of 1920 x 1080 and is designed as a table mount display.

Horizontal mounting needs additional and redesigned cooling compared to vertical mounting. Internal ducting and temperature sensing are used to minimise fan usage, whilst a 'submarine mode' is available that switches off all fans and reduces backlight to enable silent running for a restricted time.

The use of high quality components, robust and lightweight casing, anti - glare safety glass, transfective enhancements and touch screen capability makes KME's monitors ideal for demanding applications.

Designed with ECDIS and Radar in mind, the range specifically meets the stringent demands of Shock, Vibration, EMC and EMI defined in the IEC 60945 International Standard for Maritime Navigation and Radio communications Equipment & Systems.

SOLUTIONS FOR MARINE APPROVED MONITORS

- > **IP65 sealed**
The front is sealed to IP65 rating for water and dust resistance. Suitable for use in sheltered outdoor applications.
- > **Optional Touch screen & PC Integration**
KME can offer a variety of touch screen solutions for the marine range with either serial or usb interface. There is also the option of the display complying to MIL-STD-810/461
- > **Certified & Approved**
The table is designed to comply with EN 60945 and ECDIS.
- > **Connections**
The display has VGA / Ethernet (RJ45) / Power AC



40" NAVAL CHART DISPLAY

DATASHEET

TABLE

29LMC403A31MP

Electrical Description		Mechanical Description	
TFT Characteristics:		Dimensions:	Monitor: 1021(w) x 706(h) x 206.5(d) mm Weight: 54kg
		Input:	HD-15 D-sub, BNC
Max Resolution:	1920 x 1080 pixels		
Active Display Area:	891 x 502.8 mm		
Response Time:	8ms	Housing	Painted Aluminium
Contrast Ratio:	2000:1 typical	Sealing	Front panel IP65
Brightness:	500cd/m ² typical	Approvals	
Viewing Angles (at CR>10):	178°	ECDIS & Radar Compliance:	
Backlight Life:	50,000 hours typical		IEC 61174 Designed to comply
No. Colours:	16.7 million	EMC & Safety:	
Video Signal:	RGB 0.71.0Vp-p		EN 60950 Designed to comply
Composite Video Inputs:	PAL/NTSC & SEACAM with 'Picture In Picture' (PIP) facility	Marine Communications:	
Signal Sync:	Separate H & V (+/ve) TTL or Composite (-ve) TTL or Sync- on - Green (-ve) 0.3V		IEC 60945 Designed to comply
Synchronisation Range:	Horizontal scan: 30 to 95kHz Vertical scan: 50 to 85Hz		
Display modes:	VESA Support: 640 x 480 VGA 800 x 600 SVGA 1024 x 768 XGA 1280 x 1024 SXGA 1366 x 768 WXGA 1920 x 1080 WUXGA _(recommended)		
Power Supply:	90-265V AC 50-60 Hz		
Power Consumption:	280W (Max)	Part Numbers:	
Environmental:	**Operating Temp: 0 to +50 °C (IEC 60945 tests) Storage Temp: -20 to +60 °C Operating Humidity: 30% to 90% (non condensing) Storage Humidity: 10% to 90% (non condensing) Shock: 50g, 11msec, sine Vibration: 1.5g, 10 to 300Hz		Monitor: 29LMC403AC31MP Monitor & Touchscreen: 29LMC403AC31MP Monitor, integrated PC & Touchscreen : 29LMCP403AC31MP
**Quoted EN60945 test. We do not recommend routine operation at extreme temperatures			

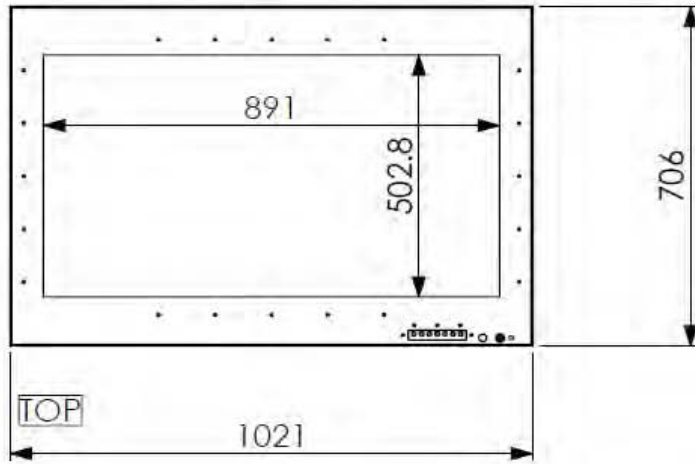
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40" NAVAL CHART DISPLAY

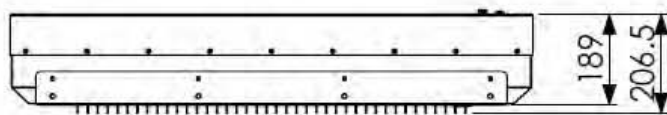
DATASHEET

TABLE

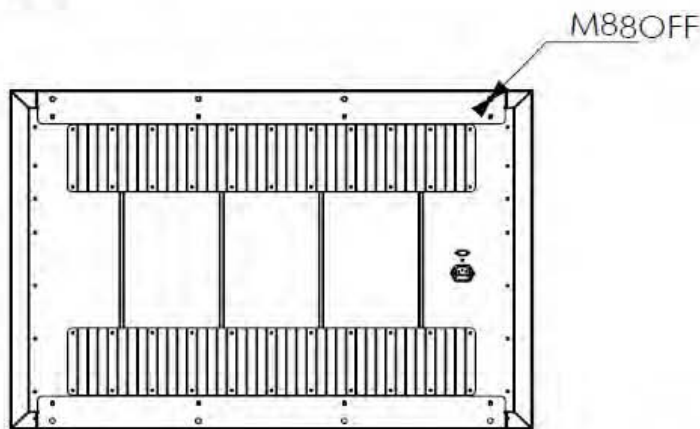
29LMC403A31MP



SIDE



SIDE



BOTTOM

