Introducing the **Easy** Series

Essential automation & control products

When just enough is just right!

Motion

HMI

Drives

PLCs

Control & Signaling
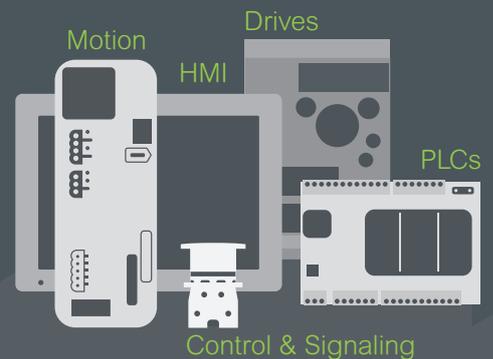
Easy Harmony ET6

Human Machine Interfaces
Essential touch screen panels for simple machines

Life Is On

Schneider Electric

Contents

Human Machine Interfaces
Easy Harmony ET6
Essential touch screen panels for simple machines

Left page (SIO HMI panels)

Applications		Display of text messages, graphic objects, and synoptic views Control and configuration of data	
Type of display module		SIO HMI panels	
Display	Touch screen size	7" W	10.1" W
	Resolution (pixels)	800 x 480 pixels, 16 million colors	1,024 x 600 pixels, 16 million colors
	Type	TFT Color LCD, single-touch analog resistive	
Degree of protection		IP65 (front)	
Functions	Brightness control	16 levels (adjusted with touch panel or software)	
	Backlight service life	20,000 hours or more (continuous operation at 25 °C/*77 °F*) before backlight brightness decreases to 50%	
Memory	Device memory	256 MB	256 MB
	User data memory	256 MB	256 MB
	Backup memory	128 KB NVRAM	
Dimensions	External W × H × D mm/*in.*	205.5 x 150.5 x 45/*8.09 x 5.92 x 1.77*	270.5 x 200.5 x 47/*10.64 x 7.89 x 1.85*
	Cut-out W × H mm/*in.*	190 x 135/*7.48 x 5.31*	255 x 185/*10.04 x 7.28*
Weight	kg/lb	0.600/*1.323*	0.980/*2.161*
Supply voltage		19.2 V...28.8 V ⎓	
Environment		Ambient air temperature 0...50 °C/*32...122 °F*	
Communication	Asynchronous serial link	RS-232C (COM1), RS-485/RS-422 (COM2)	
	USB ports	1x USB 2.0 Micro-B	
	Buses and networks	No	No
RTC		Yes	
Conformity to standards and certifications		C€, China RoHS, and UL 61010-2-201	
Operating system		VxWorks	
Development software		Vijeo Designer Basic *(1)*	
Terminal reference		**HMIET6401**	**HMIET6501**
Pages		9	

(1) Requires Vijeo Designer Basic V1.2. For more information on Vijeo Designer, please refer to the DIA5ED2130614EN catalog.

Right page (ETH HMI panels)

Display of text messages, graphic objects, and synoptic views Control and configuration of data				
ETH HMI panels				
7" W	10.1" W	12.1" W	15.6" W	
800 x 480 pixels, 16 million colors	1,024 x 600 pixels, 16 million colors	1,280 x 800 pixels, 16 million colors	1,366 x 768 pixels, 16 million colors	
TFT Color LCD, single-touch analog resistive				
IP65 (front)			IP65 (front), Type 4X (indoor use only)	
16 levels (adjusted with touch panel or software)				
20,000 hours or more (continuous operation at 25 °C/*77 °F*) before backlight brightness decreases to 50%				
256 MB				
256 MB				
128 KB NVRAM				
205.5 x 150.5 x 45/*8.09 x 5.92 x 1.77*	270.5 x 200.5 x 47/*10.64 x 7.89 x 1.85*	310.5 x 232.5 x 50/*12.22 x 9.5 x 1.97*	412 x 268 x 50/*16.22 x 10.55 x 1.97*	
190 x 135/*7.48 x 5.31*	255 x 185/*10.04 x 7.28*	295 x 217/*11.61 x 8.54*	394 x 250/*15.51 x 9.84*	
0.610/1.344	0.990/*2.183*	1.620/*3.571*	2.520/*5.556*	
19.2 V...28.8 V ⎓				
Ambient air temperature 0...50 °C/*32...122 °F*				
RS-232C (COM1), RS-485/RS-422 (COM2)				
1x USB 2.0 (Type A), 1x USB 2.0 Micro-B				
1x Ethernet TCP/IP (10BASE-T/100BASE-TX)				
Yes				
C€, China RoHS and UL 61010-2-201				
VxWorks				
Vijeo Designer Basic *(1)*				
HMIET6400	**HMIET6500**	**HMIET6600**	**HMIET6700**	
9				

More technical Information on www.se.com

Human Machine Interfaces
Easy Harmony ET6
Essential touch screen panels for simple machines

Essential touch screen panels for communication with simple machine systems

Easy Harmony ET6 essential touch screen panels are entry-level products that are tailored to meet the specific requirements of new economies. These panels are designed to communicate with simple machine systems for human machine interaction.

Better visualization

Improved graphical presentation of the machine information with:
■ Better quality of graphic display with high resolution (over 30% higher than legacy) *(1)*
■ More colorful with 16 million colors

Better performance

Improved user operation experience with:
■ Faster micro processor unit for operational performance of screen changes, parts animations, and scripts, etc.
■ More memory to design higher level applications with HD graphics, charts, recipes, and operation logs (alarm/event/data), etc.

QR code   Scan QR code   Product info
               on smartphone   on smartphone

Easy to use

■ Product information via QR code scanning
■ Easily mounted with anti-drop hooks
■ Easy migration of legacy panels with compatible installation cut-out, communication ports, and configuration software
■ Easy to set up and use with simplified and intuitive programming software (Vijeo Designer Basic) and an illustrated Online help for self-guided training

Anti-drop hooks

Robustness

■ Designed with isolated power supply and enhanced protection on serial communication port for better EMC performance in harsh industrial environments.
■ Designed with protection for reverse power connection against negligent miswiring
■ PCBA default coating to be sustainable in harsh environment with high humidity
■ USB clamps for stable USB cable connection

Default coating

Clamp option for USB Type A

Clamp for USB Type B

(1) Except 7" W panel.

Functions: Description: References:
page 6   page 8   page 9

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Human Machine Interfaces
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7" Wide and 10" Wide Easy Harmony ET6 touch screen panels

Example of project configuration

Presentation and applications

The range of Easy Harmony ET6 essential touch screen panels has been designed for various industrial production machines and system integration. They are dedicated to the following fields and types of machine:
- Utilities and engineering equipment
  □ Water pump
  □ Air conditioning (compressor, heat exchangers, chillers, etc)
  □ Mechanical parking system
  □ Crane
  □ Car washing equipment
  □ EV car charging pile
- Production machines
  □ Textile machinery (blowing, carding, winding, twisting, etc.)
  □ Packaging machinery (VFFS, wrapping, labelling, etc.)
  □ Material working (Metal, wood, stone and glass, etc.)
  □ Plastic and rubber (foaming, molding, extruding, etc.)
  □ Other segments (electronics, SEMICON, Li-battery, printing, etc.)

This range of panels is available with two different models of communication ports:
- ETH model with Ethernet port (7", 10", 12", and 15" wide screen)
- SIO model without Ethernet port (7" and 10" wide screen)

Operation

Easy Harmony ET6 touch screen panels are designed to meet the essential needs of information and communication technologies, which, depending on the model, include:
- Essential level of communication (serial multilink, USB downloading port)
- High level of communication (embedded Ethernet multilink) *(1)*
- External data storage (on a USB memory stick) for storing production data and backing up applications *(1)*
- Management of peripheral equipment: printers, barcode readers, etc. *(1)*

These panels offer an excellent level of technical performance and are designed for use mainly by OEM customers.

Configuration

Easy Harmony ET6 touch screen panels are configured using Vijeo Designer Basic software *(1)* in Windows 7, Windows 8.1, and Windows 10 (32-bit and 64-bit) environments. This simplified configuration software boasts an intuitive user interface with many configurable windows, enabling projects to be developed quickly and easily.

Communication

Automation platform or logic controller

Modbus

Easy Harmony ET6 panels
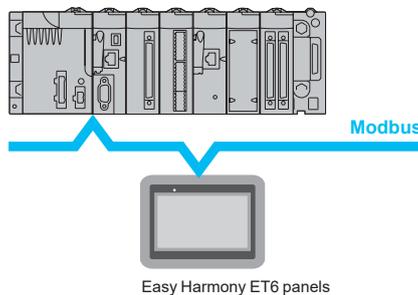
Easy Harmony ET6 touch screen panels can communicate with various PLCs via the integrated serial links or Ethernet links, using the following communication protocols:
- Schneider Electric (Modbus)
- Third-party: Mitsubishi Electric, Omron, and Siemens

*(1) Requires Vijeo Designer Basic version 1.2*

Functions

Easy Harmony ET6 touch screen panels with Vijeo Designer Basic offer the following functions:

■ Display of animated mimics with 8 types of animation (pressing the touch panel, color changes, filling, movement, rotation, size, visibility, and value display)
■ Control, modification of numeric and alphanumeric values
■ Display of date and time
■ Real-time curves and trend curves with log
■ Alarm display, alarm log, and management of alarm groups
■ Multi-window management
■ Page calls initiated by the operator
■ Multilingual application management (10 languages simultaneously)
■ Recipe management
■ Data processing via Java Script
■ Application and logs stored on external application memory card in USB stick format
■ Management of printer and barcode reader

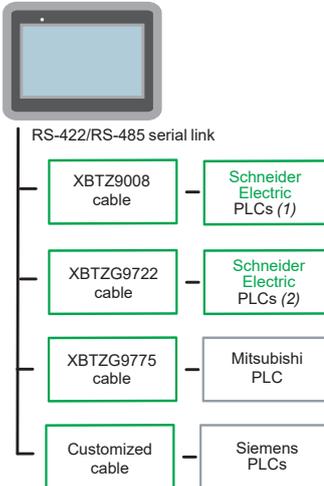## Operating modes for Harmony ET6 touch screen panels

Edit mode

Easy Harmony ET6 panel

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Easy Harmony ET6
Essential touch screen panels for simple machines
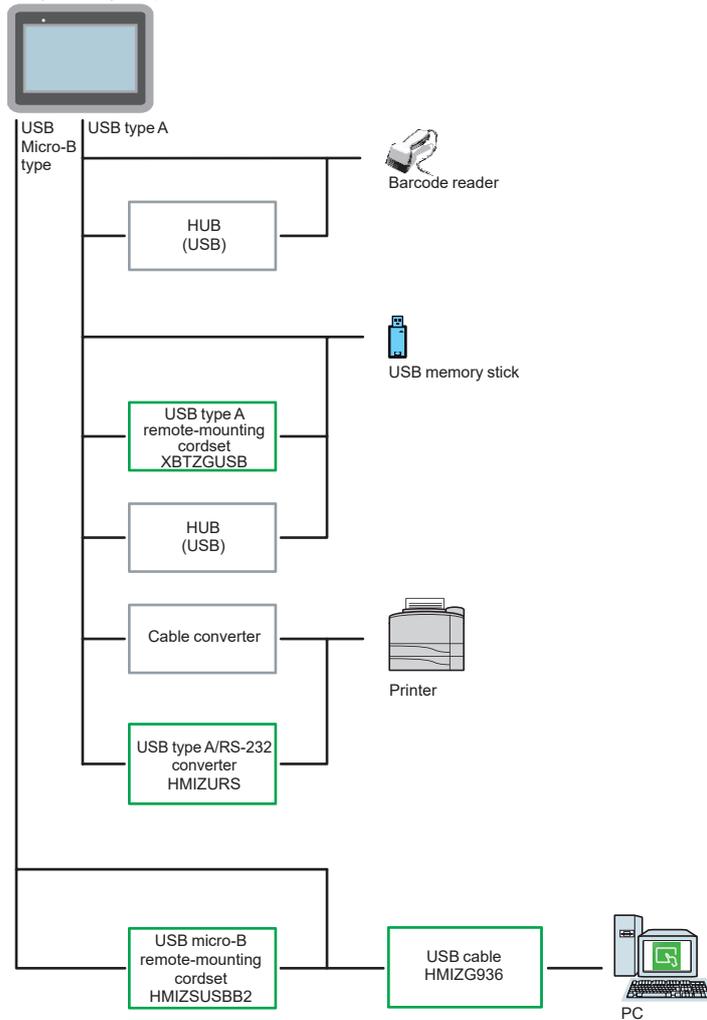
Operating modes for Harmony ET6 touch screen panels (continued)

Communication with RS-422/RS-485 serial link mode

Easy Harmony ET6 panels

RS-422/RS-485 serial link

- XBTZ9008 cable — Schneider Electric PLCs *(1)*
- XBTZG9722 cable — Schneider Electric PLCs *(2)*
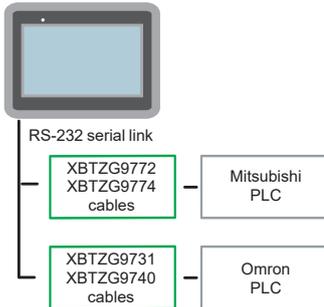- XBTZG9775 cable — Mitsubishi PLC
- Customized cable — Siemens PLCs

Examples of connection to RS-422/RS-485 serial port (3)

Communication with RS-232C serial link mode

Easy Harmony ET6 panels

RS-232 serial link

- XBTZG9772 XBTZG9774 cables — Mitsubishi PLC
- XBTZG9731 XBTZG9740 cables — Omron PLC

Examples of connection to RS-232C (3)

Communication with Ethernet mode

Easy Harmony ET6 panels

Ethernet TCP/IP

- Schneider Electric Modicon M200
- Schneider Electric Modicon M241
- Mitsubishi PLC
- Omron PLC
- Siemens PLCs
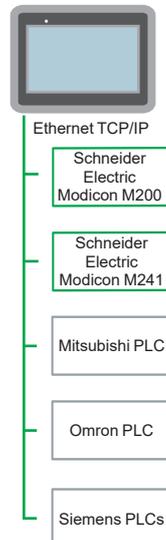
(1) M221/M241/M251/M218/M258 logic controllers.
(2) M100/M200 logic controllers. For all other products, contact our Customer Care Center.
(3) Non-exhaustive examples; contact our Customer Care Center for more information.

Description

Human Machine Interfaces
Easy Harmony ET6
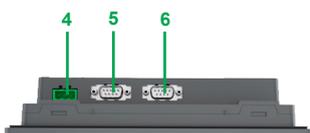Essential touch screen panels for simple machines
ETH and SIO touch screen panels
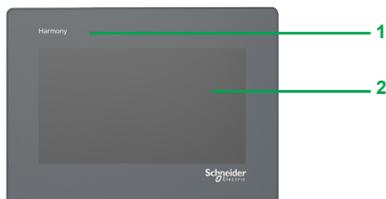
Front view

Rear view
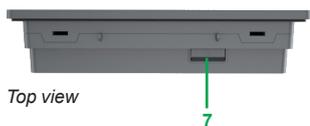
Underside view

Top view

Easy Harmony ET6 SIO touch screen panels

Front view

1 An LED on/off indicator
2 Wide, true color LCD and touch screen

Rear view

3 USB micro-B port for screen data downloading

Underside view

4 A 24 V DC power supply connector supplied with the terminal
5 A 9-way male SUB-D connector for RS 232C serial link (COM1 port)
6 A 9-way male SUB-D connector for RS 422/RS 485 serial link (COM2 port)

Top view

7 A sliding slot containing a replaceable battery to support embedded real-time clock

Front view

Rear view

Underside view

Top view

Easy Harmony ET6 ETH touch screen panels

Front view

1 An LED on/off indicator
2 Wide, true color LCD and touch screen

Rear view

3 A USB type A port for external storage with USB memory stick
4 A USB micro-B port for screen data downloading

Underside view

5 A 24 V DC power supply connector supplied with the terminal
6 A 9-way male SUB-D connector for RS-422/RS-485 serial link (COM2 port)
7 A 9-way male SUB-D connector for RS-232C serial link (COM1 port)
8 An Ethernet port, 10/100Base-Tx type

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Human Machine Interfaces
Easy Harmony ET6
Essential touch screen panels for simple machines
ETH and SIO touch screen panels and Vijeo Designer software

ET6_CP2014

HMIET6501

ET6_CP20016

HMIET6700

Vijeo Designer Basic

Easy Harmony ET6 SIO touch screen panels *(1) (2)*

Screen size and type	Number of ports	Memory capacity		Reference	Weight kg/*lb*
		For application	**For backup**		
7" wide, 800 x 480 pixels, color TFT screen	1x COM2 (RS-422/485), 1x COM1 (RS-232C), 1x USB micro-B	256 MB	128 KB	**HMIET6401**	0.60/*1.32*
10" wide, 1,024 x 600 pixels, color TFT screen				**HMIET6501**	0.98/*2.16*

Easy Harmony ET6 ETH touch screen panels *(1) (2)*

Screen size and type	Number of ports	Memory capacity		Reference	Weight kg/*lb*
		For application	**For backup**		
7" wide, 800 x 480 pixels, color TFT screen	1x COM1 (RS-232C), 1x COM2 (RS-422/485) 1x USB micro-B, 1x USB Type A, 1x 10/100 Base-Tx	256 MB	128 KB	**HMIET6400**	0.61/*1.34*
10" wide, 1,024 x 600 pixels, color TFT screen				**HMIET6500**	0.99/*2.18*
12" wide, 1,280 x 800 pixels, color TFT screen				**HMIET6600**	1.62/*3.57*
15.6" wide, 1,366 x 768 pixels, color TFT screen				**HMIET6700**	2.52/*5.56*

Configuration software

Description	Used for	Reference
Vijeo Designer Basic *(4)*	Easy Harmony ET6 models	*(3)*

(1) Panels supplied with fixing screws, power supply connector, and instruction sheet. Setup documentation for Easy Harmony ET6 panels is included in electronic format with the Vijeo Designer Basic configuration software.
(2) Comprehensive information relating to Easy Harmony ET6 panels is available on our website.
(3) To download this software, visit our website www.se.com.
(4) Requires software version 1.2. Cable for transferring application from PC to Easy Harmony ET6 panels (HMIZG936), to be ordered separately (see our website www.se.com).

Human Machine Interfaces
Easy Harmony ET6
Essential touch screen panels for simple machines
Spare parts and connection accessories

PF1437108

HMIZGFIX3

ET6_30834661_OPSPH21004

HMIZSFIXTF1

ET6_30834661_OPSPH21006

HMIZGPWS1

ET6_30834661_OPSPH21003

HMIZGCLP1

ET6_30834661_OPSPH21001

HMIZSCLP3

ET6_30834661_OPSPH21002

HMIZSUSBB2

ET6_30834661_OPSPH21005

HMIZG936

Spare parts

Description	Used for	Sold in lots of	Reference	Weight kg/*lb*
Installation fastener	Used to install 7", 10", and 12" wide model into the solid panel	**24 pieces/set**	**HMIZGFIX3**	–
	Used to install 15.6" wide model into a solid panel	**2 pieces/set**	**HMIZSFIXTF1**	–
DC power supply connector	Connector for a DC power supply cable	**5 pieces/set**	**HMIZGPWS1**	–
Replacement battery	Primary battery for time data backup (RTC)	**1 piece/set**	**HMIZSBA1**	–
USB clamp Type A (for 1 port)	Clamp to prevent disconnection of USB cable	**5 pieces/set**	**HMIZGCLP1**	–
USB clamp mini-B/micro-B (for 1 port)	Clamp to prevent disconnection of USB cable	**5 pieces/set**	**HMIZSCLP3**	–
Screen protection sheet, disposable, dirt-resistant, and ultra-violet protected	Protection sheet for 7" wide screen	**1 piece/set**	**HMIZG63W**	–
	Protection sheet for 10" wide screen	**1 piece/set**	**HMIZG65W1**	–
	Protection sheet for 12" wide screen	**1 piece/set**	**HMIZUV6W**	–
	Protection sheet for 15.6" wide screen	**1 piece/set**	**HMIZG67W**	–

Connection accessories

Designation	Description	Length m/*ft*	Reference	Weight kg/*lb*
USB (micro-B) front cable	Extension cable that attaches USB interface to HMI front panel	1.8/*5.91*	**HMIZSUSBB2**	0.230/*0.507*
USB (Type A) front cable	Extension cable that attaches USB interface to front panel	1/*3.28*	**XBTZGUSB**	0.507/*1.118*
USB transfer cable	Cable for transferring screen data from a PC (USB Type A) to HMI (USB micro-B)	1/*3.28*	**HMIZG936**	0.100/*0.220*
USB Type A port/9-way SUB-D converter for serial printer	Enables connection of an RS 232 serial link printer (9-way SUB-D) to the USB Type A port of Easy Harmony ET6 Ethernet panels	–	**HMIZURS**	–

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Human Machine Interfaces
Easy Harmony ET6
Essential touch screen panels for simple machines
Cables for third-party PLCs and Connection via Modbus serial link

Cables for connecting Easy Harmony ET6 panels to Schneider Electric PLCs

Type of automation product	Type of connector (automation product end)	Protocol	Type of Easy Harmony ET6 panels	Physical link (panels port)	Length m/*ft*	Reference	Weight kg/*lb*
Modicon M340 Modicon M218 Modicon M258 Modicon M221 Modicon M241 Modicon M251	RJ45	Modbus	All models	RS-485	2.5/*8.20*	**XBTZ9008**	–
Easy Modicon M100 Easy Modicon M200	Terminal block	Modbus	All models	RS-485	2.5/*8.20*	**XBTZG9722**	–
TeSys U/T starters Altivar drives Altistart starters Lexium motion control Preventa XPS MC	RJ45	Modbus	All models	RS-485	2.5/*8.20*	**XBTZ9008**	–

Cables and adapters for connecting Easy Harmony ET6 panels to third-party PLCs

Description *Driver used*	Type of Easy Harmony ET6 panels	Type of connector (fitted to cable, excluding adapter)	Physical link (panels port)	Length m/*ft*	Reference	Weight kg/*lb*
Mitsubishi, Melsec PLCs						
Connection cable, *Q Link (SIO)*	All models	9-way SUB-D/9-way SUB-D	RS-232C	5/*16.40*	**XBTZG9772**	–
Connection cable, *Q CPU (SIO)*	All models	9-way SUB-D/mini-DIN	RS-232C	5/*16.40*	**XBTZG9774**	–
Connection cable, *FX (CPU)*	All models	9-way SUB-D/mini-DIN	RS-422	5/*16.40*	**XBTZG9775**	–
Omron, Sysmac PLCs						
Connection cables, *Link (SIO)*	All models	9-way SUB-D/25-way SUB-D	RS-232C	5/*16.40*	**XBTZG9731**	–
	All models	9-way SUB-D/9-way SUB-D	RS-232C	5/*16.40*	**XBTZG9740**	–
Connection cable, *FINS (SIO)*	All models	9-way SUB-D/9-way SUB-D	RS-232C	5/*16.40*	**XBTZG9740**	–
Siemens, Simatic PLCs						
Connection cables, *MPI port, S7 200 S7 300/400*	All models	9-way SUB-D/9-way SUB-D	RS - 485	–	*(1)*	–
Customizable cables						
Universal cable, RS-422	All models	9-way SUB-D/flying leads at other end	RS-422	2.5/*8.20*	**XBTZG9722**	–

XBTZG9772

XBTZG9731

Connecting Easy Harmony ET6 panels via Modbus serial link

Type of bus/network	Tap-off units	Connector (tap-off unit end)	Type of Easy Harmony ET6 panels	Length m/*ft*	Reference	Weight kg/*lb*
Modbus serial link	8-port Modbus splitter box **LU9GC3** 2-port tap junction **TWDXCAISO TWDXCAT3RJ**	RJ45	All models	2.5/*8.20*	**XBTZ9008**	–

(1) Customized cable.

LU9GC3   *TWDXCAISO*

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