WOODWARD EASYGEN RP-3000XT
Remote Panel

# Remote Panel RP-3000XT for XT family Power Management Controls*

DESCRIPTION

Woodward's RP-3000XT is a touch screen remote control and annunciation panel for use with the XT family power management controls. It is particularly useful with the back panel mounted easYgen-3100XT/3400XT or LS-6XT, providing control from the front panel with greatly reduced wiring to the access door, while keeping high voltage connections located safely on the back panel.

The RP-3000XT offers all the HMI resources that the display variants easYgen-3200XT/3500XT offer with a touch screen technology. Irrespective of the easYgen-3000XT or LS-6XT variants, this compact HMI solution connects to up to 32 XT controls (select and access one device at a time).

The RP-3000XT offers switchgear builders, genset packagers, and system integrators an off-the-shelf HMI option for any application where a secure remote control, monitoring and visualization is desired, such as hospitals, data centers, offshore rigs, landfill and wastewater gas-to-power applications to name a few.
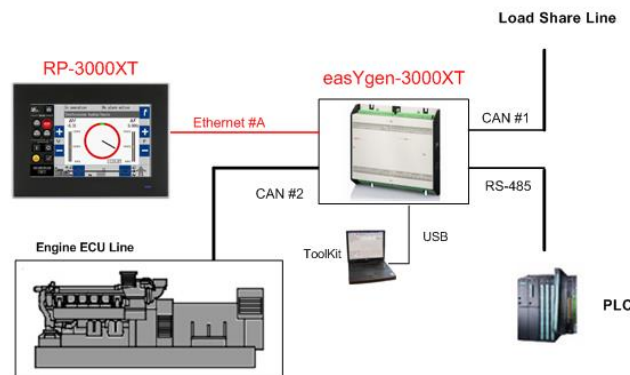
In a paralleling application, the RP-3000XT provides the flexibility to connect one-to-one (each device with own RP-3000XT) or to connect one-to-n (one RP-3000XT for a fleet of devices, accessing one at a time). The communication between the two devices is always through Ethernet.
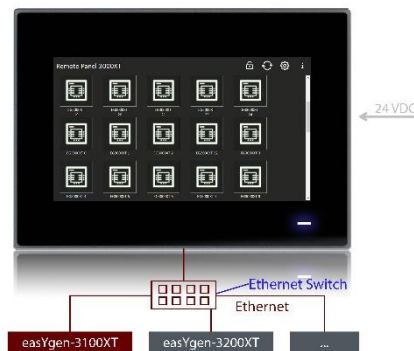
Features

- **RP-3000XT features help realize following use cases:**
  - Mounted to the front door and connected with a back panel mounted easYgen-3100XT or easYgen-3400XT or LS-6XT a safe and compact installation
  - Installed away from genset room and connected with a front panel mounted easYgen-3200XT or easYgen-3500XT for applications requiring multiple HMIs
  - Mounted to the front door and connected to a fleet of XT family controls (up to 32) for cost sensitive and/or space constrained applications
- It is possible to set the remote panel in full mode, annunciator mode or deactivate
- Power ON LED at face plate
- Multi-lingual display capability of the connected controller (RP-3000XT menu in English)

Feature list (right column)

- **Plug-and-Play remote operator control panel for:**
  1. easYgen 3000XT Series genset controls
  2. easYgen | LS-6XT Series circuit breaker controls
- **Use as full mirror of HMI resources, or only for annunciation or turn it completely off**
- **Multi-Cast function, offers connection to a fleet of controls (one at a time)**
- **Offers on-the-fly configuration with same security levels as the connected control**
- **Simplifies wiring to the access door and keeps high voltage connections remote**
- **Small footprint makes compact installations**
- **Touch screen and Color display**
- **Ethernet communication to the connected control**
- **Multi-lingual Capability**
- **Personalization by end user**
- **CE Marked**
- **UL/cUL Listing**

*As of publication of this document, RP-3000XT does not support easYgen | GC-3000XT

SPECIFICATIONS

Power supply   24 Vdc ± 20%
  Intrinsic consumption... typical 9 W
  Ambient temperature (operation)....................-20 to 60 °C (-4 to 140 °F)
  Ambient temperature (storage)......................-30 to 70 °C (-22 to 158 °F)
  Ambient humidity ....10 to 90% RH@40 °C, non-condensing
  Housing   Front panel mounting   PC plus ABS
                              (with die-cast aluminum alloy front bezel)
  Dimensions   WxHxD   205 x 146.9 x 46 mm
  Front cutout   WxH   192 × 138.5 mm
  Front   ....insulating surface
  Weight   .... approx. 1.2 kg
  Sealing   Front .... IP66 (with clamp fastening)
  Connection (power supply)........................screw/plug terminals 2.5 mm²
  Interface (others not to be used) .... Ethernet

System Hardware
  CPU .... RISC processor with 32 bits
  ....600 MHz (ARM® Cortex™-AB)
  Backup Memory...FRAM 128 KB
  Memory.. DDR3L 512 MB on board
  Storage ....8GB eMMC on board
  Power-On LED bar .... blue

Software
  Operating System.. Linux
  Woodward Application ....Auto-start software to connect to
  ....an easYgen-3000XT or LS-6XT for
  .... remote control via Ethernet

Display
  Type..WSVGA TFT LCD
  Size...177.8 mm (7')
  Max. Resolution .... 1024 x 600
  Max. Colors...16.7M
  Luminance (cd/m2)..400
  Viewing Angle (H/V) 170/170
  Backlight Life ....LED; 50,000 h
  Brightness adjustable .... yes
  Contrast Ratio..800:1

Touch Screen
  Life span .... 36 million touches
  ....at 7 mm diameter finger point through silicone rubber
  ....bearing at least 250 g two times per second
  Light ....Transmission Above 85%
  Type.. Projected capacitive (P-CAP) touch
Vibration protection ...... Operating, random vibration 2 Grms (5 to 500 Hz)
Disturbance test (CE)............tested according to applicable EN guidelines
Listings   .... CE, BSML, CCC, UL, FCC Class A

DIMENSIONS

Plastic housing with metal frame for front panel mounting

Dimensions in mm
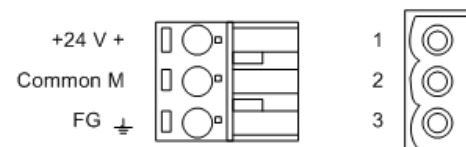Panel cut out: 192 x 138.5
(7.56 x 5.45 in)
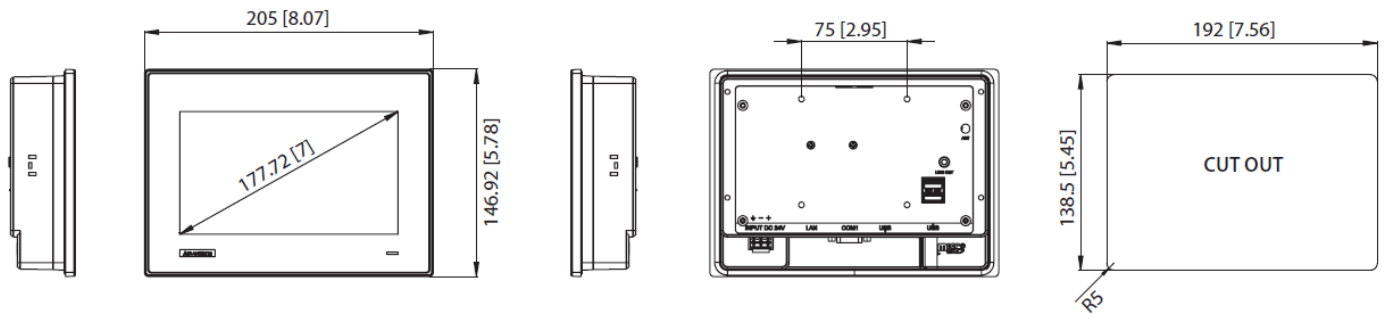
TERMINAL DIAGRAM

1 Power supply
2 Ethernet Interface

Other interfaces not used for this application!

Power supply terminal (1):
Low voltage / Limited Energy power source

The RP-3000XT IP address must be configured to be in the same Ethernet network as the XT controller.

After boot-up sequence the panel lands on MULTICAST screen. This screen presents all the devices in the current network by an icon. Under the icon toggles the device IP address and a customizable device name. Touch the device you wish to connect to: the HOME screen of the selected device appears (*Figure 3).*

A settings screen is provided for customizing the behavior according to your use cases *see figure 2*. The RP-XT Ethernet network settings can be adjusted from this screen.

The MULTICAST screen presents all the XT controls in the same network.

Figure 1: **MULTICAST** screen with
1) Lock touch screen for cleaning
2) Refresh network overview
3) Open SETTINGS screen
   Info software revision and build number
4) Device icon and (alternating) name/IP address (green: last connected)
5) Scroll bar to navigate when #device > 15

The SETTINGS screen allows customization.
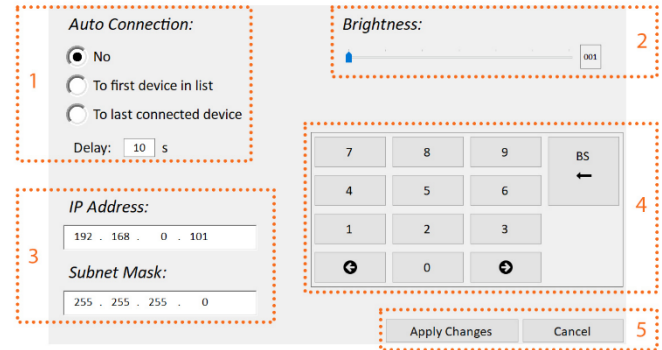
Figure 2: **SETTINGS** screen with
1) Auto re-connect settings. Also, Delay(s) defines the time RP-3000XT is waiting before auto re-connecting to the selected device
2) Brightness status and settings icons to reduce / increase brightness
3) IP address and subnet mask of the RP-3000XT. By selecting these and using the keypad in group 4, these values can be changed
4) keypad to enter/navigate when inputting IP addresses or delay time. The arrows allow to jump between IP and subnet fields, the BS-arrow is a backspace function to delete an entered digit
5) "these two buttons allow to accept or cancel made settings. If accepted, the settings are applied immediately. After pressing one of these buttons, and the system will jump into the multicast screen

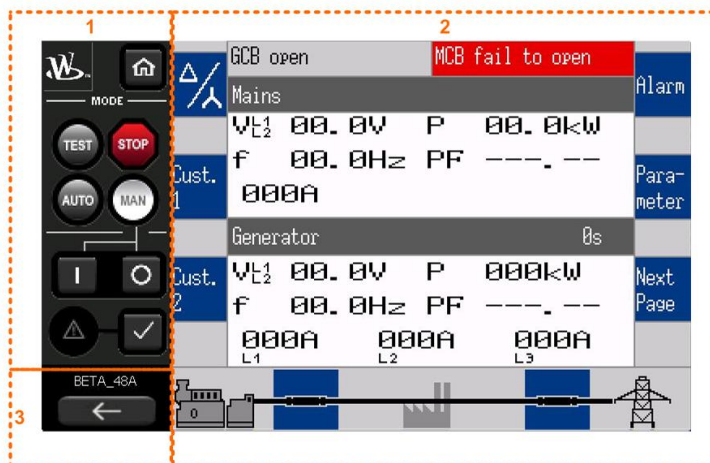… and the **HOME** screen mirrors the easYgen-XT HMI and front panel buttons:

Figure 3: **HOME** screen with

1) Simulated easYgen-XT front panel buttons
2) Mirrored easYgen-XT HMI screen with active soft buttons
3) IP address/device name of the connected easYgen-XT and back button to the MULTICAST screen

FEATURES OVERVIEW

EASYGEN RP-3000^XT
Remote Panel

	Model	RP-3000XT
HMI		
Projected capacitive (P-CAP) touch screen		✓
Color display		✓
Power ON LED bar		✓
Personalization (Boot-up Screen & Logo)		See application note #37929
I/Os		
Ethernet		1
Remote Terminal Control		
Based on VNC		✓
Supports easYgen-3000XT series genset controls		✓
Supports easYgen | LS-6XT		✓
Listings/Approvals		
UL / cUL Listing		✓
FCC		Class A
CE Marked		✓
Hardware		**P/N:**
Plastic housing with Die-cast aluminum alloy front bezel and display (front panel mounting)		**8446-1068**
Spare part: Mounting KIT (clamp set for panel mount, delivered with the unit for fastening)		8923-2292

Related Products

- Genset control **easYgen-3100XT/3200XT-P1**   Product Specification (# 37582)
- Genset control **easYgen-3400XT/3500XT-P1/P2**   Product Specification (# 37583)
- Circuit breaker control **easYgen \| LS-6XT**   Product Specification (# 37913)

Product Documentation

- Remote panel **RP-3000XT**   Technical Manual   (# 37928)
- Genset control **easYgen-3100XT/3200XT-P1**   Technical Manual   (# 37574)
- Genset control **easYgen-3400XT/3500XT-P1**   Technical Manual   (# 37580)
- Genset control **easYgen-3400XT/3500XT-P2**   Technical Manual   (# 37581)
- Circuit breaker control **easYgen \| LS-6XT**   Technical Manual   (# 37914)