Remote Panel RP-3000XT for easYgen-3000XT Series Genset Controls

DESCRIPTION

Woodward’s RP-3000XT is a touch screen remote control and annunciation panel for use with the easYgen-3000XT series controls. It is particularly useful with the back panel mounted easYgen-3100XT/3400XT, 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, but with touch screen technology. Irrespective of the easYgen-3000XT variants, this compact HMI solution connects to up to 32 XT controls (select and access one easYgen-3000XT 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 each of the easYgen-3000XT controls (one RP-3000XT for one easYgen-3000XT) or to connect multiple of the easYgen-3000XT (one RP-3000XT for a fleet of easYgen-3000XTs, accessing one at a time). The communication between the two devices are 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 for 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 easYgen-3000XT series controls (up to 32) for cost sensitive and/or space constrained applications
  - Power ON LED at face plate
  - Multi-lingual display capability of the connected easYgen-XT (RP-3000XT menu in English)

- Plug-and-Play remote annunciation and remote control of the easYgen-3000XT Series genset controls
- Generic remote panel, connects to all easYgen-3000XT series controls
- Multi-Cast function, offers connection to a fleet of easYgen-3000XT controls (one at a time)
- Offers on-the-fly configuration with same security levels as easYgen-3000XT
- 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 genset control
- Multi-lingual Capability
- CE Marked
- UL/cUL Listing
SPECIFICATIONS

Power supply 24 Vdc ±10%

Intrinsic consumption ................................................................. typical 7 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 ........................................ 03.4 x 150 x 43.7 mm

Front cutout WxH ........................................ 192 x 138.5 mm

Front ................................................................. insulating surface

Weight ................................................................. approx. 1 kg

Sealing ................................................................. 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 ................................................................. DDR2 256 MB on board

Storage ................................................................. 512 MB on board, SLC type

Power-On LED bar ................................................................. blue

Software

Operating System ................................................................. Microsoft® Windows CE 6.0

Woodward Application ................................ Remote Panel RP-3000XT software

...Auto-start software to connect to an easyYgen-3000XT

for remote control via Ethernet

Display

Type ................................................................. WVGA TFT LCD

Size ................................................................. 177.8 mm (7”)

Max. Resolution ................................................................. 800 x 480

Max. Colors ................................................................. 64k

Luminance (cd/m²) ................................................................. 500

Viewing Angle (H/V) ................................................................. 140/120

Backlight Life ................................................................. LED: 50,000 h

Brightness adjustable ................................................................. yes

Contrast Ratio ................................................................. 700:1

Touch Screen

Life span ................................................................. 36 million touches

at 8 mm diameter finger point through silicone rubber

bearing at least 250 g two times per second

Light ................................................................. Transmission Above 80%

Resolution ................................................................. Linearity

Beep ................................................................. ON/OFF by software

Type ................................................................. 5-wire, analog resistive

Vibration protection ................................ Operating, random vibration 1 Grms (5 to 500 Hz)

Disturbance test (CE) ................................ tested according to applicable EN guidelines

Listings ................................................................. Industrial Control Equipment UL 508 certification

..........................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

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 easYgen-XT to be remotely controlled must be in the same Ethernet network as the Remote Panel RP-3000XT. After auto-start procedure, the MULTICAST screen presents all easYgen-XT in the current network by icon and IP address: see figure 1. Manual selection by touching the icon or with auto-setup countdown the BASE screen will open and enable remote access to the preferred easYgen-XT: see figure 3. Otherwise, if the preferred easYgen-XT is not found, the SETTINGS screen gives access to adjust network setting, and additionally auto-connect type and brightness level: see figure 2.

The MULTICAST screen presents the network view for device selection (1) of up to 32 easYgen-XT:

![MULTICAST screen](image)

Figure 1: MULTICAST screen with
1) Lock touch screen for cleaning
2) Refresh network overview
3) Open SETTINGS screen
4) Go to next page (if more than 16 easYgen-XT)
5) Icon ad IP address of the easYgen-XT remote control candidate (green = latest connected)

The SETTINGS screen allows network (4), auto-connect (1 and 2), and brightness adjustment (3):

![SETTINGS screen](image)

Figure 2: SETTINGS screen with
1) Three auto-connect pre-sets first / latest / no auto-connect (nothing checked)
2) Delay time before auto-connecting
3) Brightness adjustment between 0 and 10
4) CLIENT IP settings to adjust the IP address of the RP-3000XT and the Ethernet network settings
5) Back to MULTICAST screen
6) Beep by touching screen

... and finally the BASE screen mirrors the easYgen-XT HMI and front panel buttons:

![BASE screen](image)

Figure 3: BASE screen with
1) Simulated easYgen-XT front panel buttons
2) Mirrored easYgen-XT HMI screen
3) IP address of connected easYgen-XT and back arrow to MULTICAST screen
FEATURES OVERVIEW

<table>
<thead>
<tr>
<th>Model</th>
<th>RP-3000XT</th>
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<tbody>
<tr>
<td>HMI</td>
<td>Yes</td>
</tr>
<tr>
<td>Analog Resistive Touch Screen</td>
<td>Yes</td>
</tr>
<tr>
<td>Color display</td>
<td>✓</td>
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<tr>
<td>Power ON LED bar</td>
<td>✓</td>
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<tr>
<td>HMI customizable</td>
<td>Please consult your Woodward representative</td>
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<table>
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<tbody>
<tr>
<td>Ethernet</td>
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Remote Terminal Control

Based on VNC ✓

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) 8446-1061

Mounting KIT (clamp set for panel mount) 8923-2292

Related Products

- Genset control easYgen-3100XT/3200XT-P1 Product Specification (# 37582)
- Genset control easYgen-3400XT/3500XT-P1/P2 Product Specification (# 37583)

Product Documentation

- Remote panel RP-3000XT Technical Manual (# 37593)
- 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)

For more information contact:

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