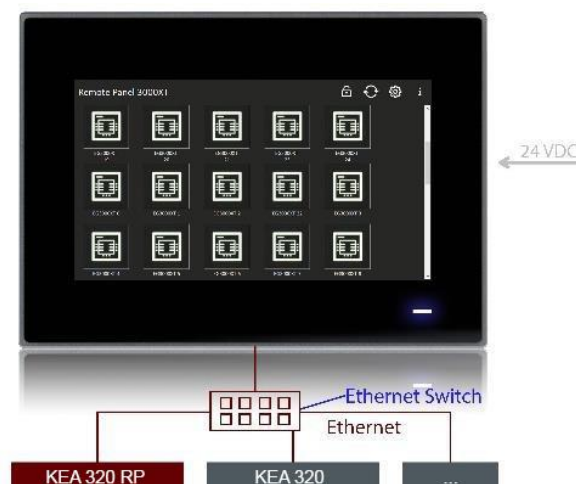


Remote Panel for Genset Control KEA 3X0 RP 300

Data sheet



General

RP 300 is a touch screen remote control and annunciation panel for use with the KEA 3X0 series controls. It is particularly useful with the back panel mounted KEA 320 RP / KEA 350 RP 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 300 offers all the HMI resources that the display variants KEA 320 / KEA 350 offer with a touch screen technology. Irrespective of the KEA 3X0 or LS-6XT variants, this compact HMI solution connects to up to 32 KEA controls (select and access one KEA 3X0 at a time).

The RP 300 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.

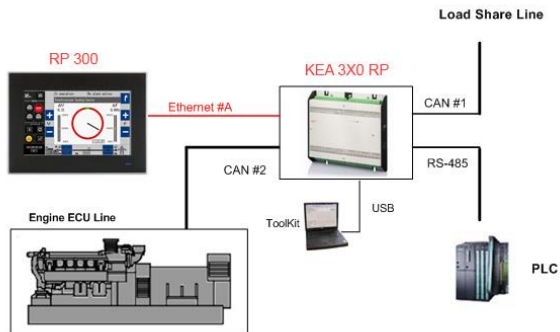
In a paralleling application, the RP 300 provides the flexibility to connect one-to-one (one RP 300 for one KEA 3X0) or to connect one-to-n (one RP 300 for a fleet of KEA 3X0s, accessing one at a time). The communication between the two devices is always through Ethernet.

Function overview

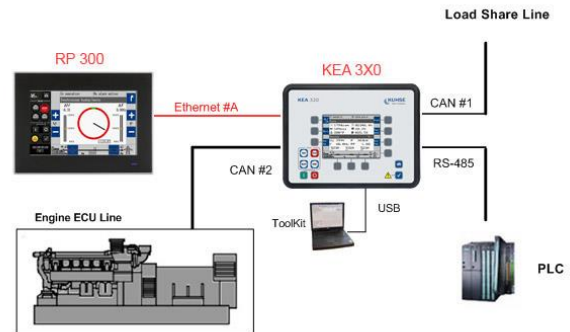
- Plug-and-Play remote operator control panel for
 - KEA 3X0 series genset controls
 - KEA 3X0 | LS-6XT series circuit breaker controls
- Use as full mirror of HMI resources, or only for annunciation or turn it completely off
- Multi-Cast function, offers connection to a fleet of KEA 3X0 controls (one 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

Features

RP 300 features help realize following use cases:



RP 300 with KEA 3X0 RP (back panel mounting)



RP 300 with KEA 3X0 (front panel mounting)

- Mounted to the front door and connected with a back panel mounted KEA 320 RP or KEA 350 RP or LS-6XT a safe and compact installation
- Installed away from genset room and connected with a front panel mounted KEA 320 or KEA 350 for applications requiring multiple HMIs
- Mounted to the front door and connected to a fleet of KEA 3X0 series 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 KEA 3X0 (RP 300 menu in English)

Technical Data

| | |
|---|--|
| Power supply | 24 Vdc \pm 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 × 146.9 × 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 mm ² |
| 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 |
| Application | Remote Panel RP 300 software |
| Auto-start software to connect to an KEA 3X0 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/m ²) | 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

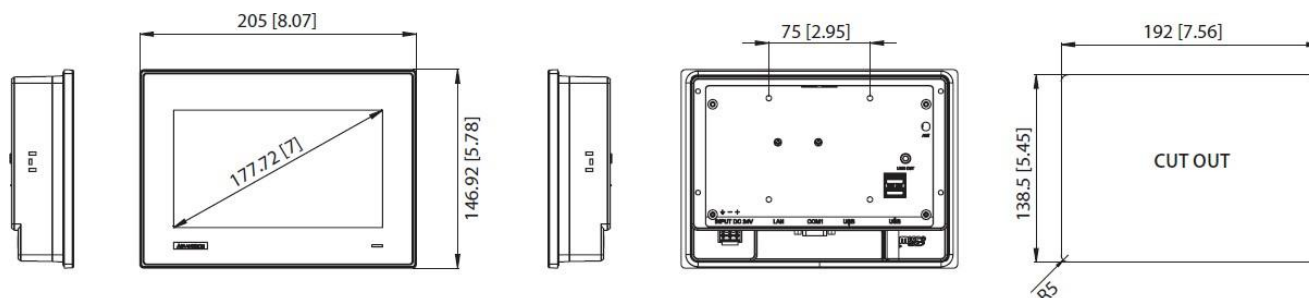
Plastic housing with metal frame for front panel mounting

Dimensions in mm

Panel cut:

192 x 138,5

(7.56 x 5.45 in)



Terminal diagram



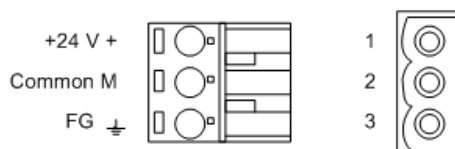
1 Power supply

2 Ethernet Interface

Other interfaces not used for this application!

Power supply terminal (1):

Low voltage / Limited Energy power source



Remote control and connection

The RP 300 IP address must be configured to be in the same Ethernet network as the KEA 3X0s.

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 Ethernet network settings can be adjusted from this screen.

The MULTICAST screen presents all the KEA 3X0 controls in the same network.

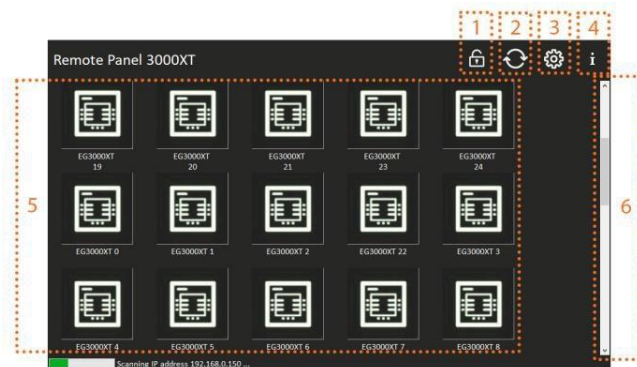


Figure 1: **MULTICAST** screen with

- 1) Lock touch screen for cleaning
- 2) Refresh network overview
- 3) Open SETTINGS screen
- 4) Device icon and (alternating) name/IP address (green: last connected)
- 5) Scroll bar to navigate when #device > 15

The SETTINGS screen allows customization:

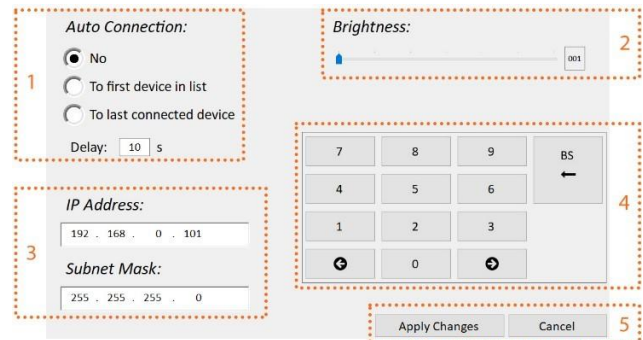


Figure 2: **SETTINGS** screen with

- 1) Auto re-connect settings. Also, Delay(s) defines the time RP-300 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-300. 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 KEA 3X0 HMI and front panel buttons:

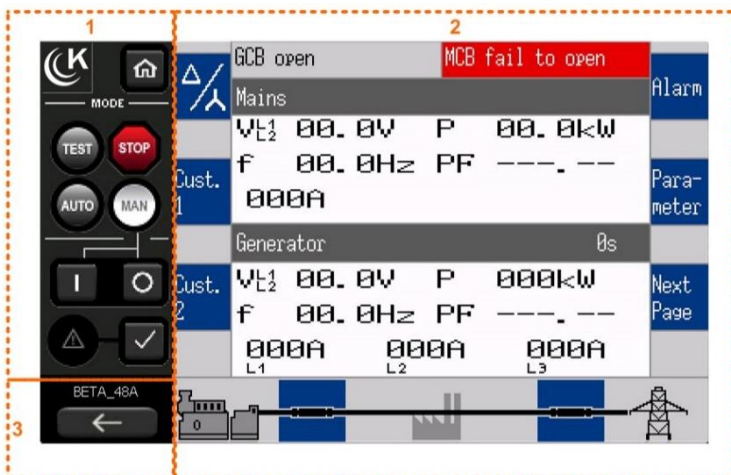


Figure 3: **HOME** screen with

- 1) Simulated KEA 3X0 front panel buttons
- 2) Mirrored KEA 3X0 HMI screen with active soft buttons
- 3) IP address/device name of the connected KEA 3X0 and back button to the MULTICAST screen

Function overview

| 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 KEA 3X0 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) | 2A300R0701 |
| Spare part: Mounting KIT (clamp set for panel mount, delivered with the unit for fastening) | 2A300PSR07 |

Related Products

- Genset control
KEA 320 RP/ KEA 320 Data sheet DB KEA 320 EN
- Genset control
KEA 350 RP/ KEA 350-P1/P2 Data sheet DB KEA 350 EN
- Circuit breaker control
easYgen | LS-6XT Product Specification (No. 37913)

Product Documentation

- Remote panel
RP 300 Technical Manual (No. 37928)
- Genset control
KEA 320 RP/KEA 320 Technical Manual (No. 37574)
- Genset control
KEA 350 RP/KEA 350-P1 Technical Manual (No. 37580)
- Genset control
KEA 350 RP/KEA 350-P2 Technical Manual (No. 37581)
- Circuit breaker control
KEA 3X0 | LS-6XT Technical Manual (No. 37914)