

Rittal – The System.

Faster – better – everywhere.

Ethernet communication
for Blue e Chiller and VX25 Chiller



ENCLOSURES

POWER DISTRIBUTION

CLIMATE CONTROL

IT INFRASTRUCTURE

SOFTWARE & SERVICES

FRIEDHELM LOH GROUP



Contents

1. WEB server	3
1.1 First access and main menu	4
2. Machine information	5
3. Menu bar	5
3.1 Homepage	5
3.2 Main setup	5
3.3 Advanced Setup	5
3.4 Details Machine	6
3.5 Manufacturer	6
3.6 Alarms Overview	6
3.7 Configuration	6
3.8 More features in the menu bar	8
4. Virtual Touch Display	8
5. Alarms	8
6. Commissioning (only for Service)	8
6.1 System	8
6.2 pGD1	9
6.3 Alarms	9
6.4 Unit	9
6.5 Log	9
6.6 Variables	9
6.7 Parameters	10
6.8 Upgrades	10
6.9 Clock	10
6.10 Web interface	10

1 WEB Server

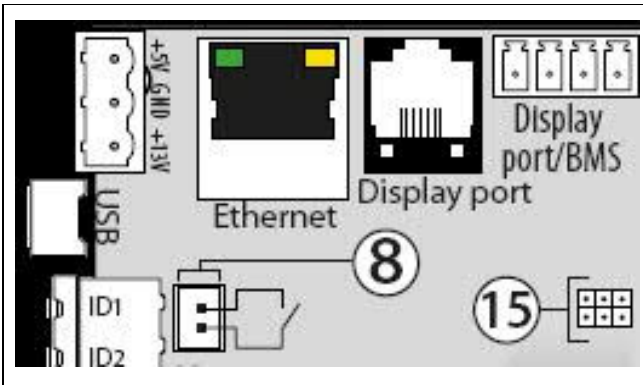
EN

1. WEB server

For a supervision of the machine even remotely in the controller is integrated a WEB interface with customized pages. In these pages you can view the progress of the machine, customize some parameters and check the machine alarms.

1.1 First access and main menu

To connect to the dedicated WEB server first of all make sure that the controller is connected to the local network via the Ethernet-LAN port directly on the card.



Once the card is connected, change the IP of your computer with the following data:
IP: **192.168.1.xxx (es: 192.168.1.2)**
Gateway: **255.255.255.0**
Mask: **0.0.0.0**
DNS: **0.0.0.0**

Once the connected, enter "**192.168.1.100/Rittal/In-dex.html**" address in the browser and replace IP-address with the local IP address of the controller.

(default setting → DHCP)

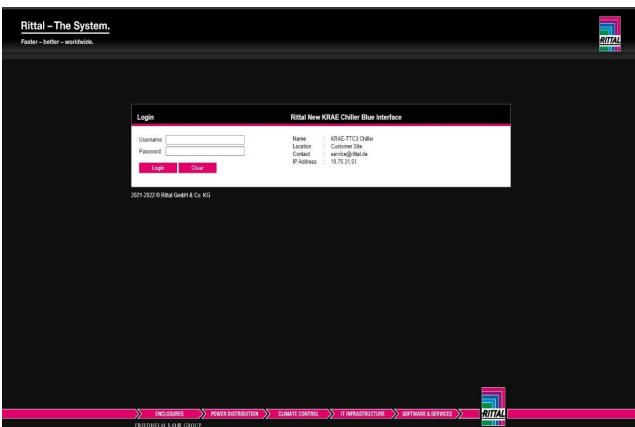
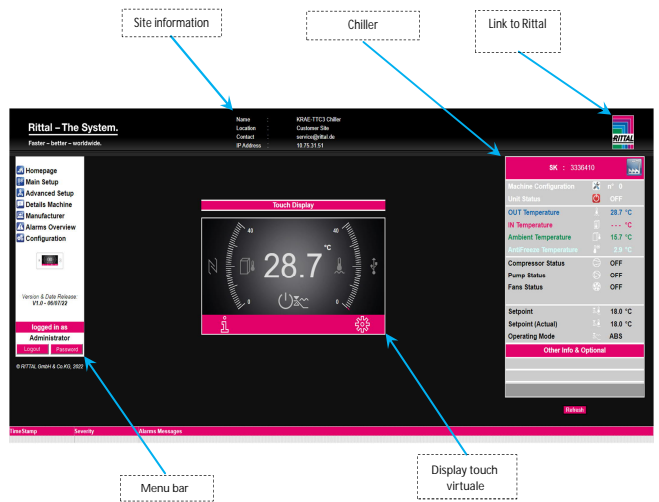
If the connection is successful, the following login page will appear. The data for the first access are:

- **Username: admin**
- **Password: admin**

Once logged in, the login will last 30 min.; then you will need to re-enter the credentials.



Once logged in you will be redirected to the corresponding homepage.

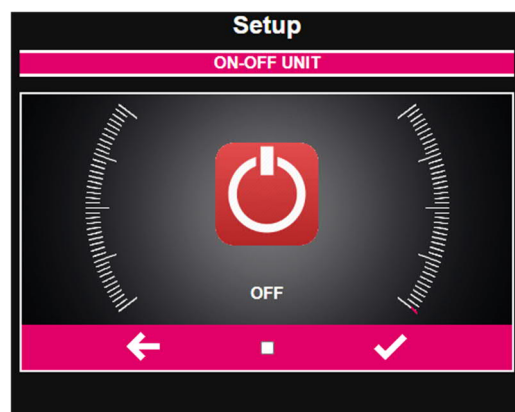
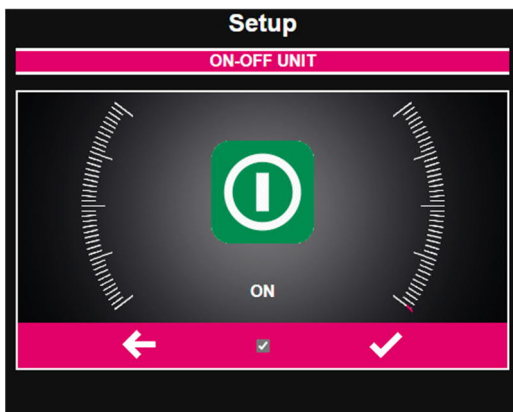


2. Machine Information

In this box are displayed different information on the operation of the machine and some parameters that are only viewable.

SK : 3336410			Link to commissioning
Machine Configuration		n° 0	N° Machine configuration (not modifiable)
Unit Status		OFF	Machine status ON/OFF (editable)
OUT Temperature		28.7 °C	Real-time temperature probes on the machine
IN Temperature		--- °C	
Ambient Temperature		15.7 °C	
AntiFreeze Temperature		2.9 °C	
Compressor Status		OFF	Status of current compressors, pumps, fans
Pump Status		OFF	
Fans Status		OFF	
Setpoint		18.0 °C	Main setpoints and modes of operation (viewable only)
Setpoint (Actual)		18.0 °C	
Operating Mode		ABS	
Other Info & Optional			Unavailable → To be implemented

To change the status of the machine in ON/OFF you have to click the Unit Status icon (off) (on) , when the following page will show up click the box and confirm with the checkmark.



To turn on / off the machine you have to click the box and then confirm with the check.

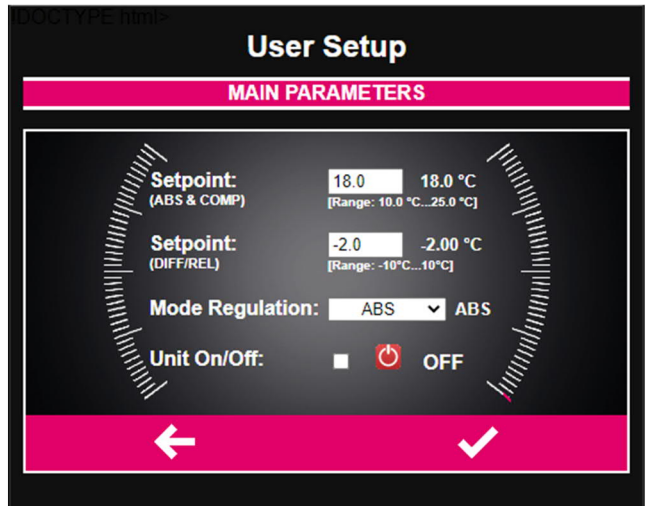
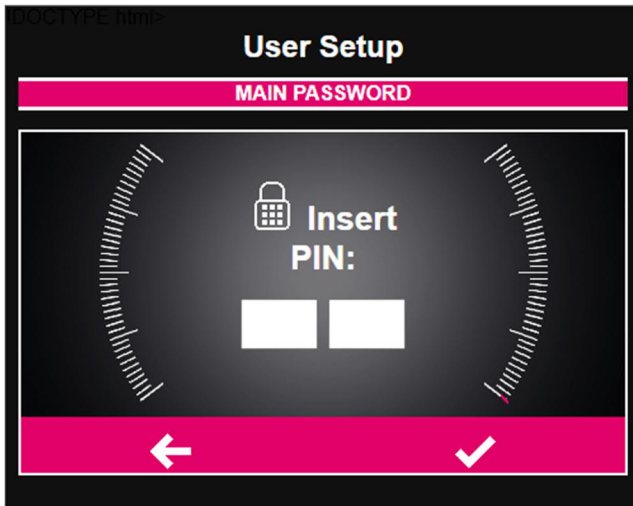
3. Menu bar

3.1 Homepage

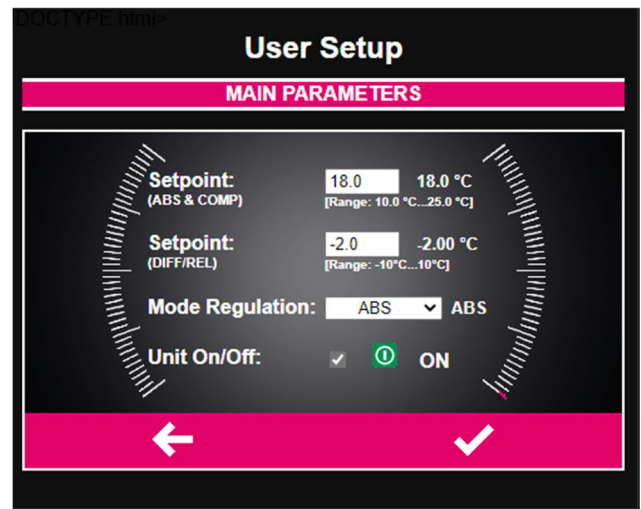
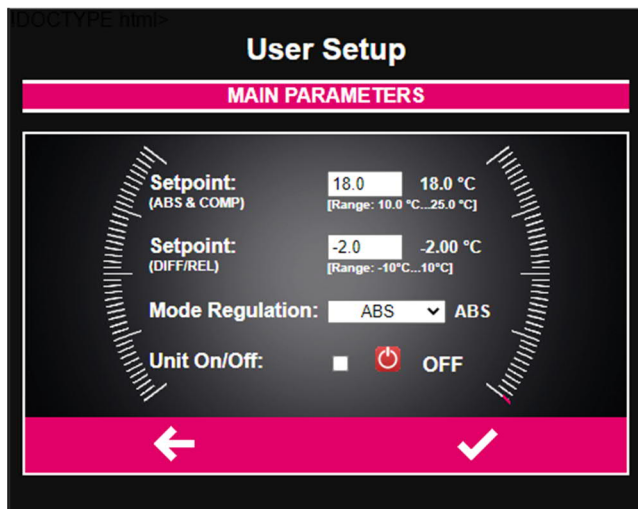
Homepage addressing

3.2 Main setup

In the main setup there are some main parameters of the machine. To access the pin is **2 2**. To change the parameters simply change the current values and confirm with the checkmark to set them on the machine.

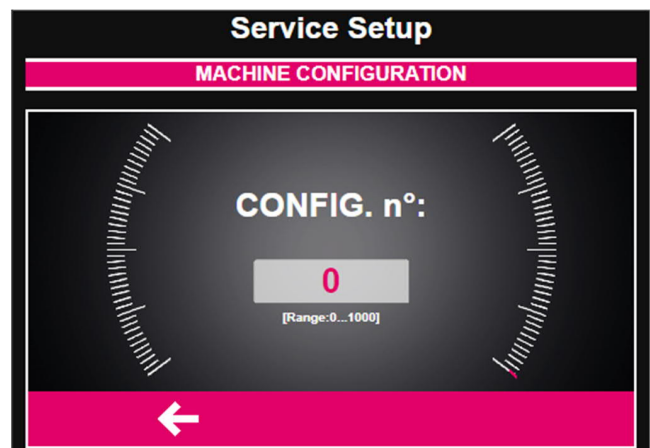
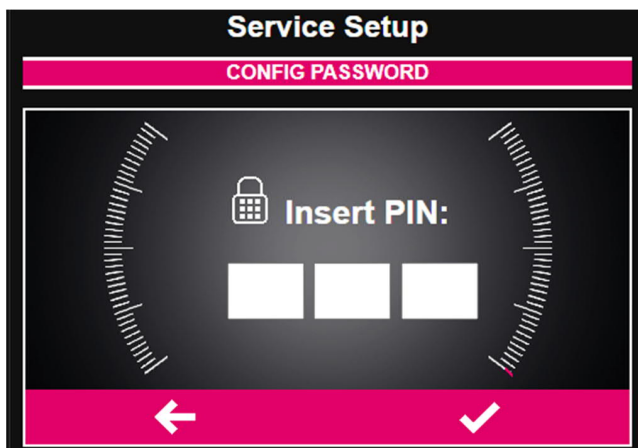


To turn on / off the machine you have to click the box and then confirm with the check.



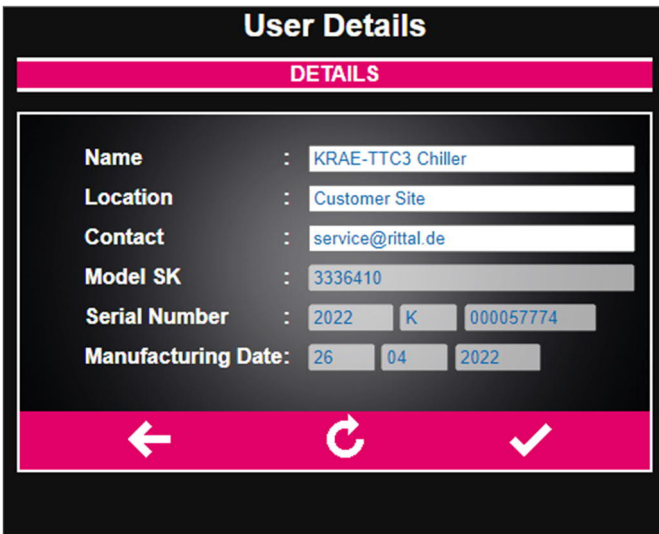
3.3 Advanced Setup

The advanced setup allows you to view the configuration of the machine. To access the pin is **111**.



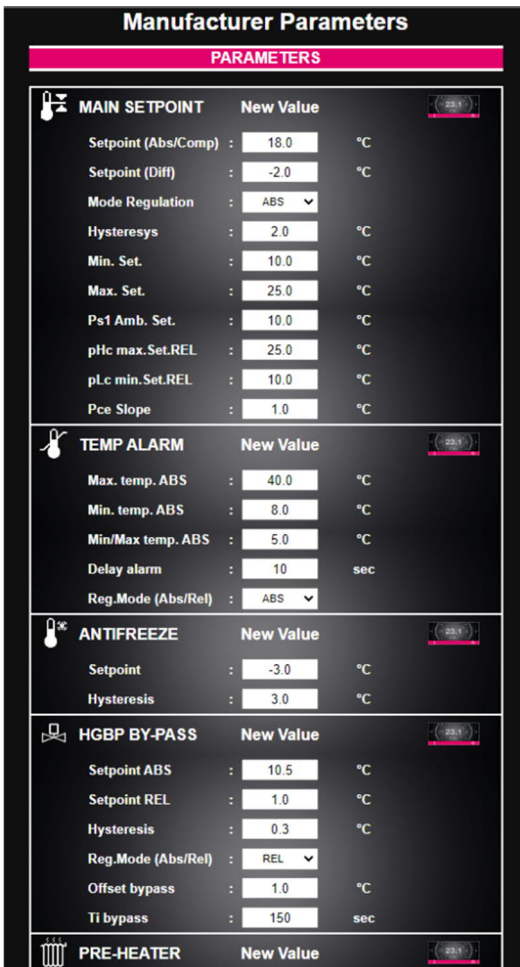
3.4 Details Machine

The Details Machine menu provides additional model information and machine details.

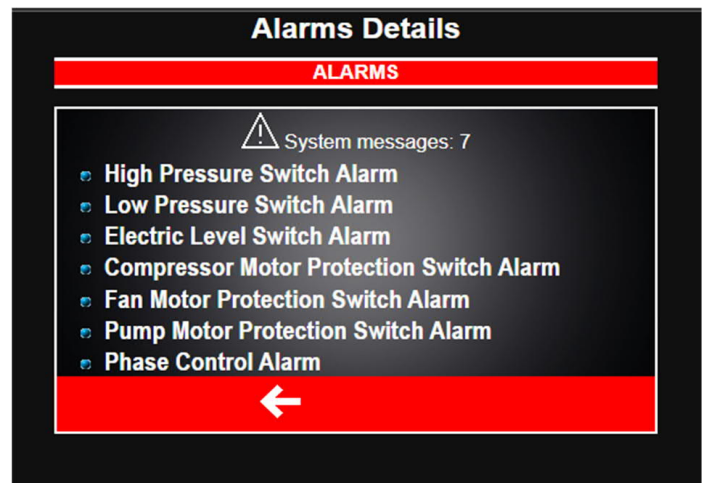
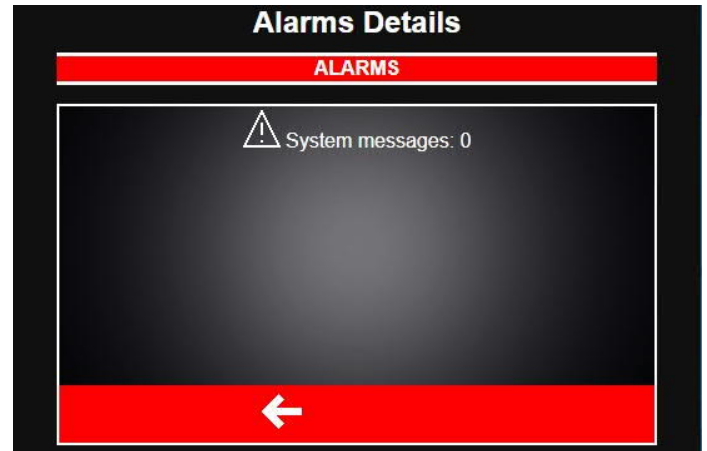


3.5 Manufacturer

In the manufacturer menu you can vary certain machine parameters (you do not need to turn off the machine to change them but it is recommended). This parameters change the operation of the machine, including valves and alarm management



3.6 Alarms Overview



3.7 Configuration

In the configuration section there is several information and features that will be explored in more detail in chapter 5

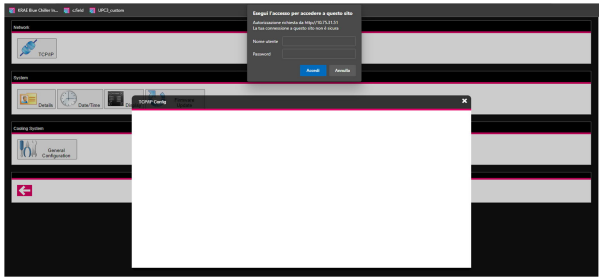


3 Menu bar

EN

To access the various sections for the first access it is necessary to enter the following credential

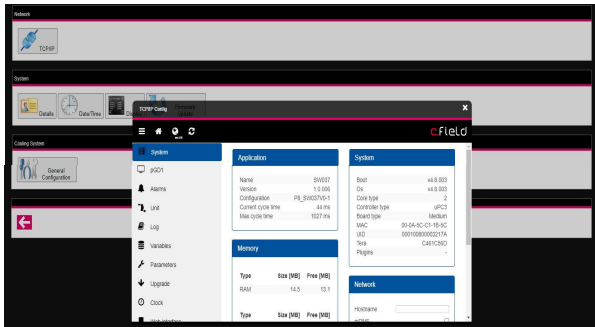
- **username: admin**
- **password: admin**



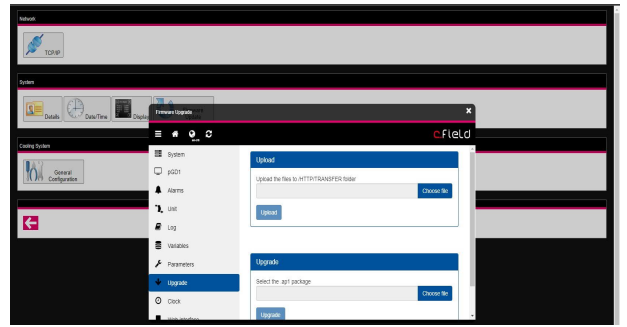
Display



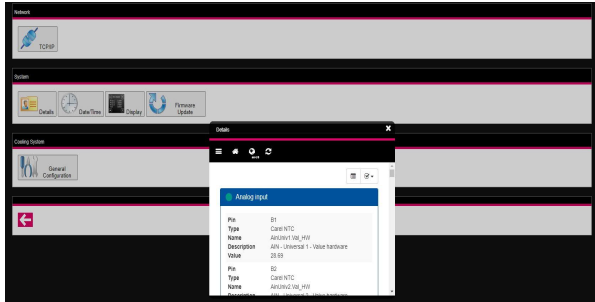
TCP / IP



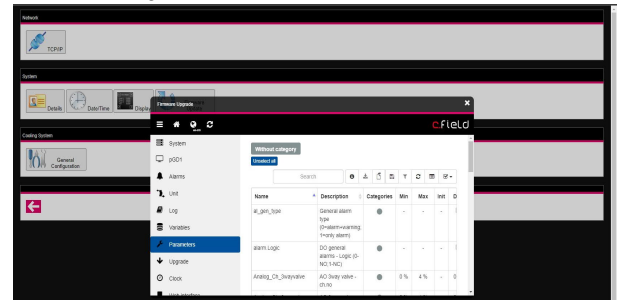
Firmware Upgrade



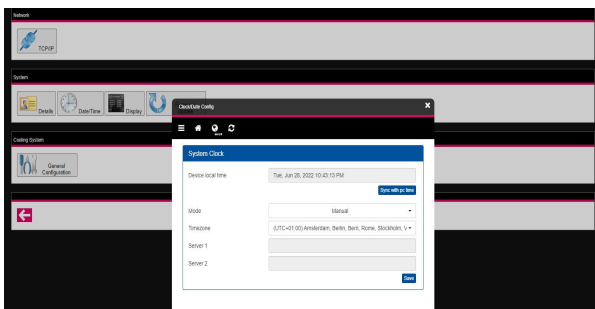
Details



General Configuration



Date / Time



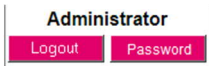
3.8 More features in the menu bar

Touch display:

This touch display has the same functionality as the touch in the main menu (See chapter 3) but is displayed in a separate tab.

Password change:

You can change the password to access the site **but not the Username that always remains admin.**

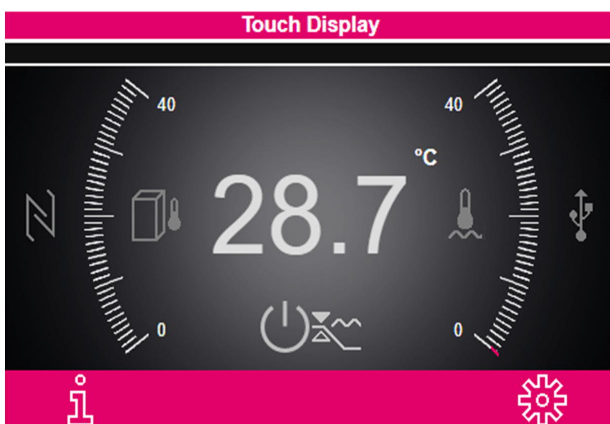


4. Virtual Touch Display

Some features of the machine's physical touch display have been replicated in its own digital form (only visualization) available in the home page and in a separate tab (see chap 3.8).

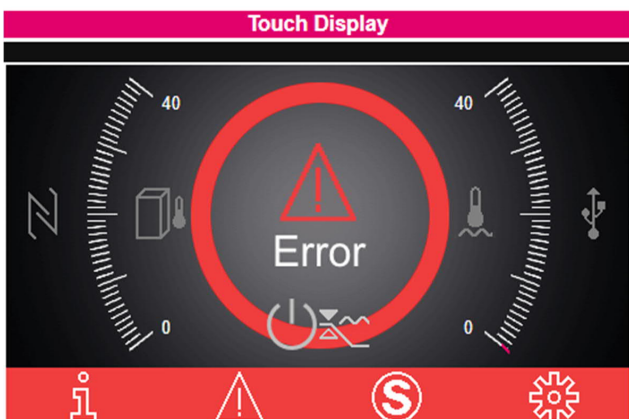
Including:

- Real-time display of the temperature of the reference probe
- Alarm signals
- Compressor/pump/valve status (ON-OFF)



5. Alarms

In the event of an alarm of any kind on the machine, an error message appears on the display that will remain active until it is resolved. The alarms will only be displayed, in case of manual reset it is still necessary to go directly to the machine to disable the error message.



Ethernet communication for Blue e Chiller and VX 25 Chiller

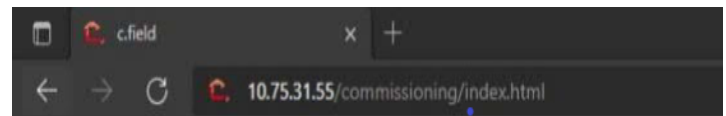
The information on the type of date and time alarm is displayed at the bottom of the homepage and is reset only when the alarm is deactivated (you can also view the alarm data in alarms overview menu but not the time).

TimeStamp	Severity	Alarm Message
2022/06/28 20:31:33	Alarm	-High Pressure Switch Alarm
2022/06/28 20:31:42	Alarm	-Low Pressure Switch Alarm
2022/06/28 20:31:44	Alarm	-Overoil Level Switch Alarm
2022/06/28 20:31:52	Alarm	-Compressor Brake Protection Switch Alarm
2022/06/28 20:31:52	Alarm	-Fan Motor Protection Switch Alarm
2022/06/28 20:31:53	Alarm	-Pump Motor Protection Switch Alarm
2022/06/28 20:31:56	Alarm	-Phase Control Alarm

6. Commissioning (only for Service)

The Commissioning web pages are dedicated to the management and supervision of the machine operation. To connect:

- The board must be powered
- Connected via ethernet port to the network
- USB disconnected
- Enter **"ip-address/commissioning/index.html"** in the browser

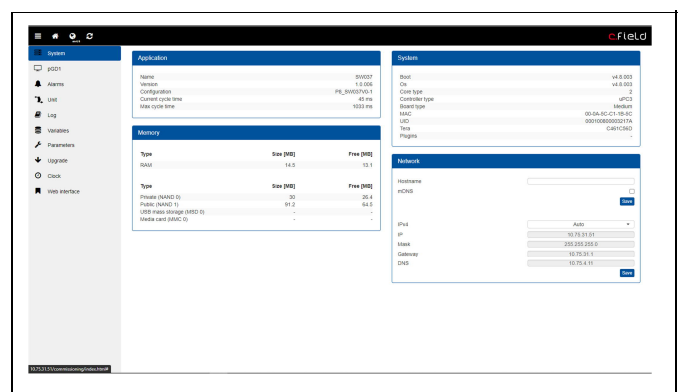


Within the commissioning there are several sections:

- System
- pGD1
- Alarms
- Unit
- Log
- Variables
- Parameters
- Upgrade
- Clock
- Web interface

6.1 System

It contains various information about the machine controller and the currently installed software version.



Furthermore, in this section it is possible to change the IP address of the chiller in the "Network" section:



6 Commissioning

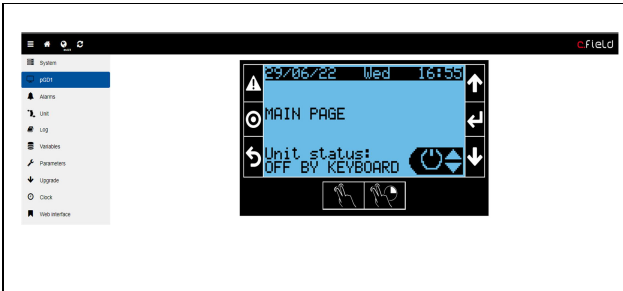
EN

To change the address, first change the IP to the desired value and click Save.

If needed is possible to change in DHCP instead of using a fixed IP address. To do that, just change the voice of IPv4 from manual to auto and then connect to the local network.

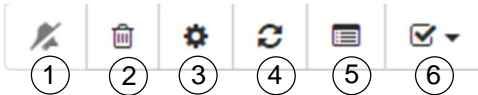
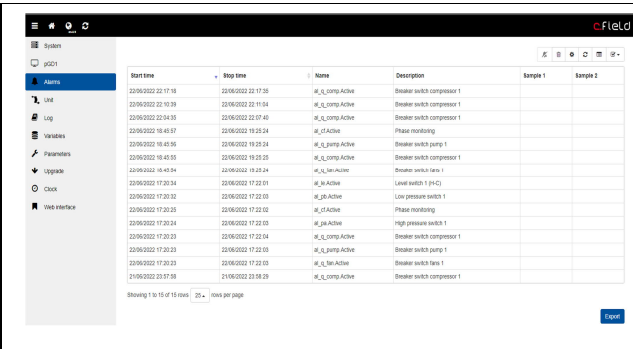
6.2 pGD1

Digital version of the pGD1 display with the simulation of Carel's base software.

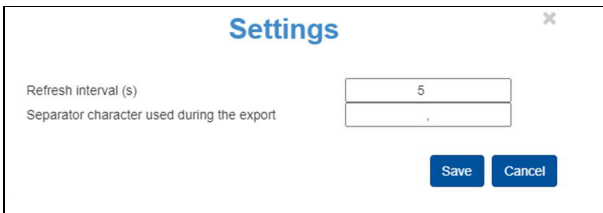


6.3 Alarms

List of alarms recorded since the software is loaded. All stored data can be exported to an Excel file.



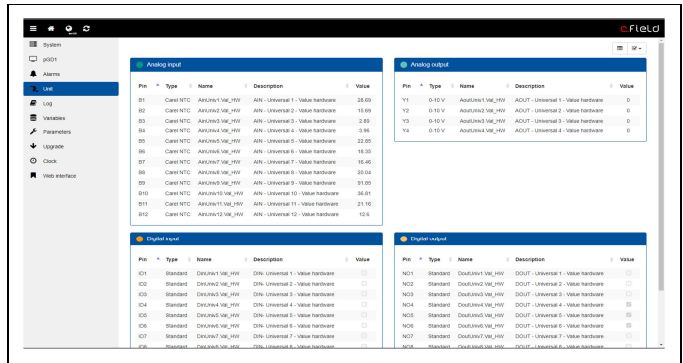
1. Reset active alarms
2. Alarm log cleaning
3. Settings to change the refresh time of the alarm control and the separator character during export



4. Refresh the alarm log
5. Export in .xlsx
6. Data displayed in columns:

6.4 Unit

Real-time machine Input and Output list



1. Change page view
2. Data displayed in columns

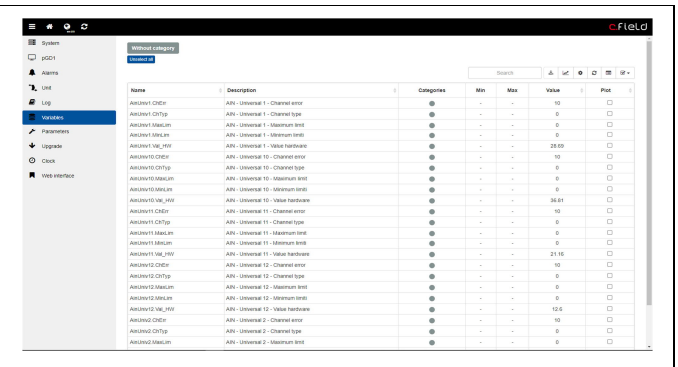
6.5 Log

Report of the controller errors (not machine alarms).



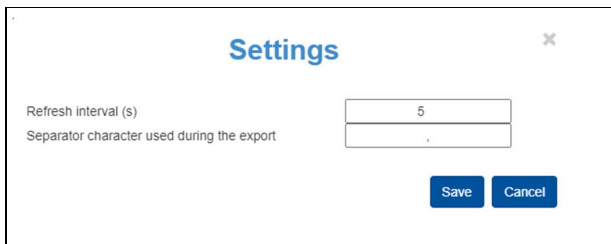
6.6 Variables

Variable list with real-time values managed by the software. You can graph multiple values at once and export the data to an Excel file. You can also rewrite the values of the Attention variables (see manual for service).





1. Writing Variables
2. Graph
3. Settings to change the alarm control refresh time and separation character during export



4. Refreshing variables
5. Change Table View
6. Data displayed in columns:

6.7 Parameters

In this tab are present all the parameters of the machine. They can be exported to create different parameterizations and import later to apply them.

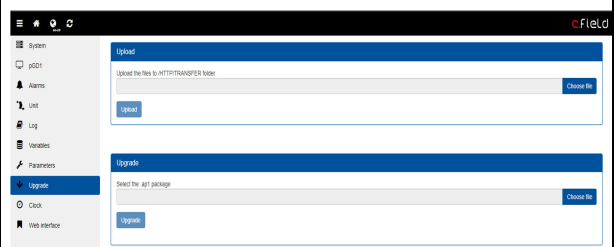
Name	Description	Categories	Min	Max	Unit	Dev	Actual Val	Imported
alarm_type	General alarm type (0=alarm-warning, 1=only alarm)		-	-	-	IS	IS	-
alarm_log	DO general alarm - Logic (0=NO, 1=NC)		-	-	-	IS	IS	-
Alarm_Oil_Overheat	AO Over heat - over		0%	4%	-	0%	0%	-
Alarm_Oil_Overheat_exp	AO Over heat on export - on no		0%	1%	-	0%	0%	-
Alarm_Oil_Bypass_1	AO bypass circuit 1 - on no		0%	4%	-	0%	0%	-
Alarm_Oil_Bypass_2	AO bypass circuit 2 - on no		0%	4%	-	0%	0%	-
Alarm_Oil_press1	AO pump speed circuit 1 - on no		0%	4%	-	0%	0%	-
Alarm_Oil_press2	AO pump speed circuit 2 - on no		0%	4%	-	0%	0%	-
aut	Enable automatic reset alarm		-	-	-	IS	IS	-
aut_reset_alarm	Enable automatic reset alarm on		-	-	-	IS	IS	-
Band	Proportional band 3 way valve		0°C	99.9°C	-	6°C	5°C	-
Band_Pump	Proportional band pump regulation		0 bar	99.9 bar	-	6 bar	5 bar	-
bat	Battery charging		0 min	10 min	-	2 min	2 min	-
is40	Regulation type 3 way valve (0=ABS, 1=OFF)		-	-	-	IS	IS	-
is7	Minimum time on compressor		0 min	3 min	-	0 min	0 min	-
is8	Minimum time on or on same compressor		0 min	10 min	-	1 min	1 min	-
is9a_type	Regulation for pump (0=on, 1=off, 2=PCV inverter)		0	2	-	0	0	-
is9	Delay on compressor after on order		0 min	10 min	-	2 min	2 min	-
is11	Regulation type intermediate exchanger 1A (0=ABS, 1=OFF)		-	-	-	IS	IS	-
is12	Regulation type intermediate exchanger 1B (0=ABS, 1=OFF)		-	-	-	IS	IS	-
is5	Load up compressors		0 min	999 min	-	0 min	0 min	-
is_040_Bypass_2_Logic	DO bypass circuit 2 - Logic (0=NO, 1=NC)		-	-	-	IS	IS	-
is_040_Bypass_1_Logic	DO bypass circuit 1 - Logic (0=NO, 1=NC)		-	-	-	IS	IS	-



1. Info
2. Write parameters
3. Import .dev files
4. Save the current parameters file
5. Filter
6. Updating variables
7. Change Table View
8. Data displayed in columns

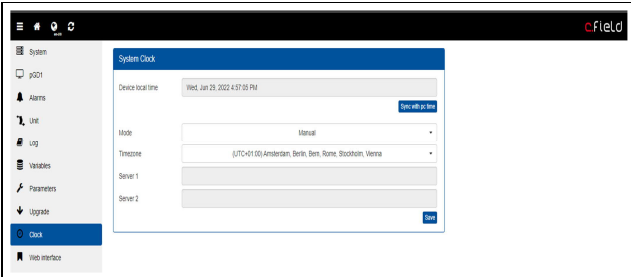
6.8 Upgrades

For software updates.



6.9 Clock

The time and date of the controller.



6.10 Web interface

Addressing within the commissioning of the custom pages WEB (see previous chapters).

