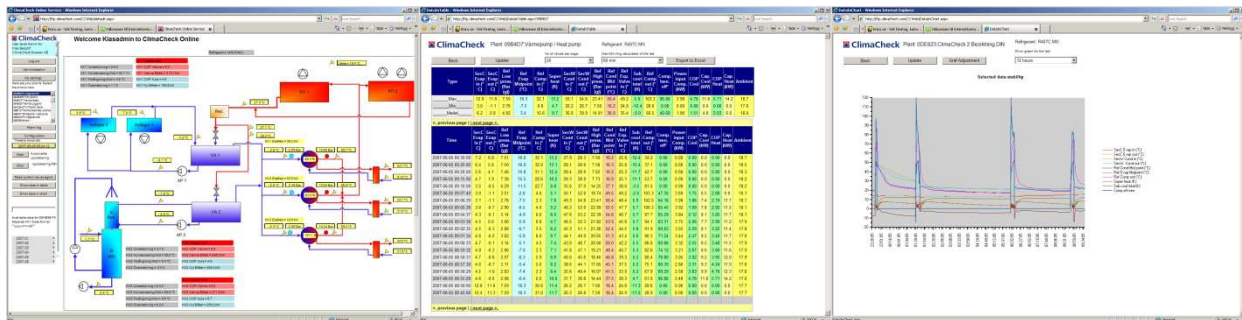


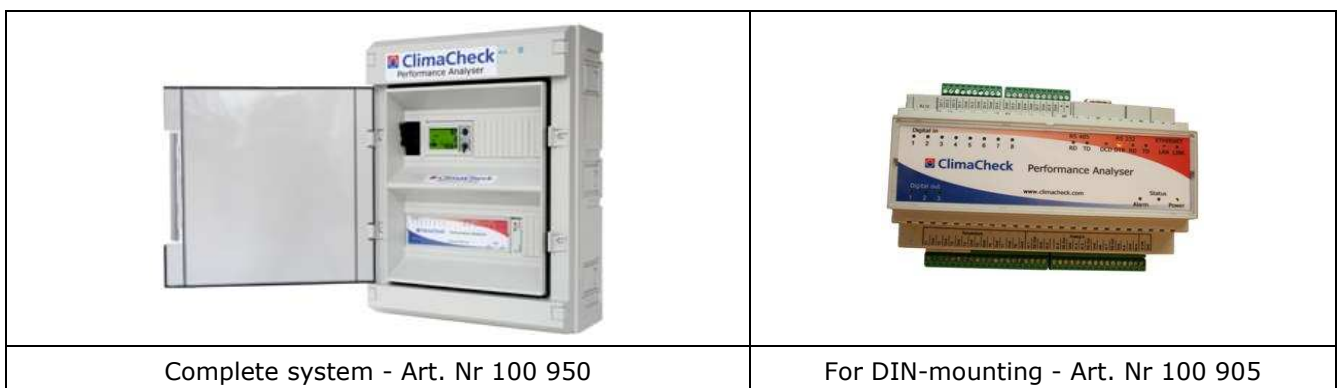


## On-line COP monitoring with ClimaCheck



Monitor refrigeration, air-conditioning or heat pump equipment from any computer connected to the Internet. The on-line service sends SMS or E-mail if any value is outside the preset limits. Gives immediate access to the current values, usable for owners and service companies. If you like you can give access to manufacturers, "Performance inspectors" and experts for optimization and preventive measures. Download historical data for for comparison and analysis in detail.








A demo of the on-line service is available at [www.online.climacheck.com](http://www.online.climacheck.com) by providing  
**User name:** climacheck **Password:** demo001



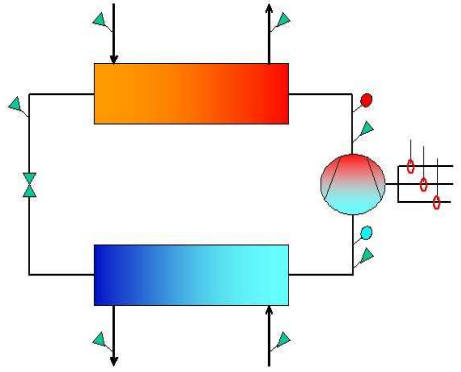
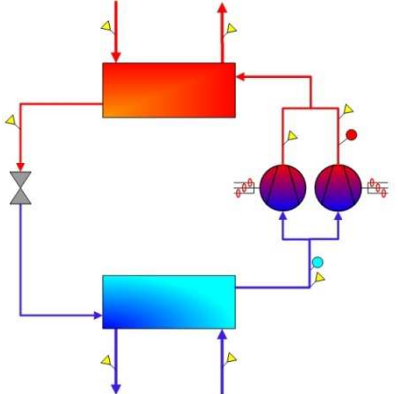
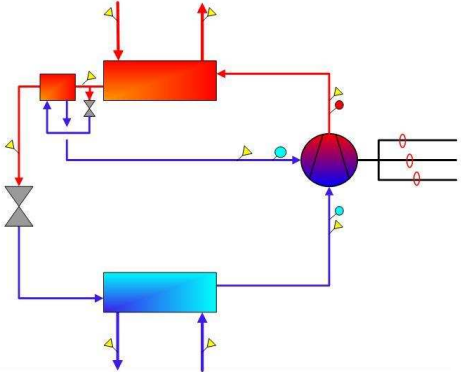
**ClimaCheck Performance Analyser Pro** for DIN-mounting, a permanent installation for standard systems includes two pressure transducers, eight temperature sensors and a power meter. This is everything necessary for continuous monitoring, E-mail and SMS alarm. From any computer connected to the Internet you can follow:

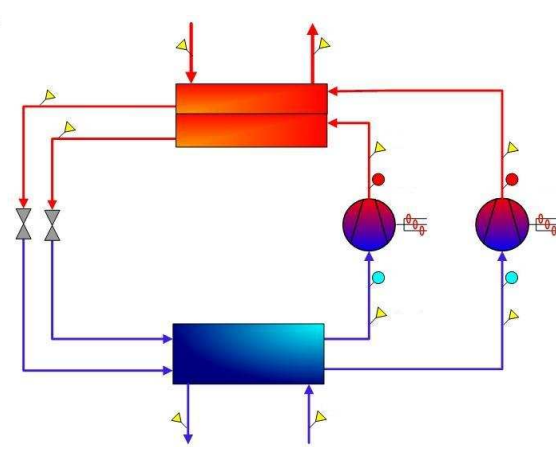
- **COP/Energy efficiency** (Coefficient of Performance).
- **Total energy consumption** over time for the compressor
- **Monitoring** of
  - **Expansion valve function** by superheating.
  - **Leakage** by changes in sub cooling.
  - **Compressor** by efficiency.
  - **Condenser** by temperature differences.
  - **Evaporator** by temperature differences.
- **Logging and alarm** for temperature in cooling/freezing areas or other monitored systems/rooms.
- **Alarm for pressure, temperature, power etc.**
- **Control functions** easily checked at different loads without any expensive travel and collection of data.

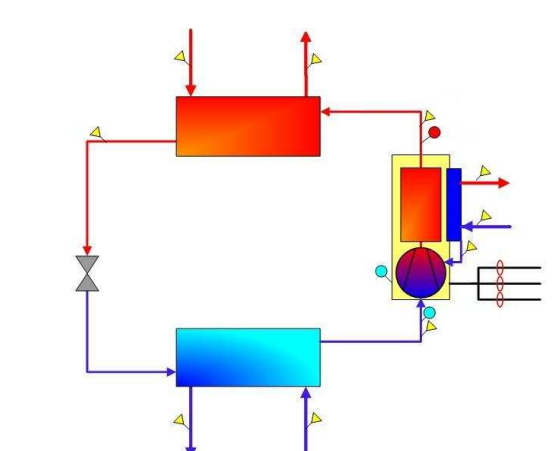
This and much more can be presented as the whole process is supervised and there are also eight digital inputs available for external alarms. If desired the system can be connected through wireless GPRS modem instead of an Ethernet connection.

	<p><b>ClimaCheck Energy and Power Meter EP Pro, Art. No. 100 315</b></p> <p>Measures Power and Energy as well as voltage and current on each phase. Communication by RS485 Modbus.</p>
	<p><b>Fixed Current Transformer, Class 1, Art. No. 400 XXX</b></p> <p>Used with EP Pro to measure current. Available in different models dependant on current and physical size of the leader. Please specify required max ampere and hole dimension (diameter for cable or rail WxH)</p>
	<p><b>Split Core Current Transformer, Class 1, Art. No. 400 XXX</b></p> <p>Split core current transformers can be attached to the system without removing any of the cables. Available in different models dependant on current and physical size of the leader. Please specify required max ampere and hole dimension (diameter for cable or rail WxH)</p>
	<p><b>ClimaCheck Pressure Transmitter Art. No. 200 100, 0-35 Bar(g) and 200 200, 0-10 Bar(g)</b></p> <p><b>Pressure transmitter</b> with high accuracy, specially designed teflon seal and schrader opener which provides fast and secure connection. Also available in 50 and 150 Bar(g) models.</p>
	<p><b>ClimaCheck Temperature Sensor PT1000, Class A, Art. No. 300 200</b></p> <p>-50 to 150°C, with 5 m cable.</p>
	<p><b>Temperature Module RTD-04, Art No. 300 600</b></p> <p>Allows for connection of up to four extra temperature sensors to ClimaCheck PA Pro. Required when using more than eight sensors.</p>
	<p><b>GPRS Modem, Art no. 600 105</b></p> <p>GPRS Modem which sends the information to your own server or to ClimaCheck Online. Add antenna 600 106 and DIN-bracket 600 107.</p>

## Typical Installations

Standard Installation One Compressor	Part no.	Description	Pcs.	
	100 950	Performance Analyser PA Pro Package	1	
	<b>Included in above Part no.</b>			
	200 100	Pressure sensor 35 Bar(g)	1	
	200 200	Pressure sensor 10 Bar(g)	1	
	300 100	Temperature sensor PT1000	8	
	100 550	Power/energy Meter	1	
	400 xxx	Current transformer	3	
	<b>Optional Parts</b>			
	600 105	GPRS Wireless Modem	1	
	600 106	Antenna for Modem	1	
600 107	Mounting for Modem	1		
Two Compressors, One Circuit	Part no.	Description	Pcs.	
	100 950	Performance Analyser PA Pro Package	1	
	<b>Included in above Part no.</b>			
	200 100	Pressure sensor 35 Bar(g)	1	
	200 200	Pressure sensor 10 Bar(g)	1	
	300 100	Temperature sensors PT1000	8	
	100 550	Power/energy Meter	1	
	400 xxx	Current transformers	3	
	400 xxx	Current transformers	3	
	<b>Optional Parts</b>			
	100 512	Separate Power Meter for second compressor	1	
600 105	GPRS Wireless Modem	1		
600 106	Antenna for Modem	1		
600 107	Mounting for Modem	1		
One Compressor, Economiser	Part no.	Description	Pcs.	
	100 950	Performance Analyser PA Pro Package	1	
	<b>Included in above Part no.</b>			
	200 100	Pressure sensor 35 Bar(g)	1	
	200 200	Pressure sensor 10 Bar(g)	1	
	300 100	Temperature sensors PT1000	8	
	100 550	Power/energy Meter	1	
	400 xxx	Current transformers	3	
	200 100	Pressure sensor 35 Bar(g)	1	
	300 600	Module, 4 extra temperatures	1	
	300 100	Temperature sensor PT1000	1	
<b>Optional Parts</b>				
600 105	GPRS Wireless Modem	1		
600 106	Antenna for Modem	1		
600 107	Mounting for Modem	1		

Two Compressors, Two Circuits	Part no.	Description	Pcs.	
 <p>It is possible to analyse a system using only eight temperature sensors by omitting one of air/liquid in/out evaporator or air/liquid in/out condenser. In this case 300 600 and 300 100 is not needed.</p>	100 950	Performance Analyser PA Pro Package	1	
	<b>Included in above Part no.</b>			
	200 100	Pressure sensor 35 Bar(g)	1	
	200 200	Pressure sensor 10 Bar(g)	1	
	300 100	Temperature sensors PT1000	8	
	100 550	Power/energy Meter	1	
	400 xxx	Current transformers	3	
	200 100	Pressure sensor 35 Bar(g)	1	
	200 200	Pressure sensor 10 Bar(g)	1	
	300 600	Module, 4 extra temperatures	1	
	300 100	Temperature sensors PT1000	2	
	100 550	Power/energy Meter	1	
	400 xxx	Current transformers	3	
	<b>Optional Parts</b>			
	600 105	GPRS Wireless Modem	1	
600 106	Antenna for Modem	1		
600 107	Mounting for Modem	1		

One Compressor, Oil Cooling	Part no.	Description	Pcs.	
 <p>The oil cooling capacity can be calculated with one of:</p> <ol style="list-style-type: none"> <li>1. Known cooling water flow</li> <li>2. Known oil flow (fixed or as a function of pressure)</li> <li>3. Known oil cooling capacity from manufacturer</li> </ol>	100 950	Performance Analyser PA Pro Package	1	
	<b>Included in above Part no.</b>			
	200 100	Pressure sensor 35 Bar(g)	1	
	200 200	Pressure sensor 10 Bar(g)	1	
	300 100	Temperature sensors PT1000	8	
	100 550	Power/energy Meter	1	
	400 xxx	Current transformers	3	
	300 600	Module, four extra temperatures	1	
	300 100	Temperature sensor PT1000	1	
	<b>Optional Parts</b>			
	200 100	Pressure sensor 35 Bar(g) for Oil Pressure	1	
	600 105	GPRS Wireless Modem	1	
	600 106	Antenna for Modem	1	
	600 107	Mounting for Modem	1	