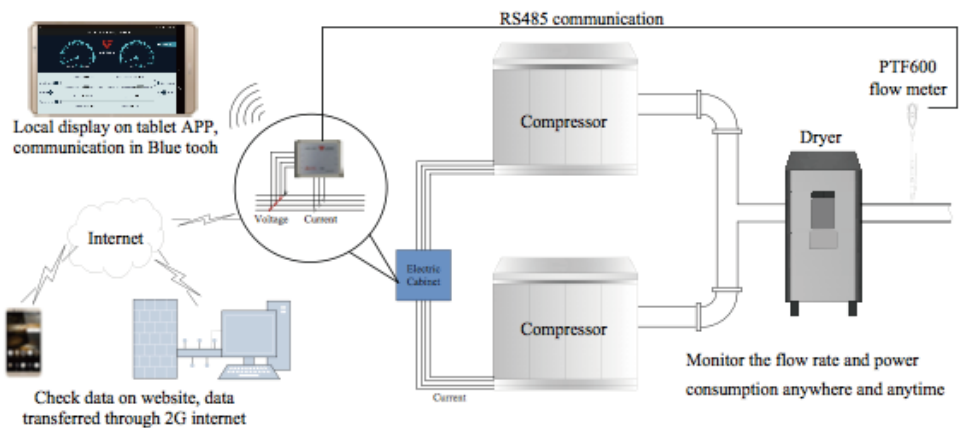


General

CAE820 compressed Air Network Auditing System is specially designed for analyzing the performance of single compressor or compressor group. The system integrated flow meter (temperature and pressure measurement inside), power meter through tablet APP and Bluetooth communication technology. Users will be able to read not only the standard flow rate, FAD flow rate, pressure, power consumption and efficiency, but also load/off loading times, unit power (power consumption per unit of compressed air), and power ratio (power efficiency under a certain productivity of compressed air).



CAE820 do not rely on traditional display and setting system. To read or set the system, customer only need to use an tablet installed COMATE APP. All the hardware ingredients in the system will transfer date to flow meter and the flow meter will communicate with cell phone / pad. Anyone can easily read the date or set the system. The APP can also generate an detailed report with curve diagram to help customer to understand the condition of the compressor better or even compare the tested compressor with another compressor. The power meter can also upload the measurement data to COMATE compressor monitoring system website. So if the audit take long time, customer do not have to stay at site, but can check the data anywhere by logging the website.

Specification

System	Power supply	AC220V +/-5%, or AC/DC 85~265V, or AC380V ± 5%
	Ambient temperature	-40~80 dgr C
APP	For Android PAD	For PAD with resolution of 1920*1200, Android 4.4 or higher version
Power meter	Wiring	3 phase 3-wire or 3 phase 4-wires
	Voltage measurement range	2nd grade voltage test AC 0~400V
	Voltage accuracy	0.20%
	Current measurement range	2nd grade 0~5A (transformer ratio 500:5)
	current accuracy	0.20%
	Power efficiency range	up to250KW
	Power efficiency accuracy	0.50%
PTF600 flow meter	Pipe size	DN25 ~ DN400
	Measurement range and accuracy	1% RD + 0.5%FS in 1:32 flow range

System Components

1. PTF600 pitot tube flow meter set

CAE820 has one PTF600 pitot pipe flow meter. PTF600 is COMATE'S latest compressed air flow meter based on a different pressure principle designed for both dry and wet air. PTF600's can measure a flow range of 32:1 with 1%RD + 0.5%FS accuracy. The min and max flow are based on the pressure and pipe size.

PTF600 should be installed on pressurized compressed air pipeline. With the hot tap drilling tools contained in the package, customer can install and remove the meter without stopping the flow. PTF600 can also measure temperature and pressure, and will communicate with the power meter. All the data will be transferred to power meter and then transferred to tablet or internet.

For detail measurement range of this flow meter, please refer to the datasheet of this product.



2. Power measurement components

One KW110M power meter, 3 current transformers and 4 voltage clampers are the power measurement components in the CAE820 system. KW110M gathers current and voltage data from the other two components through RS485 and flow rate, temperature, pressure data from PTF600 flow meter. It can communicate with a tablet through blue tooth or update data to the COMATE Compressor Monitoring System website for customer review. The power measurement components can be used in both 3 phase 3-wire and 3 phase 4-wire power system, with 1% accuracy in a 5-500A range.



3. COMATE APP

Instead of traditional displaying and setting system, the CAE820 system can be read and set on a tablet through blue tooth technology, by installing the COMATE APP. The setting data and measurement data are firstly saved in KW110M separately (can save 1440 measurement points), only when customer finishes a test that the meter will transfer all data to the tablet and save it in the tablet. Thus even when the pad is out of the range of the blue tooth of KW110M, KW110M itself can save 24 hours measurement data in built-in FRAM (set the time space between each measurement point to 1 minute). Once the tablet connects with the system again, it can read the data of the latest 1440 measurement points.

The APP can control the start and the end of a test, when the test stops, the APP will ask if need to save the data. Once the data is saved on the APP, customer can check it anytime later, and generate a very detailed report with curve diagram. Customer can send the report to mailbox once connected the PAD to internet.

Through the help of Comate Flow Meter APP, customer can operate the system very easily with almost 0 training after registration and understanding some basic terms of the system.

4. Comate Compressor Monitoring System

Comate Compressor Monitoring System is a on-line monitoring system with a remote data server to save all data and a website to show all data.

Any COMATE flow meter or other items can upload data to the remote data server. Customer can logging the website with their unique ID and password to check current measuring data and history data. The website will also provide curve graphic of all available data for customer to compare and know the tendency. The English of this system will be on-line soon enough.

