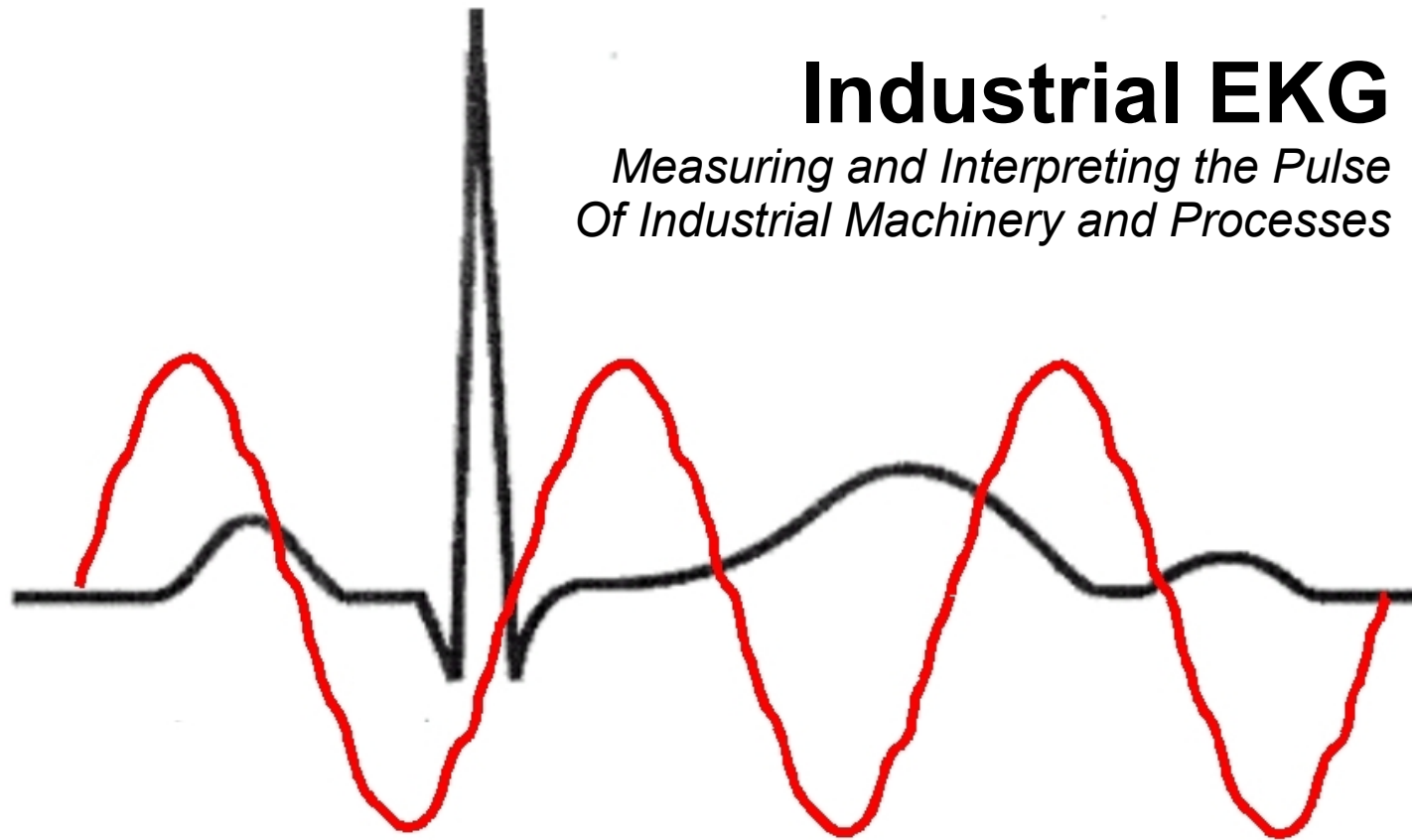
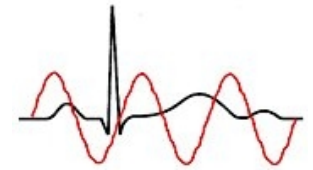


Products - Overview



What We Do



We help you reduce energy and operating costs by using EKGs to monitor the health of industrial equipment instead of people, like industrial cardiologists.

Our uniqueness:

- we don't need sensors on the monitored machines, no cables to install;
- an experience database of tens of thousands of motors to compare your equipment against;
- multiple monitors in one product – energy efficiency & consumption, power line condition, electrical and mechanical motor condition; and mechanical condition of driven equipment;
- we directly measure how even mechanical faults like unbalance, misalignment, and loose connections waste energy dollars, making ROI calculation fast, easy, clear and unambiguous.

Products



Core Instruments

Software

Accessories

Kits

Core Instruments



MCM – for motors

PCM – for generators



Introducing Artesis MCM

ARTESYS MCM USES ADVANCED, NASA-DEVELOPED TECHNOLOGY TO PROVIDE A SELF-LEARNING CAPABILITY IN A COMPACT, AFFORDABLE, PANEL-MOUNTED INSTRUMENT. IT AUTOMATICALLY TEACHES ITSELF ABOUT THE NORMAL OPERATION ENVIRONMENT OF YOUR EQUIPMENT SO THAT IT CAN ACCURATELY IDENTIFY AND DIAGNOSE FAULTS LONG BEFORE THEY BECOME A REALITY. THIS GREATLY REDUCES THE SPECIALIST DIAGNOSTIC SKILLS REQUIRED OF THE USER, MAKING THE BENEFITS OF CONDITION MONITORING AVAILABLE TO MANY GROUPS WHO HAVE CONSIDERED IT TOO DIFFICULT IN THE PAST.

Artis is MCMMonitors your machinery continuously, constantly taking measurements and comparing them with what it learned during the self-training process to make sure everything is working normally.

SIMPLE TO INSTALL

RELIABLE, AUTOMATED FAULT INDICATION

**SIMPLE, EFFECTIVE
CONDITION MONITORING**

"...IT SIMPLY WORKS"

- SIMPLE TO INSTALL AND USE
- CONTINUOUS MONITORING AND FAULT DETECTION
- RELIABLE AUTOMATED FAULT DIAGNOSIS
- CONNECTS WITH OTHER SYSTEMS
- COST EFFECTIVE FOR WIDEST RANGE OF EQUIPMENT

Artesis

Conventional condition monitoring systems are great at collecting data, but require a lot of expertise to turn it into actionable information – just the part you really need. Aris's MCM is able to use its knowledge of your machinery built up during the self-training process not just to detect when a fault is developing but also to recognise their origins if they do. This allows your maintenance teams focus their efforts in exactly the right area, without having

The diagnostic system is ideally representative of the common medical features associated with typical electric motor-driven equipment, from vibration and misalignment to bearing problems. Add to this, since Ansoft's MC tool is by no means the current and colloquialism by the electric motor as can a diagnosis problems with the electric motor, as well as giving an insight into the process conditions and the potential to optimise them on the basis of force, phase angle and total

INTEGRATES WITH PLANT-WIDE SYSTEMS

Artesin's NCM is specifically designed to be self-sufficient, only requiring your intervention when it detects a problem. It can also act as an intelligent component of a complete, plant-wide monitoring and diagnosis system. You can connect Artesin's NCM to either your own system using its standard interfaces, allowing results to be presented to your staff through existing display systems. Artesin can supply NCMScan software to collect and manage information from all your Artesin NCM units, provide enhanced diagnostic capability, and to allow remote operation of the complete system. This can also allow Artesin to help out with your condition monitoring program by providing remote advanced interpretation services.

Artículo

Artesis

HOW IT WORKS

Ansys/MBD uses a mathematical modeling technique to detect and diagnose faults in electric motors and connected equipment. The mathematical models, which consist of a set of differential equations representing the electromechanical properties of the system, help to design the real-time phase of operation. During this phase, the three input signals and three output currents are continuously measured and processed using system identification algorithms which determine the model parameters (such as *Winding of stator coils*, *Operating speed*, etc.). Ansys/MBD then a complete model representing behavior of the machinery in a real saving of operating costs.



The diagram illustrates a 3-phase motor system. It features three input lines labeled 'INPUT PHASES' (A, B, C) entering a motor unit. The motor unit is represented by a grey cylinder with a red cube inside. Three output lines labeled 'OUTPUT CURRENTS' (A, B, C) exit the motor unit. The entire system is labeled '3. Training phase'.

When a ball starts moving in either the motor or the driver equipment, this has an effect on the output or not on the output, making the real system behave differently from the model system. For example, small radial and torsional displacements resulting from an imbalance in a driven fan are transmitted through the coupling to the motor, changing its electrical characteristics to a measurable and repeatable value. To detect this, Advantech uses a sensor that is a sensor that can detect faults in both the motor and the driven equipment.

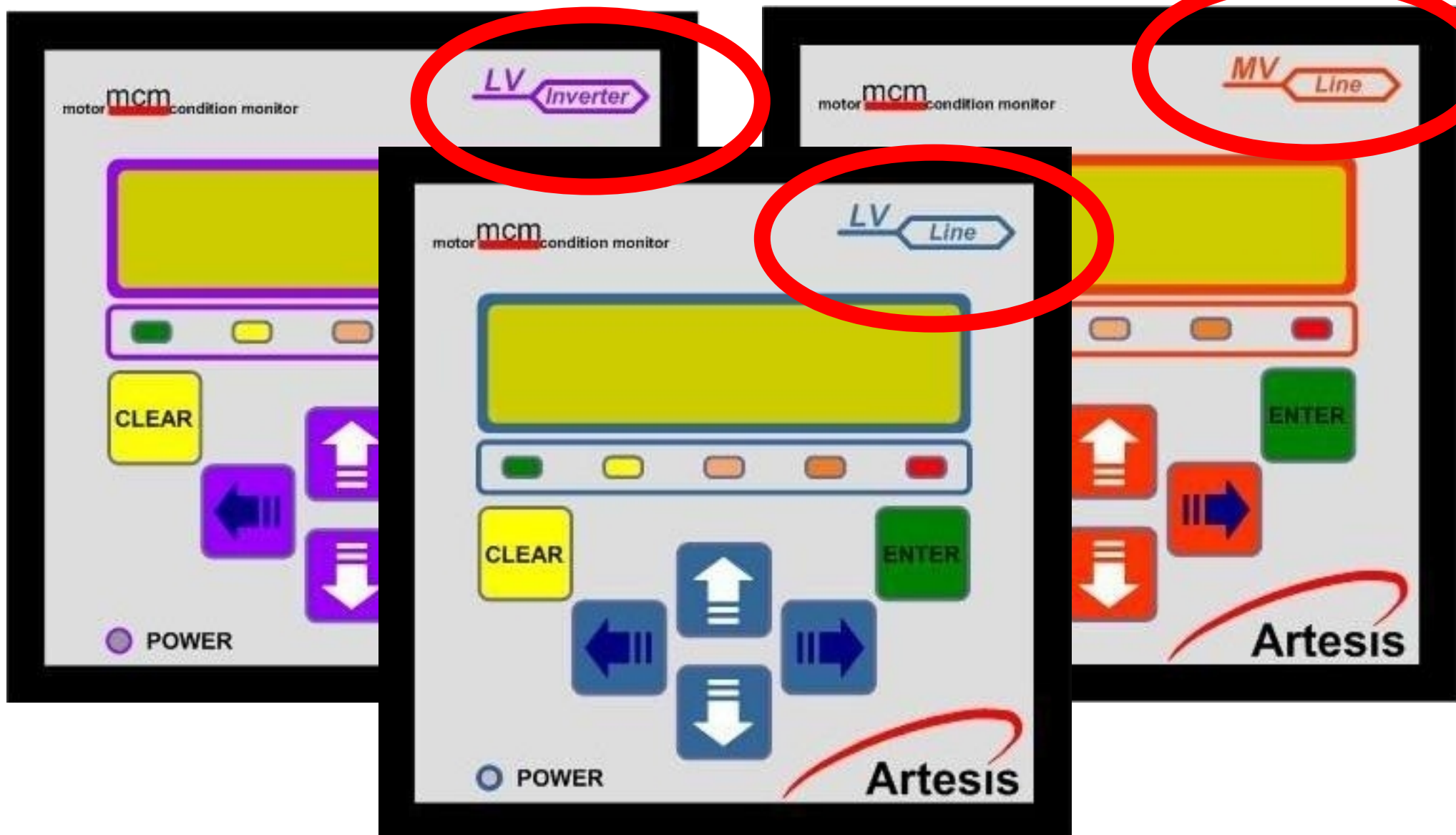
When monitoring a *WebCOC* distribution, you can use a model parameter such as those listed in the reference model available during the self-maintaining phase. Distinguishing changes in each of these parameters requires the equipment physical characteristics of the motor to drive system and assuming the safety of the charge. An *WebCOC* distribution where the equipment condition of the equipment is normal, and if not what action should be taken. This approach not only allows results more accurate and reliable, allowing that is possible with conventional law makers, but also recognizes the type of defects causing the problem.



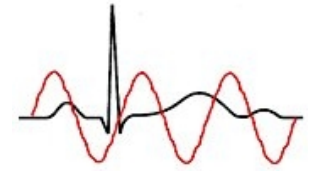
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Core Instruments



Core Instruments

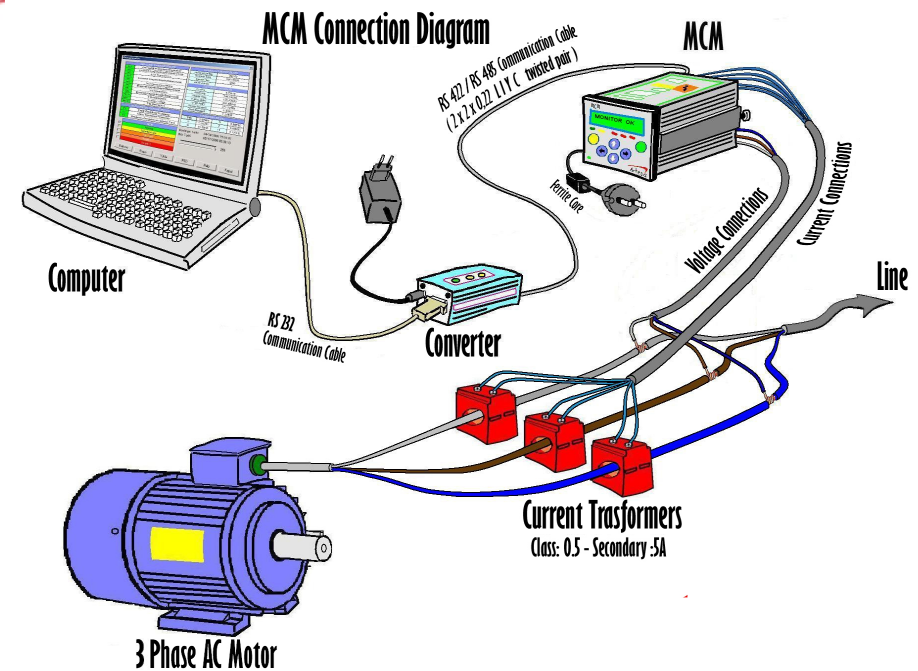
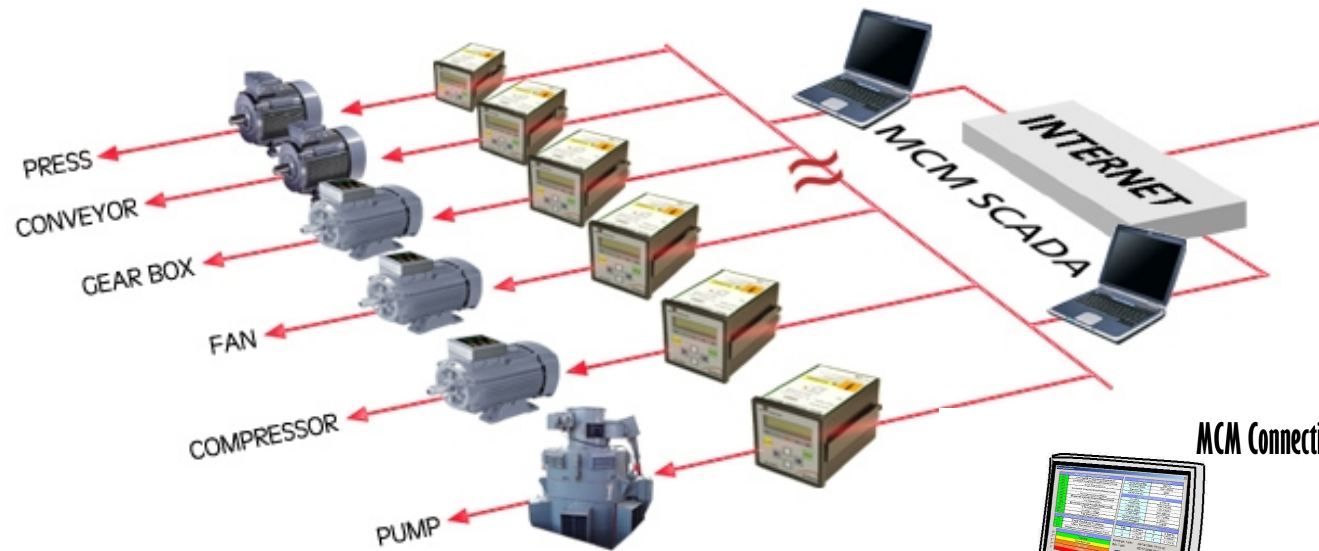
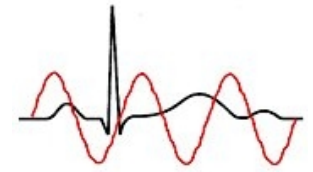


www.artesis.com/products/OEM

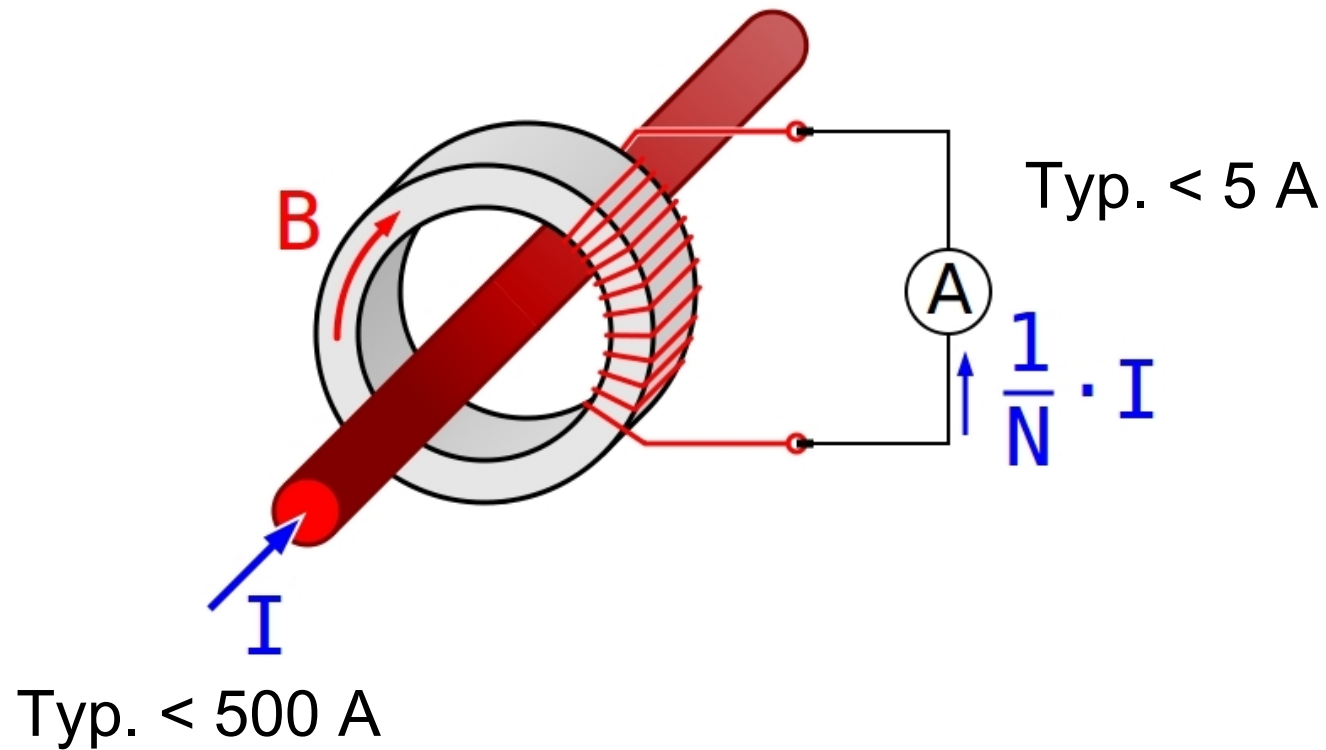
40-pin PCB 40mm x 50mm



Hardware Accessories



Current Transformers



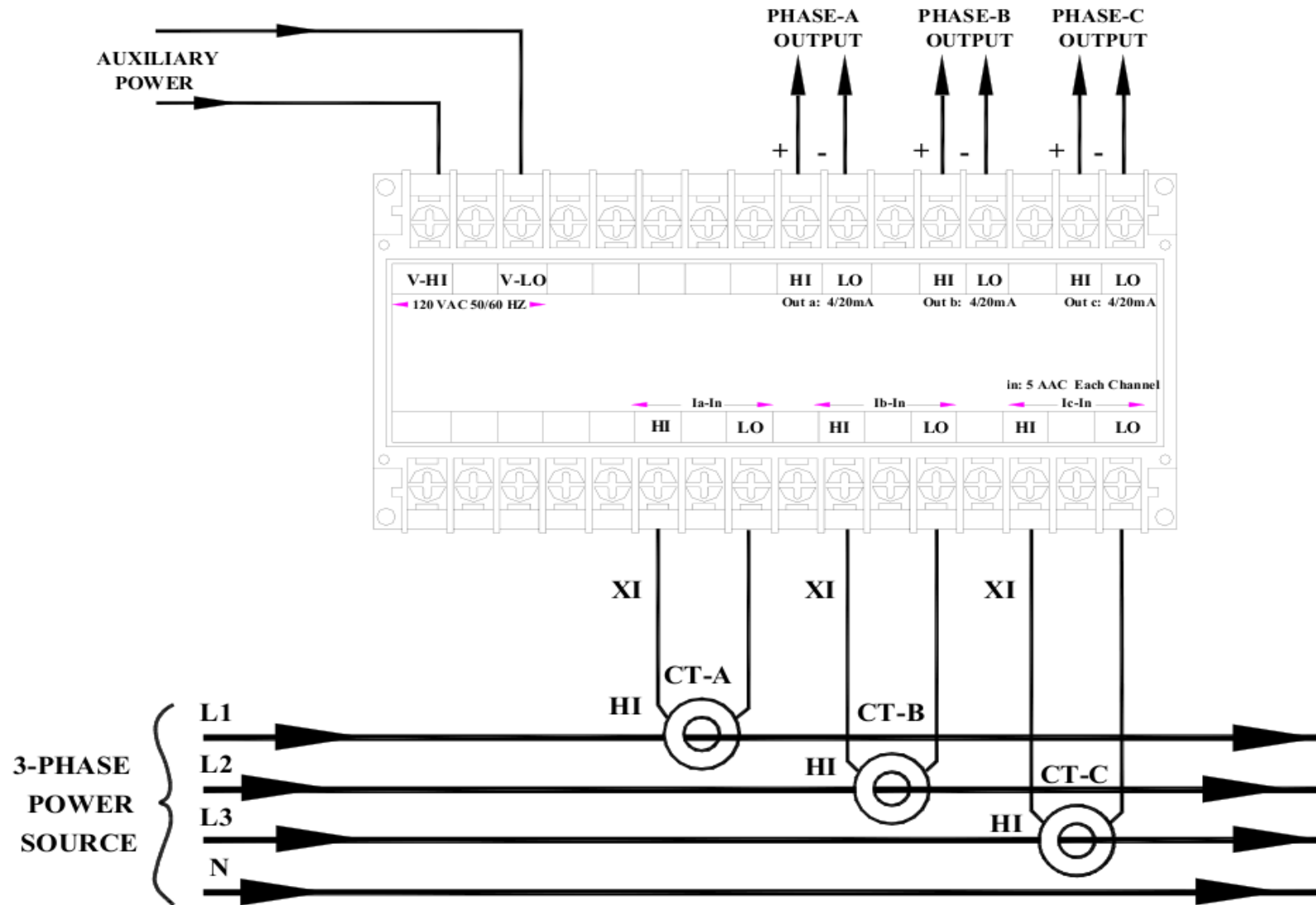
Common CTs



Current Transformers



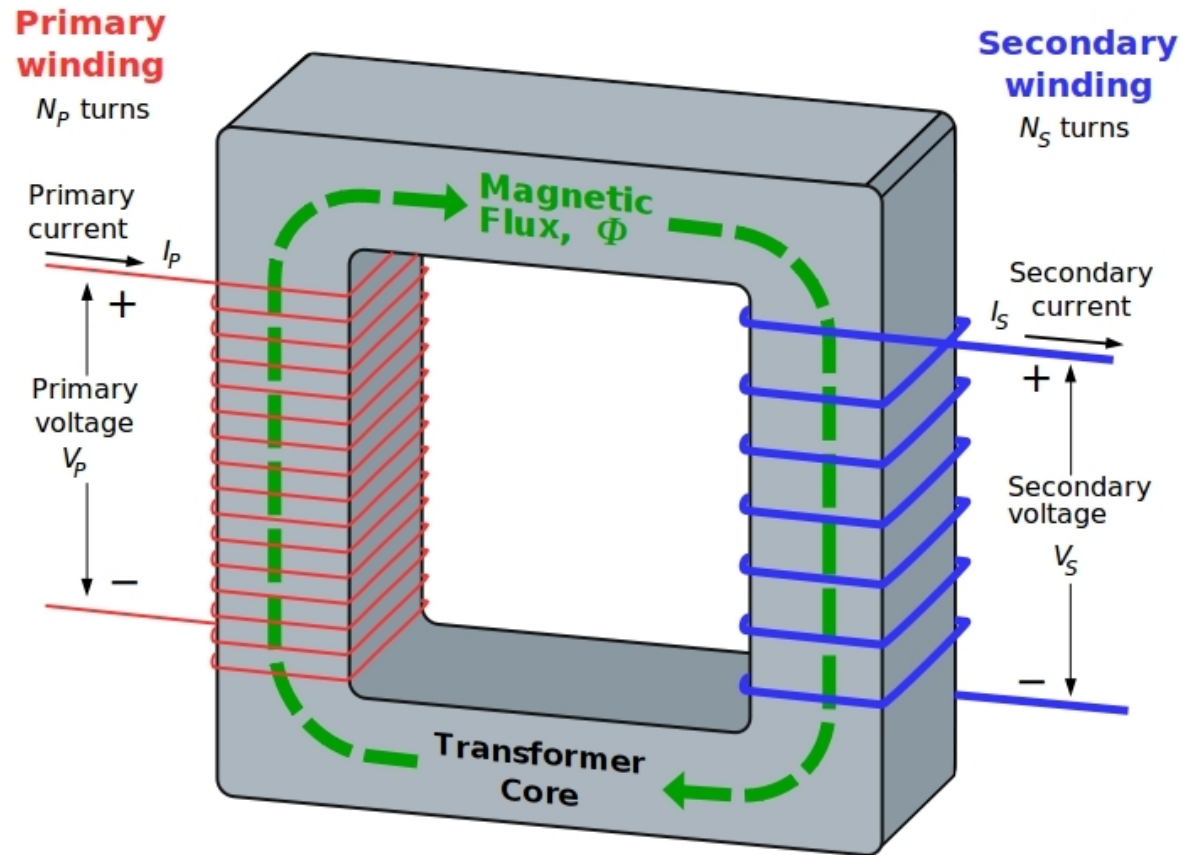
Special CTs for Inverter Drives



Potential (Voltage) Xformers



Motor Side
Typ
> 500 V



Instrument
Side
Typ 120 V

Common PTs



Potential Transformers



460



468



456



2VT469



2VT460



3VTN/3VTL



PT3



3PT3



PTG5

Sizes from

75L x 75W x 100H

To

280L x 335W x 360H

(mm)



Accessories – Converter



MCM-to-TCP/IP

Serial-to-Serial

Serial-to-Ethernet

Other (Custom)

To PC or Plant
Network



From MCM,
RS422 Serial
4-wire + Gnd

Accessories – Software



MCMConfig

MCMScada

Database, trending, diagnosis, email alerts...

Database Tools

Custom

Commercial

Kits



Portable Kit (for Reps and short term testing)

Installer's Kit

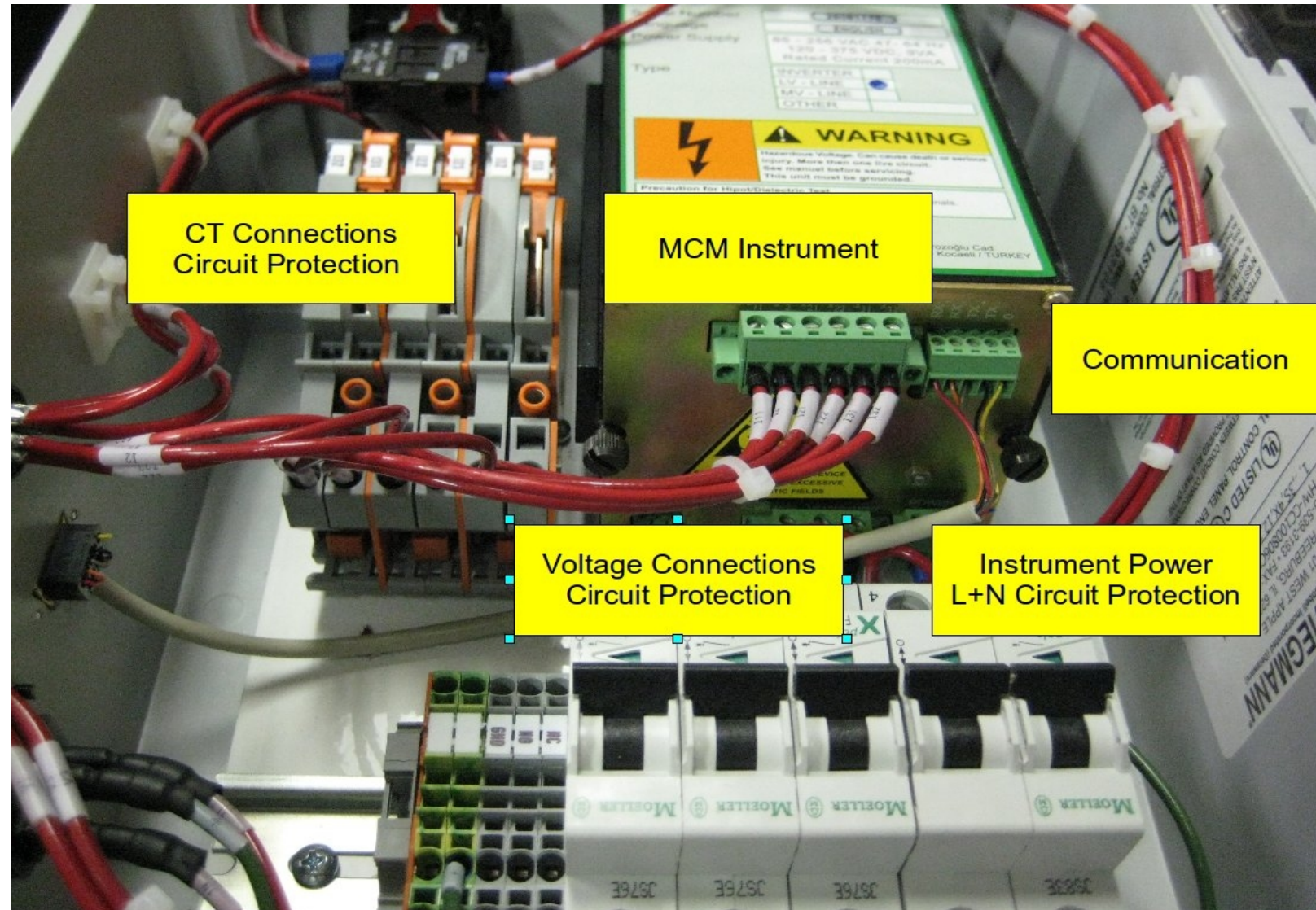
First System

Site Expansion

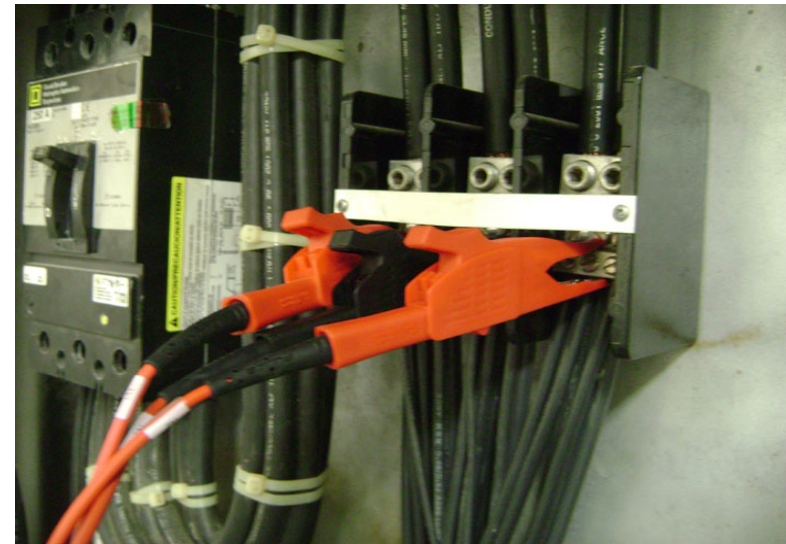
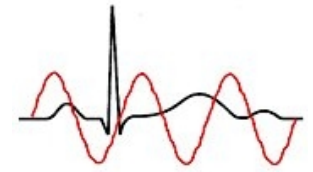


Rep / Portable Kit

A Typical System...



...in temporary use on a 480V Motor



<h2 style="margin: 0;">Industrial EKG</h2> <h3 style="margin: 0;">RFQ and Configuration Worksheet</h3> <p style="margin: 0; font-size: 0.9em;">Complete and email this form to Sales@industrialekg.com</p>		
Date of Request _____ Your reference# _____ IEKG Reference # _____ Proposal Date Requested _____ System Delivery Date Requested _____ Worksheet Prepared By _____ of (company) _____ Tel _____ email _____ GMT +/- _____ Hrs _____		
Customer Name _____ Location _____		
Induction Motor Nameplate Data Rated Volts _____ Service Factor _____ Rated Amps _____ Frame _____ Rated Speed _____ RPM Full load efficiency _____ Frequency _____ Hz NEMA design letter _____ Multispeed? <input type="checkbox"/> Yes <input type="checkbox"/> No Rated HP or KW _____ Manufacturer _____ Model No _____	Notes _____ _____ _____	
Motor Electrical Drive Type Direct Line Connection _____ Inverter _____ If Inverter, _____ Manufacturer + Model _____ Soft Starter? <input type="checkbox"/> Yes <input type="checkbox"/> No	Driven Equipment Description _____ Duty cycle: On _____%, Off _____% Typical load fluctuation: + _____%, - _____% Drive type: <input type="checkbox"/> Direct <input type="checkbox"/> Belt <input type="checkbox"/> Geared Other: _____	
Current Transformers Using customer's CTs? <input type="checkbox"/> Yes _____ Are customer CTs Class 1 (1%)? <input type="checkbox"/> No, IEKG to Supply CTs	Wire OD _____ mm	
www.industrialekg.com/IEKG_Configuration_Worksheet.pdf		
Communication None <input type="checkbox"/> Serial <input type="checkbox"/> Wired Ethernet to Switch or Router <input type="checkbox"/> Wired Ethernet direct to PC <input type="checkbox"/> Will this system be added to an existing IEKG or <u>Artelis</u> software installation? <input type="checkbox"/> Yes <input type="checkbox"/> No Other (describe in detail) _____		
Services Who is doing the system installation? _____ Who is doing the system training? _____		
Additional Comments / Requests _____ _____ _____		

Questions?



Info@industrialekg.com

