

The Control Zone

Total Solution for all your Control Needs



Volume One - Issue 2

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From the Desk of the President:

Our Fort Myers plant has been busy testing and making final changes on our New Touchscreens and related products for 2015. A lot has gone into the development of the Touchscreen and as always we will continue to strive to manufacture quality products at affordable pricing.



MCS-TOUCHSCREENS- New for 2015

The MCS-TOUCH-7 and the MCS-TOUCH-15.4 are new Weather Proof Touchscreen interfaces designed to simplify user access with the MCS-Magnum and MCS-MicroMag. MCS-CONNECT can be utilized to provide both graphics and service mode access for technicians.



Information and graphics on the MCS-TOUCH are shown on a high resolution

(1280x800) LCD display with LED backlighting, which guarantees long-life operation.

The high resolution screen makes it easy for the user to manage complex installations without losing the overall view. It also ensures that the pages can be navigated in a fast and straightforward manner. Up to 60 MCS controllers can be connected to a MCS-TOUCH via RS485 or Ethernet.

Utilizing a gasket for an environment seal provides the MCS-TOUCH with a NEMA4 rating. Depending on the Box Enclosure you choose, an installation can be either indoor or outdoor. A NEMA4 Box Enclosure must be used for outdoor installation or for areas that are subject to water wash-down or extreme harsh environments.

In this Issue . . .

- New Touchscreens
- MCS Training
- Hanbell VFD Performance
- MCS-WIRELESS 3G

Up Coming Issues . . .

- New developments in HVAC CONTROLS

The MCS-TOUCH temperature range is -20°C to 70°C / -4°F to 158°F.

MCS also offers several different Box Enclosures to fit your installation needs.

A valuable Asset for MCS Customers

TRAINING

Quality products has always been a top priority for MCS, but training and instructing Installers and OEM customers on the installation and operation of our products has been a key factor in making MCS one of the largest manufacturers of Controllers for the HVAC Industry.



At our training facilities here in Fort Myers, Florida, we conduct 3 day classes covering all our products, including installing our MCS-MAGNUM and MCS-MICRO-MAG Controllers in various installations concepts. Our students learn the various components of each product including replacing parts in the field and how to troubleshoot each installation.



Along with our customer support, you will always be 'in control' of your installation.

MCS is the North American distributor for Hanbell Screw Compressors, and the class includes Hanbell applications and how to tear down the compressor for repairs.

If you are interested in finding more out about the classes we offer, please contact: klm@mcscontrols.com

www.mcscontrols.com



Variable Frequency Drives (VFD) Performance

Variable frequency drives (VFD) are reliable electronic devices that control three-phase electric motor speed. They are used in building automation applications to control the speed of fans and pumps in various systems. The payback period for installing drives is usually less than three years and can be under a year.



MCS HANBELL FREQUENCY DRIVE TEST RESULTS

The test system is an AAON LL125 air cooled chiller with the following configuration:

- A Hanbell RC230B / Yaskawa Z1000 Frequency Drive
- Two condenser fans per circuit with a Yaskawa Frequency Drive on the 1st fan
- A GPM meter is installed on system
- Two circulating pumps each with a Yaskawa Frequency Drive
- MCS EXV controlled system

The chart below shows the test results at various speeds using Frequency Drive control versus Hanbell Selection Program projected results.

COMPRESSOR LOAD %	55%	56%	82%	87%	100%
MCS TEST RESULTS					
WATER OUT	45.2	44.3	47.0	48.1	48.8
SST	33.8	33.0	34.6	35.8	35.5
SCT	103.1	105.2	109.1	112.4	123.0
AMPS	28.8	30.0	46.0	50.9	65.3
VOLTS	474	476	475	477	473
PWR FACTOR	0.90	0.90	0.92	0.93	0.93
TONS	31.1	31.7	46.8	48.3	50.3
KW/TON	0.73	0.72	0.74	0.80	1.01
HANBELL SELECTION PROGRAM PROJECTIONS					
AMPS	42.4	43.4	53.9	57.7	70.1
VOLTS	480	480	480	480	480
TONS	26.1	26.0	39.2	42.5	47.3
KW/TON	0.99	1.03	0.94	0.94	1.06
REDUCTION	26.3%	30.1%	21.3%	14.9%	4.7%

THE ADVANTAGES OF FREQUENCY DRIVE SCREW COMPRESSOR CONTROL

- Controlled Soft Start reducing peaks
- Precise compressor load %
- Reduced Energy Usage at part loads
- Easier to service & maintain
- Over amp compressor protection
- MCS matches compressor & Frequency Drive

New - MCS-WIRELESS-3G

Broadband Router with Integrated Verizon 3G Modem

(Only for use in USA)

The MCS-WIRELESS-3G is built for your network.

It's a highly-featured, compact router designed for critical industrial applications that require 24x7 connectivity at your installation.

The router features a built-in high-speed Verizon 3G EVDO modem. Supplied with one year subscription to MCS Wireless Verizon Data Plan, 250MB per month.



MCS Family

Our employees are one of the greatest assets we have.

**Years at MCS:
9 wonderful years**



Ray A. Jaramillo

Job Function and Title at MCS:
Software Engineer responsible for the development of MCS-CONNECT

My Education: B.S. in Computer Science from the University of Florida. Go Gators!

"I know that a lot of people dislike their job and the people with whom they work. I am so very thankful that I am not one of them. I love working in the technology field and especially with Micro Control Systems who is a leader in the development of HVAC Control Systems."

To quote Tim O'Reilly, *"What new technology does is create new opportunities to do a job that customers want done."*

Hobbies and Interests: Gator Athletics, Web Development, NFL, Graphic Novels, Animation, Game Development.



**MCS Energy Efficient
and RoHS Compliant**

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