



Innovative & Efficient Solutions For You

Raising standards
and developing
expertise



Distributors Training Catalogue

April 2016 - March 2017



Middle East & Africa

Academy

Table of contents

Welcome to Daikin Academy (Middle East & Africa)	4
Enrollment / Cancellation Policy / Assessment / Registration	5
Training Location / Payment / Course Schedule / Hotel Information & Arrangement	6
Refreshment / Training Materials & Certificate / Travel Schedule / Gatepass Permit	6
Training Course Schedule	7
Air Cooled EWAD Screw Chiller Maintenance & Operation	8
Centrifugal Chiller Maintenance & Operation Course	9
Chilled Water System and Chiller Controls	10
VRV IV (Standard Ambient) Application Course	11
VRV IV (Standard Ambient) Installation, Commissioning and Troubleshooting	12
VRV IV (High Ambient) Application Course	13
VRV IV (High Ambient) Installation, Commissioning and Troubleshooting	14
I-Touch Manager II Centralized Controls	16
BMS Interfaces for DIII Net (BACnet/LON/Modbus)	17
Modbus (RTD) / KNX(KLIC) Home Automation Interface	17
R32 Refrigerant and Split Unit Service Course	18
Air Side Products Application Course	19
Chiller Products Application Course	20
Daikin Academy Service Training Registration Form	21
Location Map	22

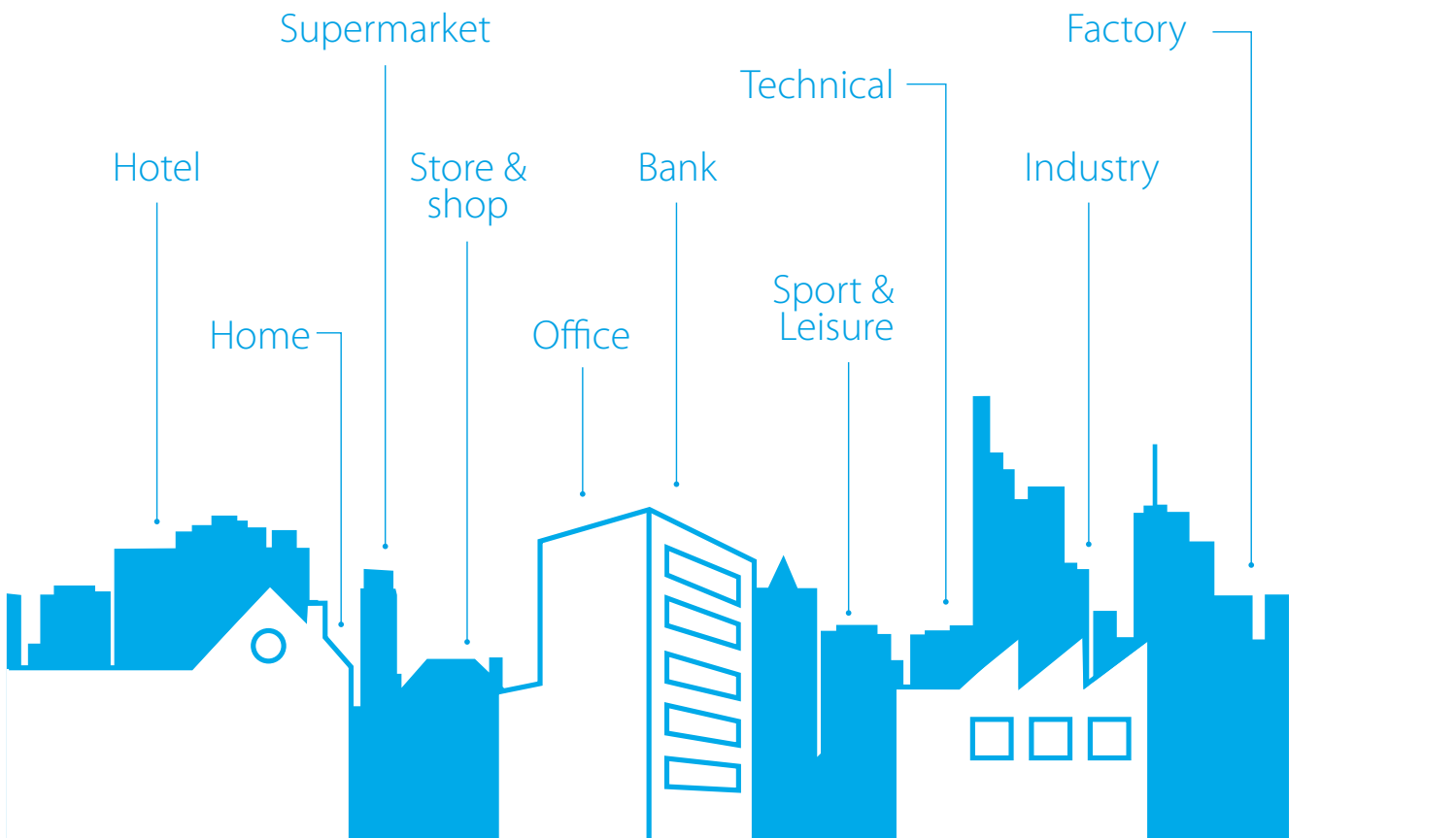
Welcome

The world's most prestigious companies look to Daikin products and systems to deliver engineered solutions for any project. No matter what building type, Daikin has the right products, applications, expertise and responsive support to fill all your HVAC requirements.

Daikin Middle East and Africa is the regional headquarter for Daikin Industries, located in Dubai, responsible for promoting, selling, and after market support for the full range of Air Conditioning products sold in the GCC, Middle East and Africa.

Our company is multi-cultural, fast growing and dynamic. The result is a unique work environment, built on 3 core values:

Absolute Credibility, Enterprising Management and Harmonious Personal Relationships.



Enrollment

To obtain the most effective training, carefully match your student(s) with the appropriate courses by evaluating the course content and objectives with them. Class size is limited and is offered on a first-register, first-attend basis. Confirmation of enrollment along with hotel and travel information will be sent to the student within five working days after receipt of your paid application.

Upon receipt of your confirmation, check it carefully and contact us through academy@daikinmea.com. If you find any discrepancies, Please verify your enrollment. If you do not receive an enrollment confirmation letter within two weeks prior to the start of class, contact us to make sure that we have received your application.

Cancellation Policy

Daikin Academy reserves the right to make changes/cancellation to the course schedule, in case the number of students are less than 6. Attendees will be notified by phone and by e-mail.

Assessment

At the conclusion of the course the student will review, discuss and be assessed with a test on the learning outcomes of the course. The test will be graded based on the percentage of questions to determine the students' learning outcome.

Registration

To attend a course listed in this training catalogue, please complete the enrollment form (on page 21) and e-mail to: Sales Responsible & academy@daikinmea.com

Daikin Middle East and Africa

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www.daikinmea.com

Training Location

Daikin Academy (Middle East & Africa)
(Refer to page 22)

Payment

Payment is required in advance of the training course. Payment can be made by:

- » Purchase orders to be registered for enrollment, but payment is due prior to the start of class.
- » **Total tuition fee includes hotel accommodation, local transportation between training center and hotel and airport pick-up and drop**
- » **Traveller air ticket and visa (if requested from hotel) shall be a part of attendees scope**

Course Schedule

Classes begin at 9:30 am until 5:30 pm
Travel arrangements are made to accommodate this schedule

Hotel Information & Arrangements

Hotel, with Daikin preferred rates (3-star), will be arranged upon the class registration confirmation. Students are provided with transportation to and from the training center.

Refreshment

Lunch, Tea / Coffee will be provided

Training Materials & Certificate

Students attending our classes will be provided with training materials with electronics files and shall be given a Certificate at the end of the course.

Travel Schedule

Trainee should provide flight schedule and passport details at least 3 weeks prior to travel date for necessary arrangement of hotel booking and airport pick up.

Gate Pass Permit

Students attending our classes must print a copy of the Gate Pass provided by the training center and bring work permit or passport to be presented at any Gate within JAFZA. (See page 22 for location map)

Training Course Schedule

Recommended for (Project Engineers, Service Engineers and Technicians) Distributors' staff

Training Courses	Course Fee	Course Length	Date	Pages
Air Cooled EWAD Screw Chiller Maintenance & Operation	USD 1,200	3 days	May 8-10, 2016 May 15-17, 2016 Nov 1-3, 2016	8
Centrifugal Chiller Maintenance & Operation	USD 1,200	3 days	May 29-31, 2016 Nov 27-29, 2016	9
Chilled Water System And Chiller Controls	USD 800	2 days	Dec 5-6, 2016	10
VRV IV (Standard Ambient) Application	USD 400	1 day	On Request	11
VRV IV (Standard Ambient) Installation, Commissioning and Troubleshooting	USD 1,200	3 days	April 17-19, 2016 October 16-18, 2016	12
VRV IV (High Ambient) Application	USD 400	1 day	On Request	13
VRV IV (High Ambient) Installation, Commissioning And Troubleshooting	USD 1,200	3 days	April 3-5, 2016 October 4-6, 2016	14
I-Touch Manager II Centralized Controls	USD 800	2 days	April 6-7, 2016 October 19-20, 2016	16
BMS Interfaces For DIII Net: BACnet / LON / New Modbus Interface	USD 400	1 day	On Request	17
Modbus (RTD) + KNX (KLIC) Home Automation Interfaces	USD 400	1 day	On Request	17
R32 Refrigerant and Split Unit Service	USD 400	1 day	April 24, 2016 October 31, 2016	18
Air Side Products Application	USD 400	1 day	On Request	19
Chiller Products Application	USD 400	1 day	On Request	20



Air Cooled EWAD Screw Chiller Maintenance and Operation

The Air Cooled Screw Chiller Maintenance and Operation

Training Course is structured to provide basic classroom instruction, demonstrations, and "hands-on" exercises designed to familiarize the student with the product features, operation, and maintenance and service requirements for Daikin Screw Chiller products.

In our training, each student will work with selected screw product simulators. The emphasis of this "hands-on" training will be to enhance the technicians and engineers' knowledge of good service and electrical trouble shooting practices necessary for proper service and maintenance of Daikin Screw Chillers.

The products covered in this seminar will be the EWAD Air Cooled Screw Chiller.

Screw Chiller Control Training includes the MicroTech III control systems.

The standard program for the maintenance, operation and service seminar is three days of intensive training.

The training shall be ended up with half day tour to an operating job site.



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

3 days

Course Schedule

May 8-10, 2016
May 15-17, 2016
Nov 1-3, 2016

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch



Course Overview:

- » Basic cycle of Air Cooled Chillers
- » Learn to read electric schematics
- » Screw Compressor design and components
- » Oil, refrigerant and economizer systems
- » Electrical systems
- » Micro Tech® III microprocessor control system for EWAD
- » Electronic expansion valve
- » Solid-state starters



Who May Attend:

Subject to pre-qualification, any distributor doing installation, maintenance and operation of screw chillers is eligible to send qualified technicians and engineers to this course. The trainee should have a good working knowledge of the refrigerant cycle, power and control circuitry, and be skilled in the use of standard service tools and electrical meters.

The training course shall also include the discussion on content of activities performed during pre-startup and commissioning of screw chillers.

- » General maintenance and service
- » Evacuation procedures
- » Refrigerant & oil charging procedures
- » Air-cooled DX evaporator theory
- » Flooded evaporator theory

Centrifugal Chiller Maintenance and Operation

The **Centrifugal Chiller Maintenance and Operation Course** is designed to teach the maintenance technician and building engineer how to maintain, operate, troubleshoot, and analyze performance of standard, non-magnetic Daikin Centrifugal Chillers.

Centrifugal Chiller Control Training includes the Micro Tech® control platforms. The standard program for centrifugal chiller maintenance and operation is three days of intensive training.



Course Overview:

- » Basic cycle of air and water cooled chillers
- » Centrifugal compressor theory
- » Components of MicroTech® control panels
- » Components of centrifugal chiller starters
- » Control circuit analysis
- » MicroTech® system software and operation
- » Lubrication, vane system
- » Refrigerant charging procedures
- » Solid-state starters
- » Centrifugal chiller VFD

Day 2 & 3 sessions:

- » Review of chiller service, centrifugal compressor operation
- » MicroTech® control systems
- » Wye Delta starters
- » Solid-state starters
- » Centrifugal chiller VFD
- » Micro Tech programming/monitor program & troubleshooting
- » Centrifugal compressor lubrication system
- » Dual compressor operation, general maintenance
- » Dehydration procedures
- » Refrigeration charging and evacuation procedures
- » Hot gas by-pass, liquid injection
- » System analysis



Who May Attend:

Subject to pre-qualification, any distributor doing installation, maintenance and operation of centrifugal chillers is eligible to send qualified technicians and engineers to this course. The trainee should have a good working knowledge of the refrigerant cycle, power and control circuitry, and be skilled in the use of standard service tools and electrical meters.

The training will conclude with a half-day tour to an operational job site.

This 3-day course is designed to teach the service technician/engineer how to troubleshoot and recognize Daikin Centrifugal Chiller System operating problems.

The training also includes discussions on content of activities performed during pre-startup and commissioning of centrifugal chillers.



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

3 days

Course Schedule

May 29-31, 2016
Nov 27-29, 2016

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch

Chilled Water System and Chiller Controls

The **Chilled Water System and Chiller Controls Course** is structured to provide basic classroom, instruction and demonstrations, designed to familiarize the student with the Chilled water system, operation and functioning to manage the chillers in order to have efficient operation of chilled water plant.

Duration of the standard program is 2 days of intensive training.



Course Overview:

- » Basic refrigeration chilled water systems (Primary only, Primary-Secondary & Variable Primary Flow Systems)
- » System profile
- » Chillers Communication protocols (Modbus, Lon, Bacnet IP/MSTP)
- » Chiller Plant control
- » Chillers sequencing in multi-chillers plant system
- » Understanding the logic to control different ancillaries (pump, valve & cooling tower, etc.) on chilled water system



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

2 days

Course Schedule

Dec 5-6, 2016

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch



VRV IV (Standard Ambient) Application Course

The **VRV IV Training Course** is structured to provide basic classroom instruction, demonstrations, and “hands-on” exercises designed to familiarize the student with the product features, applications, benefits and software selection procedures.

In our training lab, each student will work with selection software on sample project. The emphasis of this “hands-on” training will be to enhance the Sales person’s knowledge of the product and its selection procedure.

This training includes the basic level explanation of VRV IV central control systems.

The program for VRV IV Application is one day of intensive training.



Course Overview:

- » VRV IV System basics
- » Understanding of Outdoor & Indoor Units operation
- » Understanding of key features and benefits
- » Explanation of design guidelines
- » Life Cycle Cost comparison with Chillers / DX systems
- » Basics of centralized control options
- » Using selection software
- » Practical software selection with sample project



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

1 day

Course Schedule

On request

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch



VRV IV (Standard Ambient) Installation, Commissioning and Troubleshooting

The **VRV IV Unit Installation & Troubleshooting Course** is structured to provide basic classroom instruction, demonstrations, and "hands-on" exercises designed to familiarize the student with the product features, installation requirements, and service procedures for the Daikin VRV IV product.

In our training lab, each student will work with selected operating product simulators. The emphasis of this "hands-on" training will be to enhance the trainee's knowledge of good service and electrical troubleshooting practices.

This training includes the VRV IV control system and inverter compressor technology.

The program for VRV IV Installation & troubleshooting training is three days of intensive training.



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

3 days

Course Schedule

April 17-19, 2016
October 16-18, 2016

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch



Course Overview:

- » VRV IV System built up
- » Difference between VRV III and VRV IV
- » Continuous Heating and non-continuous heating
- » Variable refrigerant temperature
- » Push button setting and 7 segment display
- » VRV IV configurator
- » How to read wiring diagrams, legends, symbols and notes
- » Complete installation (outdoor, indoor, wiring, piping)
- » Dehydration procedure
- » Refrigerant charging
- » Classification of troubles
- » Inspection and Repair Instructions
- » Complete installation (outdoor, indoor, wiring, piping) and commissioning



VRV IV (High Ambient) Application Course

The **VRV IV Training Course** is structured to provide basic classroom instruction, demonstrations, and "hands-on" exercises designed to familiarize the student with the product features, applications, benefits and software selection procedures.

In our training lab, each student will work with selection software on sample project. The emphasis of this "hands-on" training will be to enhance the Sales person's knowledge of the product and its selection procedure.

This training includes the basic level explanation of VRV IV central control systems.

The program for VRV IV Application is one day of intensive training.



Course Overview:

- » VRV IV System basics
- » Understanding of Outdoor & Indoor Units operation
- » Understanding of key features and benefits
- » Explanation of design guidelines
- » Life Cycle Cost comparison with Chillers / DX systems
- » Basics of centralized control options
- » Using selection software
- » Practical software selection with sample project



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

1 day

Course Schedule

On request

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch



VRV IV (High Ambient) Installation, Commissioning and Troubleshooting

The **VRV IV Unit Installation & Troubleshooting Course** is structured to provide basic classroom instruction, demonstrations, and "hands-on" exercises designed to familiarize the student with the product features, installation requirements, and service procedures for the Daikin VRV IV product.

In our training lab, each student will work with selected operating product simulators. The emphasis of this "hands-on" training will be to enhance the trainee's knowledge of good service and electrical troubleshooting practices.

This training includes the VRV IV control system and inverter compressor technology.

The VRV IV installation & troubleshooting course is three days of intensive training.



Course Overview:

- » VRV IV System built up
- » Difference between VRV III and VRV IV
- » Push button setting and 7 segment display
- » VRV IV configurator
- » How to read wiring diagrams, legends, symbols and notes
- » Complete installation (outdoor, indoor, wiring, piping)
- » Dehydration procedure
- » Refrigerant charging
- » Classification of troubles
- » Inspection and Repair Instructions
- » Complete installation (outdoor, indoor, wiring, piping) and commissioning
- » Service Checker



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

3 days

Course Schedule

April 3-5, 2016
October 4-6, 2016

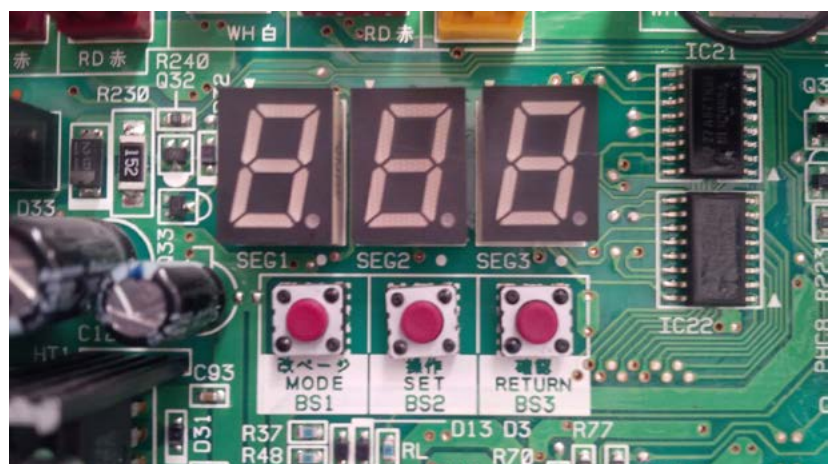
Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch



7 Segment display features:

- » User friendly display and setting procedure
- » Direct indication of current error code
- » Field setting method :
 - By using 3 push buttons on main control board, **OR**
 - PC connection: through "configurator"



i-Touch Manager II Centralized Controls

The **i-Touch Manager II Centralized Controls** is designed to teach the experienced service technician, engineers to commission, operate & Troubleshoot Daikin controls.

This program is structured to provide basic classroom instruction, demonstration and hands on exercises designed to familiarize the student with the I-Touch Manager II centralized controller integration and troubleshooting.

Classroom sessions include hands-on exercises using controls simulators installation, communication and application on actual operational units.



Course Overview:

- » i-Touch Manager
- » Troubleshooting
- » iTM plus adapter & Integrator
- » New range of I/O possibilities, in combination with WAGO modules



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

2 days

Course Schedule

April 6-7, 2016
October 19-20, 2016

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch



BMS INTERFACES FOR D-III NET (BACNet/LON/Modbus)

For most projects, a Building Management System is essential to control and monitor different equipment within the premises. Daikin BMS Interfaces allows our VRV and other D-III Net based technology to be easily integrated to any major BMS protocol available in the market.



Course Overview:

- » Basic Information on BACNet Interface Lonworks and Modbus
- » Familiarity on these three major protocols
- » Control and Monitoring Points
- » Basic Setup of the Interface
- » Ports and wiring
- » Commissioning
- » Practical info and hands-on session



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

1 day

Course Schedule

On request

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch

Modbus (RTD)/KNX (KLIC) Home Automation Interface

Home Automation Interfaces are made available by Daikin to be able to integrate our units to different home automation systems available in the market.



Course Overview:

- » Basic Information on RTD interface
- » Background and application of KLIC
- » Functionality of both RTD/KLIC
- » Hands-on experience and testing
- » Application of Interfaces and compatibility with Daikin models



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

1 day

Course Schedule

On request

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch

R32 Refrigerant and Split Unit Service

Daikin has always been a pioneer in HVAC technology. The launch of the new R32 refrigerant in the Middle East market, which is more environment friendly and more efficient gives Daikin an edge over its competitors, in terms of corporate social responsibility and energy efficiency.



Course Overview:

- » Basic Information on R32 Refrigerant
- » Refrigerant Characteristics
- » Difference between R32 and R410-A
- » Tool Compatibility for R32
- » Installation Instructions
- » Vacuum process
- » Evacuation and Recovery process
- » Startup and Commissioning
- » Troubleshooting of R32 Split units



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

1 day

Course Schedule

April 24, 2016
October 31, 2016

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch





Air Side Products Application

The **Air Side Products Application Course** is structured to provide basic classroom instruction, demonstrations, and “hands-on” exercises designed to familiarize the student with the product features, AHU selection, costing, compliance statements and specifications.

The training is one day of intensive training.



Course Overview:

- » AHU, FAHU, FCU products offering
- » Selection programs for AHU, FAHU & FCU
- » Preparing compliance statements
- » Costing programs and order forms
- » Special and non-standard options
- » Advantages of Daikin products over competitors
- » Daikin specifications



Course Details

Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

1 day

Course Schedule

On request

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch





Chiller Products Application

The **Chiller Products Application Course** provides basic classroom instruction, demonstrations, and hands-on exercises on Chiller selection, costing, compliance statements and specifications.

The training is one day of intensive training.



Course Overview:

- » All air-cooled and water-cooled chiller products offering
- » Chiller selection programs for air cooled and water cooled chillers
- » Preparing chiller compliance statements
- » Chiller costing programs and order forms
- » Special and non-standard options for chillers
- » Advantages of Daikin chiller over competitors
- » Daikin chiller sweet spots and specifications



Course Location

Daikin Middle East & Africa FZE
Training Center Dubai, UAE

Course Length

1 day

Course Schedule

On request

Daikin to provide

Hotel
Transportation
Instruction Materials
Lunch

Daikin Academy (Middle East & Africa)

Registration Form

Course Title _____

Dates _____

Course Location _____

Company Name _____

Mailing Address (City, P.O. Box) _____

Submitted by _____ E-mail address _____

Office Number _____ Mobile Number _____

Person In-Charge _____ E-mail address _____

Mobile Number _____ Designation _____

Attendees List

SI No.	Name	Designation	Length of Experience	E-mail Address

Location Map



Daikin Middle East and Africa FZE

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Innovative and Efficient Solutions for You

RESIDENTIAL



COMMERCIAL



INDUSTRIAL



CONTROLS



SERVICE



In homes, shops, offices and even large-scale buildings, we support comfortable lifestyles in any situation.



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Daikin Middle East and Africa



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