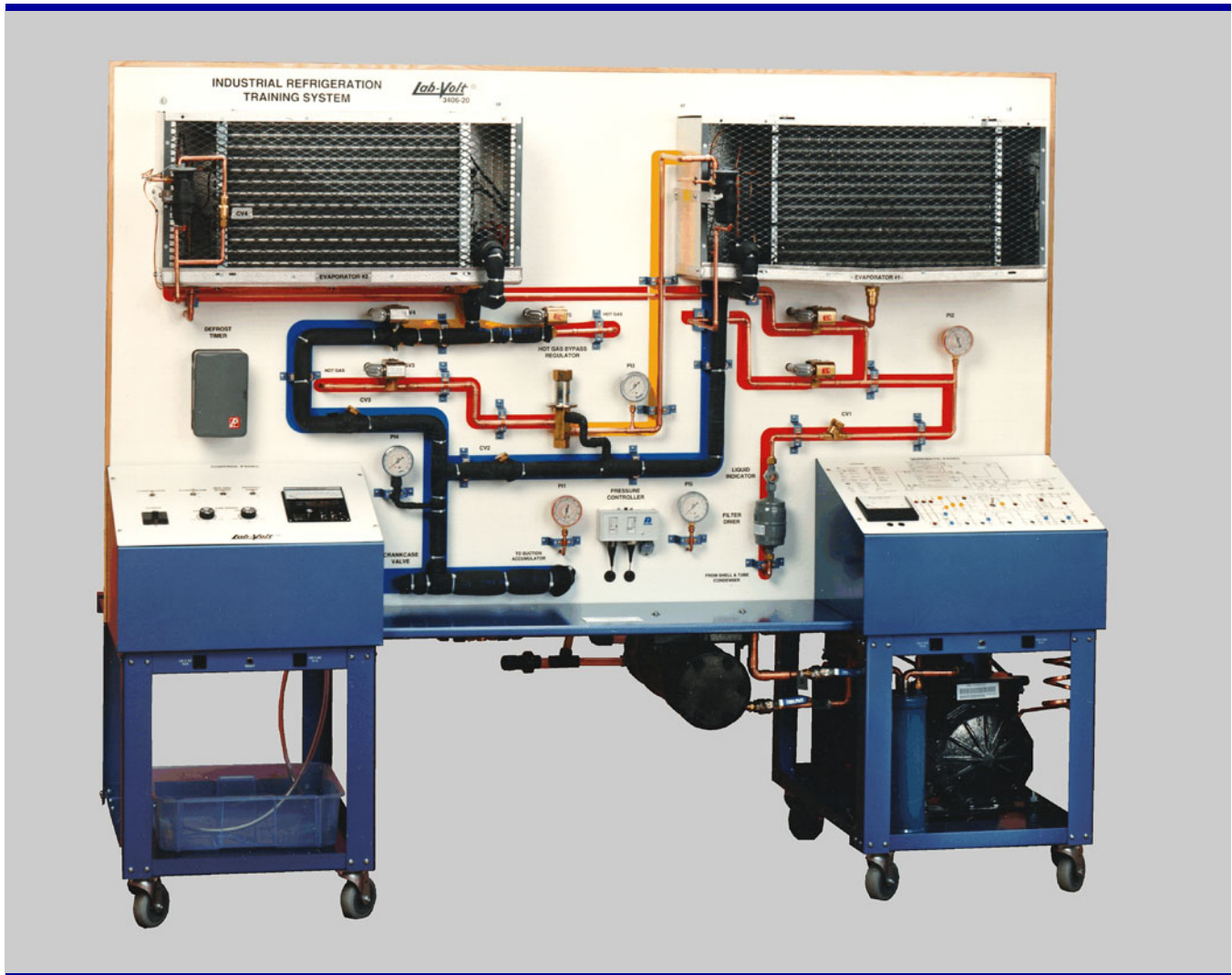


## INDUSTRIAL REFRIGERATION TRAINING SYSTEM, MODEL 3406



### GENERAL DESCRIPTION

The Lab-Volt Industrial Refrigeration Training System, Model 3406, introduces trainees to the principal components of industrial refrigeration systems through hands-on practice.

It enables students to gain experience with both commercial and industrial equipment that use water-cooled condensers, electric and hot-gas defrost systems, and hot-gas bypass for variable load control. Lockable fault-insertion switches will introduce various electrical faults, allowing students to develop their skills in maintenance and troubleshooting.

# INDUSTRIAL REFRIGERATION TRAINING SYSTEM

## MODEL 3406

### Features

- Two evaporators, one with electric defrost, the other with hot-gas defrost.
- A shell and tube water-cooled condenser. Requires a 2 GPM (0.45 m<sup>3</sup>/h) water supply with temperature ranging from 50 to 65°F (10 to 18°C).
- A 2-HP semihermetic refrigerant-cooled compressor, using R-22 refrigerant.
- Variable-speed evaporator fans.
- Control devices such as high/low pressure controller, thermostatic expansion valves with external equalizer, crankcase pressure regulator, hot-gas bypass pressure regulator, pressure-controlled water valve, solenoid valves and defrost timer.

## TABLE OF CONTENTS OF THE STUDENT MANUALS

### Industrial Refrigeration (76093-00)

- **Introduction to the Lab-Volt Industrial Refrigeration Training System**
  - Familiarization with the Training System
- **Compressors**
  - Reciprocating Compressors
- **Evaporator and Condenser Principles**
  - Evaporators
  - Condensers
- **System Control and Metering Devices**
  - Thermostatic Expansion Valves
  - Hot Gas Bypass Pressure Regulating Valves
  - Crankcase Pressure Regulating Valves
- **Defrost Systems**
  - Electric Defrost
  - Hot Gas Defrost
- **Troubleshooting**
  - Troubleshooting Electrical Faults

## SPECIFICATIONS

Model 3406 –Industrial Refrigeration Training System		120/208 V – 60 Hz	220/380 V – 50 Hz	240/415 V – 50 Hz
Power Requirement		120/208 V – 15 A – 3~	220/380 V – 10 A – 3~	240/415 V – 10 A – 3~
Compressor type		Semihermetic, 2 HP		
Refrigerant		R22		
Evaporators		1 Forced-air coil with electrical defrost		
		1 Forced-air coil with hot-gas defrost		
Condenser		Water-cooled shell and tube <sup>1</sup>		
Safety Devices		High pressure controller, Condenser pressure relief valve		
Control Devices		2 Thermostatic expansion valves with external equalizer		
		High/low pressure regulator		
		Crankcase pressure regulator		
		Hot-gas bypass pressure regulator		
		Solenoid valves		
		Pressure-controlled water valve		
		Defrost timer		
Fault-Insertion Switches		8		
Physical Characteristics	Dimensions (H x W x D)	1870 × 2210 × 700 mm (73.6 x 87.0 x 27.4 in)		
	Net Weight	307 kg (675.4 lb)		

<sup>1</sup> Requires a 2 GPM (0.45 m<sup>3</sup>/h) water supply with temperature ranging from 50 to 65°F (10 to 18°C).

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## ORDERING NUMBERS

120 V – 60 Hz			220 V – 50 Hz			240 V – 50 Hz
ENGLISH	FRENCH	SPANISH	ENGLISH	FRENCH	SPANISH	ENGLISH
3406-20	TBE	3406-22	3406-25	TBE	TBE	3406-2A

Table 1. Equipment Ordering Numbers

120 V – 60 Hz			220 V – 50 Hz			240 V – 50 Hz
ENGLISH	FRENCH	SPANISH	ENGLISH	FRENCH	SPANISH	ENGLISH
76093-00	TBE	76093-02	76093-00	TBE	76093-02	76093-00
76093-10	TBE	76093-12	76093-10	TBE	76093-12	76093-10

Table 2. Courseware Ordering Numbers

Reflecting Lab-Volt's commitment to high quality standards in product, design, development, production, installation, and service, our manufacturing and distribution facility has received the ISO 9001 certification.

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