

技术资料 英汉翻译



English-Chinese Translation of
Technical Documentation

王珏 田华 刘小芹◎编著



天津大学出版社
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前 言

随着我国经济的飞速发展，越来越多的国外先进技术和机器设备被引进，使得大量技术资料需要译成中文。对这类资料的翻译，不仅要求译文正确通顺，而且要求完成期限与工程进度保持同步，也就是说要求在较短的时间内翻译完大量的资料。这无疑对从事翻译工作的人员提出了很高的要求。本书编写的目的是使学生基本具备进行技术资料英汉互译的技能，并以此为基础拓展科技英语翻译技能。具体来说，是使学生熟悉技术资料的中、英术语以及用词和用语，能够对技术资料进行英汉互译，并在此基础上掌握生疏领域技术资料的翻译方法。

本书选取的资料是企业常见的需要翻译的材料，学习本书内容不但对笔译有益，而且对技术文件写作和口头交流都有一定帮助。本书适合具有较好英语基础的英语、机械和电气专业的学生学习。良好的英语基础是学习本课程的必要条件，学习本课程前应至少完成三个学期的综合英语课程的学习。因此，本课程最好在二年级下学期或三年级开设。本课程涉及大量的机械与电气知识，学习本课程之前应当适当学习一些与机械和电气有关的课程。

本书包括十三课。第一课到第四课的课文取材于集中空调的安装、操作和维护手册；第五课到第八课的课文取材于潜水无堵塞污水泵规格说明书；第九课和第十课的课文介绍固体颗粒处理潜水污水泵控制装置；第十一课的课文介绍低压配电柜产品说明

书；第十二课的课文介绍实验室通用要求；第十三课的课文为阀门安装说明。每篇课文的字数 800 至 1 100 字不等，并有汉语译文。每课都安排有翻译练习，内容与课文密切相关，既是练习又是课文的补充。这些翻译练习不但可以引起学生的学习兴趣，还可以培养学生的翻译能力，获得翻译工作经验。

由于编者水平有限，书中疏漏在所难免，敬请广大读者批评指正。

编者

2012 年 5 月

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Lesson One

Installation, Operation and Maintenance Manual of Central Air Condition System (1)

集中空调安装、操作和维护手册 (1)

General Information

总体介绍

These instructions cover installation, operation, and maintenance of all single package TCH024-060 air conditioning units. For an easy and orderly installation, follow the sequence of instructions as they are outlined. Improper installation can result in unsatisfactory operation and/or dangerous conditions as well as make the related warranty inapplicable^[1]. Read this manual carefully before installing, operating, or performing maintenance on this unit. Installation and maintenance should be performed by qualified service technicians^[2]. Locate the unit in accordance with local codes or the National Electrical Code (NEC). Each unit contained an operating charge of HCFC-22 when shipped.

这些操作指南涉及所有的单套 TCH024—060 空调机组的安装、操作和维修。遵照以下各指南描述的顺序，则可轻松、有条不紊地安装机组。不正确的安装会导致机组运行不良和/或危险，并且会造成相关质量担保失效。在安装、操作或维护本机组之前，请仔细阅读本手册。应由有资质的维修技术人员进行安装和维护。根据当地规范或《美国国家电气规范》选定机组的安装位置。发货时，每套机组都加注了 HCFC—22。

Unit Inspection

机组检查

The material in this shipment has been inspected at the

factory and was released to^[3] the transportation agency without known damage. Inspect the exterior of the carton for evidence of rough handling in shipment. Check the unit nameplate to determine if the unit is correct for the intended application.^[4] After moving the equipment to the approximate location, unpack it carefully. If damage to the unit is found, report the nature of this damage immediately to the delivery agency. Check to be sure that the refrigerant charge has been retained during shipment.^[5]

每批货出厂之前都经过了检查，并在无已知损坏的情况下交付运输代理。检查包装箱外部有无运输过程中野蛮装卸的痕迹。检查机组上的铭牌以便确定是否此机组正是所需要的。在将设备运到安装地点后，小心地打开设备包装。如果发现机组有损坏，则立即向运输代理报告损坏的性质。检查并确定注入的冷冻剂在运输过程中无泄漏。

Power Supply

电源

The power supply must be adequate for^[6] the unit and any supplementary electric heaters, if added. Make certain that the power supply to the unit agrees with the power requirements specified on the unit nameplate. Separate branch circuits are required for supplementary electric heaters.

电源必须满足机组和补充的电加热装置的要求。确保机组的电源符合机组铭牌上标明的电力要求。如果有补充电加热装置，则需要为电加热装置准备单独的电源支路。

Rigging

吊运

IMPORTANT Check the handling facilities to ensure the

safety of both personnel and the unit. Be sure that the proper method of rigging is used, with straps or slings and spreader bars for protection during lifting.

重要提示 检查搬运设备以确保人员和机组的安全。确保正确使用吊索进行吊运。在提升过程中使用撑杆保护设备。

Locations and Recommendations

定位和建议

This unit was designed for multiple applications: rooftop, out-door ground level. For proper installation, the following recommendations must be considered.

机组被设计成适于多种形式的安装：屋面安装、室外地面安装。请考虑以下对安装的建议。

Installation of the unit should conform to local building codes or, in the absence of local codes, to the National Electrical Code. Canadian installations must conform to CSA and local codes.

机组安装应符合当地建筑规范。在安装地没有当地规范的情况下，可遵从《美国国家电气规范》。在加拿大安装本机组时，必须遵照加拿大标准协会（CSA）的规范或当地规范。

Select a location that will permit unobstructed airflow into the outdoor coil and away from the fan discharge. The discharge air from the outdoor fan must be unrestricted for a minimum of three (3) feet (0.91 m) above the unit. Any reduction of the unit clearances recommended may result in condenser coil starvation^[7] or the recirculation of warm condenser air. Actual clearances which are inadequate should be reviewed with a local sales representative. If the unit is located under an overhang,

provisions must be made to deflect the warm discharge air from under the overhang. See Figures 1, 2 and 3. The unit must also be situated to permit easy and unrestricted access for service. ^[8]

在为机组选定的安装位置上, 空气可畅通无阻地流入室外冷凝盘管并流出风机。室外风机排气必须至少在机组上方 3' (0.91 m) 范围内无阻碍。如果机组间隙小于建议的间隙, 则可能造成冷凝盘管性能发挥不足或热空气回流。如果实际间隙不足, 则用户需联系当地销售代表检查这个情况。如果机组上方有悬挂物, 则应采取措施引导排放的热空气从该悬挂物下面流走 (见图 1、2、3)。在给机组选择安装位置时, 必须考虑方便检修。

Install internal accessories to the unit at the shop if practical. ^[9]

应尽可能地在制造厂的车间内将内部辅助设备、零件装到机组上。

Position the unit so roof-run-off water does not pour directly onto the unit.

在给机组选择安装位置时, 要考虑避免屋面流淌下来的水直接浇到机组上。

CAUTION MUST ALWAYS BE TAKEN TO AVOID PERSONAL INJURIES AND/OR DAMAGE TO THE EQUIPMENT.

时刻小心避免人员受伤和/或设备损坏。

Elevation minimums must be observed for drain line "trap" and ventilation to the under side of the unit.

必须考虑到机组高度最小值以便能够在排水管中安装存水弯并保证机组下面的通风。

All duct work inside the structure should be adequately insulated. ^[10]

建筑内的所有风道应做保温处理。

All duct work outside of the structure must be insulated and weatherproofed in accordance with local codes. If supplementary heat is added, the duct connectors should be of a flame retardant material.

建筑外的风道必须依据当地规范做保温和防风雨处理。如果需要添加制热功能，风道接头应用阻燃材料制作。

Access and service clearances for the unit must be given careful consideration when locating the duct entrance openings.

当给风道穿墙开口选择位置时，必须认真考虑为机组检修留下足够的空间。

Figure 1 [a) TCH024C, 030C, 036C, 042C; b) TCH048F, 060F] provided unit dimensions.

图1 [a) TCH024C, 030C, 036C, 042C; b) TCH048F, 060F] 提供了机组的尺寸。

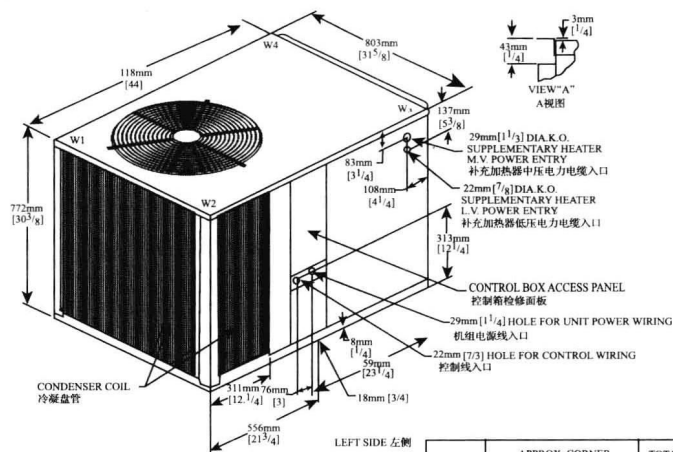
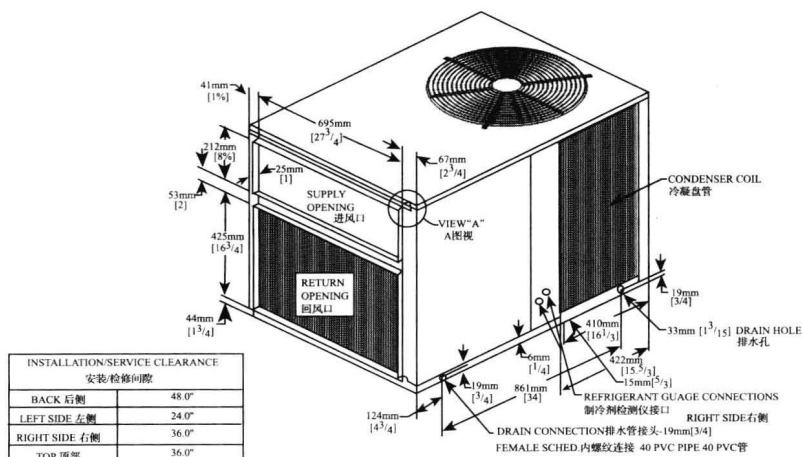
All fabricated outdoor ducts should be as short as possible.
所有预制的室外风道都应尽可能短。

Be sure the openings in the structure are large enough to accommodate the ducts and the insulation surrounding them. See Figure 2.

确保建筑上的开口足够大以便容下风道和包裹风道的保温层（见图2）。

For outdoor and ground level applications, the unit must be mounted on a solid, level foundation that is not adjoined to the structure because sound and vibration may be transmitted to the structure.

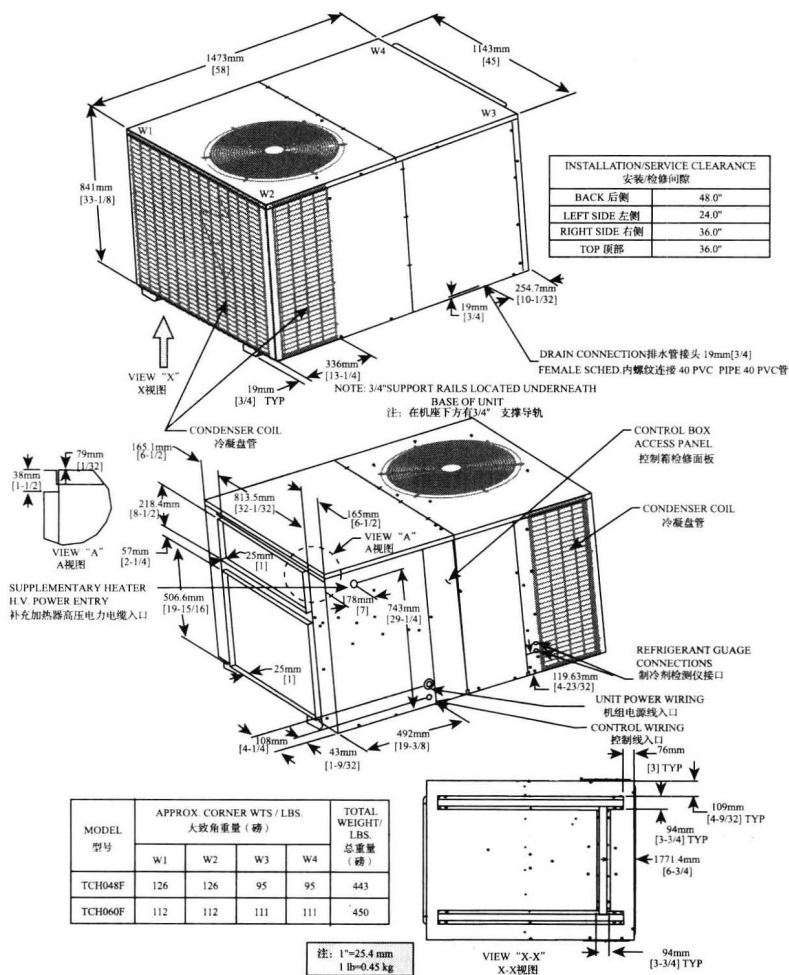
对于室外、地面安装方式，机组必须安装在坚固、平整的地基上。地基不得毗连建筑，因为机组发出的噪声和振动会传递到建筑上。



MODEL 型号	APPROX. CORNER WTS / LBS 大致的角重量 (磅)				TOTAL WEIGHT / LBS. 总重量 (磅)	COIL DIMENSION(IN) 盘管尺寸 (英寸)	
	W1	W2	W3	W4			
TCH024C	76	73	63	68	279	14	16
TCH030C	77	71	62	70	281	14	16
TCH036C	79	75	66	73	293	14	16
TCH042C	80	79	72	77	308	20	16

a)

Figure 1 图 1



b)

Figure 1 图 1

Field supplied mounting pads should be placed beneath the unit to prevent transmission of vibration to the occupied structure.

在机组下垫上场地提供的安装垫板以防止振动传递到所在的建筑。

Select a location that will minimize the length of the supply and return ducts.

在为机组选择安装位置时，应考虑尽量减少供风道和回风道的长度。

Select a location where external water drainage cannot collect around the unit.

在为机组选择安装位置时，应考虑外排水不会淤积在机组周围。

Give consideration to shade, appearance, and noise.

安装位置的选择要考虑遮蔽、外观和噪声。

Installation Applications

空调安装

Rooftop

屋面安装

For rooftop installations, the roof must have sufficient structural strength to support the load. FHA approved construction and local codes are normally adequate provided the roof joists and rafters have a proportionally distributed load. See Figure 2.

对于屋面安装方式，屋面必须具有足够的结构强度以支承荷载。如果荷载成比例地分布在屋面龙骨和椽条上，一般适用美国联邦住房管理局（FHA）认可的建筑规范和当地规范（见图2）。

The unit should be positioned for recommended clearances as previously outlined under “Locations and Recommendations”.

在给机组定位时，应留有前面“定位和建议”部分建议的间隙。

If duct hood or supply and return ducts are fabricated by the installing contractor, be sure that the portion of the supply and return ducts located outdoors is as short as possible. The

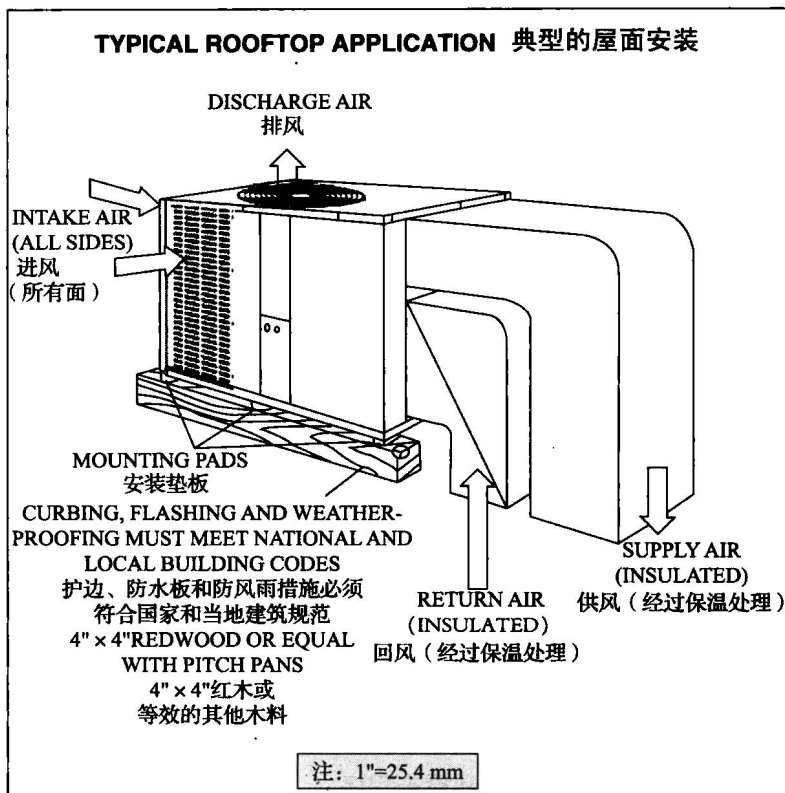


Figure 2 图 2

supply duct, return duct, and connectors should be insulated with 2 inches (50.8 mm) of insulation and weatherproofed. Be sure the openings in the structure for the supply and return ducts are large enough to include the insulation.

如果管道遮罩、供风和回风道是由安装承包商制作的，则应确保供风管道和回风管道的室外部分尽可能短。应使用 2" (50.8 mm) 厚保温材料给供风管道、回风管道和管接头做保温处理并做防风雨处理。确保建筑上的供风和回风管道穿墙开口足够大以便容纳保温层。

Use turning vanes inside the supply and return ducts when using a square elbow take-off from the unit.

当采用方形弯头出风时，在供风和回风管道内装转动叶片。

Vibration isolators are recommended to prevent transmission of vibration to the structure. Isolate with at least four (4) vibration isolators or equivalent. The isolators must provide a minimum clearance of 1/4 inch (6.35 mm) beneath the unit to permit air to circulate under the unit's base.

建议使用减振装置阻止振动传递到建筑。至少使用 4 个减振器或等同物减振。减振器必须在机组下方形成 1/4" (6.35 mm) 的间隙，使得机组底部的空气能够流通。

After the unit has been properly positioned, complete the installation according to the instructions in the following sections of this manual. Then follow the Start-up procedure and the Checkout procedure of this manual.

在机组定位好了后，按照本手册接下来的指导完成安装。然后执行本手册的启动程序和检查程序。

New Words and Expressions

instruction [in'strʌkʃən] *n.* 操作指南，关于步骤的详尽指导

warranty ['wərənti] *n.* 质量担保，保修证书

manual ['mænjʊəl] *n.* 手册，指南

locate [ləu'keɪt] *v.* 定位，位于

exterior [eks'tiəriə] *adj.* 外部的，外在的，表面的 *n.* 外部，表面

carton ['kɑ:tɒn] *n.* 硬纸盒，纸板箱

nameplate ['neɪmpleɪt] *n.* 铭牌，标示牌

refrigerant [rɪ'frɪdʒərənt] *n.* 制冷剂