

封闭式压缩机

HERMETIC COMPRESSORS

R 134a  
R 600a

EM产品系列  
Product Line EM



embraco

## EM系列

恩布拉科是全球制冷压缩机行业市场与技术领先的企业，被世界上要求最严格的冰箱及冷柜厂家所认可。

### 恩布拉科在中国

恩布拉科于1995年在中国成立合资公司，在全球都属于最现代化的新厂也于前不久建成投产。其研发中心代表了最先进的技术水平，为产品开发及应用提供服务，先进的生产设备为高质量提供了保障。

### EM全球生产轨迹

在中国新投产的EM压缩机是最新技术开发成果，畅销于世界各地。也是恩布拉科连续二十年在产品与制造技术上不断投入的结晶。



- ✓ 能耗节省超过60%
- ✓ 静音
- ✓ 外观尺寸小

能耗节省超过60% UP TO 60% REDUCTION IN ENERGY CONSUMPTION		
ECS 50 (1995)	ECU 50 (2000)	EMX 50 (2006)
1.2W 4h	0.9W 4h	0.4W 4h

## EM Series

Embraco is the market and technology leader in refrigeration compressors, acknowledged by the most demanding R&F manufacturers in the world.

### Embraco in China.

Embraco has been present in China since 1995, and has just inaugurated the most modern compressor factory worldwide. A Research and Development Center, with State-of-the-art labs, is available for product and application evaluation. State-of-the-art production machinery and equipment ensure the highest quality standards.

### EM Worldwide production footprint.

The EM launched in China is the latest technological evolution of the best selling compressor in the world.

The EM family is the result of 20 years of continuous investments in leading edge product and production technology:

- ✓ Up to 60% reduction in energy consumption.
- ✓ Silent operation.
- ✓ Small size.

## 一般技术参数

### 1、启动、运转电压

压缩机能在0.2Mpa(R600a、表压)或0.5Mpa (R134a、表压) 平衡压力下在标称电压的85%下启动。  
在不同的系统上可以在170V或240V下运转

### 2、电机

本目录下的压缩机配备单相、双极RSIR或RSCR（带运行电容）、低启动力矩电机，可应用于毛细管节流的系统，要求在平衡压力下启动

### 3、附件发货条件

3.1、压缩机内注油、干燥空气或者抽真空

3.2、提供附件（如胶脚、启动PTC、PTC盖、过载保护器等），但不组装在压缩机上

### 4、搬运

压缩机不能倒置或倾斜储存

压缩机必须平放安装

### 5、注意事项

压缩机经过抽真空状态后不能通过高压电或进行启动试验

所有EM压缩机出厂前已经过1800V9/1秒测试

压缩机内不得注入防冻剂；防冻剂对绝缘材料有各种影响

胶堵只应在焊接三管前拔掉

## General Technical Information

### 1. STARTING AND OPERATING CONDITION VOLTAGE

The EM compressors can start at 85% nominal voltage, with equalized pressures of up to 0.2 Mpa (R 600a, gauge pressure), 0.5 Mpa (R 134a, gauge pressure). Depending on the working conditions and systems characteristics, the compressor can operate at voltages as low as 170V and as high as 240V.

### 2. MOTOR

The compressors in this chart are equipped with monophase, two poles, RSIR or RSCR (with run capacitor), low starting torque (LST) motors, suitable to use with capillary tubes systems, requiring equalized pressures to start.

### 3. DELIVERY CONDITIONS OF ACCESSORY PARTS

3.1 Compressors are delivered with oil and holding charge of dry air.

3.2 Accessories, eg. Rubber grommets, starting PTC, PTC cover, overload protector and spacers are supplied not assembled to the compressor.

### 4. HANDLING

Compressor must not be turned upside down or inclined for storage.

Compressor must be mounted in the upright position.

### 5. WARNINGS

Compressor must not be subjected to high voltage or starting test while under vacuum.

All EM compressors have already been submitted to a 1800V high voltage teste for one second.

Compressor must not be charged with antifreeze agents, as their use can have adverse effects on the insulating materials.

Plugs should only be removed immediately before brazing connectors to system tubes.



# 压缩机性能参数

## Technical Data of Compressors

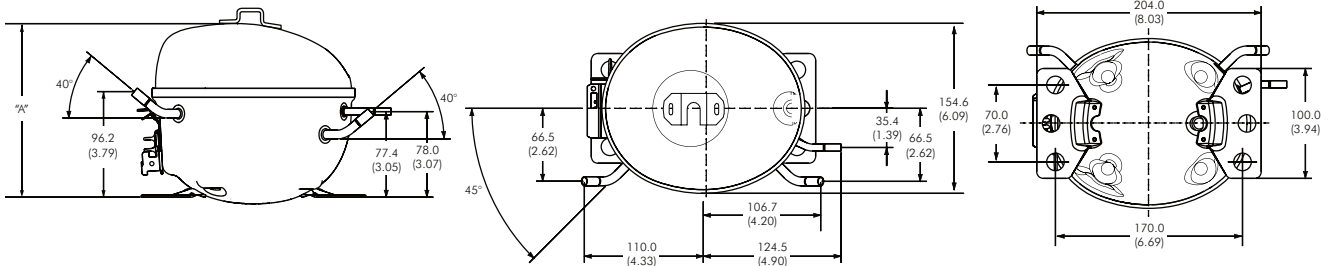
制冷剂 Refrigerant	系列 Series	型号 Model	电压/频率 Vol./Freq.	汽缸容积 Displacement	性能参数 Performance				运行电容 Capacitor		油粘度 Oil Viscosity	认证 Certification	最大高度 "A" Max. Height "A"		
					冷量 Capacity		效率 COP		Run	Start			mm	in	
					W	Kcal/h	W/W	Kcal/Wh	μF	μF					
R 600a	EMT	EMT 46 CLP	220~240/50	7.96	142	122.1	1.35	1.16			ISO 5	CCC	158	6.22	
		EMT 55 CLP	220~240/50	9.05	165	141.9	1.40	1.20			ISO 5	CCC	158	6.22	
		EMT 45 CLP	100/50	5.96	102	87.7	1.38	1.19			ISO 5		158	6.22	
			100/60	5.96	121	104.1	1.51	1.30			ISO 5		158	6.22	
	EMU	EMU 46 CLP	220~240/50	7.96	142	122.1	1.49	1.28	4		ISO 5	CCC	158	6.22	
		EMU 70 CLP	220~240/50	11.14	198	170.3	1.50	1.29			ISO 5	CCC	166	6.54	
	EMY	EMY 46 CLP	220~240/50	7.96	142	122.1	1.60	1.38	4		ISO 5	CCC/VDE	166	6.54	
		EMY 55 CLP	220~240/50	9.05	162	139.3	1.60	1.38	4		ISO 5	CCC/VDE	166	6.54	
		EMY 66 CLP	100/50	10.61	189	162.5	1.55	1.33			ISO 5		171	6.73	
			100/60	10.61	211	181.5	1.63	1.40			ISO 5		171	6.73	
	EMR	EMR 32 CLP	220~240/50	5.96	100	86.0	1.68	1.44	2.5		ISO 5	CCC/VDE	166	6.54	
		EMR 40 CLP	220~240/50	7.24	128	110.1	1.68	1.44	4		ISO 5	CCC/VDE	166	6.54	
		EMR 46 CLP	220~240/50	7.96	142	122.1	1.66	1.43	4		ISO 5	CCC/VDE	166	6.54	
		EMR 55 CLP	220~240/50	9.05	165	141.9	1.67	1.44	4		ISO 5	CCC/VDE	166	6.54	
	EMZ	EMZ 32 CLP	220~240/50	5.96	100	86.0	1.71	1.47	2.5		ISO 5	CCC	166	6.54	
		EMZ 40 CLP	220~240/50	7.24	128	110.1	1.72	1.48	4		ISO 5	CCC/VDE	166	6.54	
		EMZ 66 CLP	220~240/50	10.61	190	163.4	1.74	1.50	4		ISO 5	CCC/VDE	171	6.73	
	EMX	EMX 32 CLC	220~240/50	5.96	102	87.7	1.78	1.53	2.5		ISO 5	CCC	166	6.54	
		EMX 40 CLC	220~240/50	7.24	128	110.1	1.80	1.55	4		ISO 5	CCC	166	6.54	
	EMB	EMB 32 CLC	220~240/50	5.96	103	88.6	1.88	1.62	2.5		ISO 5	CCC	166	6.54	
		EMB 40 CLC	220~240/50	7.24	128	110.1	1.92	1.65	4		ISO 5	CCC/VDE	171	6.73	
		EMB 46 CLC	220~240/50	7.96	142	122.1	1.90	1.63	4		ISO 5	CCC/VDE	171	6.73	
		EMB 55 CLC	220~240/50	9.05	163	140.2	1.88	1.62	4		ISO 5	CCC/VDE	171	6.73	
		EMB 66 CLC	220~240/50	10.61	190	163.4	1.87	1.61	4		ISO 5	CCC/VDE	171	6.73	
	R 134a	EMT	EMT 45 HLP	220~240/50	4.85	145	124.7	1.40	1.20			ISO 7	CCC/VDE	158	6.22
		EMU	EMU 45 HLP	220~240/50	4.85	145	124.7	1.50	1.29			ISO 7	CCC/VDE	158	6.22
			EMU 55 HLP	220~240/50	5.20	161	138.5	1.50	1.29			ISO 7	CCC/VDE	166	6.54
			EMU 65 HLP	220~240/50	5.96	185	159.1	1.47	1.26			ISO 7	CCC/VDE	166	6.54
EMU 45 HLP			200~230/50	4.85	145	124.7	1.45	1.25			ISO 22	CCC/VDE	158	6.22	
EMU 55 HLP			200~230/50	5.20	161	138.5	1.45	1.25			ISO 22	CCC/VDE	166	6.54	
EMU 65 HLP			200~230/50	5.96	185	159.1	1.45	1.25			ISO 22	CCC/VDE	166	6.54	
EMY		EMY 55 HLP	115~127/60	4.15	148	127.3	1.46	1.26			ISO 7	UL	158	6.22	
		EMY 55 HLC	220~240/50	5.20	161	138.5	1.60	1.38	4		ISO 7	CCC/VDE	166	6.54	
		EMY 65 HLC	220~240/50	5.96	185	159.1	1.60	1.38	4		ISO 7	CCC/VDE	166	6.54	
		EMY 75 HLC	220~240/50	7.00	215	184.9	1.60	1.38	4		ISO 7	CCC/VDE	171	6.73	
		EMY 50 HLP	115~127/60	4.15	140	120.4	1.60	1.38	12		ISO 7	UL	158	6.22	
		EMY 55 HLP	115~127/60	4.50	160	137.6	1.60	1.38	12		ISO 7	UL	158	6.22	
EMH		EMH 60 HLP	115~127/60	4.85	180	154.8	1.60	1.38	12		ISO 7	UL	166	6.54	
R 290		EMT	EMT 2121 U	220~240/50	5.57	256	220.0	1.42	1.22		48	ISO 22	CCC/VDE	166	6.54
	EMT 2125 U		220~240/50	5.96	301	259.0	1.48	1.28		58	ISO 22	CCC/VDE	166	6.54	

测试条件: 蒸发-23.3°C (-10°F) 冷凝54.4°C (130°F) 吸气/环境32.2°C (90°F) 液体32.2°C (90°F)

Test Conditions: Evaporating: -23.3°C (-10°F) | Condensing: 54.4°C (130°F) | Gas and Ambient: 32.2°C (90°F) | Liquid: 32.2°C (90°F)

## 外观

### External Views

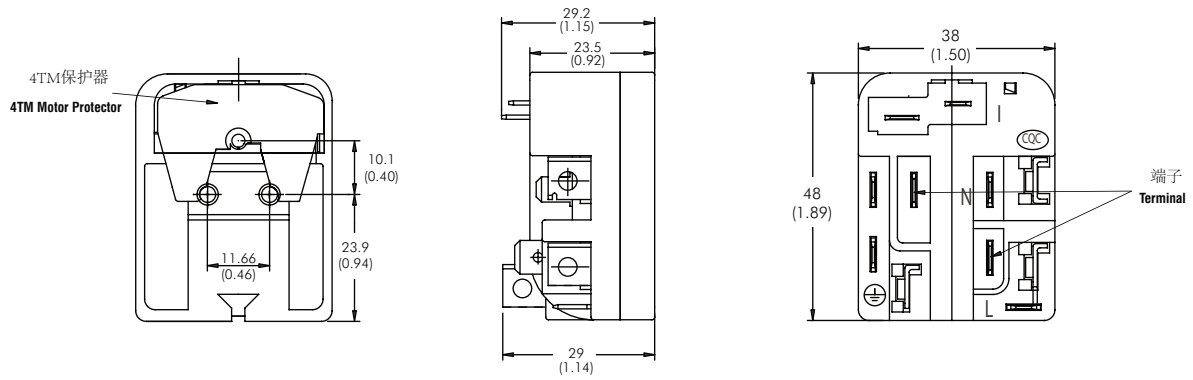


## 接线图

### Electrical Drawings

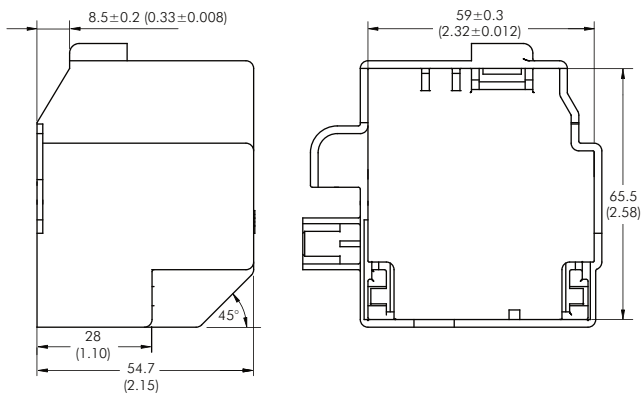
组装-组合式接线盒 <b>Assembly - PTC (COMBO)</b>	接线-组合式接线盒 <b>Diagram - PTC (COMBO)</b>
	<p>Compressor terminals: C, S, M. PTC terminals: 1, 2, 3, 4. Run Capacitor terminals: 1, 2, 3, 4. Overload Protector terminals: 1, 2, 3, 4.</p>
组装-PTC <b>Assembly - PTC</b>	接线-PTC <b>Assembly - PTC</b>
	<p>Compressor terminals: C, S, M. PTC terminals: 1, 2, 3, 4. Run Capacitor terminals: 1, 2, 3, 4.</p>
组装-TSD <b>Assembly - TSD</b>	接线-TSD <b>Assembly - TSD</b>
	<p>Compressor terminals: C, S, M. TSD terminals: 1, 2, 3, 4. Run Capacitor terminals: 1, 2, 3, 4.</p>

### 组合式接线盒 PTC (COMBO)



Unit: mm (inches)

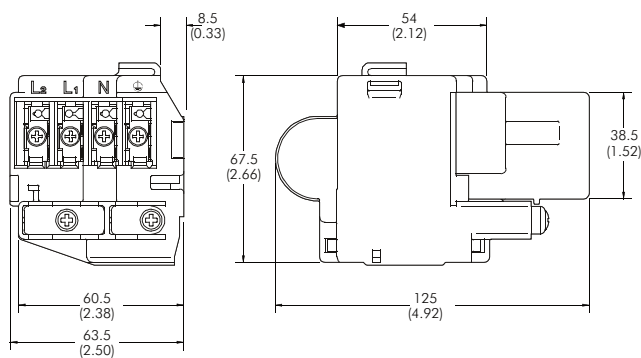
### 盒盖4TM组合与TSD Cover (4TM COMBO & TSD)



材质 Material	Poli-Feniene OXID
UL可燃性级别 UL Flammability Classification	UL-94 V-1
颜色 Color	黑 Black

Unit: mm (inches)

### 接线盒 Terminal Board



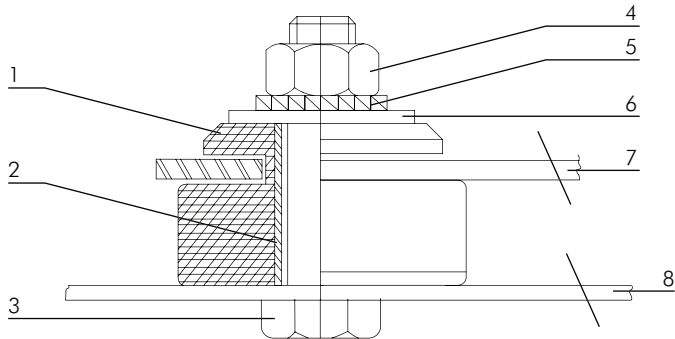
材质 Materials	
箱体 Body	Noryl: PX 9406 J
颜色 Color	灰 Gray
UL可燃性级别 UL Flammability Classification	UL-94 V-0
端子尺寸 Terminal Size	6.3 x 0.8 mm or 4.8 x 0.8 mm

Unit: mm (inches)

# 组装附件

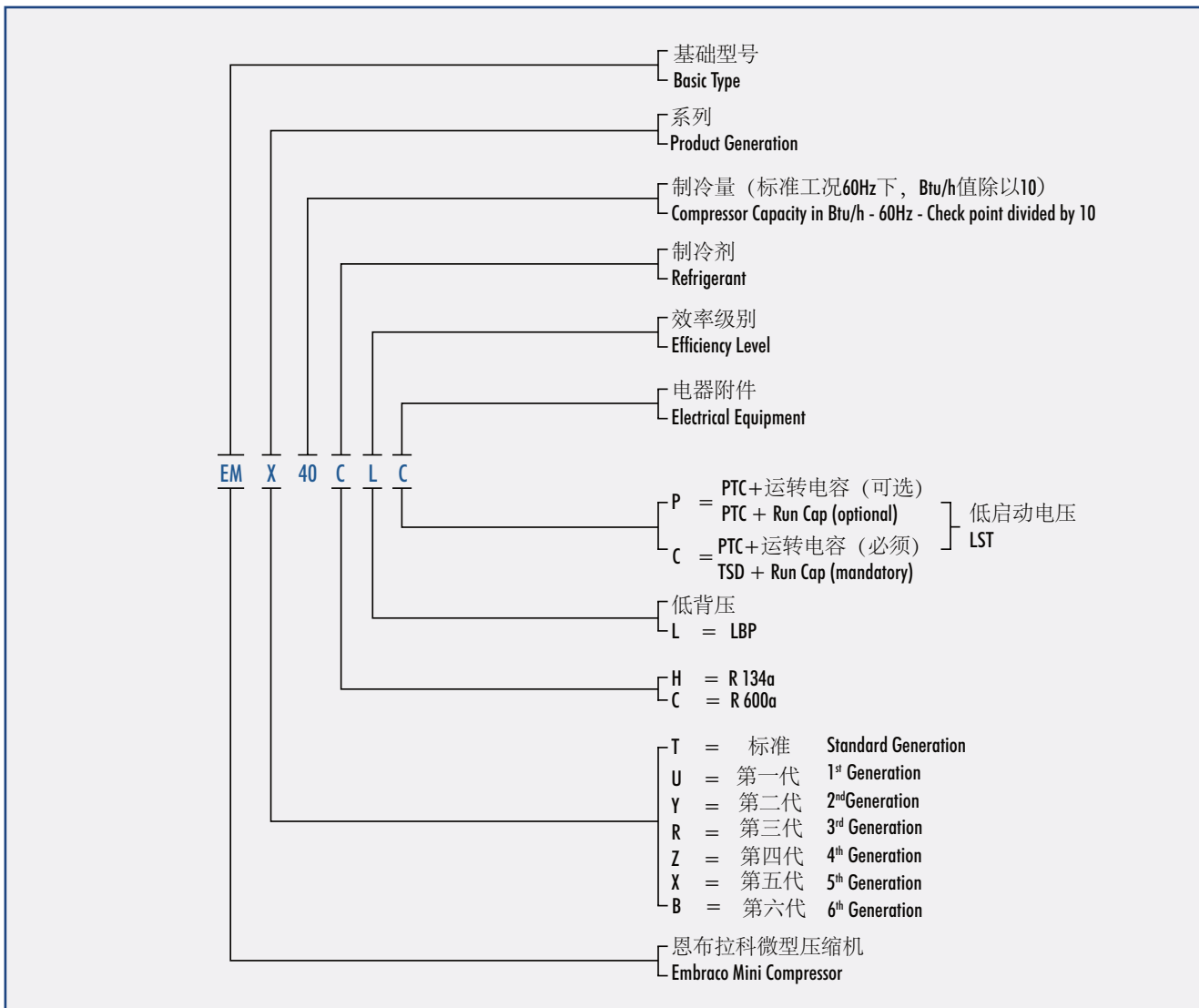
## Mounting Accessories

编号 Number	附件 Component	规格 Specification
1	胶脚 Rubber grommet	H: 17.0±0.5
2	金属衬套 Spacer (metal bushing)	H: 17.0±0.5
3	螺栓 Fixing bolt	M6x30
4	螺母 Hexagon nut	M6
5	外齿垫圈 Washer with ext. teeth	Ø 6.4
6	平垫圈 Flat washer	Ø 6.4
7	底脚板 Compressor base plate	
8	安装底版 Mounting base	



# 压缩机型号命名

## Nomenclature - Compressor Model



注：压缩机被更换之后，压缩机及其附件必须妥善处理，零部件必须根据其材料（金属、非金属、塑料、油等）方面的指令重复利用。推荐这些方法的目的是为了最大限度地降低对环境的负面影响。

**Note:** After replacement, the compressor and its accessories must have proper processing, and the components must be recycled according to the material group (ferrous, non-ferrous, polymers, oils, ...) directives. These recommendations are intended to minimize the adverse impacts that may be caused to the environment.



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# embraco



恩布拉科加入联合国全球契约

Embraco is participating in the United Nations Global Compact.