

# AE<sup>2</sup>

## Information Package



*Tecumseh*



AE<sup>2</sup> External  
Information Package

# AE<sup>2</sup> Agenda

## AE<sup>2</sup> Information Package

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# Why a new AE<sup>2</sup>?

## REDUCED ENERGY CONSUMPTION

Most efficient compressor of its size on the market.

## WIDER CAPACITY IN A SMALLER ENVELOPE

Reduced size envelope covers capacities normally served by larger compressors.

## ENVIRONMENTALLY FRIENDLY

Designed for optimal performance with “Green” hydrocarbon refrigerant R290. (Supports HFCs R134a and R404A).



## SERVICE AND SUPPORT

Backed by Tecumseh's network of knowledgeable application engineers, test labs & support personnel.

## PRODUCT OFFERING

Available across the globe, with flexibility to meet regional needs and agency approvals.

## PROVEN RELIABILITY

Leverages robust design attributes developed from 50 years of AE commercial refrigeration experience.

# AE<sup>2</sup> Compressor Range

## PRESENTATION OF NEW AE<sup>2</sup> COMPRESSOR RANGE

R290 (Propane)		R134a		R404A		R22	
LBP	HBP	LBP	HBP	LBP	HBP	LBP	HBP
AE2410U	AE4425U	AE1390Y	AE4425Y	AE2410Z	AE4425Z		AE4425E
AE2415U	AE4430U		AE4430Y	AE2415Z	AE4430Z		AE4430E
AE2420U	AE4440U		AE4440Y	AE2420Z	AE4440Z		AE4440E
	AE4450U		AE4450Y	AE2425Z	AE4450Z		AE4450E
	AE4460U		AE4456Y		AE4460Z		AE4460E
		<b>NEW →</b>	AE4460Y		AE4470Z		AE4470E

- New AE<sup>2</sup> range covers the entire AEZ/AE range.
- On top of the range R134a and R404A , AE<sup>2</sup> is available with R290
- The R134a HP range enlarged with AE4460Y, more capacity within the same size

# AE<sup>2</sup> Compressor Range

## CURRENT AVAILABILITY OF AE<sup>2</sup> COMPRESSOR MODELS - HBP R134a

HBP R134a					
PREVIOUS	NEW				
<u>Compressor AEZ/AE</u>	<u>Compressor AE<sup>2</sup></u>	<u>Voltage</u>	<u>BOM</u>	<u>Comments</u>	<u>Certifications</u>
AEZ4425Y	AE4425Y	FZ	AE-1013-FR	Standard	VDE / Gost Russia, Ukraine
	AE4425Y	FZ	AE-1014-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AEZ3425Y	AE4425Y	FZ	AE-1013-FR	Standard	VDE / Gost Russia, Ukraine
	AE4425Y	FZ	AE-1014-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AE4430Y	AE4430Y	FZ	AE-1036-BF	Standard	VDE / Gost Russia, Ukraine
	AE4430Y	FZ	AE-1037-BF	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
	AE4430Y	AA	AE-1035-FR	Standard	UL / Gost Russia, Ukraine
	AE4430Y	AA	AE-1036-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AE3430Y	AE4430Y	FZ	AE-1036-BF	Standard	VDE / Gost Russia, Ukraine
	AE4430Y	FZ	AE-1037-BF	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
	AE4430Y	AA	AE-1035-FR	Standard	UL / Gost Russia, Ukraine
CAE4440Y	AE4440Y	FZ	AE-1038-BF	Standard	VDE / Gost Russia, Ukraine
	AE4440Y	FZ	AE-1039-BF	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AE3440Y	AE4440Y	FZ	AE-1038-BF	Standard	VDE / Gost Russia, Ukraine
	AE4440Y	FZ	AE-1039-BF	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
CAE4448Y	AE4450Y	FZ	AE-1020-BF	Standard	VDE / Gost Russia, Ukraine
	AE4450Y	FZ	AE-1021-BF	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
CAE4456Y	AE4456Y	FZ	AE-1034-BF	Standard	VDE / Gost Russia, Ukraine
	AE4456Y	FZ	AE-1035-BF	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
	AE4460Y	FZ	AE-1015-FR	Junior box	VDE / Gost Russia, Ukraine

## CURRENT AVAILABILITY OF AE<sup>2</sup> COMPRESSOR MODELS - LBP R134a

LBP R134a					
PREVIOUS	NEW				
<u>Compressor AEZ/AE</u>	<u>Compressor AE<sup>2</sup></u>	<u>Voltage</u>	<u>BOM</u>	<u>Comments</u>	<u>Certification</u>
AEZ1380Y	AE1390Y	FZ	AE-1019-BF	Standard	VDE / Gost Russia, Ukraine,
	AE1390Y	FZ	AE-1017-BF	Cable clamp and terminal board	VDE / Gost Russia, Ukraine

# AE<sup>2</sup> Compressor Range

## CURRENT AVAILABILITY OF AE<sup>2</sup> COMPRESSOR MODELS - HBP R404A

HBP R404A					
PREVIOUS	NEW				
Compressor AEZ/AE	Compressor AE <sup>2</sup>	Voltage	BOM	Comments	Certification
AEZ4425Z	AE4425Z	FZ	AE-1005-FR	Standard	VDE / Gost Russia, Ukraine
	AE4425Z	FZ	AE-1006-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AEZ4430Z	AE4430Z	FZ	AE-1007-FR	Standard	VDE / Gost Russia, Ukraine
	AE4430Z	FZ	AE-1008-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AEZ3430Z	AE4430Z	FZ	AE-1007-FR	Standard	VDE / Gost Russia, Ukraine
AEZ4440Z	AE4440Z	FZ	AE-1003-FR	Standard	VDE / Gost Russia, Ukraine
	AE4440Z	FZ	AE-1004-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AEZ3440Z	AE4440Z	FZ	AE-1003-FR	Standard	VDE / Gost Russia, Ukraine
AEZ9440Z	AE4440Z	FZ	AE-1004-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
CAE4450Z	AE4450Z	FZ	AE-1017-FR	Standard	VDE / Gost Russia, Ukraine
	AE4450Z	FZ	AE-1018-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AE3450Z	AE4450Z	FZ	AE-1017-FR	Standard	VDE / Gost Russia, Ukraine
CAE9450Z	AE4450Z	FZ	AE-1018-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
CAE4460Z	AE4460Z	FZ	AE-1001-FR	Standard	VDE / Gost Russia, Ukraine
	AE4460Z	FZ	AE-1002-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
CAE9460Z	AE4460Z	FZ	AE-1002-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
CAE4470Z / CAE9470Z	AE4470Z	FZ	AE-1016-FR	Junior box	VDE / Gost Russia, Ukraine

## CURRENT AVAILABILITY OF AE<sup>2</sup> COMPRESSOR MODELS - LBP R404A

LBP R404A					
PREVIOUS	NEW				
Compressor AEZ/AE	Compressor AE <sup>2</sup>	Voltage	BOM	Comments	Certification
AEZ2411Z	AE2410Z	FZ	AE-1025-FR	Standard	VDE / Gost Russia, Ukraine
	AE2410Z	FZ	AE-1026-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AEZ2415Z	AE2415Z	FZ	AE-1009-FR	Standard	VDE / Gost Russia, Ukraine
	AE2415Z	FZ	AE-1010-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
CAE2417Z	AE2420Z	FZ	AE-1029-FR	Standard	VDE / Gost Russia, Ukraine
	AE2420Z	FZ	AE-1030-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AE1417Z	AE2420Z	AA	AE-1027-FR	Standard	UL / Gost Russia, Ukraine
	AE2420Z	FZ	AE-1029-FR	Standard	VDE / Gost Russia, Ukraine
CAE2420Z	AE2420Z	FZ	AE-1030-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
	AE2420Z	AA	AE-1027-FR	Standard	UL / Gost Russia, Ukraine
AE1420Z	AE2420Z	FZ	AE-1029-FR	Standard	VDE / Gost Russia, Ukraine
	AE2420Z	FZ	AE-1030-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
CAE2424Z	AE2420Z	AA	AE-1027-FR	Standard	UL / Gost Russia, Ukraine
	AE2420Z	AA	AE-1029-FR	Cable clamp and terminal board	UL / Gost Russia, Ukraine
AE1420Z	AE2420Z	FZ	AE-1029-FR	Standard	VDE / Gost Russia, Ukraine
	AE2420Z	FZ	AE-1030-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
CAE2424Z	AE2425Z	FZ	AE-1039-FR	Junior box – Launch May 2013	VDE / Gost Russia, Ukraine

# AE<sup>2</sup> Compressor Range

## CURRENT AVAILABILITY OF AE<sup>2</sup> COMPRESSOR MODELS - HBP R290

HBP R290				
NEW				
Compressor AE <sup>2</sup>	Voltage	BOM	Comments	Certification
AE4425U	FZ	AE-1040-FR	Sample available	VDE / Gost Russia, Ukraine
AE4425U	FZ	AE-1041-FR	Standard	VDE / Gost Russia, Ukraine
AE4430U	FZ	AE-1019-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AE4430U	FZ	AE-1020-FR	Standard	VDE / Gost Russia, Ukraine
AE4440U	FZ	AE-1021-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AE4440U	FZ	AE-1022-FR	Standard	VDE / Gost Russia, Ukraine
AE4450U	FZ	AE-1023-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AE4450U	FZ	AE-1024-FR	Standard	VDE / Gost Russia, Ukraine
AE4460U	FZ	AE-1037-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AE4460U	FZ	AE-1038-FR	Standard	VDE / Gost Russia, Ukraine

## CURRENT AVAILABILITY OF AE<sup>2</sup> COMPRESSOR MODELS - LBP R290

LBP R290				
NEW				
Compressor AE <sup>2</sup>	Voltage	BOM	Comments	Certification
AE2410U	FZ	AE-1042-FR	Launch June 2013	VDE / Gost Russia, Ukraine
AE2410U	FZ	AE-1043-FR		
AE2415U	FZ	AE-1011-FR	Standard	VDE / Gost Russia, Ukraine
AE2415U	FZ	AE-1012-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine
AE2420U	FZ	AE-1044-FR	Standard	VDE / Gost Russia, Ukraine
AE2420U	FZ	AE-1045-FR	Cable clamp and terminal board	VDE / Gost Russia, Ukraine

## CURRENT AVAILABILITY OF AE<sup>2</sup> COMPRESSOR MODELS - HBP R22

HBP R22				
NEW				
Compressor AE <sup>2</sup>	Voltage	BOM	Comments	Certification
AE4440E	FZ	AE-1147-E	Vertical tubes	VDE / Gost Russia, Ukraine
AE4450E	FZ	AE-1173-E	horizontal tubes	VDE / Gost Russia, Ukraine
		AE-1216-E	vertical tubes	VDE / Gost Russia, Ukraine
AE4460E	FZ	AE-1172-E	horizontal tubes	VDE / Gost Russia, Ukraine
		AE-1217-E	vertical tubes	VDE / Gost Russia, Ukraine

# AE<sup>2</sup> Full Line Up Qualification

## DEVELOPMENT RANKING AT TECUMSEH EUROPE

	2012			2013					
	Q4			Q1			Q2		
	oct-12	nov-12	dec-12	jan-13	feb-13	mar-13	apr-13	may-13	jun-13
AE <sup>2</sup>									
	AE4425Y-FZ	AE2415Z-FZ	AE2415U-FZ						
	AE4430Y-FZ	AE2410Z-FZ			AE2420Z-FZ		AE4470Z-FZ	AE2425Z-FZ	AE2420U-FZ
	AE4440Y-FZ		AE4425Z-FZ				AE2420Z-AA	AE4425Z-GS	AE4440Y-AA
	AE4450Y-FZ	AE4430U-FZ	AE4430Z-FZ					AE4440Y-GS	AE4440Z-GS
	AE4456Y-FZ	AE4440U-FZ	AE4440Z-FZ				AE4430Y-AA	AE4460U-FZ	AE4425U-FZ
	AE4460Y-FZ	AE4450U-FZ	AE4450Z-FZ						
			AE4460Z-FZ						

	2013						2014		
	Q3			Q4			Q1		
	jul-13	aug-13	sep-13	oct-13	nov-13	dec-13	jan-14	feb-14	mar-14
AE <sup>2</sup>									
	AE4456Y-AA	AE4430Y-GS	AE4456Y-GS	AE4450Y-GS					
	AE4450Y-AA	AE4450Z-FS	AE4430Z-GS	AE4450Z-GS	AE2425Z-ES	AE2425Z-AA	AE2410Z-AA	AE4460Z-GS	
	AE4450Y-ES	AE4425Y-AA	AE4470Z-AA	AE4460Z-AA	AE2415Z-GS	AE4440Z-AA	AE2415Z-AA		
	AE2410U-FZ	AE4450Y-FS	AE4450Z-ES	AE2420Z-FS	AE4450Z-AA	AE4430Z-AA	AE2410Z-GS		
	AE4425Z-AA	AE4425Y-GS	AE4470Z-ES	AE2420Z-ES	AE2425Z-FS	AE4470Z-FS			

HP-R134a
HP-R404A
BP-R404A
HP-R290
BP-R290



# AE<sup>2</sup> Voltage Types

## VOLTAGE RATIONALISATION

Voltage AEZ/AE	Voltage AE <sup>2</sup>	Alternative
FZ (220v-240v / 50Hz)	FZ (220v-240v / 50Hz)	
XA (100-115V - 50/60Hz)	AA (115v / 60hz)	
HZ (208V / 60hz)	GS (220v / 50/60Hz)	ES (220V / 60Hz)
CZ (208V / 50Hz - 230V / 60Hz)		FS (220V / 50Hz)
GZ (208v / 50Hz)		
WZ	not developed	
M	not developed	

The **AE<sup>2</sup>** compressors will be developed in priority with tension **FZ**, **AA** and **GS** (dual - frequency).

If the voltage **GS** is technically not feasible, the model will be developed, with **ES** and **FS** voltage.

# AE<sup>2</sup> Development Ranking

			FZ (220V/240V- 50Hz)	AA (115V - 60Hz)	GS (220V - 50/60Hz)	ES (220V - 60Hz)	FS (220V - 50Hz)
HBP	R134a	AE4425Y	CSIR	CSIR	CSIR		
		AE4430Y	CSIR	CSIR	CSIR		
		AE4440Y	CSIR	CSIR	CSIR		
		AE4450Y	CSIR	CSIR	CSR	CSIR	CSIR
		AE4456Y	CSIR	CSIR	CSR		
		AE4460Y	CSR				
	R404A	AE4425Z	CSIR	CSIR	CSIR		
		AE4430Z	CSIR	CSIR	CSIR		
		AE4440Z	CSIR	CSIR	CSIR		
		AE4450Z	CSIR	CSIR	CSR	CSIR	CSIR
		AE4460Z	CSIR	CSIR	CSR		
		AE4470Z	CSR	CSR		CSR	CSR
	R290	AE4425U	CSIR				
		AE4430U	CSIR				
		AE4440U	CSIR				
		AE4450U	CSIR				
		AE4460U	CSIR				
	LBP	R404A	AE2410Z	CSIR	CSIR	CSIR	
AE2415Z			CSIR	CSIR	CSIR		
AE2420Z			CSIR	CSIR		CSR	CSR
AE2425Z			CSR	CSR		CSR	CSR
R290		AE2410U	CSIR				
		AE2415U	CSIR				
		AE2420U	CSIR				

## CSIR VERSION



## CSR VERSION



# AE<sup>2</sup> Product Description Nomenclature – Tecumseh Europe

**AE4430 Y – FZ 1 A \_ DCAE132. 2001**

## Refrigerant

Y = R134a  
Z = R404A  
U = R290

## Voltage

FZ, AA, GS (ES, FS)

## Index Compressor Motor Evolution

1 = without permanent capacitor  
2 = with permanent capacitor as an option  
3 = with permanent capacitor

## Drawing / Definition of the Compressor

(Height, Tube Positioning,  
Footprint)

## Sales Options

2000: without terminal  
board and cable clamp

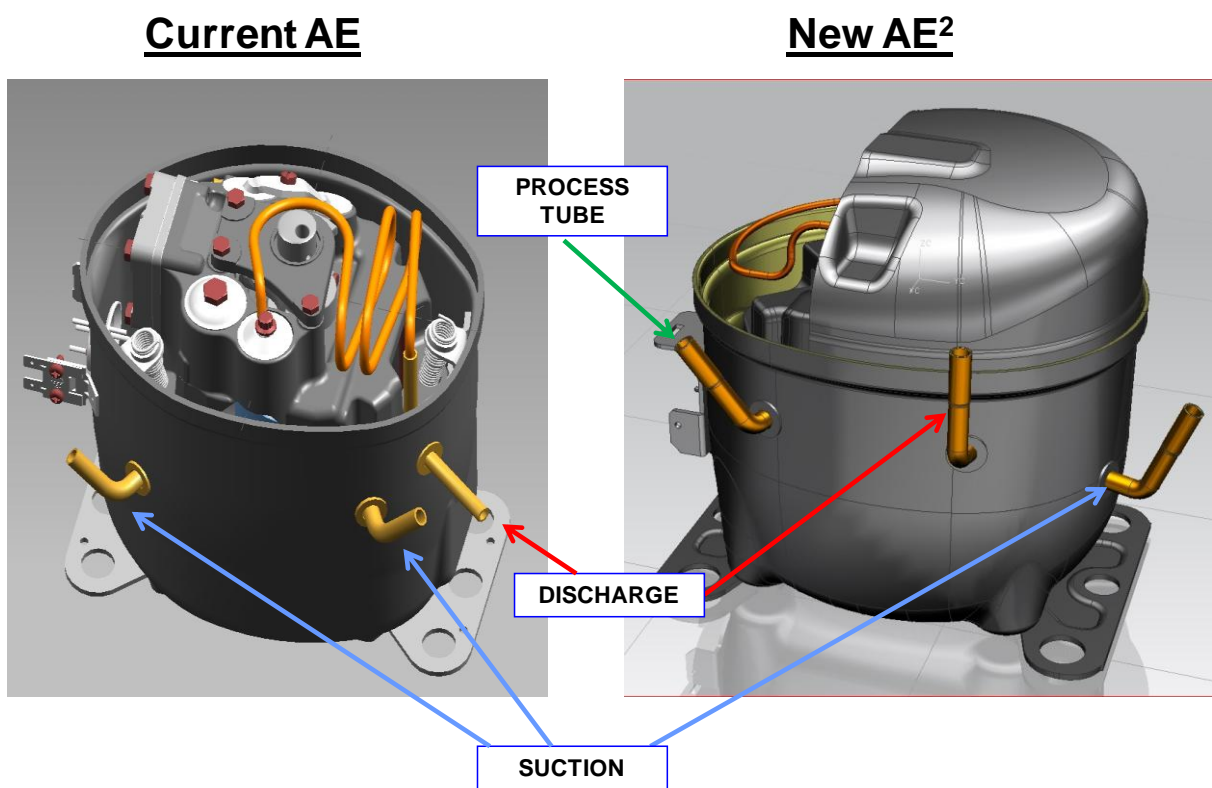
2001: with terminal  
board and cable clamp

2006: with junior box

# AE<sup>2</sup> Tube Configuration

## TUBE CONFIGURATION

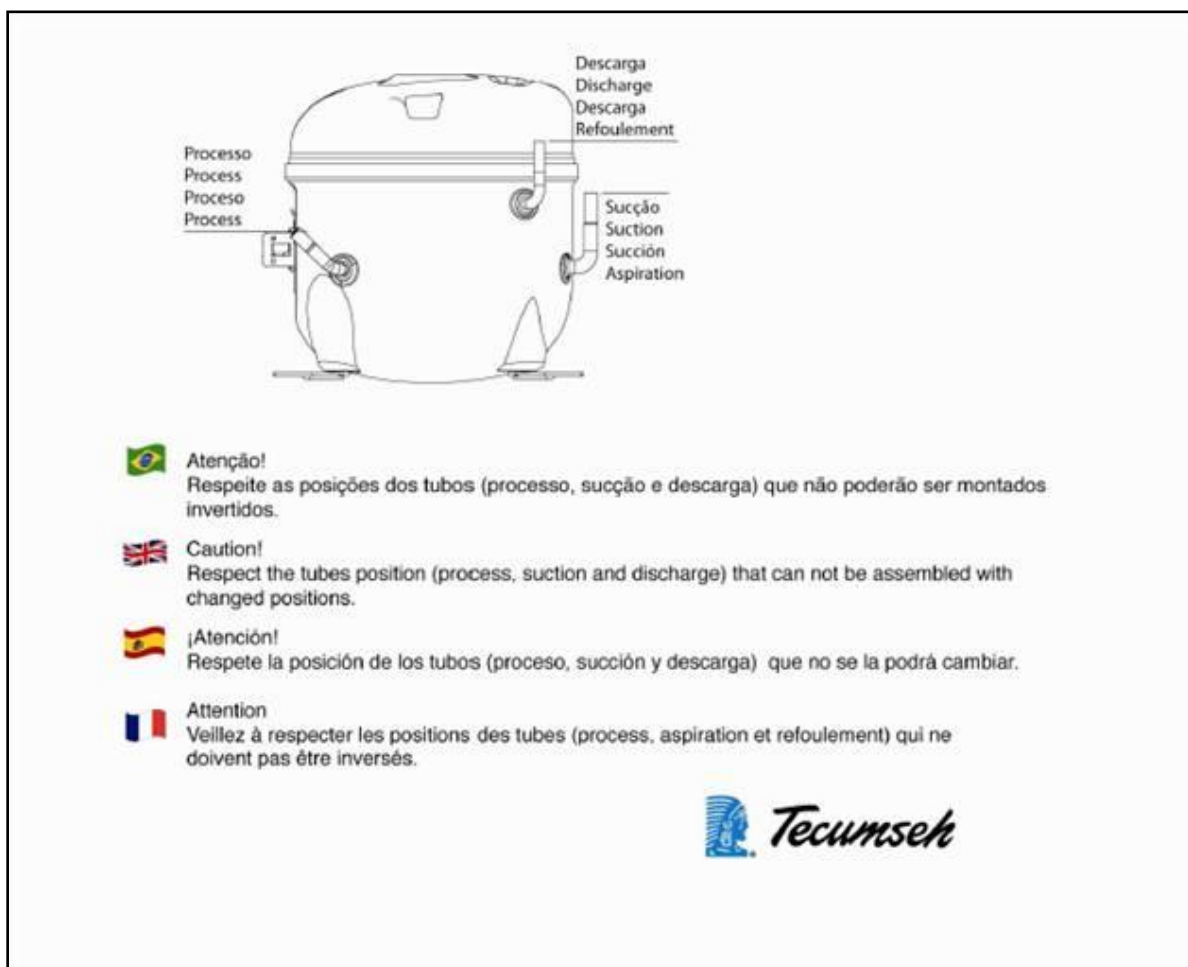
The tube position of AE<sup>2</sup> compressor have to be respected (process, suction and discharge) and cannot be assembled with inverted positions.



# AE<sup>2</sup> Tube Configuration

## TUBE CONFIGURATION

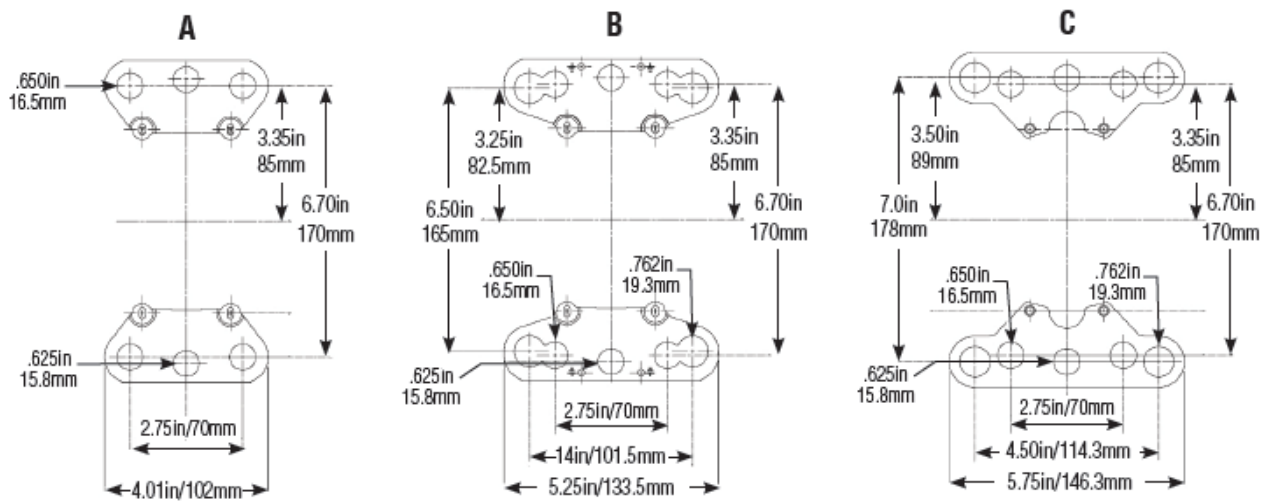
One document is included in each packaging (single and industrial packaging)



# AE<sup>2</sup> Mounting Brackets

## 3 DIFFERENT BASE PLATE FOOTPRINTS:

### Base Plate Footprint/Entraxe patte de fixation



# AE<sup>2</sup> Technical Data

## HP 134a

Models	voltage types available	Displacement (cm <sup>3</sup> )	Motor Type	Refrigeration Capacity (Watt) EN12900 T° condensing +45°C , sub-cooling 0K, RTG 20°C							EN12900 T° evaporating -10°C	
				T° evaporating							P abs (Watt)	COP (W/W)
				-15	-10	-5	0	5	10	15		
AE4425Y	FZ	6,69	CSIR	249	324	414	519	644	788	955	215	1,51
AE4430Y	FZ	8,02	CSIR	294	382	488	613	760	930	1127	237	1,61
AE4440Y	FZ	10,33	CSIR	399	508	637	790	968	1176	1417	302	1,68
AE4450Y	FZ	13,24	CSIR	526	672	843	1042	1273	1540	1847	370	1,82
AE4456Y	FZ	14,51	CSIR	579	737	921	1133	1380	1664	1990	424	1,74
AE4460Y	FZ	15,09	CSIR	608	774	967	1190	1449	1747	2090	480	1,61

Models	tube diameter			Weight (kg)	Mounting Brackets (mm)
	suction (mm/inches)	discharge (mm/inches)	process (mm/inches)		
AE4425Y	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	9,1	170X70
AE4430Y	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	9,4	170X70
AE4440Y	7,9 - 5/16"	6,35 - 1/4"	6,35 - 1/4"	9,6	165X101,6
AE4450Y	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	10,5	178X114,3
AE4456Y	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	11	178X114,3
AE4460Y	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	11,3	178X114,3

# AE<sup>2</sup> Technical Data

## LBP 404A

Models	voltage types available	Displacement (cm <sup>3</sup> )	Motor Type	Refrigeration Capacity (Watt) EN12900 T° condensing +40°C , sub-cooling 0K, RTG 20°C						EN12900 T° evaporating -35°C	
				T° evaporating						P abs	COP
				-35°C	-30°C	-25°C	-20°C	-15°C	-10°C		
AE2410Z	FZ	5,02	CSIR	140	189	246	315	398	496	159	0,88
AE2415Z	FZ	6,69	CSIR	186	251	327	419	529	660	206	0,90
AE2420Z	FZ	9,35	CSIR	257	346	451	578	730	911	305	0,84
AE2425Z	FZ	12,01	CSR	334	450	587	752	949	1184	367	0,91

Models	tube diameter			Weight (kg)	Mounting Brackets (mm)
	suction (mm/inches)	discharge (mm/inches)	process (mm/inches)		
AE2410Z	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	9,9	170X70
AE2415Z	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	10	170X70
AE2420Z	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	10,1	165X101,6
AE2425Z	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	10,1	178X114,3



# AE<sup>2</sup> Technical Data

## HP 404A

Models	voltage types available	Displacement (cm <sup>3</sup> )	Motor Type	Refrigeration Capacity (Watt) EN12900 T° condensing +45°C , sub-cooling 0K, RTG 20°C							EN12900 T° evaporating -10°C	
				T° evaporating							P abs (Watt)	COP (W/W)
				-15	-10	-5	0	5	10	15		
AE4425Z	FZ	4,24	CSIR	257	326	407	502	613	741	889	213	1,53
AE4430Z	FZ	5,16	CSIR	320	404	500	611	740	888	1057	266	1,52
AE4440Z	FZ	6,69	CSIR	433	546	676	826	1000	1199	1427	341	1,60
AE4450Z	FZ	8,85	CSIR	576	720	885	1074	1289	1534	1812	445	1,62
AE4460Z	FZ	10,33	CSR	713	875	1062	1275	1519	1799	2117	524	1,67
AE4470Z	FZ	12,01	CSR	843	1035	1251	1495	1773	2088	2447	620	1,67

Models	tube diameter			Weight (kg)	Mounting Brackets (mm)
	suction (mm/inches)	discharge (mm/inches)	process (mm/inches)		
AE4425Z	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	10	170X70
AE4430Z	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	10	170X70
AE4440Z	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	10,2	178X114,3
AE4450Z	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	10,5	178X114,3
AE4460Z	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	11	178X114,3

# AE<sup>2</sup> Technical Data

## HP R290

Models	voltage types available	Displacement (cm <sup>3</sup> )	Motor Type	Refrigeration Capacity (Watt) EN12900 T° condensing +45°C, sub-cooling 0K, RTG 20°C							EN12900 T° evaporating-10°C	
				T° evaporating							P abs (Watt)	COP (W/W)
				-15	-10	-5	0	5	10	15		
AE4425U	FZ	5,02	CSIR	276	348	430	523	629	749	884	195	1,78
AE4430U	FZ	6,12	CSIR	331	417	516	628	755	899	1061	239	1,74
AE4440U	FZ	8,02	CSIR	434	546	676	823	989	1178	1390	322	1,70
AE4450U	FZ	10,33	CSIR	608	741	892	1065	1262	1485	1738	421	1,76
AE4460U	FZ	12,01	CSIR	729	889	1070	1278	1514	1782	2085	478	1,86

Models	tube diameter			Weight (kg)	Mounting Brackets (mm)
	suction (mm/inches)	discharge (mm/inches)	process (mm/inches)		
AE4425U	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	10	170X70
AE4430U	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	10,1	170X70
AE4440U	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	10,2	178X114,3
AE4450U	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	10,5	178X114,3
AE4460U	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	11,2	178X114,3

# AE<sup>2</sup> Technical Data

## LBP R290

Models	voltage types available	Displacement (cm <sup>3</sup> )	Motor Type	Refrigeration Capacity (Watt) EN12900 T° condensing +40°C, sub-cooling 0K, RTG 20°C						EN12900 T° evaporating -35°C	
				T° evaporating						P abs	COP
				-35°C	-30°C	-25°C	-20°C	-15°C	-10°C		
AE2410U	FZ	5,48	CSIR	133	180	229	286	351	426	128	1,04
AE2415U	FZ	8,85	CSIR	219	288	366	457	562	682	215	1,02
AE2420U	FZ	10,96	CSIR	274	357	454	567	697	846	264	1,04

Models	tube diameter			Weight (kg)	Mounting Brackets (mm)
	suction (mm/inches)	discharge (mm/inches)	process (mm/inches)		
AE2410U	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	10,5	170X70
AE2415U	6,35 - 1/4"	4,76 - 3/16"	6,35 - 1/4"	10,6	170X70
AE2420U	9,5 - 3/8"	6,35 - 1/4"	6,35 - 1/4"	10,6	165X101,6

# Benefits AE<sup>2</sup> compared to AE Range

## HBP R404A

	Compressors	Displacement CC	Motor	Cooling capacity (Watt) EN12900 condensing T° +45°C , subcooling 0K, Return Gas 20°C							EN12900 evaporating T° -10°C		Weight Kg
				evaporating T°							Power input(Watt)	COP (W/W)	
				-15	-10	-5	0	5	10	15			
<b>New</b>	AE4425Z	4,24	CSIR	257	326	407	502	613	741	889	213	1,53	10
	AEZ4425Z	4,5	CSIR	256	327	408	499	599	705	818	241	1,36	10
											11%		
<b>New</b>	AE4430Z	5,16	CSIR	320	404	500	611	740	888	1057	266	1,52	10
	AEZ4430Z	5,7	CSIR	337	425	526	638	760	890	1027	301	1,41	10
											7%		
<b>New</b>	AE4440Z	6,69	CSIR	433	546	676	826	1000	1199	1427	341	1,60	10,2
	AEZ4440Z	7,6	CSIR	462	574	707	857	1024	1205	1396	376	1,53	11,2
											5%		
<b>New</b>	AE4450Z	8,85	CSIR	576	720	885	1074	1289	1534	1812	445	1,62	10,5
	CAE4450Z	9,4	CSIR	504	652	823	1020	1247	1508	1806	486	1,34	12,3
											17%		
<b>New</b>	AE4460Z	10,33	CSIR	713	875	1062	1275	1519	1799	2117	524	1,67	11
	CAE4460Z	11,3	CSIR	645	819	1020	1253	1520	1828	2180	578	1,42	12,3
											15%		
<b>New</b>	AE4470Z	12,01	CSR	843	1035	1251	1495	1773	2088	2447	620	1,67	11,2
	CAE9470Z	13,3	CSR	803	1008	1246	1520	1835	2195	2605	608	1,66	13,3
											1%		

**AE<sup>2</sup> efficiency is better than current AEZ/AE (+1 to +17%)**

# Benefits AE<sup>2</sup> compared to AE Range

## LBP R404A

	Compressors	Displacement CC	Motor	Cooling capacity (Watt) EN12900 condensing T° +45°C , subcooling 0K, Return Gas 20°C							EN12900 evaporating T° -10°C		Weight Kg
				evaporating T°							Power input(Watt)	COP (W/W)	
				-15	-10	-5	0	5	10	15			
<b>New</b>	AE4425Y	6,69	CSIR	266	342	424	519	633	770	938	199	1,72	9,1
	AEZ4425Y	7,6	CSIR	239	320	414	522	641	771	912	205	1,56	9,7
												9%	
<b>New</b>	AE4430Y	8,02	CSIR	294	382	488	613	760	930	1127	237	1,61	9,4
	AEZ4430Y	8,8	CSIR	316	404	512	639	784	946	1122	258	1,57	10,2
												3%	
<b>New</b>	AE4440Y	10,33	CSIR	399	508	637	790	968	1176	1417	302	1,68	9,6
	CAE4440Y	12	CSIR	399	519	666	837	1033	1250	1489	342	1,52	10,8
												10%	
<b>New</b>	AE4450Y	13,24	CSIR	526	672	843	1042	1273	1540	1847	370	1,82	10,5
	CAE4448Y	14,2	CSIR	519	654	822	1023	1253	1512	1797	400	1,64	11,9
												10%	
<b>New</b>	AE4456Y	14,51	CSIR	579	737	921	1133	1380	1664	1990	424	1,74	11
	CAE4456Y	16	CSIR	590	744	933	1156	1411	1695	2006	486	1,53	12,5
												12%	
<b>New</b>	AE4460Y	15,09	CSR	597	766	958	1181	1437	1732	2070	409	1,87	11,3

**AE<sup>2</sup> efficiency is better than current AEZ/AE (+3 to + 12%)**

# Benefits AE<sup>2</sup> compared to AE Range

## LBP R404A

	compressors	Displacement CC	Motor	Cooling capacity (Watt) EN12900 condensing T° +40°C , sub cooling 0K, Return gas 20°C						EN12900 evaporating T° -35°C		Weight Kg
				evaporating T°						Power input(Watt)	COP (W/W)	
				-35°C	-30°C	-25°C	-20°C	-15°C	-10°C			
<b>New</b>	AE2410Z	5,02	CSIR	140	189	246	315	398	496	159	0,88	9,9
	AEZ2411Z	7,6	CSIR	150	209	280	365	467	586	215	0,70	10
											21%	
<b>New</b>	AE2415Z	6,69	CSIR	194	260	338	429	535	658	215	0,90	10
	AEZ2415Z	8,1	CSIR	185	254	337	436	551	685	232	0,80	11,3
											12%	
<b>New</b>	AE2420Z	9,35	CSIR	265	346	451	578	730	911	305	0,87	10,1
	CAE2420Z	12,6	CSIR	313	415	537	679	841	1023	412	0,76	12,3
											13%	
<b>New</b>	AE2425Z	12,01	CSR	334	450	587	752	949	1184	367	0,91	10,1
	CAE2424Z	15,1	CSR	313	432	578	754	963	1208	391	0,80	13,2
											12%	

**AE<sup>2</sup> efficiency is better than current AEZ/AE (+12 to +21%)**

# AE<sup>2</sup> Spare Part References

	Compressor Model	Code Kit Spare Parts	Description	Silent bloc
HBP R134a	AE4425Y-FZ	8655331	KIT CSIR AE4425Y-FZ	8682003
	AE4430Y-FZ	8655321	KIT CSIR AE4430Y-FZ	8682003
	AE4430Y-AA	8655346	KIT CSIR AE4430Y-AA	8682003
	AE4440Y-FZ	8655322	KIT CSIR AE4440Y-FZ	8682040
	AE4450Y-FZ	8655327	KIT CSIR AE4450Y-FZ	8682040
	AE4456Y-FZ	8655326	KIT CSIR AE4456Y-FZ	8682040
	AE4460Y-FZ	8655332	KIT CSR AE4460Y-FZ	8682040
HBP R404A	AE4425Z-FZ	8655325	KIT CSIR AE4425Z-FZ	8682003
	AE4430Z-FZ	8655328	KIT CSIR AE4430Z-FZ	8682003
	AE4440Z-FZ	8655324	KIT CSIR AE4440Z-FZ	8682040
	AE4450Z-FZ	8655333	KIT CSIR AE4450Z-FZ	8682040
	AE4460Z-FZ	8655323	KIT CSIR AE4460Z-FZ	8682040
	AE4470Z-FZ	8655341	KIT CSR AE4470Z-FZ	8682050
LBP R404A	AE2410Z-FZ	8655337	KIT CSIR AE2410Z-FZ	8682003
	AE2415Z-FZ	8655329	KIT CSIR AE2415Z-FZ	8682003
	AE2420Z-FZ	8655339	KIT CSIR AE2420Z-FZ	8682040
	AE2420Z-AA	8655338	KIT CSIR AE2420Z-AA	8682040
	AE2425Z-FZ	8655342	KIT CSR AE2425Z-FZ	8682050
LBP R290	AE2410U-FZ	8655344	KIT CSIR AE2410U-FZ	8682003
	AE2415U-FZ	8655330	KIT CSIR AE2415U-FZ	8682003
	AE2420U-FZ	8655345	KIT CSIR AE2420U-FZ	8682040
HBP R290	AE4425U-FZ	8655343	KIT CSIR AE4425U-FZ	8682003
	AE4430U-FZ	8655334	KIT CSIR AE4430U-FZ	8682003
	AE4440U-FZ	8655335	KIT CSIR AE4440U-FZ	8682040
	AE4450U-FZ	8655336	KIT CSIR AE4450U-FZ	8682040
	AE4460U-FZ	8655347	KIT CSIR AE4460U-FZ	8682040

# AE<sup>2</sup> Multiple Packaging

Collective Packaging (Euro and Standard Pallet)						
	No. of Layers per Pallet	Total Qty per Pallet	No. of Layers per Pallet	Total Qty per Pallet	No. of Layers per Pallet	Total Qty per Pallet
AE2 standard	2	32	3	48	4	64
AE <sup>2</sup> CSR with electrical junior box	3	30	4	40	/	/
AE <sup>2</sup> CSR without electrical junior box	3	36	4	48	/	/

# AE<sup>2</sup> Unitary Packaging

Unitary Packaging					
Euro Pallet	No. of Layers per Pallet	Total Qty per Pallet	Standard Pallet	No. of Layers per Pallet	Total Qty per Pallet
AE2 standard CSIR	1	16	AE2 standard CSIR	1	20
	2	32		2	40
	3	48		3	60
	4	64		4	80
AE <sup>2</sup> CSR with electrical junior box	1	12	AE <sup>2</sup> CSR with electrical junior box	1	12
	2	24		2	24
	3	36		3	36
	4	48		4	48



Tecumseh Europe - Headquarter  
2 av. Blaise Pascal • Bat. B  
38090 VAULX MILIEU • France  
Tel: +33 (0) 4 74 82 24 00  
[www.tecumseh.com](http://www.tecumseh.com)



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