



**AZ Model** (Standard Efficiency Range) hermetic compressors are designed for LBP applications in domestic refrigerators and freezers. Main features of AZ models are light weight, compact size, high reliability, low noise and low vibration. By optimal design of the suspension system and continuous curvature design of its housing, low operating vibration and sound levels have been achieved. To increase efficiency capacitor run models and EM (Electro-Magnetic) compatible PTC start models are available.



**TH Model** (Efficient Range) hermetic compressors are designed for R134a and R600a applications in domestic refrigerators and freezers with energy efficiencies, low sound levels and reduced dimensions. It is composed of THA versions especially for energy efficiencies and THB versions for low sound levels.



**MTH Model** (High Efficient Range) hermetic compressors are the last generation of TH Model with high energy efficiencies, low sound levels and more reliability features. R134a and R600a applications are available.



**AE Model** (Standard Efficiency Range) hermetic compressors for low to high temperatures are used in a wide range of applications in refrigerators, freezers, freezing and refrigerating display cases, vending machines, water coolers, dehumidifiers and other domestic & commercial refrigeration equipment. By utilizing an efficient and powerful motor compressor maintains constant power even in case of high fluctuations in voltage and load. Their time proven design and production quality guarantee utmost in reliability even under the severest operating conditions.



**TE Model** (Efficient Range) hermetic compressors are designed to achieve energy efficiency, low noise and vibration level, reduced dimensions and low starting voltage performance. To decrease noise and vibration level, a new type housing with curved surface is designed. R134a and R600a applications are available.



**MTE Model** (High Efficient Range) hermetic compressors are developed for R134a and R600a applications as the last generation of TE Model. MTE model is designed especially for high energy efficiency, more reliability, low sound and vibration level.

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## YOUR RELIABLE PARTNER



# HERMETIC COMPRESSOR

R134a  
R600a  
R404a  
CARE 30  
R12





# 40 YEARS EXPERIENCE IN REFRIGERATION INDUSTRY



Arçelik A.Ş. Company founded in 1955 and wholly owned by the Koç Corporation, is the leading Domestic Appliance, Refrigeration Compressor and Electric Motor manufacturer in Turkey. In each of its three Component Manufacturing Plants large scale production of Hermetic Compressors, Appliance Motors and Industrial Motors have been produced under the brand of TEE.

Since production of their first refrigerator in 1960 and their first compressor in 1977, TEE has amassed a wealth of experience in its 40 years of International trade in the Domestic and Commercial Appliance industry. Today, from 18,000 m<sup>2</sup> located in Eskişehir

the TEE Compressor Plant has a production capacity of 3.0 million compressors. June 2001 saw TEE produce its 20,000,000th compressor for the world market.

TEE compressors are manufactured for vast array of voltages and frequencies. Modern flexible production methods enable us to tailor compressors to customer specifications to suit extreme conditions of application location. Common features throughout all our products are High Quality, Precision and Performance. The production range grows organically with its ever widening and discerning customers around the world



Our company's devotion to quality ensures that we are fully aware of our environmental responsibilities. Our customers not only benefit from our 40 years of manufacturing experience but also from the support of well structured and modern company that supplies technologically and commercially competitive products. TEE customers also benefit from the commitment we give to our R&D departments as well as our ISO 9001 and ISO 14001 Quality Assurance and Environmental Management Systems. In keeping with our environmental philosophy we have an ongoing programmed of continuous development of our products. Targeting Energy Efficiency, Noise and Total Environmental Impact of its product's TEE ensure they are at the leading edge of what the market needs now, and in the future.

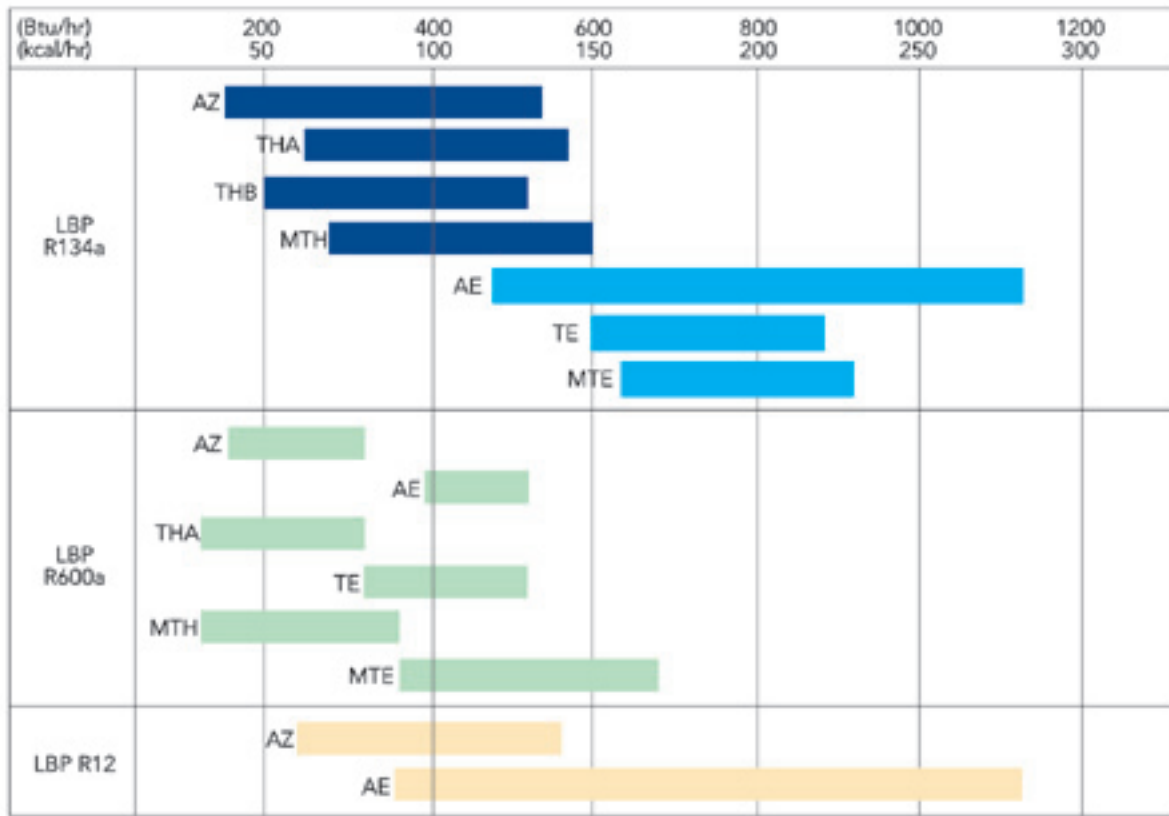
With its wealth of experienced personnel and proven quality of products of TEE are always ready to meet and exceed customers and market expectations.





# CAPACITY RANGE

## Capacity at 50 Hz.



R134a  
1/20 hp through 1/5 hp  
Compact Range  
AZ / TH / MTH





Refrigerant	Application	Model	Displacement	Net Wt.	Oil Charge	Cooling (43°C Max. Amb. Temp.)	Motor Type	Voltage and Frequency	Refrigerating Capacity								COP	
									Ashrae							Cecomaf	Ashrae	Cecomaf
									-35°C	-30°C	-25°C	-23,3°C	-20°C	-15°C	-10°C	-25°C	-23,3°C	-25°C
									Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	W	W/W	W/W
<b>STANDARD EFFICIENCY RANGE</b>																		
R134a	LBP	AZ 47 YD	2.80	6.9	270	S	1	2-3-4-6	20	29	42	47	58	78	99	40	0.90	0.69
		AZ 47 YP	2.80	6.9	270	S	2	2-3-4-6									0.90	0.69
		AZ 47 YT	2.80	6.6	220	S	3	4									0.92	0.71
		AZ 68 YD	3.59	7.2	240	S	1	2-3-6	29	42	61	68	84	111	143	58	1.01	0.78
		AZ 68 YP	3.59	7.2	240	S	2	2-3-4									1.01	0.78
		AZ 68 YT	3.59	6.8	270	S	3	4-6									1.07	0.82
		AZ 82 YD	4.00	7.2	240	S	1	2-3-6	35	52	74	82	100	131	169	70	1.00	0.77
		AZ 82 YP	4.00	7.2	240	S	2	2-3									1.00	0.77
		AZ 82 YT	4.00	7.2	240	S	3	4									1.11	0.86
		AZ 90 YD	5.00	7.4	300	S	1	2-3	39	57	81	90	110	144	185	77	0.99	0.76
		AZ 90 YP	5.00	7.4	300	S	2	2-3									0.99	0.76
		AZ 90 YT	5.00	7.4	300	S	3	4									1.07	0.82
		AZ 107 YD	5.59	7.4	300	S	1	2-3	47	70	96	107	131	169	216	91	1.00	0.77
		AZ 107 YP	5.59	7.4	300	S	2	2-3									1.00	0.77
		AZ 107 YT	5.59	7.4	300	S	3	4									1.12	0.87
		AZ 121 YD	5.90	7.4	300	O*	1	2-3	54	79	109	121	148	192	246	103	1.05	0.81
AZ 121 YP	5.90	7.4	300	O*	2	2-3	1.05	0.81										
AZ 121 YT	5.90	7.4	300	O*	3	4	1.12	0.87										
<b>MEDIUM EFFICIENCY RANGE</b>																		
R134a	LBP	THA 65 YP	3.09	7.2	240	S	2	2-3	24	40	59	65	80	106	137	55	1.11	0.85
		THA 65 YT	3.09	6.8	270	S	3	4									1.17	0.90
		THA 80 YP	3.59	7.2	240	S	2	2-3	35	51	73	81	99	130	167	69	1.17	0.90
		THA 80 YT	3.59	6.8	270	S	3	4-6									1.24	0.95
		THA 90 YP	3.80	7.2	240	S	2	2-3	38	55	79	88	107	141	181	75	1.18	0.91
		THA 90 YT	3.80	7.2	240	S	3	4									1.25	0.96
		THA 100 YP	4.23	7.4	300	S	2	2-3	42	62	88	98	120	157	202	83	1.17	0.90
		THA 100 YT	4.23	7.2	240	S	3	4									1.24	0.95
		THA 110 YP	5.00	7.4	300	S	2	2-3	48	71	98	109	133	172	220	93	1.17	0.90
		THA 110 YT	5.00	7.4	300	S	3	4									1.24	0.95
		THA 125 YP	5.59	7.4	300	O*	2	2-3	57	82	113	126	154	200	256	107	1.18	0.91
		THA 125 YT	5.59	7.4	300	O*	3	4									1.25	0.96
		THA 138 YP	5.90	7.6	300	O*	2	2-3	62	90	124	138	168	219	280	117	1.16	0.89
		THA 138 YT	5.90	7.6	300	O*	3	4									1.23	0.95
		THB 55 YP	2.80	6.9	270	S	2	2-3	23	33	48	54	67	89	113	46	1.06	0.82
		THB 55 YT	2.80	6.6	220	S	3	4									1.12	0.86
		THB 75 YP	3.59	7.2	240	S	2	2-3	32	47	68	76	93	124	160	65	1.14	0.88
		THB 75 YT	3.59	6.8	270	S	3	4									1.20	0.92
		THB 85 YP	3.80	7.2	240	S	2	2-3	37	54	77	85	104	136	175	72	1.15	0.89
		THB 85 YT	3.80	7.2	240	S	3	4									1.21	0.93
		THB 95 YP	4.23	7.4	300	S	2	2-3	40	59	85	94	115	150	194	80	1.14	0.88
		THB 95 YT	4.23	7.2	240	S	3	4									1.20	0.92
		THB 105 YP	5.00	7.4	300	S	2	2-3	47	69	95	106	129	167	214	90	1.14	0.88
		THB 105 YT	5.00	7.4	300	S	3	4									1.20	0.92
THB 118 YP	5.59	7.4	300	O*	2	2-3	52	77	106	118	144	186	238	100	1.15	0.89		
THB 118 YT	5.59	7.4	300	O*	3	4									1.21	0.93		
THB 130 YP	5.90	7.6	300	O*	2	2-3	59	85	118	131	160	208	266	111	1.15	0.89		
THB 130 YT	5.90	7.6	300	O*	3	4									1.21	0.93		

All data based on 220V - 50Hz.

**TOLERANCES**

Capacity = ±7%  
Efficiency = ±7%

**MOTOR TYPES**

- 1 RSIR
- 2 PTCSIR
- 3 PTCSIR
- 4 CSIR
- 5 PTCCSIR

**VOLTAGE AND FREQUENCY**

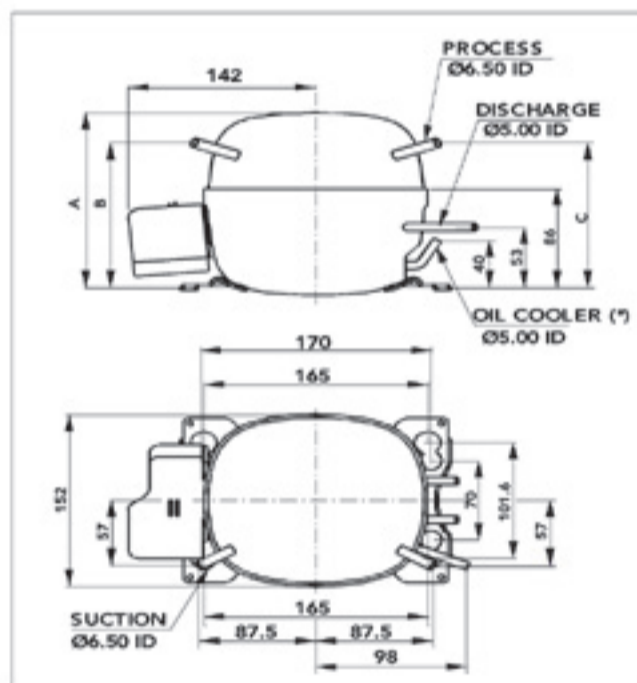
- 1 194-220V / 50 Hz — 220V / 60 Hz
- 2 208-220V / 50 Hz — 230V / 60 Hz
- 3 220-240V / 50 Hz — 230V / 50 Hz
- 4 230 V / 50 Hz
- 5 240 V / 50 Hz
- 6 115 V / 60 Hz — 100 V / 50 Hz
- 7 220 V / 50-60 Hz

**COOLING**

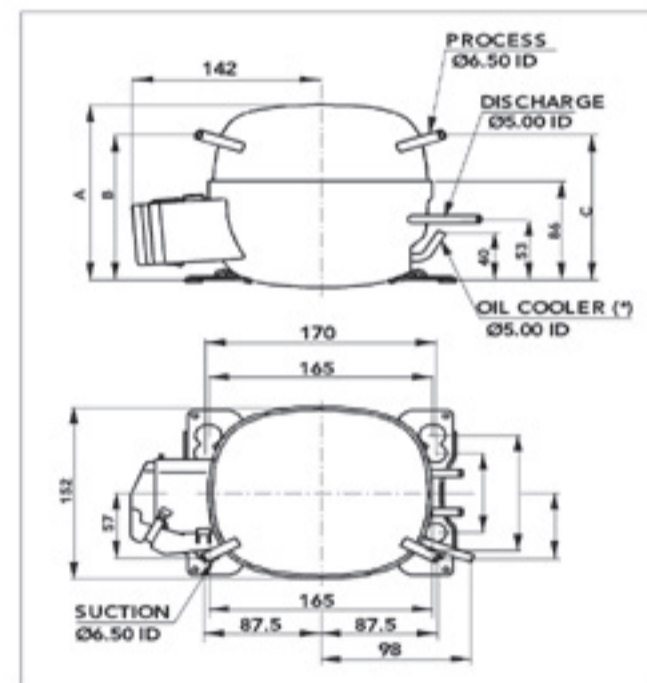
- S Static
- F Fan
- O Oil
- \* Static Cooling up to 38°C ambient temperature
- \*\* Static Cooling up to 32°C ambient temperature

Refrigerant	Application	Model	Displacement	Net Wt.	Oil Charge	Cooling (43°C Max. Amb. Temp.)	Motor Type	Voltage and Frequency	Refrigerating Capacity								COP	
									Ashrae						Cecomaf	Ashrae	Cecomaf	
									-35°C	-30°C	-25°C	-23,3°C	-20°C	-15°C	-10°C	-25°C	-23,3°C	-25°C
Kcal/h		Kcal/h		Kcal/h		Kcal/h		Kcal/h		Kcal/h		W	W/W	W/W				
<b>HIGH EFFICIENCY RANGE</b>																		
R134a	LBP	MTH 75 YP	3.09	7.2	240	S	2	2-3	31	45	66	73	90	119	153	62	1.22	0.94
		MTH 75 YT	3.09	6.8	270	S	3	4									1.30	1.00
		MTH 85 YP	3.59	7.2	240	S	2	2-3	37	54	77	86	105	138	177	73	1.26	0.97
		MTH 85 YT	3.59	6.8	270	S	3	4									1.34	1.03
		MTH 95 YP	3.80	7.2	240	S	2	2-3	40	59	85	94	115	150	194	80	1.27	0.98
		MTH 95 YT	3.80	7.2	240	S	3	4									1.35	1.04
		MTH 105 YP	4.23	7.4	300	S	2	2-3	45	67	93	103	126	163	208	88	1.25	0.96
		MTH 105 YT	4.23	7.2	240	S	3	4									1.33	1.02
		MTH 115 YP	5.00	7.4	300	S	2	2-3	54	79	109	121	148	192	246	103	1.27	0.98
		MTH 115 YT	5.00	7.4	300	S	3	4									1.35	1.04
		MTH 135 YP	5.59	7.4	300	O*	2	2-3	62	90	124	138	168	219	280	117	1.30	1.00
		MTH 135 YT	5.59	7.4	300	O*	3	4									1.38	1.06
		MTH 145 YP	5.90	7.4	300	O*	2	2-3	67	97	134	149	180	235	299	127	1.28	0.99
		MTH 145 YT	5.90	7.4	300	O*	3	4									1.36	1.05

## COMPRESSOR DIMENSIONS



(\*) FOR OIL COOLING TYPE COMPRESSORS



(\*) FOR OIL COOLING TYPE COMPRESSORS

MODELS	DIMENSIONS		
	A	B	C
AZ 47(230V)	150	123	123
THB 55	154	127	127
AZ 68,82	164	138	138
THA 65,80,90,100	164	138	138
THB 75,85,95	170	144	144
AZ 90,107,121	170	144	144
THA 110,125	175	149	149
THB 105,118			
THA 138			
THB 130			

MODELS	DIMENSIONS		
	A	B	C
MTH 75	164	138	138
MTH 85	164	138	138
MTH 95	164	138	138
MTH 105	164	138	138
MTH 115	164	138	138
MTH 135	170	144	144
MTH 145	170	144	144

## TEST CONDITIONS

	ASHRAE		CECOMAF	
	LBP	HBP	LBP	HBP
Evaporating Temperature °C	-23.3	7.2	-25	5
Condensing Temperature °C	54.4	54.4	55	55
Liquid Temperature °C	32.2	46.1	55	55
Ambient Temperature °C	32.2	35	32	32
Gas Suction Temperature °C	32.2	35	32	32

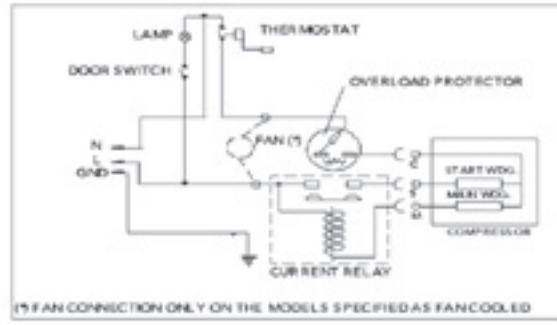
## CONVERSION FACTORS

Kcal/h x 1,163 = W  
 Kcal/h x 3,968 = Btu/h  
 W x 3,412 = Btu/h  
 W x 0,864 = Kcal/h  
 Capacity(at 50Hz) x 1,16 = Capacity (at 60Hz)  
 cc x 0,061 = Cu. in.

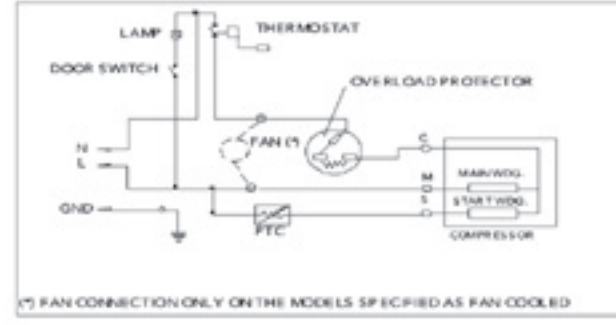


## WIRING DIAGRAMS

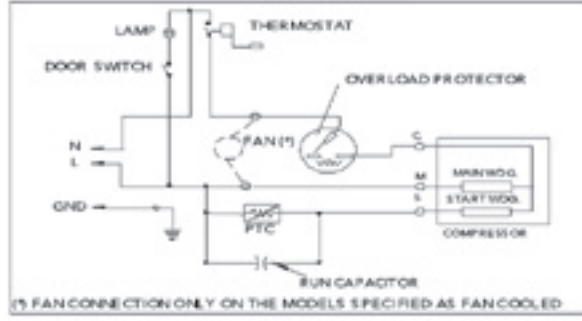
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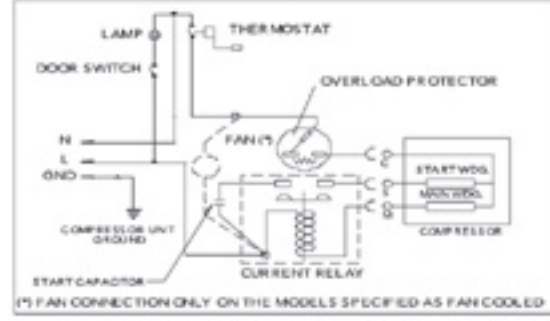
### PTCSIR



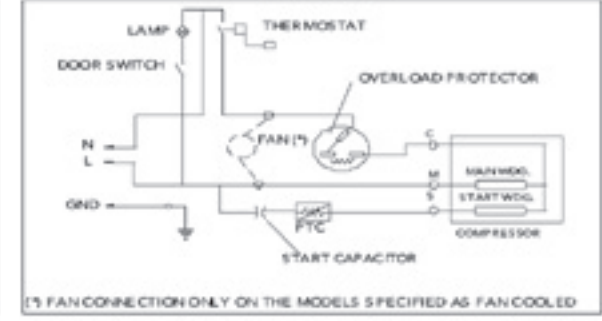
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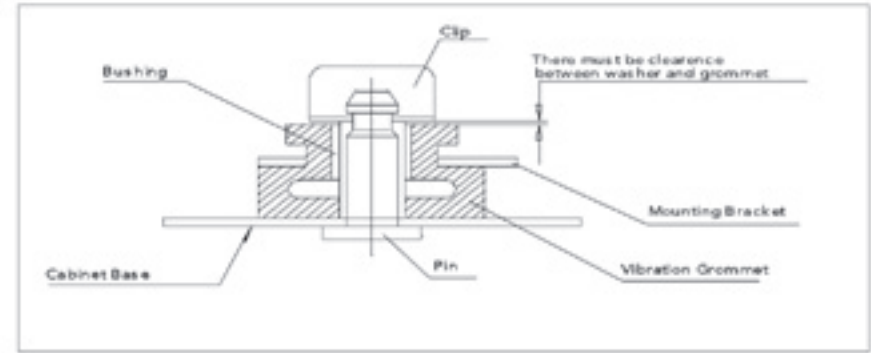
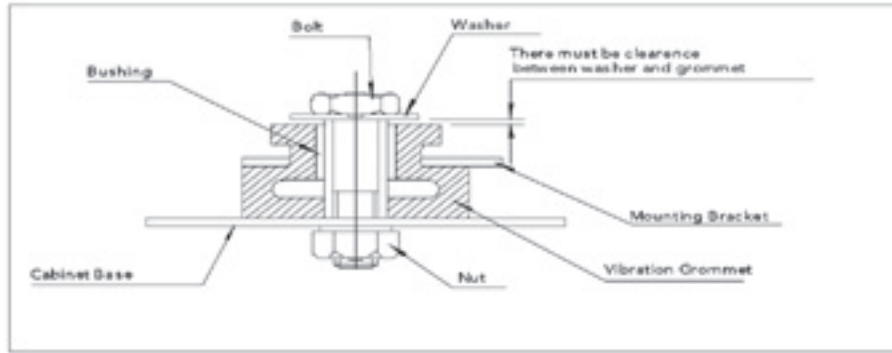
### CSIR



### PTCCSIR



## COMPRESSOR MOUNTING SHAPES



## COMPRESSOR IDENTIFICATION

1- Model number (THA 110 YT)

2- Rated voltage and frequency (230VAC 50 HZ)

3- Compressor B/M (Bill of Material) number (A66-00)

4- Locked rotor current (LRA: 11.0LBP R-134a S)

5- Application (A66-00)

6- Refrigerant (R-134a S)

7- Cooling type (S)

8- Serial number and date of manufacture (2394323 NO 13 20: 03)

9- B/M number, serial number, date of manufacture barcode

**1- COMPRESSOR MODEL NO**

THA	110	Y	T
a	b	c	d

**DEFINITION**

a- Compressor Design: AE, AZ, THA, THB, TE, MTH, MTE

b- Capacity: Compressor cooling capacity (Kcal/hr at 50 Hz) at standard ASHRAE-T conditions

c- Refrigerant

d- Motor Type:

R12: A	RSIR: D
R134a: Y	PTCSIR: P
R404a: Z	PTCSCR: T
R600a: M	CSIR: C
CARE30: U	PTCCSIR: K

2- RATED VOLTAGE AND FREQUENCY

3- COMPRESSOR B/M (BILL OF MATERIAL) NO

4- LOCKED ROTOR CURRENT

5- APPLICATION

LBP: Low Back Pressure  
HBP: High Back Pressure

6- REFRIGERANT

R404a, R12, R600a, R134a  
CARE30 (R290+R600a)

7- COOLING TYPE

S: Static cooled  
O: Oil cooled  
F: Fan cooled

8- SERIAL NUMBER AND DATE OF MANUFACTURE

9- B/M NUMBER, SERIAL NUMBER, DATE OF MANUFACTURE BARCODE

10- APPROVAL

Arçelik reserves the right to alter any data given on this sheet.

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R134a  
1/6 hp through 1/3 hp  
Standard Range  
AE / TE / MTE





Refrigerant	Application	Model	Displacement	Net Wt.	Oil Charge	Cooling (43°C Max. Amb. Temp.)	Motor Type	Voltage and Frequency	Refrigerating Capacity							COP		
									Ashrae							Cecomaf	Ashrae	Cecomaf
									-35°C	-30°C	-25°C	-23,3°C	-20°C	-15°C	-10°C	-25°C	-23,3°C	-25°C
			cc	kg	cc				Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	W	W/W	W/W

### STANDARD EFFICIENCY RANGE

Refrigerant	Application	Model	Displacement	Net Wt.	Oil Charge	Cooling	Motor Type	Voltage and Frequency	Refrigerating Capacity							COP		
									-35°C	-30°C	-25°C	-23,3°C	-20°C	-15°C	-10°C	-25°C	-23,3°C	-25°C
R134a	LBP	AE 123 YD	5.75	9.7	470	O/F*	1	2-3-6	55	80	111	123	150	196	250	105	1.08	0.83
		AE 123 YP	5.75	9.7	470	O/F*	2	2-3									1.08	0.83
		AE 123 YT	5.75	9.7	470	O/F*	3	4									1.22	0.94
		AE 123 YC	5.75	9.7	470	O/F*	4	2									1.08	0.83
		AE 148 YD	6.91	9.9	430	O/F*	1	1-2-3-6	67	96	133	148	179	234	297	126	1.15	0.89
		AE 148 YP	6.91	9.9	430	O/F*	2	2-3									1.15	0.89
		AE 148 YT	6.91	9.9	430	O/F*	3	4-6									1.28	0.99
		AE 148 YC	6.91	9.9	430	O/F*	4	2-3									1.15	0.89
		AE 176 YD	7.94	10.8	450	O/F**	1	1-2-3-6	81	114	158	176	213	276	352	150	1.13	0.87
		AE 176 YP	7.94	10.8	450	O/F**	2	2-3									1.13	0.87
		AE 176 YT	7.94	10.8	450	O/F**	3	4									1.30	1.00
		AE 176 YC	7.94	10.8	450	O/F**	4	1-2-3									1.13	0.87
		AE 196 YD	8.99	10.8	450	O/F**	1	2-3	92	129	178	196	235	306	390	167	1.10	0.85
		AE 196 YP	8.99	10.8	450	O/F**	2	2-3-4									1.10	0.85
		AE 196 YT	8.99	10.8	450	O/F**	3	4									1.30	1.00
		AE 196 YC	8.99	10.8	450	O/F**	4	2-3-6									1.10	0.85
AE 196 YK	8.99	10.8	450	O/F**	5	2-4	1.10	0.85										
AE 230 YC	14.17	11.5	450	F	4	1-2-3	108	152	209	230	276	357	446	196	1.07	0.82		
AE 282 YC	16.13	11.5	450	F	4	2-3	133	186	257	282	338	437	547	240	1.01	0.78		

### MEDIUM EFFICIENCY RANGE

Refrigerant	Application	Model	Displacement	Net Wt.	Oil Charge	Cooling	Motor Type	Voltage and Frequency	Refrigerating Capacity							COP		
									-35°C	-30°C	-25°C	-23,3°C	-20°C	-15°C	-10°C	-25°C	-23,3°C	-25°C
R134a	LBP	TE 150 YP	6.36	10.3	430	S	2	2-3	67	97	134	149	180	235	299	127	1.28	0.99
		TE 150 YT	6.36	10.3	430	S	3	2-3									1.36	1.05
		TE 165 YP	6.91	10.3	430	S	2	2-3	76	107	149	165	200	259	330	140	1.30	1.00
		TE 165 YT	6.91	10.3	430	S	3	2-3									1.38	1.06
		TE 180 YP	7.50	10.9	360	S	2	2-3	83	118	163	181	219	284	362	154	1.32	1.02
		TE 180 YT	7.50	10.9	360	S	3	2-3									1.40	1.08
		TE 195 YP	7.94	11.2	360	S	2	2-3	91	127	176	193	232	301	384	164	1.32	1.02
		TE 195 YT	7.94	11.2	360	S	3	2-3									1.40	1.08
		TE 215 YP	8.99	11.2	360	S	2	2-3	102	143	197	217	260	336	421	184	1.28	0.99
		TE 215 YC	8.99	11.2	360	S	3	2-3									1.36	1.05

### HIGH EFFICIENCY RANGE

Refrigerant	Application	Model	Displacement	Net Wt.	Oil Charge	Cooling	Motor Type	Voltage and Frequency	Refrigerating Capacity							COP		
									-35°C	-30°C	-25°C	-23,3°C	-20°C	-15°C	-10°C	-25°C	-23,3°C	-25°C
R134a	LBP	MTE 160 YP	6.36	10.3	430	S	2	2-3	74	104	144	160	194	251	320	136	1.46	1.12
		MTE 160 YT	6.36	10.3	430	S	3	2-3									1.55	1.19
		MTE 175 YP	6.91	10.3	430	S	2	2-3	80	113	157	174	211	273	348	148	1.46	1.12
		MTE 175 YT	6.91	10.3	430	S	3	2-3									1.55	1.19
		MTE 190 YP	7.50	10.9	360	S	2	2-3	89	125	172	189	227	295	376	161	1.47	1.13
		MTE 190 YT	7.50	10.9	360	S	3	2-3									1.56	1.20
		MTE 205 YP	7.94	11.2	360	S	2	2-3	96	135	187	205	246	318	398	174	1.48	1.14
		MTE 205 YT	7.94	11.2	360	S	3	2-3									1.57	1.21
		MTE 225 YP	8.99	11.2	360	S	2	2-3	106	149	205	225	270	349	437	191	1.46	1.12
		MTE 225 YT	8.99	11.2	360	S	3	2-3									1.55	1.19

Ashrae							Cecomaf	Ashrae	Cecomaf
-10°C	-5°C	0°C	5°C	7.2°C	10°C	15°C	5°C	7.2°C	5°C
Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	W	W/W	W/W

### HBP RANGE

Refrigerant	Application	Model	Displacement	Net Wt.	Oil Charge	Cooling	Motor Type	Voltage and Frequency	Refrigerating Capacity							COP		
									-35°C	-30°C	-25°C	-23,3°C	-20°C	-15°C	-10°C	-25°C	-23,3°C	-25°C
R134a	HBP	AE 560 YD	7.57	10.4	470	F	1	1-3	258	332	417	514	560	622	740	483	2.00	1.54
		AE 560 YP	7.57	10.4	470	F	2	3									2.00	1.54
		AE 560 YC	7.57	10.4	470	F	4	1-3									2.00	1.54
		AE 666 YC	8.84	10.9	400	F	4	1-3-7	307	395	496	611	666	740	880	574	2.00	1.54
		AE 666 YK	8.84	10.9	400	F	5	3									2.00	1.54
		AE 881 YC	12.04	11.5	400	F	4	1-3-7	407	522	656	809	881	979	1164	759	1.98	1.52
		AE 881 YK	12.04	11.5	400	F	5	3									1.98	1.52
		AE1024YC	14.17	11.5	450	F	4	2-3	473	607	762	940	1024	1138	1353	882	1.80	1.39

All data based on 220V - 50Hz.

### TOLERANCES

Capacity = ±7%  
Efficiency = ±7%

### MOTOR TYPES

- RSIR
- PTCSIR
- PTCSCR
- CSIR
- PTCCSIR

### VOLTAGE AND FREQUENCY

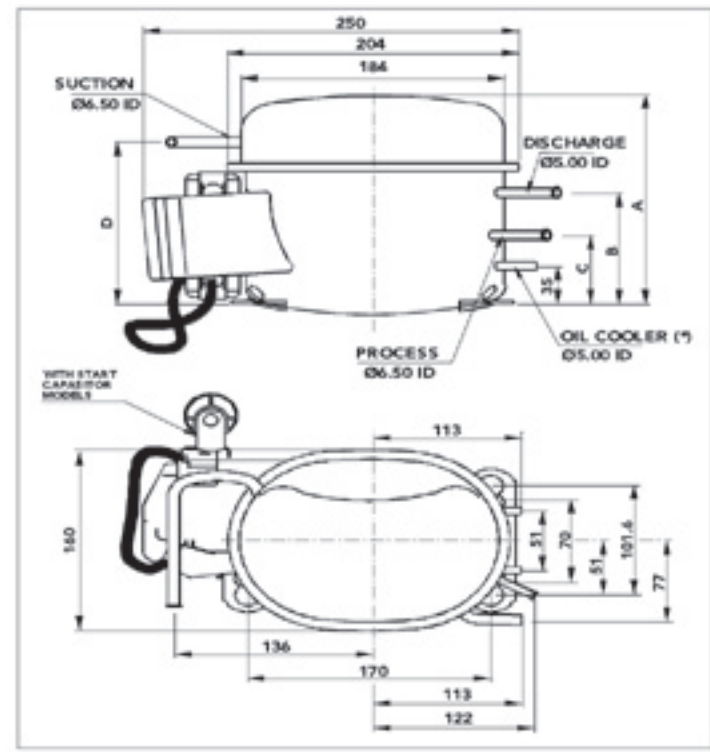
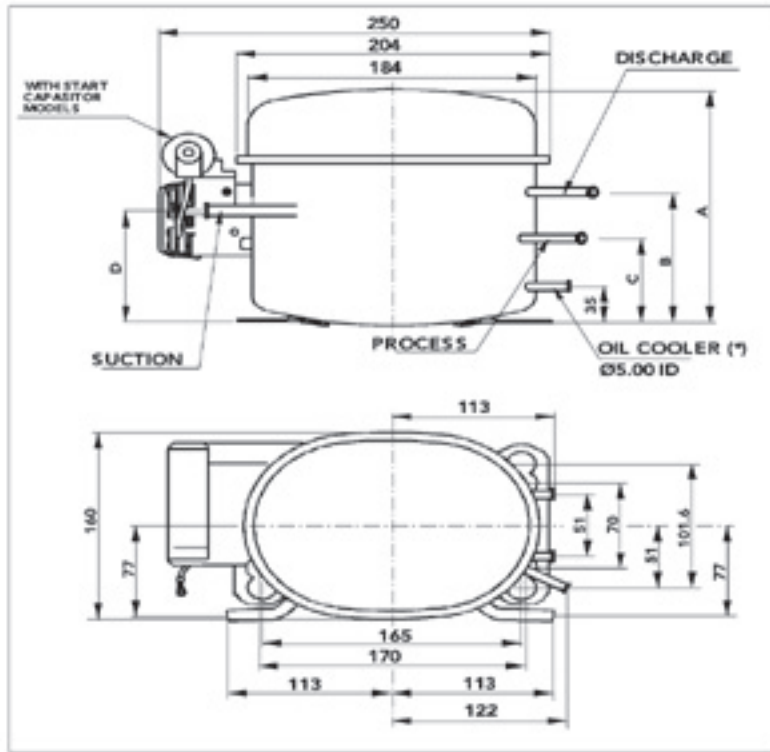
- 1 194-220V / 50 Hz — 220V / 60 Hz
- 2 208-220V / 50 Hz — 230V / 60 Hz
- 3 220-240V / 50 Hz — 230V / 50 Hz
- 4 230 V / 50 Hz
- 5 240 V / 50 Hz
- 6 115 V / 60 Hz — 100 V / 50 Hz
- 7 220 V / 50-60 Hz

### COOLING

- S Static
- F Fan
- O Oil
- \* Static Cooling up to 38°C ambient temperature
- \*\* Static Cooling up to 32°C ambient temperature

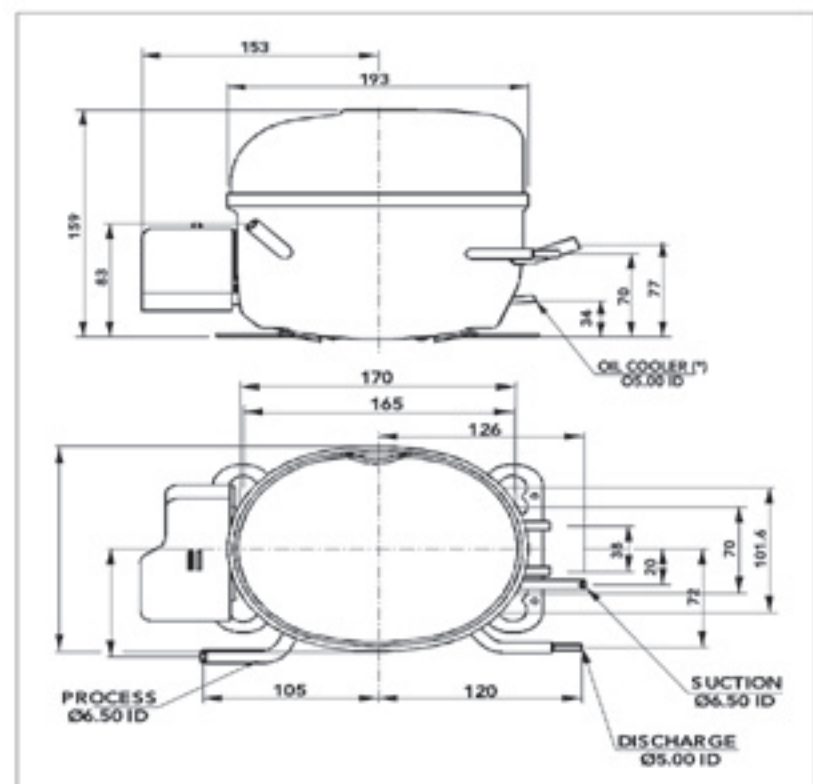
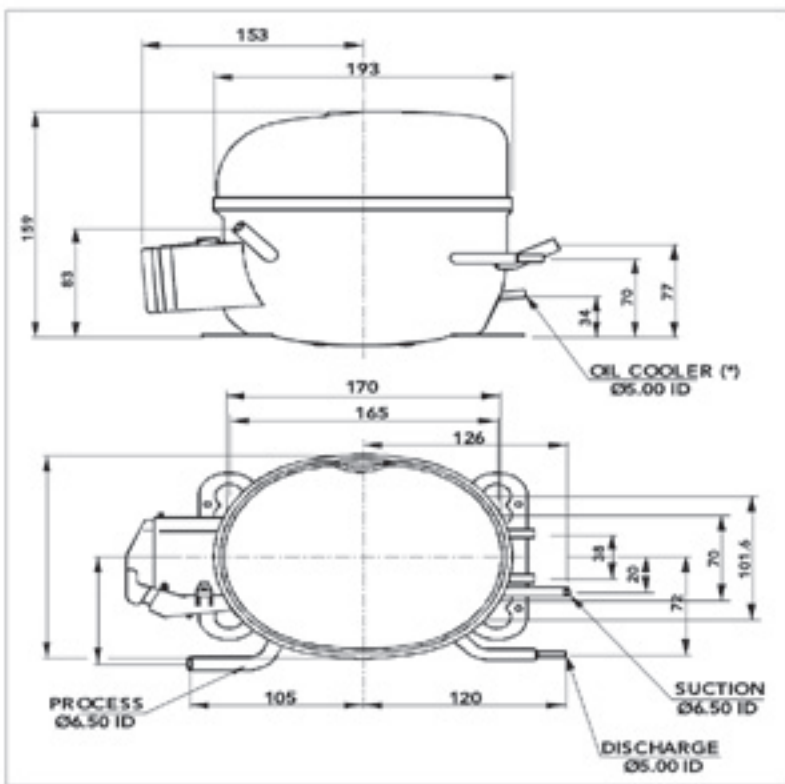


## COMPRESSOR DIMENSIONS



MODELS	DIMENSIONS						
	A	B	C	D	SUCTION ID	PROCESS ID	DISCHARGE ID
AE 230 AE 282	212	77	97	97	6.50 8.00	6.50 8.00	5.00 6.50
AE 560 AE 666	186	102	69	84	6.50	6.50	5.00
AE 881 (194-220V)	212	77	97	97	6.50 8.00	6.50 8.00	5.00 6.50
AE 881 (220-240V)	199	102	69	84	6.50 8.00	6.50 8.00	5.00 6.50
AE 1024	212	77	97	97	6.50 8.00	6.50 8.00	5.00 6.50

MODELS	DIMENSIONS			
	A	B	C	D
AE 123	186	102	69	147
AE 148	186	102	69	147
AE 176	199	115	82	160
AE 196	199	115	82	160



TE MODEL

MTE MODEL

(\*) FOR OIL COOLING TYPE COMPRESSORS

### TEST CONDITIONS

	ASHRAE		CECOMAF	
	LBP	HBP	LBP	HBP
Evaporating Temperature °C	-23.3	7.2	-25	5
Condensing Temperature °C	54.4	54.4	55	55
Liquid Temperature °C	32.2	46.1	55	55
Ambient Temperature °C	32.2	35	32	32
Gas Suction Temperature °C	32.2	35	32	32

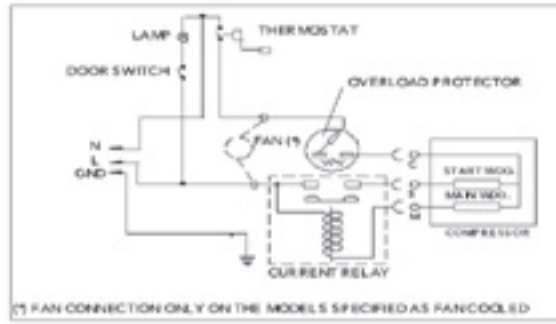
### CONVERSION FACTORS

Kcal/h x 1,163 = W  
 Kcal/h x 3,968 = Btu/h  
 W x 3,412 = Btu/h  
 W x 0,864 = Kcal/h  
 Capacity(at 50Hz) x 1,16 = Capacity (at 60Hz)  
 cc x 0,061 = Cu. in.

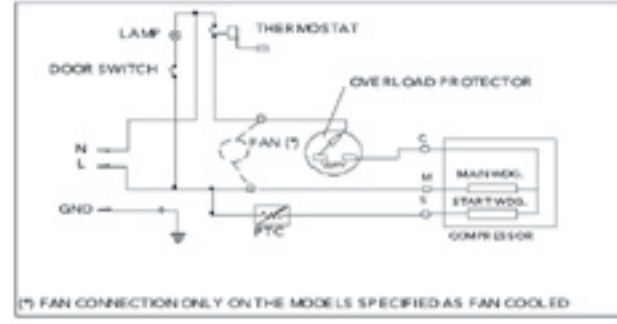


## WIRING DIAGRAMS

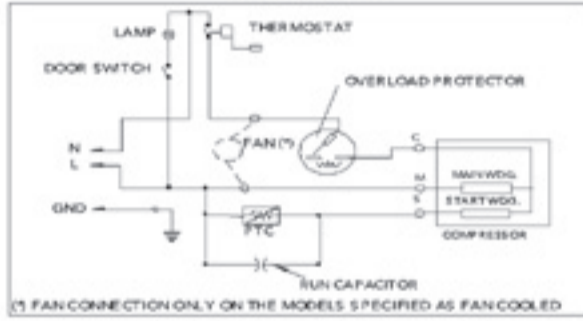
### RSIR



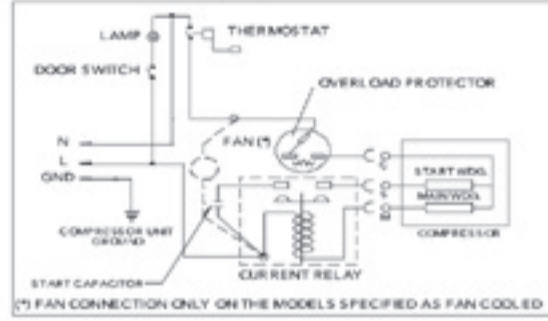
### PTCSIR



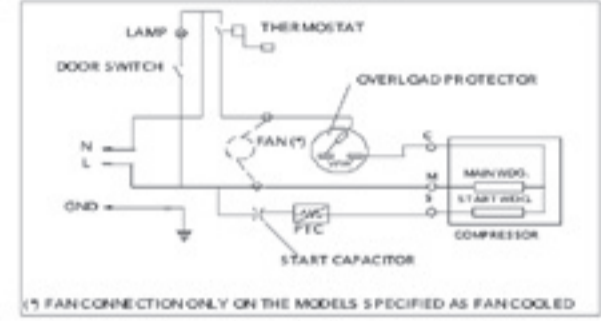
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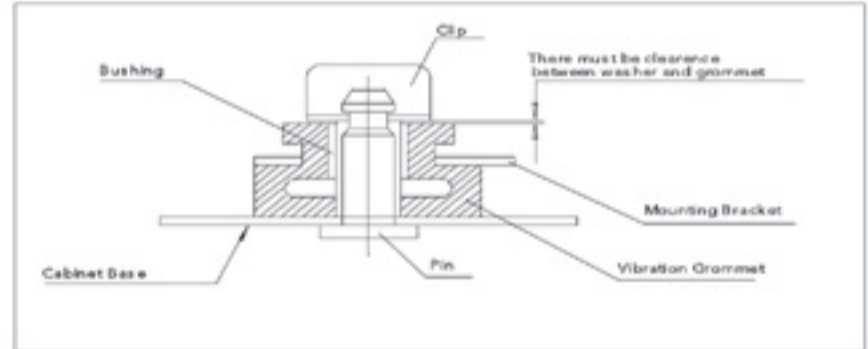
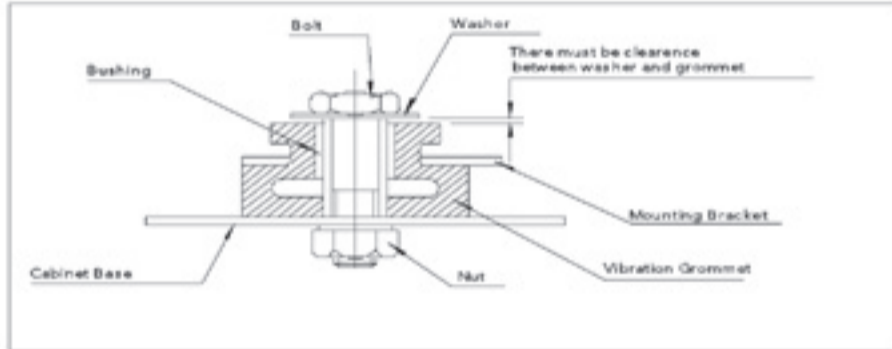
### CSIR



### PTCCSIR



## COMPRESSOR MOUNTING SHAPES



## COMPRESSOR IDENTIFICATION

**1- COMPRESSOR MODEL NO**  
 $\frac{MTE}{a} \quad \frac{175}{b} \quad \frac{Y}{c} \quad \frac{T}{d}$

**DEFINITION**  
**a-** Compressor Design: AE, AZ, THA, THB, TE, MTH, MTE  
**b-** Capacity: Compressor cooling capacity (Kcal/hr at 50 Hz) at standard ASHRAE-T conditions  
**c-** Refrigerant: R12: A, R134a: Y, R404a: Z, R600a: M, CARE30: U  
**d-** Motor Type: RSIR: D, PTCSIR: P, PTCSR: T, CSIR: C, PTCCSIR: K

**2-** RATED VOLTAGE AND FREQUENCY  
**3-** COMPRESSOR B/M (BILL OF MATERIAL) NO  
**4-** LOCKED ROTOR CURRENT  
**5-** APPLICATION: LBP: Low Back Pressure, HBP: High Back Pressure  
**6-** REFRIGERANT: R404a, R12, R600a, R134a, CARE30 (R290+R600a)  
**7-** COOLING TYPE: S: Static cooled, O: Oil cooled, F: Fan cooled  
**8-** SERIAL NUMBER AND DATE OF MANUFACTURE  
**9-** B/M NUMBER, SERIAL NUMBER, DATE OF MANUFACTURE BARCODE  
**10-** APPROVAL

Arçelik reserves the right to alter any data given on this sheet.

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R600a  
1/20 hp through 1/4 hp  
AZ / TH / MTH  
AE / TE / MTE





Refrigerant	Application	Model	Displacement	Net Wt.	Oil Charge	Cooling (43°C Max. Amb. Temp.)	Motor Type	Voltage and Frequency	Refrigerating Capacity								COP	
									Ashrae							Cecomaf	Ashrae	Cecomaf
									-35°C	-30°C	-25°C	-23,3°C	-20°C	-15°C	-10°C	-25°C	-23,3°C	-25°C
Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	W	W/W	W/W									
<b>STANDARD EFFICIENCY RANGE</b>																		
R600a	LBP	AZ 45 MT	4.00	6.6	220	S	3	4	18	28	41	45	55	73	95	39	0.93	0.73
		AZ 62 MT	5.59	6.6	220	S	3	4	27	40	56	62	74	97	122	54	0.96	0.75
		AZ 75 MT	5.90	7.2	240	S	3	4	32	48	68	75	90	117	147	66	1.11	0.87
		AE 100 MT	7.94	9.7	470	S	3	4	48	66	90	100	120	155	194	88	1.02	0.80
		AE 121 MT	8.99	9.7	470	S	3	4	64	85	110	121	144	184	232	106	1.02	0.80
<b>MEDIUM EFFICIENCY RANGE</b>																		
R600a	LBP	THA 34 MT	2.80	6.6	220	S	3	4			31	34	42	55	71	30	1.05	0.82
		THA 44 MT	3.59	6.6	220	S	3	4		28	40	44	54	72	92	39	1.10	0.86
		THA 64 MT	5.00	6.8	270	S	3	4	28	41	58	64	77	100	125	56	1.20	0.94
		THA 81 MT	5.90	7.2	240	S	3	4	39	53	73	81	97	126	157	71	1.25	0.98
		TE 85 MT	6.36	10.1	430	S	3	4	41	56	77	85	102	132	165	74	1.22	0.95
		TE 95 MT	6.91	10.1	430	S	3	4	46	63	86	95	114	147	184	83	1.25	0.98
		TE 102 MT	7.50	10.1	430	S	3	4	51	69	93	102	121	155	196	89	1.27	0.99
		TE 108 MT	7.94	10.1	430	S	3	4	54	73	98	108	129	164	207	95	1.27	0.99
TE 122 MT	8.99	10.3	430	S	3	4	65	85	111	122	145	185	234	107	1.30	1.02		
<b>HIGH EFFICIENCY RANGE</b>																		
R600a	LBP	MTH 35 MT	2.80	6.6	220	S	3	4			32	35	43	57	74	31	1.10	0.86
		MTH 45 MT	3.59	6.6	220	S	3	4		28	41	45	55	73	95	39	1.20	0.94
		MTH 55 MT	4.23	6.6	220	S	3	4		35	50	55	68	90	116	48	1.28	1.00
		MTH 65 MT	5.00	6.8	270	S	3	4	29	44	61	68	82	106	133	60	1.31	1.02
		MTH 75 MT	5.59	7.2	240	S	3	4	33	49	69	77	92	120	151	67	1.33	1.04
		MTH 85 MT	5.90	7.2	240	S	3	4	40	55	76	84	101	130	163	74	1.35	1.05
		MTE 90 MT	6.36	10.1	430	S	3	4	43	59	81	90	108	140	175	79	1.37	1.07
		MTE 100 MT	6.91	10.1	430	S	3	4	48	66	90	100	120	155	194	88	1.40	1.09
		MTE 108 MT	7.50	10.1	430	S	3	4	54	73	98	108	129	164	207	95	1.42	1.11
		MTE 115 MT	7.94	10.1	430	S	3	4	58	78	105	115	137	175	221	101	1.42	1.11
		MTE 130 MT	8.99	10.3	430	S	3	4	69	91	118	130	155	198	250	114	1.45	1.13
		MTE 150 MT	10.01	10.3	430	S	3	4	81	107	137	150	177	227	284	131	1.50	1.17
MTE 165 MT	10.94	10.3	430	S	3	4	89	117	150	165	195	249	312	144	1.50	1.17		

All data based on 220V - 50Hz.

**TOLERANCES**

Capacity = ±7%  
Efficiency = ±7%

**MOTOR TYPES**

- 1 RSIR
- 2 PTCSIR
- 3 PTCSIR
- 4 CSIR
- 5 PTCCSIR

**VOLTAGE AND FREQUENCY**

- 1 194-220V / 50 Hz — 220V / 60 Hz
- 2 208-220V / 50 Hz — 230V / 60 Hz
- 3 220-240V / 50 Hz — 230V / 50 Hz
- 4 230 V / 50 Hz
- 5 240 V / 50 Hz
- 6 115 V / 60 Hz — 100 V / 50 Hz
- 7 220 V / 50-60 Hz

**COOLING**

- S Static
- F Fan
- O Oil
- \* Static Cooling up to 38°C ambient temperature
- \*\* Static Cooling up to 32°C ambient temperature

**TEST CONDITIONS**

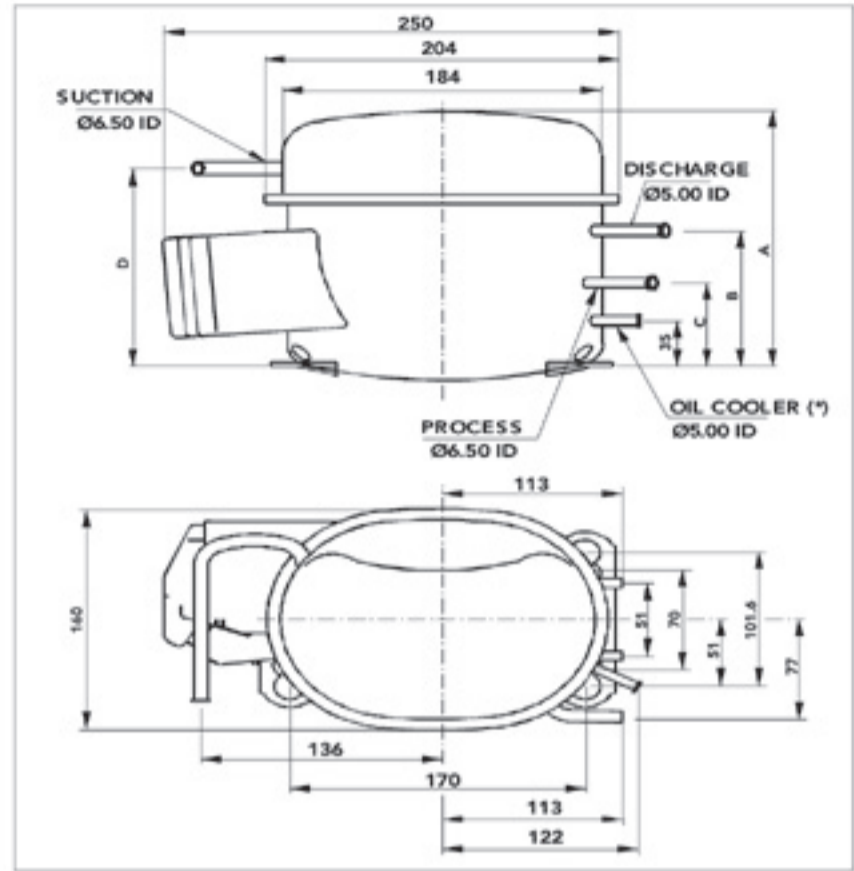
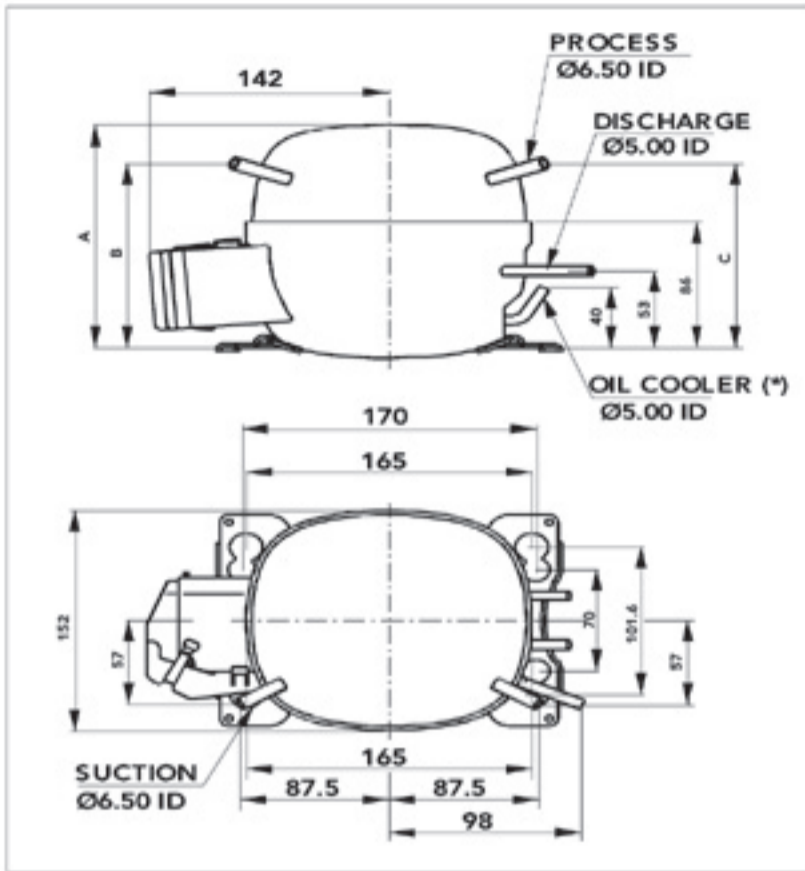
	ASHRAE		CECOMAF	
	LBP	HBP	LBP	HBP
Evaporating Temperature °C	-23.3	7.2	-25	5
Condensing Temperature °C	54.4	54.4	55	55
Liquid Temperature °C	32.2	46.1	55	55
Ambient Temperature °C	32.2	35	32	32
Gas Suction Temperature °C	32.2	35	32	32

**CONVERSION FACTORS**

- Kcal/h x 1,163 = W
- Kcal/h x 3,968 = Btu/h
- W x 3,412 = Btu/h
- W x 0,864 = Kcal/h
- Capacity(at 50Hz) x 1,16 = Capacity (at 60Hz)
- cc x 0,061 = Cu. in.



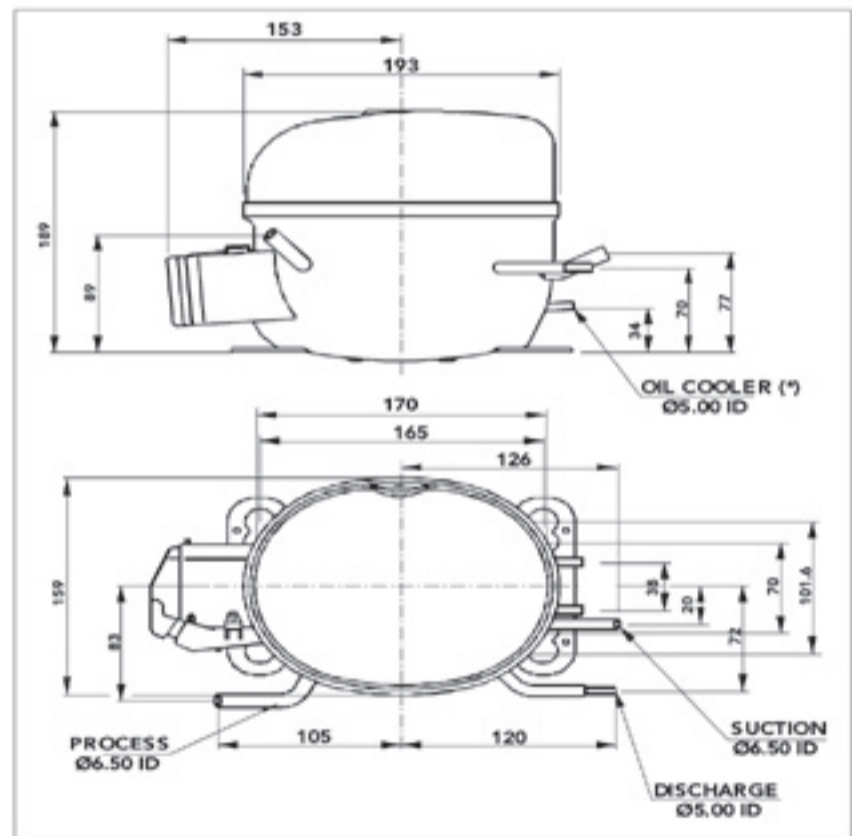
## COMPRESSOR DIMENSIONS



MODELS	DIMENSIONS		
	A	B	C
AZ 45, 62			
THB 34, 44	150	123	123
MTH 35, 45			
MTH 55	154	127	127
AZ 75			
THA 64, 81	164	138	138
MTH 65, 75, 85			

MODELS	DIMENSIONS			
	A	B	C	D
AE 100	186	102	69	147
AE 121	186	102	69	147

(\*) FOR OIL COOLING TYPE COMPRESSORS

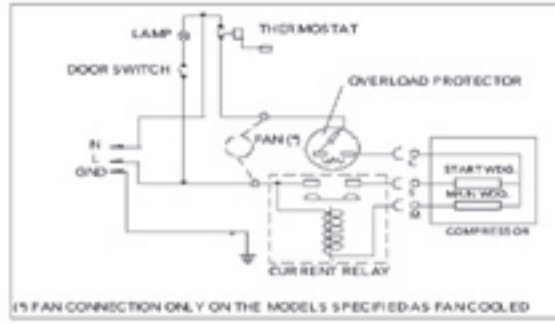


TE MODELS

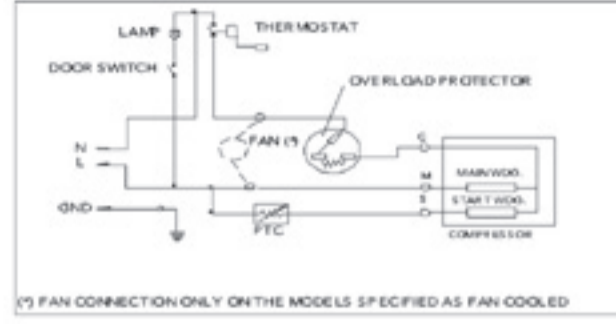


## WIRING DIAGRAMS

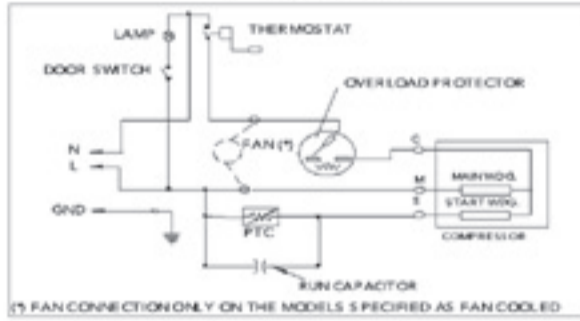
### RSIR



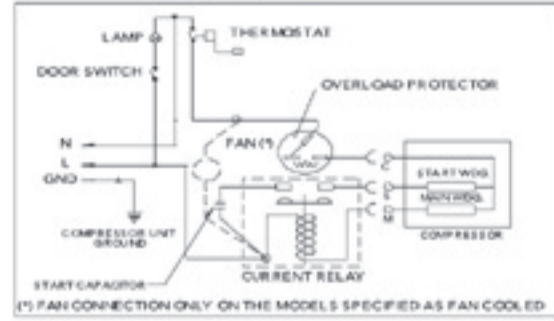
### PTCSIR



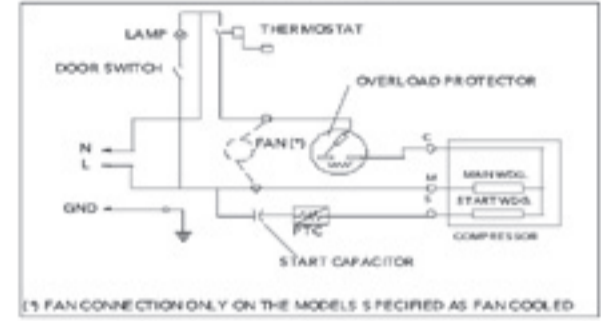
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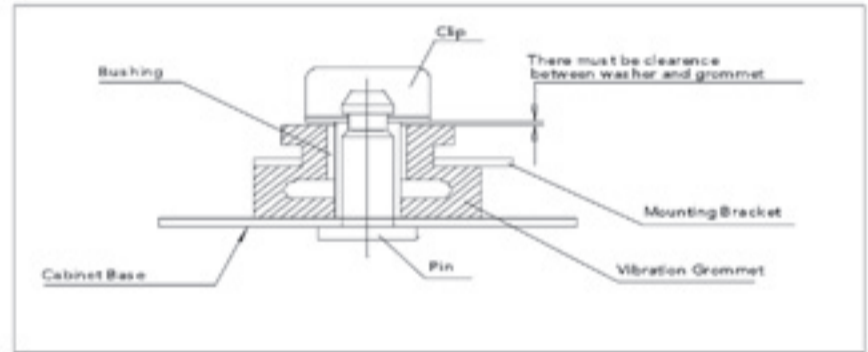
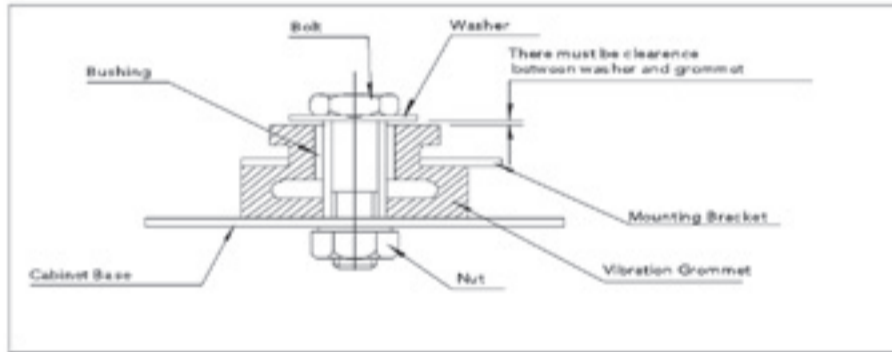
### CSIR



### PTCCSIR



## COMPRESSOR MOUNTING SHAPES



## COMPRESSOR IDENTIFICATION

**1- COMPRESSOR MODEL NO**  
MTH 85 M T  
a b c d

**DEFINITION**  
**a-** Compressor Design: AE, AZ, THA, THB, TE, MTH, MTE  
**b-** Capacity: Compressor cooling capacity (Kcal/hr at 50 Hz) at standard ASHRAE-T conditions  
**c-** Refrigerant  
R12: A  
R134a: Y  
R404a: Z  
R600a: M  
CARE30: U  
**d-** Motor Type:  
RSIR: D  
PTCSIR: P  
PTCSCR: T  
CSIR: C  
PTCCSIR: K

**2-** RATED VOLTAGE AND FREQUENCY  
**3-** COMPRESSOR B/M (BILL OF MATERIAL) NO  
**4-** LOCKED ROTOR CURRENT  
**5-** APPLICATION  
LBP: Low Back Pressure  
HBP: High Back Pressure  
**6-** REFRIGERANT  
R404a, R12, R600a, R134a  
CARE30 (R290+R600a)  
**7-** COOLING TYPE  
S: Static cooled  
O: Oil cooled  
F: Fan cooled  
**8-** SERIAL NUMBER AND DATE OF MANUFACTURE  
**9-** B/M NUMBER, SERIAL NUMBER, DATE OF MANUFACTURE BARCODE  
**10-** APPROVAL

Arçelik reserves the right to alter any data given on this sheet.

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CARE 30 / R404a / R12  
Commercial Range  
AZ / AE





Refrigerant	Application	Model	Displacement	Net Wt.	Oil Charge	Cooling (43°C Max. Amb. Temp.)	Motor Type	Voltage and Frequency	Refrigerating Capacity							COP		
									Ashrae							Cecomaf	Ashrae	Cecomaf
									-35°C	-30°C	-25°C	-23,3°C	-20°C	-15°C	-10°C	-25°C	-23,3°C	-25°C
		cc	kg	cc					Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	W	W/W	W/W
<b>R404a RANGE</b>																		
R404a	LBP	AE 250 ZC	5.75	10.8	450	F	4	2-3	125	173	226	250	295	373	460	228	1.04	0.80
		AE 315 ZC	6.91	10.8	450	F	4	2-3	158	217	288	315	372	469	580	287	1.07	0.82
		AE 355 ZC	7.94	10.8	450	F	4	2-3-7	178	245	323	355	419	529	653	323	1.07	0.82
		AE 375 ZC	8.99	10.8	450	F	4	2-3	188	259	342	375	443	559	690	341	1.07	0.82
<b>R12 LBP RANGE</b>																		
R12	LBP	AZ 63 AD	3.09	6.9	270	S	1	2-3-6	27	40	57	63	76	98	123	56	1.02	0.81
		AZ 63 AP	3.09	6.9	270	S	2	2									1.02	0.81
		AZ 78 AD	3.59	7.2	240	S	1	2-3-6	34	50	70	78	94	121	152	69	1.05	0.84
		AZ 78 AP	3.59	7.2	240	S	2	2									1.05	0.84
		AZ 91 AD	4.00	7.2	240	S	1	2-3-6	39	58	82	91	110	141	177	81	1.06	0.85
		AZ 91 AP	4.00	7.2	240	S	2	2									1.06	0.85
		AZ 103 AD	5.00	7.4	300	S	1	2-3	44	66	93	103	125	160	201	91	1.03	0.82
		AZ 103 AP	5.00	7.4	300	S	2	2-3									1.03	0.82
		AZ 120 AD	5.59	7.4	300	O/F*	1	2-3-6	52	77	108	120	145	186	234	106	1.07	0.85
		AZ 120 AP	5.59	7.4	300	O/F*	2	2-3									1.07	0.85
		AZ 135 AP	5.90	7.6	300	O/F*	2	2-3	58	86	122	135	163	209	263	119	1.07	0.85
		AE 146 AD	6.36	9.7	470	O/F*	1	2-3-6	63	93	131	146	177	226	285	129	1.14	0.91
		AE 146 AP	6.36	9.7	470	O/F*	2	2									1.14	0.91
		AE 175 AD	7.50	9.9	430	O/F**	1	2-3	75	112	158	175	212	271	341	155	1.14	0.91
		AE 175 AP	7.50	9.9	430	O/F**	2	2-3									1.14	0.91
		AE 175 AC	7.50	9.9	400	O/F**	4	2									1.14	0.91
		AE 195 AD	7.94	10.8	450	O/F**	1	2-3									84	125
		AE 195 AP	7.94	10.8	450	O/F**	2	2-3	1.11	0.88								
		AE 195 AC	7.94	10.8	450	O/F**	4	2	1.11	0.88								
		AE 228 AD	8.99	10.8	450	O	1	2-3	98	146	205	228	276	353	445	202	1.12	0.89
		AE 228 AC	8.99	10.8	450	O	4	2-3									1.12	0.89
		AE 95 AD	5.47	9.7	470	S	1	1-3-5-6	41	61	86	95	115	147	185	84	0.90	0.72
		AE 95 AP	5.47	9.7	470	S	2	1									0.90	0.72
		AE 95 AC	5.47	9.7	470	S	4	1									0.90	0.72
AE 136 AD	7.57	10.4	470	O/F*	1	1-3-5-6	58	87	122	136	165	211	265	120	0.99	0.79		
AE 136 AP	7.57	10.4	470	O/F*	2	1-3									0.99	0.79		
AE 136 AC	7.57	10.4	400	O/F*	4	1									0.99	0.79		
AE 170 AD	8.84	10.8	450	O/F**	1	1-3-5-6	73	109	153	170	206	264	332	150	1.03	0.82		
AE 170 AP	8.84	10.8	450	O/F**	2	1-3									1.03	0.82		
AE 170 AC	8.84	10.8	450	O/F**	4	1									1.03	0.82		
AE 280 AC	14.17	11.5	450	O/F	4	1-3	120	179	252	280	339	434	546	248	1.05	0.84		

Ashrae							Cecomaf	Ashrae	Cecomaf
-10°C	-5°C	0°C	5°C	7°C	10°C	15°C	5°C	7.2°C	5°C
Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	Kcal/h	W	W/W	W/W

**CARE 30 RANGE**

CARE 30	HBP	AZ 255 UP	3.59	7.2	240	F	2	3	125	156	194	235	255	283	337	226	1.95	1.55
		AZ 285 UP	4.00	7.4	300	F	2	3	140	174	217	262	285	316	376	252	2.00	1.59
		AZ 285 UK	4.00	7.4	300	F	5	3									2.00	1.59
		AE 515 UP	7.57	10.4	470	F	2	3	252	314	391	474	515	572	680	456	2.10	1.67

**R12 HBP RANGE**

R12	HBP	AE 547 AD	7.57	10.4	400	F	1	1-3	268	334	416	503	547	607	722	484	1.86	1.48
		AE 547 AC	7.57	10.4	470	F	4	1-3									1.86	1.48
		AE 650 AC	8.84	10.9	400	F	4	1-3	319	397	494	598	650	722	858	575	1.97	1.57
		AE 860 AC	12.04	10.8	400	F	4	1-3	421	525	654	791	860	955	1135	761	1.90	1.50
		AE1000AC	14.17	11.5	450	F	4	2-3	490	610	760	920	1000	1110	1320	885	1.80	1.43

All data based on 220V - 50Hz.

**TOLERANCES**

Capacity = ±7%  
Efficiency = ±7%

**MOTOR TYPES**

- 1 RSIR
- 2 PTCSIR
- 3 PTCSIR
- 4 CSIR
- 5 PTCSIR

**VOLTAGE AND FREQUENCY**

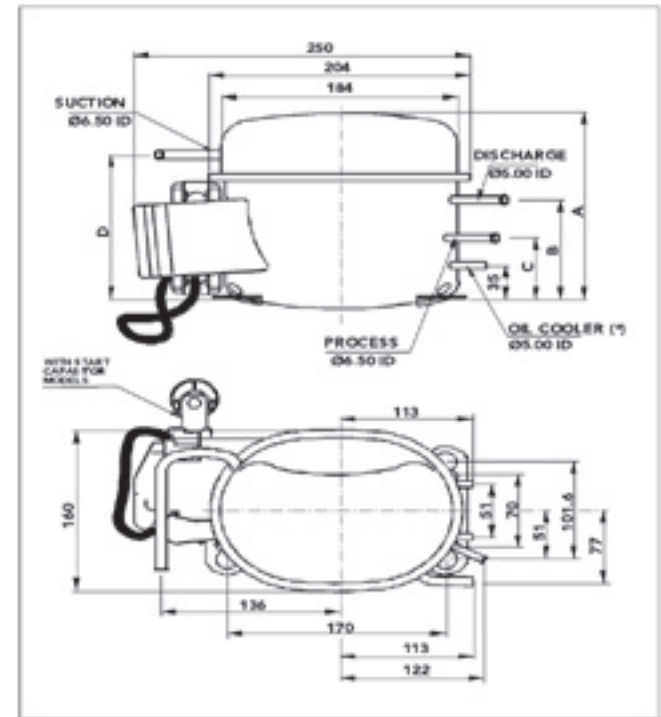
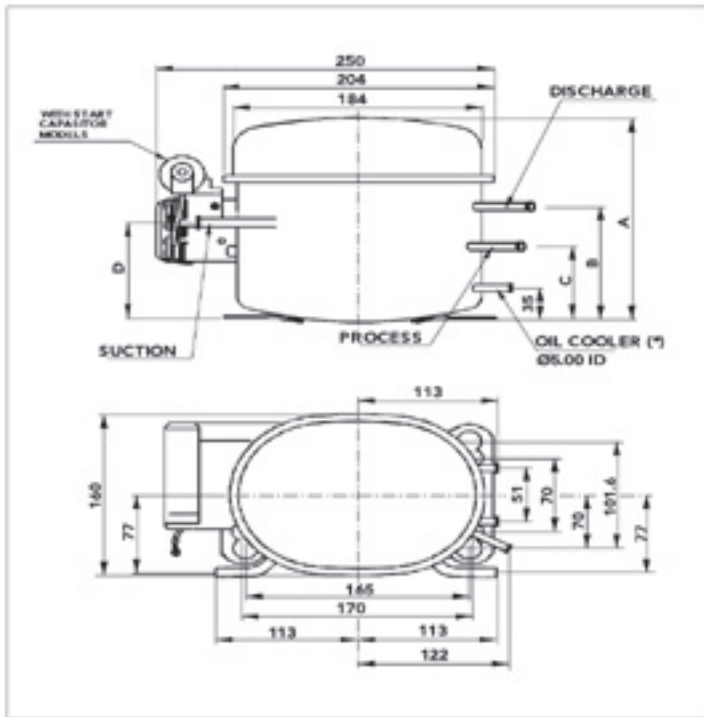
- 1 194-220V / 50 Hz — 220V / 60 Hz
- 2 208-220V / 50 Hz — 230V / 60 Hz
- 3 220-240V / 50 Hz — 230V / 50 Hz
- 4 230 V / 50 Hz
- 5 240 V / 50 Hz
- 6 115 V / 60 Hz — 100 V / 50 Hz
- 7 220 V / 50-60 Hz

**COOLING**

- S Static
- F Fan
- O Oil
- \* Static Cooling up to 38°C ambient temperature
- \*\* Static Cooling up to 32°C ambient temperature

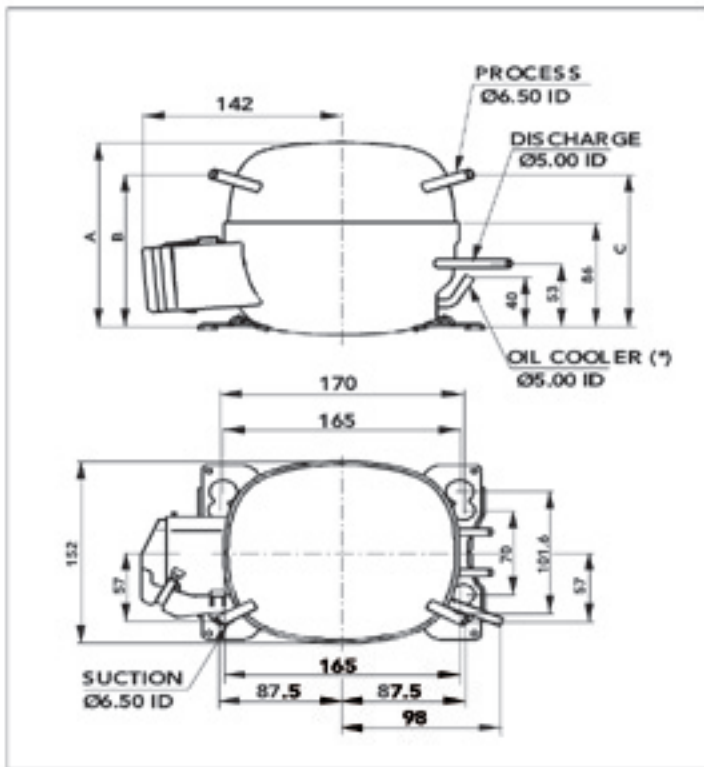


## COMPRESSOR DIMENSIONS



MODELS	DIMENSIONS						
	A	B	C	D	SUCTION ID	PROCESS ID	DISCHARGE ID
AE 95, 136 AE 547, 650 AE 515	186	102	69	84	6.50	6.50	5.00
AE 860 (220-240 V)	199	102	69	84	6.50 8.00	6.50 8.00	5.00 6.50
AE 170	199	115	82	97	6.50	6.50	5.00
AE 280 AE 1000	212	77	97	97	6.50 8.00	6.50 8.00	5.00 6.50
AE 880 (194-220 V)	212	77	97	97	6.50 8.00	6.50 8.00	5.00 6.50

	DIMENSIONS			
	A	B	C	D
AE 146, 175	186	102	69	147
AE 195, 228	199	115	82	160
AE 250, 315	199	115	82	160
AE 355, 375	199	115	82	160



MODELS	DIMENSIONS		
	A	B	C
AZ 63	154	127	127
AZ 78, 91	164	138	138
AZ 255			
AZ 103, 120	170	144	144
AZ 285			
AZ 135	175	149	149

(\*) FOR OIL COOLING TYPE COMPRESSORS

### TEST CONDITIONS

	ASHRAE		CECOMAF	
	LBP	HBP	LBP	HBP
Evaporating Temperature °C	-23.3	7.2	-25	5
Condensing Temperature °C	54.4	54.4	55	55
Liquid Temperature °C	32.2	46.1	55	55
Ambient Temperature °C	32.2	35	32	32
Gas Suction Temperature °C	32.2	35	32	32

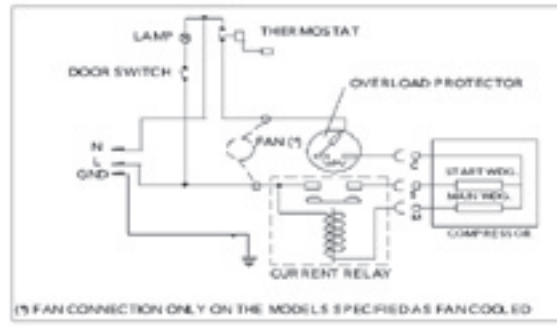
### CONVERSION FACTORS

Kcal/h x 1,163 = W  
 Kcal/h x 3,968 = Btu/h  
 W x 3,412 = Btu/h  
 W x 0,864 = Kcal/h  
 Capacity(at 50Hz) x 1,16 = Capacity (at 60Hz)  
 cc x 0,061 = Cu. in.

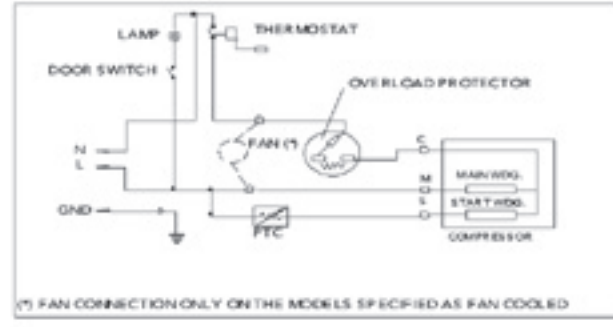


## WIRING DIAGRAMS

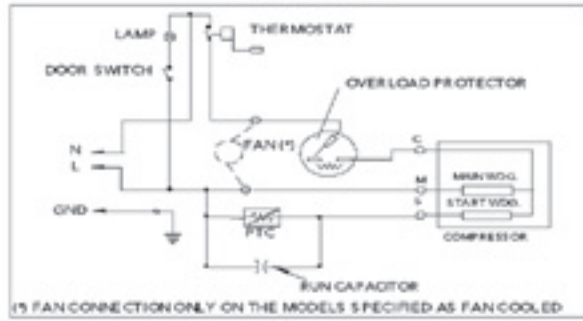
### RSIR



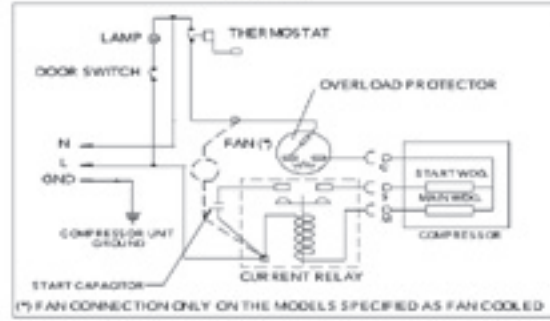
### PTCSIR



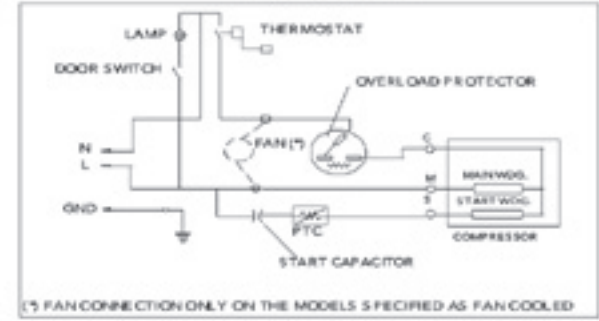
### PTCSCR



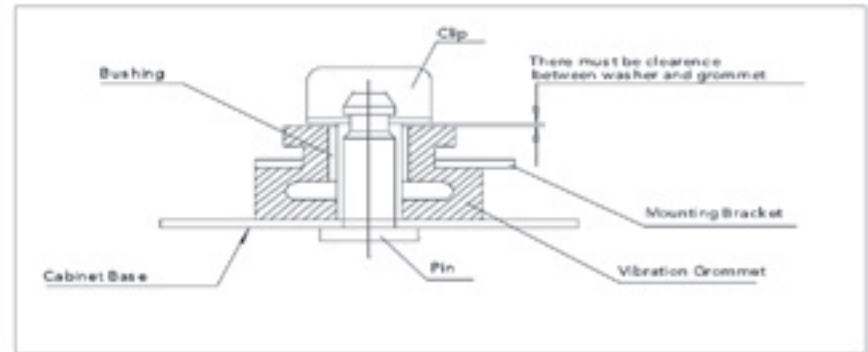
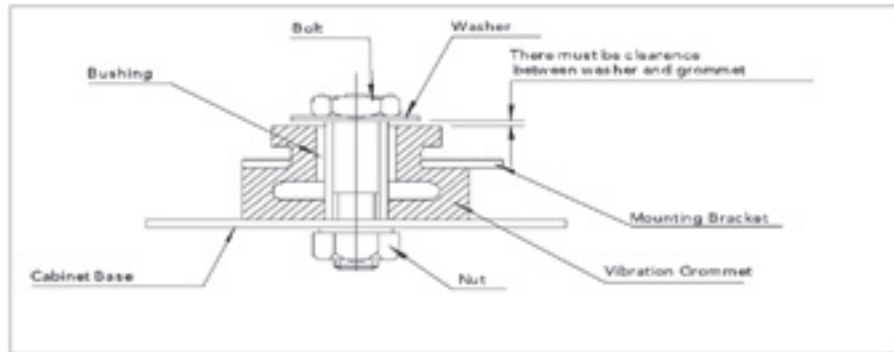
### CSIR



### PTCCSIR



## COMPRESSOR MOUNTING SHAPES



## COMPRESSOR IDENTIFICATION

**1- COMPRESSOR MODEL NO**

AE	355	Z	C
a	b	c	d

**DEFINITION**

a- Compressor Design: AE, AZ, THA, THB, TE, MTH, MTE

b- Capacity: Compressor cooling capacity (Kcal/hr at 50 Hz) at standard ASHRAE-T conditions

c- Refrigerant

R12: A	d- Motor Type:
R134a: Y	RSIR: D
R404a: Z	PTCSIR: P
R600a: M	PTCSCR: T
CARE30: U	CSIR: C
	PTCCSIR: K

2- RATED VOLTAGE AND FREQUENCY

3- COMPRESSOR B/M (BILL OF MATERIAL) NO

4- LOCKED ROTOR CURRENT

5- APPLICATION

LBP: Low Back Pressure  
HBP: High Back Pressure

6- REFRIGERANT

R404a, R12, R600a, R134a  
CARE30 (R290+R600a)

7- COOLING TYPE

S: Static cooled  
O: Oil cooled  
F: Fan cooled

8- SERIAL NUMBER AND DATE OF MANUFACTURE

9- B/M NUMBER, SERIAL NUMBER, DATE OF MANUFACTURE BARCODE

10- APPROVAL

Arçelik reserves the right to alter any data given on this sheet.

## ARÇELİK A.Ş.

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