



## Model: AE4440Y-FZ1A (AE4440Y)

### Product Description

**Type:** Reciprocating  
**Application:** HBP/CBP - High/Commercial  
 Back Pressure  
**Refrigerant:** R134a  
**Voltage/Frequency:** 220-240V ~ 50Hz

### Product Specifications

#### Performance

Condition	Test Voltage	Refrigeration Capacity			Input Power	Efficiency			EVAP TEMP	COND TEMP	AMBIENT TEMP	RETURN GAS	LIQUID TEMP
		Btu/h	kcal/h	W	W	Btu/Wh	kcal/Wh	W/W					
ASHRAE	220V ~ 50HZ	3650	920	1070	447	8.17	2.06	2.39	7.2°C (45°F)	54°C (130°F)	35°C (95°F)	35°C (95°F)	46°C (115°F)

#### General

**Evaporating Temp. Range:** -15°C to 15°C (5°F to 59°F)  
**Motor Torque:** High Start Torque (HST)  
**Compressor Cooling:** Fan

#### Mechanical

**Weight:** 9.893  
**Weight Unit of Measure:** KG  
**Displacement (cc):** 10.33  
**Oil Type:** Polyolester  
**Viscosity (cSt):** 32  
**Oil Charge (cc):** 285

#### Electrical

**Voltage Range (50 Hz):** 198-253  
**Voltage Range (60 Hz):** N/A  
**Locked Rotor Amps (LRA):** 13.5  
**Rated Load Amps (RLA 50 Hz):** 2.51  
**Rated Load Amps (RLA 60 Hz):** N/A  
**Max. Continuous Current (MCC in Amps):** N/A  
**Motor Resistance (Ohm) - Main:** N/A  
**Motor Resistance (Ohm) - Start:** N/A  
**Motor Type:** CSIR  
**Overload Type:** EXTERNAL  
**Relay Type:** Current Relay

#### Agency Approval

CCC Listed, CE Listed, GOST RUSSIA Listed, GOST  
 UKRAINE Listed, IRAM Listed, VDE Listed



# Tecumseh

## Performance Data Sheet

### AE4440Y-FZ1A

### General Information

<b>Model</b>	AE4440Y-FZ1A	<b>Refrigerant</b>	R134a
<b>Test Condition</b>	EN12900 ASERCOM	<b>Performance Test Voltage</b>	240V ~ 50HZ
<b>Return Gas</b>	20°C (68°F) RETURN GAS	<b>Motor Type</b>	CSIR

### Performance Information

Evap Temp (°C)	Condensing Temperature (°C)					
		30	40	50	60	70
-15	Watts (Capacity)	488	429	369	311	253
	Watts (Power)	253	266	281	303	335
	Amps	2.04	2.00	2.01	2.08	2.21
-10	Watts (Capacity)	619	545	471	398	326
	Watts (Power)	276	293	312	336	370
	Amps	2.09	2.06	2.09	2.19	2.34
-6.7	Watts (Capacity)	719	634	548	463	379
	Watts (Power)	291	311	333	360	396
	Amps	2.12	2.11	2.16	2.26	2.43
-5	Watts (Capacity)	775	684	591	499	409
	Watts (Power)	298	321	344	373	410
	Amps	2.15	2.14	2.19	2.30	2.47
0	Watts (Capacity)	960	847	733	619	508
	Watts (Power)	318	348	378	412	453
	Amps	2.21	2.23	2.30	2.43	2.62
5	Watts (Capacity)	1180	1040	899	760	623
	Watts (Power)	336	375	412	453	500
	Amps	2.29	2.33	2.42	2.57	2.78
7.2	Watts (Capacity)	1280	1130	981	830	681
	Watts (Power)	344	386	427	471	522
	Amps	2.33	2.38	2.48	2.64	2.86
10	Watts (Capacity)	1430	1260	1090	926	760
	Watts (Power)	351	399	446	495	549
	Amps	2.39	2.44	2.55	2.72	2.95

15	Watts (Capacity)	1710	1520	1320	1120	921
	Watts (Power)	363	422	478	537	600
	Amps	2.49	2.56	2.70	2.89	3.14

COEFFICIENTS	CAPACITY	POWER	CURRENT	MASS FLOW
C1	1281.005	194.8445	2.52435	
C2	53.71831	-1.69677	0.00284602	
C3	-10.02751	5.684332	-0.0191847	
C4	0.8388713	-0.1266693	0.000230909	
C5	-0.4560996	0.2099672	0.000400389	
C6	-0.02910516	-0.07014965	0.000294119	
C7	0.004167931	-0.001068532	0	
C8	-0.00693736	0.002690764	0	
C9	-0.0001002843	-0.0007992287	0	
C10	0.0002072667	0.0005958257	0	

$$\text{Value} = C1 + C2 * Te + C4 * Te^2 + C7 * Te^3 + (C3 + C5 * Te + C8 * Te^2) * Tc + (C6 + C9 * Te) * Tc^2 + C10 * Tc^3$$

Te = Evaporator Temperature

Tc = Condensing Temperature