

# AL SERIES COMPRESSOR

SUPERIOR EFFICIENCY FOR LOW & MEDIUM TEMPERATURE APPLICATIONS



## UP TO 15% BETTER EFFICIENCY COMPARED TO SIMILAR COMPETITIVE MODELS

New motor and improved suction and discharge systems maximize compressor efficiency.

## COMPACT SIZE FOR 15-20 CC DISPLACEMENTS

Small housing size combined with wide cooling capacity range can offer the same compressor for LBP and MBP applications.

## VERSATILITY

Industry standard suction, discharge and process connections make installation and serviceability easy.

## NATURAL REFRIGERANT

Designed specifically for natural refrigerant R-290 (propane).

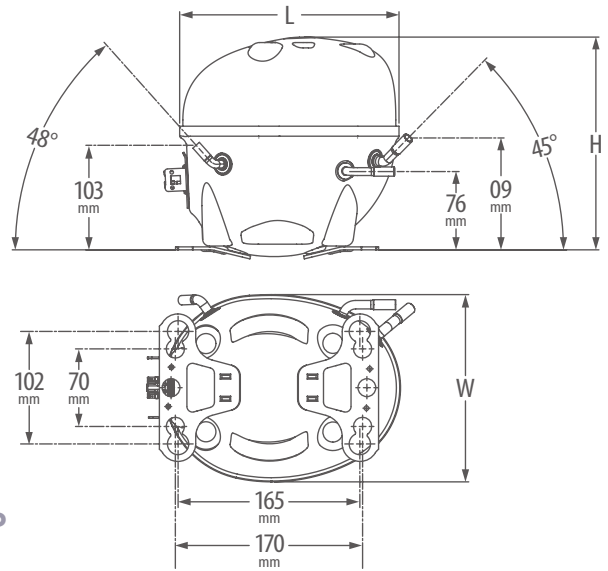
# COMPRESSOR DIMENSIONS

## UNIVERSAL MODEL

### DIMENSIONS mm (inches)

MODEL	L	H	W
AL (HH)	215 (8.46)	214 (8.42)	169 (6.65)
AL (SH)	215 (8.46)	207 (8.14)	169 (6.65)

NOTE: HH: High Housing / SH: Short Housing



# RANGE & PERFORMANCE

## R-290 COMPRESSOR PERFORMANCE — L/MBP

### ASHRAE / 50Hz

MODEL	RATING POINT	COOLING CAPACITY			EFFICIENCY (EER / COP)			VOLTAGE / FREQUENCY (V / Hz)	MOTOR TYPE	DISPLACEMENT		WEIGHT		SOUND (dBa)
		Btu/h	W	kcal/h	Btu/Wh	W/W	kcal/Wh			cm <sup>3</sup>	in <sup>3</sup>	kg	lb	
ALX430U-FZ1A	1	2325	681	586	5.18	1.52	1.30	220-240/50	CSIR	15.09	0.92	13.2	29.12	—
	2	4630	1357	1167	7.53	2.21	1.90							
ALX435U-FZ1A	1	2800	821	706	5.12	1.50	1.29	220-240/50	CSIR	17.71	1.08	15.0	33.09	—
	2	5460	1600	1376	7.27	2.13	1.83							
ALX440U-FZ1A*	1	—	—	—	—	—	—	220-240/50	CSIR	19.95	1.22	—	—	—
	2	—	—	—	—	—	—							
ALX430U-FZ3A	1	2270	665	572	5.81	1.70	1.46	220-240/50	CSR	15.09	0.92	13.1	28.9	—
	2	4650	1363	1172	8.55	2.51	2.15							
ALX435U-FZ3A	1	2850	835	718	5.79	1.70	1.46	220-240/50	CSR	17.71	1.08	13.1	28.9	—
	2	5330	1562	1343	7.91	2.32	1.99							
ALX440U-FZ3A	1	3190	935	804	5.70	1.67	1.44	220-240/50	CSR	19.95	1.22	13.6	30.0	—
	2	6240	1829	1572	8.18	2.40	2.06							

NOTES: \*Under development.

**Rating Point 1 (ASHRAE 32, Fan)**  
 Evap. Temp.: -23.3°C / -10°F  
 Cond. Temp.: 54.4°C / 130°F

Return Gas Temp.: 32.2°C / 90°F  
 Liquid Temp.: 32.2°C / 90°F  
 Ambient Temp.: 32.2°C / 90°F

**Rating Point 2 (ASHRAE 32, Fan)**  
 Evap. Temp.: -6.7°C / 20°F  
 Cond. Temp.: 54.4°C / 130°F

Return Gas Temp.: 32.2°C / 90°F  
 Liquid Temp.: 32.2°C / 90°F  
 Ambient Temp.: 32.2°C / 90°F

Oil Charge: 327 ml  
 Oil Type: POE  
 Oil Viscosity: 32 cSt  
 Cooling: FAN

### ENI2900 / 50Hz

MODEL	RATING POINT	COOLING CAPACITY			EFFICIENCY (EER / COP)			VOLTAGE / FREQUENCY (V / Hz)	MOTOR TYPE	DISPLACEMENT		WEIGHT		SOUND (dBa)
		Btu/h	W	kcal/h	Btu/Wh	W/W	kcal/Wh			cm <sup>3</sup>	in <sup>3</sup>	kg	lb	
ALX430U-FZ1A	3	1290	378	325	3.96	1.16	1.00	220-240/50	CSIR	15.09	0.92	13.2	29.1	—
	4	3700	1084	932	6.83	2.00	1.72							
ALX435U-FZ1A	3	1560	457	393	4.05	1.19	1.02	220-240/50	CSIR	17.71	1.08	15.0	33.1	—
	4	4370	1281	1101	6.80	1.99	1.71							
ALX440U-FZ1A*	3	—	—	—	—	—	—	220-240/50	CSIR	19.95	1.22	—	—	—
	4	—	—	—	—	—	—							
ALX430U-FZ3A	3	1240	363	312	4.49	1.32	1.13	220-240/50	CSR	15.09	0.92	13.1	28.9	—
	4	3730	1093	940	7.84	2.30	1.97							
ALX435U-FZ3A	3	1550	454	391	4.37	1.28	1.10	220-240/50	CSR	17.71	1.08	13.1	28.9	—
	4	4415	1294	1113	7.41	2.17	1.87							
ALX440U-FZ3A	3	1800	528	454	4.47	1.31	1.13	220-240/50	CSR	19.95	1.22	13.6	30.0	—
	4	4990	1463	1257	7.43	2.18	1.87							

NOTES: \*Under development.

**Rating Point 3 (ENI2900, Fan)**  
 Evap. Temp.: -35°C / -31°F  
 Cond. Temp.: 40°C / 104°F

Return Gas Temp.: 20°C / 68°F  
 Liquid Temp.: 40°C / 104°F  
 Ambient Temp.: 32°C / 90°F

**Rating Point 4 (ENI2900, Fan)**  
 Evap. Temp.: -10°C / 14°F  
 Cond. Temp.: 45°C / 113°F

Return Gas Temp.: 20°C / 68°F  
 Liquid Temp.: 45°C / 113°F  
 Ambient Temp.: 32°C / 90°F

Oil Charge: 327 ml  
 Oil Type: POE  
 Oil Viscosity: 32 cSt  
 Cooling: FAN

# RANGE & PERFORMANCE

## R-290 COMPRESSOR PERFORMANCE — L/MBP

### ASHRAE / 60Hz

MODEL	RATING POINT	COOLING CAPACITY			EFFICIENCY (EER / COP)			VOLTAGE / FREQUENCY (V / Hz)	MOTOR TYPE	DISPLACEMENT		WEIGHT		SOUND dBa
		Btu/h	W	kcal/h	Btu/Wh	W/W	kcal/Wh			cm <sup>3</sup>	in <sup>3</sup>	kg	lb	
ALX430U-DS3A	1	2900	850	731	5.80	1.70	1.46	115-127/60	CSR	15.09	0.92	13.5	29.8	—
	2	5300	1553	1336	7.65	2.24	1.93							
ALX435U-DS3A	1	3460	1014	872	5.75	1.68	1.45	115-127/60	CSR	17.71	1.08	13.7	30.2	—
	2	6040	1770	1522	7.31	2.14	1.84							
ALX440U-DS3A	1	3920	1149	988	5.72	1.68	1.44	115-127/60	CSR	19.95	1.22	14.7	32.4	—
	2	6800	1993	1714	7.27	2.13	1.83							

NOTES:

**Rating Point 1 (ASHRAE 32, Fan)**  
 Evap. Temp.: -23.3°C / -10°F  
 Cond. Temp.: 54.4°C / 130°F

Return Gas Temp.: 32.2°C / 90°F  
 Liquid Temp.: 32.2°C / 90°F  
 Ambient Temp.: 32.2°C / 90°F

**Rating Point 2 (ASHRAE 46, Fan)**  
 Evap. Temp.: -6.7°C / 20°F  
 Cond. Temp.: 54.4°C / 130°F

Return Gas Temp.: 35°C / 95°F  
 Liquid Temp.: 46°C / 115°F  
 Ambient Temp.: 35°C / 95°F

Oil Charge: 327 ml  
 Oil Type: POE  
 Oil Viscosity: 32 cSt  
 Cooling: FAN

### ARI / 60Hz

MODEL	RATING POINT	COOLING CAPACITY			EFFICIENCY (EER / COP)			VOLTAGE / FREQUENCY (V / Hz)	MOTOR TYPE	DISPLACEMENT		WEIGHT		SOUND dBa
		Btu/h	W	kcal/h	Btu/Wh	W/W	kcal/Wh			cm <sup>3</sup>	in <sup>3</sup>	kg	lb	
ALX430U-DS3A	3	2330	683	587	4.78	1.40	1.21	115-127/60	CSR	15.09	0.92	13.5	29.8	—
	4	4670	1369	1177	7.12	2.09	1.79							
ALX435U-DS3A	3	2760	809	686	4.55	1.33	1.15	115-127/60	CSR	17.71	1.08	13.7	30.2	—
	4	5060	1483	1275	6.45	1.89	1.62							
ALX440U-DS3A	3	—	—	—	—	—	—	115-127/60	CSR	19.95	1.22	14.7	32.4	—
	4	—	—	—	—	—	—							

NOTES:

**Rating Point 3 (ARI LBP, Fan)**  
 Evap. Temp.: -23.3°C / -10°F  
 Cond. Temp.: 49°C / 120°F

Return Gas Temp.: 4.4°C / 40°F  
 Liquid Temp.: 49°C / 120°F  
 Ambient Temp.: 35°C / 99°F

**Rating Point 4 (ARI MBP, Fan)**  
 Evap. Temp.: -6.7°C / 20°F  
 Cond. Temp.: 49°C / 120°F

Return Gas Temp.: 4.4°C / 40°F  
 Liquid Temp.: 49°C / 120°F  
 Ambient Temp.: 35°C / 99°F

Oil Charge: 327 ml  
 Oil Type: POE  
 Oil Viscosity: 32 cSt  
 Cooling: FAN

## APPLICATION WINDOW

APPLICATION CODE	APPLICATION PRESSURE	EVAPORATING TEMPERATURE RANGE											
		-40°F	-31°F	-22°F	-13°F	-4°F	5°F	14°F	23°F	32°F	41°F	50°F	59°F
		-40°C	-35°C	-30°C	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	5°C	10°C	15°C
1 & 2	LBP	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
W & X	L/MBP	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Red	Red	Blue	Blue
3 & 4	M/HBP	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue

Notes: ■ only for AL compressor. Data for reference only, can be changed without previous notice.