

MOBILE COOLERS

ELD Series

DC Motor Drive



Description

These coolers use a combination of high performance cooling elements and long life DC electrical powered fans to give extended trouble-free operation in mobile hydraulic applications. The compact design allows the coolers to fit most equipment and provides the highest cooling performance in heat dissipation while minimizing space required.

Features

- Most coolers are designed with the inlet/outlet ports facing toward the back to help reduce fittings
- All coolers feature a built in thermostat port
- 12 and 24 volt DC fans
- Up to 47 HP cooling capacity
- Rated flows up to 47 gpm
- Motor lifetimes up to 10,000 hours
- Available with internal pressure or thermal bypass

Applications



Agricultural



Material Handling



Construction



Utility



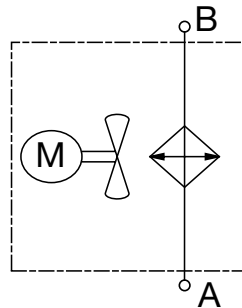
Railways



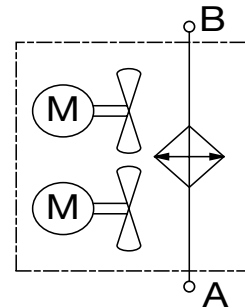
Forestry

Hydraulic Symbol

Sizes 1 - 4.5



Sizes 5 - 6



General

Materials	Housing: welded steel Heat Exchanger: aluminum, brazed bar-and-plate Fan: plastic
Mounting Orientation	Any orientation
Maximum Pressure	230 psi (16 bar)
Fluids	Mineral oil to DIN 51524 Part 1 and 2 (Contact factory for other fluid usages)
Ambient Temperature	50° - 104°F (10° - 40°C)
Max. Oil Temperature	266°F (130°C)
Standard Airflow Direction	Air pulled across heat exchanger
Filtration	ISO/DIS 4406 Code 19/16- Filtration Grade B25>75
Environmental Protection Class	IP68
Standard Fan Connector	AMP Code 180908

Specifications

Size	Preferred Part Number	Motor Capacity (kW) 12v / 24v	Current Draw (Amps) 12v / 24v	In-Rush Current (@20ms)	Fan Dia. (mm) / (in)	Noise Level dBa* (1 Meter)	Weight (lbs.)
ELD 1	2592772	0.10 / 0.11	8 / 4.5	45/34	190 / 7.5	73	7
ELD 1.5	2595792	0.10 / 0.11	8 / 4.5	45/34	190 / 7.5	73	9
ELD 2	2592521	0.20 / 0.21	15 / 8	80 / 78	255 / 10	74	21
ELD 3	2593214	0.27 / 0.28	21 / 11	80/ 70	305 / 12	79	25
ELD 4	2592525	0.32 / 0.31	25 / 12	120 / 76	385 / 15.2	76	35
ELD 4.5	2592774	0.32 / 0.31	25 / 12	120 / 76	385 / 15.2	76	49
ELD 5	2592776	0.54 / 0.56	42 / 22	160 / 140	305 / 12	80	67
ELD 6	2592778	0.64 / 0.62	50 / 24	240 / 152	385 / 15.2	77	81

*The noise levels are only a guide as acoustic properties vary and depend on the characteristics of the room, connections, viscosity, and resonance.

Model Code

ELD 1.5H 3.5 12 S X X X

Model _____
 ELD = Air Cooled Oil Cooler with DC-Powered Fan (*Brushless option available, contact factory*)

Size _____
 1H, 1.5H, 2H, 3H, 4H, 4.5H, 5H, 6H

Modification Number (latest version always supplied) _____

Fan Motor Voltage _____
 12 = 12 volt DC
 24 = 24 volt DC

Air Flow Direction _____
 S = Suction (*through heat exchanger, exhausting through fan*)
 B = Blowing (*through fan, exhausting through heat exchanger*)

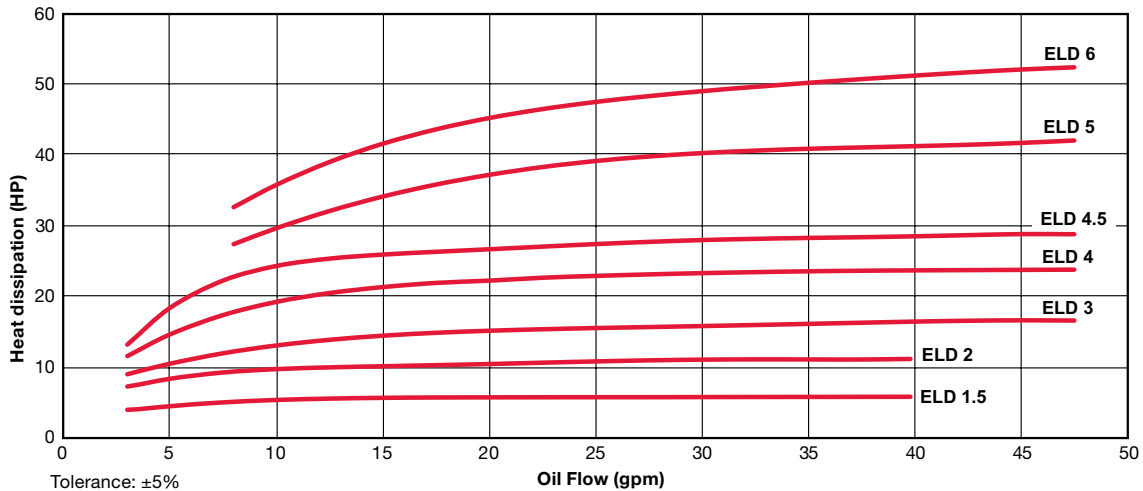
Options _____
 (omit) = None
 IBT = Internal Thermostatic Bypass Valve
 IBP = Internal Pressure Bypass Valve

Opening Temperature (IBT Only) _____
 45 = 113°F (45°C) (*closes at 131°F*)
 50 = 130°F (50°C) (*closes at 150°F*)
 60 = 140°F (60°C) (*closes at 158°F*)

Opening Pressure Drop (IBT & IBP Only) _____
 2 = 2 bar (29 psi)
 3 = 3 bar (45 psi)
 4 = 4 bar (58 psi)
 TS-120 = Inline Thermostat, Fixed 120°F
 TS-140 = Inline Thermostat, Fixed 140°F
 TS-160 = Inline Thermostat, Fixed 160°F
 F = Foot Mount

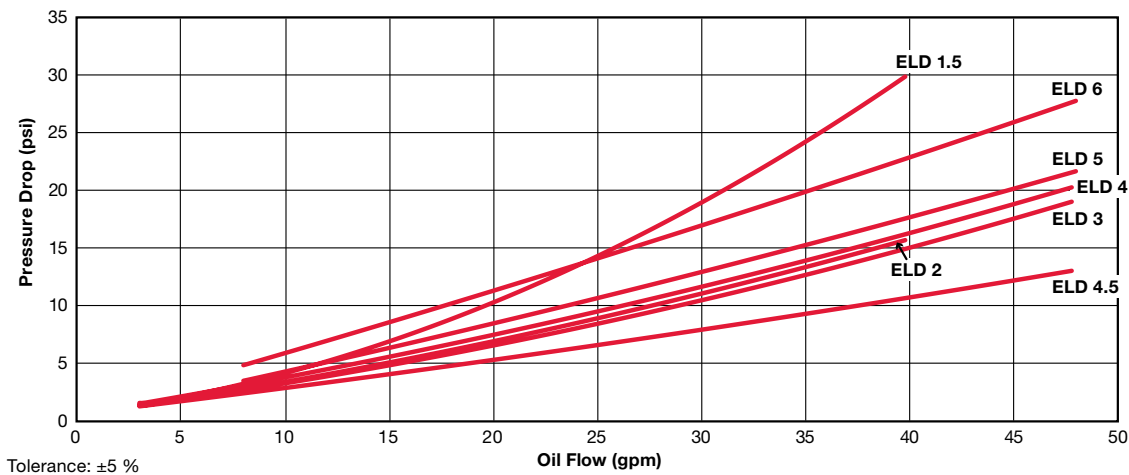
Model Codes containing RED are Options – Contact HYDAC Cooling Division for information and availability

Heat Dissipation @ $\Delta T = 72^\circ F$



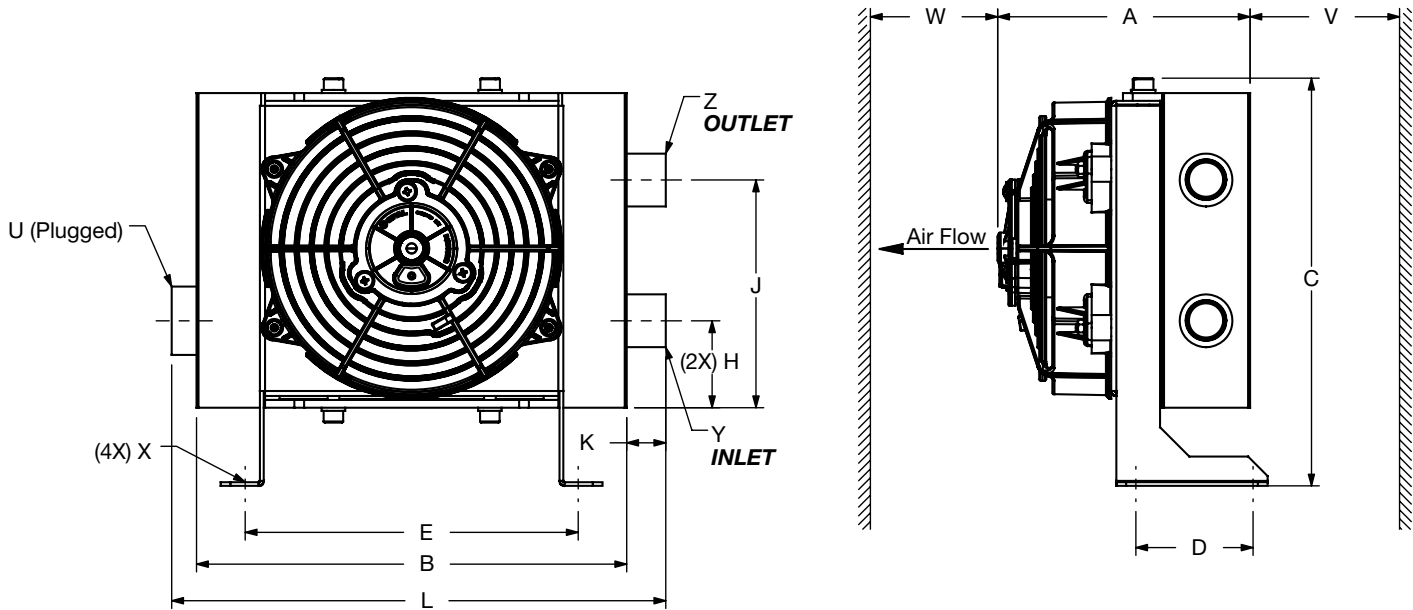
Cooling capacity is dependent on the oil flow rate and the temperature difference ΔT between oil inlet and air temperature.

Pressure Drop @ 30 cSt



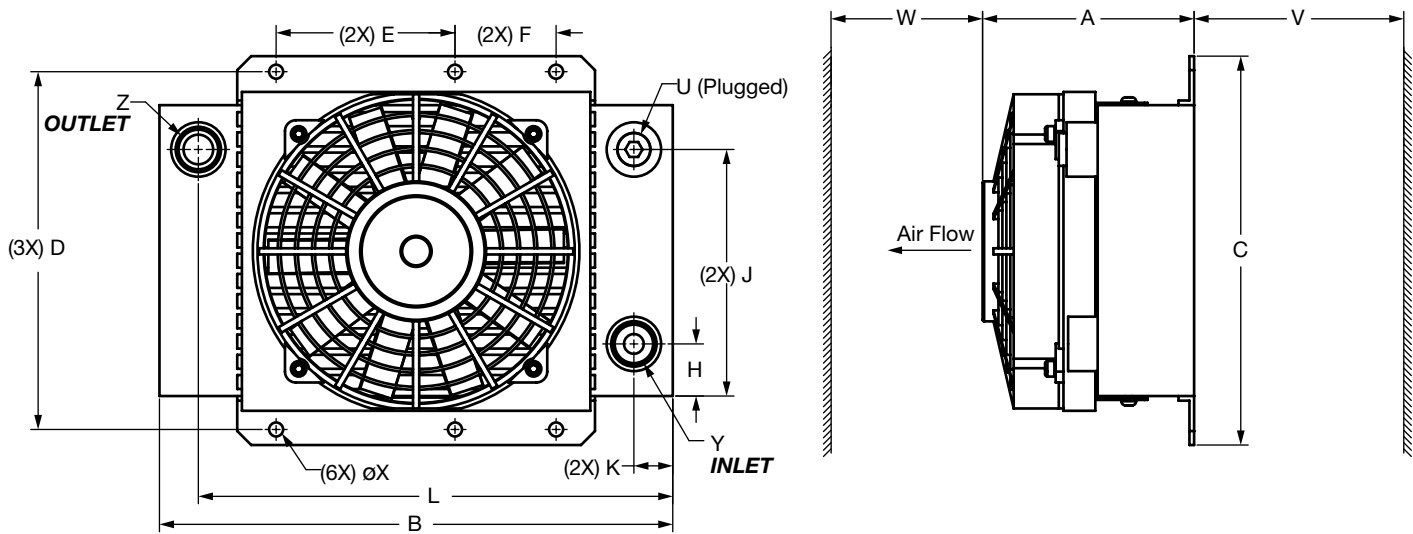
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Dimensions ELD Size 0



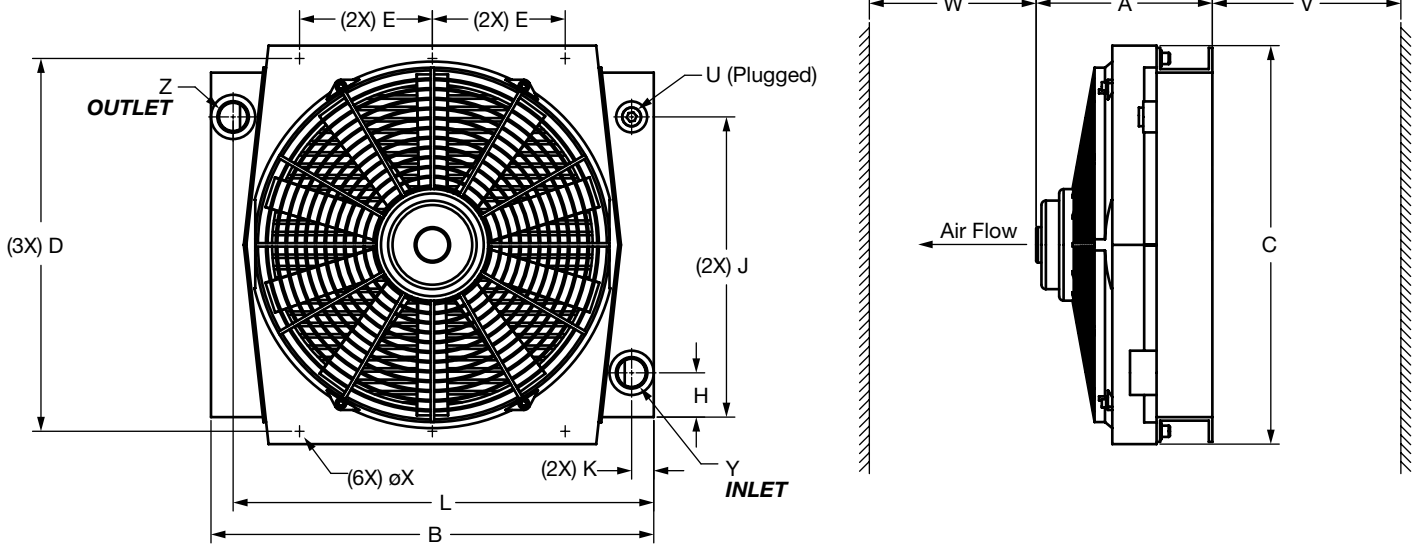
Size	A	B	C	D	E	F	H	J	K	L	V	W	U	X	Y	Z
0	5.51 [140]	8.66 [220]	8.15 [207]	2.24 [57]	6.69 [170]	N/A	1.77 [45]	4.61 [117]	0.79 [20]	9.96 [253]	3.94 [100]	7.87 [200]	1/2" NPT	ø0.25x0.50 [ø6.5x12]	SAE-8	SAE-8

Dimensions ELD Size 1 & 1.5



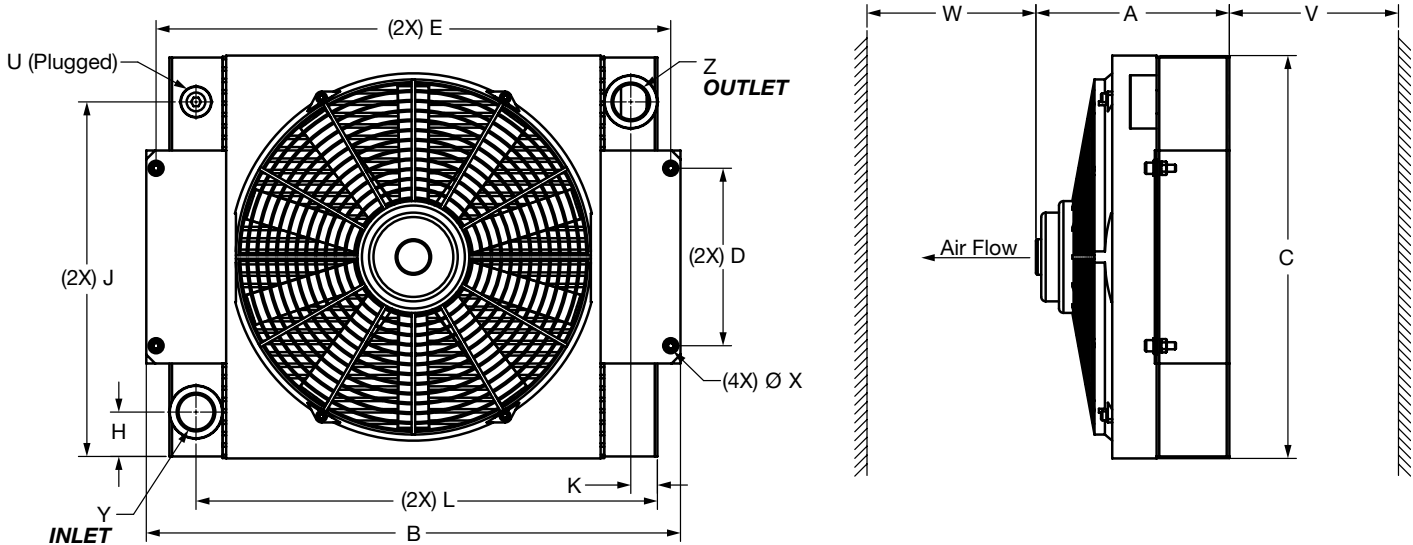
Size	A	B	C	D	E	F	H	J	K	L	V	W	U	X	Y	Z
1	4.69 [119]	11.81 [300]	9.72 [247]	8.86 [225]	2.56 [65]	1.97 [50]	1.10 [28]	6.02 [153]	0.98 [25]	9.84 [250]	3.94 [100]	7.87 [200]	1/2" NPT	ø0.35 [ø9]	SAE-12	SAE-12
1.5	5.35 [136]	12.99 [330]	9.84 [250]	9.06 [230]	4.53 [115]	2.56 [65]	1.32 [34]	6.24 [158]	0.98 [25]	12.01 [100]	3.94 [100]	7.87 [200]	1/2" NPT	ø0.35 [ø9]	SAE-12	SAE-12

Dimensions ELD Size 2 - 4



Size	A	B	C	D	E	F	H	J	K	L	V	W	U	X	Y	Z
2	8.15 [207]	15.12 [384]	12.32 [313]	11.34 [288]	3.15 [80]	N/A	1.18 [30]	9.02 [229]	1.18 [30]	13.94 [354]	5.91 [150]	9.84 [250]	1/2" NPT	ø0.39x0.55 [ø10x14]	SAE-16	SAE-16
3	8.15 [207]	16.54 [420]	14.02 [356]	12.95 [329]	3.94 [100]	N/A	1.42 [36]	10.47 [266]	0.98 [25]	15.55 [395]	7.09 [180]	11.81 [300]	1/2" NPT	ø0.39x0.55 [ø10x14]	SAE-16	SAE-16
4	7.83 [199]	19.69 [500]	17.72 [450]	16.57 [421]	5.91 [150]	N/A	1.97 [50]	13.35 [339]	0.98 [25]	18.7 [475]	7.87 [200]	15.75 [400]	1/2" NPT	ø0.41x0.50 [ø11x13]	SAE-16	SAE-16

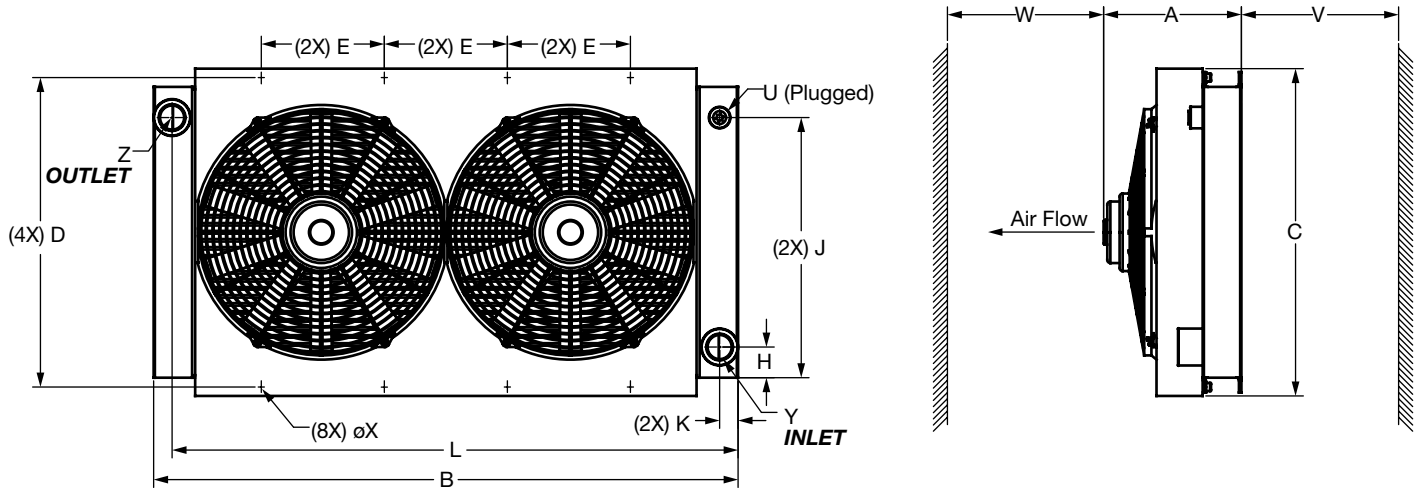
Dimensions ELD Size 4.5



Size	A	B	C	D	E	F	H	J	K	L	V	W	U	X	Y	Z
4.5	8.58 [218]	23.70 [602]	17.87 [454]	7.87 [200]	22.83 [580]	N/A	1.97 [50]	15.73 [400]	1.18 [30]	20.47 [520]	7.87 [200]	15.75 [400]	1/2" NPT	ø0.47 [ø12]	SAE-20	SAE-20

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Dimensions ELD Size 5 - 6



Size	A	B	C	D	E	F	H	J	K	L	V	W	U	X	Y	Z
5	9.13 [232]	31.89 [810]	18.9 [480]	17.72 [450]	6.69 [170]	N/A	1.95 [50]	14.59 [371]	1.18 [30]	30.73 [781]	7.87 [200]	15.75 [400]	1/2" NPT	ø0.39x0.55 [ø10x14]	SAE-20	SAE-20
6	8.86 [225]	37.4 [950]	20.94 [532]	19.8 [503]	7.87 [200]	N/A	1.96 [50]	16.65 [423]	1.18 [30]	36.22 [920]	9.84 [250]	19.69 [500]	1/2" NPT	ø0.39x0.71 [ø10x18]	SAE-20	SAE-20

Dimensions ELD Foot Bracket Size 2 - 4 / 5 - 6

