



HYDAC INTERNATIONAL

PRODUCT NEWS

COOLING SYSTEMS



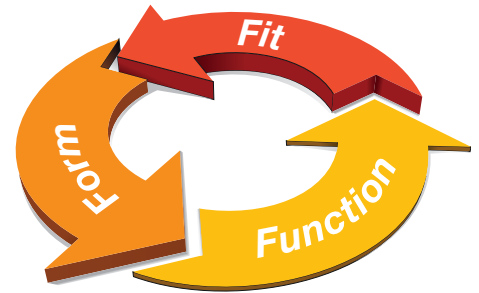
ELX Series

Air Cooled Oil Cooler with DC Fan Motor for Mobile Applications

EXtreme

- Performance
- Value
- Durability
- Adaptability

Easy OEM Interchange Options



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

- OEM Interchange – performance & dimensional
- Bar and plate brazed aluminum core
- 12v & 24v DC fan (*brushless option available*)
- Rugged, lightweight and compact
- Provides the best heat transfer per given envelope size while minimizing pressure drop
- Side welded aluminum fittings/ports and tanks ensure structural integrity
- Standard SAE ports
- High resistance to vibration and mechanical stress
- All coolers feature a built in SAE thermostat port
- Available with internal pressure or thermal bypass

Specifications

- Operates in challenging environments with IP 68 rating
- Up to 53 HP cooling capacity
- Rated flows up to 80 gpm
- Motor lifetimes up to 10,000 hours

Applications

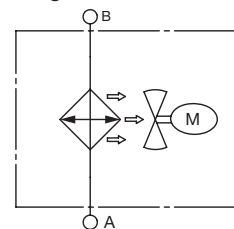
- Agricultural
- Construction
- Railways
- Environmental Control
- Cranes
- Forestry Equipment
- Commercial Vehicles
- Municipal Vehicles



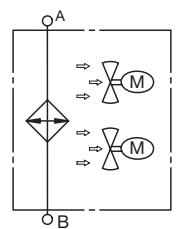
Thermal (IBT) / Pressure (IBP) Bypass



Hydraulic Symbol



Dual Fan



Available to ship within 5 business days as part of the:

HYDAC
QuickShip
 P R O G R A M

General Specifications

Material	Heat Exchanger Fan	Aluminum Heavy Duty Bar and Plate Plastic
Mounting Orientation		Any Orientation
Maximum Pressure		230 psi (16 bar) dynamic; 290 psi (20 bar) static
Fluids		Mineral oil to DIN 51524 Part 1 and 2
Ambient Temperature		Max. 120°F
Maximum Oil Temperature		266°F (130°C)
Standard Airflow Direction		Air pulled across heat exchanger
Standard Fan Connector		Deutsch DTP04-2P

Model Code

	ELX 3 H 1.5 12 S X X X
Type _____	
ELX = Air Cooled Oil Cooler with DC Motor (standard)	
Size _____	
3, 3.5, 4, 8, 12, 14, 18, 20, 32, 48, 66, 82, 120, 232, 248	
Fan _____	
H = Fan (sizes 3, 3.5, 4, 12, 18, 32, 48, 232, 248 only)	
Blank = No Fan (all sizes)	
Modification Number (latest version always supplied) _____	
Motor Drive Voltage _____	
12 = 12 volt DC	
24 = 24 volt DC	
Air Flow Direction _____	
S = Suction (standard)	
Accessories _____	
(omit) = None	
TS-120 = Inline Thermostat, Fixed 120° F	
TS-140 = Inline Thermostat, Fixed 140° F	
IBT = Thermostatic bypass valve	
IBP = Integrated pressure bypass valve	
Closing Temperature (IBT Only) _____	
45 = 113°F (45°C)	
60 = 140°F (60°C)	
Opening Pressure Drop (IBT & IBP only) _____	
2 = 30 psi (2 bar) (standard)	
3 = 45 psi (3 bar)	
4 = 60 psi (4 bar) (IBP only)	

ELX Interchange Guide

Models with Fans

HYDAC Models	TTP (MA-MAR)	AKG (DC, DCS, C)
ELX3H1.5 12/24S*	MA-3-2-4A/4B	-
ELX3.5H1.5 12/24S*	MA-3.5-2-4A/4B	-
ELX4H1.5 12/24S*	MA-4-2-4A/4B	-
ELX12H1.5 12/24S*	MA-12-2-4A/4B	DC-10-12/24
ELX12H1.5 12/24S IBP2*	MAR-12-25-4A/4B	DC-10-12/24-BP25
ELX18H1.5 12/24S*	MA-18-2-4A/4B	DC-16-12/24
ELX18H1.5 12/24S IBP2*	MAR-18-25-4A/4B	DC-16-12/24-BP25
ELX32H1.5 12/24S*	MA-32-2-4A/4B	DC-20-12/24
ELX32H1.5 12/24S IBP2*	MAR-32-25-4A/4B	DC-20-12/24-BP25
ELX48H1.5 12/24S*	MA-48-2-4A/4B	DCS-30-12/24
ELX48H1.5 12/24S IBP2*	MAR-48-25-4A/4B	-
ELX232H1.5 12/24S*	MA-232-2-4A/4B	DCS-45-12/24
ELX232H1.5 12/24S IBP2*	MAR-232-25-4A/4B	DCS-45-12/24-BP25
ELX248H1.5 12/24S*	MA-248-2-4A/4B	DCS-60-12/24
ELX248H1.5 12/24S IBP2*	MAR-248-25-4A/4B	DCS-60-12/24-BP25

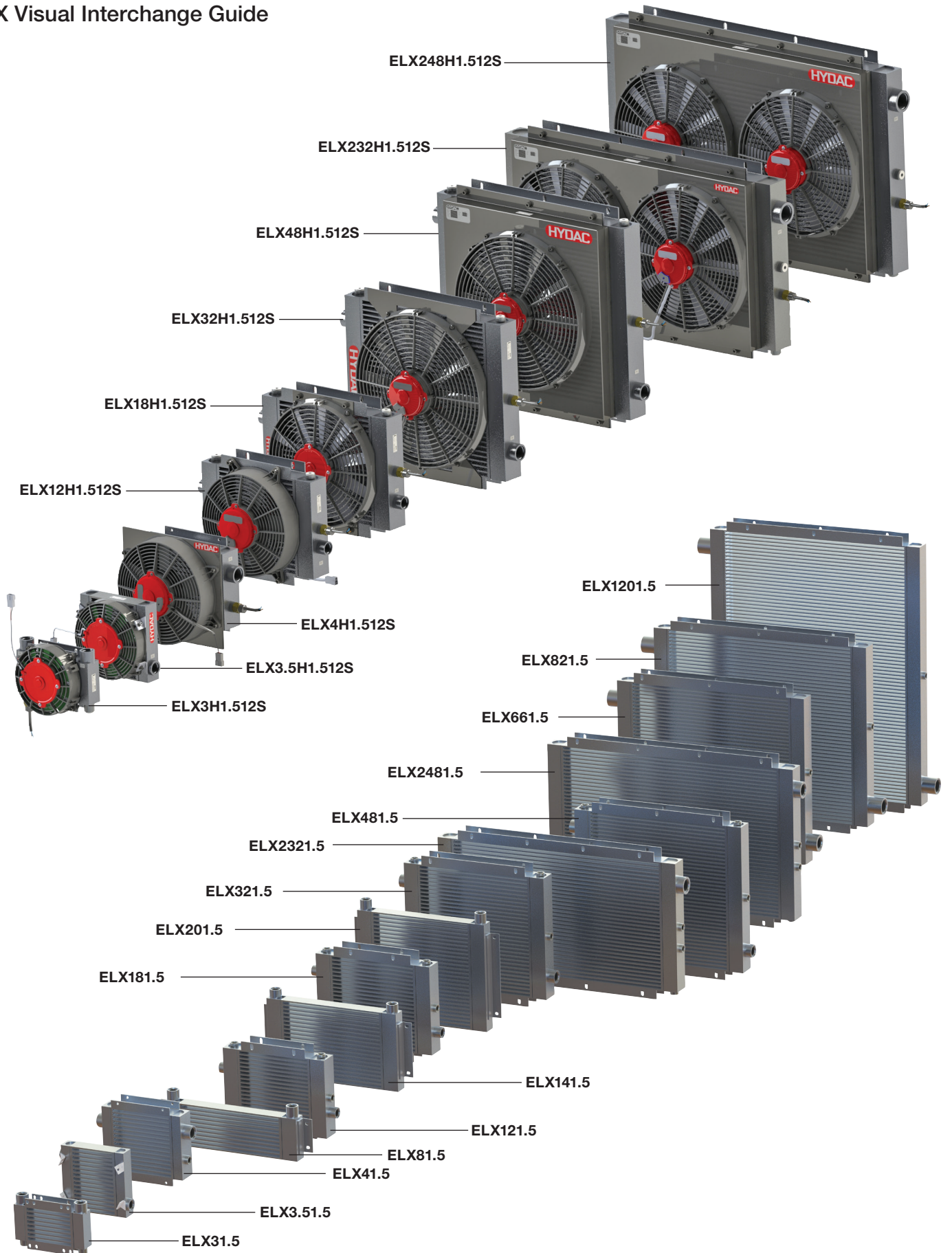
*12VDC only
available on the



Models without Fans

HYDAC Models	TTP (MA-MAR)	AKG (DC, DCS, C)
ELX31.5	MA-3-2	-
ELX3.51.5	MA-3.5-2	-
ELX41.5	MA-4-2	-
ELX81.5	MA-8-2	C-8
ELX121.5	MA-12-2	C-12
ELX121.5 IBP2	MAR-12-25-4A/4B	C-12-BP25
ELX141.5	MA-14-2	C-14
ELX181.5	MA-18-2	C-18
ELX181.5 IBP2	MAR-18-25-4A/4B	C-18-BP25
ELX201.5	MA-20-2	C-20
ELX321.5	MA-32-2	C-32
ELX321.5 IBP2	MAR-32-25-4A/4B	C-32-BP25
ELX481.5	MA-48-2	C-48
ELX481.5 IBP2	MAR-48-25-4A/4B	C-48-BP25
ELX661.5	MA-66-2	C-66
ELX661.5 IBP2	MAR-66-25-4A/4B	C-66-BP25
ELX821.5	MA-82-2	C-82
ELX821.5 IBP2	MAR-82-25-4A/4B	C-82-BP25
ELX1201.5	MA-120-2	C-120
ELX1201.5 IBP2	MAR-120-25-4A/4B	C-120-BP25
ELX2321.5	MA-232-2	-
ELX2321.5 IBP2	MAR-232-25-4A/4B	-
ELX2481.5	MA-248-2	-
ELX2481.5 IBP2	MAR-248-25-4A/4B	-

ELX Visual Interchange Guide



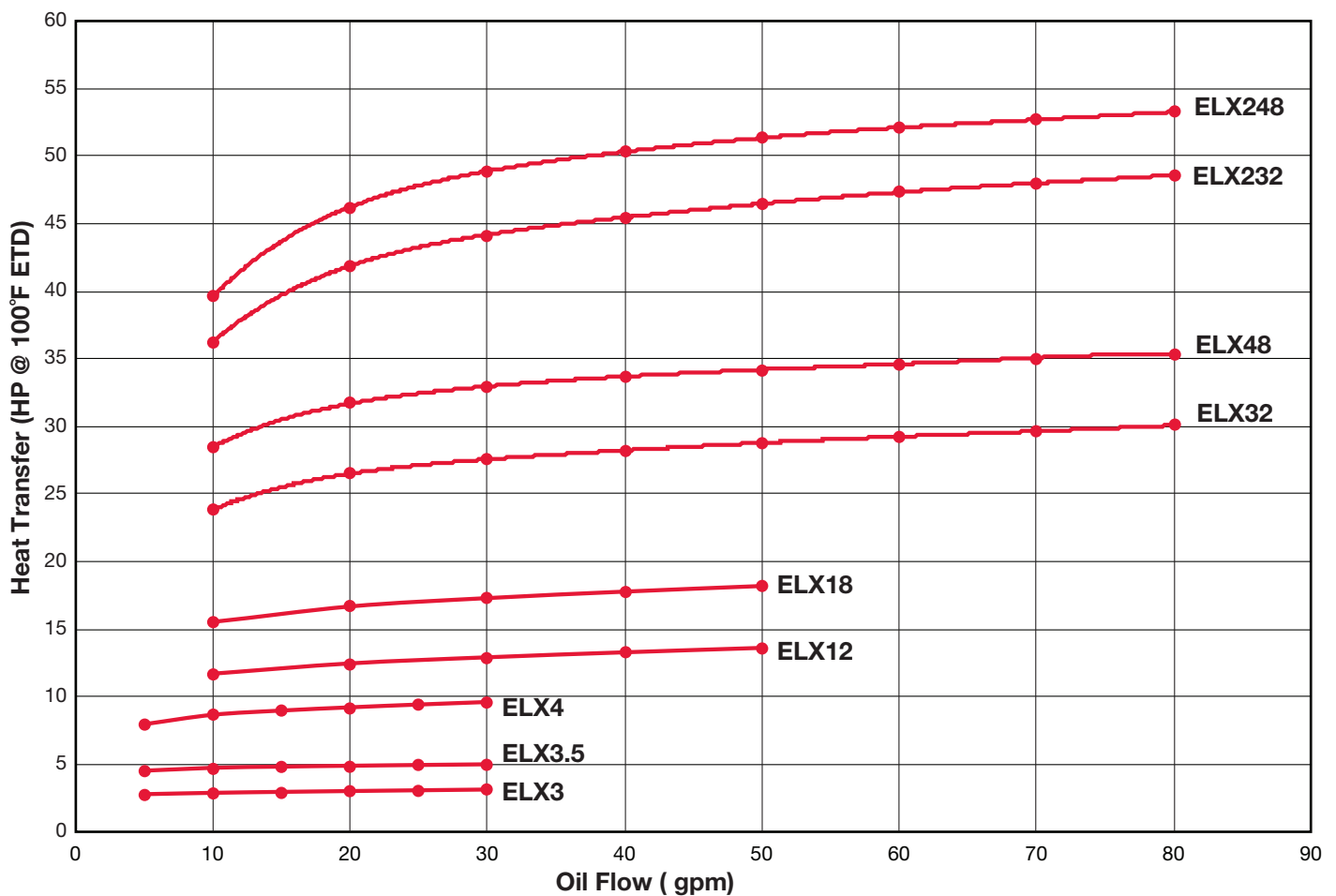
ELX Quick Sizing Guide

Max Heat Removed * (HP)	Flow Range (GPM)	HYDAC Model	Height OA (IN)	Width OA (IN)	Depth OA ** (IN)	Ports	Amp draw (Amps, per fan)
3 HP @ 30 GPM	5 - 30	ELX3H1.5 12S	9.1	7.0	3.9	ORB-12	6A @ 12VDC
5 HP @ 30 GPM	5 - 30	ELX3.5H1.5 12S	7.9	8.7	3.8	ORB-12	7A @ 12VDC
9 HP @ 30 GPM	5 - 30	ELX4H1.5 12S	10.7	12.4	7.8	ORB-12	7A @ 12VDC
12 HP @ 50 GPM	5 - 50	ELX12H1.5 12S	11.6	15.8	6.4	ORB-12	11A @ 12VDC
18 HP @ 50 GPM	5 - 50	ELX18H1.5 12S	13.8	17.7	5.0	ORB-12	11A @ 12VDC
30 HP @ 80 GPM	10 - 80	ELX32H1.5 12S	18.5	21.6	5.9	ORB-20	20A @ 12VDC
35 HP @ 80 GPM	10 - 80	ELX48H1.5 12S	22.1	25.6	7.6	ORB-20	20A @ 12VDC
49 HP @ 80 GPM	10 - 80	ELX232H1.5 12S	19.5	35.4	7.5	ORB-20	18A @ 12VDC
53 HP @ 80 GPM	10 - 80	ELX248H1.5 12S	23.2	37.4	7.5	ORB-20	18A @ 12VDC

*HP heat removed is max at the flow stated using ISO VG 46, at least 12VDC, and at 100°F ETD

**Depth includes fan

Heat Transfer Curves, ELX Models with DC Fans



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