

FLUID COOLING | Mobile MA Series

BRAZED ALUMINUM CONSTRUCTION

Features

- Bar and Plate Brazed Aluminum Core
- Rugged, lightweight, and compact
- Provides the best heat transfer per given envelope size while minimizing pressure drop
- Air-side fin design minimizes fouling and static pressure ensuring long-term, reliable performance
- Fan motor assembly has an IP68 with AMP-#180908 connection
- Welded aluminum fittings/ports and manifolds ensure structural integrity
- Standard SAE ports – NPT and BSPP ports available
- Customized units are available to meet your specific performance requirements
- Additional capabilities for radiators, charge-air-coolers, condensers, and multi-circuit units



30/60 psi Bypass available

Ratings

Maximum Operating Pressure

250 psi (17 BAR)

Maximum Operating Temperature

300° F (150° C)

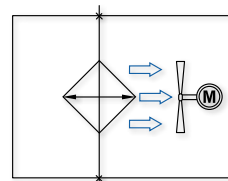
Materials

Core Brazed Aluminum Bar and Plate

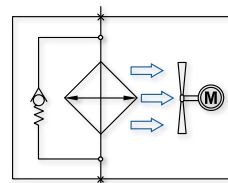
- Tanks – 5052 Aluminum
- Nose Bar & Little Bar – 3003-H Aluminum
- Air Fin, Plate, Turbulator & End Plate – 3003-O Aluminum

Connections Aluminum

Core Mounting Brackets Brazed Aluminum



Without Bypass



With Bypass

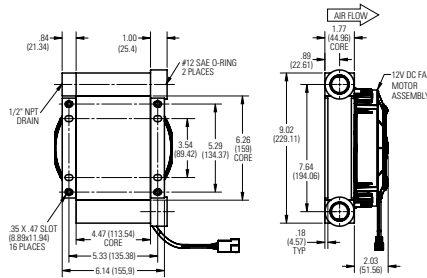
*Bypass available on MA-12, MA-18, MA-32, MA-48, MA-232, MA-248 only. (MAR)

MA-8, MA-14, MA-20, MA-66, MA-32 do not have fan option.

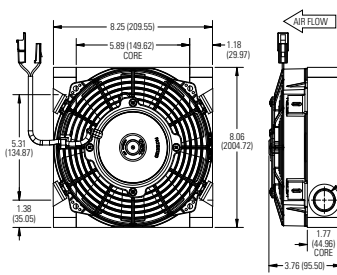
MA 3.5 available with fan only.

Dimensions - Fan/Core

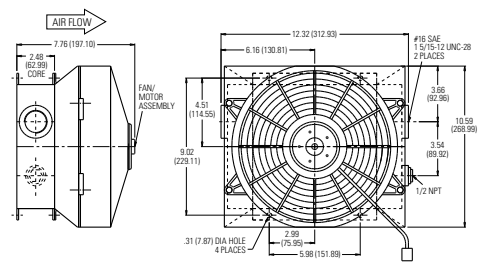
MA-3-4



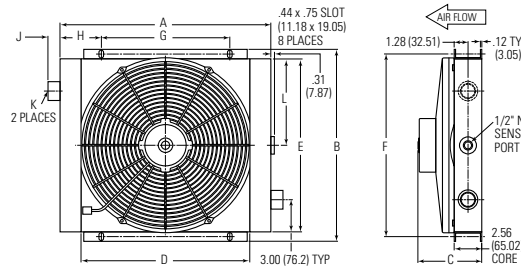
MA-3.5-4



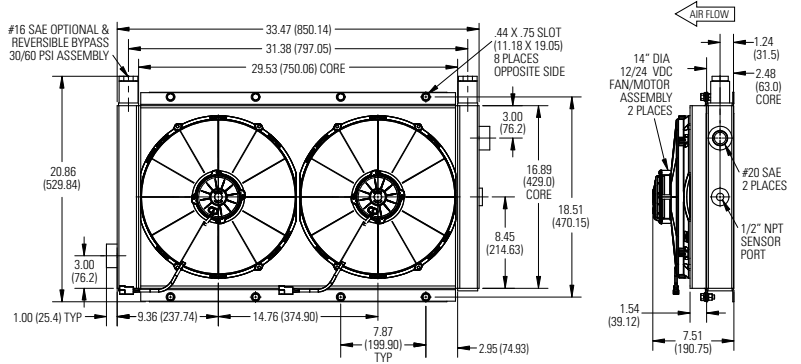
MA-4-4



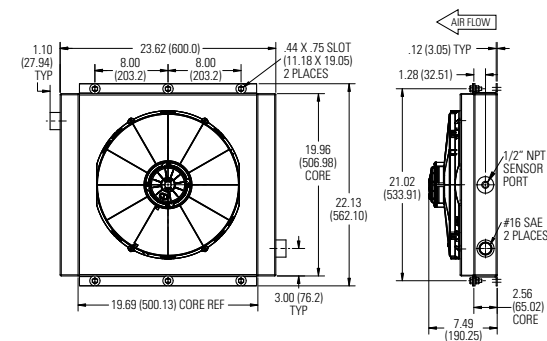
MA-12-4, MA-18-4, MA-32-4



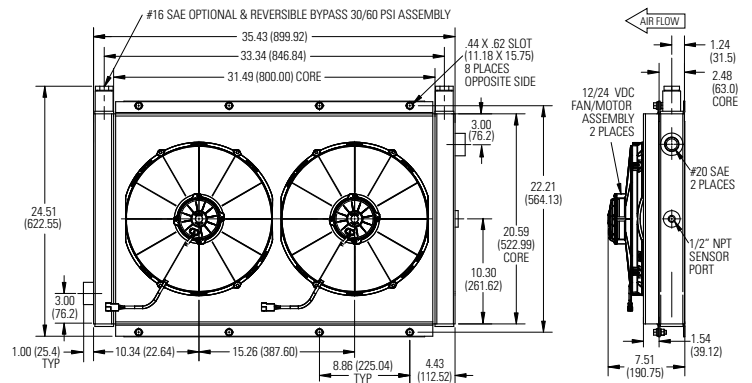
MA-232-4



MA-48-4



MA-248-4



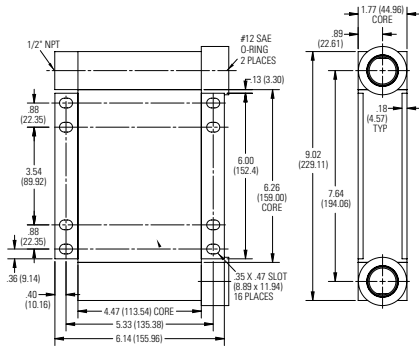
Model	A	B	C	D	E	F	G	H	J	K	L	DC Amp Draw 12V	DC Amp Draw 24V	CFM (CMM)	Approx. Ship Wt. lbs (Kg)
MA-3-4	See diagram above			—	—	—	—	—	—	—	—	5.7	3.6	300 (8.50)	6 (2.72)
MA-3.5-4	See diagram above			—	—	—	—	—	—	—	—	12.5	6.3	370 (10.48)	9 (4.08)
MA-4-4	See diagram above			—	—	—	—	—	—	—	—	12.5	6.3	363 (10.28)	16 (7.26)
MA-12-4	13.78 (350.01)	11.73 (297.44)	6.26 (159.00)	9.84 (249.94)	9.96 (252.98)	10.87 (276.10)	4.96 (145.00)	4.41 (112.01)	1.00 (25.40)	#12 SAE	4.98 (126.49)	12.5	6.3	521 (14.75)	19 (8.62)
MA-18-4	15.75 (400.05)	13.58 (344.93)	5.04 (128.02)	11.81 (299.97)	11.81 (299.97)	12.80 (325.12)	5.87 (149.10)	4.96 (125.98)	1.00 (25.40)	#12 SAE	5.91 (150.11)	10.6	5.3	783 (22.17)	23 (10.43)
MA-32-4	19.69 (500.15)	18.43 (468.12)	5.95 (151.13)	15.75 (400.05)	16.14 (409.96)	17.32 (439.93)	12.00 (304.8)	3.86 (98.04)	1.14 (28.96)	#16 SAE	8.07 (204.98)	22.2	11.1	1368 (38.74)	28 (12.70)
MA-48-4	See diagram above			—	—	—	—	—	—	—	—	22.2	11.1	1637 (46.40)	45 (20.40)
MA-232-4	See diagram above			—	—	—	—	—	—	—	—	19.3*	9.7*	2234 (63.26)	65 (29.48)
MA-248-4	See diagram above			—	—	—	—	—	—	—	—	19.3*	9.7*	2904 (82.24)	90 (40.80)

Note: We reserve the right to make reasonable design changes without notice. Dimensions are in inches and (millimeters).

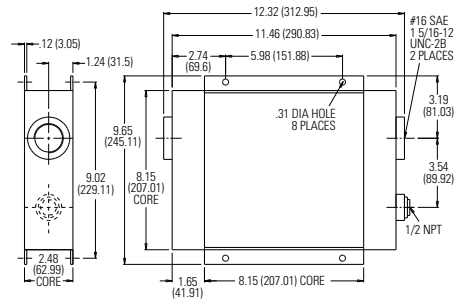
*AMP draw listed as per FAN.

Dimensions - Core Only

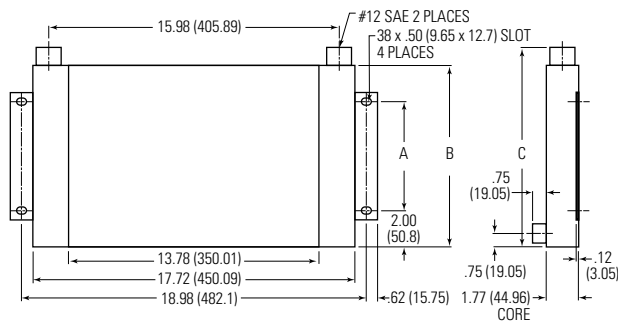
MA-3



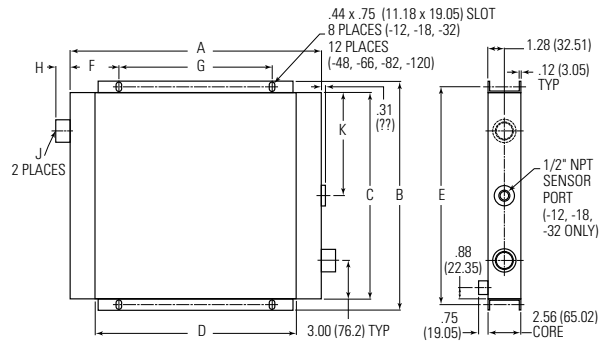
MA-4



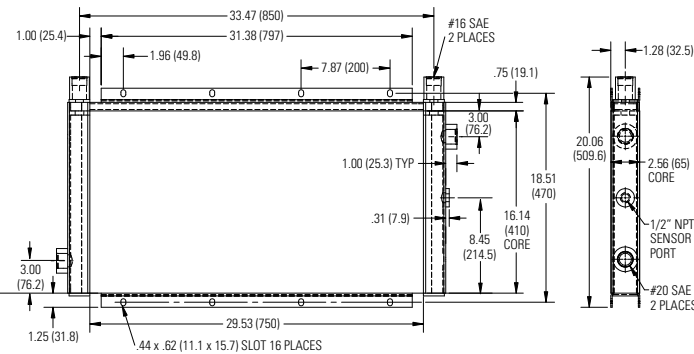
MA-8, MA-14, MA-20



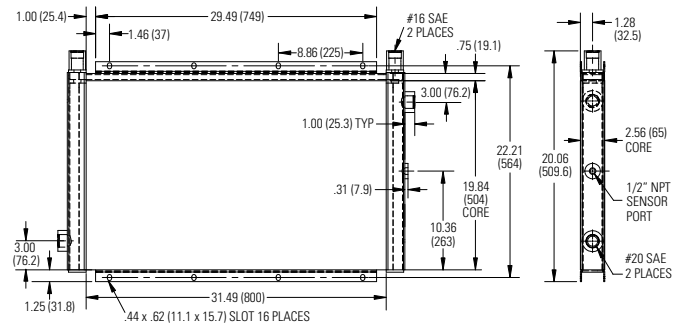
MA-12 thru MA-120



MA-232



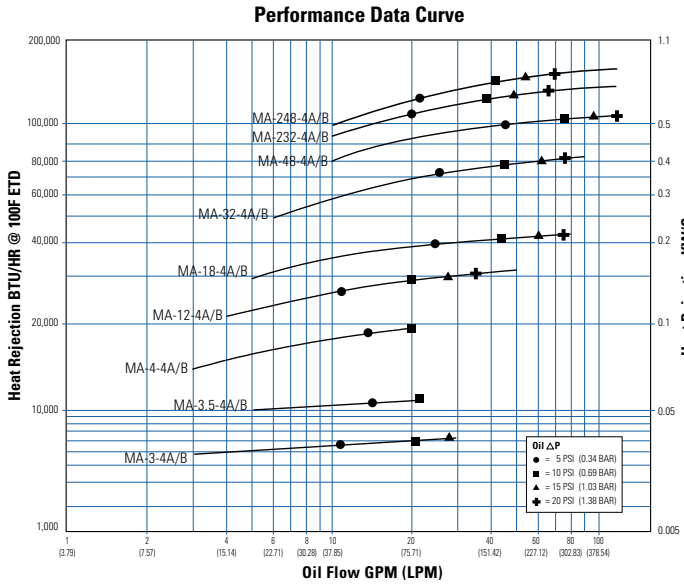
MA-248



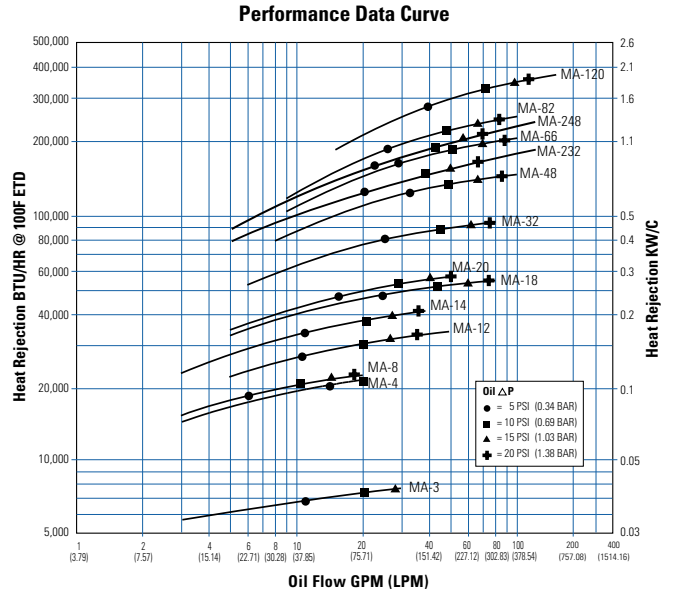
Model	A	B	C	D	E	F	G	H	J	K	Approx. Ship Wt. lbs (Kg)
MA-3	See diagram above			-	-	-	-	-	-	-	4 (1.81)
MA-4	See diagram above			-	-	-	-	-	-	-	7 (3.18)
MA-8	3.00 (76.2)	5.67 (144.02)	6.65 (168.9)	-	-	-	-	-	-	-	10 (4.54)
MA-12	13.78 (350.01)	11.73 (297.94)	9.96 (252.98)	9.84 (294.94)	10.87 (276.10)	4.41 (112.01)	4.96 (125.98)	1.00 (25.4)	#12 SAE	4.98 (126.49)	15 (6.8)
MA-14	6.00 (152.4)	10.00 (254.0)	10.98 (278.89)	-	-	-	-	-	-	-	14 (6.35)
MA-18	15.75 (400.05)	13.58 (344.93)	11.81 (299.97)	11.81 (299.97)	12.80 (325.12)	4.96 (125.98)	5.87 (149.10)	1.00 (25.4)	#12 SAE	5.91 (150.11)	18 (8.16)
MA-20	10.00 (254.0)	14.33 (363.98)	15.31 (388.87)	-	-	-	-	-	-	-	18 (8.16)
MA-32	19.69 (500.13)	18.43 (468.12)	16.14 (409.96)	15.75 (400.05)	17.32 (439.93)	3.86 (98.04)	12.00 (304.8)	1.14 (28.96)	#16 SAE	8.07 (204.98)	28 (12.7)
MA-48	23.62 (599.95)	22.13 (562.10)	19.84 (500.94)	19.69 (500.13)	21.02 (533.91)	3.82 (97.03)	8.00 (203.2)	1.14 (28.96)	#16 SAE	-	41 (18.60)
MA-66	27.56 (700.02)	25.83 (656.08)	23.54 (597.92)	23.62 (599.95)	24.72 (627.89)	3.78 (96.01)	10.00 (254.0)	1.58 (40.13)	#20 SAE	-	50 (22.68)
MA-82	31.50 (800.1)	27.68 (703.07)	25.39 (644.91)	27.56 (700.02)	26.57 (674.8)8	5.75 (146.05)	10.00 (254.0)	1.58 (40.13)	#24 SAE	-	65 (29.48)
MA-120	31.50 (800.1)	39.49 (1003.05)	37.20 (944.88)	27.56 (700.02)	38.39 (975.11)	5.75 (146.05)	10.00 (254.0)	1.58 (40.13)	#24 SAE	-	88 (39.92)
MA-232	See diagram above			-	-	-	-	-	-	-	55 (24.95)
MA-248	See diagram above			-	-	-	-	-	-	-	80 (36.29)

Note: We reserve the right to make reasonable design changes without notice. All dimensions are in inches and (millimeters).

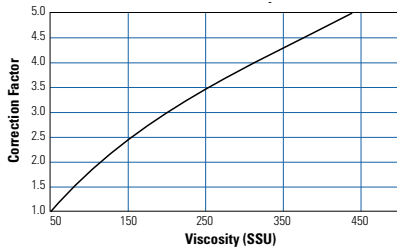
MA Models with DC Fan Assemblies



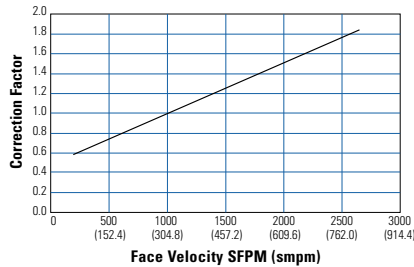
MA Models (No Fan, Core Only)



Oil Pressure Drop Correction



Air Static Correction



Air Static Pressure Drop

