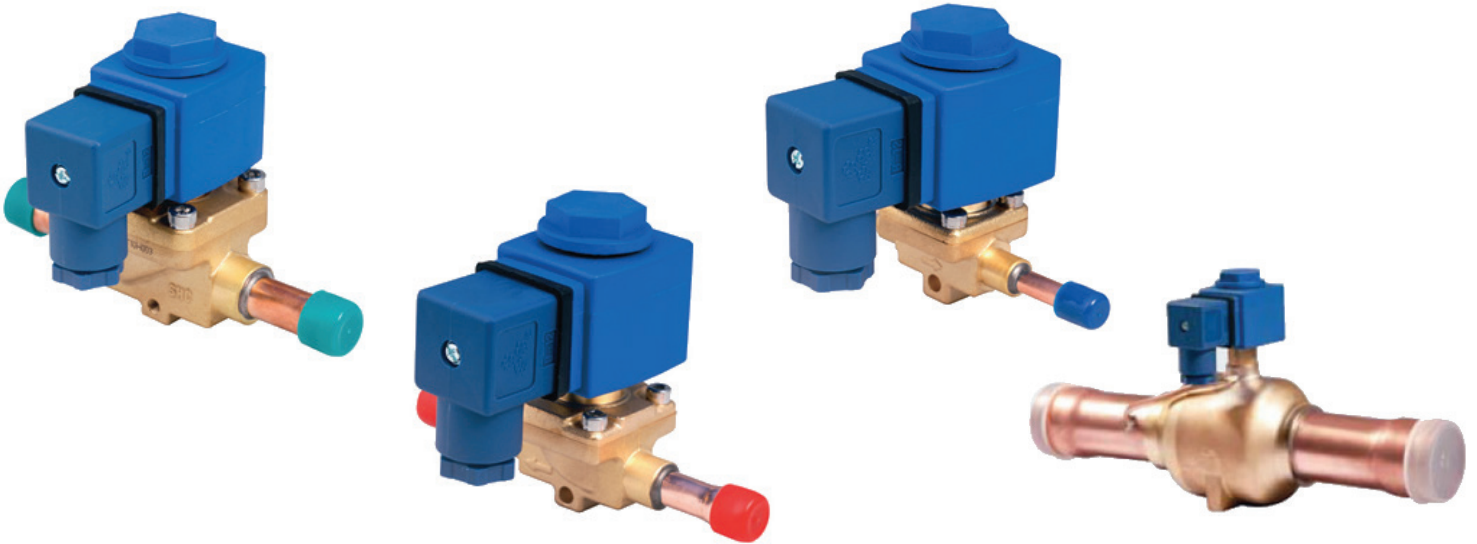


MDF SERIES | *Solenoid Valve*



MDF series solenoid valves are direct operated or pilot operated solenoid valves, and are designed for use in all air conditioning and refrigeration systems.

FEATURES

- LOW ENERGY CONSUMPTION COIL
- HIGH MAXIMUM OPENING PRESSURE DIFFERENTIAL (MOPD)
- COMPACT DESIGN, EASY TO INSTALL

GENERAL SPECIFICATION

- Applicable for all common HCFC and HFC refrigerants such as: R-22, R-134a, R-404A, R-407C, R-507
- Applicable ambient temperatures: -22°F to +130°F
- Fluid temperature range:
 - MDF 2H through 22H and MDF 2L through 15L: -22°F to +220°F
 - MDF 25 H through 40H: -40°F to +285°F
- Relative Humidity: 0 to 95 percent
- Installation Position: Coil preferably on top, $\pm 90^\circ$ from vertical axis
- Certifications: UL/CSA

MDF SERIES | Solenoid Valve

TECHNICAL PARAMETERS OF VALVE BODY

Valve Body		Normal position	Actuation	Cv	MOP (psig)	Max. OPD (psi)		Min. OPD ¹⁾ (psi)
Solder	Flare					AC coil	DC coil	
MDF-A03-2H	MDF-A03-2L	Normally Closed	Direct	0.18	650	450	300	0.0
MDF-A03-3H	MDF-A03-3L			0.27				
MDF-A03-6H	MDF-A03-6L			0.92				
MDF-A03-10H	MDF-A03-10L		Pilot (diaphragm)	2.2				1.5
MDF-A03-15H	MDF-A03-15L			2.7				
MDF-A03-20H	--			5.8				
MDF-A03-22H	--			6.8				
MDF-B03-25H	--			Pilot (piston)				
MDF-B03-32H	--		17					
MDF-B03-40H	--		29					

Note: 1. Minimum opening pressure differential (OPD): values refer to 60% of nominal flow

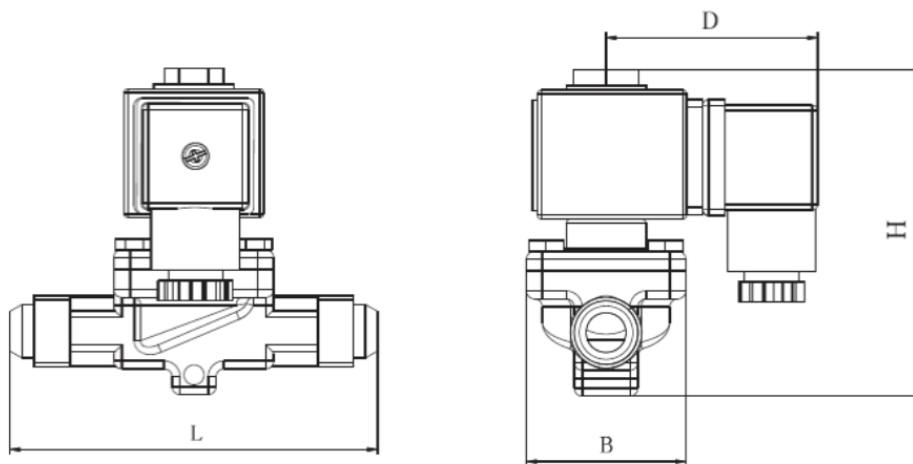
VALVE RATING - LIQUID CAPACITY

Valve Body		Connection Size (in)	Tons, Refrigeration ¹⁾				
Solder	Flare		R-22	R-134a	R-404A/R-507	R-407C	R-410A
			Pressure Drop (psi)				
			3	2	3	3	3
MDF-A03-2H	MDF-A03-2L	1/4	1.05	0.81	0.71	1.00	1.00
MDF-A03-3H	MDF-A03-3L	1/4 or 3/8	1.50	1.17	1.03	1.44	1.44
MDF-A03-6H	MDF-A03-6L	3/8 or 1/2	5.23	4.06	3.57	5.02	5.02
MDF-A03-10H	MDF-A03-10L	1/2 or 5/8	12.4	9.63	8.48	11.9	11.9
MDF-A03-15H	MDF-A03-15L	5/8 or 7/8	15.0	11.7	10.3	14.4	14.4
MDF-A03-20H	--	7/8 or 1-1/8	32.7	25.4	22.3	31.4	31.4
MDF-A03-22H	--	7/8 or 1-1/8	38.5	29.9	26.3	37.0	37.0
MDF-B03-25H	--	1-1/8 or 1-3/8	65.3	50.7	44.6	62.8	62.8
MDF-B03-32H	--	1-3/8 or 1-5/8	98.0	76.1	66.9	94.2	94.1
MDF-B03-40H	--	1-5/8 or 2-1/8	163	127	112	157	157

Note: 1. Ratings based on 100°F entering liquid temperature and 40°F evaporator

MDF SERIES | Solenoid Valve

DIMENSIONS - VALVE BODY THREAD CONNECTION

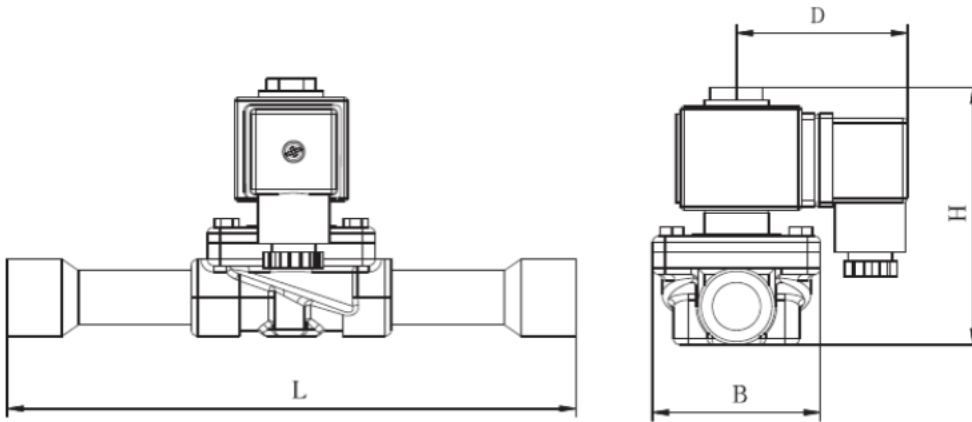


Model Valve Body	SAE Flare Connection (in)	Cv	Part Number ¹⁾	Dimensions (in)			
				L	B	D	H
MDF-A03-2L 001	1/4	0.18	MDF-08039	2.32	1.18	2.09	3.23
MDF-A03-3L 001		0.27	MDF-08040	2.32	1.18	2.09	3.23
MDF-A03-3L 003	3/8	0.27	MDF-08041	2.32	1.18	2.09	3.23
MDF-A03-6L 001		0.92	MDF-08042	2.72	1.42	2.09	3.46
MDF-A03-6L 003	1/2	0.92	MDF-08043	2.72	1.42	2.09	3.46
MDF-A03-10L 003		2.2	MDF-08044	3.62	1.65	2.09	3.78
MDF-A03-10L 001	5/8	2.2	MDF-08045	3.62	1.65	2.09	3.78
MDF-A03-15L 001		2.7	MDF-08046	4.09	2.05	2.09	3.94
MDF-A03-15L 003		2.7	MDF-08047	4.09	2.05	2.09	3.94

Note: 1. Valve supplied less coil

MDF SERIES | Solenoid Valve

DIMENSIONS - VALVE BODY SOLDER CONNECTION



Model Valve Body	Solder Connection ODF (in)	Cv	Part Number ¹⁾	Dimensions (in)			
				L	B	D	H
MDF-A03-2H 001	1/4	0.18	MDF-08001	4.02	1.18	2.09	3.23
MDF-A03-3H 001		0.27	MDF-08002	4.02	1.18	2.09	3.23
MDF-A03-3H 003	3/8	0.27	MDF-08003	4.02	1.18	2.09	3.23
MDF-A03-6H 001		0.92	MDF-08004	4.37	1.42	2.09	3.46
MDF-A03-6H 003	1/2	0.92	MDF-08005	4.37	1.42	2.09	3.46
MDF-A03-10H 001		2.20	MDF-08006	5.00	1.65	2.09	3.74
MDF-A03-10H 003	5/8	2.20	MDF-08007	5.00	1.65	2.09	3.74
MDF-A03-15H 005		2.70	MDF-08027	6.93	2.05	2.09	3.94
MDF-A03-15H 003	7/8	2.70	MDF-08009	6.93	2.05	2.09	3.94
MDF-A03-20H 001		5.80	MDF-08010	7.52	2.05	2.09	4.61
MDF-A03-22H 001	1-1/8	6.80	MDF-08012	7.52	2.36	2.09	4.61
MDF-A03-20H 003		5.80	MDF-08011	7.52	2.05	2.09	4.61
MDF-A03-22H 009	1-3/8	6.80	MDF-08082	7.52	2.36	2.09	4.61
MDF-B03-25H 003		12.0	MDF-08014	11.0	2.99	2.09	5.67
MDF-A03-22H 003	1-5/8	6.80	MDF-08013	7.52	2.36	2.09	4.61
MDF-B03-25H 004		12.0	MDF-08015	11.0	2.99	2.09	5.67
MDF-B03-32H 001	2-1/8	17.0	MDF-08016	11.1	2.99	2.09	5.67
MDF-B03-32H 002		17.0	MDF-08017	11.1	2.99	2.09	5.67
MDF-B03-40H 002	2-1/8	29	MDF-08018	11.1	3.31	2.09	5.98
MDF-B03-40H 004		29	MDF-08019	11.1	3.31	2.09	5.98

Note: 1. Valve supplied less coil

MDF SERIES | Solenoid Valve

TECHNICAL PARAMETERS OF COIL

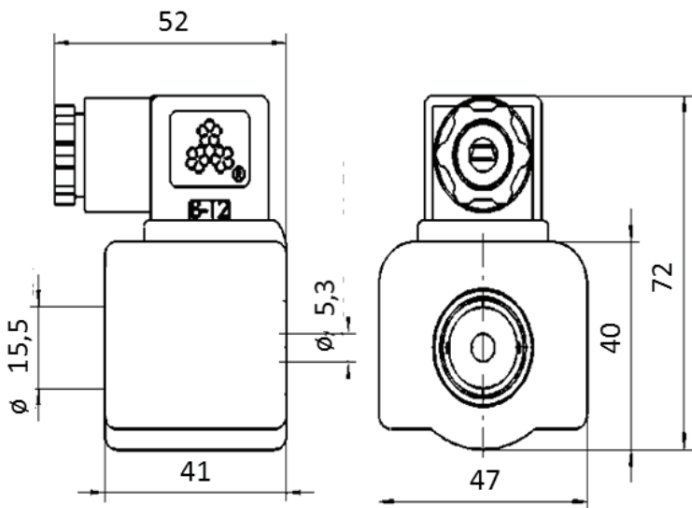
Model Coil ¹⁾	Part Number ²⁾	Rated Voltage	Supply	Power 60 Hz (W)	Frequency (Hz)	Voltage Tolerance	Insulation Class	Protection Class (w/plug)	Wiring type
MQ-A03 024-000001	MDF-60001	24	AC	8.5	50/60	-15% to +10%	F	IP65	DIN Plug
MQ-A03 11A-000001	MDF-60002	110 to 120		10					
MQ-A03 22G-000001	MDF-60003	220 to 240		10					
MQ-D03 024-000002	MDF-60004	24	DC	15	-	±10%			

Note: 1. Applicable to MDF-A03 and MDF-B03 valve bodies

2. Coil supplied with fastening screw for the coil body and DIN plug for electrical connection, including gaskets

DIMENSIONS - COILS

COILS WITH DIN PLUG (MQ-A03 AND MQ-D03 SERIES)



MDF SERIES | *Solenoid Valve*

ACCESSORIES - BRACKET

Model ¹⁾	Part Number	Applicable Valve Models	
		Solder	Flare
MDF-A03-033001	MDF-08085	MDF-A03-2H	MDF-A03-2L
		MDF-A03-3H	MDF-A03-3L
		MDF-A03-6H	MDF-A03-6L
		MDF-A03-10H	MDF-A03-10L
		MDF-A03-15H	MDF-A03-15L

Note: 1. Bracket supplied with screw

