MTE

POWER QUALITY. SOLVED.

A STEEL PARTNERS COMPANY

Harmonic Filters

Product Catalog

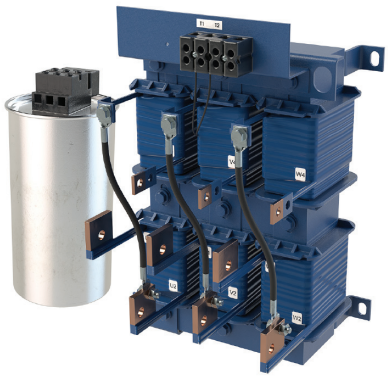


mtecorp.com

Peace of mind delivered to you.







Non-linear power systems, found in Variable Frequency Drives (VFDs) and uninterrupted power supplies, can generate harmonic distortions that lead to overheated components, circuit breaker tripping, and inaccurate sensor measurements. Such problems result in wasted time and financial resources.

At MTE, we offer a comprehensive range of harmonic mitigation solutions that effectively address these challenges. Our flagship product, Matrix AP, stands as the industry's leading harmonic filter, while Matrix ONE excels as a single-phase solution. With our innovative solutions, we optimize system efficiency and enhance productivity, redefining the possibilities.



MTE
POWER QUALITY. SOLVED.
A STEEL PARTNERS COMPANY

Contents

Harmonic Filters

Matrix® AP 2
Adaptive Passive Technology for superior harmonic mitigation at varying loads

Matrix® E-Series 16
Power quality you've come to expect from the power quality experts

Single Phase Matrix® One 22
Optimized harmonic filters with proven harmonic mitigation

What are Harmonics?

Harmonics refer to the shape or features of a voltage or current waveform compared to its fundamental frequency. In power systems, the ideal scenario involves smooth sinusoidal waves without any harmonics. However, when waveforms deviate from this ideal sinusoidal shape, they introduce harmonics. These harmonics have the potential to distort the voltage waveform and cause various issues within the power system.

The Destructive Effects of Harmonic Distortion

A power system's ability to perform at optimal levels is compromised when harmonic distortion enters the system. It creates inefficiencies in equipment operations due to the increased need for power consumption. The increase of overall current required creates higher installation and utility costs, heating, and decreasing profitability.

Power system problems that can occur without a harmonic filter:

- Increased installation and utility cost
- Overheating of components
- Equipment malfunction
- Nuisance tripping of circuit breakers
- Inaccurate measurements on sensors
- Telecommunication interference



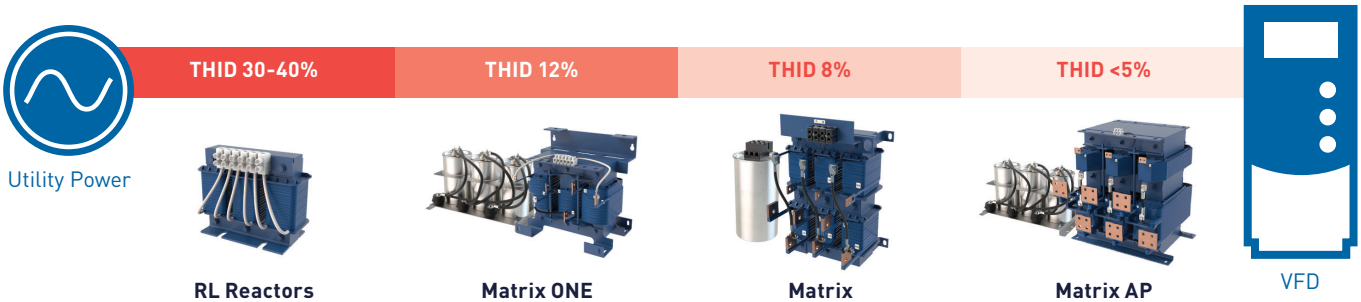
Harmonic Mitigation Is Essential For Extending Equipment Life

What Level Of Harmonic Mitigation Do You Need?

MTE offers a family of application engineered products designed for the performance you need.

Total Harmonic Distortion (THID%) Dependent on Application Used.

WITHOUT ANY harmonic mitigation, VFDs can generate THID in excess of 100% of the fundamental frequency.





IEEE-519 STANDARD

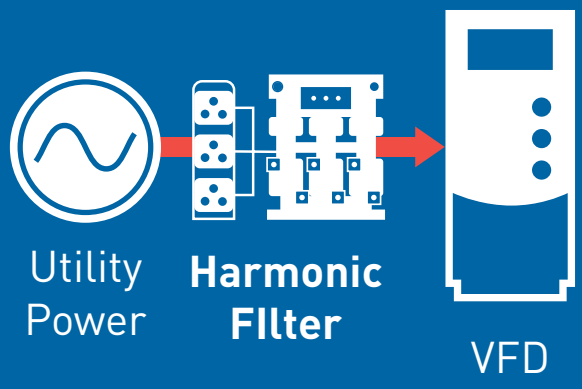
The IEEE-519 standard, established by the Institute of Electrical and Electronics Engineers (IEEE), provides guidance on managing harmonic distortion. This standard focuses on determining acceptable levels of harmonic distortion at the "point of common coupling," which is the connection point between a facility and the public power system. Essentially, it serves as a guideline for setting limits on the amount of harmonic distortion that a facility can introduce back into the power grid. The purpose is to prevent individual customers from generating excessive harmonics that could cause unacceptable distortion for other nearby users. In return, the utility company commits to maintaining specified levels of voltage distortion supplied to the facility.

Harmonic Filters

Matrix® AP
Adaptive Passive Technology for superior harmonic mitigation at varying loads

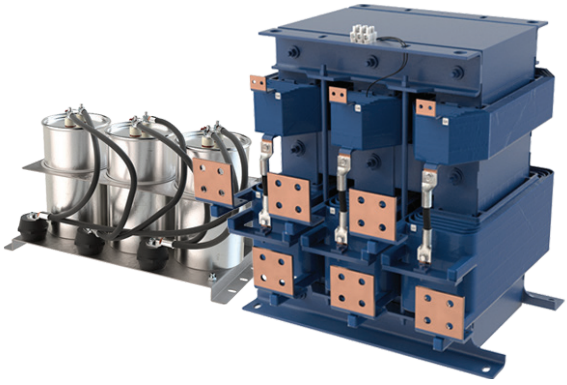
Matrix® E-Series
Power quality you've come to expect from the power quality experts

Single Phase Matrix® ONE
Optimized harmonic filters with proven harmonic mitigation





Matrix® AP



- **Adapts to varying power loads**
- **Best performance in the industry**
- **Extends the service life of electrical equipment**
- **Generator compatible**
- **Performance guarantee**

The key to success: adapt.

Simply put, our Matrix® AP is the most advanced passive filter on the market today. Most traditional filters work fine at 100% power load, but severely underperform at lower loads. Matrix® AP is different, because we know almost no one runs at full load all the time. Its patented Adaptive Passive Technology virtually eliminates harmonic distortion by adapting to varying power loads. It delivers better THID performance, increases energy efficiency, and allows you to meet IEEE-519 requirements.

Its unique design generates less heat, and is easy to install and maintain. Plus it is generator compatible. With Matrix® AP Harmonic Filters, power quality, energy efficiency and reduced downtime are easy to achieve.

MTE
POWER QUALITY. SOLVED.
A STEEL PARTNERS COMPANY

Improve power quality and reduce downtime with our patented Adaptive Passive Technology.

The best-in-class Matrix® AP Harmonic Filters can be specified for use on the input of your VFD or other 6-pulse rectifier power supply to enable your system to meet the IEEE-519 requirements for harmonic distortion, regardless of power load.

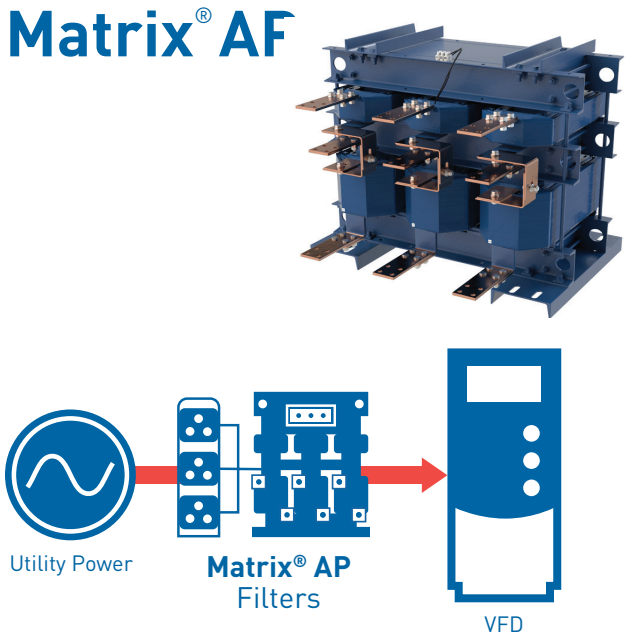
Features our patented Adaptive Passive Technology for superior harmonic mitigation and better THID performance over a wider load range.

MTE performance guarantee provides peace of mind that the Matrix® AP will meet or exceed performance expectations – every time.

Extends service life of electrical equipment, especially transformers and motors, due to the virtual elimination of CEMF and the skin effect.

Alleviates system downtime by preventing blown fuses and tripped circuit breakers.

Industry leading THREE year warranty because the best products deserve the best warranty.

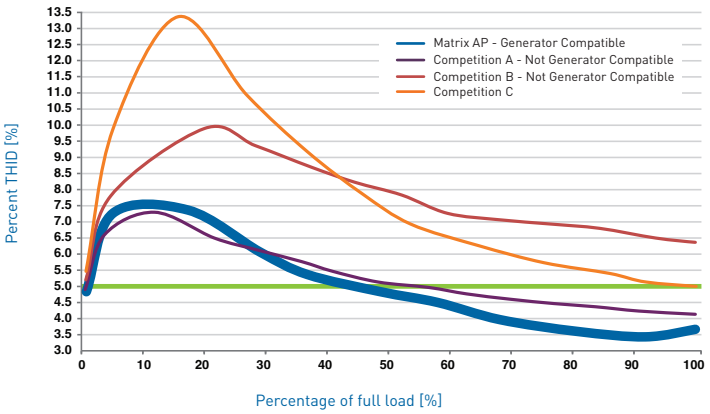


Performance Specifications

Service Load Condition	**Load: 6-pulse rectifier only**
Input Voltage	**208 – 240V +/– 10%; 60 Hz; 3-phase** **380 – 415V +/– 10%; 50 Hz; 3-phase** **480V +/– 10%; 60 Hz; 3-phase** **600V +/– 10%; 60 Hz; 3-phase** **690V +/– 10%; 50 Hz; 3-phase**
Current Range	**208 – 240V: 6A – 403A (3 HP – 150 HP)** **380 – 415V: 6A – 1200A (1.1 kW – 600 kW)** **480V: 6A – 2300A (3 HP – 1850 HP)** **600V: 6A – 786A (5 HP – 800 HP)** **690V: 52A – 636A (37 kW – 450 kW)**
Maximum THID	**8% @ 30% load; 5% @ full load**
Maximum Ambient Temperature	**-40°C to +50°C open panel filter** **-40°C to +40°C – 45°C enclosed filter** **-40°C to +90°C storage**
Insertion Loss @ Full Load	**<5%**
Efficiency	**97% – 99%**
Altitude Without Derating	**3,300 feet above sea level**
Relative Humidity	**0% to 95% non-condensing**
Current Rating	**150% for 1 minute duration**

Final product specifications subject to change at any time.

MTE vs. Competition THID [%]



Matrix® AP Harmonic Filters can help ensure that your system meets the IEEE-519 requirements for harmonic current.

How to properly size your filter

- **Determine voltage and frequency requirements**
- **Reference motor nameplate to determine motor HP or kW and Full Load Amps**
- **Select filter based on Motor Full Load Amps**
  Do not exceed filter's maximum current rating (amps)
- **Specify enclosure style**
  Open (No enclosure)
  NEMA 1/2 (General Purpose Enclosure)
  NEMA 3R (Outdoor Enclosure)
- **Determine derating requirements**
  Reference Performance Specifications table on previous page
- **Select desired options (if applicable)**

Understanding the Matrix® AP Part Number:

MAP X _ _ _ _ X _ _ _

Matrix® AP

Enclosure Type
P = Open Magnetics (No Enclosure)
G = General Purpose (NEMA 1/2)
W = Weather (NEMA 3R)

Current Rating
0006 is 6 Amps
0083 is 83 Amps
2300 is 2300 Amps

Voltage Frequency Code
A 208 – 240 Volts 60 Hz
C 380 – 415 Volts 50 Hz
D 480 Volts 60 Hz
E 600 Volts 60 Hz
F 690 Volts 50 Hz

Optional Contactor Options
002 - Contactor for capacitor disconnect
012 - Contactor with control transformer
009 - Contactor with adjustable pick up and drop out
013 - Filter bypass and capacitor contactor with control transformer

Matrix® AP Options

Contactor Option 002: Contactor for capacitor disconnect
- Includes NO/NC auxiliary contacts
- Wired to customer terminal block
- Pre-wired within enclosed part numbers
- Requires 120V 50/60Hz power source

Contactor Option 012: Contactor with control transformer (Only available for enclosed filters)
- Option 002 including a 120 VAC control transformer

Contactor Option 009: Contactor with adjustable pick up and drop out (Only available for enclosed filters)
- Includes NO/NC auxiliary contacts
- Includes a 120 VAC control transformer
- Includes two current operated switches
- Ability to adjust pick-up and drop current levels
- Switches are preset at factory
  Pick-up is 35% of filter output current rating
  Drop out is 20% of filter output current rating

Contactor Option 013: Filter bypass and capacitor contactor with control transformer (Only available for enclosed filters)
- Includes NO/NC auxiliary contacts
- Includes a 120 VAC control transformer
- Pilot relay provided to limit inrush current
- Jumper selection allows for single contact switching (Normal bypass control with capacitor removal)

Option – 400: Standard NEMA 3R enclosure with optional rodent/serpent screen.
- Provides intake exhaust air screens with (¼ x ¼) mesh
- Not available on units 1600A (480V) and above

208 – 240V 60Hz

Motor (Ref Only) HP	Filter Amps Rating	Catalog No.	Enclosure Type	Filter Dimensions (H x W x D) Inches	Filter Dimensions (H x W x D) Millimeters	Approx Weight Lbs	Approx Weight Kgs	Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Inches	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Millimeters	Qty Req'd	Ref Fig	Available Options 002	009	012	013
1.5	6	MAPP0006A	OPEN	8.5 x 8.0 x 5.4	216 x 203 x 137	19	9	3	95	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0006A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	65	29	6		Preinstalled in cabinet				*	*	*	*
		MAPW0006A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	73	33							*	*	*	*
2	8	MAPP0008A	OPEN	8.5 x 8.0 x 5.4	216 x 203 x 137	19	9	3	102	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0008A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	65	29	6		Preinstalled in cabinet				*	*	*	*
		MAPW0008A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	73	33							*	*	*	*
3	11	MAPP0011A	OPEN	8.6 x 8.0 x 5.4	218 x 203 x 137	22	10	3	122	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0011A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	69	31	6		Preinstalled in cabinet				*	*	*	*
		MAPW0011A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	77	35							*	*	*	*
4	14	MAPP0014A	OPEN	8.6 x 8.0 x 5.4	218 x 203 x 137	21	10	3	180	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0014A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	68	31	6		Preinstalled in cabinet				*	*	*	*
		MAPW0014A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	76	34							*	*	*	*
5	21	MAPP0021A	OPEN	9.8 x 8.0 x 4.8	249 x 203 x 122	30	14	3	187	9.1 x 4.6	231 x 117	1	2	S	*	*	*
		MAPG0021A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	77	35	6		Preinstalled in cabinet				*	*	*	*
		MAPW0021A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	85	39							*	*	*	*
7.5	27	MAPP0027A	OPEN	9.7 x 9.0 x 5.3	246 x 229 x 135	36	16	3	191	9.1 x 4.6	231 x 117	1	2	S	*	*	*
		MAPG0027A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	84	38	6		Preinstalled in cabinet				*	*	*	*
		MAPW0027A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	92	42							*	*	*	*
10	34	MAPP0034A	OPEN	11.7 x 10.5 x 6.7	297 x 267 x 170	51	23	3	217	10.6 x 4.6	269 x 117	1	2	S	*	*	*
		MAPG0034A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	98	44	6		Preinstalled in cabinet				*	*	*	*
		MAPW0034A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	105	48							*	*	*	*
15	44	MAPP0044A	OPEN	11.6 x 10.5 x 7.2	295 x 267 x 183	52	24	3	269	9.0 x 4.6	229 x 117	1	2	S	*	*	*
		MAPG0044A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	100	45	6		Preinstalled in cabinet				*	*	*	*
		MAPW0044A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	108	49							*	*	*	*
20	52	MAPP0052A	OPEN	11.7 x 10.5 x 7.2	297 x 267 x 183	56	25	3	287	9.0 x 3.5	229 x 89	1	2	S	*	*	*
		MAPG0052A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	105	48	6		Preinstalled in cabinet				*	*	*	*
		MAPW0052A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	109	49							*	*	*	*
25	66	MAPP0066A	OPEN	11.6 x 10.5 x 7.7	295 x 267 x 196	64	29	3	334	9.0 x 3.9	229 x 99	1	2	S	*	*	*
		MAPG0066A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	112	51	6		Preinstalled in cabinet				*	*	*	*
		MAPW0066A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	120	54							*	*	*	*
30	83	MAPP0083A	OPEN	11.6 x 10.5 x 9.1	295 x 267 x 231	77	35	4	373	9.0 x 3.9	229 x 99	1	2	S	*	*	*
		MAPG0083A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	124	56	6		Preinstalled in cabinet				*	*	*	*
		MAPW0083A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	132	60							*	*	*	*
40	103	MAPP0103A	OPEN	14.0 x 12.0 x 9.6	356 x 305 x 244	111	50	4	475	10.6 x 4.6	269 x 117	2	2	S	*	*	*
		MAPG0103A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	185	84	7		Preinstalled in cabinet				*	*	*	*
		MAPW0103A	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	195	88							*	*	*	*

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.
S = Standard stock offering
* = Call for availability

208 – 240V 60Hz

Motor (Ref Only) HP	Filter Amps Rating	Catalog No.	Enclosure Type	Filter Dimensions (H x W x D) Inches	Filter Dimensions (H x W x D) Millimeters	Approx Weight Lbs	Approx Weight Kgs	Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Inches	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Millimeters	Qty Req'd	Ref Fig	Available Options 002	009	012	013
50	128	MAPP0128A	OPEN	14.0 x 12.0 x 10.8	356 x 305 x 274	134	61	4	558	10.6 x 4.6	269 x 117	2	2	S	*	*	*
		MAPG0128A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	207	94	7		Preinstalled in cabinet				*	*	*	*
		MAPW0128A	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	218	99							*	*	*	*
60	165	MAPP0165A	OPEN	13.9 x 12.0 x 12.3	353 x 305 x 312	157	71	4	601	10.6 x 4.6	269 x 117	1	2	S	*	*	*
										9.0 x 4.6	229 x 117	1					
		MAPG0165A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	232	105	7		Preinstalled in cabinet				*	*	*	*
		MAPW0165A	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	243	110							*	*	*	*
75	208	MAPP0208A	OPEN	14.0 x 12.0 x 13.4	356 x 305 x 340	174	79	4	681	9.0 x 4.6	229 x 117	2	2	S	*	*	*
		MAPG0208A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	249	113	7		Preinstalled in cabinet				*	*	*	*
		MAPW0208A	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	259	117							*	*	*	*
100	240	MAPP0240A	OPEN	19.9 x 15.3 x 11.9	505 x 389 x 302	225	102	4	1,093	6.7 x 7.6 x 16.4	170 x 193 x 417	1	1	S	*	*	*
		MAPG0240A	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	396	180	7		Preinstalled in cabinet				*	*	*	*
		MAPW0240A	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	407	185							*	*	*	*
125	320	MAPP0320A	OPEN	19.9 x 15.3 x 12.8	505 x 389 x 325	263	119	4	1,305	6.7 x 7.6 x 16.4	170 x 193 x 417	1	1	S	*	*	*
		MAPG0320A	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	432	196	7		Preinstalled in cabinet				*	*	*	*
		MAPW0320A	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	445	202							*	*	*	*
150	403	MAPP0403A	OPEN	20.0 x 15.3 x 12.8	508 x 389 x 325	280	127	4	1,636	8.3 x 7.6 x 16.4	211 x 193 x 417	1	1	S	*	*	*
		MAPG0403A	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	448	203	7		Preinstalled in cabinet				*	*	*	*
		MAPW0403A	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	461	209							*	*	*	*

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.
S = Standard stock offering
* = Call for availability

380 – 415V 50Hz

Motor (Ref Only) kW	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D) Inches	Filter Dimensions (H x W x D) Millimeters	Approx Weight Lbs	Approx Weight Kgs	Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Inches	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Millimeters	Qty Req'd	Ref Fig	Available Options 002	009	012	013
1.1 - 2.2	6	MAPP0006C	OPEN	8.6 x 8.0 x 5.4	218 x 203 x 137	20	9	3	114	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0006C	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	66	30	6		Preinstalled in cabinet				*	*	*	*
		MAPW0006C	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	74	34							*	*	*	*
-	8	MAPP0008C	OPEN	8.7 x 8.0 x 5.4	221 x 203 x 137	20	9	3	149	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0008C	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	68	31	6		Preinstalled in cabinet				*	*	*	*
		MAPW0008C	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	75	34							*	*	*	*
3.7	11	MAPP0011C	OPEN	9.9 x 9.0 x 4.8	251 x 229 x 122	28	13	3	180	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0011C	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	75	34	6		Preinstalled in cabinet				*	*	*	*
		MAPW0011C	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	83	38							*	*	*	*
5.5	14	MAPP0014C	OPEN	9.8 x 9.0 x 5.3	249 x 229 x 135	34	15	3	206	8.0 x 3.9	203 x 99	1	2	S	*	*	*
		MAPG0014C	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	82	37	6		Preinstalled in cabinet				*	*	*	*
		MAPW0014C	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	90	41							*	*	*	*
7.5	21	MAPP0021C	OPEN	11.7 x 10.5 x 6.7	297 x 267 x 170	50	23	3	235	8.0 x 3.9	203 x 99	1	2	S	*	*	*
		MAPG0021C	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	98	44	6		Preinstalled in cabinet				*	*	*	*
		MAPW0021C	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	107	49							*	*	*	*
11	27	MAPP0027C	OPEN	11.8 x 10.5 x 7.2	300 x 267 x 183	56	25	3	266	8.3 x 4.6	211 x 117	1	2	S	*	*	*
		MAPG0027C	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	103	47	6		Preinstalled in cabinet				*	*	*	*
		MAPW0027C	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	111	50							*	*	*	*
15	34	MAPP0034C	OPEN	11.7 x 10.5 x 7.7	297 x 267 x 196	68	31	3	298	9.2 x 4.6	234 x 117	1	2	S	*	*	*
		MAPG0034C	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	115	52	6		Preinstalled in cabinet				*	*	*	*
		MAPW0034C	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	123	56							*	*	*	*
18.5 - 22	44	MAPP0044C	OPEN	11.7 x 10.5 x 8.2	297 x 267 x 208	79	36	3	356	9.2 x 4.6	234 x 117	1	2	S	*	*	*
		MAPG0044C	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	127	58	6		Preinstalled in cabinet				*	*	*	*
		MAPW0044C	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	134	61							*	*	*	*
-	52	MAPP0052C	OPEN	14.0 x 12.0 x 9.0	356 x 305 x 229	100	45	4	388	9.2 x 4.6	234 x 117	1	2	S	*	*	*
		MAPG0052C	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	174	79	7		Preinstalled in cabinet				*	*	*	*
		MAPW0052C	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	181	82							*	*	*	*
30	66	MAPP0066C	OPEN	14.0 x 12.0 x 9.0	356 x 305 x 229	112	51	4	459	10.6 x 4.6	269 x 117	1	2	S	*	*	*
		MAPG0066C	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	186	84	7		Preinstalled in cabinet				*	*	*	*
		MAPW0066C	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	194	88							*	*	*	*
37 - 45	83	MAPP0083C	OPEN	14.0 x 12.0 x 10.9	356 x 305 x 277	139	63	4	565	10.6 x 4.6	269 x 117	1	2	S	*	*	*
		MAPG0083C	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	212	96	7		Preinstalled in cabinet				*	*	*	*
		MAPW0083C	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	219	99							*	*	*	*
55	103	MAPP0103C	OPEN	14.1 x 12.0 x 11.0	358 x 305 x 279	147	67	4	660	10.6 x 4.6	269 x 117	1	2	S	*	*	*
		MAPG0103C	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	221	100	7		Preinstalled in cabinet				*	*	*	*
		MAPW0103C	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	228	103							*	*	*	*

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.
S = Standard stock offering
* = Call for availability

380 – 415V 50Hz

Motor (Ref Only) kW	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D)		Approx Weight		Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D)		Qty Req'd	Ref Fig	Available Options			
				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters			002	009	012	013
-	128	MAPP0128C	OPEN	20.0 x 15.3 x 10.7	508 x 389 x 272	218	99	4	973	11.1 x 16.4 x 7.6	282 x 417 x 193	1	1	S	*	*	*
		MAPG0128C	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	390	177	7		Preinstalled in cabinet				*	*	*	*
		MAPW0128C	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	396	180							*	*	*	*
75 - 90	165	MAPP0165C	OPEN	20.0 x 15.3 x 11.7	508 x 389 x 297	273	124	4	1,030	6.7 x 16.4 x 7.6	170 x 417 x 193	1	1	S	*	*	*
		MAPG0165C	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	442	200	7		Preinstalled in cabinet				*	*	*	*
		MAPW0165C	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	455	206							*	*	*	*
110	208	MAPP0208C	OPEN	20.1 x 15.3 x 11.8	511 x 389 x 300	290	132	4	1,263	8.0 x 16.4 x 7.6	203 x 417 x 193	1	1	S	*	*	*
		MAPG0208C	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	459	208	7		Preinstalled in cabinet				*	*	*	*
		MAPW0208C	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	472	214							*	*	*	*
-	240	MAPP0240C	OPEN	19.9 x 15.3 x 12.8	505 x 389 x 325	325	147	4	1,423	8.0 x 16.4 x 7.6	203 x 417 x 193	1	1	S	*	*	*
		MAPG0240C	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	494	224	7		Preinstalled in cabinet				*	*	*	*
		MAPW0240C	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	507	230							*	*	*	*
150	320	MAPP0320C	OPEN	20.0 x 15.3 x 17.8	508 x 389 x 452	421	191	4	1,450	9.9 x 16.4 x 7.6	251 x 417 x 193	1	1	S	*	*	*
		MAPG0320C	NEMA 1/2	76.0 x 27.7 x 24.9	1930 x 704 x 632	658	298	7		Preinstalled in cabinet				*	*	*	*
		MAPW0320C	NEMA 3R	76.0 x 27.7 x 34.0	1930 x 704 x 864	683	310							*	*	*	*
185 - 220	403	MAPP0403C	OPEN	23.2 x 15.3 x 13.7	589 x 389 x 348	433	196	4	1,816	11.1 x 16.4 x 7.6	282 x 417 x 193	1	1	S	*	*	*
		MAPG0403C	NEMA 1/2	76.0 x 27.7 x 24.9	1930 x 704 x 632	635	288	7		Preinstalled in cabinet				*	*	*	*
		MAPW0403C	NEMA 3R	76.0 x 27.7 x 34.0	1930 x 704 x 864	667	303							*	*	*	*
-	482	MAPP0482C	OPEN	23.3 x 15.3 x 14.8	592 x 389 x 376	543	246	4	2,008	8.0 x 16.4 x 7.6	203 x 417 x 193	2	1	S	*	*	*
		MAPG0482C	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	955	433	7		Preinstalled in cabinet				*	*	*	*
		MAPW0482C	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,000	454							*	*	*	*
280	636	MAPP0636C	OPEN	25.8 x 24.0 x 16.5	655 x 610 x 419	683	310	5	2,359	9.9 x 16.4 x 7.6	251 x 417 x 193	2	1	S	*	*	*
		MAPG0636C	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,094	496	7		Preinstalled in cabinet				*	*	*	*
		MAPW0636C	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,131	513							*	*	*	*
375	786	MAPP0786C	OPEN	25.7 x 24.0 x 17.9	653 x 610 x 455	777	352	5	2,604	11.1 x 16.4 x 7.6	282 x 417 x 193	2	1	S	*	*	*
		MAPG0786C	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,183	537	7		Preinstalled in cabinet				*	*	*	*
		MAPW0786C	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,228	557							*	*	*	*
450	850	MAPP0850C	OPEN	25.9 x 24.0 x 20.3	658 x 610 x 516	981	445	5	2,974	9.9 x 16.4 x 7.6 8.0 x 16.4 x 7.6	251 x 417 x 193 203 x 417 x 193	2 1	1	S	*	*	*
		MAPG0850C	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,604	728	7		Preinstalled in cabinet				*	*	*	*
		MAPW0850C	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,644	746							*	*	*	*
525	1000	MAPP1000C	OPEN	25.9 x 24.0 x 21.2	658 x 610 x 538	973	441	5	3,954	9.9 x 16.4 x 7.6	251 x 417 x 193	3	1	S	*	*	*
		MAPG1000C	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,579	716	7		Preinstalled in cabinet				*	*	*	*
		MAPW1000C	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,620	735							*	*	*	*
600	1200	MAPP1200C	OPEN	26.0 x 24.0 x 22.2	660 x 610 x 564	989	449	5	4,136	11.1 x 16.4 x 7.6	282 x 417 x 193	3	1	S	*	*	*
		MAPG1200C	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,575	714	7		Preinstalled in cabinet				*	*	*	*
		MAPW1200C	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,616	733							*	*	*	*

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.
S = Standard stock offering
* = Call for availability

480V 60Hz

Motor (Ref Only) HP	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D) Inches	Filter Dimensions (H x W x D) Millimeters	Approx Weight Lbs	Approx Weight Kgs	Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Inches	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Millimeters	Qty Req'd	Ref Fig	Available Options 002	009	012	013
3	6	MAPP0006D	OPEN	8.7 x 8.0 x 5.4	221 x 203 x 137	20	9	3	122	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0006D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	66	30	6		Preinstalled in cabinet				S	S	S	S
		MAPW0006D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	74	34							S	S	S	S
5	8	MAPP0008D	OPEN	8.7 x 8.0 x 5.4	221 x 203 x 137	20	9	3	158	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0008D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	68	31	6		Preinstalled in cabinet				S	S	S	S
		MAPW0008D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	75	34							S	S	S	S
7.5	11	MAPP0011D	OPEN	9.9 x 9.0 x 4.8	251 x 229 x 122	28	13	3	192	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0011D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	75	34	6		Preinstalled in cabinet				S	S	S	S
		MAPW0011D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	83	38							S	S	S	S
10	14	MAPP0014D	OPEN	9.8 x 9.0 x 5.3	249 x 229 x 135	33	15	3	220	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0014D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	80	36	6		Preinstalled in cabinet				S	S	S	S
		MAPW0014D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	88	40							S	S	S	S
15	21	MAPP0021D	OPEN	11.7 x 10.5 x 6.6	297 x 267 x 168	50	23	3	251	8.0 x 3.9	203 x 99	1	2	S	*	*	*
		MAPG0021D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	98	44	6		Preinstalled in cabinet				S	S	S	S
		MAPW0021D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	107	49							S	S	S	S
20	27	MAPP0027D	OPEN	11.8 x 10.5 x 7.2	300 x 267 x 183	56	25	3	283	8.0 x 3.9	203 x 99	1	2	S	*	*	*
		MAPG0027D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	104	47	6		Preinstalled in cabinet				S	S	S	S
		MAPW0027D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	112	51							S	S	S	S
25	34	MAPP0034D	OPEN	11.7 x 10.5 x 7.7	297 x 267 x 196	67	30	3	318	8.0 x 3.9	203 x 99	1	2	S	*	*	*
		MAPG0034D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	113	51	6		Preinstalled in cabinet				S	S	S	S
		MAPW0034D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	122	55							S	S	S	S
30	44	MAPP0044D	OPEN	11.7 x 10.5 x 8.2	297 x 267 x 208	78	35	3	379	8.3 x 4.6	211 x 117	1	2	S	*	*	*
		MAPG0044D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	128	58	6		Preinstalled in cabinet				S	S	S	S
		MAPW0044D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	133	60							S	S	S	S
40	52	MAPP0052D	OPEN	14.0 x 12.0 x 9.1	356 x 305 x 231	99	45	4	413	9.2 x 4.6	234 x 117	1	2	S	*	*	*
		MAPG0052D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	173	78	7		Preinstalled in cabinet				S	S	S	S
		MAPW0052D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	181	82							S	S	S	S
50	66	MAPP0066D	OPEN	14.0 x 12.0 x 9.0	356 x 305 x 229	111	50	4	488	9.2 x 4.6	234 x 117	1	2	S	*	*	*
		MAPG0066D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	185	84	7		Preinstalled in cabinet				S	S	S	S
		MAPW0066D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	193	88							S	S	S	S
60	83	MAPP0083D	OPEN	14.0 x 12.0 x 10.9	356 x 305 x 277	139	63	4	600	10.6 x 4.6	269 x 117	1	2	S	*	*	*
		MAPG0083D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	209	95	7		Preinstalled in cabinet				S	S	S	S
		MAPW0083D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	217	98							S	S	S	S
75	103	MAPP0103D	OPEN	14.1 x 12.0 x 11.0	358 x 305 x 279	147	67	4	702	10.6 x 4.6	269 x 117	1	2	S	*	*	*
		MAPG0103D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	221	100	7		Preinstalled in cabinet				S	S	S	S
		MAPW0103D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	228	103							S	S	S	S
100	128	MAPP0128D	OPEN	20.0 x 15.3 x 10.7	508 x 389 x 272	195	88	4	1,035	6.9 x 16.3 x 7.6	175 x 414 x 193	1	1	S	*	*	*
		MAPG0128D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	360	163	7		Preinstalled in cabinet				S	S	S	S
		MAPW0128D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	373	169							S	S	S	S

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.
S = Standard stock offering
* = Call for availability

480V 60Hz

Motor (Ref Only) HP	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D)		Approx Weight		Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D)		Qty Req'd	Ref Fig	Available Options			
				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters			002	009	012	013
125	165	MAPP0165D	OPEN	20.0 x 15.3 x 11.7	508 x 389 x 297	233	106	4	1,096	6.7 x 16.4 x 7.6	170 x 417 x 193	1	1	S	*	*	*
		MAPG0165D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	435	197	7		Preinstalled in cabinet				S	S	S	S
		MAPW0165D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	448	203							S	S	S	S
150	208	MAPP0208D	OPEN	20.1 x 15.3 x 11.8	511 x 389 x 300	287	130	4	1,343	6.7 x 16.4 x 7.6	170 x 417 x 193	1	1	S	*	*	*
		MAPG0208D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	452	205	7		Preinstalled in cabinet				S	S	S	S
		MAPW0208D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	464	210							S	S	S	S
200	240	MAPP0240D	OPEN	20.0 x 15.3 x 12.7	508 x 389 x 323	323	147	4	1,514	6.7 x 16.4 x 7.6	170 x 417 x 193	1	1	S	*	*	*
		MAPG0240D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	488	221	7		Preinstalled in cabinet				S	S	S	S
		MAPW0240D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	501	227							S	S	S	S
250	320	MAPP0320D	OPEN	20.0 x 15.3 x 14.8	508 x 389 x 376	416	189	4	1,543	8.0 x 16.4 x 7.6	203 x 417 x 193	1	1	S	*	*	*
		MAPG0320D	NEMA 1/2	76.0 x 27.7 x 24.9	1930 x 704 x 632	654	297	7		Preinstalled in cabinet				S	S	S	*
		MAPW0320D	NEMA 3R	76.0 x 27.7 x 34.0	1930 x 704 x 864	679	308							S	S	S	*
300	403	MAPP0403D	OPEN	23.3 x 15.3 x 13.7	592 x 389 x 348	419	190	4	1,932	9.9 x 16.4 x 7.6	251 x 417 x 193	1	1	S	*	*	*
		MAPG0403D	NEMA 1/2	76.0 x 27.7 x 24.9	1930 x 704 x 632	649	294	7		Preinstalled in cabinet				S	S	S	*
		MAPW0403D	NEMA 3R	76.0 x 27.7 x 34.0	1930 x 704 x 864	674	306							S	S	S	*
400	482	MAPP0482D	OPEN	23.3 x 15.3 x 14.8	592 x 389 x 376	532	241	4	2,137	6.7 x 16.4 x 7.6	170 x 417 x 193	2	1	S	*	*	*
		MAPG0482D	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	944	428	7		Preinstalled in cabinet				S	S	S	*
		MAPW0482D	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	981	445							S	S	S	*
500	636	MAPP0636D	OPEN	25.8 x 24.0 x 16.5	655 x 610 x 419	667	303	5	2,509	8.0 x 16.4 x 7.6	203 x 417 x 193	2	1	S	*	*	*
		MAPG0636D	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,085	492	7		Preinstalled in cabinet				S	S	S	*
		MAPW0636D	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,122	509							S	S	S	*
600	786	MAPP0786D	OPEN	25.7 x 24.0 x 17.9	653 x 610 x 455	773	351	5	2,771	9.9 x 16.4 x 7.6	251 x 417 x 193	2	1	S	*	*	*
		MAPG0786D	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,180	535	7		Preinstalled in cabinet				S	S	S	*
		MAPW0786D	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,225	556							S	S	S	*
700	850	MAPP0850D	OPEN	25.9 x 24.0 x 20.3	658 x 610 x 516	967	439	5	3,163	8.0 x 16.4 x 7.6 6.7 x 16.4 x 7.6	203 x 417 x 193 170 x 417 x 193	2 1	1	S	*	*	*
		MAPG0850D	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,590	721	7		Preinstalled in cabinet				S	S	S	*
		MAPW0850D	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,630	739							S	S	S	*
900	1000	MAPP1000D	OPEN	25.9 x 24.0 x 21.2	658 x 610 x 538	946	429	5	4,206	8.0 x 16.4 x 7.6 9.9 x 16.4 x 7.6	203 x 417 x 193 251 x 417 x 193	2 1	1	S	*	*	*
		MAPG1000D	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,566	710	7		Preinstalled in cabinet				S	S	S	*
		MAPW1000D	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,607	729							S	S	S	*
1000	1200	MAPP1200D	OPEN	26.0 x 24.0 x 22.2	660 x 610 x 564	983	446	5	4,400	9.9 x 16.4 x 7.6	251 x 417 x 193	3	1	S	*	*	*
		MAPG1200D	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,571	713	7		Preinstalled in cabinet				S	S	S	*
		MAPW1200D	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,612	731							S	S	S	*
1300	1600	MAPP1600D	OPEN	33.4 x 36.0 x 29.3	848 x 914 x 744	2,272	1031	5	4,500	9.9 x 16.4 x 7.6	251 x 417 x 193	4	1	*	*	*	*
1500	2000	MAPP2000D	OPEN	33.6 x 36.0 x 31.3	853 x 914 x 795	2,678	1215	5	5,050	9.9 x 16.4 x 7.6	251 x 417 x 193	5	1	*	*	*	*
1850	2300	MAPP2300D	OPEN	33.4 x 36.0 x 32.4	848 x 914 x 823	2,885	1309	5	6,100	9.9 x 16.4 x 7.6	251 x 417 x 193	6	1	*	*	*	*

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.
S = Standard stock offering
* = Call for availability

600V 60Hz

Motor (Ref Only) HP	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D) Inches	Filter Dimensions (H x W x D) Millimeters	Approx Weight Lbs	Approx Weight Kgs	Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Inches	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Millimeters	Qty Req'd	Ref Fig	Available Options 002	009	012	013
5	6	MAPP0006E	OPEN	8.7 x 8.0 x 5.4	221 x 203 x 137	18	8	3	150	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0006E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	67	30	6		Preinstalled in cabinet				S	*	S	*
		MAPW0006E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	75	34							S	*	S	*
5	8	MAPP0008E	OPEN	9.8 x 9.0 x 4.8	249 x 229 x 122	28	13	3	183	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0008E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	75	34	6		Preinstalled in cabinet				S	*	S	*
		MAPW0008E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	83	38							S	*	S	*
10	11	MAPP0011E	OPEN	9.8 x 9.0 x 5.3	249 x 229 x 135	32	15	3	205	7.5 x 3.0	191 x 76	1	2	S	*	*	*
		MAPG0011E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	79	36	6		Preinstalled in cabinet				S	*	S	*
		MAPW0011E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	87	39							S	*	S	*
10	14	MAPP0014E	OPEN	11.7 x 10.5 x 6.7	297 x 267 x 170	47	21	3	250	9.2 x 4.6	234 x 117	1	2	S	*	*	*
		MAPG0014E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	94	43	6		Preinstalled in cabinet				S	*	S	*
		MAPW0014E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	102	46							S	*	S	*
15	21	MAPP0021E	OPEN	11.7 x 10.5 x 7.2	297 x 267 x 183	58	26	3	285	7.5 x 3.9	191 x 99	1	2	S	*	*	*
		MAPG0021E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	106	48	6		Preinstalled in cabinet				S	*	S	*
		MAPW0021E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	113	51							S	*	S	*
25	27	MAPP0027E	OPEN	11.7 x 10.5 x 7.7	297 x 267 x 196	68	31	3	304	8.3 x 4.6	211 x 117	1	2	S	*	*	*
		MAPG0027E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	115	52	6		Preinstalled in cabinet				S	*	S	*
		MAPW0027E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	123	56							S	*	S	*
30	34	MAPP0034E	OPEN	11.7 x 10.5 x 8.2	297 x 267 x 208	89	40	3	366	8.3 x 4.6	211 x 117	1	2	S	*	*	*
		MAPG0034E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	124	56	6		Preinstalled in cabinet				S	*	S	*
		MAPW0034E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	131	59							S	*	S	*
40	44	MAPP0044E	OPEN	14.0 x 12.0 x 9.9	356 x 305 x 251	118	54	4	395	9.2 x 4.6	234 x 117	1	2	S	*	*	*
		MAPG0044E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	192	87	7		Preinstalled in cabinet				S	*	S	*
		MAPW0044E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	199	90							S	*	S	*
50	52	MAPP0052E	OPEN	14.1 x 12.0 x 10.3	358 x 305 x 262	142	64	4	494	9.2 x 4.6	234 x 117	1	2	S	*	*	*
		MAPG0052E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	197	89	7		Preinstalled in cabinet				S	*	S	*
		MAPW0052E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	204	93							S	*	S	*
60	66	MAPP0066E	OPEN	14.0 x 12.0 x 11.0	356 x 305 x 279	166	75	4	655	10.6 x 4.6	269 x 117	1	2	S	*	*	*
		MAPG0066E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	209	95	7		Preinstalled in cabinet				S	*	S	*
		MAPW0066E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	217	98							S	*	S	*
75	83	MAPP0083E	OPEN	14.1 x 12.0 x 10.9	358 x 305 x 277	144	65	4	718	10.6 x 4.6	269 x 117	1	2	S	*	*	*
		MAPG0083E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	218	99	7		Preinstalled in cabinet				S	*	S	*
		MAPW0083E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	226	103							S	*	S	*

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.
S = Standard stock offering
* = Call for availability

600V 60Hz

Motor (Ref Only) HP	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D)		Approx Weight		Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D)		Qty Req'd	Ref Fig	Available Options			
				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters			002	009	012	013
100	103	MAPP0103E	OPEN	20.0 x 15.3 x 10.7	508 x 389 x 272	210	95	4	1,085	6.7 x 16.4 x 7.6	170 x 417 x 193	1	1	S	*	*	*
		MAPG0103E	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	376	171	7		Preinstalled in cabinet				S	*	S	*
		MAPW0103E	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	389	176							S	*	S	*
125	128	MAPP0128E	OPEN	20.0 x 15.3 x 11.7	508 x 389 x 297	270	122	4	1,090	6.7 x 16.4 x 7.6	170 x 417 x 193	1	1	S	*	*	*
		MAPG0128E	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	436	198	7		Preinstalled in cabinet				S	*	S	*
		MAPW0128E	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	449	204							S	*	S	*
150	165	MAPP0165E	OPEN	20.1 x 15.3 x 11.9	511 x 389 x 302	287	130	4	1,285	6.7 x 16.4 x 7.6	170 x 417 x 193	1	1	S	*	*	*
		MAPG0165E	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	456	207	7		Preinstalled in cabinet				S	*	S	*
		MAPW0165E	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	469	213							S	*	S	*
200	208	MAPP0208E	OPEN	20.1 x 15.3 x 12.8	511 x 389 x 325	322	146	4	1,431	7.7 x 16.4 x 7.6	196 x 417 x 193	1	1	S	*	*	*
		MAPG0208E	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	482	219	7		Preinstalled in cabinet				S	*	S	*
		MAPW0208E	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	516	234							S	*	S	*
250	240	MAPP0240E	OPEN	19.9 x 15.3 x 15.8	505 x 389 x 401	427	194	4	1,624	7.7 x 16.4 x 7.6	196 x 417 x 193	1	1	S	*	*	*
		MAPG0240E	NEMA 1/2	76.0 x 27.7 x 24.9	1930 x 704 x 632	661	300	7		Preinstalled in cabinet				S	*	S	*
		MAPW0240E	NEMA 3R	76.0 x 27.7 x 34.0	1930 x 704 x 864	687	312							S	*	S	*
300	320	MAPP0320E	OPEN	23.2 x 15.3 x 15.7	589 x 389 x 399	501	227	4	2,021	9.2 x 16.4 x 7.6	234 x 417 x 193	1	1	S	*	*	*
		MAPG0320E	NEMA 1/2	76.0 x 27.7 x 24.9	1930 x 704 x 632	740	336	7		Preinstalled in cabinet				S	*	S	*
		MAPW0320E	NEMA 3R	76.0 x 27.7 x 34.0	1930 x 704 x 864	765	347							S	*	S	*
400	403	MAPP0403E	OPEN	23.3 x 15.3 x 15.8	592 x 389 x 401	504	229	4	2,208	12.1 x 16.4 x 7.6	307 x 417 x 193	1	1	S	*	*	*
		MAPG0403E	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	909	412	7		Preinstalled in cabinet				S	*	S	*
		MAPW0403E	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	945	429							S	*	S	*
500	482	MAPP0482E	OPEN	25.9 x 24.0 x 16.6	658 x 610 x 422	670	304	5	2,481	7.7 x 16.4 x 7.6	196 x 417 x 193	2	1	S	*	*	*
		MAPG0482E	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,091	495	7		Preinstalled in cabinet				S	*	S	*
		MAPW0482E	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,136	515							S	*	S	*
600	636	MAPP0636E	OPEN	25.9 x 24.0 x 17.7	658 x 610 x 450	754	342	5	2,884	9.2 x 16.4 x 7.6	234 x 417 x 193	2	1	S	*	*	*
		MAPG0636E	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,227	557	7		Preinstalled in cabinet				S	*	S	*
		MAPW0636E	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,264	573							S	*	S	*
800	786	MAPP0786E	OPEN	26.0 x 24.0 x 19.5	660 x 610 x 495	927	420	5	3,368	12.1 x 16.4 x 7.6	307 x 417 x 193	2	1	S	*	*	*
		MAPG0786E	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,509	684	7		Preinstalled in cabinet				S	*	S	*
		MAPW0786E	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,549	703							S	*	S	*

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.
S = Standard stock offering
* = Call for availability

690V 50Hz

Motor (Ref Only) kW	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D) Inches	Filter Dimensions (H x W x D) Millimeters	Approx Weight Lbs	Approx Weight Kgs	Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Inches	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Millimeters	Qty Req'd	Ref Fig	Available Options 002	009	012	013
37	52	MAPP0052F	OPEN	19.8 x 15.3 x 11.1	503 x 389 x 282	167	76	3	681	6.7 x 16.4 x 7.6	170 x 417 x 193	1	1	*	*	*	*
45	66	MAPP0066F	OPEN	19.9 x 15.3 x 11.2	505 x 389 x 284	193	88	3	844	7.7 x 16.4 x 7.6	196 x 417 x 193	1	1	*	*	*	*
55	83	MAPP0083F	OPEN	19.9 x 15.3 x 11.6	505 x 389 x 295	254	115	3	850	6.7 x 16.4 x 7.6	170 x 417 x 193	1	1	*	*	*	*
75	103	MAPP0103F	OPEN	20.1 x 15.3 x 11.7	511 x 389 x 297	242	110	3	1,051	9.2 x 16.4 x 7.6	234 x 417 x 193	1	1	*	*	*	*
90	128	MAPP0128F	OPEN	19.9 x 15.3 x 12.7	505 x 389 x 323	323	147	3	1,106	8.0 x 16.4 x 7.6	203 x 417 x 193	1	1	*	*	*	*
110	165	MAPP0165F	OPEN	19.9 x 15.3 x 14.8	505 x 389 x 376	378	171	3	1,257	10.7 x 16.3 x 7.6	272 x 414 x 193	1	1	*	*	*	*
150	208	MAPP0208F	OPEN	23.1 x 15.3 x 13.7	587 x 389 x 348	448	203	3	1,400	6.7 x 16.4 x 7.6	170 x 417 x 193	1	1	*	*	*	*
										7.7 x 16.4 x 7.6	196 x 417 x 193	1		*	*	*	*
185	240	MAPP0240F	OPEN	23.2 x 15.3 x 14.9	589 x 389 x 378	503	228	3	1,721	7.7 x 16.4 x 7.6	196 x 417 x 193	1	1	*	*	*	*
										8.0 x 16.4 x 7.6	203 x 417 x 193	1		*	*	*	*
222	320	MAPP0320F	OPEN	25.9 x 24.0 x 16.7	658 x 610 x 424	912	414	4	2,031	9.9 x 16.4 x 7.6	251 x 417 x 193	2	1	*	*	*	*
280	403	MAPP0403F	OPEN	25.8 x 24.0 x 17.8	655 x 610 x 452	982	445	4	2,780	6.7 x 16.4 x 7.6	170 x 417 x 193	1	1	*	*	*	*
										9.9 x 16.4 x 7.6	251 x 417 x 193	2		*	*	*	*
375	482	MAPP0482F	OPEN	25.9 x 24.0 x 19.0	658 x 610 x 483	1,167	529	4	2,883	9.9 x 16.4 x 7.6	251 x 417 x 193	3	1	*	*	*	*
450	636	MAPP0636F	OPEN	25.9 x 24.0 x 21.6	658 x 610 x 549	1,084	492	4	3,140	11.1 x 16.4 x 7.6	282 x 417 x 193	3	1	*	*	*	*

Notes: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.
S = Standard stock offering
* = Call for availability

CAPACITOR/CAPACITOR PANEL

FIGURE 1

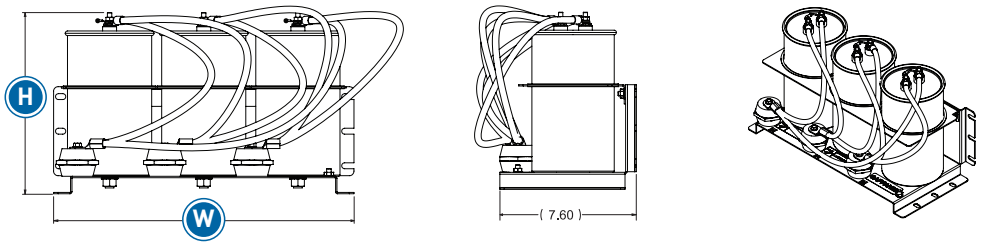
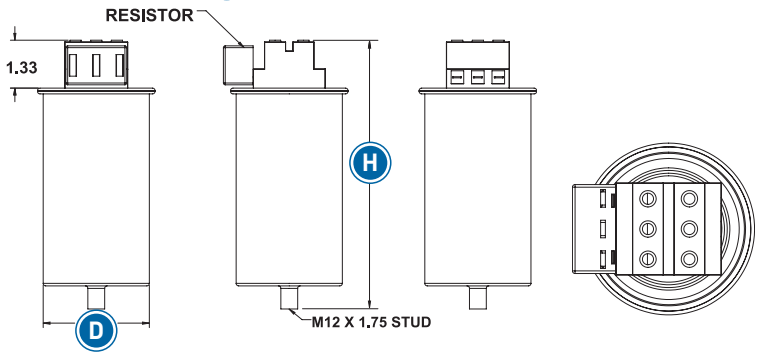


FIGURE 2



OPEN MAGNETICS

FIGURE 3

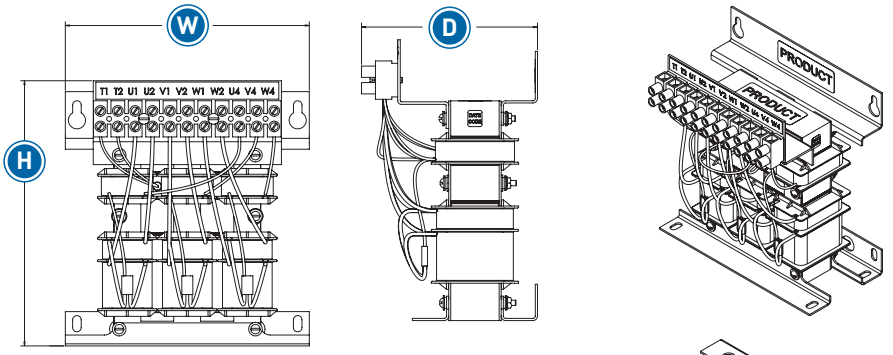


FIGURE 4

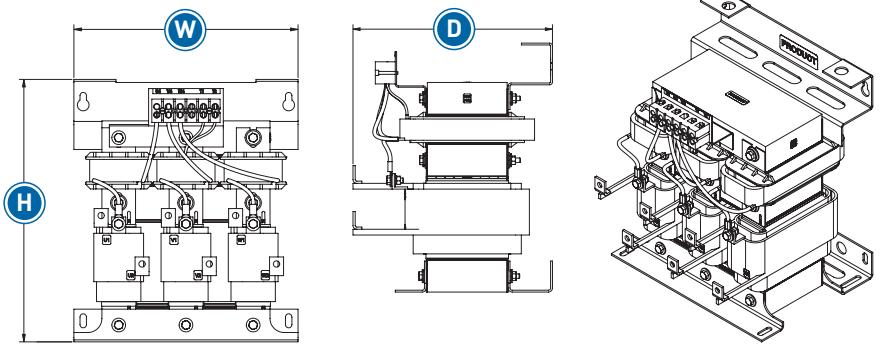
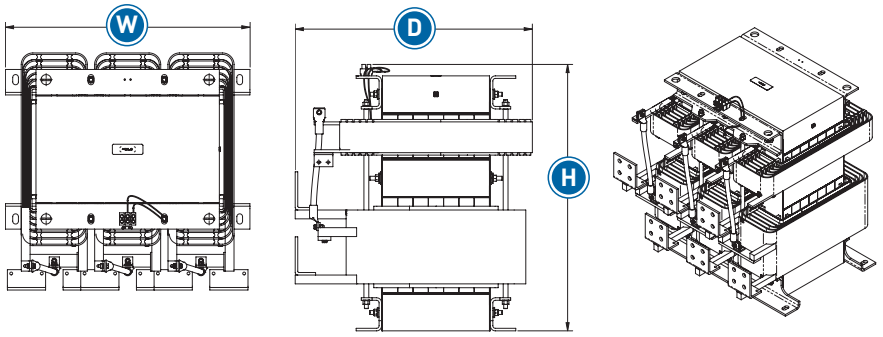
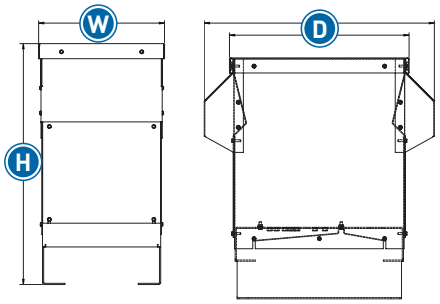


FIGURE 5



ENCLOSURES

(NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES)



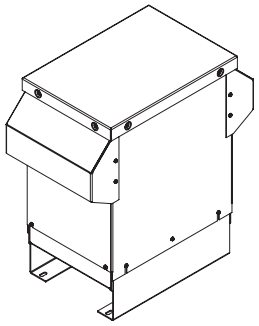
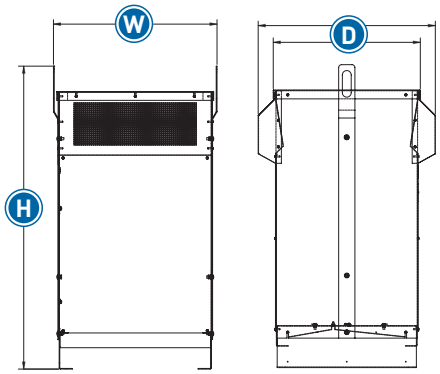


FIGURE 6



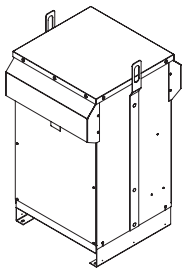


FIGURE 7

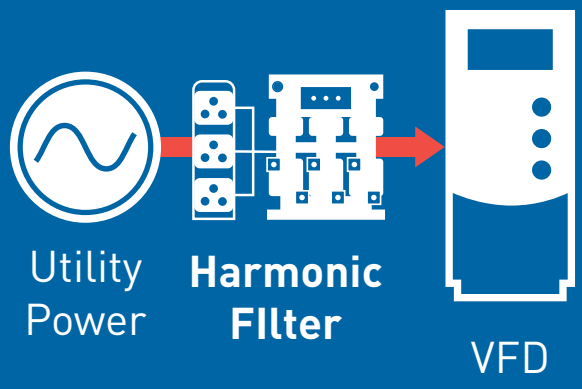
Note: Figure illustrations are for reference only. Actual hardware may differ. Please visit **mtecorp.com** for detailed informatio

Harmonic Filters

Matrix® AP
Adaptive Passive Technology for superior harmonic mitigation at varying loads

Matrix® E-Series
Power quality you've come to expect from the power quality experts

Single Phase Matrix® ONE
Optimized harmonic filters with proven harmonic mitigation





Matrix® E-Series



- **Meets essential harmonic distortion requirements**
- **Flexible, compact design**
- **Easy to integrate and install**
- **Extends the service life of electrical equipment**

Performance you can count on - at an affordable cost.

The patented Matrix® E-series is the latest in a long line of highly effective harmonic filters from MTE. The E-series delivers the performance you've come to expect out of a Matrix filter without being over engineered. It is an affordable solution to managing unwanted harmonic distortions - such as nuisance tripping of circuit breakers, inaccurate measurements on sensors, overheating of components, and system downtime - generated by Variable Frequency Drives (VFDs).

The Matrix E-Series features a flexible design that is compact and robust, making it easy to integrate and install in nearly any application. Power quality, energy efficiency, and reduced downtime are easy to achieve with the new Matrix E-Series from MTE.

MTE
POWER QUALITY. SOLVED.
A STEEL PARTNERS COMPANY

The Matrix® E-Series harmonic filter meets the international harmonic distortion requirement of 10%-15% while also supporting the compliance of IEEE-519.

Patented design with reliable components provides harmonic mitigation and reduced THID (Total Harmonic Distortion) where you need it most.

Affordable solution that is easy to install and maintain.

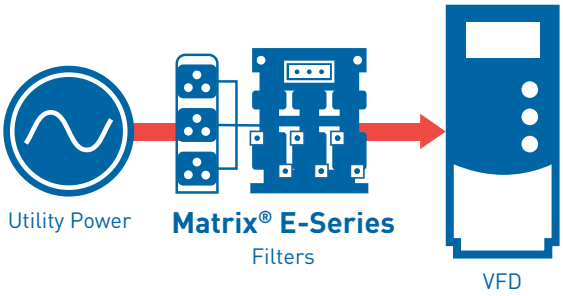
Improves system efficiency and reliability to lower total cost.

Helps extend service life of electrical equipment and transformers.

Alleviates system downtime by preventing blown fuses and tripped circuit breakers.

Matrix® E-Series



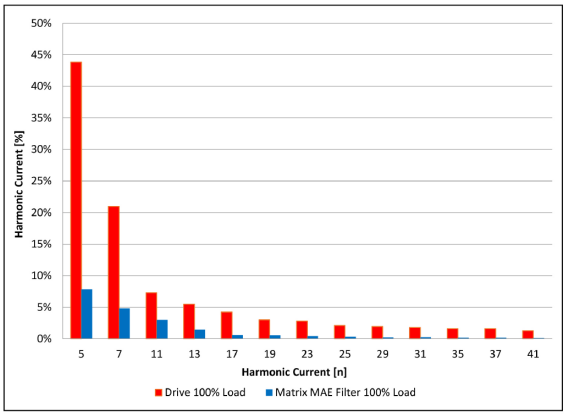


Performance Specifications

Service Load Condition	**Load: 6-pulse rectifier only**
Input Voltage	**380V - 415V +/- 10%; 50 + 0.75Hz; 3-phase** **480V +/- 10%; 60 + 0.75Hz; 3-phase**
Current Range	**6A - 320A (1.1 KW - 150 KW; 3HP - 250HP)**
Maximum THID With DC Link Choke or Reactor Without DC Link Choke or Reactor	 **8% @ full load; 12% @ 40% load** **12% @ full load; 17% @ 40% load**
System Power Conditions at Rated Power	**THVD: <3%** **Line Voltage Unbalance: <1%**
Source Impedance	**Maximum: 6%** **Minimum: 1.5%**
Maximum Output Voltage at No Load (RMS Peak)	**+5%**
Minimum Output Voltage at Full Load (RMS Peak)	**-5%**
Service Factor	**1.00**
Maximum Ambient Temperature	**-40C to +50C open panel filters** **-40C to +90C storage**
Insertion Loss @ Full Load	**<5%**
Efficiency	**>98%**
Altitude Without Derating	**3,300 feet above sea level**
Relative Humidity	**0% to 95% non-condensing**
Current Rating	**150% for 1 minute duration**

Product specifications subject to change at anytime.

Matrix® E-Series Harmonic Spectrum Chart



How to properly size your filter

- **Determine voltage and frequency required**
- **Reference motor nameplate to determine motor HP or kW and Full Load Amps**
- **Select filter based on Motor Full Load Amps**
  Do not exceed filter's maximum current rating (amps)
- **Determine derating requirements**
  Reference Performance Specifications table on previous page

Understanding the Matrix® E-Series Part Number:

MAE P _ _ _ _ X

Matrix® E-Series

Enclosure Type
P = Panel Mount (No Enclosure)

Current Rating
0006 is 6 Amps
0083 is 83 Amps
0320 is 320 Amps

Voltage Frequency Code
C 380 – 415 Volts 50 Hz
D 480 Volts 60 Hz

380V - 415V 50Hz

Motor (Ref Only) kW	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D) Inches	Filter Dimensions (H x W x D) Millimeters	Approx Weight Lbs	Approx Weight Kgs	Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Inches	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Millimeters	Qty Req'd	Ref Fig
1.1 - 2.2	6	MAEP0006C	OPEN	8.2 x 6.9 x 3.5	208 x 175 x 8	13	6	2	65	7.5 x 3.0	191 x 76	1	1
-	8	MAEP0008C	OPEN	9.8 x 6.9 x 3.5	249 x 175 x 89	18	8	2	74	7.5 x 3.9	191 x 99	1	1
3.7	11	MAEP0011C	OPEN	9.8 x 6.9 x 4.1	249 x 175 x 104	27	12	2	94	7.5 x 3.9	191 x 99	1	1
5.5	14	MAEP0014C	OPEN	9.8 x 6.9 x 4.1	249 x 175 x 104	27	12	2	106	7.5 x 3.9	191 x 99	1	1
7.5	21	MAEP0021C	OPEN	12.0 x 7.1 x 5.4	305 x 180 x 137	30	14	2	192	7.5 x 4.6	191 x 117	1	1
11	27	MAEP0027C	OPEN	12.0 x 7.1 x 5.6	305 x 180 x 142	36	16	2	212	9.1 x 4.6	231 x 117	1	1
15	34	MAEP0034C	OPEN	12.0 x 7.1 x 6.1	305 x 180 x 155	41	19	2	205	9.1 x 4.6	231 x 117	1	1
18.5 - 22	44	MAEP0044C	OPEN	12.0 x 7.1 x 6.1	305 x 180 x 155	43	20	2	270	10.6 x 4.6	269 x 117	1	1
-	52	MAEP0052C	OPEN	14.5 x 9.6 x 6.9	368 x 244 x 175	55	25	3	278	9.1 x 4.6	231 x 117	1	1
										7.5 x 3.9	191 x 99	1	1
30	66	MAEP0066C	OPEN	14.6 x 9.6 x 6.7	371 x 244 x 170	60	27	3	359	10.6 x 4.6	269 x 117	1	1
										9.1 x 4.6	231 x 117	1	1
37 - 45	83	MAEP0083C	OPEN	14.5 x 9.6 x 7.5	368 x 244 x 191	74	34	3	378	10.6 x 4.6	269 x 117	2	1
55	103	MAEP0103C	OPEN	14.6 x 9.6 x 8.3	371 x 244 x 211	86	39	3	397	10.6 x 4.6	269 x 117	2	1
-	128	MAEP0128C	OPEN	14.9 x 9.6 x 8.8	378 x 244 x 224	97	44	3	480	10.6 x 4.6	269 x 117	2	1
75 - 90	165	MAEP0165C	OPEN	16.9 x 11.0 x 9.0	429 x 279 x 299	119	54	4	668	10.6 x 4.6	269 x 117	3	1
110	208	MAEP0208C	OPEN	17.1 x 11.0 x 9.3	434 x 279 x 236	136	62	4	732	10.6 x 4.6	269 x 117	3	1
-	240	MAEP0240C	OPEN	16.8 x 11.0 x 10.5	427 x 279 x 267	166	75	4	768	7.5 x 3.0	191 x 76	3	1
										10.6 x 4.6	269 x 117	1	1
150	320	MAEP0320C	OPEN	17.1 x 11.0 x 10.4	434 x 279 x 264	181	82	4	929	10.6 x 4.6	269 x 117	4	1

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.

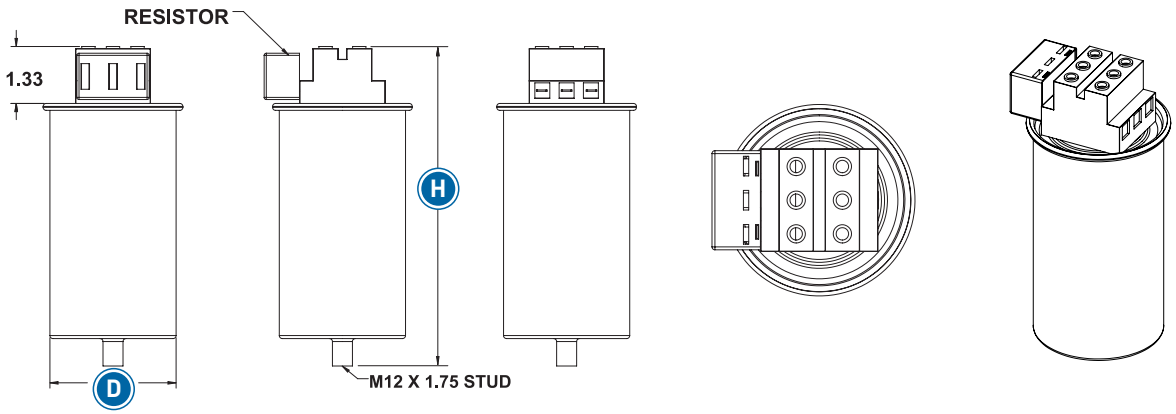
480V 60Hz

Motor (Ref Only) HP	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D) Inches	Filter Dimensions (H x W x D) Millimeters	Approx Weight Lbs	Approx Weight Kgs	Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Inches	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Millimeters	Qty Req'd	Ref Fig
3	6	MAEP0006D	OPEN	8.2 x 6.9 x 3.5	208 x 175 x 89	13	6	2	70	7.5 x 3.0	191 x 76	1	1
5	8	MAEP0008D	OPEN	9.8 x 6.9 x 3.5	249 x 175 x 89	17	8	2	79	7.5 x 3.0	191 x 76	1	1
7.5	11	MAEP0011D	OPEN	9.8 x 6.9 x 3.8	249 x 175 x 97	24	11	2	101	7.5 x 3.9	191 x 99	1	1
10	14	MAEP0014D	OPEN	9.8 x 6.9 x 4.1	249 x 175 x 104	27	12	2	114	7.5 x 3.9	191 x 99	1	1
15	21	MAEP0021D	OPEN	12.0 x 7.1 x 5.4	305 x 180 x 137	29	13	2	206	7.5 x 3.9	191 x 99	1	1
20	27	MAEP0027D	OPEN	12.0 x 7.1 x 5.6	305 x 180 x 142	33	15	2	227	7.5 x 3.9	191 x 99	1	1
25	34	MAEP0034D	OPEN	12.0 x 7.1 x 6.1	305 x 180 x 155	40	18	2	220	7.5 x 3.9	191 x 99	1	1
										7.5 x 3.0	191 x 76	1	1
30	44	MAEP0044D	OPEN	12.0 x 7.1 x 6.1	305 x 180 x 155	43	20	2	289	7.5 x 3.0	191 x 76	1	1
										9.1 x 4.6	231 x 117	1	1
40	52	MAEP0052D	OPEN	14.5 x 9.6 x 6.9	368 x 244 x 175	53	24	3	298	9.1 x 4.6	231 x 117	1	1
50	66	MAEP0066D	OPEN	14.6 x 9.6 x 6.7	371 x 244 x 170	56	25	3	384	7.5 x 3.0	191 x 76	1	1
										10.6 x 4.6	269 x 117	1	1
60	83	MAEP0083D	OPEN	14.5 x 9.6 x 7.5	368 x 244 x 191	73	33	3	405	9.1 x 4.6	231 x 117	2	1
75	103	MAEP0103D	OPEN	14.6 x 9.6 x 8.3	371 x 244 x 211	82	37	3	425	10.6 x 4.6	269 x 117	1	1
										7.5 x 3.9	191 x 99	1	1
100	128	MAEP0128D	OPEN	14.9 x 9.6 x 8.8	378 x 244 x 224	97	44	3	514	10.6 x 4.6	269 x 117	2	1
125	165	MAEP0165D	OPEN	16.9 x 11.0 x 9.0	429 x 279 x 229	115	52	4	715	7.5 x 3.0	191 x 76	2	1
										10.6 x 4.6	269 x 117	1	1
150	208	MAEP0208D	OPEN	17.1 x 11.0 x 9.3	434 x 279 x 236	136	62	4	783	7.5 x 3.9	191 x 99	2	1
										10.6 x 4.6	269 x 117	2	1
200	240	MAEP0240D	OPEN	16.8 x 11.0 x 10.5	427 x 279 x 267	160	73	4	822	7.5 x 3.0	191 x 76	2	1
										9.1 x 4.6	231 x 117	2	1
250	320	MAEP0320D	OPEN	17.1 x 11.0 x 10.4	434 x 279 x 264	183	83	4	994	10.6 x 4.6	269 x 117	4	1
										7.5 x 3.0	191 x 76	1	1

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.

CAPACITOR/CAPACITOR PANEL

FIGURE 1



OPEN MAGNETICS

FIGURE 2

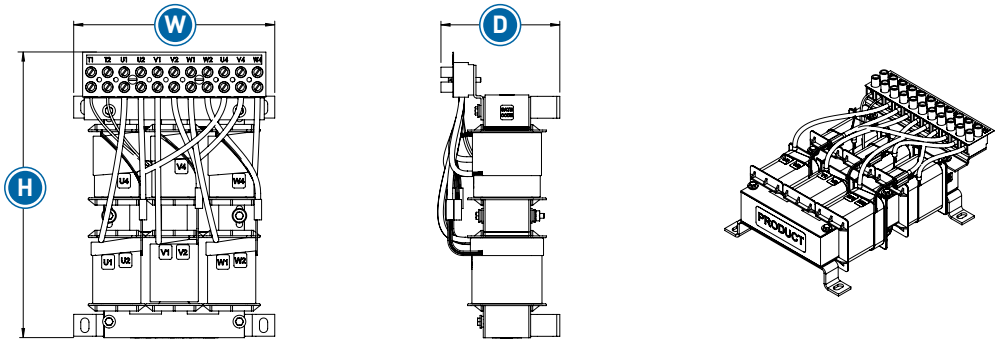


FIGURE 3

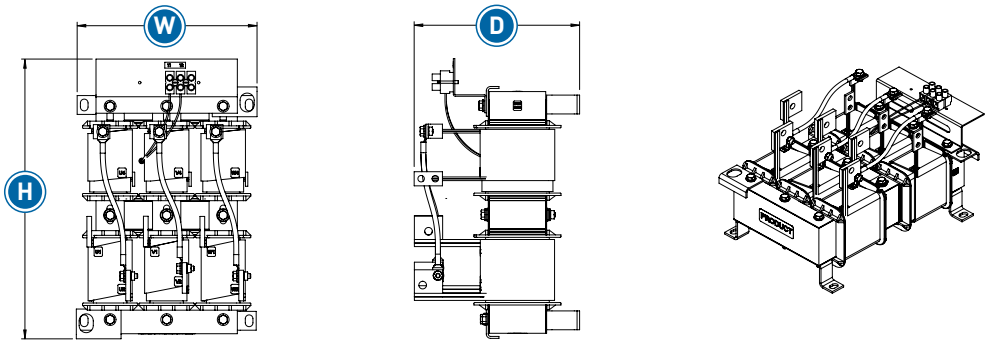
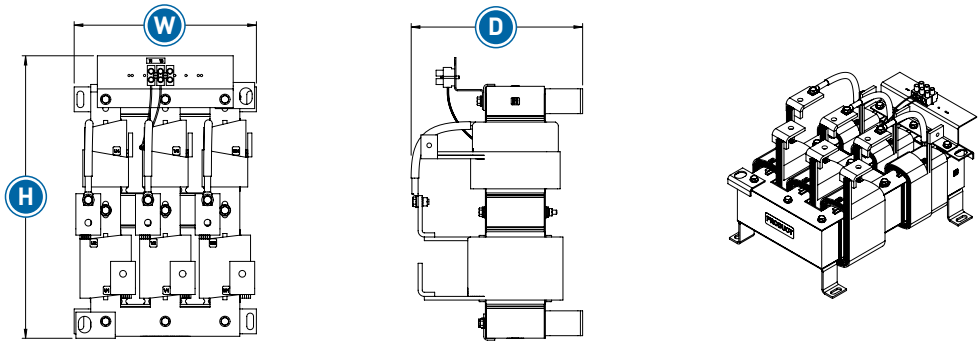


FIGURE 4

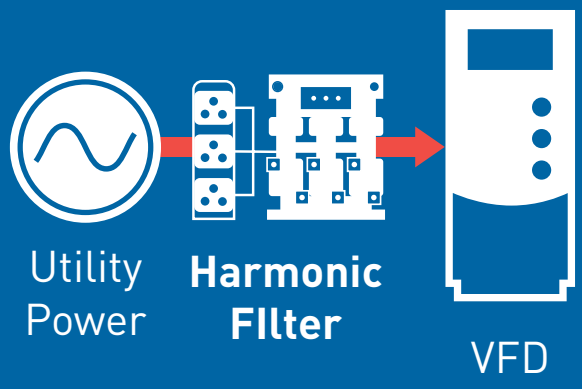


Harmonic Filters

Matrix® AP
Adaptive Passive Technology for superior harmonic mitigation at varying loads

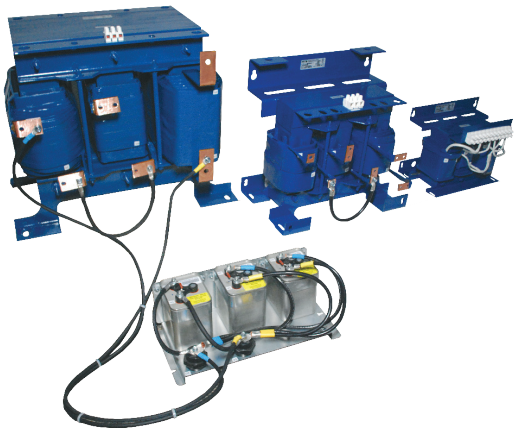
Matrix® E-Series
Power quality you've come to expect from the power quality experts

Single Phase Matrix® ONE
Optimized harmonic filters with proven harmonic mitigation





Matrix® One



- **Extends the service life of electrical equipment**
- **Reduces system downtime**
- **Easy to install and maintain**
- **Increases energy efficiency**
- **Three-year warranty**

Power quality you can count on.

The Single Phase Matrix® ONE Filter provides reliable harmonic protection in environments where utility power may not be optimal. MTE has built the Single Phase Matrix® ONE Filter with time-tested components to work in rural, remote areas where three phase power is often not available. Its patented technology reduces harmonic distortion allowing your equipment to run with increased energy efficiency and better overall THID performance.

The Matrix® ONE is designed to generate less heat and reduce system downtime. Easy to install and maintain, the Single Phase Matrix® ONE produces the protection you need to extend the service life of your equipment.

MTE
POWER QUALITY. SOLVED.
A STEEL PARTNERS COMPANY

Improve power quality and reduce downtime with our optimized single phase harmonic filters.

The Single Phase Matrix® ONE Filter is proven to produce harmonic mitigation for your VFD or other single phase power applications.

Patented design with reliable components provides harmonic mitigation and reduced THID (Total Harmonic Distortion) where you need it most.

Low cost solution that is easy to install and maintain.

Performance that is able to withstand harsh and remote conditions.

Extends service life of equipment by reducing heat, and improving system efficiency.

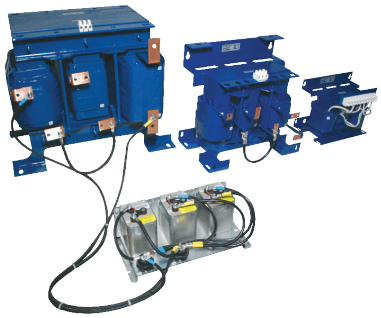
Alleviates system downtime by preventing blown fuses and tripped circuit breakers.

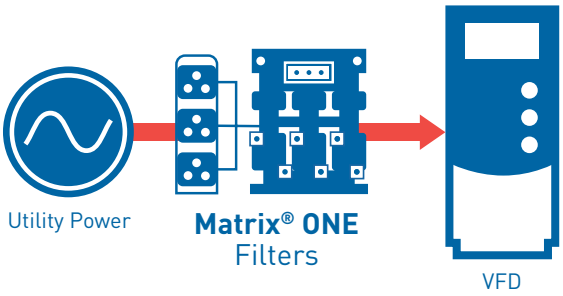
Performance Specifications

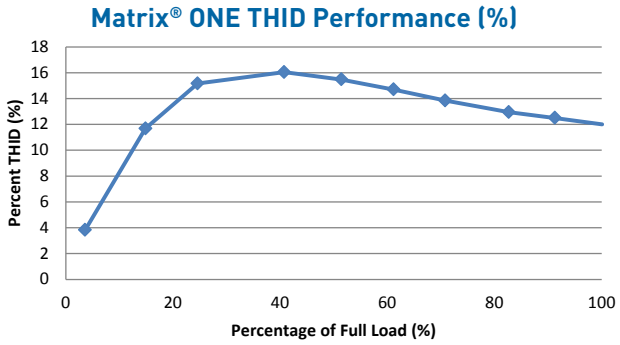
Service Load Condition	**Load: typically a 4-pulse rectifier**
Input Voltage	**240V +/- 10%; 60 + 0.75Hz; 1-phase** **480V +/- 10%; 60 + 0.75Hz; 1-phase**
Maximum THID	**12% @ Full Load**
Maximum Ambient Temperature	**-40°C to +50°C open panel filters;** **-40°C to +40°C enclosed filters;** **-40°C to +90°C storage**
Insertion Loss	**+10% no load; -10% full load**
Efficiency	**97% - 99%**
Altitude Without Derating	**3,300 feet above sea level**
Relative Humidity	**0% to 95% non-condensing**
Overload	**150% for 1 minute duration**

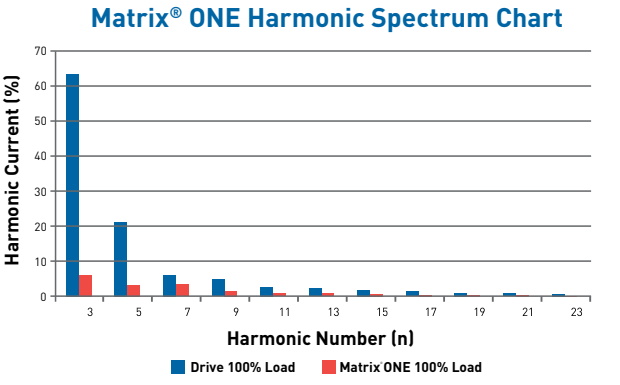
Final product specifications subject to change at any time.

Matrix® ONE









How to properly size your filter

- **Determine voltage, frequency, and number of phases required**
- **Reference motor nameplate to determine motor HP or kW and Full Load Amps**
- **Select filter based on Motor Full Load Amps**
  Do not exceed filter's maximum current rating (amps)
- **Specify enclosure style**
  Open (No enclosure)
  NEMA 1/2 (General Purpose Enclosure)
  NEMA 3R (Outdoor Enclosure)
- **Determine derating requirements**
  Reference Performance Specifications table on previous page as well as derating tables listed below:
  Table 1: Drive Output Frequency Derating
  Table 2: Altitude Derating Curve

Understanding the Matrix® ONE Part Number:

MS X _ _ _ _ X

Matrix® ONE

Enclosure Type
P = Open Magnetics (No Enclosure)
G = General Purpose (NEMA 1/2)
W = Weather (NEMA 3R)

Current Rating
0008 is 8 Amps
0090 is 90 Amps
0620 is 620 Amps

Voltage Frequency Code
A 240 Volts 60 Hz
D 480 Volts 60 Hz

Derating Curves:

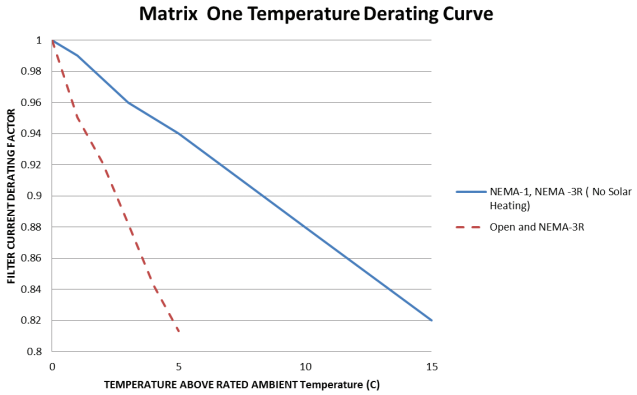


Table 1: Drive Output Frequency Derating

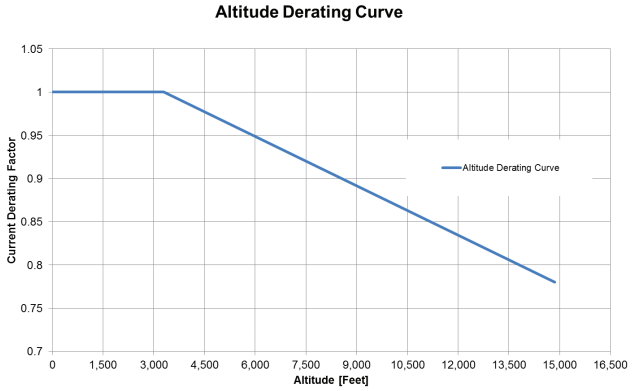


Table 2: Altitude Derating Curve

240V 60 Hz

Motor (Ref Only) HP	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D) Inches	Filter Dimensions (H x W x D) Millimeters	Approx Weight Lbs	Approx Weight Kgs	Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Inches	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D) Millimeters	Qty Req'd	Ref Fig
3	17	MSP0017A	OPEN	8.7 x 10.5 x 7.2	221 x 267 x 183	42	19	7	181	6.4 x 3.5	163 x 89	1	2
		MSG0017A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	90	41	5		Preinstalled in cabinet			
		MSW0017A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	98	44						
5	26	MSP0026A	OPEN	8.7 x 10.5 x 7.7	221 x 267 x 196	47	21	7	228	6.4 x 4.0	163 x 102	1	2
		MSG0026A	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	96	44	5		Preinstalled in cabinet			
		MSW0026A	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	103	47						
7.5	38	MSP0038A	OPEN	10.5 x 12.0 x 9.6	267 x 305 x 244	69	31	9	258	6.9 x 18.4 x 7.0	175 x 467 x 178	1	3
		MSG0038A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	145	66	6		Preinstalled in cabinet			
		MSW0038A	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	152	69						
10	49	MSP0049A	OPEN	10.5 x 12.0 x 10.2	267 x 305 x 259	79	36	9	430	6.9 x 18.4 x 7.0	175 x 467 x 178	1	3
		MSG0049A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	155	70	6		Preinstalled in cabinet			
		MSW0049A	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	162	73						
15	73	MSP0073A	OPEN	10.6 x 12.0 x 12.0	269 x 305 x 305	114	52	9	473	10.7 x 18.4 x 7.0	272 x 467 x 178	1	3
		MSG0073A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	190	86	6		Preinstalled in cabinet			
		MSW0073A	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	198	90						
20	94	MSP0094A	OPEN	15.2 x 15.3 x 10.9	386 x 389 x 277	150	68	11	636	9.2 x 16.4 x 7.6	234 x 417 x 193	1	3
		MSG0094A	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	319	145	6		Preinstalled in cabinet			
		MSW0094A	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	332	151						
25	115	MSP0115A	OPEN	15.2 x 15.3 x 11.6	386 x 389 x 295	167	76	11	631	6.9 x 16.3 x 7.6	175 x 414 x 193	1	3
		MSG0115A	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	338	153	6		Preinstalled in cabinet			
		MSW0115A	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	351	159						
30	140	MSP0140A	OPEN	15.2 x 15.3 x 12.3	386 x 389 x 312	199	90	11	805	9.2 x 16.4 x 7.6	234 x 417 x 193	1	3
		MSG0140A	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	370	168	6		Preinstalled in cabinet			
		MSW0140A	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	383	174						
40	180	MSP0180A	OPEN	15.3 x 15.3 x 14.6	389 x 389 x 371	248	112	11	1,055	9.9 x 16.4 x 7.6	251 x 417 x 193	1	4
		MSG0180A	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	418	190	6		Preinstalled in cabinet			
		MSW0180A	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	431	195						
50	225	MSP0225A	OPEN	18.3 x 15.3 x 13.8	465 x 389 x 351	296	134	11	967	9.9 x 16.4 x 7.6	251 x 417 x 193	1	4
		MSG0225A	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	466	211	6		Preinstalled in cabinet			
		MSW0225A	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	479	217						
60	265	MSP0265A	OPEN	18.4 x 15.3 x 14.9	467 x 389 x 378	317	144	11	1,115	9.9 x 16.4 x 7.6	251 x 417 x 193	2	4
		MSG0265A	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	739	335	6		Preinstalled in cabinet			
		MSW0265A	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	776	352						
75	330	MSP0330A	OPEN	18.4 x 15.3 x 16.7	467 x 389 x 424	377	171	11	1,359	9.9 x 16.4 x 7.6	251 x 417 x 193	2	4
		MSG0330A	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	799	362	6		Preinstalled in cabinet			
		MSW0330A	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	835	379						
100	430	MSP0430A	OPEN	20.5 x 24.0 x 17.4	521 x 610 x 442	612	278	12	1,647	9.6 x 16.4 x 7.6	244 x 417 x 193	1	3
										8.0 x 16.4 x 7.6	203 x 417 x 193	1	
		MSG0430A	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,040	472	6		Preinstalled in cabinet			
		MSW0430A	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,076	488						
125	540	MSP0540A	OPEN	20.6 x 24.0 x 18.5	523 x 610 x 470	718	326	12	1,872	11.5 x 16.3 x 7.6	292 x 414 x 193	1	3
										10.7 x 16.3 x 7.6	272 x 414 x 193	1	
		MSG0540A	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,146	520	6		Preinstalled in cabinet			
		MSW0540A	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,186	538						
150	620	MSP0620A	OPEN	20.6 x 24.0 x 19.7	523 x 610 x 500	827	375	12	2,094	11.5 x 16.3 x 7.6	292 x 414 x 193	2	3
		MSG0620A	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,455	660	6		Preinstalled in cabinet			
		MSW0620A	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,495	678						

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.

480V 60 Hz

Motor (Ref Only) HP	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D)		Approx Weight		Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D)		Qty Req'd	Ref Fig
				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters		
3	8	MSP0008D	OPEN	8.6 x 10.5 x 7.2	218 x 267 x 183	41	19	7	184	7.8 x 3.9	198 x 99	1	1
		MSG0008D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	89	40	5		Preinstalled in cabinet			
		MSW0008D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	97	44						
5	13	MSP0013D	OPEN	8.7 x 10.5 x 7.7	221 x 267 x 196	51	23	7	219	8.3 x 4.6	211 x 117	1	1
		MSG0013D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	98	44	5		Preinstalled in cabinet			
		MSW0013D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	106	48						
7.5	19	MSP0019D	OPEN	10.5 x 12.0 x 8.0	267 x 305 x 203	67	30	8	292	8.3 x 4.6	211 x 117	1	1
		MSG0019D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	142	64	6		Preinstalled in cabinet			
		MSW0019D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	149	68						
10	24	MSP0024D	OPEN	10.5 x 12.0 x 8.5	267 x 305 x 216	75	34	8	350	9.2 x 4.6	234 x 117	1	1
		MSG0024D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	149	68	6		Preinstalled in cabinet			
		MSW0024D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	157	71						
15	37	MSP0037D	OPEN	10.6 x 12.0 x 11.8	269 x 305 x 300	106	48	9	509	6.4 x 3.5	163 x 89	1	2
		MSG0037D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	181	82	6		Preinstalled in cabinet			
		MSW0037D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	192	87						
20	47	MSP0047D	OPEN	15.2 x 15.3 x 10.9	386 x 389 x 277	145	66	10	667	10.9 x 16.4 x 7.6	277 x 417 x 193	1	4
		MSG0047D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	311	141	6		Preinstalled in cabinet			
		MSW0047D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	324	147						
25	59	MSP0059D	OPEN	15.2 x 15.3 x 11.7	386 x 389 x 297	159	72	10	648	7.9 x 16.3 x 7.6	201 x 414 x 193	1	3
		MSG0059D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	325	147	6		Preinstalled in cabinet			
		MSW0059D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	338	153						
30	69	MSP0069D	OPEN	15.1 x 15.3 x 11.8	384 x 389 x 300	164	74	10	629	6.7 x 16.4 x 7.6	170 x 417 x 193	1	4
		MSG0069D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	330	150	6		Preinstalled in cabinet			
		MSW0069D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	343	156						
40	90	MSP0090D	OPEN	15.2 x 15.3 x 13.2	386 x 389 x 335	217	98	11	818	6.9 x 16.3 x 7.6	175 x 414 x 193	1	3
		MSG0090D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	387	176	6		Preinstalled in cabinet			
		MSW0090D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	400	181						
50	110	MSP0110D	OPEN	18.3 x 15.3 x 12.9	465 x 389 x 328	254	115	11	1,010	7.7 x 16.4 x 7.6	196 x 417 x 193	1	4
		MSG0110D	NEMA 1/2	76.0 x 27.7 x 24.9	1930 x 704 x 632	497	225	6		Preinstalled in cabinet			
		MSW0110D	NEMA 3R	76.0 x 27.7 x 34.0	1930 x 704 x 864	523	237						
60	135	MSP0135D	OPEN	18.3 x 15.3 x 14.3	465 x 389 x 363	303	137	11	1,287	7.7 x 16.4 x 7.6	196 x 417 x 193	2	4
		MSG0135D	NEMA 1/2	76.0 x 27.7 x 24.9	1930 x 704 x 632	546	248	6		Preinstalled in cabinet			
		MSW0135D	NEMA 3R	76.0 x 27.7 x 34.0	1930 x 704 x 864	571	259						
75	165	MSP0165D	OPEN	18.3 x 15.3 x 15.4	465 x 389 x 391	349	158	11	1,503	9.2 x 16.4 x 7.6	234 x 417 x 193	1	4
		MSG0165D	NEMA 1/2	76.0 x 27.7 x 24.9	1930 x 704 x 632	590	268	6		Preinstalled in cabinet			
		MSW0165D	NEMA 3R	76.0 x 27.7 x 34.0	1930 x 704 x 864	616	279						
100	215	MSP0215D	OPEN	20.4 x 24.0 x 15.7	518 x 610 x 399	582	264	12	1,409	6.7 x 16.4 x 7.6	170 x 417 x 193	2	4
		MSG0215D	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,005	456	6		Preinstalled in cabinet			
		MSW0215D	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,050	476						
125	270	MSP0270D	OPEN	20.3 x 24.0 x 18.7	516 x 610 x 475	690	313	12	1,641	6.9 x 16.3 x 7.6	175 x 414 x 193	1	3
										7.9 x 16.3 x 7.6	201 x 414 x 193	1	
		MSG0270D	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,113	505	6		Preinstalled in cabinet			
		MSW0270D	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,147	520						
150	310	MSP0310D	OPEN	20.3 x 24.0 x 20.2	516 x 610 x 513	787	357	12	1,797	7.9 x 16.3 x 7.6	201 x 414 x 193	2	3
		MSG0310D	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,408	639	6		Preinstalled in cabinet			
		MSW0310D	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,449	657						

Note: Weights and dimensions are for reference only. Please visit **mtecorp.com** for detailed information.

MATRIX® ONE REFERENCE FIGURES

CAPACITOR

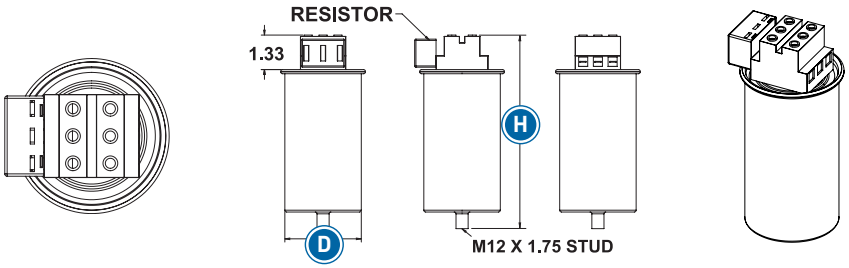


FIGURE 1

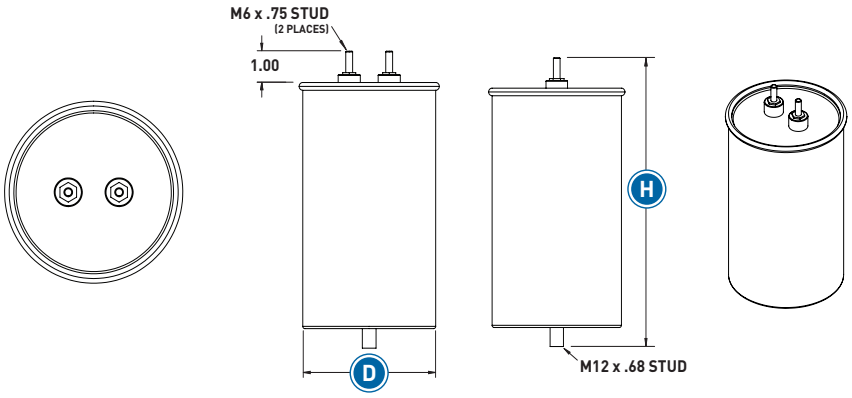


FIGURE 2

CAPACITOR PANEL

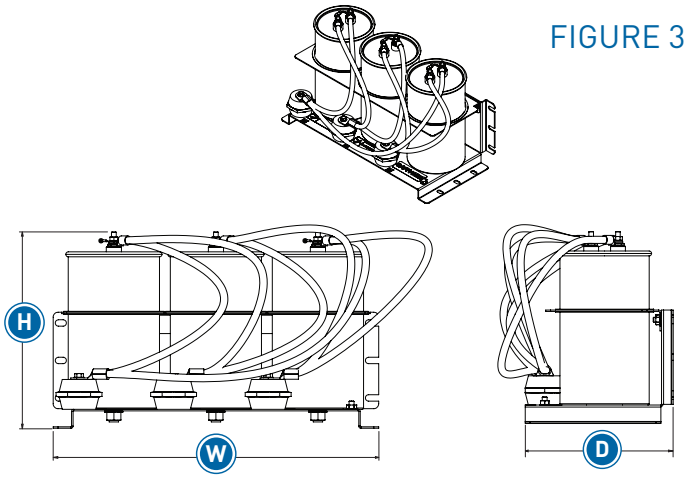


FIGURE 3

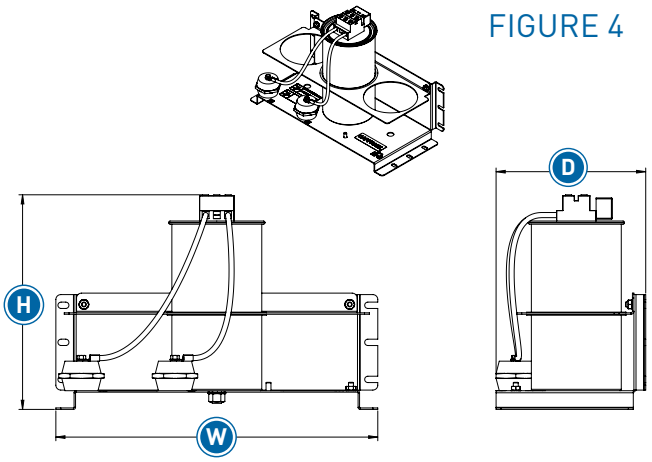


FIGURE 4

ENCLOSURES

(NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES)

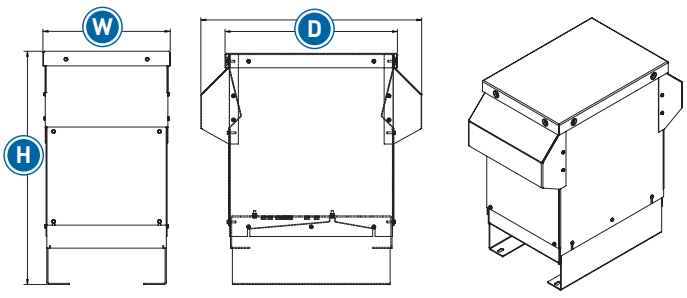


FIGURE 5

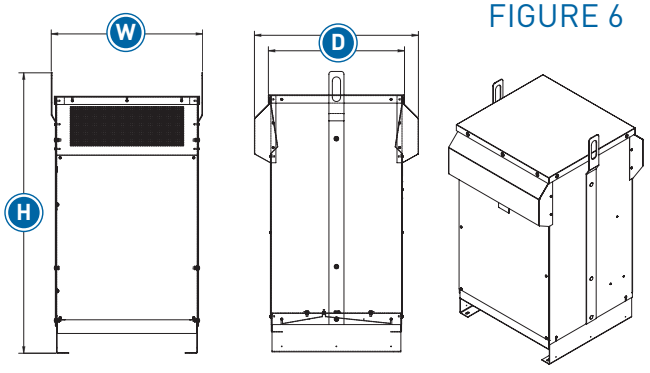


FIGURE 6

Note: Figure illustrations are for reference only. Actual hardware may differ. Please visit **mtecorp.com** for detailed information.

OPEN MAGNETICS

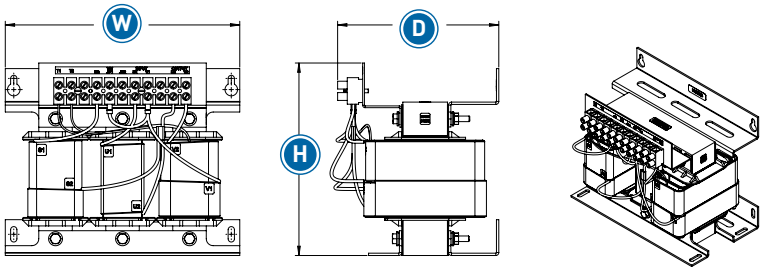


FIGURE 7

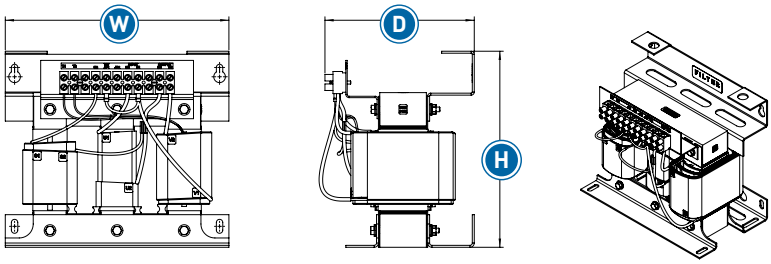


FIGURE 8

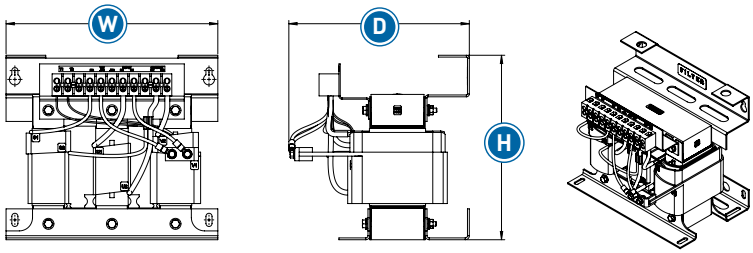


FIGURE 9

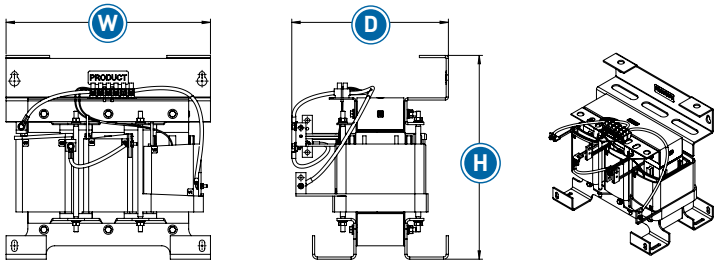


FIGURE 10

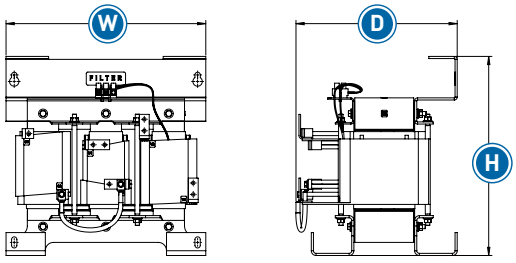


FIGURE 11

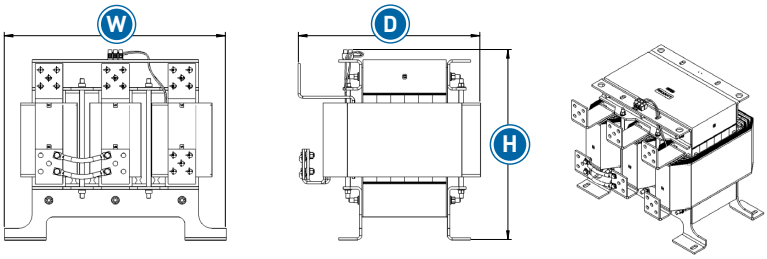
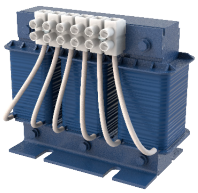


FIGURE 12

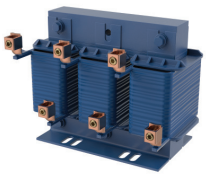
Note: Figure illustrations are for reference only. Actual hardware may differ. Please visit **mtecorp.com** for detailed information.

Our Products

REACTOR PRODUCTS



RL Reactors
The RL family of line and load reactors is unequaled in absorbing power line disturbances to reduce nuisance tripping, reduce harmonic distortion, and minimize long lead effects.



RLW Reactors
The RLW family of line and load reactors provides an engineered solution to protect electrical systems against harmful and annoying power distortions.

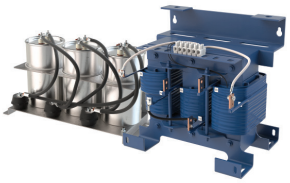


DC Link Chokes
Designed to be added to a VFD's internal bridge and bus, DC Link Chokes help reduce AC input line current harmonic distortion while absorbing DC bus voltage spikes.

HARMONIC MITIGATION FILTERS



Matrix® AP
The Matrix® AP is the most advanced passive filter on the market to meet IEEE-519. Its patented Adaptive Passive Technology adapts to varying loads to virtually eliminate harmonics.

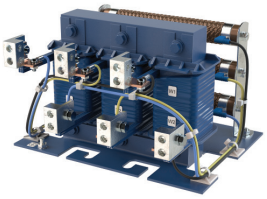


Matrix® ONE
Matrix® ONE single phase filters are optimized to work in remote and rural areas where three phase power is not available.

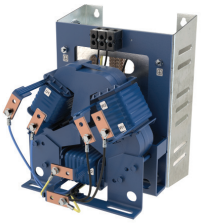


Matrix® E-Series
The Matrix® E-Series harmonic filter meets the international harmonic distortion requirement of 10%-15% while also supporting the compliance of IEEE-519.

MOTOR PROTECTION FILTERS



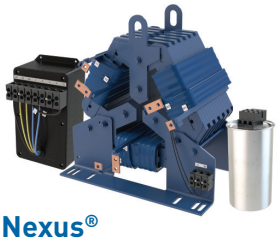
dV E-Series
The dV E-Series is lighter, more efficient, and runs cooler than other dV/dt solutions making it the optimal solution for leads less than 1,000 ft.



dV Sentry®
The dV Sentry® and its patented Triple Defense Core is proven to reduce common mode, protect against peak voltage, and reduce rise time – all-in-one unit.



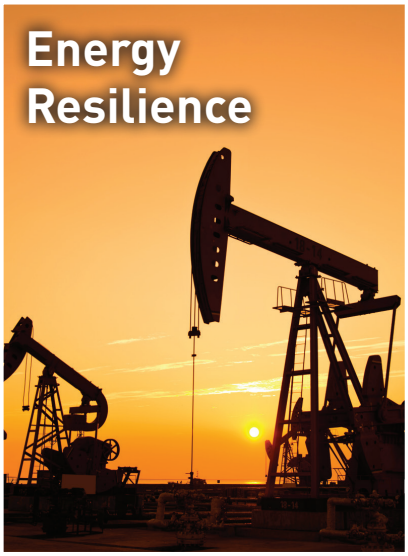
SineWave Guardian®
This best-in-class filter cleans up the PWM waveforms generated by VFDs. It virtually eliminates high frequency content and voltage peaks to reduce motor downtime.
*Also available for **High Frequency and Permanent Magnet Motors**



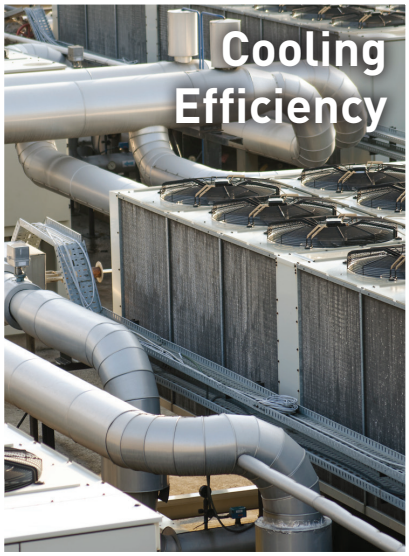
SineWave Nexus®
SineWave Nexus® filters eliminates common mode voltage which causes motor bearing failures such as pitting, frosting, or fluting damage - up to 15,000 feet.



microNexus™
The microNexus takes the unparalleled performance of our SineWave Nexus and shrinks it down into a space-saving solution that integrates into any micro drive application.









Trusted by leading industries.

At MTE, we leverage our know-how to provide not just any solution, but the perfect solution customized to fit even the most demanding industries. As the power quality partner of choice for hundreds of leading companies, we protect your most valuable assets by combining our knowledge, expertise, and support to increase uptime and improve your bottom line.

Whatever the power quality problem, **MTE is the trusted solution.**

