



Power  
quality.  
Solved.

## Solutions Catalog

**MTE**  
POWER QUALITY. SOLVED.

A STEEL PARTNERS COMPANY

# We set the benchmark for power quality.

We pride ourselves on engineering products that don't just work, but deliver integrated, sophisticated solutions that are specifically designed for your application needs.

Our goal at MTE is to eliminate the worry and headaches caused by power distortion. Beyond helping you bring power quality into compliance, our filters increase efficiency, productivity, and equipment life.

**But most importantly, our filters are proven to increase your bottom line.**



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## Reactors

### RL Reactors

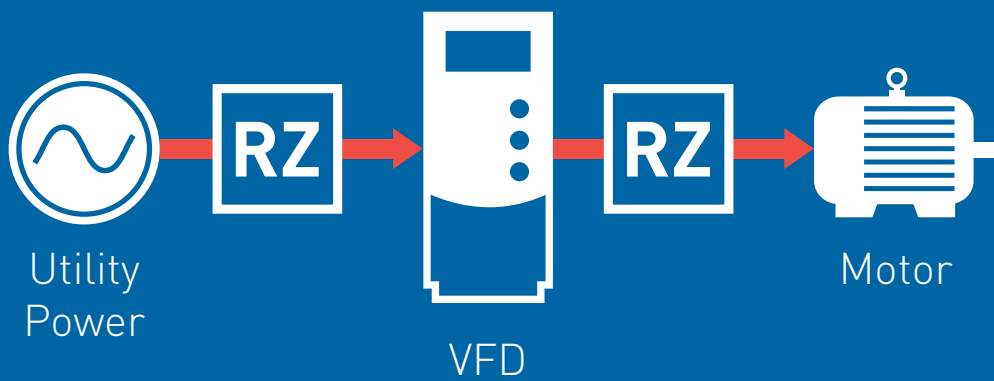
Best-in-class power quality units for absorbing power line disturbances

### RLW Reactors

State-of-the-art solution for absorbing everyday power line disturbances

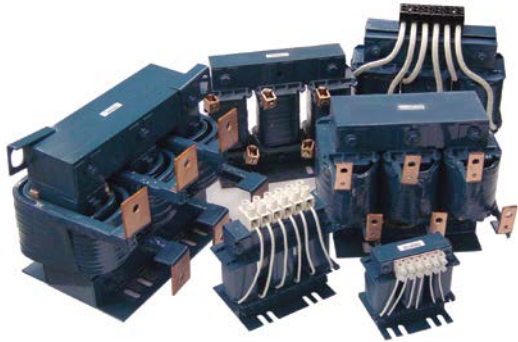
### DC Link Chokes

The cost-effective, versatile solution to solving power quality problems



# RL Reactors

## Product Selector



- **Best-in-class line/load reactors**
- **Most robust, highest continuous service factor**
- **Low watts loss**
- **Performance and durability that is unmatched by the competition**

## Peace of mind included.

Our RL Line/Load Reactors are best-in-class power quality units with a long history of proven performance. Rugged and robust, they are unequalled in absorbing power line disturbances that can damage or shut down variable frequency drives (VFDs) and other sensitive equipment. They work on both the line side and load side to give you an easy solution that reduces nuisance tripping, reduces harmonic distortion and minimizes long lead effects.

Improved power quality, enhanced productivity and complete peace of mind are easy with RL Line/ Load Reactors.

# Get best-in-class performance with our RL Line/Load Reactors.

Our RL Line/Load Reactors are a robust, best-in-class filtering solution for virtually any 4 or 6-pulse rectifier or power conversion unit. There is no need to derate these reactors. They are harmonic compensated and protected to assure optimum performance in the presence of harmonics, and can help you meet IEEE-519 requirements. There are units available for a full line of currents (1A to 1,500A) and a full line of impedance options (1.5%, 3% and 5%).

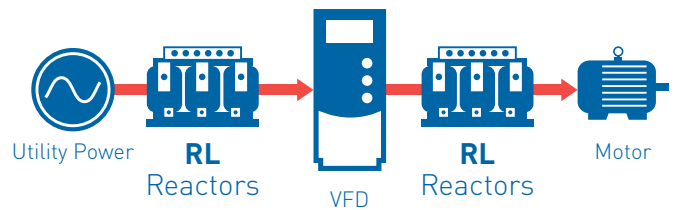
**Robust design and construction** for unequaled filtering of power line disturbances.

**Highest continuous service factor** virtually eliminates breakdowns in the field.

**Reduces audible noise.**

**Multiple cabinet designs** help meet NEMA 1/2 and 3R.

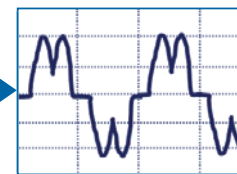
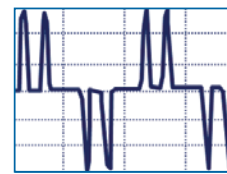
## RL Reactors



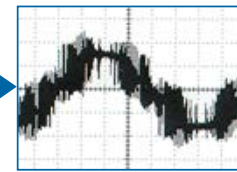
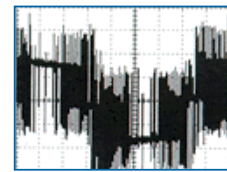
Performance Specifications	
Impedance Levels	1.5%, 3% and 5%
Continuous Service Factor	Reactors rated 1 to 750 Amps – 150% of rating Reactors rated above 750 Amps – 125% of rating
Overload Rating	200% of rated for 30 minutes 300% of rated for 1 minute
Input Voltage Range	208V – 690V
Current Range	1A – 1,500A
Temperature Rise	135°C
Ambient Temperature	-40°C to 50°C
Altitude Maximum Without Derating	1,000 meters
Fundamental Frequency	50/60 Hz
Inductance Curve	100% at 100% Current 100% at 150% Current 50% at 350% Current

Final product specifications subject to change at any time.

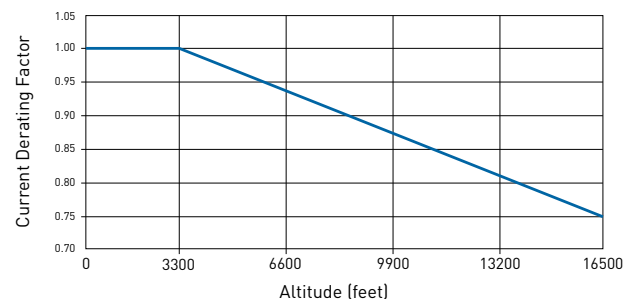
### MTE Input Reactor



### MTE Output Reactor



### Altitude Derating Curve



# ENCLOSURES

FIGURE 1

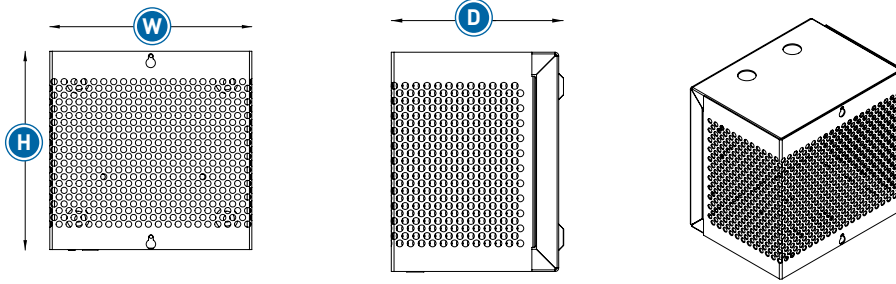
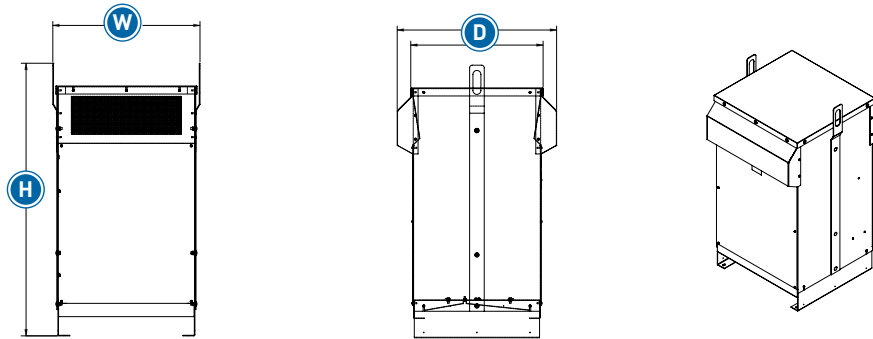
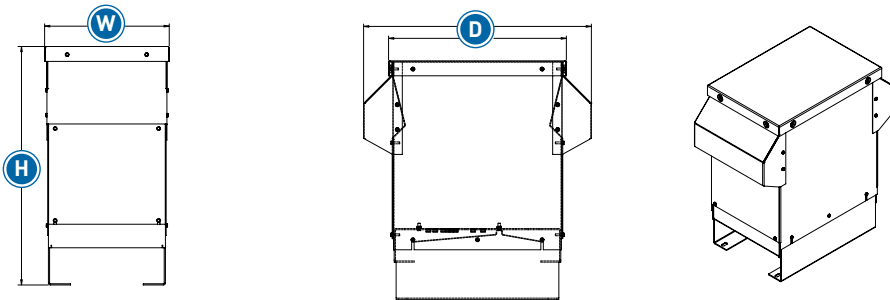


FIGURE 2



NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES

FIGURE 3



NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES

FIGURE 4

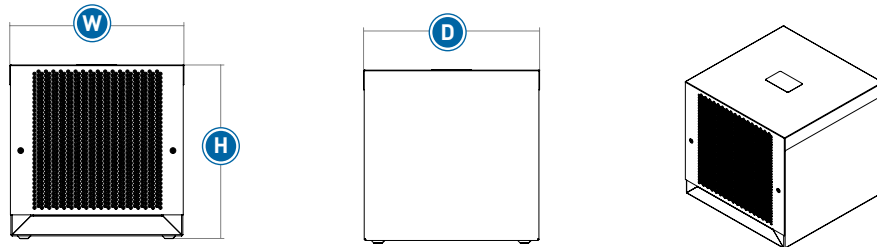
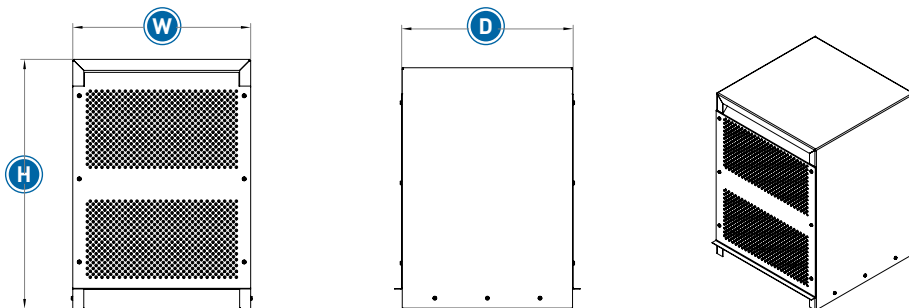


FIGURE 5



Note: Figure illustrations are for reference only. Actual hardware may differ. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.

# RL REACTOR SELECTION TABLES

Input Voltage & Hz	% Impedance	0.25 HP 0.18 kW	0.33 HP 0.25 kW	0.5 HP 0.37 kW	0.75 HP 0.55 kW	1.0 HP 0.75 kW	1.5 HP 1.1 kW	2.0 HP 1.5 kW	3.0 HP 2.2 kW	5.0 HP 3.7 kW	7.5 HP 5.5 kW	10.0 HP 7.5 kW	15.0 HP 11.0 kW	20.0 HP 15.0 kW	25.0 HP 18.5 kW	30.0 HP 22.0 kW
<b>Three Phase Input or Output Applications Selected by Motor</b>																
208V 60 Hz	3%	RL-00204	RL-00204	RL-00401	RL-00401	RL-00801	RL-00801	RL-00801	RL-01801	RL-02501	RL-03501	RL-05501	RL-05501	RL-08001	RL-10001	RL-10001
208V 60 Hz	5%	RL-00201	RL-00403	RL-00402	RL-00803	RL-00802	RL-00802	RL-01202	RL-01802	RL-02502	RL-03502	RL-05502	RL-04501	RL-05501	RL-08001	RL-13002
240V 60 Hz	3%	RL-00204	RL-00204	RL-00402	RL-00401	RL-00802	RL-00801	RL-00801	RL-01201	RL-01801	RL-02501	RL-03501	RL-04501	RL-05501	RL-08001	RL-10001
240V 60 Hz	5%	RL-00201	RL-00201	RL-00403	RL-00402	RL-00803	RL-00802	RL-00802	RL-01202	RL-02502	RL-03502	RL-03502	RL-05502	RL-08002	RL-10001	RL-08001
400V 50 Hz	3%	RL-00103	RL-00103	RL-00202	RL-00201	RL-00403	RL-00402	RL-00402	RL-00803	RL-00802	RL-01202	RL-01802	RL-02502	RL-03502	RL-04502	RL-04502
400V 50 Hz	5%	RL-00102	RL-00102	RL-00203	RL-00202	RL-00202	RL-00404	RL-00403	RL-00804	RL-00803	RL-01203	RL-01803	RL-02503	RL-03503	RL-04503	RL-05503
480V 60 Hz	3%	RL-00103	RL-00103	RL-00104	RL-00201	RL-00201	RL-00402	RL-00402	RL-00803	RL-00802	RL-01202	RL-01802	RL-02502	RL-03502	RL-03502	RL-04502
480V 60 Hz	5%	RL-00102	RL-00102	RL-00103	RL-00202	RL-00202	RL-00404	RL-00403	RL-00804	RL-00803	RL-01203	RL-01803	RL-02503	RL-03503	RL-03503	RL-05503
600V 60 Hz	3%	RL-00102	RL-00103	RL-00103	RL-00202	RL-00202	RL-00201	RL-00403	RL-00402	RL-00803	RL-01202	RL-01202	RL-01802	RL-02502	RL-02502	RL-03502
600V 60 Hz	5%	RL-00101	RL-00102	RL-00102	RL-00203	RL-00203	RL-00202	RL-00404	RL-00404	RL-00804	RL-01203	RL-01203	RL-01803	RL-02503	RL-02503	RL-03503
690V 50 Hz	2%	-	-	-	-	-	-	-	RL-00403	RL-00803	RL-00803	RL-01202	RL-01202	RL-01802	RL-02502	RL-02502
690V 50 Hz	3%	-	-	-	-	-	-	-	RL-00404	RL-00804	RL-00804	RL-01203	RL-01203	RL-01803	RL-02503	RL-02503
<b>Single Phase Input Applications</b>																
120V 60 Hz	5%	RL-01801	RL-01801	RL-01201	RL-01801	RL-01801	RL-02501	RL-03501	RL-05501	RL-10001	RL-16001	RL-20001B14	-	-	-	-
208V 60 Hz	5%	RL-00204	RL-00803	RL-00802	RL-01202	RL-00801	RL-01201	RL-01201	RL-01801	RL-03501	RL-04501	RL-05501	RL-08001	RL-10001	RL-13001	RL-16001
240V 60 Hz	5%	RL-00402	RL-00402	RL-00803	RL-00802	RL-01202	RL-01201	RL-01201	RL-01801	RL-02501	RL-04501	RL-04501	RL-08001	RL-10001	RL-13001	RL-16002
240V 50 Hz	5%	RL-00403	RL-00402	RL-00803	RL-00802	RL-00802	RL-01802	RL-01802	RL-02502	RL-03502	RL-03501	RL-05502	RL-10002	RL-13002	RL-13002	RL-16002
400V 50 Hz	5%	RL-00103	RL-00203	RL-00201	RL-00404	RL-00403	RL-00803	RL-00803	RL-01203	RL-01803	RL-02503	RL-03503	RL-04502	RL-05502	RL-08002	RL-08002
480V 60 Hz	5%	RL-00203	RL-00202	RL-00202	RL-00404	RL-00403	RL-00803	RL-00803	RL-01203	RL-01803	RL-02503	RL-02502	RL-04502	RL-05503	RL-08003	RL-08002
600V 60 Hz	5%	RL-00102	RL-00103	RL-00202	RL-00202	RL-00404	RL-00403	RL-00804	RL-00803	RL-01203	RL-01803	RL-02503	RL-03503	RL-04503	RL-05503	RL-05503

Note: The recommended reactor selections above are based on fundamental current ratings. Contact [appengrg@mtecorp.com](mailto:appengrg@mtecorp.com) with any questions regarding the proper reactor selection.

## Impedance Rating:

**3% impedance** reactors are typically sufficient to absorb power line spikes and motor current surges. They will prevent nuisance tripping of drives or circuit breakers in most applications.

**5% impedance** reactors are best for reducing harmonic currents and frequencies. Use them when you must reduce VFD drive generated harmonics, and to reduce motor operating temperature, or to reduce motor noise.

\*The effective impedance of the reactor changes with actual RMS current. A 5% impedance reactor becomes 3% if its current is reduced to 60%.



40.0 HP 30.0 kW	50.0 HP 37.5 kW	60.0 HP 45.0 kW	75.0 HP 55.0 kW	100.0 HP 75.0 kW	125.0 HP 93.0 kW	150.0 HP 112.0 kW	200.0 HP 150.0 kW	250.0 HP 187.0 kW	300.0 HP 225.0 kW	350.0 HP 262.0 kW	400.0 HP 300.0 kW	500.0 HP 375.0 kW	600.0 HP 450.0 kW	700.0 HP 550.0 kW	800.0 HP 600.0 kW
<b>Three Phase Input or Output Applications Selected by Motor</b>															
RL-13001	RL-16001	RL-20001B14	RL-25001B14	RL-32001B14	RL-40001B14	RL-50001B14	RL-60001	RL-75001	RL-85001B14	RL-100001B14	RL-120001B14	RL-140001	-	-	-
RL-16002	RL-20002B14	RL-25002B14	RL-32002B14	RL-40002B14	RL-50002	RL-75002	RL-75002	RL-90002B14	RL-100002B14	RL-120002B14	RL-150002	-	-	-	-
RL-13001	RL-13001	RL-16001	RL-20001B14	RL-25001B14	RL-32001B14	RL-40001B14	RL-50001B14	RL-60001	RL-75001	RL-85001B14	RL-100001B14	RL-120001B14	-	-	-
RL-13002	RL-16002	RL-16002	RL-20002B14	RL-25002B14	RL-40002B14	RL-40002B14	RL-60002	RL-75002	RL-75002	RL-85002B14	RL-100002B14	RL-140002	-	-	-
RL-08002	RL-08002	RL-10002	RL-13002	RL-16002	RL-20002B14	RL-20002B14	RL-32002B14	RL-40002B14	RL-40002B14	RL-50002	RL-60002	RL-75002	RL-85002B14	RL-90002B14	RL-120002B14
RL-08003	RL-10003	RL-10003	RL-13003	RL-16003	RL-20003B14	RL-20003B14	RL-32003B14	RL-40003B14	RL-40003B14	RL-50003	RL-60003	RL-75003	RL-85003B14	RL-90003B14	RL-120003B14
RL-05502	RL-08002	RL-10002	RL-10002	RL-13002	RL-16002	RL-20002B14	RL-25002B14	RL-32002B14	RL-40002B14	RL-50002	RL-50002	RL-60002	RL-75002	RL-85002B14	RL-100002B14
RL-05503	RL-08003	RL-10003	RL-10003	RL-13003	RL-16003	RL-20003B14	RL-25003B14	RL-32003B14	RL-40003B14	RL-50003	RL-50003	RL-60003	RL-75003	RL-85003B14	RL-100003B14
RL-04502	RL-05502	RL-08002	RL-08002	RL-10002	RL-13002	RL-16002	RL-20002B14	RL-25002B14	RL-32002B14	RL-32002B14	RL-40002B14	RL-50002	RL-60002	RL-75002	RL-75002
RL-04503	RL-05503	RL-08003	RL-08003	RL-10003	RL-13003	RL-16003	RL-20003B14	RL-25003B14	RL-32003B14	RL-32003B14	RL-40003B14	RL-50003	RL-60003	RL-75003	RL-75003
RL-03502	RL-04502	RL-05502	RL-05502	RL-08002	RL-10002	RL-13002	RL-16002	RL-20002B14	RL-25002B14	RL-25002B14	RL-32002B14	RL-40002B14	RL-40002B14	RL-50002	RL-60002
RL-03503	RL-04503	RL-04502	RL-05503	RL-08003	RL-10003	RL-13003	RL-16003	RL-20003B14	RL-25003B14	RL-25003B14	RL-32003B14	RL-40003B14	RL-50003	RL-50003	RL-60003
<b>Single Phase Input Applications</b>															
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RL-20001B14	RL-25001B14	RL-32001B14	RL-40001B14	RL-50001B14	-	-	-	-	-	-	-	-	-	-	-
RL-20002B14	RL-25002B14	RL-32002B14	RL-32001B14	RL-40001B14	-	-	-	-	-	-	-	-	-	-	-
RL-20002B14	RL-25002B14	RL-32002B14	RL-40002B14	RL-50002	-	-	-	-	-	-	-	-	-	-	-
RL-10002	RL-13003	RL-16003	RL-20003B14	RL-25003B14	-	-	-	-	-	-	-	-	-	-	-
RL-10002	RL-13003	RL-16003	RL-20003B14	RL-25003B14	RL-32003B14	RL-40003B14	RL-40003B14	-	-	-	-	-	-	-	-
RL-08003	RL-10003	RL-13003	RL-13003	RL-20003B14	RL-25003B14	RL-25003B14	RL-32003B14	-	-	-	-	-	-	-	-

Note: The recommended reactor selections above are based on fundamental current ratings. Contact [appengrg@mtecorp.com](mailto:appengrg@mtecorp.com) with any questions regarding the proper reactor selection.

# RL REACTOR SELECTION TABLES

Open					
Open Part Number	Amps Rating	Inductance mh	Watts Loss	Open Weight (lbs)	Size (in) (H x W x D)
RL-00101	1	100	14.1	4	4.0 x 4.2 x 3.0
RL-00102	1	50	14.8	4	4.1 x 4.4 x 2.8
RL-00103	1	36	12.0	3	4.1 x 4.4 x 2.8
RL-00104	1	18	8.0	3	4.1 x 4.4 x 2.8
RL-00201	2	12	7.5	4	4.0 x 4.2 x 2.6
RL-00202	2	20	11.3	4	4.0 x 4.2 x 2.6
RL-00203	2	32	16	4	4.0 x 4.2 x 2.6
RL-00204	2	6	10.7	3	4.0 x 4.2 x 2.6
RL-00401	4	3	14.5	4	4.0 x 4.2 x 2.6
RL-00402	4	6.5	20	4	4.0 x 4.2 x 2.6
RL-00403	4	9	20	5	4.0 x 4.2 x 3.0
RL-00404	4	12	21	6	4.0 x 4.2 x 3.3
RL-00801	8	1.5	19.5	7	4.6 x 5.9 x 2.9
RL-00802	8	3	29	8	4.6 x 5.9 x 2.9
RL-00803	8	5	25.3	11	4.7 x 5.9 x 3.3
RL-00804	8	7.5	28	13	4.7 x 5.9 x 3.3
RL-01201	12	1.25	26	9	5.0 x 5.9 x 3.2
RL-01202	12	2.5	31	10	5.0 x 5.9 x 3.2
RL-01203	12	4.2	41	18	5.0 x 5.9 x 3.8
RL-01801	18	0.8	36	9	5.1 x 5.9 x 3.2
RL-01802	18	1.5	43	12	5.1 x 5.9 x 3.5
RL-01803	18	2.5	43	16	5.7 x 7.1 x 3.7
RL-02501	25	0.5	48	11	5.7 x 7.1 x 3.4
RL-02502	25	1.2	52	14	5.8 x 7.1 x 3.4
RL-02503	25	1.8	61	20	5.8 x 7.1 x 4.2
RL-03501	35	0.4	49	14	5.7 x 7.1 x 3.7
RL-03502	35	0.8	54	16	5.8 x 7.1 x 3.7
RL-03503	35	1.2	54	26	7.2 x 8.9 x 4.6
RL-04501	45	0.3	54	22	7.1 x 8.9 x 4.6
RL-04502	45	0.7	62	26	7.2 x 8.9 x 4.6
RL-04503	45	1.2	65	34	7.3 x 8.9 x 5.1
RL-05501	55	0.25	64	24	6.9 x 9.0 x 5.3
RL-05502	55	0.5	67	26	6.9 x 9.0 x 5.3
RL-05503	55	0.85	71	34	6.9 x 8.9 x 6.3
RL-08001	80	0.2	82	25	6.9 x 8.9 x 5.7
RL-08002	80	0.4	86	33	7.1 x 8.9 x 5.7
RL-08003	80	0.7	96	63	8.5 x 10.8 x 6.6
RL-10001	100	0.15	94	29	7.0 x 8.9 x 6.0
RL-10002	100	0.3	84	37	7.0 x 8.9 x 6.6
RL-10003	100	0.45	108	67	8.4 x 10.8 x 7.8
RL-13001	130	0.1	108	29	7.3 x 9.6 x 5.9
RL-13002	130	0.2	180	43	7.2 x 9.6 x 6.0
RL-13003	130	0.3	128	64	8.5 x 10.8 x 7.3

Open					
Open Part Number	Amps Rating	Inductance mh	Watts Loss	Open Weight (lbs)	Size (in) (H x W x D)
RL-16001	160	0.075	116	41	7.2 x 9.6 x 6.0
RL-16002	160	0.15	149	54	8.4 x 10.8 x 6.7
RL-16003	160	0.23	138	74	8.5 x 10.8 x 7.4
RL-20001B14	200	0.055	124	38	7.2 x 9.6 x 7.1
RL-20002B14	200	0.11	168	54	7.2 x 9.6 x 7.9
RL-20003B14	200	0.185	146	100	8.3 x 10.8 x 9.1
RL-25001B14	250	0.045	154	47	7.0 x 9.6 x 8.1
RL-25002B14	250	0.09	231	80	8.5 x 10.8 x 7.6
RL-25003B14	250	0.15	588	125	11.2 x 14.3 x 8.7
RL-32001B14	320	0.04	224	80	8.4 x 10.8 x 7.9
RL-32002B14	320	0.075	264	102	8.4 x 10.8 x 8.9
RL-32003B14	320	0.125	642	160	11.1 x 14.3 x 9.4
RL-40001B14	400	0.03	213	84	8.4 x 11.0 x 8.6
RL-40002B14	400	0.06	571	118	11.1 x 14.3 x 9.4
RL-40003B14	400	0.105	293	149	11.1 x 14.3 x 10.9
RL-50001B14	500	0.025	226	93	8.5 x 10.8 x 9.4
RL-50002	500	0.05	694	160	11.1 x 14.3 x 10.6
RL-50003	500	0.085	985	210	11.1 x 14.3 x 13.0
RL-60001	600	0.02	609	120	11.1 x 14.3 x 8.8
RL-60002	600	0.04	689	175	11.1 x 14.3 x 11.0
RL-60003	600	0.065	406	270	11.1 x 14.3 x 13.5
RL-75001	750	0.015	713	140	11.2 x 14.3 x 10.4
RL-75002	750	0.029	630	190	11.1 x 14.3 x 11.5
RL-75003	750	0.048	552	265	14.1 x 14.0 x 13.0
RL-85001B14	850	0.015	798	195	15.5 x 17.8 x 14.8
RL-85002B14	850	0.027	930	215	15.5 x 17.8 x 15.5
RL-85003B14	850	0.042	1133	315	15.8 x 17.8 x 17.5
RL-90001B14	900	0.013	655	195	14.4 x 16.2 x 13.8
RL-90002B14	900	0.025	1020	215	14.6 x 17.0 x 14.7
RL-90003B14	900	0.04	1365	315	15.8 x 17.8 x 17.1
RL-100001B14	1000	0.011	810	144	14.4 x 17.0 x 12.5
RL-100002B14	1000	0.022	1080	215	14.6 x 17.0 x 14.7
RL-100003B14	1000	0.038	1250	315	14.6 x 17.0 x 17.2
RL-120001B14	1200	0.009	870	195	14.7 x 17.0 x 13.8
RL-120002B14	1200	0.019	1270	275	14.9 x 17.0 x 16.2
RL-120003B14	1200	0.03	1530	390	14.7 x 17.0 x 17.7
RL-140001	1400	0.008	1235	500	16.6 x 21.0 x 15.2
RL-140002	1400	0.016	1523	525	16.6 x 21.0 x 17.1
RL-140003	1400	0.027	1680	850	16.8 x 21.0 x 22.0
RL-150001	1500	0.008	1432	635	17.1 x 24.0 x 13.7
RL-150002	1500	0.015	1100	460	16.8 x 18.0 x 15.5
RL-150003	1500	0.025	2621	760	16.6 x 21.0 x 19.9

Note: Weights and dimensions are for reference only. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.

NEMA 1/2				
Part Number	Weight (lbs)	Cabinet	Size (in) (H x W x D)	Ref Figure
RL-00111	9	CAB-8	8.0 x 8.2 x 6.3	1
RL-00112	9	CAB-8	8.0 x 8.2 x 6.3	1
RL-00113	8	CAB-8	8.0 x 8.2 x 6.3	1
RL-00114	8	CAB-8	8.0 x 8.2 x 6.3	1
RL-00211	9	CAB-8	8.0 x 8.2 x 6.3	1
RL-00212	9	CAB-8	8.0 x 8.2 x 6.3	1
RL-00213	9	CAB-8	8.0 x 8.2 x 6.3	1
RL-00214	8	CAB-8	8.0 x 8.2 x 6.3	1
RL-00411	9	CAB-8	8.0 x 8.2 x 6.3	1
RL-00412	9	CAB-8	8.0 x 8.2 x 6.3	1
RL-00413	10	CAB-8	8.0 x 8.2 x 6.3	1
RL-00414	11	CAB-8	8.0 x 8.2 x 6.3	1
RL-00811	12	CAB-8	8.0 x 8.2 x 6.3	1
RL-00812	13	CAB-8	8.0 x 8.2 x 6.3	1
RL-00813	16	CAB-8	8.0 x 8.2 x 6.3	1
RL-00814	18	CAB-8	8.0 x 8.2 x 6.3	1
RL-01211	14	CAB-8	8.0 x 8.2 x 6.3	1
RL-01212	15	CAB-8	8.0 x 8.2 x 6.3	1
RL-01213	23	CAB-8	8.0 x 8.2 x 6.3	1
RL-01811	14	CAB-8	8.0 x 8.2 x 6.3	1
RL-01812	17	CAB-8	8.0 x 8.2 x 6.3	1
RL-01813	30	CAB-13V	13.2 x 13.2 x 13.1	4
RL-02511	25	CAB-13V	13.2 x 13.2 x 13.1	4
RL-02512	28	CAB-13V	13.2 x 13.2 x 13.1	4
RL-02513	34	CAB-13V	13.2 x 13.2 x 13.1	4
RL-03511	28	CAB-13V	13.2 x 13.2 x 13.1	4
RL-03512	30	CAB-13V	13.2 x 13.2 x 13.1	4
RL-03513	40	CAB-13V	13.2 x 13.2 x 13.1	4
RL-04511	36	CAB-13V	13.2 x 13.2 x 13.1	4
RL-04512	40	CAB-13V	13.2 x 13.2 x 13.1	4
RL-04513	48	CAB-13V	13.2 x 13.2 x 13.1	4
RL-05511	38	CAB-13V	13.2 x 13.2 x 13.1	4
RL-05512	40	CAB-13V	13.2 x 13.2 x 13.1	4
RL-05513	48	CAB-13V	13.2 x 13.2 x 13.1	4
RL-08011	39	CAB-13V	13.2 x 13.2 x 13.1	4
RL-08012	47	CAB-13V	13.2 x 13.2 x 13.1	4
RL-08013	77	CAB-13V	13.2 x 13.2 x 13.1	4
RL-10011	43	CAB-13V	13.2 x 13.2 x 13.1	4
RL-10012	51	CAB-13V	13.2 x 13.2 x 13.1	4
RL-10013	81	CAB-13V	13.2 x 13.2 x 13.1	4
RL-13011	43	CAB-13V	13.2 x 13.2 x 13.1	4
RL-13012	57	CAB-13V	13.2 x 13.2 x 13.1	4
RL-13013	78	CAB-13V	13.2 x 13.2 x 13.1	4
RL-16011	55	CAB-13V	13.2 x 13.2 x 13.1	4
RL-16012	68	CAB-13V	13.2 x 13.2 x 13.1	4
RL-16013	88	CAB-13V	13.2 x 13.2 x 13.1	4
RL-2001B14	52	CAB-13V	13.2 x 13.2 x 13.1	4
RL-20012B14	68	CAB-13V	13.2 x 13.2 x 13.1	4
RL-20013B14	114	CAB-13V	13.2 x 13.2 x 13.1	4
RL-2501B14	61	CAB-13V	13.2 x 13.2 x 13.1	4
RL-25012B14	123	CAB-17V	24.0 x 17.1 x 18.5	5
RL-25013B14	168	CAB-17V	24.0 x 17.1 x 18.5	5
RL-3201B14	123	CAB-17V	24.0 x 17.1 x 18.5	5
RL-32012B14	145	CAB-17V	24.0 x 17.1 x 18.5	5
RL-32013B14	203	CAB-17V	24.0 x 17.1 x 18.5	5
RL-4001B14	127	CAB-17V	24.0 x 17.1 x 18.5	5
RL-40012B14	161	CAB-17V	24.0 x 17.1 x 18.5	5
RL-40013B14	192	CAB-17V	24.0 x 17.1 x 18.5	5
RL-5001B14	136	CAB-17V	24.0 x 17.1 x 18.5	5
RL-50012	297	CAB-26C2	47.0 x 26.6 x 24.9	3
RL-50013	347	CAB-26C2	47.0 x 26.6 x 24.9	3
RL-60011	257	CAB-26C2	47.0 x 26.6 x 24.9	3
RL-60012	312	CAB-26C2	47.0 x 26.6 x 24.9	3
RL-60013	407	CAB-26C2	47.0 x 26.6 x 24.9	3
RL-75011	277	CAB-26C2	47.0 x 26.6 x 24.9	3
RL-75012	327	CAB-26C2	47.0 x 26.6 x 24.9	3
RL-75013	402	CAB-26C2	47.0 x 26.6 x 24.9	3
RL-8501B14	332	CAB-26C2	47.0 x 26.6 x 24.9	3
RL-85012B14	352	CAB-26C2	47.0 x 26.6 x 24.9	3
RL-85013B14	481	CAB-26D2	72.0 x 26.6 x 34.0	3
RL-9001B14	361	CAB-26D2	72.0 x 26.6 x 34.0	3
RL-90012B14	381	CAB-26D2	72.0 x 26.6 x 34.0	3
RL-90013B14	481	CAB-26D2	72.0 x 26.6 x 34.0	3
RL-10001B14	310	CAB-26D2	72.0 x 26.6 x 34.0	3
RL-100012B14	381	CAB-26D2	72.0 x 26.6 x 34.0	3
RL-100013B14	481	CAB-26D2	72.0 x 26.6 x 34.0	3
RL-12001B14	361	CAB-26D2	72.0 x 26.6 x 34.0	3
RL-120012B14	441	CAB-26D2	72.0 x 26.6 x 34.0	3
RL-120013B14	556	CAB-26D2	72.0 x 26.6 x 34.0	3
RL-140011	815	CAB-42C2	72.0 x 42.6 x 30.9	3
RL-140012	840	CAB-42C2	72.0 x 42.6 x 30.9	3
RL-140013	1165	CAB-42C2	72.0 x 42.6 x 30.9	3
RL-150011	950	CAB-42C2	72.0 x 42.6 x 30.9	3
RL-150012	775	CAB-42C2	72.0 x 42.6 x 30.9	3
RL-150013	1075	CAB-42C2	72.0 x 42.6 x 30.9	3

NEMA 3R				
Part Number	Weight (lbs)	Cabinet	Size (in) (H x W x D)	Ref Figure
RL-00131	61	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00132	61	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00133	60	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00134	60	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00231	61	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00232	61	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00233	61	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00234	60	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00431	61	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00432	61	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00433	62	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00434	63	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00831	64	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00832	65	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00833	68	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-00834	70	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-01231	66	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-01232	67	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-01233	75	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-01831	66	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-01832	69	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-01833	73	CAB-12C3	24.0 x 12.5 x 17.9	2
RL-02531	99	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-02532	102	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-02533	108	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-03531	102	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-03532	104	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-03533	114	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-04531	110	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-04532	114	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-04533	122	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-05531	112	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-05532	114	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-05533	122	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-08031	113	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-08032	121	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-08033	151	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-10031	117	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-10032	125	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-10033	155	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-13031	117	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-13032	131	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-13033	152	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-16031	129	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-16032	142	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-16033	162	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-2003B14	126	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-20032B14	142	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-20033B14	188	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-2503B14	135	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-25032B14	168	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-25033B14	213	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-3203B14	168	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-32032B14	190	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-32033B14	248	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-4003B14	172	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-40032B14	206	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-40033B14	237	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-5003B14	181	CAB-17C3	31.0 x 17.6 x 26.0	2
RL-50032	319	CAB-26C3	47.0 x 26.6 x 30.0	3
RL-50033	369	CAB-26C3	47.0 x 26.6 x 30.0	3
RL-60031	279	CAB-26C3	47.0 x 26.6 x 30.0	3
RL-60032	334	CAB-26C3	47.0 x 26.6 x 30.0	3
RL-60033	429	CAB-26C3	47.0 x 26.6 x 30.0	3
RL-75031	299	CAB-26C3	47.0 x 26.6 x 30.0	3
RL-75032	349	CAB-26C3	47.0 x 26.6 x 30.0	3
RL-75033	424	CAB-26C3	47.0 x 26.6 x 30.0	3
RL-8503B14	354	CAB-26C3	47.0 x 26.6 x 30.0	3
RL-85032B14	374	CAB-26C3	47.0 x 26.6 x 30.0	3
RL-85033B14	494	CAB-26D3	72.0 x 26.6 x 34.0	3
RL-9003B14	374	CAB-26D3	72.0 x 26.6 x 34.0	3
RL-90032B14	394	CAB-26D3	72.0 x 26.6 x 34.0	3
RL-90033B14	494	CAB-26D3	72.0 x 26.6 x 34.0	3
RL-10003B14	323	CAB-26D3	72.0 x 26.6 x 34.0	3
RL-100032B14	394	CAB-26D3	72.0 x 26.6 x 34.0	3
RL-100033B14	494	CAB-26D3	72.0 x 26.6 x 34.0	3
RL-12003B14	374	CAB-26D3	72.0 x 26.6 x 34.0	3
RL-120032B14	454	CAB-26D3	72.0 x 26.6 x 34.0	3
RL-120033B14	569	CAB-26D3	72.0 x 26.6 x 34.0	3
RL-140031	859	CAB-42C3	72.0 x 42.6 x 40.0	3
RL-140032	884	CAB-42C3	72.0 x 42.6 x 40.0	3
RL-140033	1209	CAB-42C3	72.0 x 42.6 x 40.0	3
RL-150031	994	CAB-42C3	72.0 x 42.6 x 40.0	3
RL-150032	819	CAB-42C3	72.0 x 42.6 x 40.0	3
RL-150033	1119	CAB-42C3	72.0 x 42.6 x 40.0	3



## Reactors

### RL Reactors

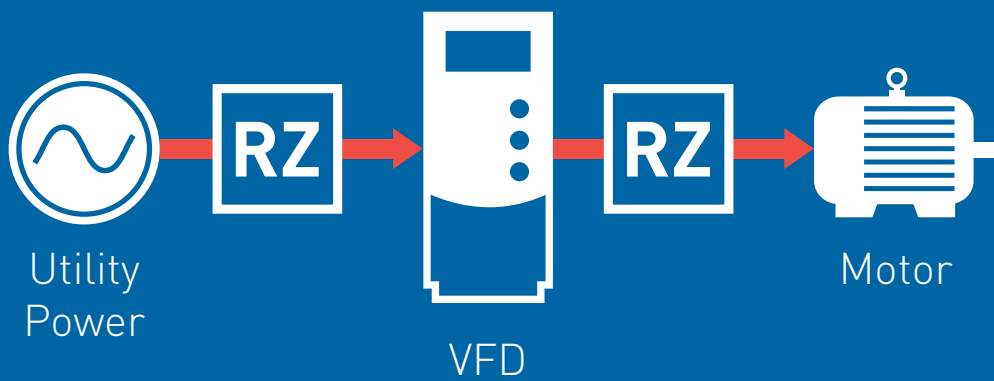
Best-in-class power quality units for absorbing power line disturbances

### RLW Reactors

State-of-the-art solution for absorbing everyday power line disturbances

### DC Link Chokes

The cost-effective, versatile solution to solving power quality problems



# RLW Reactors

## Product Selector



- **Proven performance in the field**
- **Reliable and economical**
- **Compact and light-weight**
- **Ideal for OEMs, integrators and panel builders**

## Smaller. Lighter.

Our RLW Line/Load Reactors are a state-of-the-art solution for absorbing everyday power line disturbances that can damage or shut down variable frequency drives (VFDs) and other sensitive equipment. They work on both the line side and load side to give you an economical way to reduce nuisance tripping, reduce harmonic distortion and minimize long lead effects. Their epoxy impregnated design also reduces audible noise, and improves structural and moisture integrity.

Put an end to power spike issues and minimize downtime with our RLW Line/Load Reactors from MTE.

# Stop nuisance tripping and harmonic distortion with our RLW Reactors.

Our RLW Reactors are the state-of-the-art filtering solution for virtually any 4 or 6-pulse rectifier or power conversion unit. There are units available for amperage ratings from 0.5A to 750A. Our 3% impedance option is 90% effective and our 5% option extends spike protection to 99%.

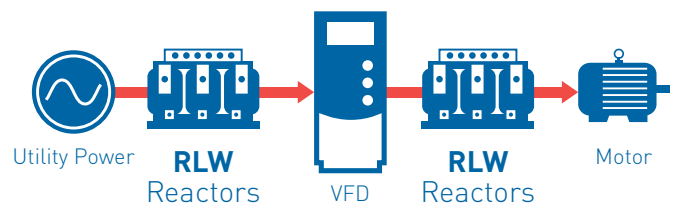
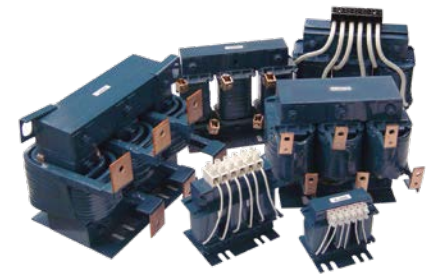
**Smaller size and weight** makes these units ideal for OEMs, integrators and panel builders.

**Wider range of impedance values** for accurate and cost-effective selection.

**DIN Rail** mounting options for easy panel installation.

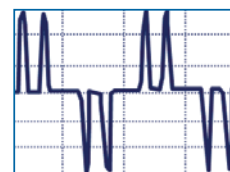
**UL/cUL listed and CE marked** for all your installation requirements.

## RLW Reactors

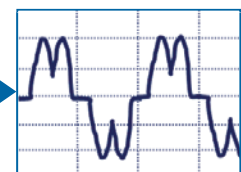


Performance Specifications	
Impedance Levels	1.5%, 3% and 5%
Continuous Service Factor	100%
Overload Rating - Line Side	150% of RMS rating for 1 minute 200% of RMS rating for 10 seconds
Input Voltage Range	208V – 690V
Current Range	0.5A – 750A
Temperature Rise	140°C
Ambient Temperature	-40°C to 50°C
Altitude Maximum Without Derating	1,000 meters
Fundamental Frequency	50/60 Hz
Inductance Curve	100% at 100% Current 80% at 150% Current 50% at 200% Current

### MTE Input Reactor

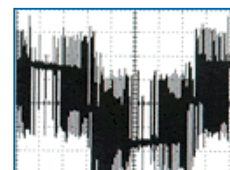


Waveform without reactor

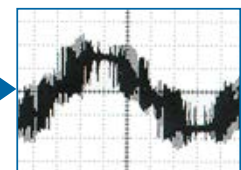


Waveform with reactor

### MTE Output Reactor



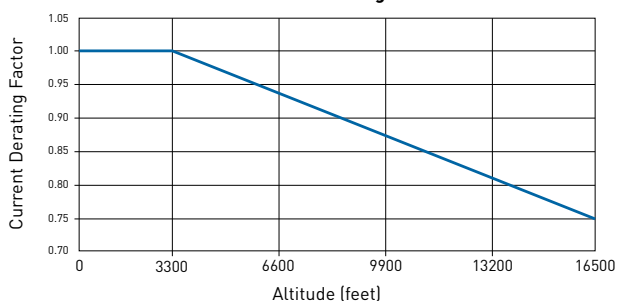
Waveform without reactor



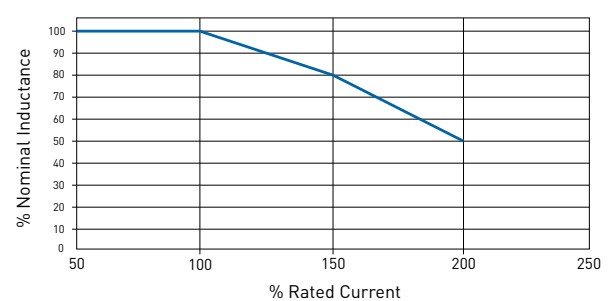
Waveform with reactor

Final product specifications subject to change at any time.

Altitude Derating Curve



RLW Inductance Curve



# ENCLOSURES

FIGURE 1

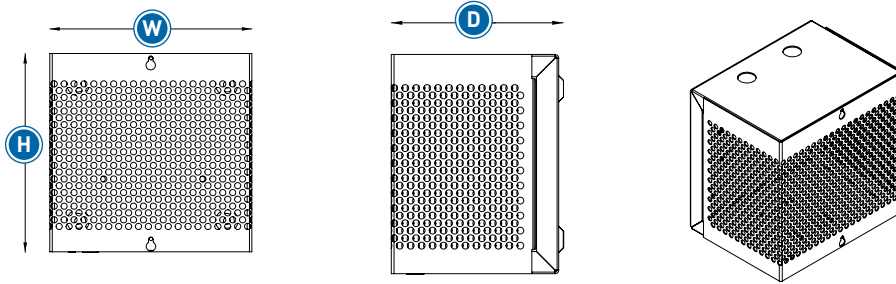


FIGURE 2

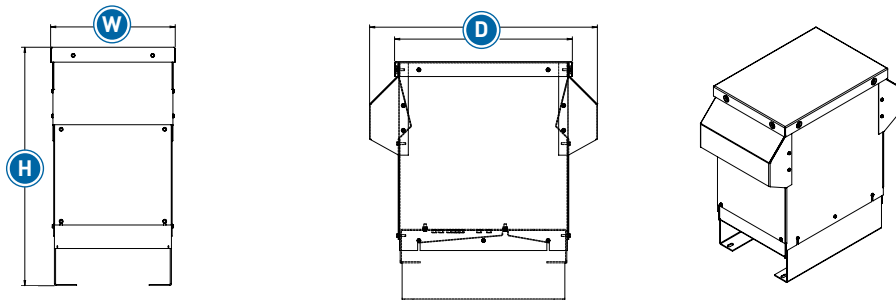


FIGURE 3

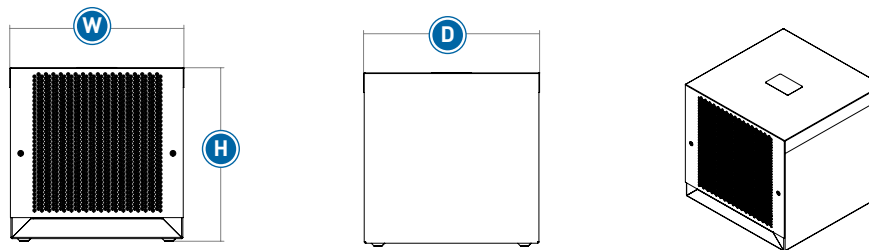
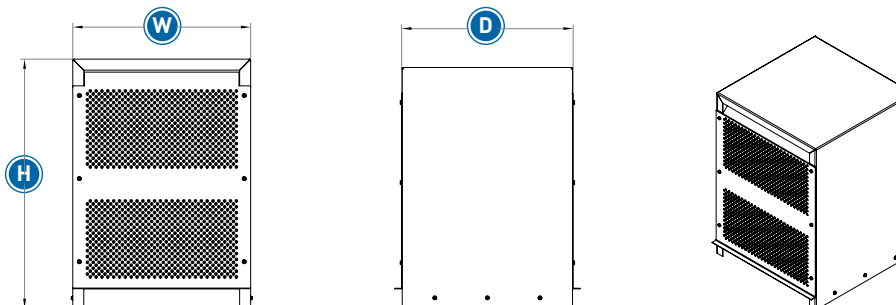


FIGURE 4



NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES

Note: Figure illustrations are for reference only. Actual hardware may differ. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.

# RLW REACTOR SELECTION TABLES

Phase	Input Voltage & Hz	% Impedance	0.25 HP 0.18 kW	0.33 HP 0.25 kW	0.5 HP 0.37 kW	0.75 HP 0.55 kW	1.0 HP 0.75 kW	1.5 HP 1.1 kW	2.0 HP 1.5 kW	3.0 HP 2.2 kW	5.0 HP 3.7 kW	7.5 HP 5.5 kW	10.0 HP 7.5 kW	15.0 HP 11.0 kW	20.0 HP 15.0 kW	25.0 HP 18.5 kW
<b>Three Phase Input Applications Selected by Motor</b>																
3 Phase	208V 60 Hz	3%	RLW-01P601	RLW-02P101	RLW-03P401	RLW-04P801	RLW-04P801	RLW-07P601	RLW-07P601	RLW-001101	RLW-002101	RLW-002801	RLW-003501	RLW-005501	RLW-006501	RLW-008301
3 Phase	208V 60 Hz	5%	RLW-01P603	RLW-02P103	RLW-03P403	RLW-04P803	RLW-07P603	RLW-07P603	RLW-001103	RLW-001403	RLW-002103	RLW-002803	RLW-004603	RLW-006503	RLW-008303	RLW-010403
3 Phase	240V 60 Hz	3%	RLW-01P601	RLW-02P101	RLW-03P401	RLW-03P401	RLW-04P801	RLW-07P601	RLW-07P601	RLW-001101	RLW-002101	RLW-002801	RLW-002801	RLW-004601	RLW-005501	RLW-008301
3 Phase	240V 60 Hz	5%	RLW-01P603	RLW-02P103	RLW-03P403	RLW-03P403	RLW-04P803	RLW-07P603	RLW-07P603	RLW-001103	RLW-002103	RLW-002803	RLW-003503	RLW-004603	RLW-006503	RLW-008303
3 Phase	400V 50 Hz	3%	RLW-0P7505	RLW-0P7503	RLW-01P605	RLW-02P103	RLW-03P405	RLW-03P403	RLW-04P803	RLW-07P605	RLW-001105	RLW-001405	RLW-002105	RLW-002805	RLW-003503	RLW-003503
3 Phase	400V 50 Hz	5%	RLW-0P7506	RLW-0P7505	RLW-01P606	RLW-02P106	RLW-03P406	RLW-03P405	RLW-04P806	RLW-07P606	RLW-001106	RLW-001406	RLW-002106	RLW-002806	RLW-003505	RLW-003505
3 Phase	480V 60 Hz	3%	RLW-0P7503	RLW-01P105	RLW-01P103	RLW-01P603	RLW-02P103	RLW-03P403	RLW-03P403	RLW-04P803	RLW-07P603	RLW-001103	RLW-001403	RLW-002103	RLW-002803	RLW-003503
3 Phase	480V 60 Hz	5%	RLW-0P7506	RLW-01P106	RLW-01P105	RLW-01P605	RLW-02P105	RLW-03P405	RLW-03P405	RLW-04P805	RLW-07P605	RLW-001105	RLW-001405	RLW-002105	RLW-002805	RLW-003505
3 Phase	600V 60 Hz	3%	RLW-00P505	RLW-0P7505	RLW-01P105	RLW-01P605	RLW-02P105	RLW-03P405	RLW-03P405	RLW-04P805	RLW-07P605	RLW-001105	RLW-001103	RLW-002105	RLW-002805	RLW-002803
3 Phase	600V 60 Hz	5%	RLW-00P506	RLW-0P7506	RLW-01P106	RLW-01P606	RLW-02P106	RLW-03P406	RLW-03P406	RLW-04P806	RLW-07P606	RLW-001106	RLW-001106	RLW-002106	RLW-002806	RLW-002806
3 Phase	690V 50 Hz	2%	-	-	-	-	-	-	-	RLW-03P403	RLW-04P803	RLW-07P603	RLW-001105	RLW-001403	RLW-002105	RLW-002103
3 Phase	690V 50 Hz	3%	-	-	-	-	-	-	-	RLW-03P406	RLW-04P805	RLW-07P606	RLW-001106	RLW-001405	RLW-002106	RLW-002105
<b>Single Phase Input Applications</b>																
1 Phase	400V 50 Hz	5%	RLW-01P105	RLW-01P606	RLW-02P105	RLW-03P405	RLW-04P805	RLW-07P606	RLW-07P605	RLW-001106	RLW-001405	RLW-002105	RLW-002805	RLW-004605	RLW-005505	RLW-006505
1 Phase	480V 60 Hz	5%	RLW-01P606	RLW-01P605	RLW-02P105	RLW-03P405	RLW-04P806	RLW-07P606	RLW-07P606	RLW-001106	RLW-001405	RLW-002105	RLW-002805	RLW-004605	RLW-005505	RLW-006505
1 Phase	600V 60 Hz	5%	RLW-01P106	RLW-01P105	RLW-01P605	RLW-03P406	RLW-03P406	RLW-04P806	RLW-04P805	RLW-07P606	RLW-001106	RLW-002106	RLW-002106	RLW-003505	RLW-004605	RLW-005505
<b>Three Phase Output Selected by Motor</b>																
3 Phase	480V 60 Hz	1.5%	RLW-01P101	RLW-01P101	RLW-01P601	RLW-02P101	RLW-03P403	RLW-04P803	RLW-04P801	RLW-07P601	RLW-001101	RLW-001401	RLW-002101	RLW-002801	RLW-003501	RLW-004601
3 Phase	600V 60 Hz	1.5%	RLW-0P7503	RLW-01P103	RLW-01P603	RLW-02P103	RLW-02P101	RLW-03P403	RLW-03P403	RLW-07P603	RLW-001103	RLW-001403	RLW-001403	RLW-002803	RLW-002803	RLW-003501
3 Phase	690V 50 Hz	1.5%	-	-	-	-	-	-	-	RLW-04P805	RLW-07P605	RLW-001105	RLW-001103	RLW-002105	RLW-002103	RLW-002803

Note: The recommended reactor selections above are based on fundamental current ratings. Contact [appengrg@mtcorp.com](mailto:appengrg@mtcorp.com) with any questions regarding the proper reactor selection.

## Impedance Rating:

**1.5% impedance** reactors are the recommended maximum impedance for load side reactor applications.

**3% impedance** reactors are typically sufficient to absorb power line spikes and motor current surges. They will prevent nuisance tripping of drives or circuit breakers in most applications.

**5% impedance** reactors are best for reducing harmonic currents and frequencies. Use them when you must reduce VFD drive generated harmonics, and to reduce motor operating temperature, or to reduce motor noise.

\*The effective impedance of the reactor changes with actual RMS current. A 5% impedance reactor becomes 3% if its current is reduced to 60%.



30.0 HP 22.0 kW	40.0 HP 30.0 kW	50.0 HP 37.5 kW	60.0 HP 45.0 kW	75.0 HP 55.0 kW	100.0 HP 75.0 kW	125.0 HP 93.0 kW	150.0 HP 112.0 kW	200.0 HP 150.0 kW	250.0 HP 187.0 kW	300.0 HP 225.0 kW	350.0 HP 262.0 kW	400.0 HP 300.0 kW	500.0 HP 375.0 kW	600.0 HP 450.0 kW	700.0 HP 550.0 kW	800.0 HP 600.0 kW
<b>Three Phase Input Applications Selected by Motor</b>																
RLW-010401	RLW-013001	RLW-016001	RLW-020001	RLW-025001	RLW-032201	RLW-041401	RLW-051501	RLW-060001	RLW-075001	-	-	-	-	-	-	-
RLW-010403	RLW-013003	RLW-020003	RLW-020003	RLW-025003	RLW-032203	RLW-051503	RLW-041401	RLW-075003	RLW-075001	-	-	-	-	-	-	-
RLW-008301	RLW-010401	RLW-013001	RLW-016001	RLW-020001	RLW-025001	RLW-032201	RLW-041401	RLW-051501	RLW-060001	RLW-075001	-	-	-	-	-	-
RLW-010403	RLW-013003	RLW-016003	RLW-020003	RLW-020003	RLW-032203	RLW-032203	RLW-041403	RLW-060003	RLW-075003	RLW-075003	-	-	-	-	-	-
RLW-004603	RLW-006503	RLW-008303	RLW-008303	RLW-010403	RLW-016003	RLW-020003	RLW-020003	RLW-032203	RLW-041403	RLW-041403	RLW-051503	RLW-051503	RLW-075003	-	-	-
RLW-004605	RLW-006505	RLW-008305	RLW-008305	RLW-010405	RLW-016005	RLW-020005	RLW-020005	RLW-032205	RLW-041405	RLW-041405	RLW-051505	RLW-060005	RLW-075005	-	-	-
RLW-004603	RLW-005503	RLW-006503	RLW-008303	RLW-010403	RLW-013003	RLW-016003	RLW-020003	RLW-025003	RLW-032203	RLW-041403	RLW-051503	RLW-051503	RLW-075003	RLW-075003	-	-
RLW-004605	RLW-005505	RLW-006505	RLW-008305	RLW-010405	RLW-013005	RLW-016005	RLW-020005	RLW-025005	RLW-032205	RLW-041405	RLW-051505	RLW-051505	RLW-060005	RLW-075005	-	-
RLW-003503	RLW-004603	RLW-005503	RLW-006503	RLW-008303	RLW-010403	RLW-013003	RLW-016003	RLW-020003	RLW-025003	RLW-032203	RLW-041403	RLW-041403	RLW-051503	RLW-060003	RLW-075003	-
RLW-003505	RLW-004605	RLW-005505	RLW-006505	RLW-008305	RLW-010405	RLW-013005	RLW-016005	RLW-020005	RLW-025005	RLW-032205	RLW-041405	RLW-041405	RLW-051505	RLW-060005	RLW-075005	-
RLW-002803	RLW-003503	RLW-004603	RLW-005503	RLW-006503	RLW-008303	RLW-010403	RLW-013003	RLW-016003	RLW-020003	RLW-025003	RLW-032205	RLW-032203	RLW-041403	RLW-051503	RLW-051503	RLW-060003
RLW-002806	RLW-003505	RLW-004605	RLW-005505	RLW-006505	RLW-008305	RLW-010405	RLW-013005	RLW-016005	RLW-020005	RLW-025005	RLW-032205	RLW-032205	RLW-041405	RLW-051505	RLW-051505	RLW-060005
<b>Single Phase Input Applications</b>																
RLW-008305	RLW-010405	RLW-013005	RLW-016005	RLW-020005	RLW-025005	RLW-032205	RLW-041405	RLW-060005	RLW-060005	RLW-075005	-	-	-	-	-	-
RLW-008305	RLW-010405	RLW-013005	RLW-016005	RLW-020005	RLW-025005	RLW-032205	RLW-032205	RLW-051505	RLW-060005	RLW-075005	RLW-075005	-	-	-	-	-
RLW-006505	RLW-008305	RLW-010405	RLW-013005	RLW-016005	RLW-020005	RLW-025007	RLW-025005	RLW-041405	RLW-051505	RLW-051505	RLW-060005	RLW-075005	-	-	-	-
<b>Three Phase Output Selected by Motor</b>																
RLW-005501	RLW-006501	RLW-008301	RLW-010401	RLW-013001	RLW-016001	RLW-020001	RLW-025001	RLW-032201	RLW-041401	RLW-051501	RLW-060001	RLW-060001	RLW-075001	-	-	-
RLW-004603	RLW-005501	RLW-006501	RLW-008303	RLW-010403	RLW-013003	RLW-016001	RLW-020003	RLW-025003	RLW-032201	RLW-041401	RLW-051503	RLW-051501	RLW-060001	RLW-075001	-	-
RLW-003503	RLW-004603	RLW-005503	RLW-006503	RLW-008303	RLW-010403	RLW-013003	RLW-016003	RLW-020003	RLW-025003	RLW-032203	RLW-032203	RLW-041403	RLW-051503	RLW-060003	RLW-075003	RLW-075003

Note: The recommended reactor selections above are based on fundamental current ratings. Contact [appengrg@mtecorp.com](mailto:appengrg@mtecorp.com) with any questions regarding the proper reactor selection.

# RLW REACTOR SELECTION TABLES

Open					
Open Part Number	Amps Rating	Inductance mh	Watts Loss	Open Weight (lbs)	Size (in) (H x W x D)
RLW-00P501	0.5	22	2.3	2	3.7 x 4.5 x 1.5
RLW-00P503	0.5	46	3.6	2	3.7 x 4.5 x 1.5
RLW-00P505	0.5	74	4.8	2	3.7 x 4.5 x 1.5
RLW-00P506	0.5	92	5.4	2	3.7 x 4.5 x 1.5
RLW-0P7501	0.75	15	4.2	2	3.7 x 4.5 x 1.5
RLW-0P7503	0.75	31	6.6	2	3.7 x 4.5 x 1.5
RLW-0P7505	0.75	49	8.8	2	3.7 x 4.5 x 1.5
RLW-0P7506	0.75	61	10.1	2	3.7 x 4.5 x 1.5
RLW-01P101	1.1	10	4.8	2	3.7 x 4.5 x 1.5
RLW-01P103	1.1	21	7.8	2	3.7 x 4.5 x 1.5
RLW-01P105	1.1	33	10.1	2	3.7 x 4.5 x 1.5
RLW-01P106	1.1	42	11.9	2	3.7 x 4.5 x 1.5
RLW-01P601	1.6	6.9	6.9	2	3.7 x 4.5 x 1.5
RLW-01P603	1.6	14	10.9	2	3.7 x 4.5 x 1.5
RLW-01P605	1.6	23	15	2	3.7 x 4.5 x 1.5
RLW-01P606	1.6	29	17.7	2	3.7 x 4.5 x 1.5
RLW-02P101	2.1	5.3	9	2	3.7 x 4.5 x 1.5
RLW-02P103	2.1	11	14.3	2	3.7 x 4.5 x 1.5
RLW-02P105	2.1	18	19.6	2	3.7 x 4.5 x 1.5
RLW-02P106	2.1	22	22.3	2	3.7 x 4.5 x 1.5
RLW-03P401	3.4	3.2	12.3	2	3.7 x 4.5 x 1.5
RLW-03P403	3.4	6.8	19.6	2	3.7 x 4.5 x 1.5
RLW-03P405	3.4	11	26.5	3	4.0 x 4.2 x 2.6
RLW-03P406	3.4	14	31.5	3	4.0 x 4.2 x 2.6
RLW-04P801	4.8	2.3	13.8	2	3.7 x 4.5 x 1.5
RLW-04P803	4.8	4.8	23	2	3.7 x 4.5 x 1.5
RLW-04P805	4.8	7.7	37.5	3	4.0 x 4.2 x 2.6
RLW-04P806	4.8	10	40.1	4	4.0 x 4.2 x 3.0
RLW-07P601	7.6	1.5	19.2	2	3.7 x 4.5 x 1.5
RLW-07P603	7.6	3	37.2	3	4.0 x 4.2 x 2.6
RLW-07P605	7.6	4.8	47.8	4	4.0 x 4.2 x 3.0
RLW-07P606	7.6	6	53.8	4	4.0 x 4.2 x 3.0
RLW-001101	11	1	26.8	3	4.0 x 4.2 x 2.6
RLW-001103	11	2.1	40.9	4	4.0 x 4.2 x 3.0
RLW-001105	11	3.3	54.4	5	4.0 x 4.2 x 3.3
RLW-001106	11	4.3	59.1	7	4.7 x 5.9 x 2.9
RLW-001401	14	0.79	32.7	3	4.0 x 4.2 x 2.6
RLW-001403	14	1.6	48.2	4	4.0 x 4.2 x 3.0
RLW-001405	14	2.6	60.6	7	4.7 x 5.9 x 2.9
RLW-001406	14	3.3	66	9	5.7 x 5.9 x 3.3
RLW-002101	21	0.53	38.3	4	5.2 x 4.2 x 3.0
RLW-002103	21	1.1	57.4	7	6.0 x 5.9 x 2.9
RLW-002105	21	1.8	73.5	10	6.0 x 5.9 x 3.3
RLW-002106	21	2.2	78	13	6.8 x 7.1 x 3.5
RLW-002801	28	0.39	48.2	5	5.2 x 4.2 x 3.3
RLW-002803	28	0.82	66.8	10	6.0 x 5.9 x 3.3
RLW-002805	28	1.3	93.8	10	6.0 x 5.9 x 3.3
RLW-002806	28	1.6	110.6	14	6.8 x 7.1 x 3.5
RLW-003501	35	0.35	69	10	6.0 x 5.9 x 3.5
RLW-003503	35	0.71	103	13	5.8 x 7.1 x 3.7
RLW-003505	35	1.2	122	18	5.8 x 7.1 x 4.2
RLW-003507	35	2.12	204	28	8.3 x 8.9 x 5.7
RLW-004601	46	0.3	78	12	5.8 x 7.1 x 3.7
RLW-004603	46	0.55	100	17	5.7 x 7.1 x 4.2

Open					
Open Part Number	Amps Rating	Inductance mh	Watts Loss	Open Weight (lbs)	Size (in) (H x W x D)
RLW-004605	46	0.98	179	24	8.3 x 8.9 x 4.6
RLW-004607	46	1.6	192	33	8.4 x 8.9 x 4.9
RLW-005501	55	0.27	68	18	5.5 x 7.1 x 4.9
RLW-005503	55	0.48	110	20	5.6 x 7.1 x 5.6
RLW-005505	55	0.75	150	26	7.0 x 8.9 x 5.7
RLW-005507	55	1.33	283	35	7.0 x 9.0 x 6.8
RLW-006501	65	0.19	87	18	5.6 x 7.1 x 5.0
RLW-006503	65	0.36	105	22	5.7 x 7.1 x 6.0
RLW-006505	65	0.64	215	26	7.0 x 8.9 x 5.7
RLW-006507	65	1.1	191	44	7.0 x 8.9 x 7.0
RLW-008301	83	0.17	119	19	5.6 x 7.1 x 5.9
RLW-008303	83	0.29	155	26	7.0 x 8.9 x 5.8
RLW-008305	83	0.51	198	35	7.0 x 8.9 x 6.5
RLW-008307	83	0.91	240	54	7.0 x 8.9 x 7.5
RLW-010401	104	0.12	94	22	5.6 x 7.1 x 5.6
RLW-010403	104	0.23	200	28	7.1 x 8.9 x 6.2
RLW-010405	104	0.375	208	41	7.2 x 9.6 x 7.0
RLW-010407	104	0.67	256	57	7.2 x 9.6 x 7.5
RLW-013001	130	0.095	132	26	7.1 x 8.9 x 6.4
RLW-013003	130	0.18	153	37	7.0 x 9.6 x 6.9
RLW-013005	130	0.3	198	52	7.2 x 9.6 x 7.9
RLW-013007	130	0.56	480	80	8.5 x 10.8 x 8.1
RLW-016001	160	0.08	110	34	7.0 x 8.9 x 6.4
RLW-016003	160	0.155	195	40	7.3 x 9.6 x 7.1
RLW-016005	160	0.26	309	53	7.3 x 9.6 x 7.9
RLW-016007	160	0.47	561	91	8.6 x 10.8 x 9.9
RLW-020001	200	0.06	159	34	6.9 x 8.9 x 6.4
RLW-020003	200	0.115	224	49	7.2 x 9.6 x 7.9
RLW-020005	200	0.2	293	75	8.5 x 10.8 x 8.5
RLW-020007	200	0.34	509	91	8.5 x 10.8 x 9.5
RLW-025001	250	0.05	276	35	7.1 x 8.9 x 6.9
RLW-025003	250	0.095	284	55	7.2 x 9.6 x 7.9
RLW-025005	250	0.16	402	93	8.5 x 10.8 x 10.5
RLW-025007	250	0.27	465	121	8.4 x 10.8 x 10.6
RLW-032201	322	0.05	300	57	7.3 x 9.6 x 8.4
RLW-032203	322	0.07	383	76	8.4 x 10.8 x 8.7
RLW-032205	322	0.13	494	108	8.4 x 10.8 x 10.9
RLW-032207	322	0.225	780	172	11.2 x 14.3 x 10.5
RLW-041401	414	0.033	333	78	8.4 x 10.8 x 9.2
RLW-041403	414	0.066	531	98	8.5 x 10.8 x 10.4
RLW-041405	414	0.11	588	125	8.5 x 10.8 x 12.3
RLW-041407	414	0.185	1007	197	11.2 x 14.3 x 13.1
RLW-051501	515	0.025	314	81	8.4 x 10.8 x 8.8
RLW-051503	515	0.05	496	118	8.5 x 10.8 x 12.1
RLW-051505	515	0.08	695	193	11.1 x 14.3 x 12.7
RLW-051507	515	0.15	1096	248	11.2 x 14.3 x 13.2
RLW-060001	600	0.02	375	375	8.5 x 10.8 x 9.9
RLW-060003	600	0.04	747	144	11.2 x 14.3 x 11.8
RLW-060005	600	0.065	780	204	11.2 x 14.3 x 12.6
RLW-060007	600	0.12	1190	292	11.2 x 14.3 x 14.7
RLW-075001	750	0.017	468	105	8.6 x 10.8 x 11.0
RLW-075003	750	0.035	838	166	11.3 x 14.3 x 11.0
RLW-075005	750	0.055	858	245	11.1 x 14.3 x 13.8
RLW-075007	750	0.095	1426	348	11.2 x 14.3 x 17.2

Note: Weights and dimensions are for reference only. Please visit [mtec.com](http://mtec.com) for detailed information.

NEMA 1/2				
Part Number	Weight (lbs)	Cabinet	Size (in) (H x W x D)	Ref Figure
RLW-00P511	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-00P513	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-00P515	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-00P516	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-0P7511	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-0P7513	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-0P7515	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-0P7516	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-01P111	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-01P113	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-01P115	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-01P116	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-01P611	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-01P613	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-01P615	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-01P616	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-02P111	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-02P113	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-02P115	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-02P116	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-03P411	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-03P413	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-03P415	8	CAB-8	8.0 x 8.2 x 6.3	1
RLW-03P416	8	CAB-8	8.0 x 8.2 x 6.3	1
RLW-04P811	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-04P813	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-04P815	8	CAB-8	8.0 x 8.2 x 6.3	1
RLW-04P816	9	CAB-8	8.0 x 8.2 x 6.3	1
RLW-07P611	7	CAB-8	8.0 x 8.2 x 6.3	1
RLW-07P613	8	CAB-8	8.0 x 8.2 x 6.3	1
RLW-07P615	9	CAB-8	8.0 x 8.2 x 6.3	1
RLW-07P616	10	CAB-8	8.0 x 8.2 x 6.3	1
RLW-001111	8	CAB-8	8.0 x 8.2 x 6.3	1
RLW-001113	9	CAB-8	8.0 x 8.2 x 6.3	1
RLW-001115	10	CAB-8	8.0 x 8.2 x 6.3	1
RLW-001116	12	CAB-8	8.0 x 8.2 x 6.3	1
RLW-001411	8	CAB-8	8.0 x 8.2 x 6.3	1
RLW-001413	9	CAB-8	8.0 x 8.2 x 6.3	1
RLW-001415	12	CAB-8	8.0 x 8.2 x 6.3	1
RLW-001416	23	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-002111	18	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-002113	21	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-002115	24	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-002116	27	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-002811	19	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-002813	24	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-002815	24	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-002816	28	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-003511	24	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-003513	27	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-003515	32	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-003517	42	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-004611	26	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-004613	31	CAB-13V	13.2 x 13.2 x 13.1	3

NEMA 1/2				
Part Number	Weight (lbs)	Cabinet	Size (in) (H x W x D)	Ref Figure
RLW-004615	38	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-004617	47	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-005511	32	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-005513	34	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-005515	40	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-005517	49	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-006511	32	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-006513	36	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-006515	40	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-006517	58	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-008311	33	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-008313	40	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-008315	49	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-008317	68	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-010411	36	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-010413	42	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-010415	55	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-010417	71	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-013011	40	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-013013	51	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-013015	66	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-013017	94	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-016011	48	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-016013	54	CAB-13V	13.2 x 13.2 x 13.1	3
RLW-016015	96	CAB-17V	24.0 x 17.1 x 18.5	4
RLW-016017	134	CAB-17V	24.0 x 17.1 x 18.5	4
RLW-020011	77	CAB-17V	24.0 x 17.1 x 18.5	4
RLW-020013	92	CAB-17V	24.0 x 17.1 x 18.5	4
RLW-020015	118	CAB-17V	24.0 x 17.1 x 18.5	4
RLW-020017	134	CAB-17V	24.0 x 17.1 x 18.5	4
RLW-025011	78	CAB-17V	24.0 x 17.1 x 18.5	4
RLW-025013	98	CAB-17V	24.0 x 17.1 x 18.5	4
RLW-025015	136	CAB-17V	24.0 x 17.1 x 18.5	4
RLW-025017	164	CAB-17V	24.0 x 17.1 x 18.5	4
RLW-032211	100	CAB-17V	24.0 x 17.1 x 18.5	4
RLW-032213	213	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-032215	245	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-032217	309	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-041411	215	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-041413	235	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-041415	262	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-041417	334	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-051511	218	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-051513	255	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-051515	330	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-051517	385	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-060011	223	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-060013	281	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-060015	341	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-060017	429	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-075011	242	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-075013	303	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-075015	382	CAB-26C2	47.0 x 26.6 x 24.9	2
RLW-075017	485	CAB-26C2	47.0 x 26.6 x 24.9	2

Note: Weights and dimensions are for reference only. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.



## Reactors

### RL Reactors

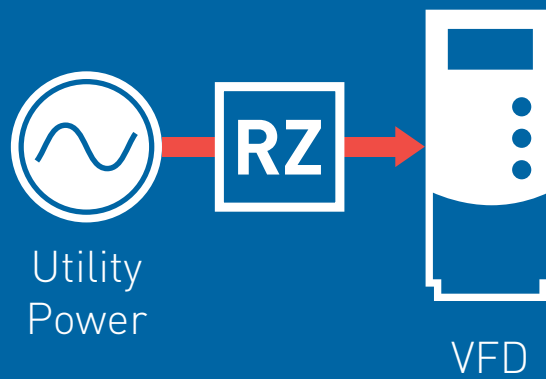
Best-in-class power quality units for absorbing power line disturbances

### RLW Reactors

State-of-the-art solution for absorbing everyday power line disturbances

### DC Link Chokes

The cost-effective, versatile solution to solving power quality problems



# DC Link Chokes

## Product Selector



- Reduce AC input line harmonics
- Absorb voltage/current spikes
- Reduce AC ripple on DC bus
- Solve nuisance over-voltage tripping
- Reduce DC Bus transient over-voltage

## Economical. Versatile.

Our DC Link Chokes are an economical means of filtering the DC bus voltage in variable frequency drives (VFDs). Designed to be added to a VFD's internal bridge and bus, they help reduce AC input line current harmonic distortion while absorbing DC bus voltage spikes. They can be used individually, typically on the positive DC bus, or in pairs with one each on both the positive and negative bus.

Take advantage of maximizing the circuit inductance for power quality reasons without causing an AC input line voltage drop with DC Link Chokes from MTE.

# An economical and versatile solution to solving power quality problems.

The ability of our DC Link Chokes to be used across multiple applications is just one reason these chokes stand above the rest. With factory capabilities to customize mounting, inductance, current or ripple requirements, our DC Link Chokes will meet all of your needs.

**Solid copper** box lug type available on most sizes.

**Specially constructed** and epoxy impregnated for low noise.

**Series A** link chokes are also available in NEMA 1-2 or NEMA 3R enclosures upon request.

## DC Link Chokes



Performance Specifications	
Component Recognized	UL-508 (File #E180243)
Maximum Voltage	1000V DC
Ripple Frequency	300 Hz or 360 Hz
Ambient Temperature	40°C
Ripple Current	10% peak-to-peak
Insulation System	Class B (130C)

Final product specifications subject to change at any time.

## Useful Applications

- AC PWM inverters/drives
- Variable frequency motor drives
- DC to AC inverters
- Electrical vehicle inverters

### Understanding the DC Link Choke Series A Part Number:

**DC A \_ \_ \_ X X**

DC Link Choke

Series A

Current Rating

0004 is 4 Amps

0050 is 50 Amps

0200 is 200 Amps

Mechanical Configurations

0 = Open Magnetics (No Enclosure)

1 = General Purpose (NEMA 1/2)

3 = Weather (NEMA 3R)

Reactor Relative Impedance No.

1, 2, 3, 4 (1 is lowest value)

### Understanding the DC Link Choke Series RB Part Number:

**\_ \_ \_ RB 00 X**

Current Rating

4 is 4 Amps

50 is 50 Amps

200 is 200 Amps

Series RB

Reactor Relative Impedance No.

1, 2, 3, 4 (1 is lowest value)

## 1000V 360Hz

DC Amps	Inductance mH	MTE Part Number	Ref Fig	DC Amps	Inductance mH	MTE Part Number	Ref Fig	DC Amps	Inductance mH	MTE Part Number	Ref Fig	DC Amps	Inductance mH	MTE Part Number	Ref Fig
1	35.00	1RB001	1	25	0.45	25RB001	1	80	0.75	80RB004	3	300	0.08	300RB001	3
1	60.00	1RB002	1	25	1.00	25RB002	2	80	1.25	DCA008005	3	300	0.135	300RB002	3
1	80.00	1RB003	1	25	1.275	DCA002504	2	92	0.20	DCA009201	3	300	0.32	300RB003	3
2	10.00	2RB001	1	25	1.75	DCA002503	2	92	0.60	DCA009202	3	450	0.055	450RB001	4
2	15.00	2RB002	1	25	4.00	DCA002505	2	92	1.00	DCA009203	3	450	0.11	450RB002	4
2	20.00	2RB003	1	32	0.85	DCA003201	2	110	0.25	110RB001	3	450	0.14	450RB003	4
2	50.00	DCA000204	1	32	1.62	DCA003202	2	110	0.30	DCA011002	3	450	0.25	450RB004	4
4	5.00	4RB001	1	32	2.68	DCA003203	2	110	0.45	DCA011003	3	500	0.043	500RB001	4
4	12.00	DCA000402	1	40	0.50	DCA004001	2	125	0.11	125RB001	3	500	0.09	500RB002	4
4	15.00	DCA000403	1	40	0.75	DCA004002	2	125	0.22	DCA012502	3	500	0.14	500RB003	4
4	25.00	DCA000404	2	40	1.00	DCA004003	2	125	0.50	125RB003	3	500	0.19	500RB004	4
9	2.00	9RB001	1	40	2.50	DCA004004	2	125	0.85	125RB004	3	600	0.04	600RB001	4
9	3.22	DCA000902	1	50	0.625	DCA005001	2	150	0.15	150RB001	3	600	0.11	600RB002	4
9	7.50	DCA000903	2	50	0.97	50RB002	2	150	0.22	DCA015002	3	600	0.18	600RB003	4
9	11.50	DCA000904	2	50	1.35	DCA005003	2	150	0.32	150RB003	3	700	0.044	700RB001	4
12	1.00	DCA001201	1	50	2.0	DCA005004	3	150	0.65	DCA015004	3	700	0.06	700RB002	4
12	2.10	DCA001202	2	62	0.35	DCA006201	3	200	0.12	200RB001	3	700	0.15	700RB003	4
12	4.00	DCA001203	2	62	0.61	DCA006202	3	200	0.21	DCA020002	3	850	0.036	850RB001	4
12	6.00	DCA001204	2	62	0.67	62RB003	3	200	0.40	200RB003	3	850	0.065	850RB002	4
18	0.65	DCA001801	1	62	1.20	62RB004	3	200	0.50	200RB004	3	850	0.11	850RB003	4
18	1.375	DCA001802	2	62	1.50	62RB005	3	240	0.09	240RB001	3	1000	0.02	1000RB001	4
18	2.75	DCA001803	2	80	0.31	80RB001	3	240	0.25	240RB002	3	1000	0.042	1000RB002	4
18	3.75	DCA001804	2	80	0.40	DCA008002	3	240	0.35	240RB003	3	1000	0.10	1000RB003	4
18	6.00	DCA001805	2	80	0.50	80RB003	3								

### OPEN MAGNETICS

FIGURE 1

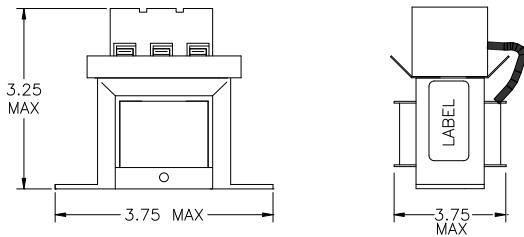


FIGURE 2

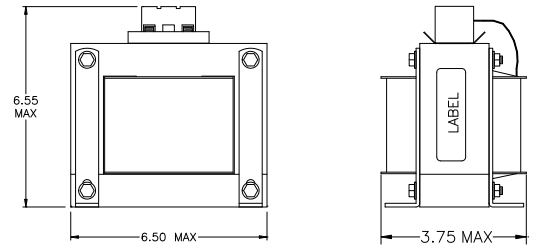


FIGURE 3

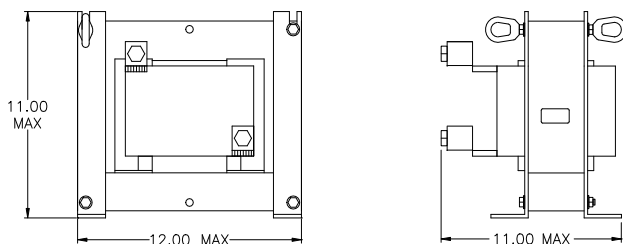
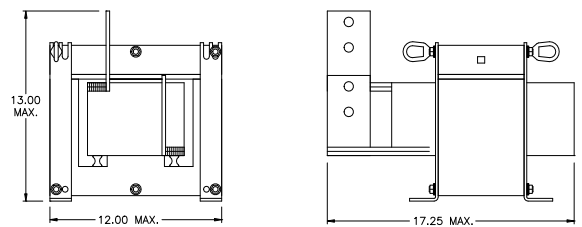


FIGURE 4



Note: Figure illustrations are for reference only. Actual hardware may differ. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.



## Harmonic Filters

### Matrix® AP

Adaptive Passive Technology for superior harmonic mitigation at varying loads

### Matrix® APAX

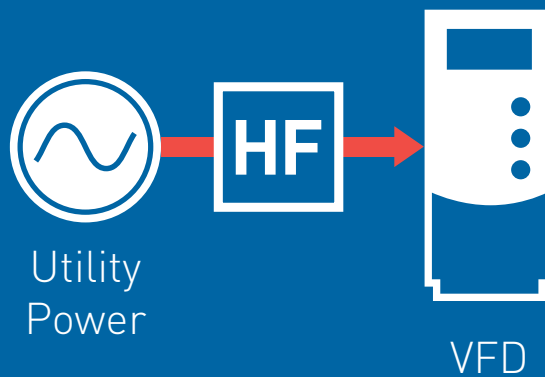
Quality, convenient solutions for reducing harmonic distortion

### 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





# Harmonic Filters Matrix<sup>®</sup> AP Product Selector



- **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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> AP Harmonic Filters, power quality, energy efficiency and reduced downtime are easy to achieve.

# 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.

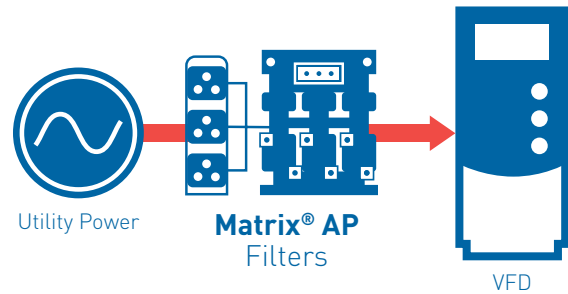
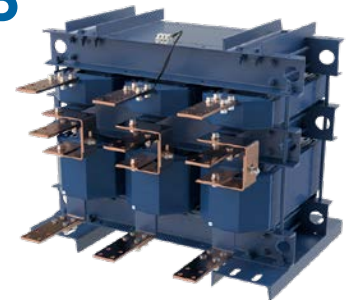
**MTE performance guarantee** provides peace of mind that the Matrix® AP will meet or exceed performance expectations – every time.

**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.

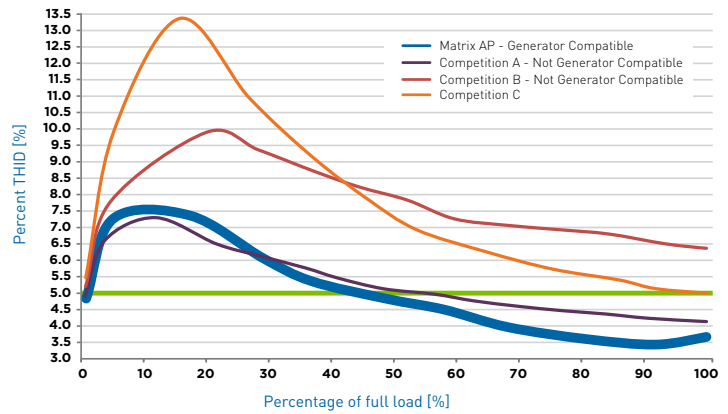
## Matrix® AP



Performance Specifications	
Service Load Condition	<b>Load: 6-pulse rectifier only</b>
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	<b>8% @ 30% load; 5% @ full load</b>
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	<b>&lt;5%</b>
Efficiency	<b>97% – 99%</b>
Altitude Without Derating	<b>3,300 feet above sea level</b>
Relative Humidity	<b>0% to 95% non-condensing</b>
Current Rating	<b>150% for 1 minute duration</b>

Final product specifications subject to change at any time.

**MTE vs. Competition THID [%]**

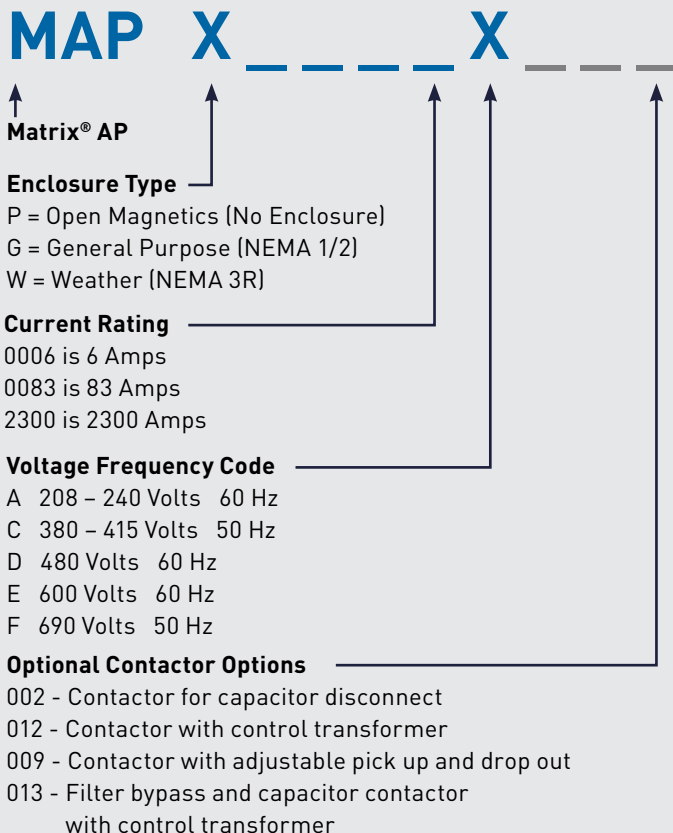


Matrix® AP Harmonic Filters can help ensure that your system meets the IEEE-519 requirements for harmonic current.

# 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:



## 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 (1/4 x 1/4) mesh
- Not available on units 1600A (480V) and above

# MATRIX® AP SELECTION TABLES

## 208 – 240V 60Hz

Motor (Ref Only)	Filter Amps Rating	Catalog No.	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
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](http://mtecorp.com) for detailed information.

S = Standard stock offering

\* = Call for availability

## 208 – 240V 60Hz

Motor (Ref Only)	Filter Amps Rating	Catalog No.	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
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	*	*	*
		MAPG0165A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	232	105	7		9.0 x 4.6	229 x 117	1		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			*	*	*	*				

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# MATRIX® AP SELECTION TABLES

## 380 – 415V 50Hz

Motor (Ref Only)	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
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	6		Preinstalled in cabinet				*	*	*	*
-	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	6		Preinstalled in cabinet				*	*	*	*
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	6		Preinstalled in cabinet				*	*	*	*
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	6		Preinstalled in cabinet				*	*	*	*
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	6		Preinstalled in cabinet				*	*	*	*
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	6		Preinstalled in cabinet				*	*	*	*
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	6		Preinstalled in cabinet				*	*	*	*
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	6		Preinstalled in cabinet				*	*	*	*
-	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	7		Preinstalled in cabinet				*	*	*	*
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	7		Preinstalled in cabinet				*	*	*	*
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	7		Preinstalled in cabinet				*	*	*	*
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	7		Preinstalled in cabinet				*	*	*	*

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## 380 – 415V 50Hz

Motor (Ref Only)	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	251 x 417 x 193	2	1	S	*	*	*	*
		MAPG0850C	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,604	728	1										
		MAPW0850C	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,644	746	Preinstalled in cabinet				*	*	*	*			
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							*	*	*	*	

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# MATRIX® AP SELECTION TABLES

## 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
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](http://mtecorp.com) for detailed information.

S = Standard stock offering

\* = Call for availability



## 480V 60Hz

Motor (Ref Only)	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	203 x 417 x 193	2	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
		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	203 x 417 x 193	2	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
		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	*	*	*	*		

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# MATRIX® AP SELECTION TABLES

## 600V 60Hz

Motor (Ref Only)	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
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	*				

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## 600V 60Hz

Motor (Ref Only)	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	*				

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# MATRIX® AP SELECTION TABLES

## 690V 50Hz

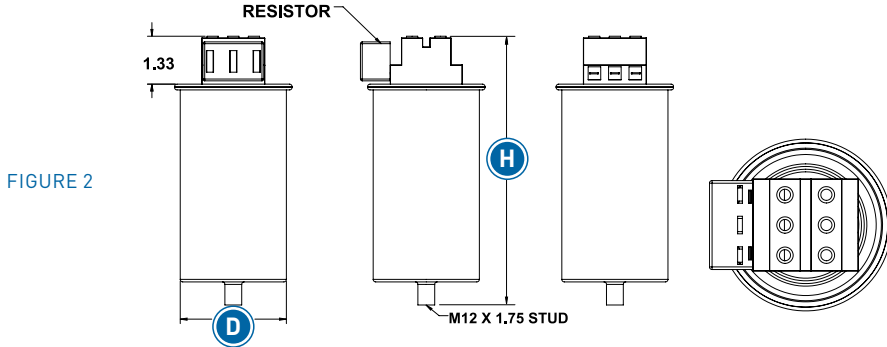
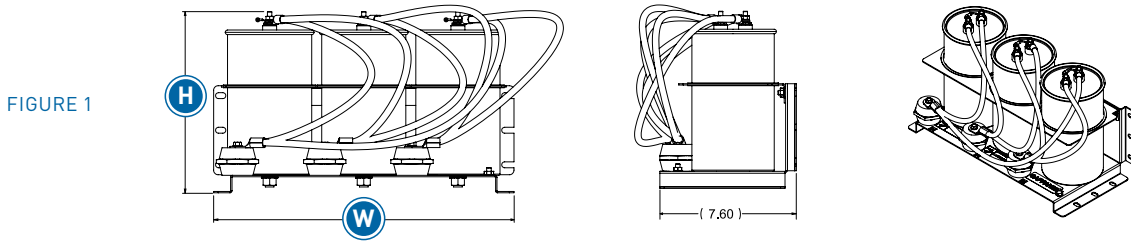
Motor (Ref Only)	Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D)		Approx Weight		Ref Fig	Watts Loss	Capacitor/Capacitor Panel Assembly Dimensions (H x W x D)		Qty Req'd	Ref Fig	Available Options			
				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters			002	009	012	013
37	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	*	*	*	*

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CAPACITOR/CAPACITOR PANEL



ENCLOSURES

(NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES)

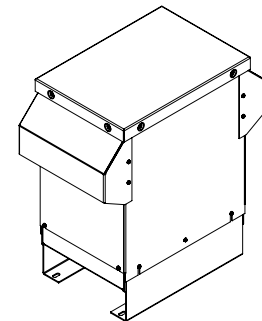
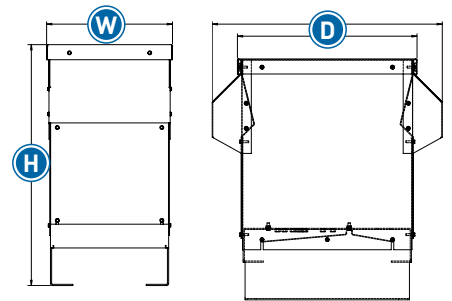


FIGURE 6

OPEN MAGNETICS

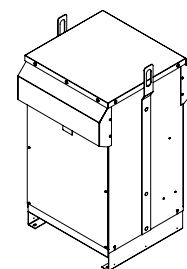
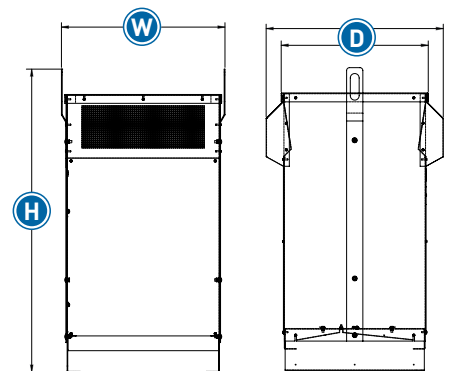
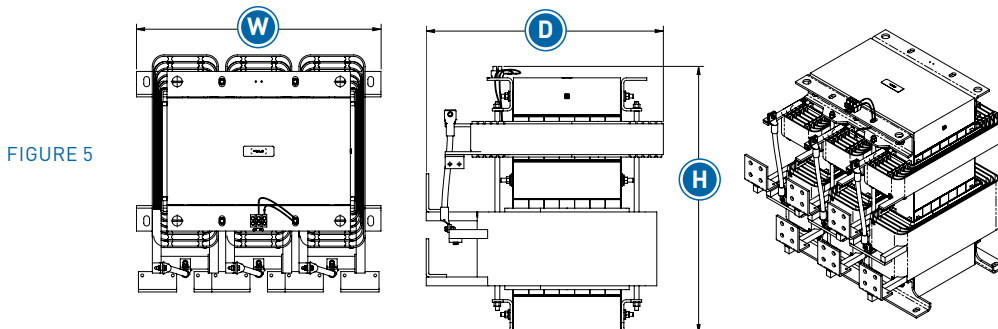
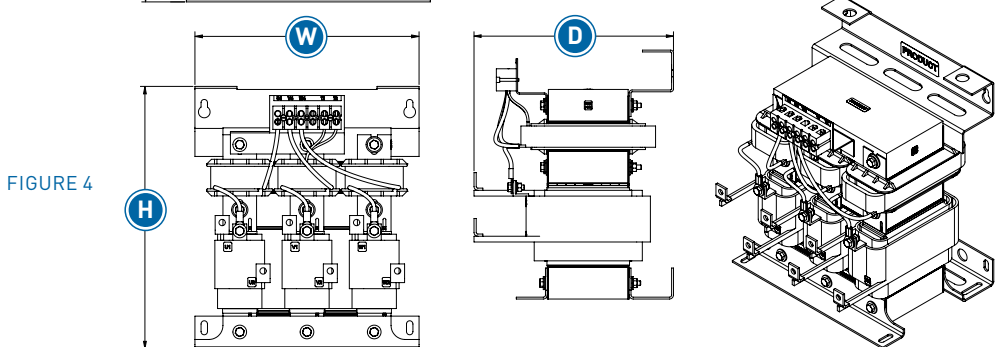
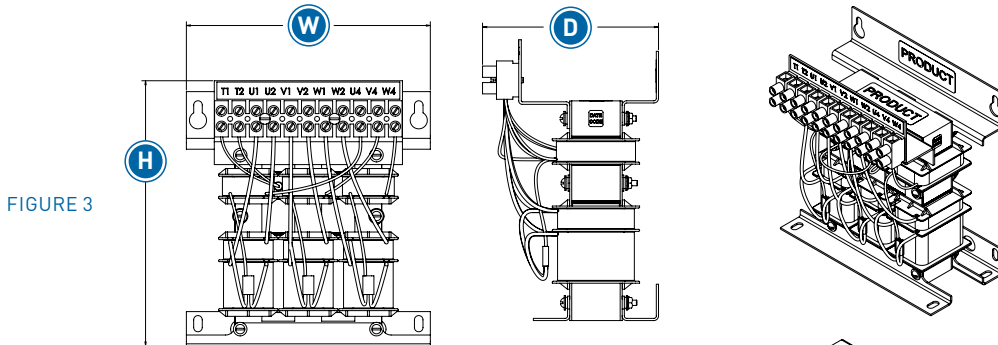


FIGURE 7



## Harmonic Filters

### Matrix® AP

Adaptive Passive Technology for superior harmonic mitigation at varying loads

### Matrix® APAX

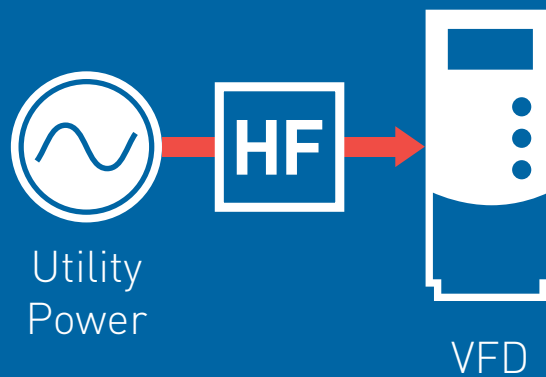
Quality, convenient solutions for reducing harmonic distortion

### Matrix® E-Series

Power quality you've come to expect from the power quality experts

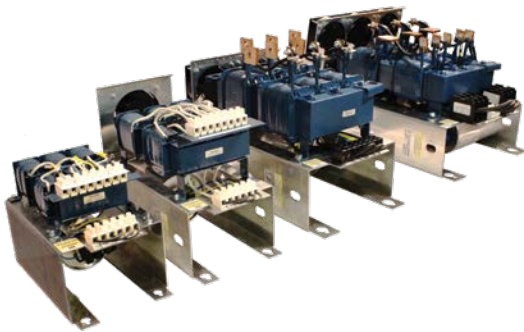
### Single Phase Matrix® ONE

Optimized harmonic filters with proven harmonic mitigation



# Harmonic Filters **Matrix® APAX**

## Product Selector



- **Compact passive harmonic filter**
- **Meets 10%–15% harmonic distortion requirements**
- **Over temperature switch included**
- **Easy to integrate and install**
- **Designed in the USA**

## Power quality just got easier to achieve.

The patented Matrix® APAX is the convenient solution for meeting specific harmonic distortion requirements. Designed in the USA and built to meet MTE's proven standards for quality, the Matrix® APAX helps reduce harmonic distortions caused by Variable Frequency Drives (VFDs).

It features a one-panel design with fewer connections and optional contactor positions. This makes it easier to integrate and easier to install. With Matrix® APAX Harmonic Filters, power quality, energy efficiency and reduced downtime are easy to afford.

# The convenient, easy-to-install solution for harmonic filtering.

The Matrix® APAX Harmonic Filter can be specified for use on the input of your VFD or other 6-pulse rectifier power supply to meet the 10%–15% requirement for harmonic distortion.

**Improves system efficiency and reliability**

**Helps extend service**

**Alleviates system downtime**

Performance Specifications	
Service Load Condition	<b>Load: 6-pulse rectifier only</b>
Input Voltage†	<b>380V - 415V +/- 10%; 50 + 0.75Hz; 3-phase</b>
Current Range	<b>6A - 320A (1.5 KW - 150 KW)</b>
Maximum THID*	<b>8% @ full load 12% @ 40% load</b>
Maximum Ambient Temperature	<b>-40C to +50C open panel filters -40C to +90C storage</b>
Insertion Loss @ Full Load‡	<b>&lt;5%</b>
Efficiency	<b>&gt;98%</b>
Altitude Without Derating	<b>3,300 feet above sea level</b>
Relative Humidity	<b>0% to 95% non-condensing</b>
Current Rating	<b>150% for 1 minute duration</b>
Fan Life Expectancy	<b>80,000 hours @ 40C</b>

Product specifications subject to change at anytime.  
 \* On systems with a DC link choke or reactor.  
 † Also available in 380V;60Hz. Contact MTE for details.  
 ‡ Insertion loss for the 380V;60Hz version can measure up to 6-7%.

# 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

## Matrix® APAX Options

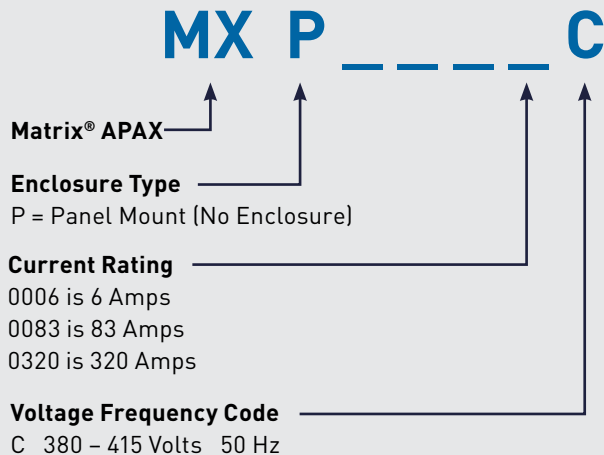
**Contactor Wiring Option:** Opens capacitors under light load conditions

- User configurable wiring block (See image below)
- Allows for user to disconnect option to meet their application
- Shipped with factory installed jumpers that must be removed for installation of contactor option



Matrix® APAX Harmonic Filter comes standard with field installable contactor options.

## Understanding the Matrix® APAX Part Number:





385 - 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)	
				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters
1.1 - 2.2	6	MXP0006C	OPEN	12.6 x 7.4 x 8.9	320 x 188 x 226	20	9	1	65	Preinstalled on reactor panel	
-	8	MXP0008C	OPEN	12.6 x 7.4 x 8.9	320 x 188 x 226	24	11	1	74	Preinstalled on reactor panel	
3.7	11	MXP0011C	OPEN	12.6 x 7.4 x 9.1	320 x 188 x 231	30	14	1	94	Preinstalled on reactor panel	
5.5	14	MXP0014C	OPEN	12.6 x 7.4 x 9.3	320 x 188 x 236	33	15	1	106	Preinstalled on reactor panel	
7.5	21	MXP0021C	OPEN	17.4 x 7.6 x 11.4	442 x 193 x 290	39	18	2	192	Preinstalled on reactor panel	
11	27	MXP0027C	OPEN	17.4 x 7.6 x 11.4	442 x 193 x 290	43	20	2	212	Preinstalled on reactor panel	
15	34	MXP0034C	OPEN	17.4 x 7.6 x 11.4	442 x 193 x 290	47	21	2	205	Preinstalled on reactor panel	
18.5 - 22	44	MXP0044C	OPEN	17.4 x 7.6 x 11.4	442 x 193 x 290	53	24	2	270	Preinstalled on reactor panel	
-	52	MXP0052C	OPEN	20.0 x 10.6 x 12.5	508 x 269 x 318	73	33	3	278	Preinstalled on reactor panel	
30	66	MXP0066C	OPEN	20.0 x 10.6 x 12.2	508 x 269 x 310	78	35	3	359	Preinstalled on reactor panel	
37 - 45	83	MXP0083C	OPEN	20.0 x 10.6 x 13.1	508 x 269 x 333	92	42	3	378	Preinstalled on reactor panel	
55	103	MXP0103C	OPEN	20.0 x 10.6 x 13.8	508 x 269 x 351	104	47	3	397	Preinstalled on reactor panel	
-	128	MXP0128C	OPEN	20.2 x 10.6 x 14.3	513 x 269 x 363	115	52	3	480	Preinstalled on reactor panel	
75 - 90	165	MXP0165C	OPEN	25.5 x 14.8 x 14.3	648 x 376 x 363	145	66	4	668	Preinstalled on reactor panel	
110	208	MXP0208C	OPEN	25.6 x 14.8 x 14.6	650 x 376 x 371	163	74	4	732	Preinstalled on reactor panel	
-	240	MXP0240C	OPEN	25.6 x 14.8 x 15.7	650 x 376 x 399	193	88	4	768	Preinstalled on reactor panel	
150	320	MXP0320C	OPEN	25.8 x 14.8 x 15.6	655 x 376 x 396	209	95	4	929	Preinstalled on reactor panel	

Note: Weights and dimensions are for reference only. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.

## OPEN MAGNETICS

FIGURE 1

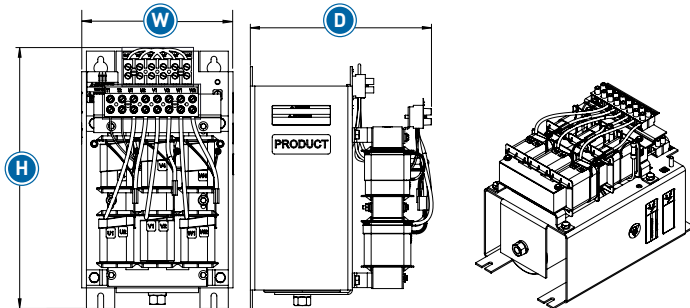


FIGURE 2

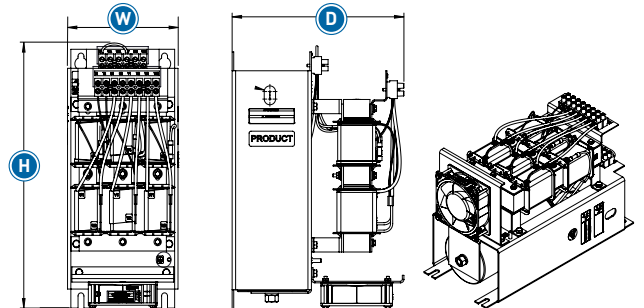


FIGURE 3

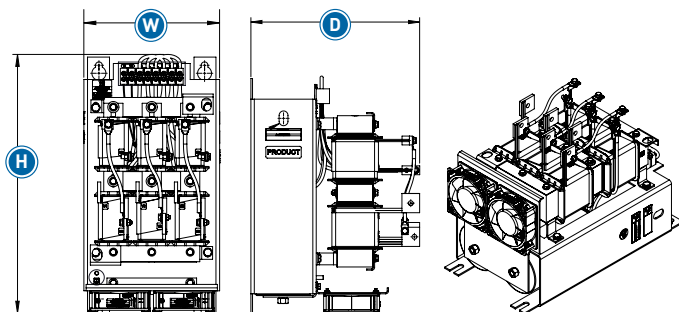
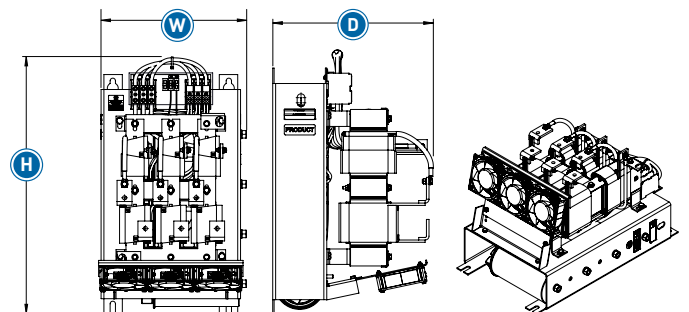


FIGURE 4



Note: Figure illustrations are for reference only. Actual hardware may differ. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.



## Harmonic Filters

### Matrix® AP

Adaptive Passive Technology for superior harmonic mitigation at varying loads

### Matrix® APAX

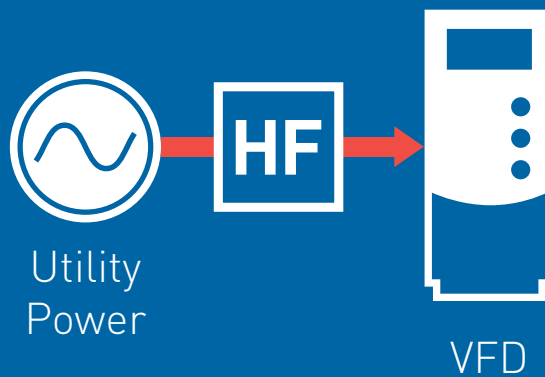
Quality, convenient solutions for reducing harmonic distortion

### 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



Harmonic Filters  
**Matrix<sup>®</sup> E-Series**  
 Product Selector



- **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<sup>®</sup> 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.

# Power quality you've come to expect from the power quality experts.

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.

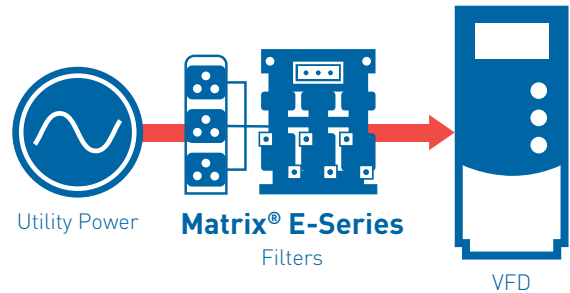
**Affordable solution** that is easy to install and maintain.

**Improves system efficiency and reliability** to lower total cost.

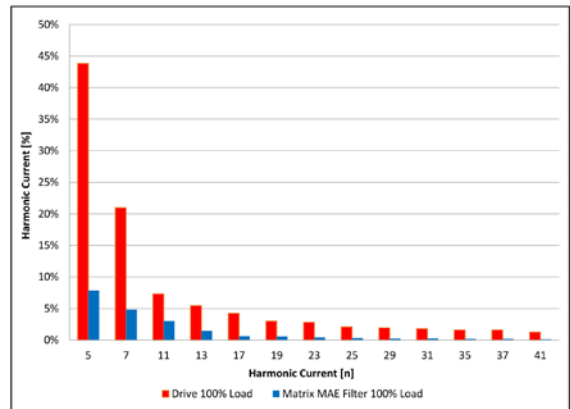
**Helps extend service life** of electrical equipment and transformers.

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

## Matrix® E-Series



Matrix® E-Series Harmonic Spectrum Chart



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

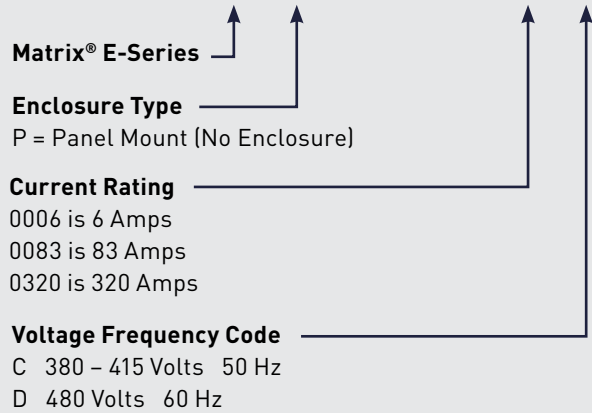
Product specifications subject to change at anytime.

# 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**



380V - 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
				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters		
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
-	52	MAEP0052C	OPEN	14.5 x 9.6 x 6.9	368 x 244 x 175	55	25	3	278	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
30	66	MAEP0066C	OPEN	14.6 x 9.6 x 6.7	371 x 244 x 170	60	27	3	359	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
-	240	MAEP0240C	OPEN	16.8 x 11.0 x 10.5	427 x 279 x 267	166	75	4	768	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](http://mtecorp.com) for detailed information.

# MATRIX® E-Series SELECTION TABLES

480V 60Hz													
Motor (Ref Only)	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	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](http://mtecorp.com) for detailed information.

## CAPACITOR/CAPACITOR PANEL

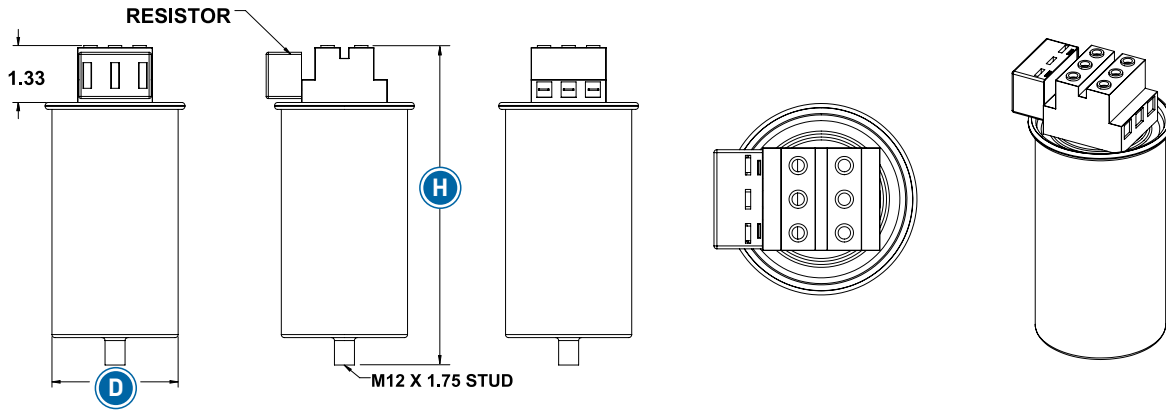


FIGURE 1

## OPEN MAGNETICS

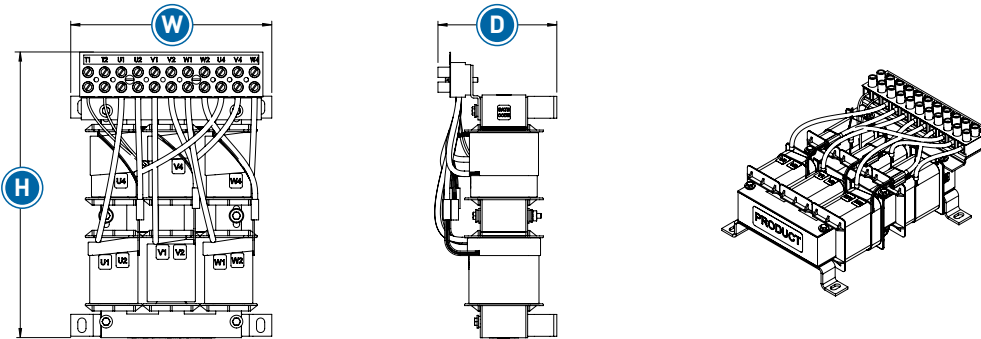


FIGURE 2

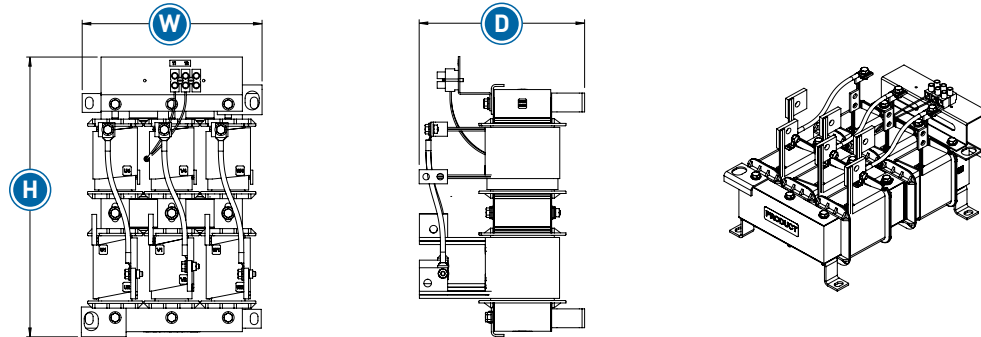


FIGURE 3

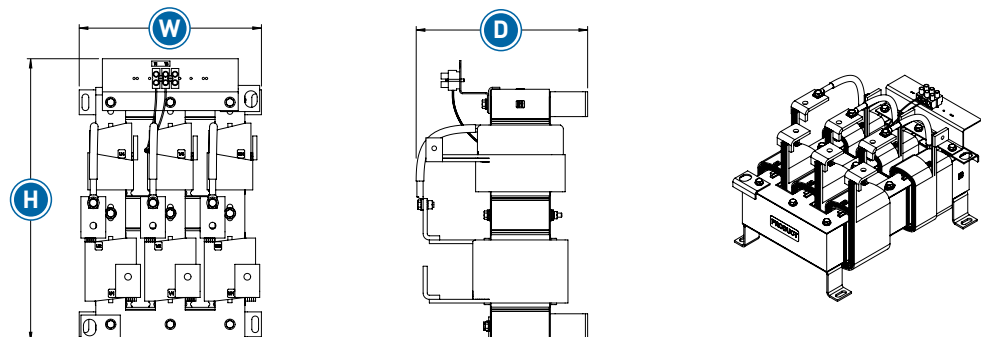


FIGURE 4



## Harmonic Filters

### Matrix® AP

Adaptive Passive Technology for superior harmonic mitigation at varying loads

### Matrix® APAX

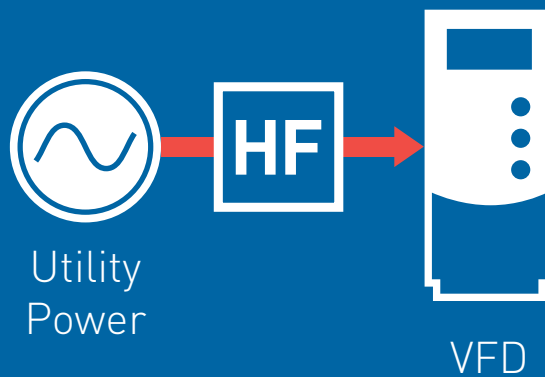
Quality, convenient solutions for reducing harmonic distortion

### 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





# Single Phase Matrix<sup>®</sup> ONE Product Selector



- **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<sup>®</sup> ONE Filter provides reliable harmonic protection in environments where utility power may not be optimal. MTE has built the Single Phase Matrix<sup>®</sup> 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<sup>®</sup> ONE is designed to generate less heat and reduce system downtime. Easy to install and maintain, the Single Phase Matrix<sup>®</sup> ONE produces the protection you need to extend the service life of your equipment.

# 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.

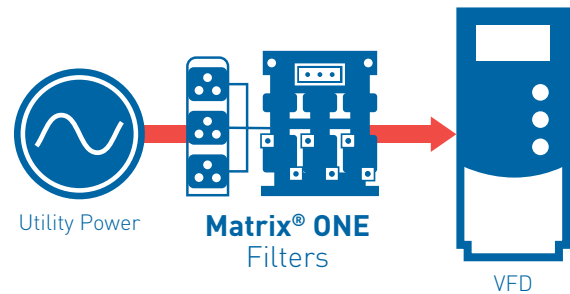
**Patented design** with reliable components provides harmonic mitigation and reduced THID (Total Harmonic Distortion) where you need it most.

**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.

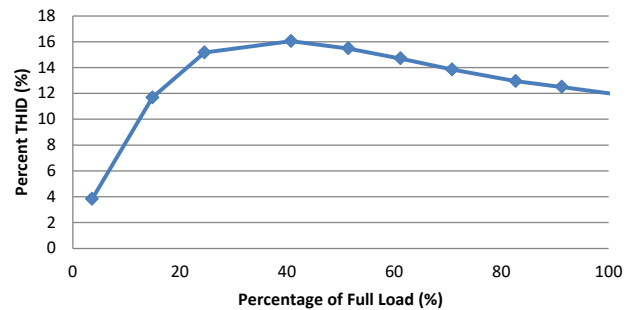
**Alleviates system downtime** by preventing blown fuses and tripped circuit breakers.



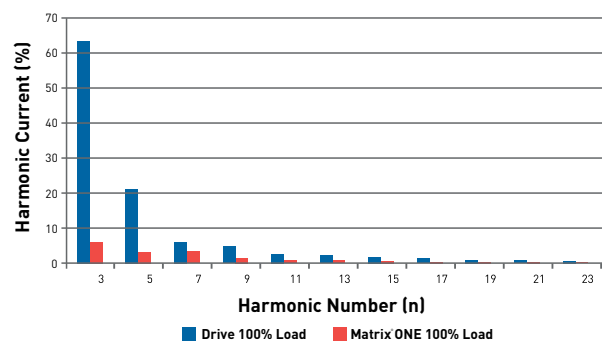
Performance Specifications	
Service Load Condition	Load: typically a 4-pulse rectifier
Input Voltage	240V +/- 10%; 60 + 0.75Hz; 1-phase 480V +/- 10%; 60 + 0.75Hz; 1-phase
Maximum THID	12% @ Full Load
Maximum Ambient Temperature	-40°C to +50°C open panel filters; -40°C to +40°C enclosed filters; -40°C 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 THID Performance (%)



Matrix® ONE Harmonic Spectrum Chart



# 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

## Derating Curves:

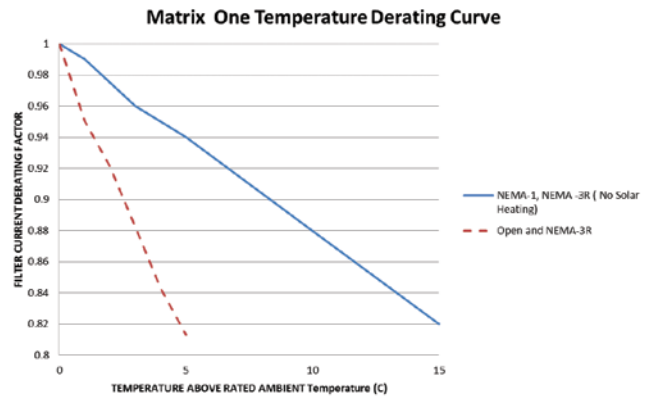


Table 1: Drive Output Frequency Derating

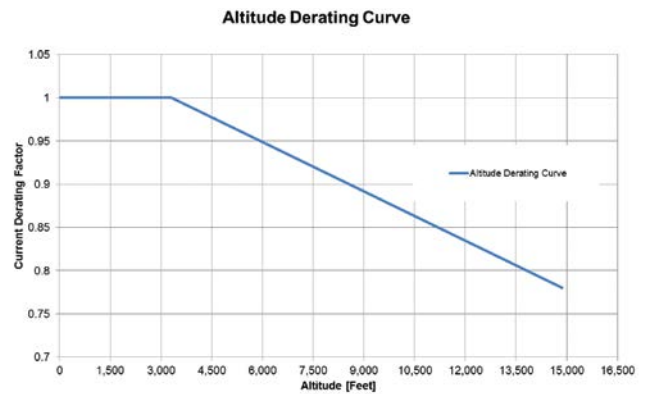


Table 2: Altitude Derating Curve

## 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

# MATRIX® ONE SELECTION TABLES

240V 60 Hz													
Motor (Ref Only)	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	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
		MSG0430A	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,040	472	6		8.0 x 16.4 x 7.6	203 x 417 x 193	1	
		MSW0430A	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,076	488			Preinstalled in cabinet			
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
		MSG0540A	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,146	520	6		10.7 x 16.3 x 7.6	272 x 414 x 193	1	
		MSW0540A	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,186	538			Preinstalled in cabinet			
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						

480V 60 Hz													
Motor (Ref Only)	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
		MSG0270D	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,113	505	6		7.9 x 16.3 x 7.6		201 x 414 x 193	
		MSW0270D	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,147	520			Preinstalled in cabinet			
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](http://mtecorp.com) for detailed information.

# REFERENCE FIGURES

## CAPACITOR

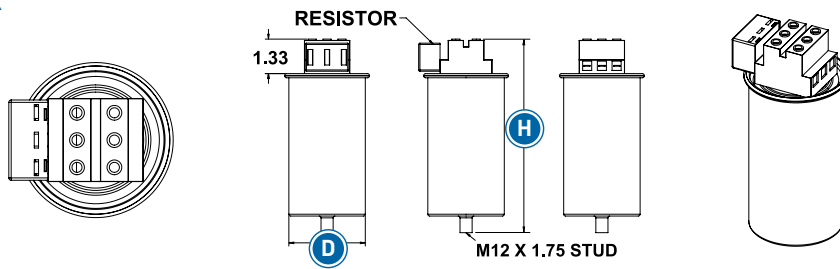


FIGURE 1

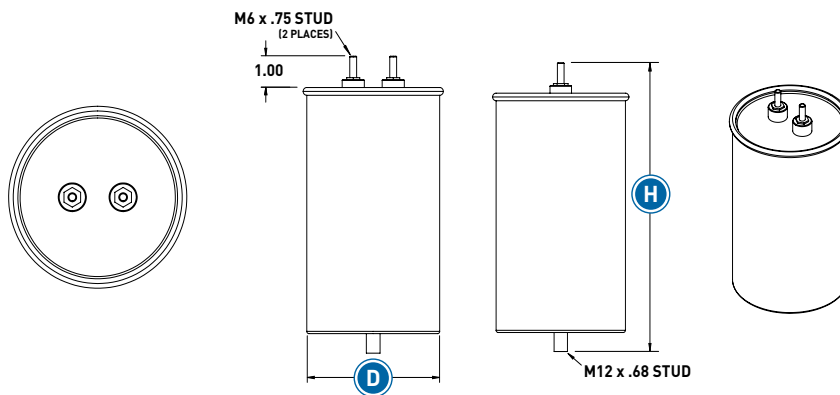


FIGURE 2

## CAPACITOR PANEL

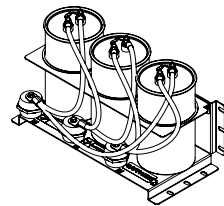


FIGURE 3

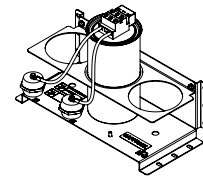
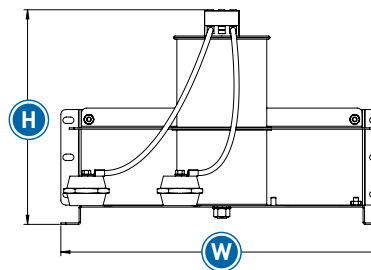
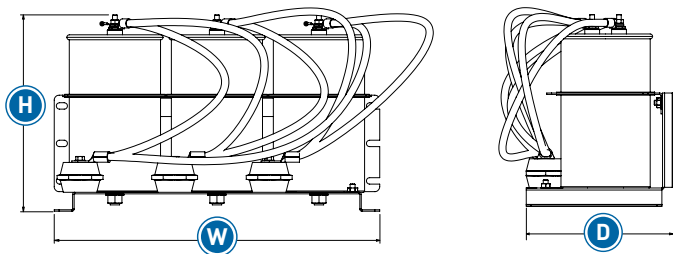


FIGURE 4

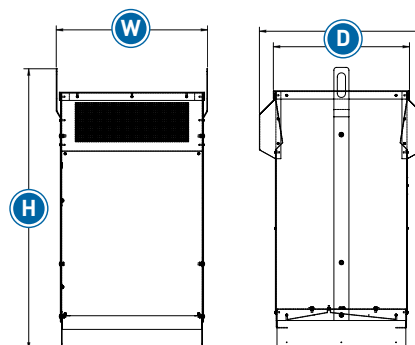
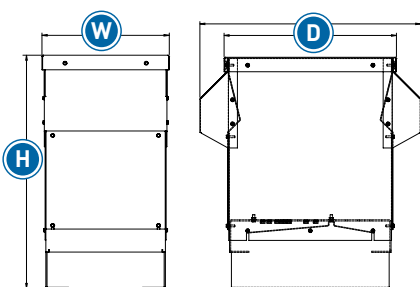


## ENCLOSURES

(NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES)

FIGURE 5

FIGURE 6



OPEN MAGNETICS

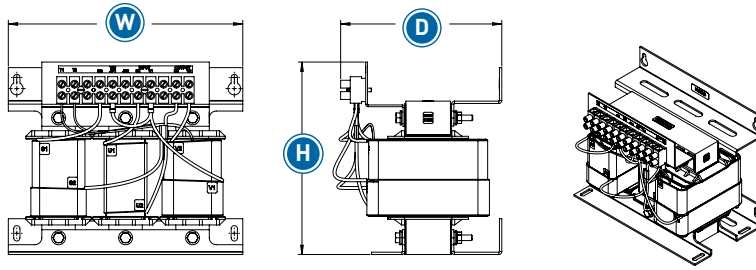


FIGURE 7

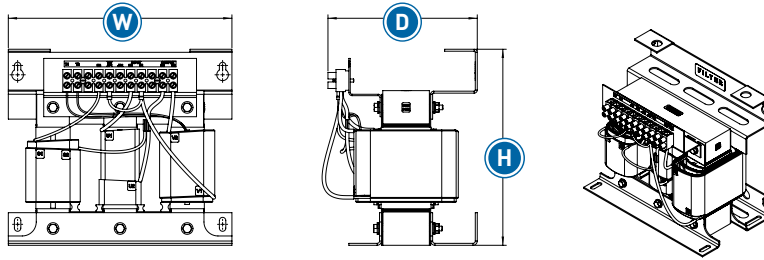


FIGURE 8

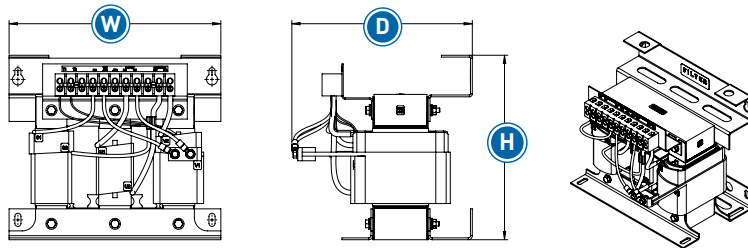


FIGURE 9

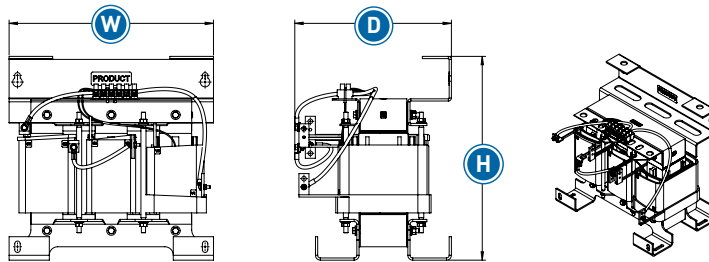


FIGURE 10

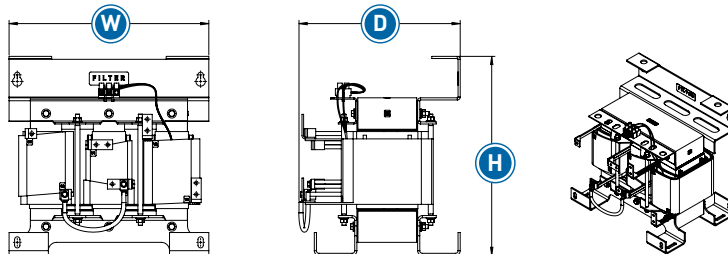


FIGURE 11

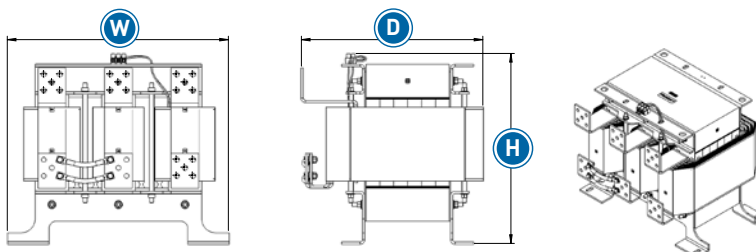


FIGURE 12

Note: Figure illustrations are for reference only. Actual hardware may differ. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.



## Motor Protection Filters

### dV Sentry™

Next generation dV/dt Filters for motor protection

### SineWave Guardian®

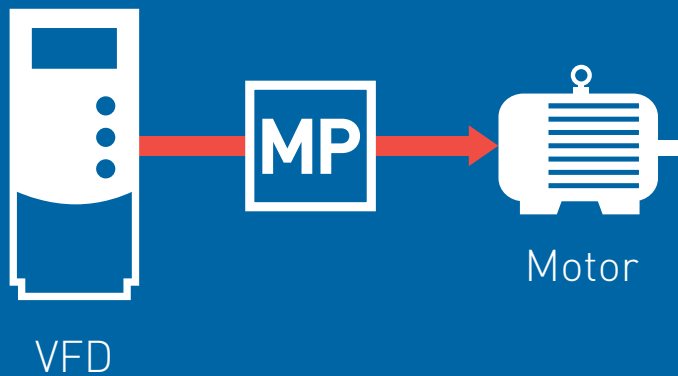
Best-in-class SineWave Filter for cleaning PWM waveforms out to 15,000 ft

### High Frequency SineWave Guardian®

The optimized motor protection solution for high frequency motors

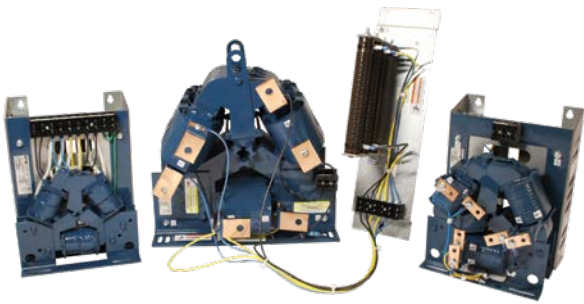
### SineWave Nexus™

An integrated solution for both differential and common mode filtering





dV/dt Filters  
**dV Sentry™**  
Product Selector



- True common mode reduction, peak voltage protection, and rise time reduction
- World leading motor protection technology in the market
- Low watts loss
- Small, advanced, robust design, easily installed
- Quiet as a conversation
- Three-year warranty

## The future is here.

The dV Sentry™ is the revolutionary solution for motor protection with its unique all-in-one design. It is the only filter on the market proven to provide common mode and rise time reduction, as well as peak voltage protection. This gives greater motor protection over time.

It features a small footprint and easy terminations to make installation faster and easier. Plus, it runs quietly and radiates less heat than previous filters. The dV Sentry™ is unique, and when it comes to motor protection, there is nothing better.

# With the patented dV Sentry™, you get the most advanced motor protection in its class.

The unique design of the dV Sentry™ allows for greater load side protection from voltage spikes and common mode voltages for your AC motors cable and VFDs.

**Patented design** provides over 50% common mode reduction, peak voltage protection, and rise time reduction – all in one filter.

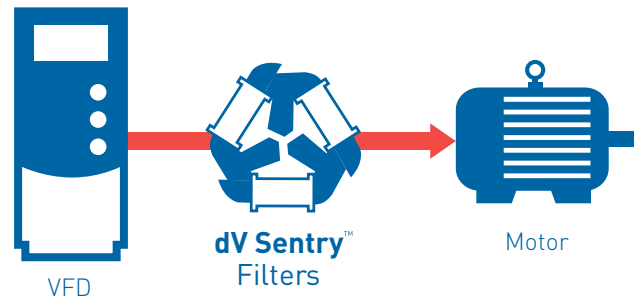
**Low watts loss** reduces heating in systems.

**Small footprint**, with a unique flat design, allows filter to be easily integrated.

**Strong robust design** allows the filter to withstand installation and other difficult environments.

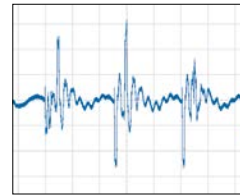
**Runs quieter**, comparable to a normal conversation.

## dV Sentry™

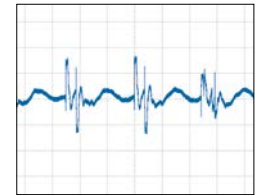


Performance Specifications	
Input Voltage	208V - 600V +/- 10%; 60Hz
Inverter Operating Frequency	0 - 90Hz without derating
Maximum Ambient Temperature	-40°C to +60°C modular filter -40°C to +50°C enclosed filter
Insertion Loss (Voltage)	1.7% @ 60Hz; 2.6% @ 90Hz
Efficiency	>99%
Altitude Without Derating	3,300 feet above sea level
Maximum Motor Lead Length	1,000 feet
Relative Humidity	0% to 99% non-condensing
Current Rating	100% RMS continuous; 150% for 1 minute; 200% for 10 sec* *Operating in overload will result in increased proportional voltage drop
Rise Time	Less than 0.1 uS
Peak Voltage	150% of DC bus voltage up to 1,000 feet
Common Mode Reduction	50%+ peak current reduction typical

### Common Mode Reduction:

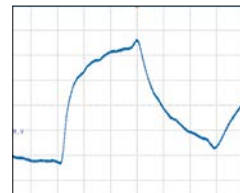


Without dV Sentry™

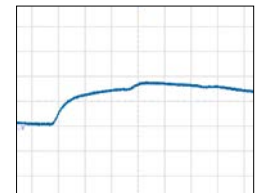


With dV Sentry™

### Peak Rise Protection:

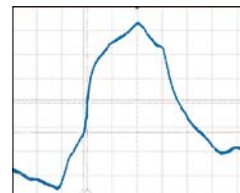


Without dV Sentry™

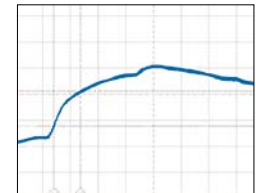


With dV Sentry™

### Rise Time Reduction:



Without dV Sentry™



With dV Sentry™

Final product specifications subject to change at any time.

# How to properly size your filter

- Determine input voltage and frequency requirements
- Reference motor nameplate to determine motor HP or kW and Full Load Amps
- Verify motor meets inverter duty standards per NEMA MG1 Section 31
- 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
  - Table 2: Altitude Derating Curve
- Note: Filters can be paralleled for higher current ratings. Contact MTE Application Engineering for more information. [appengrg@mtecorp.com](mailto:appengrg@mtecorp.com)

## Derating Curves:

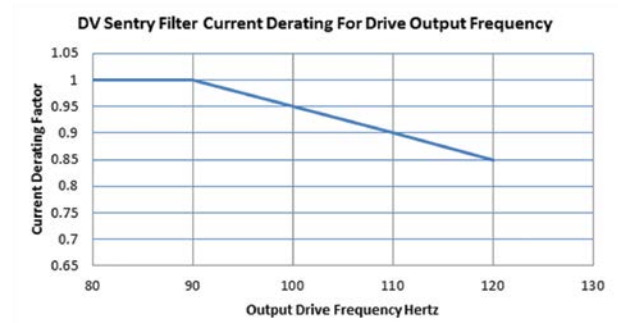


Table 1: Drive Output Frequency

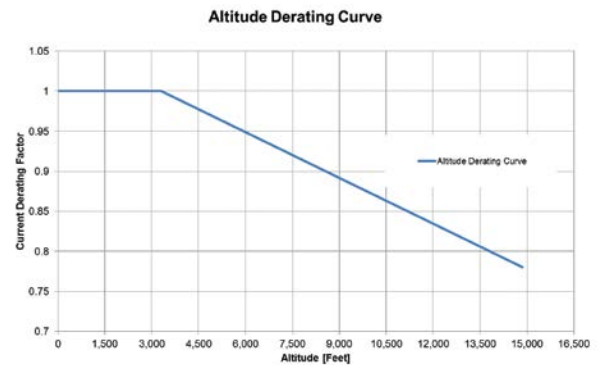
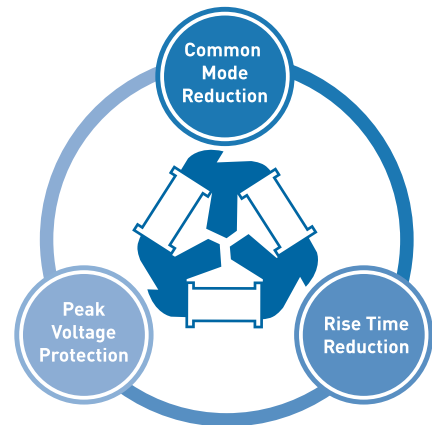
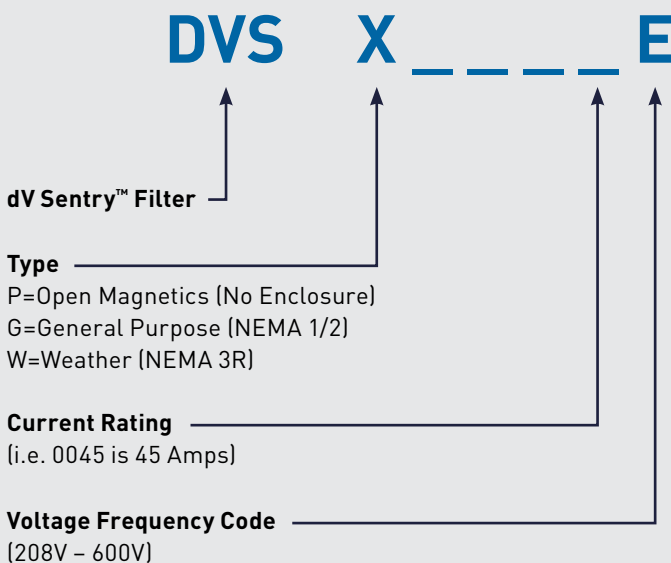


Table 2: Altitude Derating Curve

## Understanding the dV Sentry™ Part Number:



# dV SENTRY™ SELECTION TABLES

## 208 – 600V 50/60Hz

Motor (Ref Only)					Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D)		Approx Weight		Ref Fig	Watts Loss	Resistor Panel Dimensions (H x W x D)		Ref Fig
208V HP	240V HP	380V kW	480V HP	550-600V HP				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters	
0.5	0.75	0.5-1.1	0.5-1.5	0.5-2	3	DVSP0003E	OPEN	9.1 x 6.7 x 7.7	231 x 170 x 196	7	3	2	67	Preinstalled on reactor panel		
						DVSG0003E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	18	8	6		Preinstalled in cabinet		
						DVSW0003E	NEMA 3R	15.5 x 11.0 x 12.0	394 x 279 x 305	29	13	8				
0.75	1	1.5	2	3	4	DVSP0004E	OPEN	9.1 x 6.7 x 7.7	231 x 170 x 196	7	3	2	67	Preinstalled on reactor panel		
						DVSG0004E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	18	8	6		Preinstalled in cabinet		
						DVSW0004E	NEMA 3R	15.5 x 11.0 x 12.0	394 x 279 x 305	29	13	8				
1.5	2	2.2-3	3	5	7	DVSP0007E	OPEN	9.1 x 6.7 x 7.7	231 x 170 x 196	7	3	2	67	Preinstalled on reactor panel		
						DVSG0007E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	18	8	6		Preinstalled in cabinet		
						DVSW0007E	NEMA 3R	15.5 x 11.0 x 12.0	394 x 279 x 305	29	13	8				
2	3	4	5	7.5	9	DVSP0009E	OPEN	9.1 x 6.7 x 7.7	231 x 170 x 196	7	3	2	67	Preinstalled on reactor panel		
						DVSG0009E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	18	8	6		Preinstalled in cabinet		
						DVSW0009E	NEMA 3R	15.5 x 11.0 x 12.0	394 x 279 x 305	29	13	8				
3	4	5.5	7.5	10	12	DVSP0012E	OPEN	9.1 x 6.7 x 7.7	231 x 170 x 196	7	3	2	67	Preinstalled on reactor panel		
						DVSG0012E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	18	8	6		Preinstalled in cabinet		
						DVSW0012E	NEMA 3R	15.5 x 11.0 x 12.0	394 x 279 x 305	29	13	8				
5	5.5	7.5	10	15	17	DVSP0017E	OPEN	9.1 x 6.7 x 7.5	231 x 170 x 191	8	4	2	96	Preinstalled on reactor panel		
						DVSG0017E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	19	9	6		Preinstalled in cabinet		
						DVSW0017E	NEMA 3R	15.5 x 11.0 x 12.0	394 x 279 x 305	30	14	8				
5.5	7.5	11	15	20	22	DVSP0022E	OPEN	9.1 x 6.7 x 8.2	231 x 170 x 208	11	5	2	91	Preinstalled on reactor panel		
						DVSG0022E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	22	10	6		Preinstalled in cabinet		
						DVSW0022E	NEMA 3R	15.5 x 11.0 x 12.0	394 x 279 x 305	32	15	8				
7.5	10	-	20	25	27	DVSP0027E	OPEN	9.1 x 6.7 x 8.2	231 x 170 x 208	11	5	2	92	Preinstalled on reactor panel		
						DVSG0027E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	22	10	6		Preinstalled in cabinet		
						DVSW0027E	NEMA 3R	15.5 x 11.0 x 12.0	394 x 279 x 305	32	15	8				
10	12.5	15	25	30	35	DVSP0035E	OPEN	12.0 x 9.0 x 8.0	305 x 229 x 203	15	7	3	91	Preinstalled on reactor panel		
						DVSG0035E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	25	11	6		Preinstalled in cabinet		
						DVSW0035E	NEMA 3R	15.5 x 11.0 x 12.0	394 x 279 x 305	35	16	8				
12.5	15	18.5-22	30	40	45	DVSP0045E	OPEN	12.0 x 9.0 x 8.0	305 x 229 x 203	16	7	3	88	Preinstalled on reactor panel		
						DVSG0045E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	25	11	6		Preinstalled in cabinet		
						DVSW0045E	NEMA 3R	15.5 x 11.0 x 12.0	394 x 279 x 305	35	16	8				
15	20	-	40	50	55	DVSP0055E	OPEN	12.0 x 9.0 x 8.2	305 x 229 x 208	22	10	3	137	Preinstalled on reactor panel		
						DVSG0055E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	32	15	6		Preinstalled in cabinet		
						DVSW0055E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	75	34	9				
20	25	30	50	60	65	DVSP0065E	OPEN	12.0 x 9.0 x 11.1	305 x 229 x 282	31	14	3	166	Preinstalled on reactor panel		
						DVSG0065E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	41	19	6		Preinstalled in cabinet		
						DVSW0065E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	84	38	9				

Note: Weights and dimensions are for reference only. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.

## 208 – 600V 50/60Hz

Motor (Ref Only)					Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D)		Approx Weight		Ref Fig	Watts Loss	Resistor Panel Dimensions (H x W x D)			Ref Fig
208V HP	240V HP	380V kW	480V HP	550-600V HP				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters		
25	30	37	60	75	80	DVSP0080E	OPEN	12.0 x 9.0 x 11.1	305 x 229 x 282	32	15	3	158	Preinstalled on reactor panel			
						DVSG0080E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	42	19	6		Preinstalled in cabinet			
						DVSW0080E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	85	39	9					
30	40	45-55	75	100	110	DVSP0110E	OPEN	12.0 x 9.0 x 11.1	305 x 229 x 282	36	16	3	175	Preinstalled on reactor panel			
						DVSG0110E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	43	20	6		Preinstalled in cabinet			
						DVSW0110E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	89	40	9					
40	50	-	100	125	130	DVSP0130E	OPEN	13.5 x 13.6 x 7.9	343 x 345 x 201	56	25	4	273	18.4 x 5.0 x 7.0	467 x 127 x 178	1A	
						DVSG0130E	NEMA 1/2	24.0 x 17.1 x 18.5	610 x 434 x 470	97	44	7		Preinstalled in cabinet			
						DVSW0130E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	139	63	10					
50	60	75-90	125	150	160	DVSP0160E	OPEN	13.5 x 13.6 x 9.1	343 x 345 x 231	72	33	4	289	18.4 x 5.0 x 7.0	467 x 127 x 178	1A	
						DVSG0160E	NEMA 1/2	24.0 x 17.1 x 18.5	610 x 434 x 470	113	51	7		Preinstalled in cabinet			
						DVSW0160E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	155	70	10					
60	75	110	150	200	200	DVSP0200E	OPEN	13.5 x 13.6 x 9.1	343 x 345 x 231	76	34	4	325	18.4 x 5.0 x 7.0	467 x 127 x 178	1A	
						DVSG0200E	NEMA 1/2	24.0 x 17.1 x 18.5	610 x 434 x 470	116	53	7		Preinstalled in cabinet			
						DVSW0200E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	157	71	10					
75	100	132	200	250	250	DVSP0250E	OPEN	15.0 x 15.1 x 10.3	381 x 384 x 262	90	41	5	423	18.4 x 5.0 x 7.0	467 x 127 x 178	1A	
						DVSG0250E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	165	75	10		Preinstalled in cabinet			
						DVSW0250E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	173	78	10					
100	125	160	250	300	305	DVSP0305E	OPEN	15.2 x 15.1 x 10.4	386 x 384 x 264	94	43	5	481	18.4 x 5.0 x 7.0	467 x 127 x 178	1A	
						DVSG0305E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	170	77	10		Preinstalled in cabinet			
						DVSW0305E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	177	80	10					
125	150	185-200	300	350	365	DVSP0365E	OPEN	15.1 x 15.1 x 11.8	384 x 384 x 300	125	57	5	564	18.4 x 5.0 x 7.0	467 x 127 x 178	1A	
						DVSG0365E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	200	91	10		Preinstalled in cabinet			
						DVSW0365E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	208	94	10					
150	175	-	350	450	415	DVSP0415E	OPEN	15.1 x 15.1 x 11.8	384 x 384 x 300	125	57	5	795	18.4 x 5.0 x 7.0	467 x 127 x 178	1A	
						DVSG0415E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	200	91	10		Preinstalled in cabinet			
						DVSW0415E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	208	94	10					
175	225	250	400-450	500-550	515	DVSP0515E	OPEN	14.9 x 15.1 x 13.3	378 x 384 x 338	158	72	5	798	18.4 x 5.0 x 7.0	467 x 127 x 178	1B	
						DVSG0515E	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	326	148	10		Preinstalled in cabinet			
						DVSW0515E	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	339	154	10					
200	250	315	500	600	600	DVSP0600E	OPEN	15.1 x 15.1 x 13.4	384 x 384 x 340	165	75	5	822	18.4 x 5.0 x 7.0	467 x 127 x 178	1B	
						DVSG0600E	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	332	151	10		Preinstalled in cabinet			
						DVSW0600E	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	345	156	10					

Note: Weights and dimensions are for reference only. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.

# REFERENCE FIGURES

## RESISTOR PANEL

FIGURE 1A

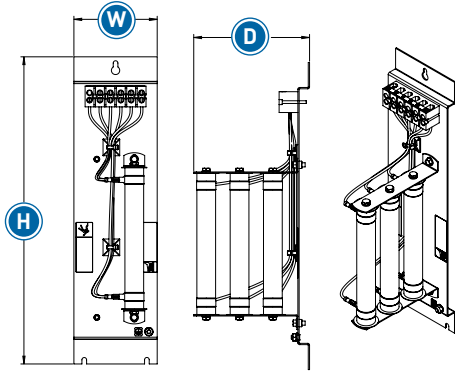
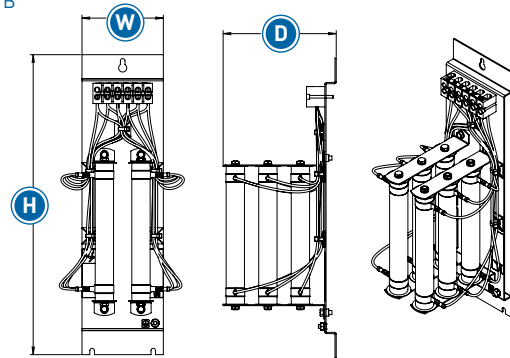


FIGURE 1B



## OPEN MAGNETICS

FIGURE 2

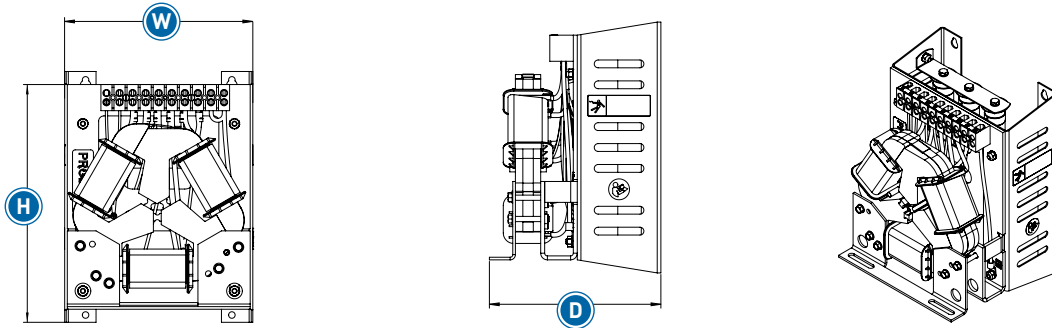


FIGURE 3

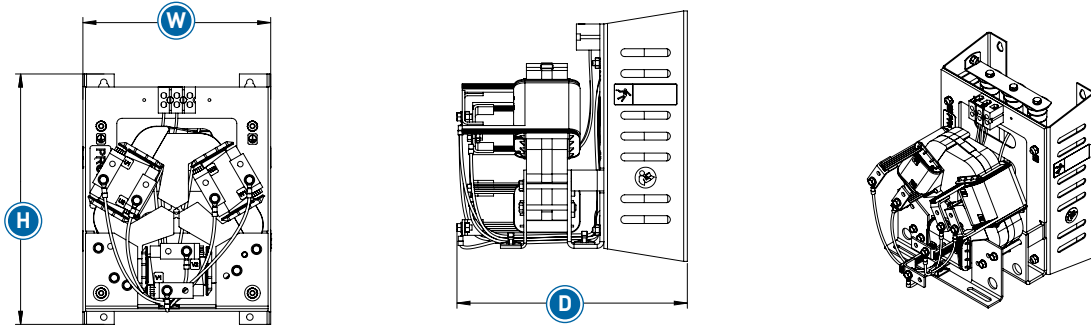


FIGURE 4

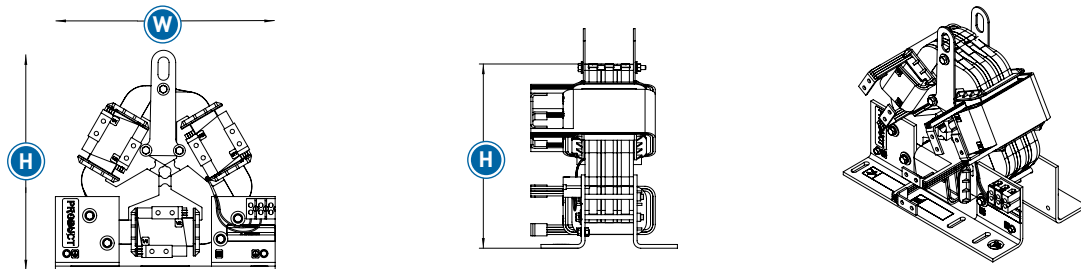
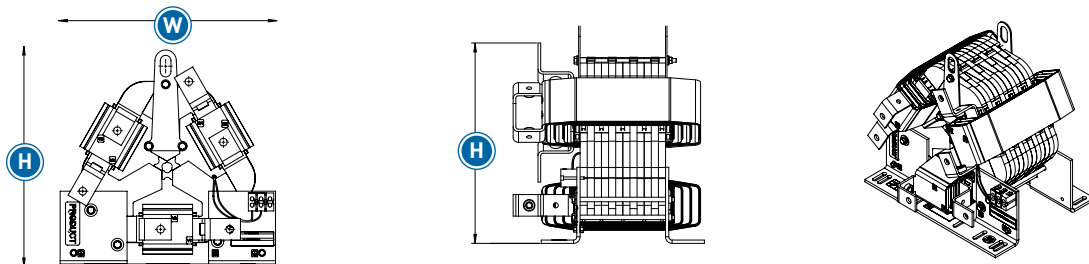


FIGURE 5



ENCLOSURES

FIGURE 6

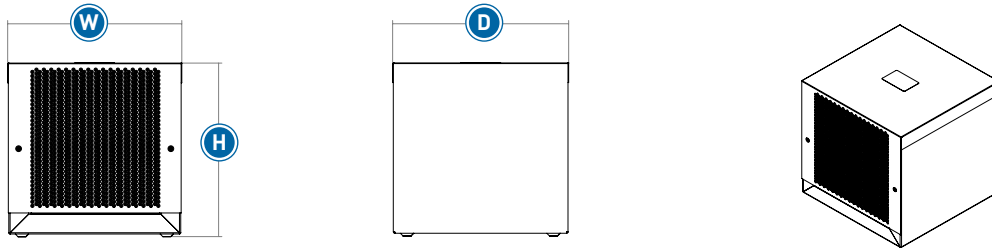


FIGURE 7

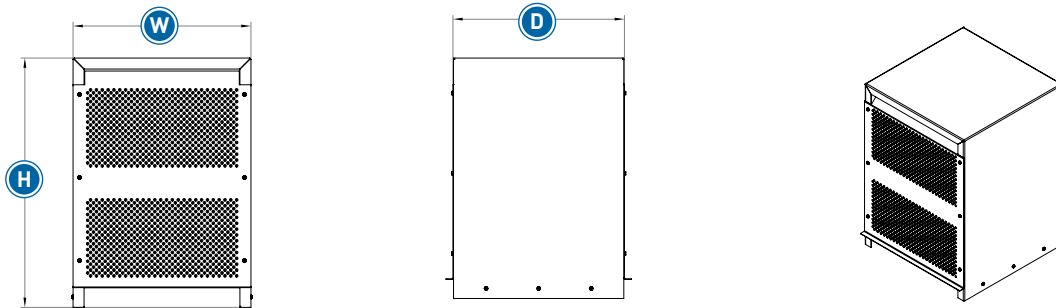


FIGURE 8

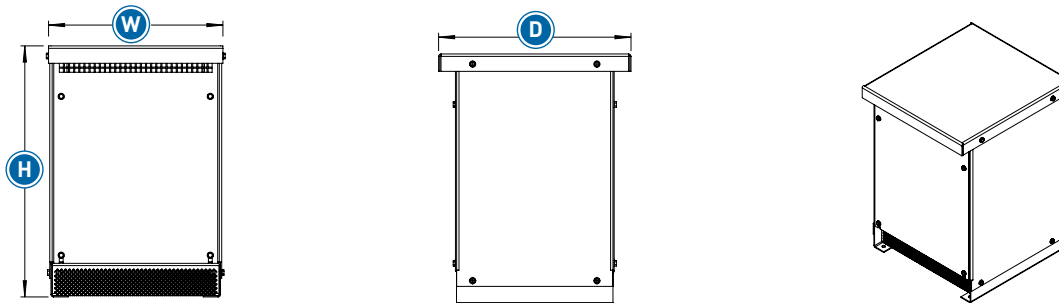
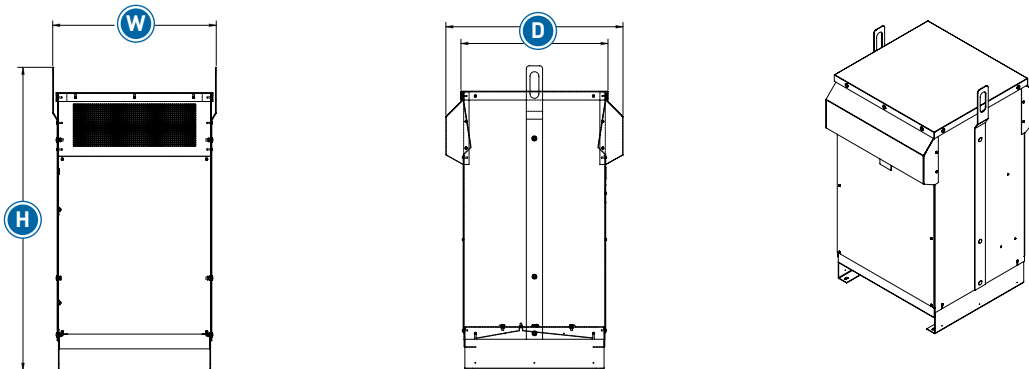
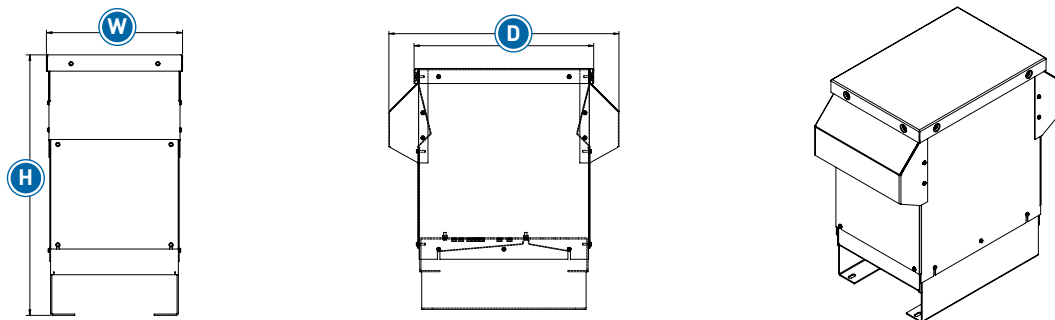


FIGURE 9



NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES

FIGURE 10



NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES



## Motor Protection Filters

### dV Sentry™

Next generation dV/dt Filters for motor protection

### SineWave Guardian®

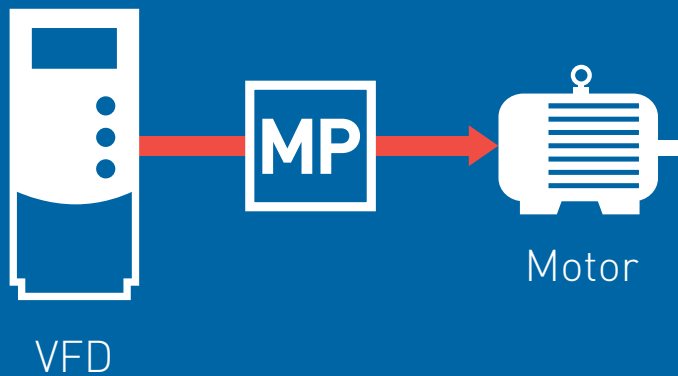
Best-in-class SineWave Filter for cleaning PWM waveforms out to 15,000 ft

### High Frequency SineWave Guardian®

The optimized motor protection solution for high frequency motors

### SineWave Nexus™

An integrated solution for both differential and common mode filtering





# SineWave Guardian®

## Product Selector



- **Increases motor life**
- **Easy to integrate, install and service**
- **Operates in high ambient temperatures**
- **High performance and reliability**
- **Three-year warranty**

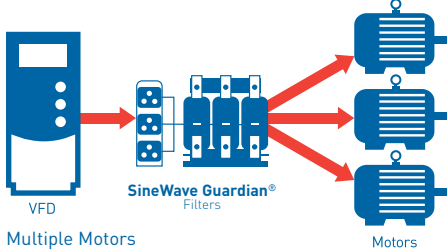
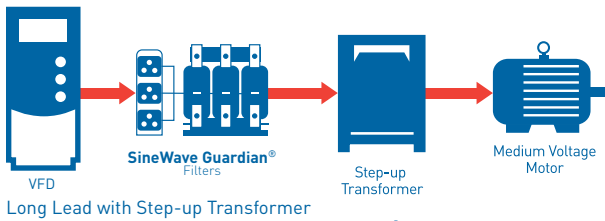
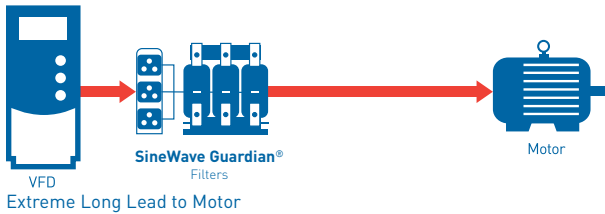
## Quality motor protection for miles - literally.

Motor protection and power quality don't have to be a mystery. MTE makes it easy. Case in point: our SineWave Guardian® Filter. This best-in-class filter delivers unequalled performance in cleaning the PWM waveforms generated by Variable Frequency Drives (VFDs). It virtually eliminates high frequency content and voltage peaks, thereby reducing motor heating to give you extended motor life – and less downtime. The SineWave Guardian also offers incredible reliability and durability. It is more efficient and tolerates higher ambient temperatures, making it ideal for a variety of applications from steel mills to oil fields. Its modular design and smaller footprint make it easier to integrate and install. It all adds up to the best SineWave Filter, and the best value on the market today.

# Improve efficiency, improve motor life, and improve your bottom line with our new SineWave Guardian®.

SineWave Guardian® Filters transform the output of Variable Frequency Drives (VFDs) to a near perfect sinusoidal waveform for the best level of motor protection. MTE's unique, patented design offers higher performance with smaller size and better efficiency than traditional LC Filters.

## Application Configurations:



## SineWave Guardian®



## How to properly size your filter

- Determine voltage and frequency requirements
- Reference motor nameplate to determine motor HP or kW and Full Load Amps
- Verify motor meets inverter duty standards per NEMA MG1 Section 31
- 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

## Performance Specifications

Service Load Condition	Conventional 3 phase motors Standard step-up transformer optional
Input Voltage	208V – 600V +/- 10%
Current Range	2A – 1500A (.75 HP – 1200 HP)
Harmonic Voltage Distortion	5% maximum @ 2kHz
Inverter Switching Frequency	2kHz to 8kHz
Inverter Operating Frequency	6Hz to 75Hz; >75Hz to 120Hz with derating
Maximum Ambient Temperature	-40°C to +60°C modular filter -40°C to +55°C enclosed filter -40°C to +90°C storage
Insertion Loss (Voltage)	6% maximum @ 60Hz
Efficiency	>98%
Altitude Without Derating	3,300 feet above sea level
Maximum Motor Lead Length	15,000 feet
Relative Humidity	0% to 95% non-condensing
Current Rating	100% RMS continuous; 150% for 1 minute intermittent

## Understanding the SineWave Guardian® Part Number:

SWG X \_ \_ \_ X

SineWave Guardian®

### Enclosure Type

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

### Current Rating

0002 is 2 Amps  
0720 is 720 Amps

### Voltage Frequency Code

A (208V – 240V)  
D (380V – 480V)  
E (600V)

## 208V – 240V 75Hz

Motor (Ref Only)		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
208V HP	240V HP				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters		
2	3	9	SWG0009A	OPEN	6.6 x 8.0 x 4.8	168 x 203 x 122	11	5	7	63	7.5 x 3.0	191 x 76	1	1
			SWG0009A	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	28	13	3		Preinstalled in cabinet			
			SWG0009A	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	69	31	5					
3	4	12	SWG0012A	OPEN	6.7 x 8.0 x 5.1	170 x 203 x 130	14	6	7	75	7.5 x 3.0	191 x 76	1	1
			SWG0012A	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	30	14	3		Preinstalled in cabinet			
			SWG0012A	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	69	31	5					
5	5.5	17	SWG0017A	OPEN	6.7 x 8.0 x 5.1	170 x 203 x 130	14	6	7	101	7.5 x 3.9	191 x 99	1	1
			SWG0017A	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	30	14	3		Preinstalled in cabinet			
			SWG0017A	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	69	31	5					
5.5	7.5	22	SWG0022A	OPEN	6.6 x 8.0 x 5.4	168 x 203 x 137	15	7	7	112	8.3 x 3.0	211 x 76	1	1
			SWG0022A	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	32	15	3		Preinstalled in cabinet			
			SWG0022A	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	71	32	5					
7.5	10	30	SWG0030A	OPEN	7.5 x 9.0 x 4.8	191 x 229 x 122	18	8	7	100	8.3 x 3.0	211 x 76	1	1
			SWG0030A	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	34	15	3		Preinstalled in cabinet			
			SWG0030A	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	73	33	5					
10 - 12.5	15	45	SWG0045A	OPEN	8.7 x 10.5 x 6.7	221 x 267 x 170	28	13	7	138	8.3 x 4.6	211 x 117	1	1
			SWG0045A	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	78	35	4		Preinstalled in cabinet			
			SWG0045A	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	85	39	5					
15	20	55	SWG0055A	OPEN	9.0 x 10.5 x 7.4	229 x 267 x 188	32	15	8	162	8.3 x 4.6	211 x 117	1	1
			SWG0055A	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	80	36	4		Preinstalled in cabinet			
			SWG0055A	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	87	40	5					
20	25	70	SWG0070A	OPEN	9.0 x 10.5 x 7.9	229 x 267 x 201	34	15	8	192	8.3 x 3.0	211 x 76	1	1
			SWG0070A	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	82	37	4		Preinstalled in cabinet			
			SWG0070A	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	90	41	5					
25	30	85	SWG0085A	OPEN	8.7 x 10.5 x 7.2	221 x 267 x 183	38	17	8	201	8.3 x 3.0	211 x 76	1	1
			SWG0085A	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	86	39	4		Preinstalled in cabinet			
			SWG0085A	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	93	42	5					
30	40	110	SWG0110A	OPEN	8.7 x 10.5 x 8.9	221 x 267 x 226	53	24	8	226	8.3 x 4.0	211 x 102	1	1
			SWG0110A	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	101	46	4		Preinstalled in cabinet			
			SWG0110A	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	109	49	5					
40	50	135	SWG0135A	OPEN	11.0 x 12.0 x 9.3	279 x 305 x 236	72	33	9	299	8.3 x 3.0	211 x 76	1	1
			SWG0135A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	148	67	6		Preinstalled in cabinet			
			SWG0135A	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	159	72						
50	60	160	SWG0160A	OPEN	10.6 x 12.0 x 9.7	269 x 305 x 246	74	34	9	303	8.3 x 4.6	211 x 117	1	1
			SWG0160A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	150	68	6		Preinstalled in cabinet			
			SWG0160A	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	161	73						
60	75	200	SWG0200A	OPEN	10.9 x 12.0 x 11.4	277 x 305 x 290	120	54	9	387	8.3 x 4.0	211 x 102	1	1
			SWG0200A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	199	90	6		Preinstalled in cabinet			
			SWG0200A	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	209	95						
75	100	250	SWG0250A	OPEN	10.5 x 12.0 x 11.2	267 x 305 x 284	110	50	9	374	8.3 x 3.0	211 x 76	1	1
			SWG0250A	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	189	86	6		Preinstalled in cabinet			
			SWG0250A	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	199	90						
100	125	320	SWG0320A	OPEN	14.2 x 15.3 x 11.8	361 x 389 x 300	153	69	10	637	7.4 x 16.4 x 7.6	188 x 417 x 193	1	2
			SWG0320A	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	321	146	6		Preinstalled in cabinet			
			SWG0320A	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	334	151						

Note: Weights and dimensions are for reference only. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.

# SINEWAVE GUARDIAN® SELECTION TABLES

380V – 480V 75Hz														
Motor (Ref Only)		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
380V kW	480V HP				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters		
0.55	0.75	2	SWG0002D	OPEN	4.9 x 4.4 x 2.6	124 x 112 x 66	5	2	7	25	7.5 x 3.0	191 x 76	1	1
			SWG0002D	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	19	9	3		Preinstalled in cabinet			
			SWG0002D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	62	28	5		Preinstalled in cabinet			
0.75	1.5	3	SWG0003D	OPEN	4.9 x 4.4 x 3.3	124 x 112 x 84	7	3	7	45	7.5 x 3.0	191 x 76	1	1
			SWG0003D	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	21	10	3		Preinstalled in cabinet			
			SWG0003D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	64	29	5		Preinstalled in cabinet			
2.2	3	5	SWG0005D	OPEN	6.6 x 8.0 x 4.8	168 x 203 x 122	11	5	7	75	7.5 x 3.0	191 x 76	1	1
			SWG0005D	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	25	11	3		Preinstalled in cabinet			
			SWG0005D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	68	31	5		Preinstalled in cabinet			
3	4	7	SWG0007D	OPEN	6.7 x 8.0 x 5.1	170 x 203 x 130	13	6	7	91	7.5 x 3.0	191 x 76	1	1
			SWG0007D	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	27	12	3		Preinstalled in cabinet			
			SWG0007D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	61	28	5		Preinstalled in cabinet			
4	5.5	9	SWG0009D	OPEN	6.7 x 8.0 x 5.1	170 x 203 x 130	14	6	7	97	7.5 x 3.0	191 x 76	1	1
			SWG0009D	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	28	13	3		Preinstalled in cabinet			
			SWG0009D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	54	24	5		Preinstalled in cabinet			
5.5	7.5	12	SWG0012D	OPEN	6.7 x 8.0 x 5.4	170 x 203 x 137	15	7	7	127	7.5 x 3.0	191 x 76	1	1
			SWG0012D	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	29	13	3		Preinstalled in cabinet			
			SWG0012D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	70	32	5		Preinstalled in cabinet			
7.5	10	17	SWG0017D	OPEN	7.5 x 9.0 x 4.8	191 x 229 x 122	20	9	7	130	7.5 x 3.0	191 x 76	1	1
			SWG0017D	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	34	15	3		Preinstalled in cabinet			
			SWG0017D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	76	34	5		Preinstalled in cabinet			
11	15	22	SWG0022D	OPEN	8.7 x 10.5 x 6.7	221 x 267 x 170	32	15	7	135	7.5 x 3.0	191 x 76	1	1
			SWG0022D	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	79	36	4		Preinstalled in cabinet			
			SWG0022D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	87	39	5		Preinstalled in cabinet			
-	20	27	SWG0027D	OPEN	8.7 x 10.5 x 6.7	221 x 267 x 170	35	16	8	140	7.5 x 3.0	191 x 76	1	1
			SWG0027D	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	82	37	4		Preinstalled in cabinet			
			SWG0027D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	90	41	5		Preinstalled in cabinet			
18.5	25	35	SWG0035D	OPEN	8.9 x 10.5 x 6.7	226 x 267 x 170	39	18	8	210	7.5 x 3.9	191 x 99	1	1
			SWG0035D	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	87	39	4		Preinstalled in cabinet			
			SWG0035D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	94	43	5		Preinstalled in cabinet			
22	30	45	SWG0045D	OPEN	8.8 x 10.5 x 7.2	224 x 267 x 183	40	18	8	225	7.5 x 3.9	191 x 99	1	1
			SWG0045D	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	90	41	4		Preinstalled in cabinet			
			SWG0045D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	98	44	5		Preinstalled in cabinet			
-	40	55	SWG0055D	OPEN	8.8 x 10.5 x 6.7	224 x 267 x 170	54	24	9	301	8.0 x 3.9	203 x 99	1	1
			SWG0055D	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	101	46	4		Preinstalled in cabinet			
			SWG0055D	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	109	49	5		Preinstalled in cabinet			
30	50	65	SWG0065D	OPEN	10.7 x 12.0 x 8.6	272 x 305 x 218	59	27	9	310	8.0 x 3.9	203 x 99	1	1
			SWG0065D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	136	62	6		Preinstalled in cabinet			
			SWG0065D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	143	65			Preinstalled in cabinet			
37	60	80	SWG0080D	OPEN	10.8 x 12.0 x 9.0	274 x 305 x 229	75	34	9	387	8.3 x 4.6	211 x 117	1	1
			SWG0080D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	150	68	6		Preinstalled in cabinet			
			SWG0080D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	157	71			Preinstalled in cabinet			
55	75	110	SWG0110D	OPEN	10.7 x 12.0 x 10.5	272 x 305 x 267	105	48	9	395	8.3 x 4.6	211 x 117	1	1
			SWG0110D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	180	82	6		Preinstalled in cabinet			
			SWG0110D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	187	85			Preinstalled in cabinet			

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## 380V – 480V 75Hz

Motor (Ref Only)		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
380V kW	480V HP				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters		
-	100	130	SWG0130D	OPEN	10.7 x 12.0 x 11.5	272 x 305 x 292	108	49	10	420	8.3 x 4.6	211 x 117	1	1
			SWG0130D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	182	83	6		Preinstalled in cabinet			
			SWG0130D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	189	86						
75	125	160	SWG0160D	OPEN	14.5 x 15.3 x 11.3	368 x 389 x 287	160	73	10	595	6.7 x 16.4 x 7.6	170 x 417 x 193	1	2
			SWG0160D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	327	148	6		Preinstalled in cabinet			
			SWG0160D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	340	154						
110	150	200	SWG0200D	OPEN	14.5 x 15.3 x 14.8	368 x 389 x 376	166	75	10	650	6.7 x 16.4 x 7.6	170 x 417 x 193	1	2
			SWG0200D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	336	152	6		Preinstalled in cabinet			
			SWG0200D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	349	158						
132	200	250	SWG0250D	OPEN	14.5 x 15.3 x 13.8	368 x 389 x 351	220	100	10	775	6.9 x 16.3 x 7.6	175 x 414 x 193	1	2
			SWG0250D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	381	173	6		Preinstalled in cabinet			
			SWG0250D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	395	179						
160	250	305	SWG0305D	OPEN	14.6 x 15.3 x 14.8	371 x 389 x 376	260	118	11	945	7.4 x 16.4 x 7.6	188 x 417 x 193	1	2
			SWG0305D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	430	195	6		Preinstalled in cabinet			
			SWG0305D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	443	201						
200	300	365	SWG0365D	OPEN	14.6 x 15.3 x 15.2	371 x 389 x 386	310	141	11	1,050	8.3 x 16.4 x 7.6	211 x 417 x 193	1	2
			SWG0365D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	480	218	6		Preinstalled in cabinet			
			SWG0365D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	493	224						
220	350	415	SWG0415D	OPEN	14.6 x 15.3 x 15.2	371 x 389 x 386	326	148	11	1,137	8.3 x 16.4 x 7.6	211 x 417 x 193	1	2
			SWG0415D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	496	225	6		Preinstalled in cabinet			
			SWG0415D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	509	231						
280	450	515	SWG0515D	OPEN	15.0 x 15.3 x 16.2	381 x 389 x 411	355	161	12	1,235	9.9 x 16.4 x 7.6	251 x 417 x 193	1	2
			SWG0515D	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	764	347	6		Preinstalled in cabinet			
			SWG0515D	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	800	363						
335	500	600	SWG0600D	OPEN	18.3 x 24.0 x 14.6	465 x 610 x 371	483	219	12	2,225	9.9 x 16.4 x 7.6	251 x 417 x 193	1	2
			SWG0600D	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	896	406	6		Preinstalled in cabinet			
			SWG0600D	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	932	423						
375	600	720	SWG0720D	OPEN	18.2 x 24.0 x 17.5	462 x 610 x 445	711	323	12	2,300	8.3 x 16.4 x 7.6	211 x 417 x 193	1	2
			SWG0720D	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,127	511	6		9.9 x 16.4 x 7.6	251 x 417 x 193	1	
			SWG0720D	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,164	528	Preinstalled in cabinet					
450	700	850	SWG0850D	OPEN	18.2 x 24.0 x 19.0	462 x 610 x 483	835	379	12	2,556	7.7 x 16.4 x 7.6	196 x 417 x 193	1	2
			SWG0850D	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,470	667	6		9.9 x 16.4 x 7.6	251 x 417 x 193	2	
			SWG0850D	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,511	685	Preinstalled in cabinet					
560	850	1000	SWG1000D	OPEN	18.1 x 24.0 x 20.6	460 x 610 x 523	942	427	12	2,850	7.4 x 16.4 x 7.6	188 x 417 x 193	1	2
			SWG1000D	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,580	717	6		9.9 x 16.4 x 7.6	251 x 417 x 193	2	
			SWG1000D	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,621	735	Preinstalled in cabinet					
675	1000	1200	SWG1200D	OPEN	25.7 x 24.0 x 20.3	653 x 610 x 516	1,272	577	13	3,000	9.9 x 16.4 x 7.6	251 x 416.6 x 193	3	2
			SWG1200D	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,921	871	6		Preinstalled in cabinet			
			SWG1200D	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,962	890						
800	1200	1500	SWG1500D	OPEN	25.9 x 24.0 x 20.0	658 x 610 x 508	1,296	588	13	3,210	9.9 x 16.4 x 7.6	251 x 417 x 193	3	2
			SWG1500D	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,945	882	6		Preinstalled in cabinet			
			SWG1500D	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,986	901						

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# SINEWAVE GUARDIAN® SELECTION TABLES

600V 75Hz														
Motor (Ref Only)		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
600V kW	600V HP				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters		
0.75	1	2	SWG0002E	OPEN	4.9 x 4.4 x 3.0	124 x 112 x 76	8	4	7	30	7.9 x 3.0	201 x 76	1	1
			SWG0002E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	22	10	3		Preinstalled in cabinet			
			SWG0002E	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	65	29	5		Preinstalled in cabinet			
1.5	2	3	SWG0003E	OPEN	6.7 x 8.0 x 4.8	170 x 203 x 122	11	5	7	51	7.9 x 3.0	201 x 76	1	1
			SWG0003E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	25	11	3		Preinstalled in cabinet			
			SWG0003E	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	68	31	5		Preinstalled in cabinet			
3	3	5	SWG0005E	OPEN	6.6 x 8.0 x 5.1	168 x 203 x 130	14	6	7	77	7.9 x 3.0	201 x 76	1	1
			SWG0005E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	28	13	3		Preinstalled in cabinet			
			SWG0005E	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	69	31	5		Preinstalled in cabinet			
3.7	5	7	SWG0007E	OPEN	6.7 x 8.0 x 5.4	170 x 203 x 137	15	7	7	97	7.9 x 3.0	201 x 76	1	1
			SWG0007E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	29	13	3		Preinstalled in cabinet			
			SWG0007E	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	70	32	5		Preinstalled in cabinet			
5.5	7.5	9	SWG0009E	OPEN	6.7 x 8.0 x 4.3	170 x 203 x 109	17	8	7	124	7.9 x 3.0	201 x 76	1	1
			SWG0009E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	32	15	3		Preinstalled in cabinet			
			SWG0009E	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	72	33	5		Preinstalled in cabinet			
7.5	10	12	SWG0012E	OPEN	7.5 x 9.0 x 4.8	191 x 229 x 122	20	9	7	126	7.9 x 3.0	201 x 76	1	1
			SWG0012E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	35	16	3		Preinstalled in cabinet			
			SWG0012E	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	75	34	5		Preinstalled in cabinet			
11	15	17	SWG0017E	OPEN	7.5 x 9.0 x 5.3	191 x 229 x 135	26	12	7	133	7.9 x 3.0	201 x 76	1	1
			SWG0017E	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	40	18	3		Preinstalled in cabinet			
			SWG0017E	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	81	37	5		Preinstalled in cabinet			
15	20	22	SWG0022E	OPEN	8.7 x 10.5 x 6.7	221 x 267 x 170	34	15	7	146	7.9 x 3.0	201 x 76	1	1
			SWG0022E	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	82	37	4		Preinstalled in cabinet			
			SWG0022E	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	89	40	5		Preinstalled in cabinet			
18.5	25	27	SWG0027E	OPEN	8.7 x 10.5 x 7.7	221 x 267 x 196	40	18	8	156	7.9 x 3.0	201 x 76	1	1
			SWG0027E	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	88	40	4		Preinstalled in cabinet			
			SWG0027E	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	95	43	5		Preinstalled in cabinet			
22	30	35	SWG0035E	OPEN	8.7 x 10.5 x 7.7	221 x 267 x 196	40	18	8	210	7.9 x 3.0	201 x 76	1	1
			SWG0035E	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	88	40	4		Preinstalled in cabinet			
			SWG0035E	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	95	43	5		Preinstalled in cabinet			
30	40	45	SWG0045E	OPEN	8.7 x 10.5 x 8.7	221 x 267 x 221	53	24	8	251	7.9 x 3.0	201 x 76	1	1
			SWG0045E	NEMA 1/2	24.0 x 17.0 x 18.5	610 x 432 x 470	101	46	4		Preinstalled in cabinet			
			SWG0045E	NEMA 3R	24.0 x 12.5 x 22.9	610 x 318 x 582	109	49	5		Preinstalled in cabinet			
37	50	55	SWG0055E	OPEN	10.7 x 12.0 x 9.4	272 x 305 x 239	63	29	9	293	7.9 x 3.0	201 x 76	1	1
			SWG0055E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	138	63	6		Preinstalled in cabinet			
			SWG0055E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	149	68			Preinstalled in cabinet			
45	60	65	SWG0065E	OPEN	10.7 x 12.0 x 9.7	272 x 305 x 246	78	35	9	302	7.9 x 3.0	201 x 76	1	1
			SWG0065E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	152	69	6		Preinstalled in cabinet			
			SWG0065E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	163	74			Preinstalled in cabinet			
55	75	80	SWG0080E	OPEN	10.7 x 12.0 x 10.1	272 x 305 x 257	92	42	9	359	7.9 x 3.0	201 x 76	1	1
			SWG0080E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	166	75	6		Preinstalled in cabinet			
			SWG0080E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	177	80			Preinstalled in cabinet			
75	100	110	SWG0110E	OPEN	10.7 x 12.0 x 10.5	272 x 305 x 267	106	48	9	449	7.9 x 3.0	201 x 76	1	1
			SWG0110E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	181	82	6		Preinstalled in cabinet			
			SWG0110E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	191	87			Preinstalled in cabinet			
90	125	130	SWG0130E	OPEN	14.4 x 15.3 x 11.2	366 x 389 x 284	161	73	9	647	7.9 x 3.0	201 x 76	1	1
			SWG0130E	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	332	151	6		Preinstalled in cabinet			
			SWG0130E	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	345	156			Preinstalled in cabinet			

600V 75Hz														
Motor (Ref Only)		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
600V kW	600V HP				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters		
110	150	160	SWGMO160E	OPEN	12.5 x 15.3 x 14.2	318 x 389 x 361	195	88	10	660	7.9 x 3.0	201 x 76	1	1
			SWGGO160E	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	367	166	6		Preinstalled in cabinet			
			SWGWO160E	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	379	172						
150	200	200	SWGMO200E	OPEN	14.6 x 15.3 x 14.7	371 x 389 x 373	245	111	10	765	9.9 x 16.4 x 7.6	251 x 417 x 193	1	2
			SWGGO200E	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	414	188	6		Preinstalled in cabinet			
			SWGWO200E	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	427	194						
185	250	250	SWGMO250E	OPEN	14.6 x 15.3 x 15.7	371 x 389 x 399	282	128	10	939	12.7 x 16.4 x 7.6	323 x 417 x 193	1	2
			SWGGO250E	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	699	317	6		Preinstalled in cabinet			
			SWGWO250E	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	744	337						
220	300	305	SWGMO305E	OPEN	15.1 x 15.3 x 15.6	384 x 389 x 396	333	151	11	1,194	12.7 x 16.4 x 7.6	323 x 417 x 193	1	2
			SWGGO305E	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	758	344	6		8.9 x 16.4 x 7.6	226 x 417 x 193	1	2
			SWGWO305E	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	803	364	Preinstalled in cabinet					
250	350	365	SWGMO365E	OPEN	15.1 x 15.3 x 15.6	384 x 389 x 396	327	148	11	1,359	12.7 x 16.4 x 7.6	323 x 417 x 193	1	2
			SWGGO365E	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	752	341	6		8.9 x 16.4 x 7.6	226 x 417 x 193	1	2
			SWGWO365E	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	797	362	Preinstalled in cabinet					
335	450	415	SWGMO415E	OPEN	14.8 x 15.3 x 16.6	376 x 389 x 422	360	163	11	1,599	12.7 x 16.4 x 7.6	323 x 417 x 193	1	2
			SWGGO415E	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	785	356	6		8.9 x 16.4 x 7.6	226 x 417 x 193	1	2
			SWGWO415E	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	830	376	Preinstalled in cabinet					
375	500	515	SWGMO515E	OPEN	18.2 x 24.0 x 14.5	462 x 610 x 368	507	230	12	1,670	12.7 x 16.4 x 7.6	323 x 417 x 193	1	2
			SWGGO515E	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	917	416	6		9.9 x 16.4 x 7.6	251 x 417 x 193	1	2
			SWGWO515E	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	962	436	Preinstalled in cabinet					
450	600	600	SWGMO600E	OPEN	17.9 x 24.0 x 17.4	455 x 610 x 442	726	329	12	1,734	12.7 x 16.4 x 7.6	323 x 417 x 193	2	2
			SWGGO600E	NEMA 1/2	87.6 x 43.7 x 31.1	2225 x 1110 x 790	1,142	518	6		8.9 x 16.4 x 7.6	226 x 417 x 193	1	2
			SWGWO600E	NEMA 3R	87.6 x 43.7 x 40.1	2225 x 1110 x 1019	1,187	538	Preinstalled in cabinet					
525	700	720	SWGMO720E	OPEN	18.1 x 24.0 x 18.9	460 x 610 x 480	854	387	12	2,250	12.7 x 16.4 x 7.6	323 x 417 x 193	2	2
			SWGGO720E	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,470	667	6		9.9 x 16.4 x 7.6	251 x 417 x 193	1	2
			SWGWO720E	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,510	685	Preinstalled in cabinet					
675	900	865	SWGMO865E	OPEN	18.3 x 24.0 x 19.1	465 x 610 x 485	895	406	12	2,860	12.7 x 16.4 x 7.6	323 x 417 x 193	2	2
			SWGGO865E	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,512	686	6		9.9 x 16.4 x 7.6	251 x 417 x 193	2	2
			SWGWO865E	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,553	704	Preinstalled in cabinet					
750	1000	1000	SWGMO1000E	OPEN	18.1 x 24.0 x 20.0	460 x 610 x 508	877	398	12	3,250	12.7 x 16.4 x 7.6	323 x 417 x 193	2	2
			SWGGO1000E	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,495	678	6		9.9 x 16.4 x 7.6	251 x 417 x 193	2	2
			SWGWO1000E	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	1,536	697	Preinstalled in cabinet					
935	1250	1200	SWGMO1200E	OPEN	25.9 x 24.0 x 20.2	658 x 610 x 513	1,341	608	12	3,546	12.7 x 16.4 x 7.6	323 x 417 x 193	4	2
			SWGGO1200E	NEMA 1/2	84.0 x 52.0 x 36.5	2134 x 1321 x 927	1,977	897	6		7.9 x 3.0	201 x 76	1	1
			SWGWO1200E	NEMA 3R	84.0 x 52.0 x 45.5	2134 x 1321 x 1156	2,018	915	Preinstalled in cabinet					
1100	1500	1500	SWGMO1500E	OPEN	33.2 x 36.0 x 29.3	843 x 914 x 744	1,897	860	-	3,762	12.7 x 16.4 x 7.6	323 x 417 x 193	5	2
											7.9 x 3.0	201 x 76	1	1

Note: Weights and dimensions are for reference only. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.

# REFERENCE FIGURES

## 3-PHASE CAPACITOR

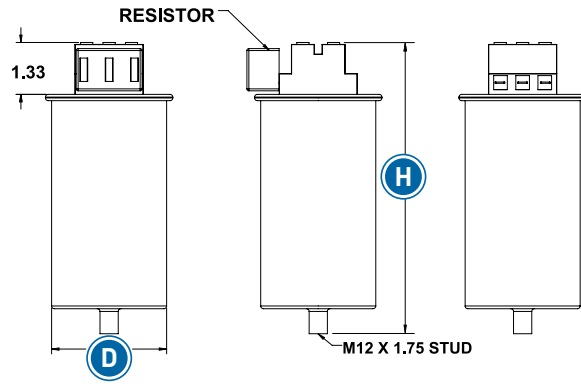
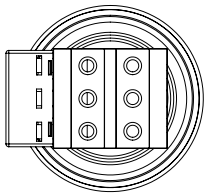
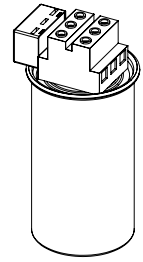


FIGURE 1



## CAPACITOR PANEL

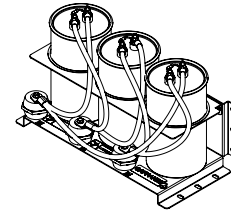
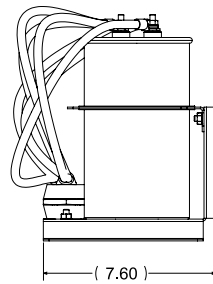
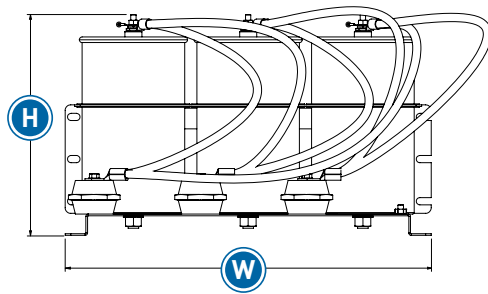


FIGURE 2

## ENCLOSURES

FIGURE 3

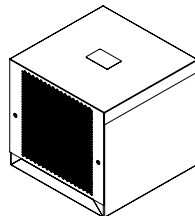
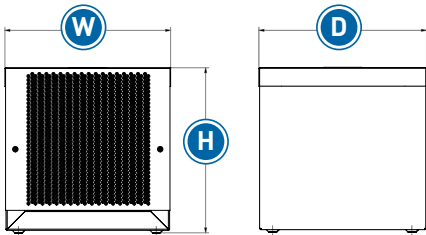


FIGURE 4

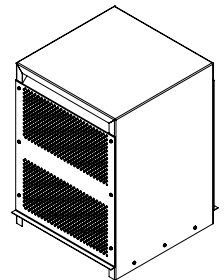
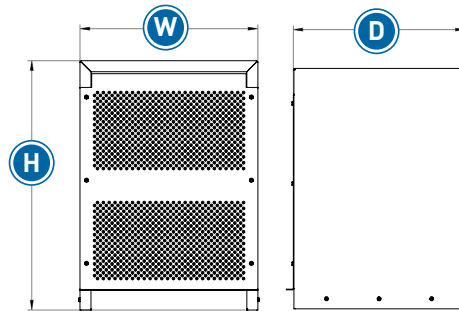
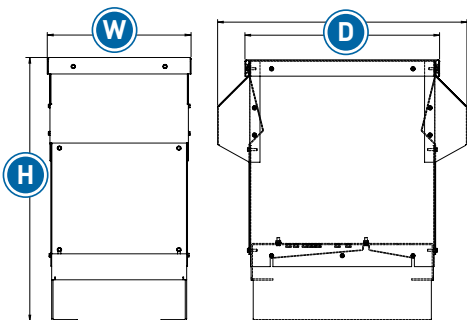
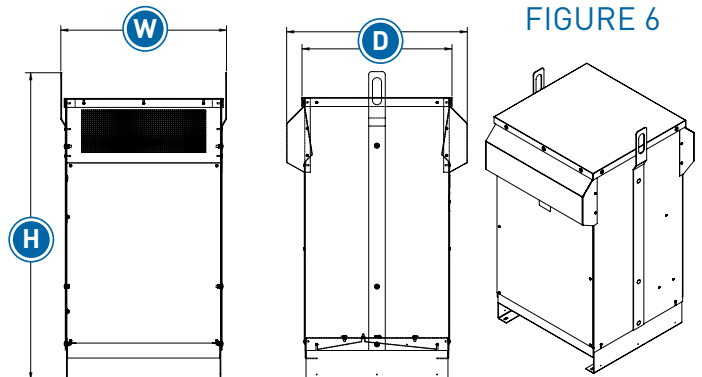


FIGURE 5



(NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES)

FIGURE 6



(NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES)



OPEN MAGNETICS

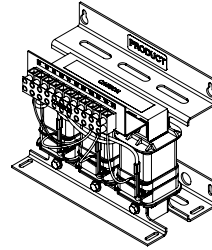
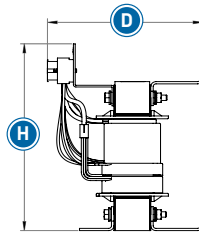
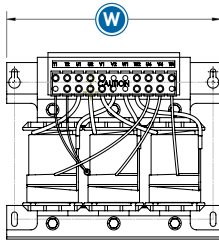


FIGURE 7

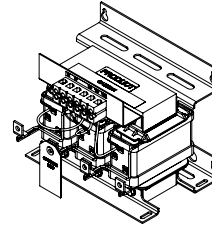
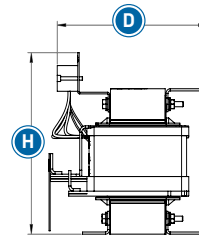
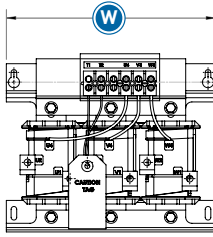


FIGURE 8

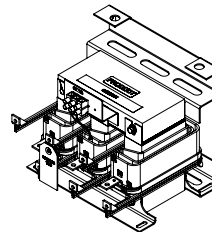
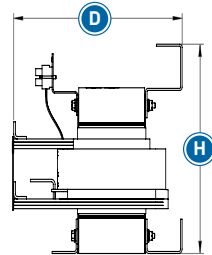
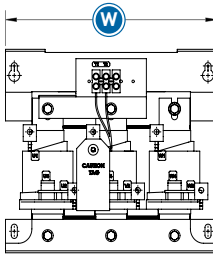


FIGURE 9

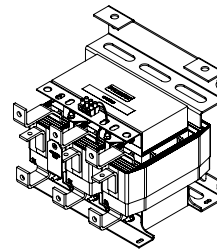
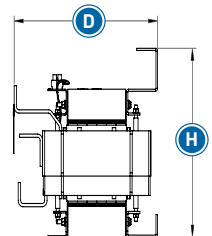
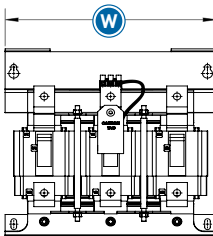


FIGURE 10

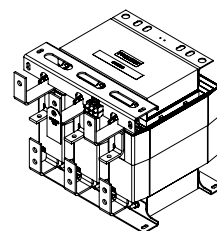
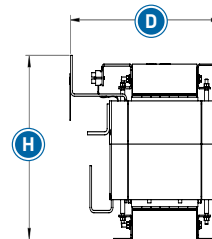
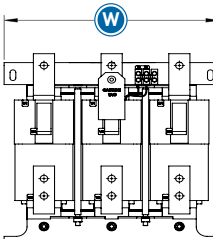


FIGURE 11

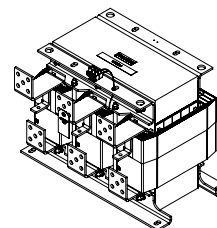
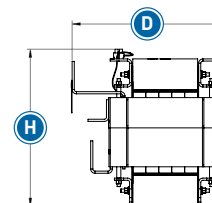
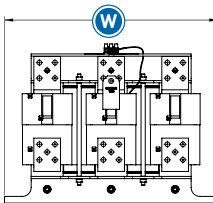


FIGURE 12



## Motor Protection Filters

### dV Sentry™

Next generation dV/dt Filters for motor protection

### SineWave Guardian®

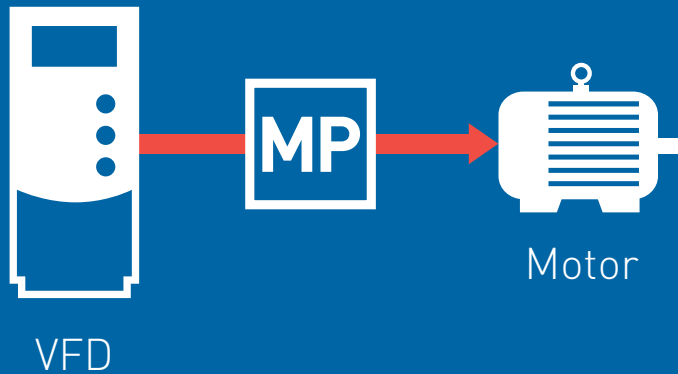
Best-in-class SineWave Filter for cleaning PWM waveforms out to 15,000 ft

### High Frequency SineWave Guardian®

The optimized motor protection solution for high frequency motors

### SineWave Nexus™

An integrated solution for both differential and common mode filtering



# High Frequency SineWave Guardian®

Optimized for  
High Frequency  
Motors

## Product Selector



- **Increases motor life**
- **Easy to integrate, install and service**
- **Operates in high ambient temperatures**
- **High performance and reliability**
- **Three-year warranty**

## If you're not leading, you're following. Innovation is here.

At MTE, we have found a way to make our best-in-class motor protection solution, the SineWave Guardian Filter, even better. Featuring the same unequalled performance, the market leading High Frequency SineWave Guardian uses innovative technology to optimize protection for high frequency motors. Our new filter features reduced voltage drop and virtually eliminates voltage distortion (THVD) generated by Variable Frequency Drives (VFDs). This results in reduced losses, protection against overheating motors, and ultimately providing less downtime. It can protect motors in some of the harshest conditions, with unmatched reliability and durability. The High Frequency SineWave Guardian Filter is the optimized motor protection solution for high frequency motors, exclusively by MTE.

# Specially designed for high frequency motors to reduce voltage distortion, improve efficiency, and extend motor life.

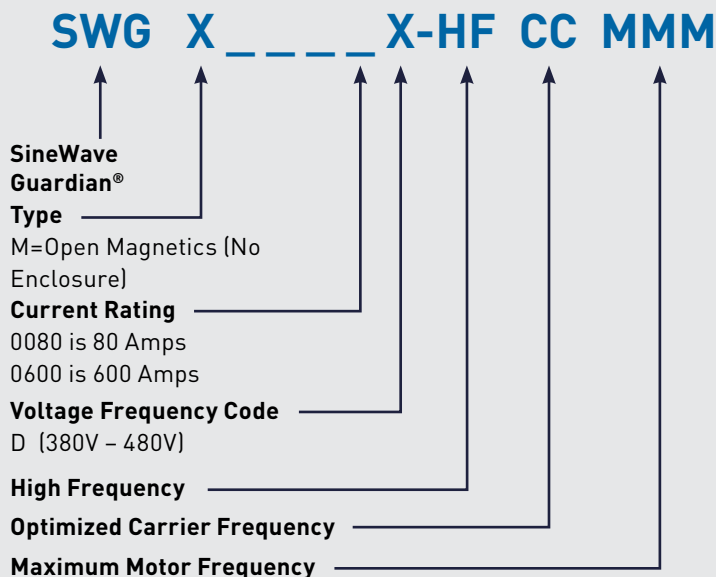
High Frequency SineWave Guardian® Filters transform the output of Variable Frequency Drives (VFDs) to a near perfect sinusoidal waveform for the best level of protection for high frequency motors. MTE's unique, patent-pending design comes in a smaller size than traditional LC Filters, and offers higher performance and better efficiency.

- Increase motor life**
- Reduce motor audible noise**
- Reduce radiated emissions**

## How to properly size your filter

- **Determine voltage and frequency requirements**
- **Reference motor nameplate to determine motor HP or kW and Full Load Amps**
- **Verify motor meets inverter duty standards per NEMA MG1 Section 31**
- **Select filter based on Motor Full Load Amps**  
Do not exceed filter's maximum current rating (amps)
- **Determine derating requirements**  
Reference Performance Specifications table

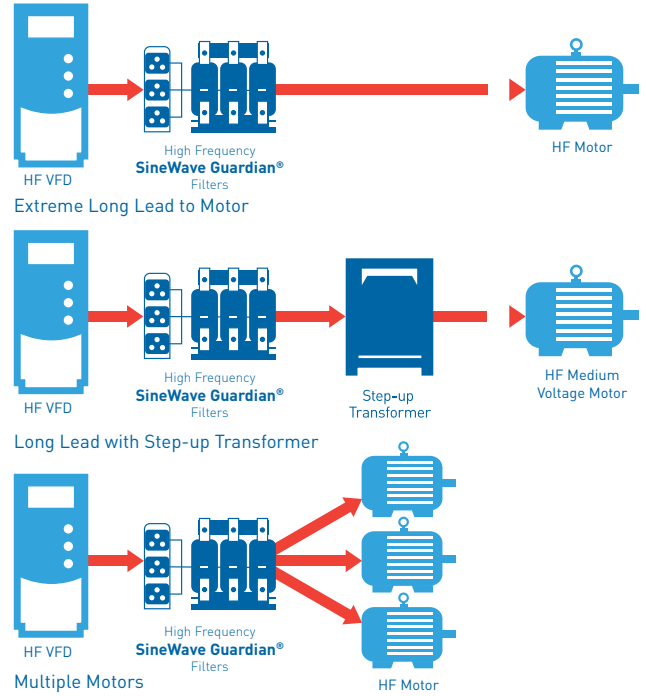
### Understanding the High Frequency SineWave Guardian® Part Number:



## High Frequency SineWave Guardian®



### Application Configurations:



### Performance Specifications

	Conventional 3 phase motors operating in volts per hertz mode, standard step-up transformer or design for use of filter in sensor less vector mode
Service Load Condition	
Input Voltage	380V – 480V +/- 10%
Harmonic Voltage Distortion	5% maximum @ 5kHz; 8% maximum @ 6-8 kHz
Inverter Switching Frequency*	4.8kHz to 8kHz
Inverter Operating Frequency*	6Hz to 300Hz
Maximum Ambient Temperature	-40°C to +60°C modular filter; -40°C to +90°C storage
Insertion Loss (Voltage)	6% maximum @ 150Hz; 12% maximum @ 300Hz
Efficiency	>99%
Altitude Without Derating	3,300 feet above sea level
Maximum Motor Lead Length	15,000 feet
Relative Humidity	0% to 95% non-condensing
Current Rating	100% RMS continuous; 150% for 1 minute intermittent

\* Additional ratings available upon request.  
Final product specifications subject to change at any time.

## 380 – 480V 300Hz

Motor (Ref Only)		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
380V kW	480V HP				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters		
37	60	80	SWG0080D-HF05300	OPEN	10.5 x 12.0 x 9.1	267 x 305 x 231	62	28	1	360	5.8 x 16.3 x 7.6	147 x 414 x 193	1	4
55	75	110	SWG0110D-HF05300	OPEN	10.1 x 12.0 x 10.1	257 x 305 x 257	78	35	1	451	5.8 x 16.3 x 7.6	147 x 414 x 193	1	4
-	100	130	SWG0130D-HF05300	OPEN	10.2 x 12.0 x 11.5	259 x 305 x 292	92	42	1	504	5.8 x 16.3 x 7.6	147 x 414 x 193	1	4
75	125	160	SWG0160D-HF05300	OPEN	10.0 x 12.0 x 11.6	254 x 305 x 295	96	44	1	563	5.8 x 16.3 x 7.6	147 x 414 x 193	1	4
110	150	200	SWG0200D-HF05300	OPEN	12.1 x 15.3 x 11.2	307 x 389 x 284	136	62	2	718	6.7 x 16.3 x 7.6	170 x 414 x 193	1	4
132	200	250	SWG0250D-HF05300	OPEN	12.3 x 15.3 x 11.3	312 x 389 x 287	143	65	2	911	6.7 x 16.3 x 7.6	170 x 414 x 193	1	4
160	250	305	SWG0305D-HF05300	OPEN	12.4 x 15.3 x 12.6	315 x 389 x 320	174	79	2	958	6.7 x 16.3 x 7.6	170 x 414 x 193	1	4
220	350	415	SWG0415D-HF05300	OPEN	12.3 x 15.3 x 14.3	312 x 389 x 363	244	111	2	1,144	6.7 x 16.3 x 7.6	170 x 414 x 193	2	4
280	450	515	SWG0515D-HF05300	OPEN	14.2 x 15.3 x 13.1	361 x 389 x 333	258	117	3	1,250	6.7 x 16.3 x 7.6	170 x 414 x 193	1	4
											6.7 x 16.3 x 7.6	170 x 414 x 193	2	4
335	500	600	SWG0600D-HF05300	OPEN	14.3 x 15.3 x 14.3	363 x 389 x 363	306	139	3	1,321	6.7 x 16.3 x 7.6	170 x 414 x 193	1	4
											6.7 x 16.3 x 7.6	170 x 414 x 193	2	4

Note: Weights and dimensions are for reference only. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.

FIGURE 1

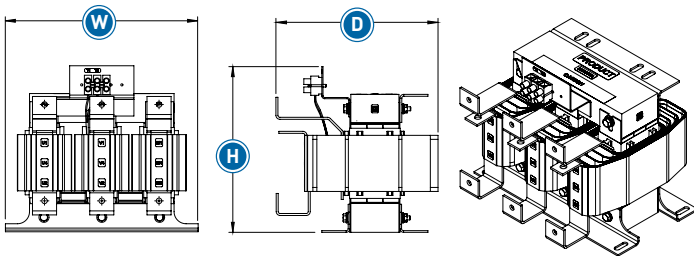


FIGURE 2

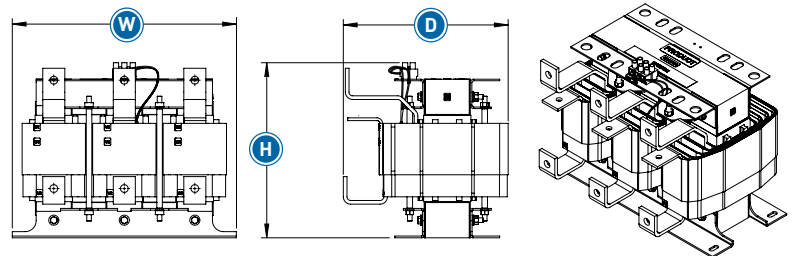


FIGURE 3

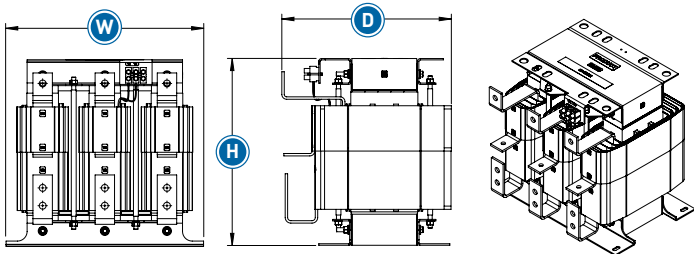
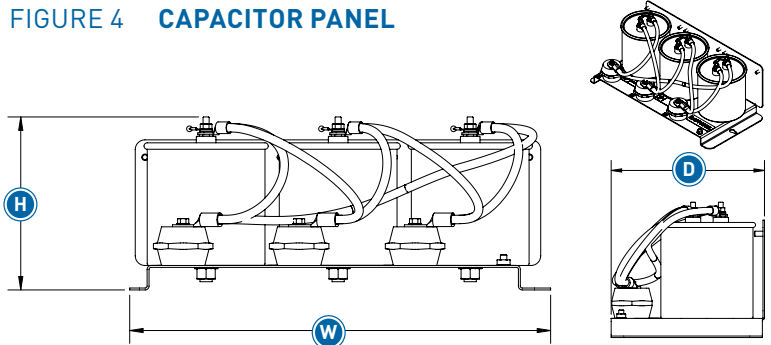


FIGURE 4 CAPACITOR PANEL



Note: Figure illustrations are for reference only. Actual hardware may differ. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.



## Motor Protection Filters

### dV Sentry™

Next generation dV/dt Filters for motor protection

### SineWave Guardian®

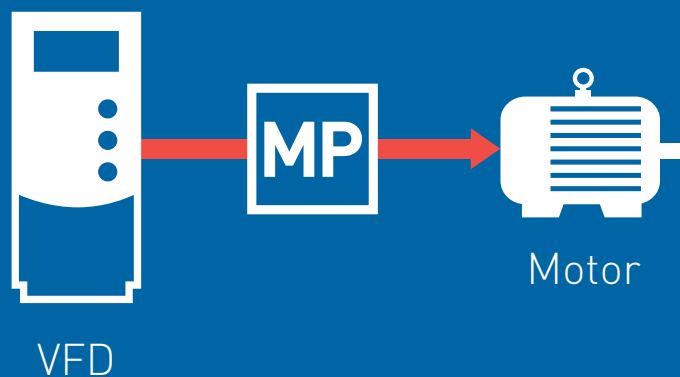
Best-in-class SineWave Filter for cleaning PWM waveforms out to 15,000 ft

### High Frequency SineWave Guardian®

The optimized motor protection solution for high frequency motors

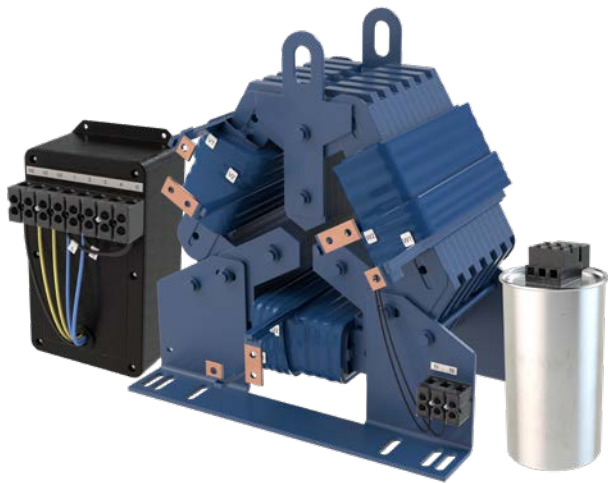
### SineWave Nexus™

An integrate solution for both differential and common mode filtering



# SineWave Nexus™

## Product Selector



- **Increases motor life**
- **Eliminates motor failures due to bearing currents**
- **Reduces motor noise and heating**
- **Small package solution**
- **Three-year warranty**

## The latest in motor protection. From the leaders in motor protection.

MTE's SineWave Nexus™ filter combines the performance of a sinewave filter with our patented common mode protection technology into a single passive device. The SineWave Nexus not only cleans the PWM waveform generated by Variable Frequency Drives (VFDs), it virtually eliminates common mode voltage which causes motor bearing failures. By filtering out the damaging common mode voltage, motor bearings are never subject to those harmful voltages that cause pitting, frosting, or fluting damage that leads to motor failure.

Eliminate the need for costly isolation transformers, or shaft grounding rings that require regular maintenance and replacement, with the SineWave Nexus - an electrical solution for an electrical problem.

# The optimal solution for reducing common mode and differential mode voltages and currents.

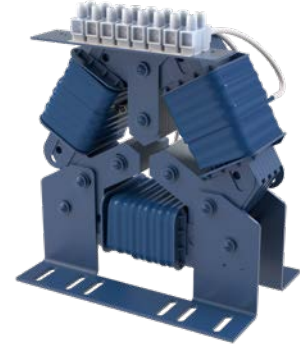
Differential and common mode power quality issues have adverse effects on motors. SineWave Nexus™ filters provide complete motor protection - for any application - at any cable length.

**Increase motor life** by reducing high frequencies and peak voltages caused by VFD output which result in excessive motor heating and motor insulation stress.

**Eliminate common mode voltages** that cause pitting to motor bearings and premature motor insulation failure leading to unexpected downtime.

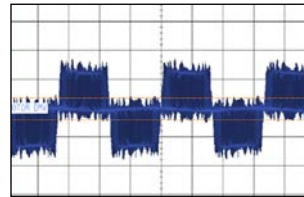
**Save time and money** associated with sourcing and installing multiple solutions as the all-in-one design combines the performance of a sinewave filter and isolation transformer into one compact solution. The SineWave Nexus also eliminates the need for costly VFD cables.

## SineWave Nexus™

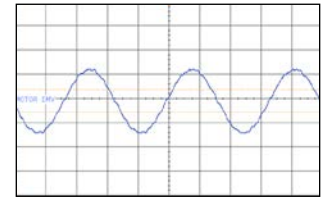


### SineWave Nexus Performance:

#### Total Harmonic Voltage Distortion

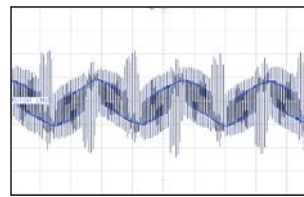


Without SineWave Nexus

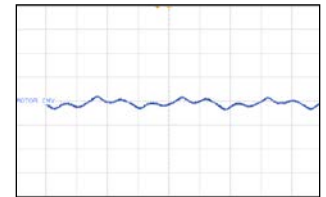


With SineWave Nexus

#### Common Mode Voltage

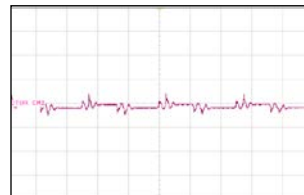


Without SineWave Nexus

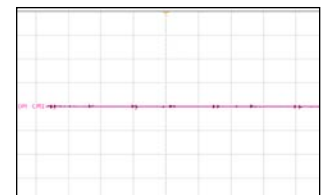


With SineWave Nexus

#### Common Mode Current



Without SineWave Nexus



With SineWave Nexus

Performance Specifications	
Input Voltage	380V - 600V +/- 10%; 60Hz
Current Range	2A - 160A (0.75 HP - 125 HP)
Harmonic Voltage Distortion	5% maximum @ 4-8kHz
Inverter Switching Frequency	2kHz to 8kHz
Inverter Operating Frequency	6Hz to 75Hz; >75Hz to 120Hz with derating
Insertion Loss (Voltage)	10% maximum @ 60Hz
Efficiency	>98%
Common Mode Attenuation	-20dB (>90% PWM common mode RMS voltage reduction) @ 4-8kHz
Maximum Sound Level	75dB @ 1 meter
Maximum Ambient Temperature	-40C to +60C modular filter -40C to +55C enclosed filter -40C to +90C storage
Altitude Without Derating	3,300 feet above sea level
Maximum Motor Lead Length	15,000 feet
Relative Humidity	0% to 95% non-condensing
Current Rating	100% RMS continuous; 150% for 1 minute intermittent

Final product specifications subject to change at anytime.



# How to properly size your filter

- Determine voltage and frequency requirements
- Reference motor nameplate to determine motor HP or kW and Full Load Amps
- Verify motor meets inverter duty standards per NEMA MG1 Section 31
- 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

## Derating Curves:

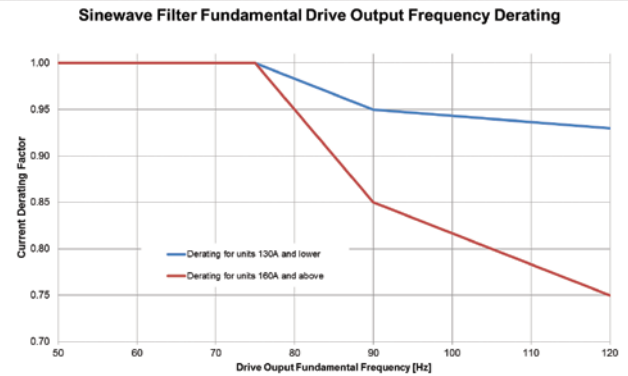


Table 1: Drive Output Frequency Derating

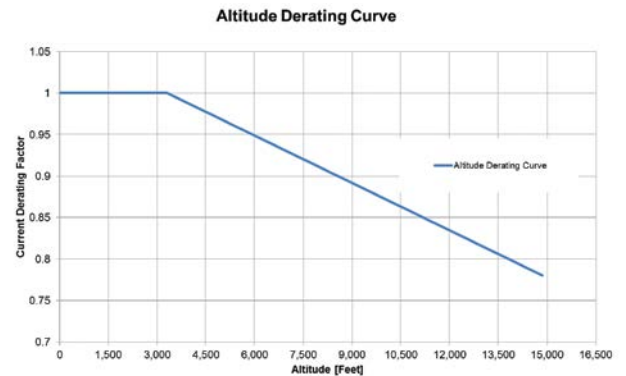


Table 2: Altitude Derating Curve

### Understanding the SineWave Nexus™ Part Number:

**SWN X \_ \_ \_ X**

SineWave Nexus™

**Enclosure Type**

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

**Current Rating**

- 0005 is 5 Amps
- 0130 is 130 Amps

**Voltage Frequency Code**

- D (380V – 480V)
- E (600V)

# SINEWAVE NEXUS™ SELECTION TABLES

380V - 480V 60Hz														
Motor (Ref Only)		Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D)		Approx Weight		Ref Fig	Watts Loss	Capacitor Dimensions (H x W)		Qty Req'd	Ref Fig
380V kW	480V HP				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters		
0.55	0.75	2	SWNM0002D	OPEN	8.2 x 6.9 x 4.2	208 x 175 x 107	12	5	7	30	7.5 x 3.0	191 x 76	1	1
			SWNG0002D	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	29	13	4		Preinstalled in cabinet			
			SWNW0002D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 854	71	32	5		Preinstalled in cabinet			
0.75	1.5	3	SWNM0003D	OPEN	8.2 x 6.9 x 4.5	208 x 175 x 114	14	6	7	36	7.5 x 3.0	191 x 76	1	1
			SWNG0003D	NEMA 1/2	13.2 x 13.0 x 13.1	335 x 330 x 333	31	14	4		Preinstalled in cabinet			
			SWNW0003D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 854	73	33	5		Preinstalled in cabinet			
2.2	3	5	SWNM0005D	OPEN	8.2 x 6.9 x 4.8	208 x 175 x 122	19	9	7	55	7.5 x 3.0	191 x 76	1	1
			SWNG0005D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	71	32	5		Preinstalled in cabinet			
			SWNW0005D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 854	78	35			Preinstalled in cabinet			
5.5	7.5	12	SWNM0012D	OPEN	10.2 x 8.8 x 5.8	259 x 224 x 147	32	15	7	102	7.5 x 3.0	191 x 76	1	1
			SWNG0012D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	83	38	5		Preinstalled in cabinet			
			SWNW0012D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 854	91	41			Preinstalled in cabinet			
7.5	10	17	SWNM0017D	OPEN	13.1 x 11.0 x 6.6	333 x 279 x 168	51	23	8	148	7.5 x 3.0	191 x 76	1	1
			SWNG0017D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	102	46	5		Preinstalled in cabinet			
			SWNW0017D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 854	110	50			Preinstalled in cabinet			
11	15	22	SWNM0022D	OPEN	13.1 x 11.0 x 7.1	333 x 279 x 180	61	28	8	180	7.5 x 3.0	191 x 76	1	1
			SWNG0022D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	112	51	5		Preinstalled in cabinet			
			SWNW0022D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 854	120	54			Preinstalled in cabinet			
-	20	27	SWNM0027D	OPEN	13.1 x 11.0 x 7.1	333 x 279 x 180	62	28	8	207	7.5 x 3.0	191 x 76	1	1
			SWNG0027D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	113	51	5		Preinstalled in cabinet			
			SWNW0027D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 854	121	55			Preinstalled in cabinet			
22	30	45	SWNM0045D	OPEN	13.2 x 11.0 x 7.6	335 x 279 x 193	67	30	8	296	7.5 x 3.9	191 x 99	1	1
			SWNG0045D	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	118	54	5		Preinstalled in cabinet			
			SWNW0045D	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 854	126	57			Preinstalled in cabinet			
30	50	65	SWNM0065D	OPEN	15.6 x 15.0 x 9.0	396 x 381 x 229	94	43	9	457	8.3 x 4.6	211 x 117	1	1
			SWNG0065D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	174	79	5		Preinstalled in cabinet			
			SWNW0065D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	185	84			Preinstalled in cabinet			
55	75	110	SWNM0110D	OPEN	15.6 x 15.0 x 10.7	396 x 381 x 272	141	64	9	559	8.3 x 4.6	211 x 117	1	1
			SWNG0110D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	221	100	5		Preinstalled in cabinet			
			SWNW0110D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	232	105			Preinstalled in cabinet			
-	100	130	SWNM0130D	OPEN	15.7 x 15.0 x 12.2	399 x 381 x 310	176	80	9	729	8.3 x 3.9	211 x 99	2	1
			SWNG0130D	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	225	102	5		Preinstalled in cabinet			
			SWNW0130D	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	266	121			Preinstalled in cabinet			
75	125	160	SWNM0160D	OPEN	15.9 x 15.0 x 15.9	404 x 381 x 404	210	95	10	760	8.3 x 3.9	211 x 99	1	1
			SWNG0160D	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	385	175	6		8.4 x 4.6	211 x 117	1	
			SWNW0160D	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	398	181			Preinstalled in cabinet			

**Common Mode Assembly** – SineWave Nexus “Open” configurations ship with a Common Mode Assembly box in addition to the filter and capacitor. “Enclosed” configurations ship with the Common Mode Assembly preinstalled in the cabinet. Use the “Common Mode Assembly” table on Page 81 for dimensional info.

600V 60Hz														
Motor (Ref Only)		Filter Amps Rating	MTE Part Number	Enclosure Type	Filter Dimensions (H x W x D)		Approx Weight		Ref Fig	Watts Loss	Capacitor Dimensions (H x W)		Qty Req'd	Ref Fig
600V kW	600V HP				Inches	Millimeters	Lbs	Kgs			Inches	Millimeters		
3	3	5	SWNM0005E	OPEN	10.2 x 8.8 x 5.3	259 x 224 x 135	28	13	7	76	8.3 x 3.0	211 x 76	1	1
			SWNG0005E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	80	36	5		Preinstalled in cabinet			
			SWNW0005E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	87	39						
7.5	10	12	SWNM0012E	OPEN	10.2 x 8.8 x 5.8	259 x 224 x 147	34	15	7	157	8.3 x 3.0	211 x 76	1	1
			SWNG0012E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	85	39	5		Preinstalled in cabinet			
			SWNW0012E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	93	42						
11	15	17	SWNM0017E	OPEN	13.2 x 11.0 x 7.1	335 x 279 x 180	65	29	8	213	8.3 x 3.0	211 x 76	1	1
			SWNG0017E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	116	53	5		Preinstalled in cabinet			
			SWNW0017E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	124	56						
15	20	22	SWNM0022E	OPEN	13.2 x 11.0 x 7.1	335 x 279 x 180	66	30	8	243	8.3 x 3.0	211 x 76	1	1
			SWNG0022E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	117	53	5		Preinstalled in cabinet			
			SWNW0022E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	125	57						
18.5	25	27	SWNM0027E	OPEN	13.2 x 11.0 x 7.6	335 x 279 x 193	76	34	8	268	8.3 x 3.0	211 x 76	1	1
			SWNG0027E	NEMA 1/2	24.0 x 12.5 x 17.9	610 x 318 x 455	127	58	5		Preinstalled in cabinet			
			SWNW0027E	NEMA 3R	24.0 x 12.5 x 23.0	610 x 318 x 584	135	61						
30	40	45	SWNM0045E	OPEN	15.7 x 15.0 x 9.1	399 x 381 x 231	99	45	9	458	8.3 x 3.0	211 x 76	1	1
			SWNG0045E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	178	81	5		Preinstalled in cabinet			
			SWNW0045E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	189	86						
45	60	65	SWNM0065E	OPEN	15.7 x 15.0 x 9.7	399 x 381 x 246	114	52	9	467	8.3 x 4.0	211 x 102	1	1
			SWNG0065E	NEMA 1/2	33.9 x 18.3 x 20.9	861 x 465 x 531	194	88	5		Preinstalled in cabinet			
			SWNW0065E	NEMA 3R	33.9 x 18.3 x 26.0	861 x 465 x 660	205	93						
75	100	110	SWNM0110E	OPEN	15.7 x 15.0 x 12.3	399 x 381 x 312	178	81	9	910	8.3 x 4.6	211 x 117	1	1
			SWNG0110E	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	353	160	5		Preinstalled in cabinet			
			SWNW0110E	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	366	166						
90	125	130	SWNM0130E	OPEN	15.8 x 15.0 x 12.1	401 x 381 x 307	177	80	9	930	8.3 x 4.6	211 x 117	1	1
			SWNG0130E	NEMA 1/2	51.3 x 27.7 x 24.9	1303 x 704 x 632	351	159	5		Preinstalled in cabinet			
			SWNW0130E	NEMA 3R	51.3 x 27.7 x 30.0	1303 x 704 x 762	364	165						

**Common Mode Assembly** – SineWave Nexus “Open” configurations ship with a Common Mode Assembly box in addition to the filter and capacitor. “Enclosed” configurations ship with the Common Mode Assembly preinstalled in the cabinet. Use the “Common Mode Assembly” table below for dimensional info.

Common Mode Assembly					
Voltage Rating	MTE Part Number	Common Mode Assembly Dimensions (H x W x D)		Qty Req'd	Ref Fig
		Inches	Millimeters		
480V	SWNM0002D - SWNM0003D	3.0 x 5.8 x 3.3	76 x 147 x 84	1	3
	SWNM0005D - SWNM0160D	4.3 x 9.4 x 5.1	109 x 239 x 130	1	2
600V	SWNM0005E - SWNM0160E	4.3 x 9.4 x 5.1	109 x 239 x 130	1	2

# REFERENCE FIGURES

## 3-PHASE CAPACITOR

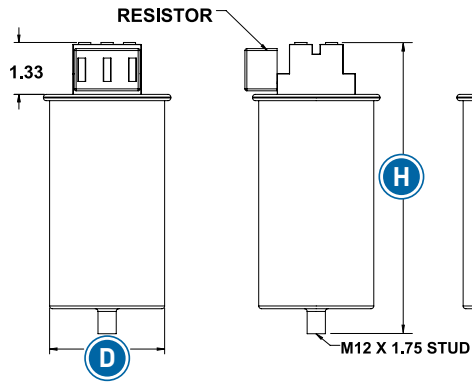
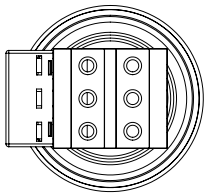
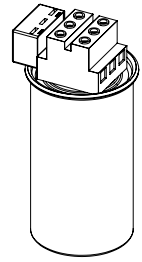


FIGURE 1



## COMMON MODE BOX

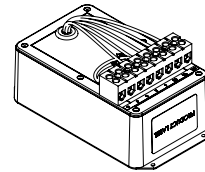
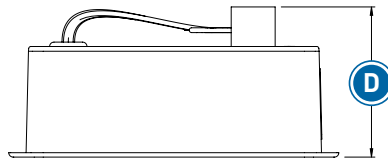
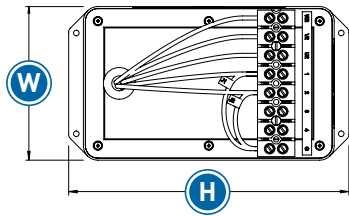


FIGURE 2

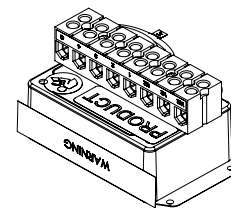
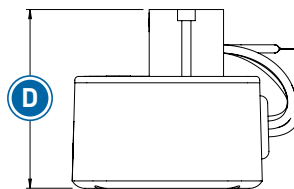
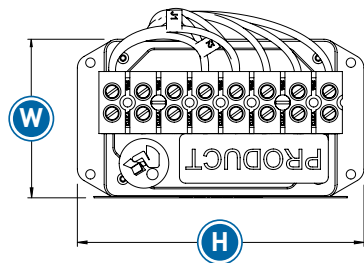


FIGURE 3

## ENCLOSURES

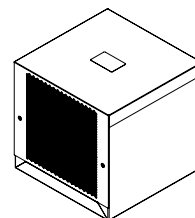
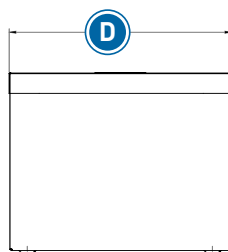
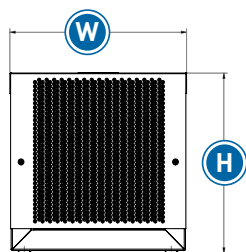
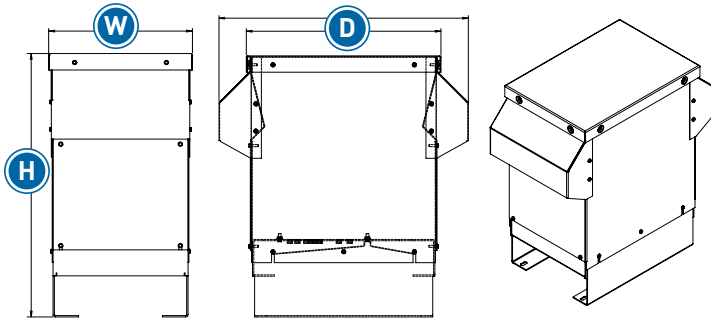


FIGURE 4

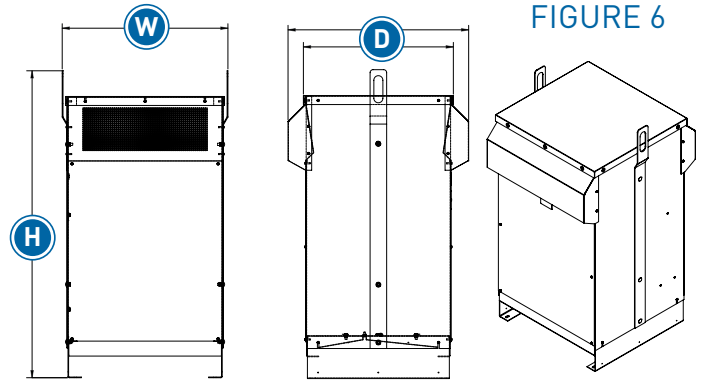
# ENCLOSURES

FIGURE 5



(NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES)

FIGURE 6



(NOTE: HOODS ONLY ON NEMA 3R ENCLOSURES)

# OPEN MAGNETICS

FIGURE 7

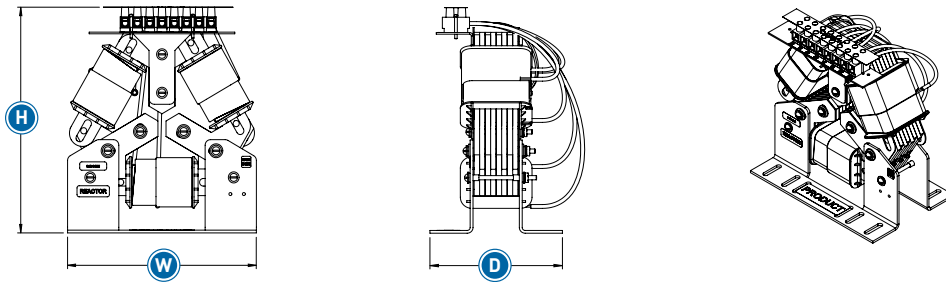


FIGURE 8

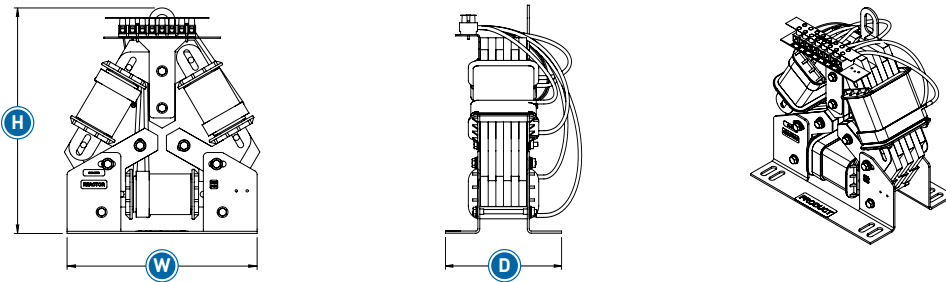


FIGURE 9

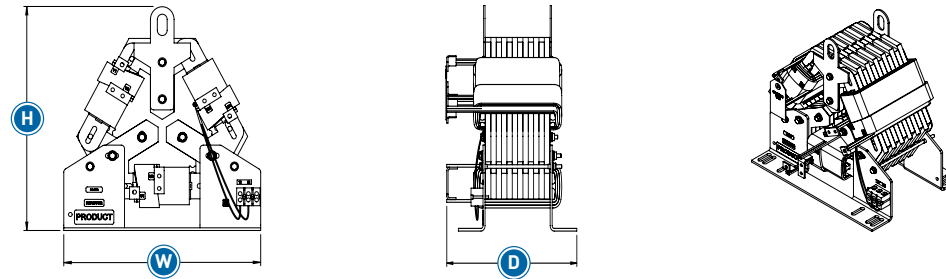
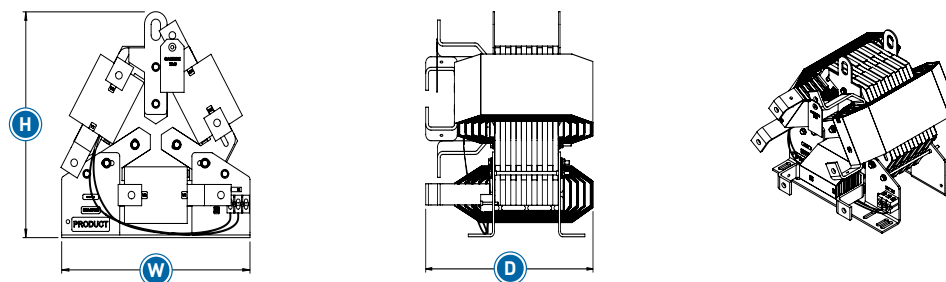


FIGURE 10

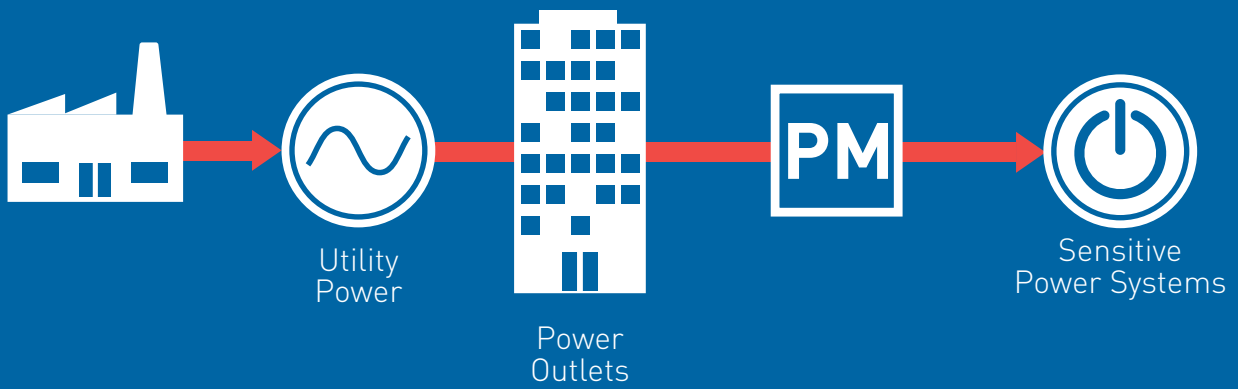




# Power Management

## RF EMI Filters

An economical solution to facility interference problems caused by RF emissions



# Type RF EMI/RFI

## Product Selector



- **Meet EMC Directives (Class A) and FCC limits for conducted noise emissions**
- **Reduce common mode and differential mode noise emissions**
- **Protect sensitive loads from EMI/RFI**
- **Use on input side of a VFD or inverter**

## The quiet solution to noise issues.

Our Type RF Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) filters are designed to help your system meet Electromagnetic Compatibility (EMC) requirements. They provide sufficient attenuation of the conducted EMI and RFI associated with Variable Frequency Drives (VFDs) and inverter applications. Typically used with AC and DC Motor drives, Uninterruptible Power Supplies, and Active Harmonic Filters, the Type RF EMI/RFI filters provide an economical solution to facility interference problems caused by RF emissions.

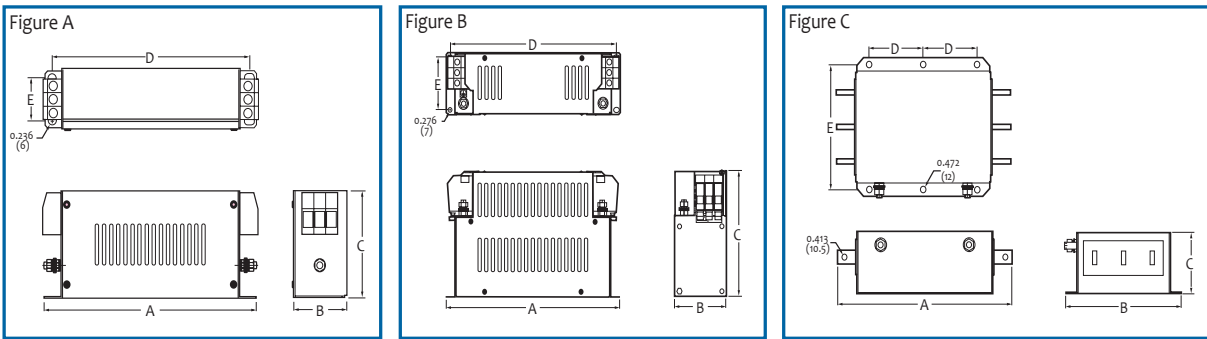
Say goodbye to voltage distortion and electrical noise caused by RF emissions with the Type RF EMI/RFI filter from MTE.

# Solve electrical noise problems and protect your sensitive loads with Type RF EMI/RFI Filters.

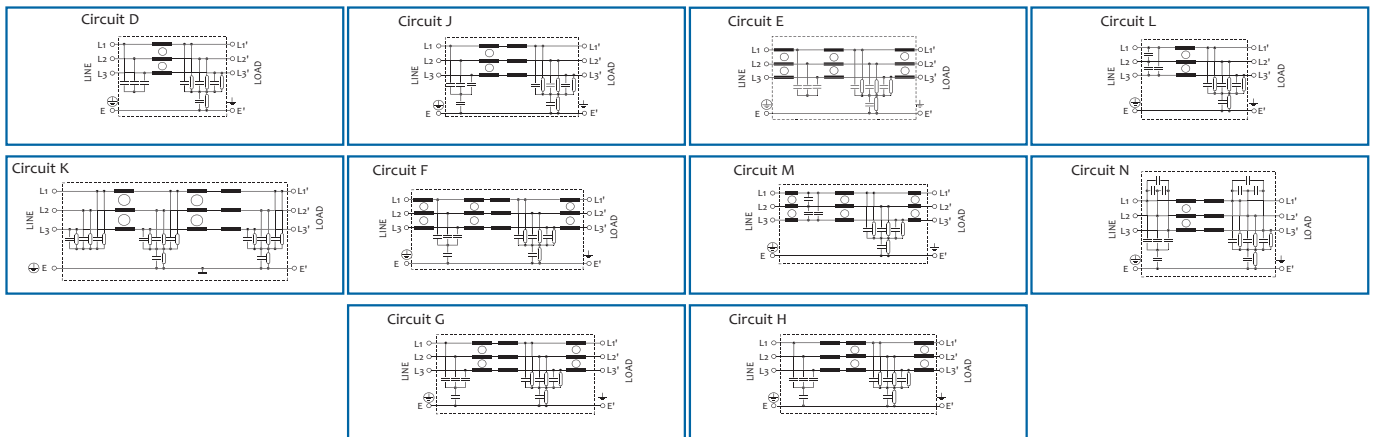
MTE Part Number	Ref Fig	Circuit Fig	Rated Amps	SCCR Rating	A (in)	A (mm)	B (in)	B (mm)	C (in)	C (mm)	D (in)	D (mm)	E (in)	E (mm)	Weight (lbs)	Mass (kg)	Diss. Watts	Max Wired Size AWG (mm <sup>2</sup> )	Leakage Current (mA)
<b>480V 50/60Hz</b>																			
RF3-0006-4	A	D	6	200kA	7.0	179	1.8	45	3.1	79	6.57	167	1.26	32	1.4	0.65	3.5	11 (4)	3.3
RF3-0010-4	A	D	10	200kA	7.0	179	1.8	45	3.1	79	6.57	167	1.26	32	1.5	0.7	4.2	11 (4)	3.1
RF3-0018-4	A	D	18	200kA	9.0	229	2.2	55	4.5	114	8.54	217	1.65	42	2.4	1.1	11	7 (10)	3.3
RF3-0025-4	A	E	25	200kA	9.0	229	2.2	55	4.5	114	8.54	217	1.65	42	2.9	1.3	11	7 (10)	6.3
RF3-0033-4	B	F	33	200kA	10.7	272	2.9	73	6.4	162	10.16	258	2.36	60	4.2	1.9	16	7 (10)	17.6
RF3-0050-4	B	F	50	200kA	12.3	312	3.7	94	7.5	190	11.73	298	3.11	79	8.2	3.3	16	1 (35)	22.8
RF3-0070-4	B	F	70	200kA	12.3	312	3.7	94	7.5	190	11.73	298	3.11	79	8.6	3.9	19	1 (35)	21.4
RF3-0090-4	B	G	90	200kA	12.3	312	3.7	94	7.5	190	11.73	298	3.11	79	9.0	4.1	18	1 (35)	30.6
RF3-0130-4	B	H	130	200kA	12.6	319	5.0	126	8.8	224	11.73	298	4.41	112	13.5	6.1	25	000 (70)	21.7
RF3-0150-4	B	J	150	200kA	13.1	334	5.0	126	8.8	224	11.73	298	4.41	112	19.6	8.9	28	0000 (95)	27.6
RF3-0330-4	C	K	330	200kA	15.2	386	10.2	260	4.6	116	4.72	120	9.25	235	24.3	11	40	N/A	7.2
<b>600V 50/60Hz</b>																			
RF3-0006-6	A	L	6	200kA	7.2	183	1.8	45	3.1	79	6.57	167	1.26	32	1.4	0.65	3.5	9 (6)	2.9
RF3-0010-6	A	L	10	200kA	7.2	183	1.8	45	3.1	79	6.57	167	1.26	32	1.5	0.7	4.2	9 (6)	2.9
RF3-0018-6	A	L	18	200kA	9.2	233	2.2	55	4.5	114	8.54	217	1.65	42	2.4	1.1	11	9 (6)	9.6
RF3-0025-6	A	M	25	200kA	9.2	233	2.2	55	4.5	114	8.54	217	1.65	42	2.9	1.3	11	9 (6)	9.6
RF3-0033-6	B	F	33	200kA	10.7	272	2.9	73	6.4	162	10.16	258	2.36	60	4.4	2.0	16	7 (10)	26.4
RF3-0050-6	B	F	50	200kA	12.3	312	3.7	94	7.5	190	11.73	298	3.11	79	8.2	3.3	16	1 (35)	39.7
RF3-0070-6	B	F	70	200kA	12.3	312	3.7	94	7.5	190	11.73	298	3.11	79	8.8	4.0	19	1 (35)	39.7
RF3-0090-6	B	G	90	200kA	12.3	312	3.7	94	8.8	190	11.73	298	3.11	79	8.8	4.0	19	1 (35)	39.7
RF3-0130-6	B	N	130	200kA	13.1	334	5.0	126	8.8	224	11.73	298	4.41	112	19.3	8.9	28	000 (70)	27.5
RF3-0150-6	B	N	150	200kA	13.1	334	5.0	126	8.8	224	11.73	298	4.41	112	19.6	8.9	28	0000 (95)	27.5
RF3-0330-6	C	K	330	200kA	15.2	386	10.2	260	4.6	116	4.72	120	9.25	235	24.3	11	40	N/A	19.2

Note: Weights and dimensions are for reference only. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.

## REF FIGURES



## CIRCUIT FIGURES





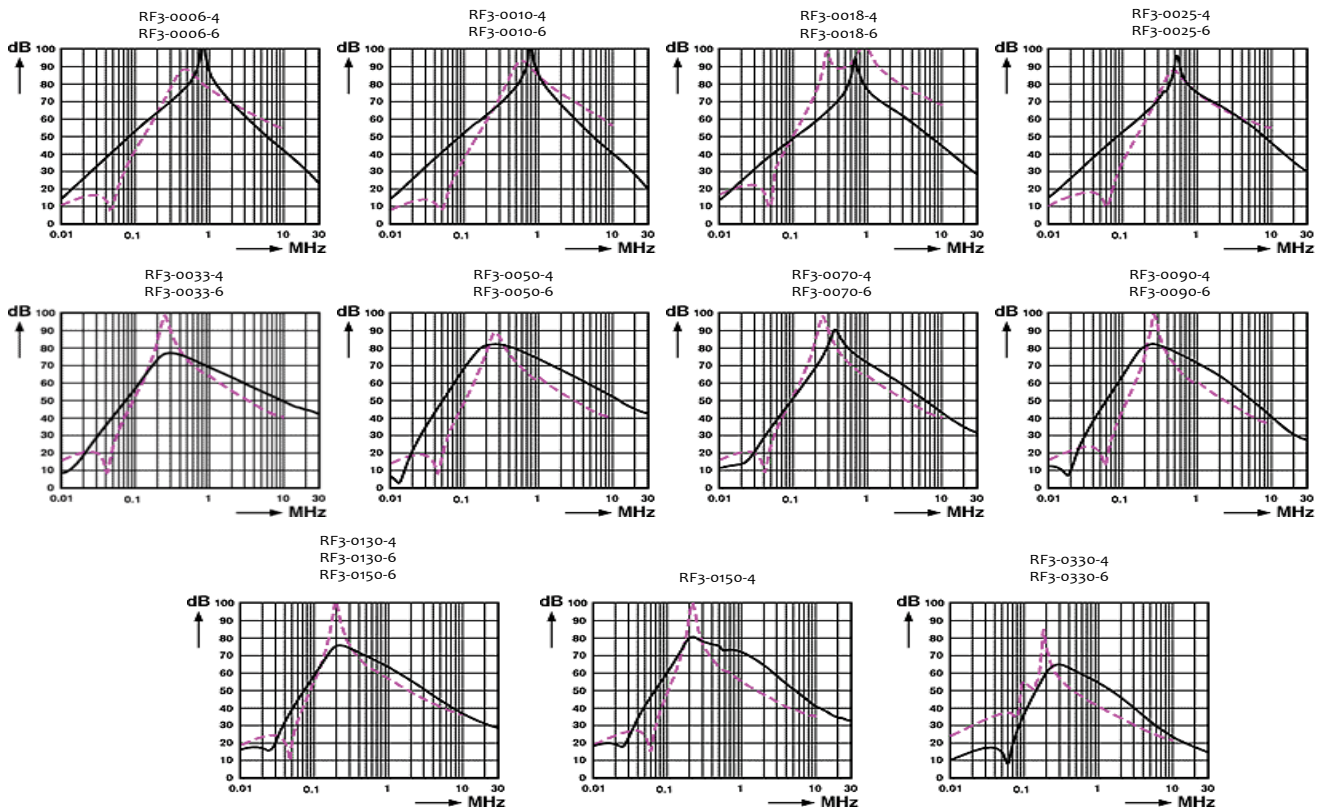
HP	kW	Installation WITHOUT an Input Line Reactor						HP	kW	Installation WITH an Input Line Reactor (≥ 3% Impedance)					
		208V	240V	380V	400V/415V	480V	600V			208V	240V	380V	400V/415V	480V	600V
1	0.75	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-6	1	0.75	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-6
1.5	1.12	RF3-0010-4	RF3-0010-4	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-6	1.5	1.12	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-6
2	1.5	RF3-0018-4	RF3-0010-4	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-6	2	1.5	RF3-0010-4	RF3-0010-4	RF3-0006-4	RF3-0006-4	RF3-0006-4	RF3-0006-6
3	2.2	RF3-0018-4	RF3-0018-4	RF3-0010-4	RF3-0010-4	RF3-0010-4	RF3-0006-6	3	2.2	RF3-0018-4	RF3-0010-4	RF3-0010-4	RF3-0006-4	RF3-0006-4	RF3-0006-6
5	3.7	RF3-0025-4	RF3-0025-4	RF3-0018-4	RF3-0018-4	RF3-0010-4	RF3-0010-6	5	3.7	RF3-0018-4	RF3-0018-4	RF3-0010-4	RF3-0010-4	RF3-0010-4	RF3-0006-6
7.5	5.5	RF3-0033-4	RF3-0033-4	RF3-0018-4	RF3-0018-4	RF3-0018-4	RF3-0018-6	7.5	5.5	RF3-0025-4	RF3-0025-4	RF3-0018-4	RF3-0018-4	RF3-0018-4	RF3-0010-6
10	7.5	RF3-0050-4	RF3-0050-4	RF3-0025-4	RF3-0025-4	RF3-0025-4	RF3-0018-6	10	7.5	RF3-0033-4	RF3-0033-4	RF3-0018-4	RF3-0018-4	RF3-0018-4	RF3-0018-6
15	11.25	RF3-0070-4	RF3-0070-4	RF3-0050-4	RF3-0033-4	RF3-0033-4	RF3-0025-6	15	11.25	RF3-0050-4	RF3-0050-4	RF3-0025-4	RF3-0025-4	RF3-0025-4	RF3-0018-6
20	15	RF3-0090-4	RF3-0090-4	RF3-0050-4	RF3-0050-4	RF3-0050-4	RF3-0033-6	20	15	RF3-0070-4	RF3-0070-4	RF3-0033-4	RF3-0033-4	RF3-0033-4	RF3-0025-6
25	18.5	RF3-0130-4	RF3-0130-4	RF3-0070-4	RF3-0050-4	RF3-0050-4	RF3-0050-6	25	18.5	RF3-0090-4	RF3-0090-4	RF3-0050-4	RF3-0050-4	RF3-0050-4	RF3-0033-6
30	22.5	RF3-0130-4	RF3-0130-4	RF3-0070-4	RF3-0070-4	RF3-0070-4	RF3-0050-6	30	22.5	RF3-0130-4	RF3-0090-4	RF3-0070-4	RF3-0050-4	RF3-0050-4	RF3-0033-6
40	30	RF3-0330-4	RF3-0150-4	RF3-0090-4	RF3-0090-4	RF3-0090-4	RF3-0070-6	40	30	RF3-0130-4	RF3-0130-4	RF3-0070-4	RF3-0070-4	RF3-0070-4	RF3-0050-6
50	37.5	RF3-0330-4	RF3-0330-4	RF3-0130-4	RF3-0130-4	RF3-0090-4	RF3-0070-6	50	37.5	RF3-0150-4	RF3-0150-4	RF3-0090-4	RF3-0090-4	RF3-0070-4	RF3-0070-6
60	45	RF3-0330-4	RF3-0330-4	RF3-0130-4	RF3-0130-4	RF3-0130-4	RF3-0090-6	60	45	RF3-0330-4	RF3-0330-4	RF3-0130-4	RF3-0090-4	RF3-0090-4	RF3-0070-6
75	56.3	RF3-0330-4	RF3-0330-4	RF3-0330-4	RF3-0150-4	RF3-0150-4	RF3-0130-6	75	56.3	RF3-0330-4	RF3-0330-4	RF3-0130-4	RF3-0130-4	RF3-0130-4	RF3-0090-6
100	75	--	RF3-0330-4	RF3-0330-4	RF3-0330-4	RF3-0330-4	RF3-0130-6	100	75	RF3-0330-4	RF3-0330-4	RF3-0330-4	RF3-0150-4	RF3-0130-4	RF3-0130-6
125	93.8	--	--	RF3-0330-4	RF3-0330-4	RF3-0330-4	RF3-0330-6	125	93.8	--	RF3-0330-4	RF3-0330-4	RF3-0330-4	RF3-0330-4	RF3-0130-6
150	112.5	--	--	RF3-0330-4	RF3-0330-4	RF3-0330-4	RF3-0330-6	150	112.5	--	--	RF3-0330-4	RF3-0330-4	RF3-0330-4	RF3-0150-6
200	150	--	--	--	--	RF3-0330-4	RF3-0330-6	200	150	--	--	RF3-0330-4	RF3-0330-4	RF3-0330-4	RF3-0330-6
250	187.5	--	--	--	--	--	--	250	187.5	--	--	--	--	RF3-0330-4	RF3-0330-6
300	225	--	--	--	--	--	--	300	225	--	--	--	--	--	RF3-0330-6

Note: Higher ratings may be accomplished by connecting two or more filters in parallel. Please visit [mtecorp.com](http://mtecorp.com) for detailed information.

**Insertion Loss** - Insertion loss data illustrates the typical reduction of both common mode and differential mode noise (based on the standard test circuit). Common mode noise occurs between a phase or neutral conductor and ground, while differential mode noise occurs between phase conductors or between phase and neutral conductors.

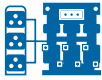
## 6A to 330A Rated

Common Mode ———  
 Differential Mode - - - - -



# Our Products

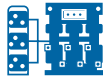
HF



## 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.

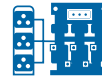
HF



## Matrix® ONE

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

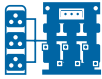
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## Matrix® APAX

Matrix® APAX provides an easy and affordable solution that helps reduce harmful side effects caused by harmonics.

HF



## 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.

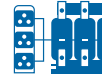
MP



## 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.

MP

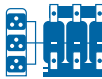


## SineWave Guardian®

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

MP



## 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.

RZ



## RL Reactors

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

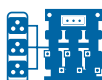
RZ



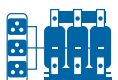
## RLW Reactors

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

HF



MP



RZ



## Custom Power Quality Solutions

MTE provides customized solutions that can be tailored to your applications and needs. Contact MTE for more details.

PM



## TEAL® Power Conditioning and Distribution Units

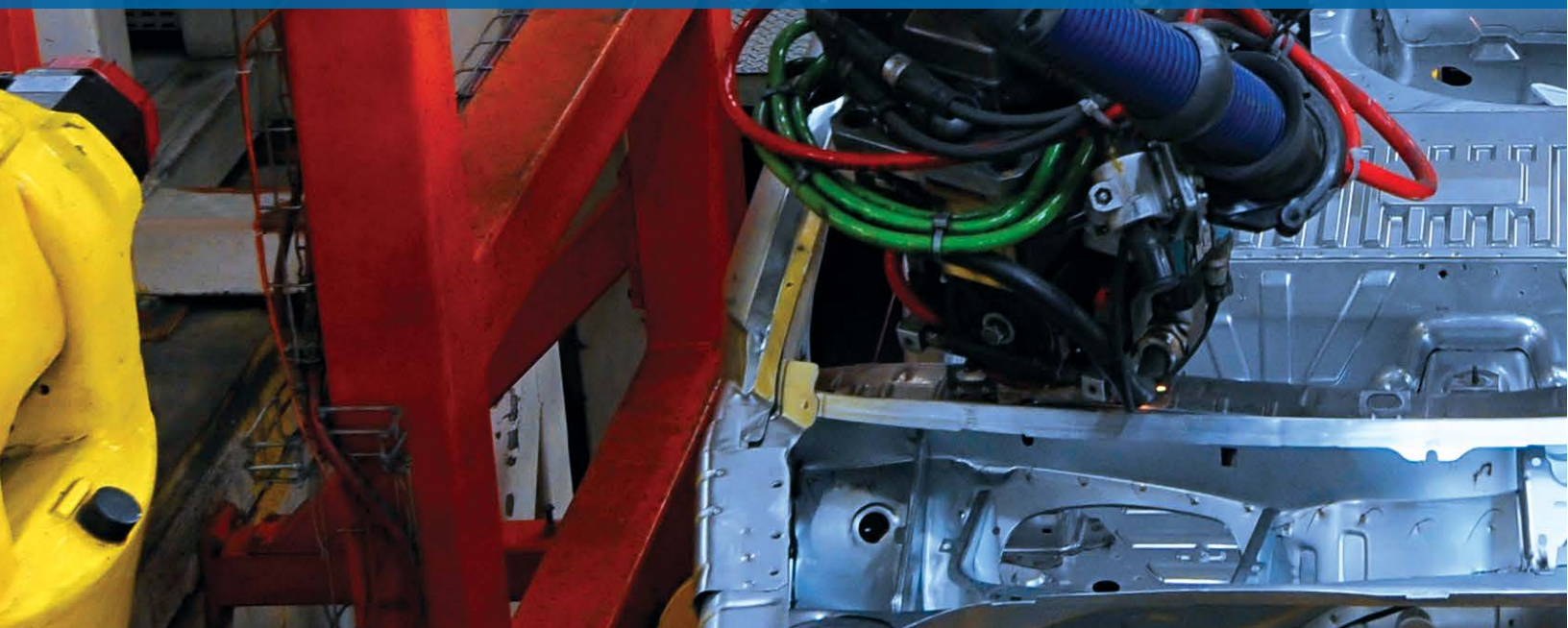
TEAL's Power Conditioning and Distribution Units (PCDUs) are recognized to improve power quality worldwide. Tailored to specific applications, no two solutions are exactly the same. As a result, we have emerged as a leader in power quality subsystem design with a growing toolbox of practical patents and proprietary methods that translates into a competitive advantage for you.



# Take advantage of our expertise.

The knowledge and experience we bring to every project takes the mystery out of power quality problems and delivers solutions that are tailored to your specific needs. Power quality issues may be complex, but the solution is easy – MTE.

[mtecorp.com](http://mtecorp.com)



# The power quality experts.

MTE Corporation was formed in 1982 by bringing together Milwaukee Transformer Co., Transformer Design Inc., and Milwaukee Electronics Corp. – companies that specialized in different fields of magnetics and transformer designs and were long established in their respective fields. MTE vaulted into a leadership role in power quality with its unique AC reactor design and passive filter expertise. We continued to grow as a global leader with innovative Harmonic Filters, Motor Protection Filters and Sinewave Filters.

With the addition of TEAL® Electronics in 2016, MTE brings a continuum of power quality solutions unmatched in the industry. Building on TEAL's reputation of high-efficiency transformers and durable power conditioning and distribution units for demanding applications, MTE is building the best power quality company by capitalizing on the individual strength of each while bringing a new dimension in management, marketing, and quality.

Our team of professional design engineers has well over 100 years of collective experience in the industry and is complemented by as much experience in operations. Our engineers utilize state-of-the-art platforms and best-in-class simulation/modeling tools so that new designs meet your needs and the latest compliance standards while improving your bottom line.

**At MTE, we know power quality because power quality is all we do.**

## Steel Partners Holding L.P.

MTE is an operating company within the Diversified Industrial Segment of Steel Partners Holdings L.P. (NYSE: SPLP). Steel Partners is a global diversified holding company with operations in diversified industrial products, energy, defense, supply chain management and logistics, banking, and youth sports.



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