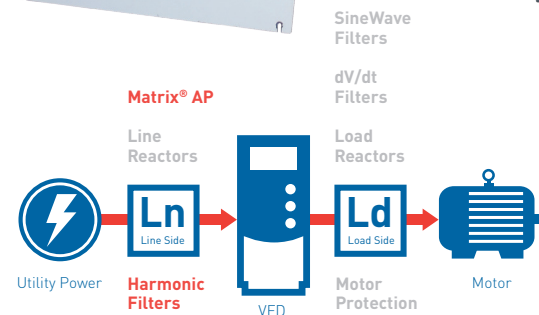


# Harmonic Filters Matrix® AP Product Selector

## The key to success: adapt.

Simply put, our Matrix® AP is the most advanced passive filter on the market today. Most traditional filters work fine at 100% power load, but severely underperform at lower loads. Matrix AP is different, because we know almost no one runs at full load all the time. Its patented Adaptive Passive Technology virtually eliminates harmonic distortion by adapting to varying power loads. It delivers better THID performance, increases energy efficiency, and allows you to meet IEEE-519 requirements. Its unique design generates less heat, and is easy to install and maintain. Plus it is generator compatible. With Matrix AP Harmonic Filters, power quality, energy efficiency and reduced downtime are easy to achieve.



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

# 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.

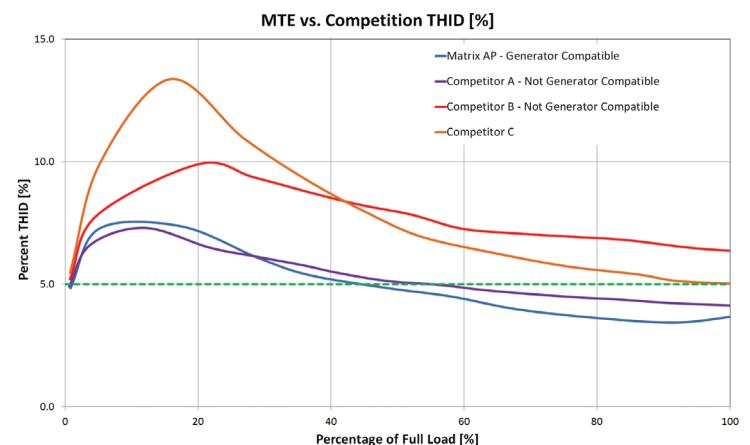
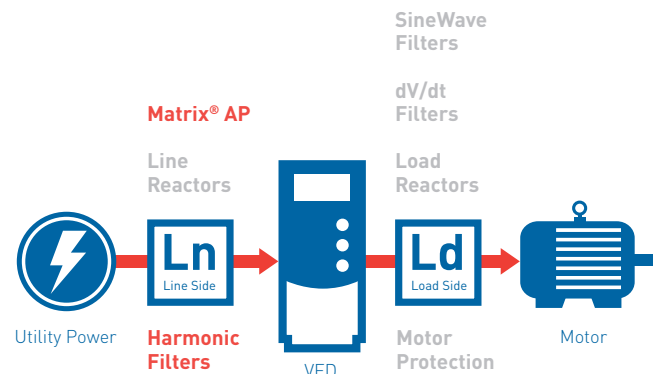
**Reduces energy costs** by improving system efficiency and reliability.

**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.

## Performance Specifications:

|                                   |                                                                                              |
|-----------------------------------|----------------------------------------------------------------------------------------------|
| Input Voltages                    | 480V 60Hz<br>380V/400V/415V 50Hz<br>600V 60Hz<br>690V 50Hz                                   |
| Total Harmonic Current Distortion | 8% Max at 30% Load<br>5% Max at Full Load                                                    |
| Load                              | 6 pulse rectifier                                                                            |
| Input Voltage                     | Nominal voltage VAC +/- 10%, 3 Phase                                                         |
| Frequency                         | Nominal Frequency +0.75 Hz                                                                   |
| Insertion loss at full load       | <4%                                                                                          |
| Efficiency                        | 97% - 99%                                                                                    |
| Operating Temperature             | -40C to +50C Open Panel Filters<br>-40C to +40C-45C Enclosed Filters<br>-40C to +90C Storage |
| Altitude Without Derating         | 3,300 feet                                                                                   |



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



## CAPACITOR PANEL

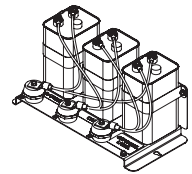
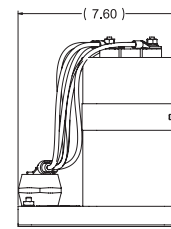
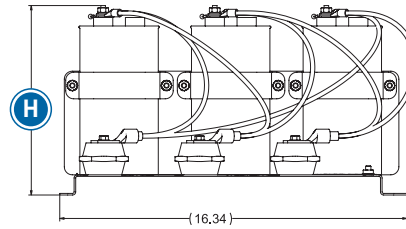
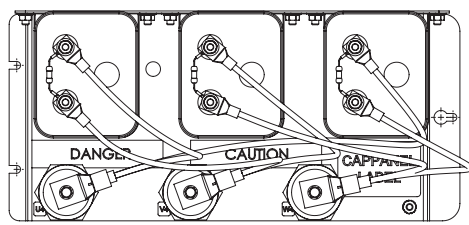


FIGURE 1

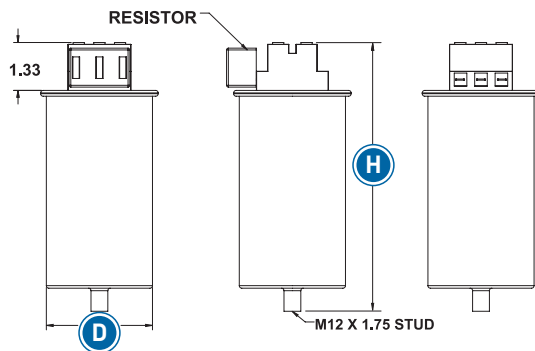
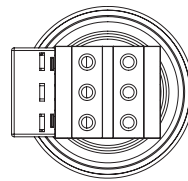


FIGURE 2



## OPEN MAGNETICS

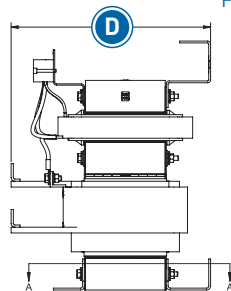
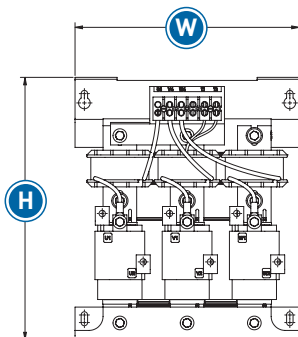


FIGURE 3

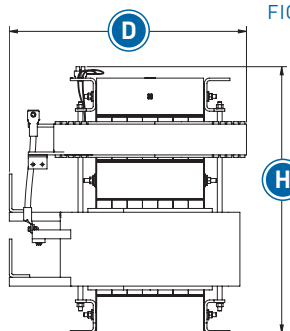
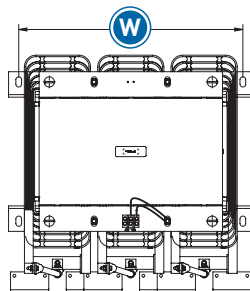
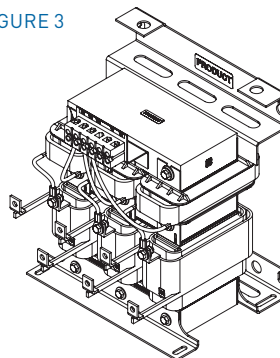


FIGURE 4

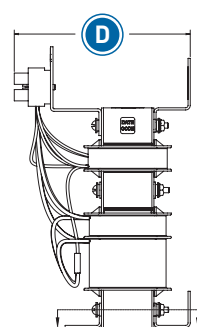
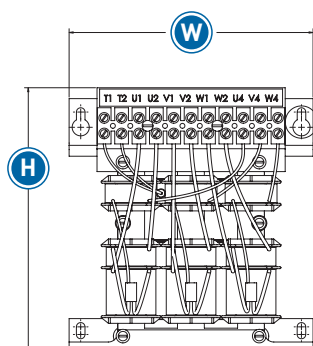
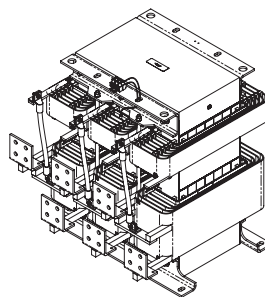
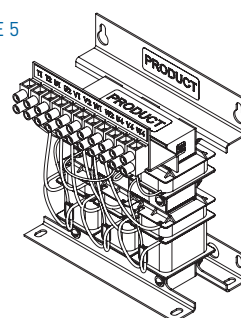


FIGURE 5



## ENCLOSURES

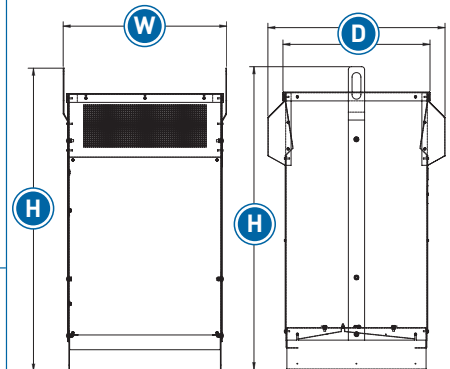
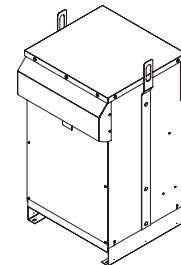


FIGURE 6



NOTE: HOODS  
ONLY ON NEMA  
3R ENCLOSURES

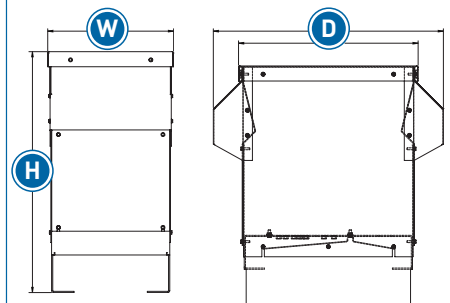
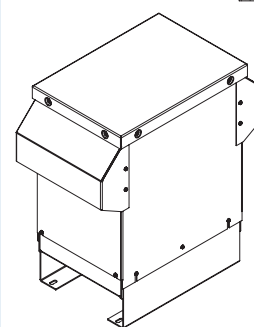


FIGURE 7



NOTE: HOODS  
ONLY ON NEMA  
3R ENCLOSURES

# Selection Tables:

The Matrix AP is available in Open Panel, NEMA 1/2 and NEMA 3R

Note: MAPxxxxxC is 400V, 50Hz and MAPxxxxxD is 480V, 60Hz.



| Amps Rating | Open Panel  |            |               |                                  |           |            | Capacitor/Capacitor Assemblies Size (included) (in.) (H X W X D) | Capacitor Ref. Figure |
|-------------|-------------|------------|---------------|----------------------------------|-----------|------------|------------------------------------------------------------------|-----------------------|
|             | Catalog PN. |            | Weight (lbs.) | Open Magnetics (in.) (H X W X D) | Ref. Fig. | Watts Loss |                                                                  |                       |
| 6           | MAPP0006C   | MAPP0006D  | 16            | 8.7 X 8 X 5.5                    | 5         | 122        | 7.5 X 2.9                                                        | 2                     |
| 8           | MAPP0008C   | MAPP0008D  | 17            | 8.7 X 8 X 5.5                    | 5         | 158        | 7.5 X 2.9                                                        | 2                     |
| 11          | MAPP0011C   | MAPP0011D  | 26            | 9.9 X 9 X 4.8                    | 5         | 192        | 7.5 X 2.9                                                        | 2                     |
| 14          | MAPP0014C   | MAPP0014D  | 30            | 9.8 X 9 X 5.25                   | 5         | 220        | 7.5 X 2.9                                                        | 2                     |
| 21          | MAPP0021C   | MAPP0021D  | 47            | 11.7 X 10.5 X 6.6                | 5         | 251        | 7.5 X 3.9                                                        | 2                     |
| 27          | MAPP0027C   | MAPP0027D  | 52            | 11.7 X 10.5 X 7                  | 5         | 283        | 7.5 X 3.9                                                        | 2                     |
| 34          | MAPP0034C   | MAPP0034D  | 62            | 11.7 X 10.5 X 7.6                | 5         | 318        | 7.5 X 3.9                                                        | 2                     |
| 44          | MAPP0044C   | MAPP0044D  | 74            | 11.7 X 10.5 X 8                  | 5         | 379        | 7.5 X 4.6                                                        | 2                     |
| 52          | MAPP0052C   | MAPP0052D  | 94            | 14 X 12 X 9                      | 3         | 413        | 9.2 X 4.6                                                        | 2                     |
| 66          | MAPP0066C   | MAPP0066D  | 107           | 14 X 12 X 9                      | 3         | 488        | 9.2 X 4.6                                                        | 2                     |
| 83          | MAPP0083C   | MAPP0083D  | 135           | 14 X 12 X 10.9                   | 3         | 600        | 9.2 X 4.6                                                        | 2                     |
| 103         | MAPP0103C   | MAPP0103D  | 145           | 14 X 12 X 10.82                  | 3         | 702        | 9.2 X 4.6                                                        | 2                     |
| 128         | MAPP0128C   | MAPP0128D  | 165           | 20 X 15.25 X 10.7                | 3         | 1,035      | 6.9 X 16.3 X 7.6                                                 | 1                     |
| 165         | MAPP0165C   | MAPP0165D  | 223           | 20 X 15.25 X 11.75               | 3         | 1,096      | 6.9 X 16.3 X 7.6                                                 | 1                     |
| 208         | MAPP0208C   | MAPP0208D  | 237           | 20 X 15.25 X 11.85               | 3         | 1,343      | 7.9 X 16.3 X 7.6                                                 | 1                     |
| 240         | MAPP0240C   | MAPP0240D  | 327           | 20 X 15.25 X 12.75               | 3         | 1,514      | 7.9 X 16.3 X 7.6                                                 | 1                     |
| 320         | MAPP0320C   | MAPP0320D  | 390           | 20 X 15.25 X 14.8                | 3         | 1,543      | 8.9 X 16.3 X 7.6                                                 | 1                     |
| 403         | MAPP0403C   | MAPP0403D  | 433           | 23.25 X 15.25 X 13.86            | 3         | 1,932      | 10.7 X 16.3 X 7.6                                                | 1                     |
| 482         | MAPP0482C   | MAPP0482D  | 483           | 23.25 X 15.25 X 14.77            | 3         | 2,137      | 7.9 X 16.3 X 7.6 (2)                                             | 1                     |
| 636         | MAPP0636C   | MAPP0636D  | 736           | 26 X 24 X 16.5                   | 4         | 2,509      | 8.9 X 16.3 X 7.6 (2)                                             | 1                     |
| 786         | MAPP0786C   | MAPP0786D  | 911           | 26 X 24 X 17.8                   | 4         | 2,771      | 10.7 X 16.3 X 7.6 (2)                                            | 1                     |
| 850         | MAPP0850C   | MAPP0850D  | 983           | 26 X 24 X 20.3                   | 4         | 3,163      | 8.9 X 16.3 X 7.6 (2)<br>7.9 X 16.3 X 7.6                         | 1                     |
| 1000        | MAPP1000C   | MAPP1000 D | 1137          | 26 X 24 X 21.7                   | 4         | 4,206      | 8.9 X 16.3 X 7.6 (2)<br>10.7 X 16.3 X 7.6                        | 1                     |
| 1200        | MAPP1200C   | MAPP1200D  | 1297          | 26 X 24 X 22.2                   | 4         | 4,400      | 10.7 X 16.3 X 7.6 (3)                                            | 1                     |
| 1600        | -           | MAPP1600D  | 1970          | 34.7 X 36 X 29.2                 | 4         | 4,500      | 10.7 X 16.3 X 7.6 (4)                                            | 1                     |
| 2000        | -           | MAPP2000D  | 2347          | 35 X 36 X 30.95                  | 4         | 5,050      | 10.7 X 16.3 X 7.6 (5)                                            | 1                     |
| 2300        | -           | MAPP2300D  | 2541          | 34.5 X 36 X 32.25                | 4         | 6,100      | 10.7 X 16.3 X 7.6 (6)                                            | 1                     |



| Amps Rating | NEMA 1/2               |            |            |           |                        | NEMA 3R                |            |            |           |                        |
|-------------|------------------------|------------|------------|-----------|------------------------|------------------------|------------|------------|-----------|------------------------|
|             | Catalog PN.            | Wt. (lbs.) | Enclosure  | Ref. Fig. | Size (in.) (H X W X D) | Catalog PN.            | Wt. (lbs.) | Enclosure  | Ref. Fig. | Size (in.) (H X W X D) |
| 6           | MAPG0006C<br>MAPG0006D | 64         | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0006C<br>MAPW0006D | 72         | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 8           | MAPG0008C<br>MAPG0008D | 65         | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0008C<br>MAPW0008D | 73         | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 11          | MAPG0011C<br>MAPG0011D | 74         | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0011C<br>MAPW0011D | 82         | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 14          | MAPG0014C<br>MAPG0014D | 79         | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0014C<br>MAPW0014D | 87         | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 21          | MAPG0021C<br>MAPG0021D | 97         | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0021C<br>MAPW0021D | 105        | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 27          | MAPG0027C<br>MAPG0027D | 101        | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0027C<br>MAPW0027D | 109        | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 34          | MAPG0034C<br>MAPG0034D | 112        | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0034C<br>MAPW0034D | 120        | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 44          | MAPG0044C<br>MAPG0044D | 125        | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0044C<br>MAPW0044D | 133        | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 52          | MAPG0052C<br>MAPG0052D | 172        | CAB-17AP2  | 6         | 34 X 17.8 X 21         | MAPW0052C<br>MAPW0052D | 179        | CAB-17AP3  | 6         | 34 X 17.8 X 26         |
| 66          | MAPG0066C<br>MAPG0066D | 185        | CAB-17AP2  | 6         | 34 X 17.8 X 21         | MAPW0066C<br>MAPW0066D | 192        | CAB-17AP3  | 6         | 34 X 17.8 X 26         |
| 83          | MAPG0083C<br>MAPG0083D | 209        | CAB-17AP2  | 6         | 34 X 17.8 X 21         | MAPW0083C<br>MAPW0083D | 217        | CAB-17AP2  | 6         | 34 X 17.8 X 26         |
| 103         | MAPG0103C<br>MAPG0130D | 313        | CAB-17AP2  | 6         | 34 X 17.8 X 21         | MAPW0103C<br>MAPW0103D | 321        | CAB-17AP3  | 6         | 34 X 17.8 X 26         |
| 128         | MAPG0128C<br>MAPG0128D | 333        | CAB-26AP2  | 6         | 51.3 X 27.7 X 24.9     | MAPW0128C<br>MAPW0128D | 347        | CAB-26AP3  | 6         | 51.3 X 27.7 X 30       |
| 165         | MAPG0165C<br>MAPG0165D | 392        | CAB-26AP2  | 6         | 51.3 X 27.7 X 24.9     | MAPW0135C<br>MAPW0135D | 406        | CAB-26AP3  | 6         | 51.3 X 27.7 X 30       |
| 208         | MAPG0208C<br>MAPG0208D | 405        | CAB-26AP2  | 6         | 51.3 X 27.7 X 24.9     | MAPW0208C<br>MAPW0208D | 419        | CAB-26AP3  | 6         | 51.3 X 27.7 X 30       |
| 240         | MAPG0240C<br>MAPG0240D | 489        | CAB-26AP2  | 6         | 51.3 X 27.7 X 24.9     | MAPW0240C<br>MAPW0240D | 503        | CAB-26AP3  | 6         | 51.3 X 27.7 X 30       |
| 320         | MAPG0320C<br>MAPG0320D | 630        | CAB-26APD2 | 6         | 76 X 27.7 X 22         | MAPW0320C<br>MAPW0320D | 656        | CAB-26APD3 | 6         | 76 X 27.7 X 34         |
| 403         | MAPG0403C<br>MAPG0403D | 673        | CAB-26APD2 | 6         | 76 X 27.7 X 22         | MAPW0403C<br>MAPW0403D | 700        | CAB-26APD3 | 6         | 76 X 27.7 X 34         |
| 482         | MAPG0482C<br>MAPG0482D | 702        | CAB-42AP2  | 6         | 87.6 X 43.7 X 31       | MAPW0482C<br>MAPW0482D | 710        | CAB-42AP3  | 6         | 87.6 X 43.7 X 40.1     |
| 636         | MAPG0636C<br>MAPG0636D | 1077       | CAB-42AP2  | 6         | 87.6 X 43.7 X 31       | MAPW0636C<br>MAPW0636D | 1084       | CAB-42AP3  | 6         | 87.6 X 43.7 X 40.1     |
| 786         | MAPG0786C<br>MAPG0786D | 1252       | CAB-42AP2  | 6         | 87.6 X 43.7 X 31       | MAPW0786C<br>MAPW0786D | 1260       | CAB-42AP3  | 6         | 87.6 X 43.7 X 40.1     |
| 850         | MAPG0850C<br>MAPG0850D | 1386       | CAB-48AP2  | 6         | 84 X 49.2 X 36.5       | MAPW0850C<br>MAPW0850D | 1393       | CAB-48AP3  | 6         | 84 X 49.2 X 45.5       |
| 1000        | MAPG1000C<br>MAPG1000D | 1640       | CAB-48AP2  | 6         | 84 X 49.2 X 36.5       | MAPW1000C<br>MAPW1000D | 1647       | CAB-48AP3  | 6         | 84 X 49.2 X 45.5       |
| 1200        | MAPG1200C<br>MAPG1200D | 1700       | CAB-48AP2  | 6         | 84 X 49.2 X 36.5       | MAPW1200C<br>MAPW1200D | 1707       | CAB-48AP3  | 6         | 84 X 49.2 X 45.5       |

Note: Information is for reference only. Consult [www.mtecorp.com](http://www.mtecorp.com) for detailed information.

## Selection Tables:

The Matrix AP is available in Open Panel, NEMA 1/2 and NEMA 3R

Note: MAPxxxxxE is 600V, 60Hz.



| Amps Rating | Open Panel  |               |                                  |           |            | Capacitor/Capacitor Assemblies Size (included) (in.) (H X W X D) | Capacitor Ref. Figure |
|-------------|-------------|---------------|----------------------------------|-----------|------------|------------------------------------------------------------------|-----------------------|
|             | Catalog PN. | Weight (lbs.) | Open Magnetics (in.) (H X W X D) | Ref. Fig. | Watts Loss |                                                                  |                       |
| 6           | MAPP0006E   | 17            | 8.7 X 8 X 5.5                    | 5         | 150        | 7.5 X 2.9                                                        | 2                     |
| 8           | MAPP0008E   | 26            | 9.8 X 9 X 4.8                    | 5         | 183        | 7.5 X 2.9                                                        | 2                     |
| 11          | MAPP0011E   | 30            | 9.8 X 9 X 5.3                    | 5         | 205        | 7.5 X 2.9                                                        | 2                     |
| 14          | MAPP0014E   | 47            | 11.7 X 10.5 X 6.6                | 5         | 250        | 7.5 X 2.9                                                        | 2                     |
| 21          | MAPP0021E   | 52            | 11.7 X 10.5 X 7.1                | 5         | 285        | 7.5 X 3.9                                                        | 2                     |
| 27          | MAPP0027E   | 62            | 11.7 X 10.5 X 7.6                | 5         | 304        | 7.5 X 3.9                                                        | 2                     |
| 34          | MAPP0034E   | 74            | 11.7 X 10.5 X 8.1                | 5         | 366        | 7.5 X 4.6                                                        | 2                     |
| 44          | MAPP0044E   | 94            | 14 X 12 X 9.89                   | 3         | 395        | 9.14 X 4.6                                                       | 2                     |
| 52          | MAPP0052E   | 107           | 14 X 12 X 10.3                   | 3         | 494        | 9.2 X 4.6                                                        | 2                     |
| 66          | MAPP0066E   | 135           | 14 X 12 X 11                     | 3         | 655        | 10.6 X 4.6                                                       | 2                     |
| 83          | MAPP0083E   | 140           | 14.1 X 12 X 11                   | 3         | 718        | 10.6 X 4.6                                                       | 2                     |
| 103         | MAPP0103E   | 165           | 20 X 15.3 X 10.7                 | 3         | 1085       | 6.9 X 16.3 X 7.6                                                 | 1                     |
| 128         | MAPP0128E   | 223           | 20 X 15.3 X 11.7                 | 3         | 1090       | 6.9 X 16.3 X 7.6                                                 | 1                     |
| 165         | MAPP0165E   | 237           | 20.1 X 15.3 X 11.9               | 3         | 1285       | 6.9 X 16.3 X 7.6                                                 | 1                     |
| 208         | MAPP0208E   | 327           | 20.1 X 15.3 X 13.4               | 3         | 1431       | 7.9 X 16.3 X 7.6                                                 | 1                     |
| 240         | MAPP0240E   | 433           | 20 X 15.3 X 16.1                 | 3         | 1624       | 8.9 X 16.3 X 7.6                                                 | 1                     |
| 320         | MAPP0320E   | 477           | 23.3 X 15.3 X 15.7               | 3         | 2021       | 10.7 X 16.3 X 7.6                                                | 1                     |
| 403         | MAPP0403E   | 483           | 23.3 X 15.3 X 16.1               | 3         | 2208       | 11.5 X 16.3 X 7.6                                                | 1                     |
| 482         | MAPP0482E   | 736           | 25.8 X 24 X 16.7                 | 4         | 2481       | (2) 8.9 X 16.3 X 7.6                                             | 1                     |
| 636         | MAPP0636E   | 911           | 25.9 X 24 X 18.2                 | 4         | 2884       | (2) 10.7 X 16.3 X 7.6                                            | 1                     |
| 786         | MAPP0786E   | 1137          | 25 X 24 X 19.5                   | 4         | 3368       | (2) 11.5 X 16.3 X 7.6                                            | 1                     |

The Matrix AP is also available in 690V, 50Hz (part number MAPxxxxxF).

Please consult MTE's website, [www.mtecorp.com](http://www.mtecorp.com), for details.



| Amps Rating | NEMA 1/2    |            |            |           |                        | NEMA 3R     |            |            |           |                        |
|-------------|-------------|------------|------------|-----------|------------------------|-------------|------------|------------|-----------|------------------------|
|             | Catalog PN. | Wt. (lbs.) | Enclosure  | Ref. Fig. | Size (in.) (H X W X D) | Catalog PN. | Wt. (lbs.) | Enclosure  | Ref. Fig. | Size (in.) (H X W X D) |
| 6           | MAPG0006E   | 65         | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0006E   | 73         | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 8           | MAPG0008E   | 74         | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0008E   | 82         | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 11          | MAPG0011E   | 79         | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0011E   | 87         | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 14          | MAPG0014E   | 97         | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0014E   | 105        | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 21          | MAPG0021E   | 101        | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0021E   | 109        | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 27          | MAPG0027E   | 112        | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0027E   | 120        | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 34          | MAPG0034E   | 125        | CAB-12AP2  | 7         | 24 X 12.5 X 17.9       | MAPW0034E   | 133        | CAB-12AP3  | 7         | 24 X 12.5 X 22.9       |
| 44          | MAPG0044E   | 172        | CAB-17AP2  | 6         | 34 X 17.8 X 21         | MAPW0044E   | 179        | CAB-17AP3  | 6         | 34 X 17.8 X 26         |
| 52          | MAPG0052E   | 185        | CAB-17AP2  | 6         | 34 X 17.8 X 21         | MAPW0052E   | 192        | CAB-17AP3  | 6         | 34 X 17.8 X 26         |
| 66          | MAPG0066E   | 209        | CAB-17AP2  | 6         | 34 X 17.8 X 21         | MAPW0066E   | 217        | CAB-17AP3  | 6         | 34 X 17.8 X 26         |
| 83          | MAPG0083E   | 313        | CAB-17AP2  | 6         | 34 X 17.8 X 21         | MAPW0083E   | 338        | CAB-17AP3  | 6         | 34 X 17.8 X 26         |
| 103         | MAPG0103E   | 333        | CAB-26AP2  | 6         | 51.3 X 27.7 X 24.9     | MAPW0103E   | 358        | CAB-26AP3  | 6         | 51.3 X 27.7 X 30       |
| 128         | MAPG0128E   | 392        | CAB-26AP2  | 6         | 51.3 X 27.7 X 24.9     | MAPW0128E   | 417        | CAB-26AP3  | 6         | 51.3 X 27.7 X 30       |
| 165         | MAPG0165E   | 405        | CAB-26AP2  | 6         | 51.3 X 27.7 X 24.9     | MAPW0165E   | 430        | CAB-26AP3  | 6         | 51.3 X 27.7 X 30       |
| 208         | MAPG0208E   | 489        | CAB-26AP2  | 6         | 51.3 X 27.7 X 24.9     | MAPW0208E   | 514        | CAB-26AP3  | 6         | 51.3 X 27.7 X 30       |
| 240         | MAPG0240E   | 630        | CAB-26APD2 | 6         | 76 X 27.7 X 22         | MAPW0240E   | 656        | CAB-26APD3 | 6         | 76 X 27.7 X 34         |
| 320         | MAPG0320E   | 673        | CAB-26APD2 | 6         | 76 X 27.7 X 22         | MAPW0320E   | 700        | CAB-26APD3 | 6         | 76 X 27.7 X 34         |
| 403         | MAPG0403E   | 702        | CAB-42AP2  | 6         | 87.6 X 43.7 X 31       | MAPW0403E   | 710        | CAB-42AP3  | 6         | 87.6 X 43.7 X 40.1     |
| 482         | MAPG0482E   | 1077       | CAB-42AP2  | 6         | 87.6 X 43.7 X 31       | MAPW0482E   | 1085       | CAB-42AP3  | 6         | 87.6 X 43.7 X 40.1     |
| 636         | MAPG0636E   | 1252       | CAB-42AP2  | 6         | 87.6 X 43.7 X 31       | MAPW0636E   | 1260       | CAB-42AP3  | 6         | 87.6 X 43.7 X 40.1     |
| 786         | MAPG0786E   | 1640       | CAB-48AP2  | 6         | 84 X 49.2 X 36.5       | MAPW0786E   | 1647       | CAB-48AP3  | 6         | 84 X 49.2 X 45.5       |

## PERFORMANCE GUARANTY

Select and install the appropriate Matrix Harmonic Filter in a variable torque AC variable frequency drive application, within our published system limits and we guarantee that the input current distortion will be less than or equal to 5% THID for Matrix AP filters at full load, and less than 8% at 30% load. If a properly sized and installed filter fails to meet its specified THID level, MTE will provide the necessary modifications or replacement filter at no charge. TDD will typically be even lower than THID.

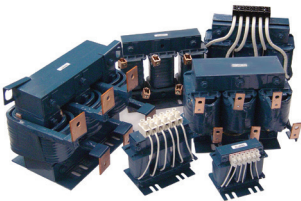
Matrix filters can also provide similar performance in other drive applications such as constant torque, DC drives and other phase controlled rectifiers, but actual THID levels can vary by load and/or speed and therefore cannot be guaranteed. Consult factory for assistance when applying Matrix filters on these types of equipment.

### MINIMUM SYSTEM REQUIREMENTS

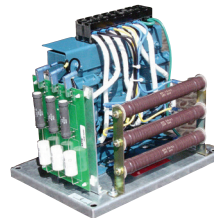
The guaranteed performance levels of this filter will be achieved when the following system conditions are met:

|                                |                                                  |
|--------------------------------|--------------------------------------------------|
| Frequency:                     | Nominal Frequency $\pm 0.75\text{Hz}$            |
| System Voltage:                | Nominal System Voltage (line to line) $\pm 10\%$ |
| Balanced Line Voltage:         | Within 1%                                        |
| Background Voltage Distortion: | 0% THVD                                          |

**NOTE:** The presence of background voltage distortion will cause motors and other linear loads to draw harmonic currents. Additional harmonic currents may flow into the Matrix filter if there is harmonic voltage distortion already on the system.



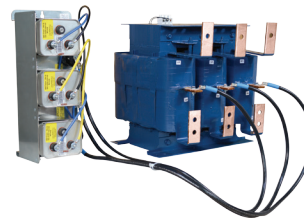
RL and RLW line/load Reactors help keep your equipment running longer by absorbing many of the power line disturbances which otherwise damage or shut down your inverters, variable speed controllers, or other sensitive equipment.



dV/dt Filters reduce peak voltages and high frequency content of your VFD output to provide a better level of motor protection.



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



SineWave Filters transform the output of your VFD to a near perfect sinusoidal waveform for the best level of motor protection.



Power quality.  
Solved.

#### MTE Corporation

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