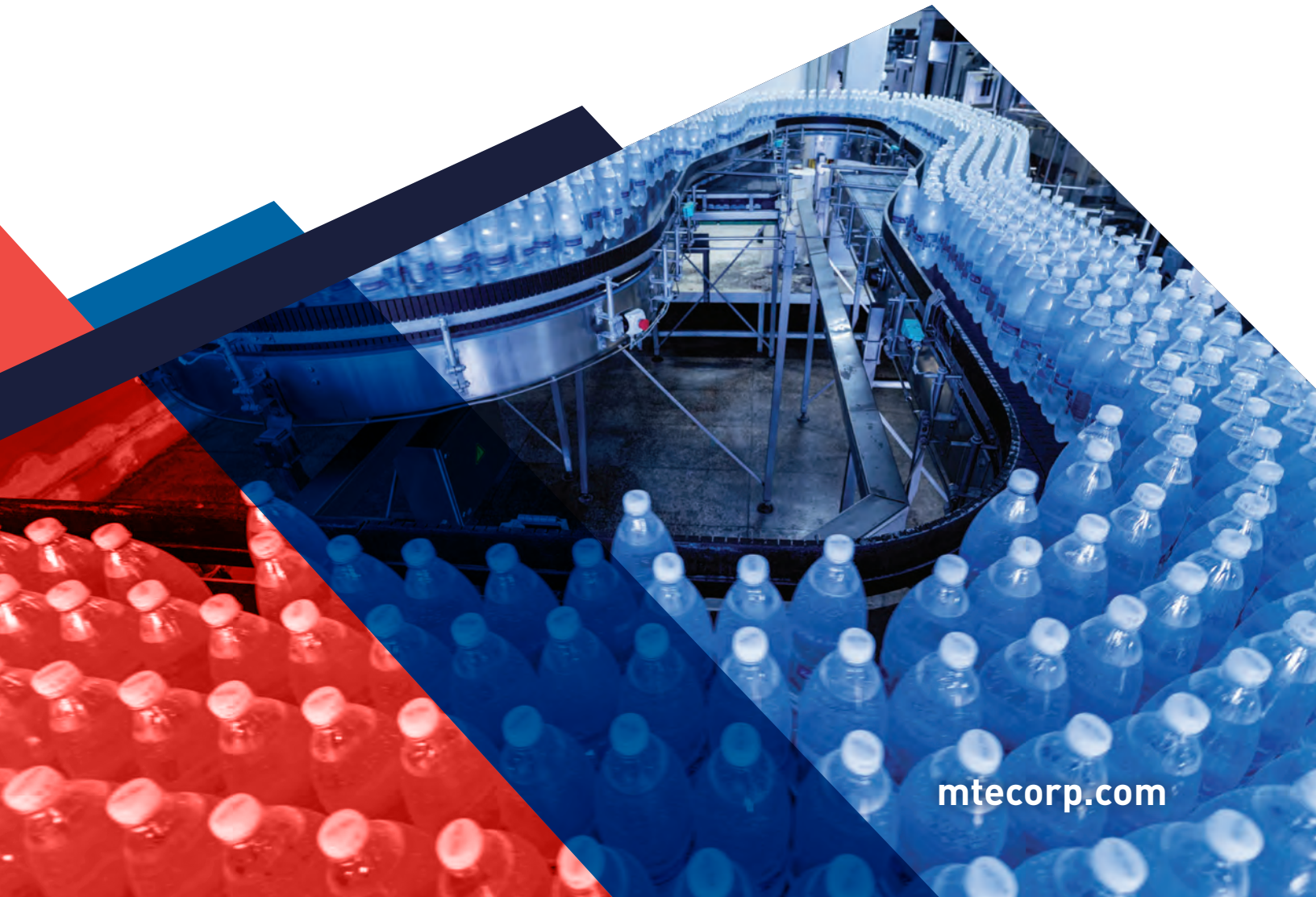


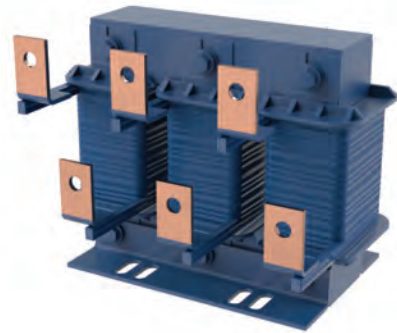
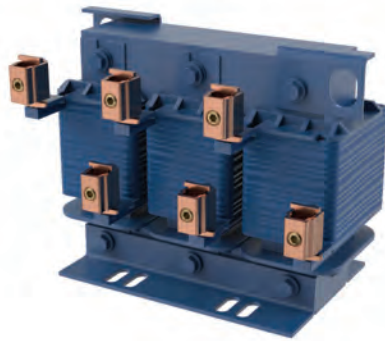


# Reactors

Product Catalog



# We set the benchmark for power quality.



MTE RL and RLW line/load reactors and DC link chokes are well-known for their outstanding performance and robustness. With their long-established history of proven reliability, these products are unmatched in their ability to absorb power line disturbances that can cause damage to sensitive equipment such as Variable Frequency Drives (VFDs), motors, and more.

By reducing nuisance tripping, minimizing long lead effects, and lowering harmonic distortion, MTE line/load reactors and DC link chokes can significantly enhance productivity, making them the best-in-class choice for customers.

**Improve power quality. Enhance productivity. Increase your bottom line.**



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### DC Link Chokes

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

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# WHY Use A Reactor?

MTE's versatile family of reactors offer many benefits on both the line or load side of a VFD. With their impressive capability to reduce harmonic levels by almost 50%, these reactors serve as a reliable and cost-effective safeguard against power line disturbances, surge currents, and voltage distortions—an invaluable insurance policy for uninterrupted power quality and enhanced operational stability.





## Benefit 1: Equipment Protection

MTE line/load reactors offer equipment protection by limiting inrush currents, preventing damage from start-up or load changes, and reducing voltage transients, extending equipment life and minimizing downtime risk.



## Benefit 2: Harmonic Mitigation

MTE line/load reactors effectively reduce harmonic distortion in electrical systems, maintaining a cleaner power supply and protecting sensitive equipment.



## Benefit 3: Voltage Stabilization

MTE line/load reactors provide impedance to the system, smoothing out voltage spikes and sags, ensuring a stable voltage supply, and enhancing equipment reliability.



## Benefit 4: Power Loss Reduction

MTE line/load reactors minimize power losses by improving power factor and reducing reactive power flow, resulting in energy savings and potential cost reduction.

### RLW or RL - Which reactor should I use?

|                                              | RLW | RL |
|----------------------------------------------|-----|----|
| Concerned About Size                         | ✓   |    |
| Concerned About Weight                       | ✓   |    |
| Concerned About Watts Loss                   |     | ✓  |
| Application FLA rating >750A                 |     | ✓  |
| Reactor required on both line and load side  | ✓   | ✓  |
| Reactor Needs To Be Robust (Handle Overload) |     | ✓  |
| Need To Be Price Competitive                 | ✓   |    |

# Reactors

## RL Reactors

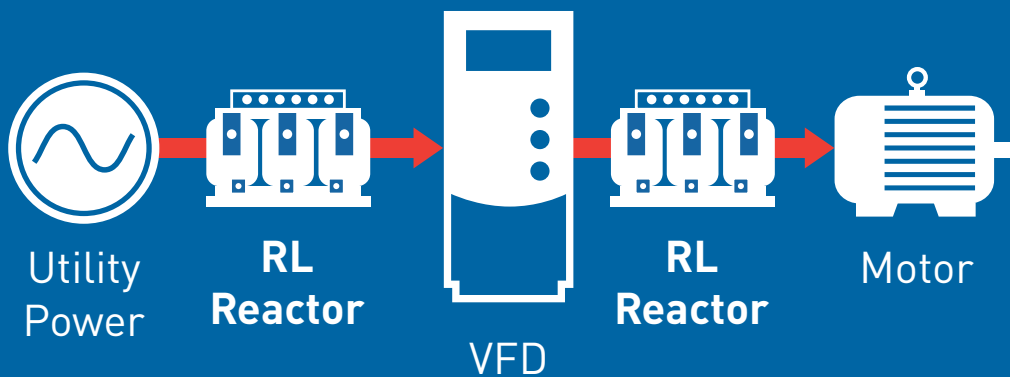
Best-in-class power quality units for absorbing power line disturbances

## 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



- **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 unequaled 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%).

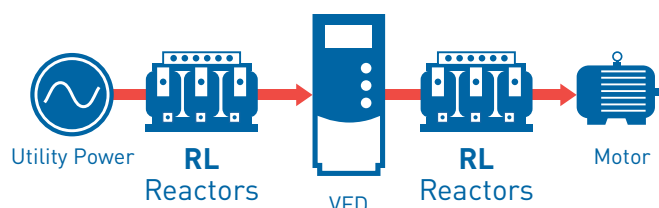
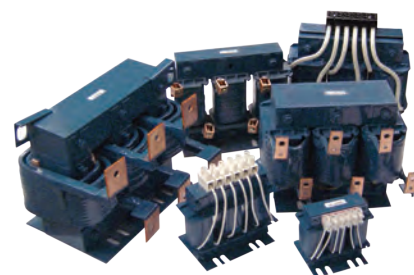
**Robust design and construction** for unequalled filtering of power line disturbances.

**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

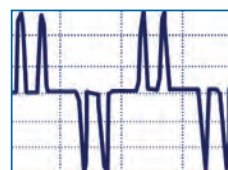


### Performance Specifications

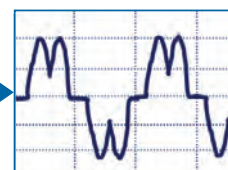
| Impedance Levels                  | 1.5%, 3% and 5%                                                                                 |
|-----------------------------------|-------------------------------------------------------------------------------------------------|
| Continuous Service Factor         | Reactors rated 1 to 750 Amps – 150% of rating<br>Reactors rated above 750 Amps – 125% of rating |
| Overload Rating                   | 200% of rated for 30 minutes<br>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<br>100% at 150% Current<br>50% at 350% Current                             |

Final product specifications subject to change at any time.

#### MTE Input Reactor

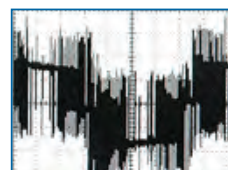


Waveform without reactor

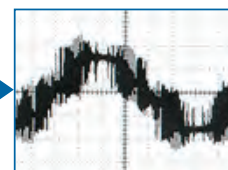


Waveform with reactor

#### MTE Output Reactor

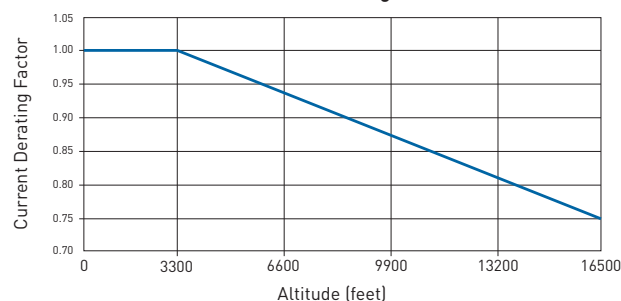


Waveform without reactor



Waveform with reactor

#### Altitude Derating Curve



## ENCLOSURES

FIGURE 1

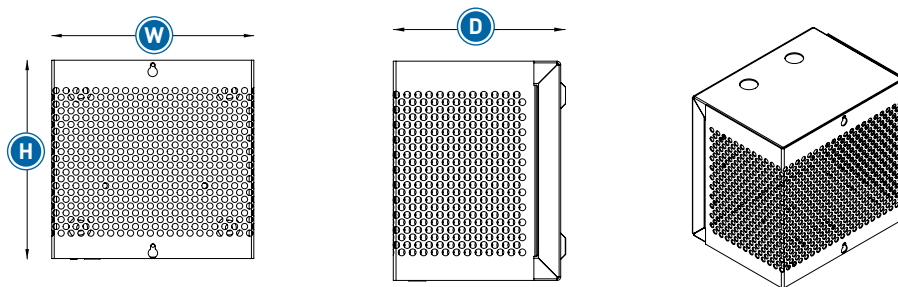
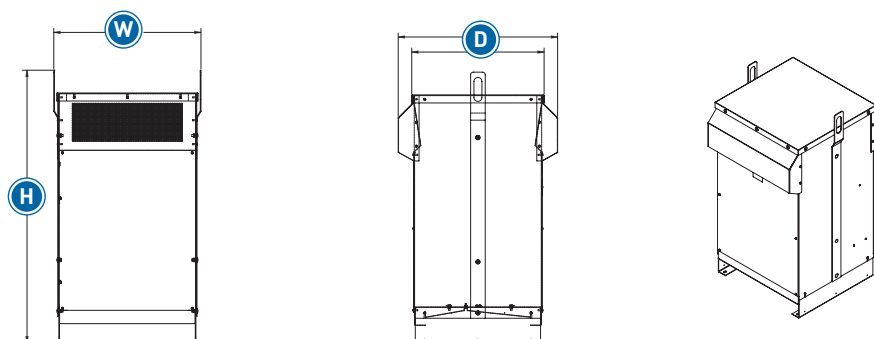
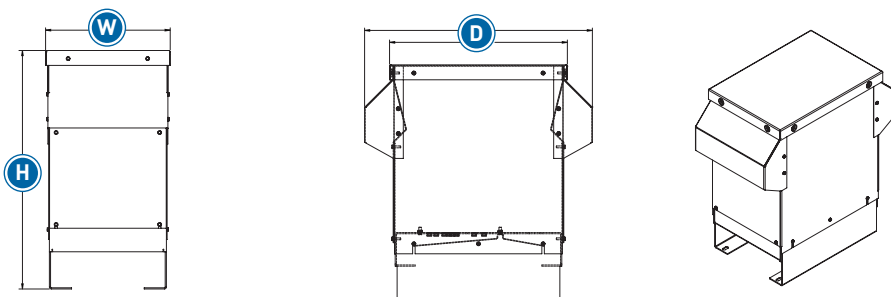


FIGURE 2



NOTE: HOODS  
ONLY ON NEMA  
3R ENCLOSURES

FIGURE 3



NOTE: HOODS  
ONLY ON NEMA  
3R ENCLOSURES

FIGURE 4

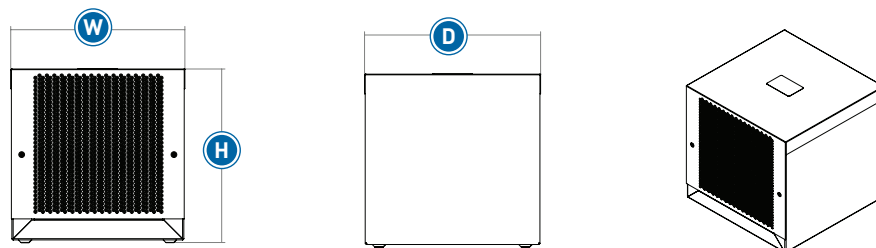
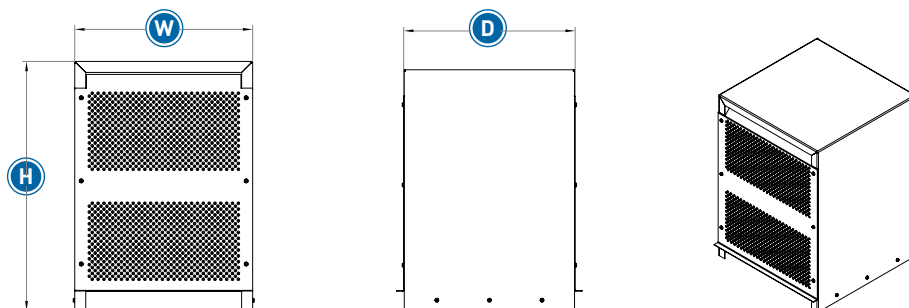


FIGURE 5



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<br>0.18 kW | 0.33 HP<br>0.25 kW | 0.5 HP<br>0.37 kW | 0.75 HP<br>0.55 kW | 1.0 HP<br>0.75 kW | 1.5 HP<br>1.1 kW | 2.0 HP<br>1.5 kW | 3.0 HP<br>2.2 kW | 5.0 HP<br>3.7 kW | 7.5 HP<br>5.5 kW | 10.0 HP<br>7.5 kW | 15.0 HP<br>11.0 kW | 20.0 HP<br>15.0 kW | 25.0 HP<br>18.5 kW | 30.0 HP<br>22.0 kW |
|------------------------------------------------------------|-------------|--------------------|--------------------|-------------------|--------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| Three Phase Input or Output Applications Selected by Motor |             |                    |                    |                   |                    |                   |                  |                  |                  |                  |                  |                   |                    |                    |                    |                    |
| 208V<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>50 Hz                                              | 2%          | -                  | -                  | -                 | -                  | -                 | -                | -                | RL-00403         | RL-00803         | RL-00803         | RL-01202          | RL-01202           | RL-01802           | RL-02502           | RL-02502           |
| 690V<br>50 Hz                                              | 3%          | -                  | -                  | -                 | -                  | -                 | -                | -                | RL-00404         | RL-00804         | RL-00804         | RL-01203          | RL-01203           | RL-01803           | RL-02503           | RL-02503           |
| Single Phase Input Applications                            |             |                    |                    |                   |                    |                   |                  |                  |                  |                  |                  |                   |                    |                    |                    |                    |
| 120V<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>30.0 kW                                         | 50.0 HP<br>37.5 kW | 60.0 HP<br>45.0 kW | 75.0 HP<br>55.0 kW | 100.0 HP<br>75.0 kW | 125.0 HP<br>93.0 kW | 150.0 HP<br>112.0 kW | 200.0 HP<br>150.0 kW | 250.0 HP<br>187.0 kW | 300.0 HP<br>225.0 kW | 350.0 HP<br>262.0 kW | 400.0 HP<br>300.0 kW | 500.0 HP<br>375.0 kW | 600.0 HP<br>450.0 kW | 700.0 HP<br>550.0 kW | 800.0 HP<br>600.0 kW |
|------------------------------------------------------------|--------------------|--------------------|--------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Three Phase Input or Output Applications Selected by Motor |                    |                    |                    |                     |                     |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| 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             |
| Single Phase Input Applications                            |                    |                    |                    |                     |                     |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| -                                                          | -                  | -                  | -                  | -                   | -                   | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    |
| 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)<br>(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-20011B14  | 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-25011B14  | 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-32011B14  | 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-40011B14  | 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-50011B14  | 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-85011B14  | 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 24.9       | 3          |
| RL-90011B14  | 361          | CAB-26D2 | 72.0 x 26.6 x 24.9       | 3          |
| RL-90012B14  | 381          | CAB-26D2 | 72.0 x 26.6 x 24.9       | 3          |
| RL-90013B14  | 481          | CAB-26D2 | 72.0 x 26.6 x 24.9       | 3          |
| RL-100011B14 | 310          | CAB-26D2 | 72.0 x 26.6 x 24.9       | 3          |
| RL-100012B14 | 381          | CAB-26D2 | 72.0 x 26.6 x 24.9       | 3          |
| RL-100013B14 | 481          | CAB-26D2 | 72.0 x 26.6 x 24.9       | 3          |
| RL-120011B14 | 361          | CAB-26D2 | 72.0 x 26.6 x 24.9       | 3          |
| RL-120012B14 | 441          | CAB-26D2 | 72.0 x 26.6 x 24.9       | 3          |
| RL-120013B14 | 556          | CAB-26D2 | 72.0 x 26.6 x 24.9       | 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)<br>(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-20031B14  | 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-25031B14  | 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-32031B14  | 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-40031B14  | 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-50031B14  | 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-85031B14  | 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-90031B14  | 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-100031B14 | 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-120031B14 | 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

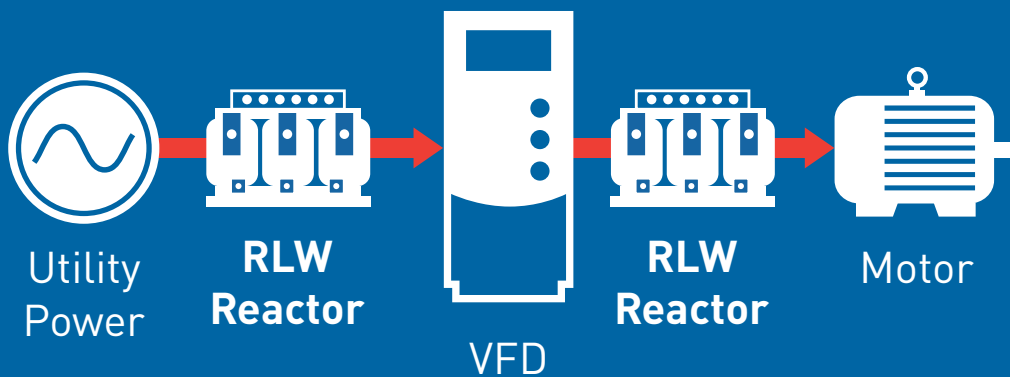
Best-in-class power quality units for absorbing power line disturbances

## RLW Reactors

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

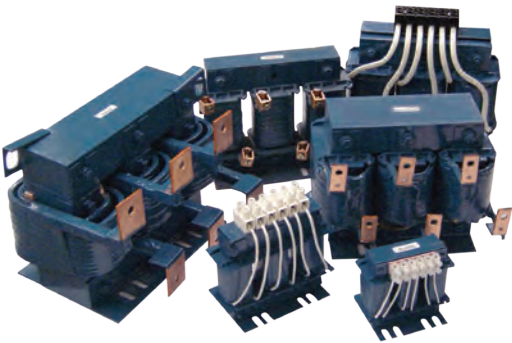
## DC Link Chokes

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





# RLW Reactors



- **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%.

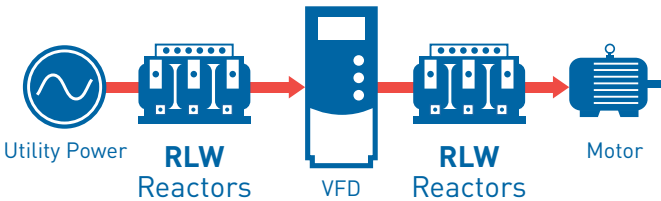
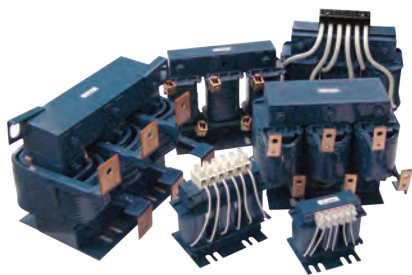
**Smaller size and weight** makes these units ideal for OEMs, integrators and panel builders.

**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.

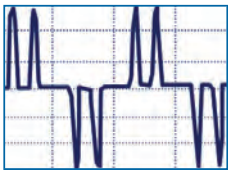
## RLW Reactors



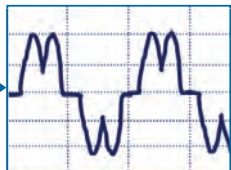
| Performance Specifications        |                                                                      |
|-----------------------------------|----------------------------------------------------------------------|
| Impedance Levels                  | 1.5%, 3% and 5%                                                      |
| Continuous Service Factor         | 100%                                                                 |
| Overload Rating - Line Side       | 150% of RMS rating for 1 minute<br>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<br>80% at 150% Current<br>50% at 200% Current   |

Final product specifications subject to change at any time.

### MTE Input Reactor

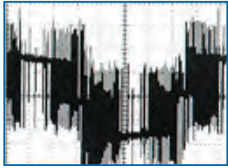


Waveform without reactor

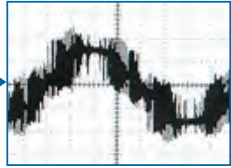


Waveform with reactor

### MTE Output Reactor

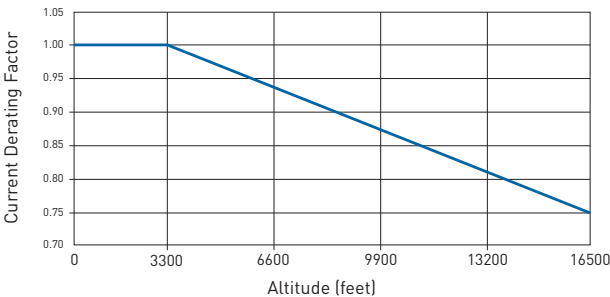


Waveform without reactor

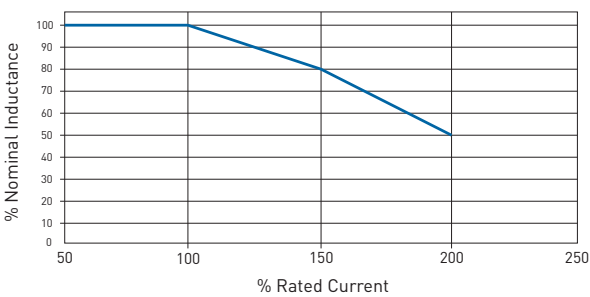


Waveform with reactor

Altitude Derating Curve



RLW Inductance Curve



## ENCLOSURES

FIGURE 1

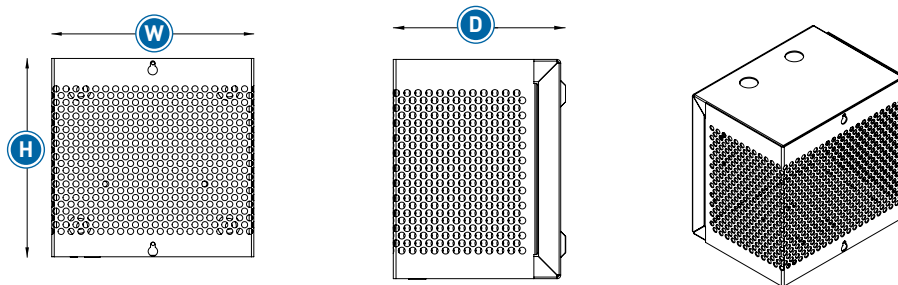


FIGURE 2

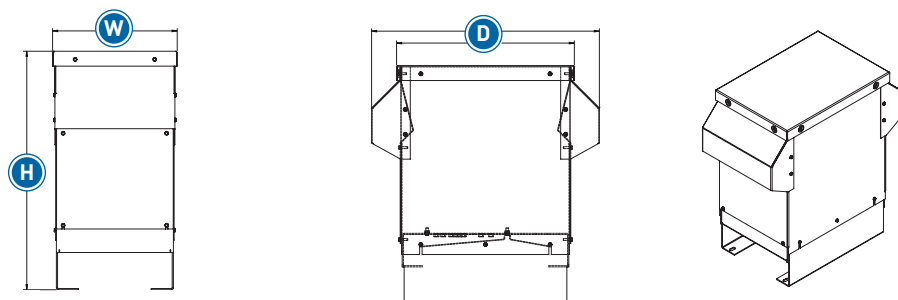


FIGURE 3

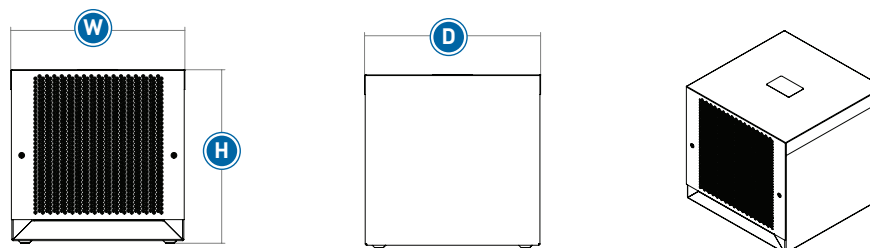
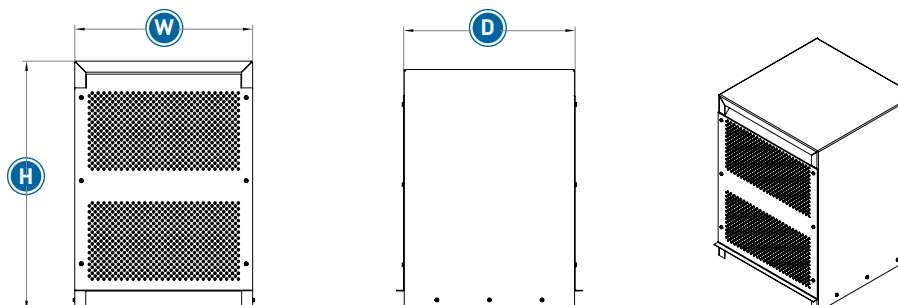


FIGURE 4



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

# RLW REACTOR SELECTION TABLES

| Phase                                            | Input Voltage & Hz | % Impedance | 0.25 HP<br>0.18 kW | 0.33 HP<br>0.25 kW | 0.5 HP<br>0.37 kW | 0.75 HP<br>0.55 kW | 1.0 HP<br>0.75 kW | 1.5 HP<br>1.1 kW | 2.0 HP<br>1.5 kW | 3.0 HP<br>2.2 kW | 5.0 HP<br>3.7 kW | 7.5 HP<br>5.5 kW | 10.0 HP<br>7.5 kW | 15.0 HP<br>11.0 kW | 20.0 HP<br>15.0 kW | 25.0 HP<br>18.5 kW |
|--------------------------------------------------|--------------------|-------------|--------------------|--------------------|-------------------|--------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-------------------|--------------------|--------------------|--------------------|
| Three Phase Input Applications Selected by Motor |                    |             |                    |                    |                   |                    |                   |                  |                  |                  |                  |                  |                   |                    |                    |                    |
| 3 Phase                                          | 208V<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>50 Hz      | 2%          | -                  | -                  | -                 | -                  | -                 | -                | -                | RLW-03P403       | RLW-04P803       | RLW-07P603       | RLW-001105        | RLW-001403         | RLW-002105         | RLW-002103         |
| 3 Phase                                          | 690V<br>50 Hz      | 3%          | -                  | -                  | -                 | -                  | -                 | -                | -                | RLW-03P406       | RLW-04P805       | RLW-07P606       | RLW-001106        | RLW-001405         | RLW-002106         | RLW-002105         |
| Single Phase Input Applications                  |                    |             |                    |                    |                   |                    |                   |                  |                  |                  |                  |                  |                   |                    |                    |                    |
| 1 Phase                                          | 400V<br>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<br>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<br>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         |
| Three Phase Output Selected by Motor             |                    |             |                    |                    |                   |                    |                   |                  |                  |                  |                  |                  |                   |                    |                    |                    |
| 3 Phase                                          | 480V<br>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<br>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<br>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@mtecorp.com](mailto:appengrg@mtecorp.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<br>22.0 kW                               | 40.0 HP<br>30.0 kW | 50.0 HP<br>37.5 kW | 60.0 HP<br>45.0 kW | 75.0 HP<br>55.0 kW | 100.0 HP<br>75.0 kW | 125.0 HP<br>93.0 kW | 150.0 HP<br>112.0 kW | 200.0 HP<br>150.0 kW | 250.0 HP<br>187.0 kW | 300.0 HP<br>225.0 kW | 350.0 HP<br>262.0 kW | 400.0 HP<br>300.0 kW | 500.0 HP<br>375.0 kW | 600.0 HP<br>450.0 kW | 700.0 HP<br>550.0 kW | 800.0 HP<br>600.0 kW |
|--------------------------------------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Three Phase Input Applications Selected by Motor |                    |                    |                    |                    |                     |                     |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| 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           |
| Single Phase Input Applications                  |                    |                    |                    |                    |                     |                     |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| 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           | -                    | -                    | -                    | -                    |
| Three Phase Output Selected by Motor             |                    |                    |                    |                    |                     |                     |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| 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 [mtecorp.com](http://mtecorp.com) for detailed information.

| NEMA 1/2    |              |         |                          |            |
|-------------|--------------|---------|--------------------------|------------|
| Part Number | Weight (lbs) | Cabinet | Size (in)<br>(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          |

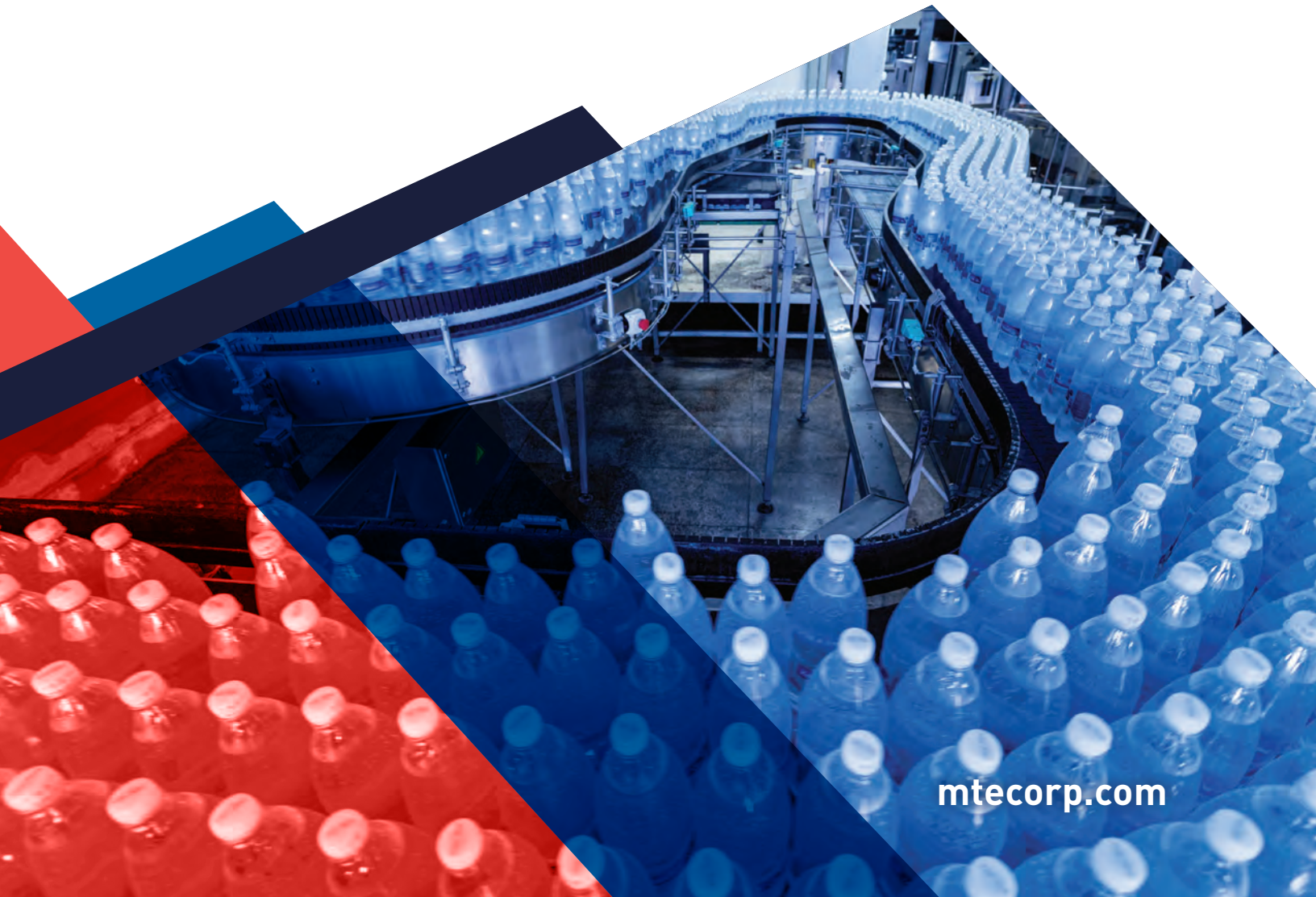
| NEMA 1/2    |              |          |                          |            |
|-------------|--------------|----------|--------------------------|------------|
| Part Number | Weight (lbs) | Cabinet  | Size (in)<br>(H x W x D) | Ref Figure |
| RLW-004615  | 38           | CAB-13V  | 13.2 x 13.2 x 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.



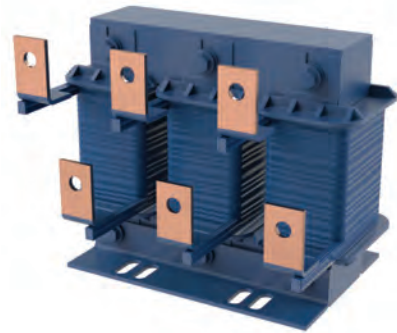
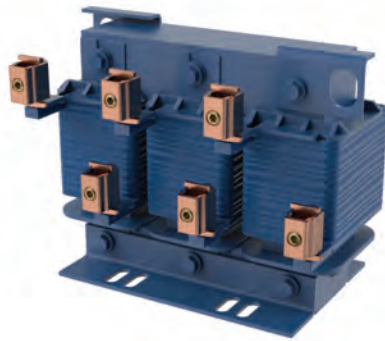
# Reactors

Product Catalog



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

# We set the benchmark for power quality.



MTE RL and RLW line/load reactors and DC link chokes are well-known for their outstanding performance and robustness. With their long-established history of proven reliability, these products are unmatched in their ability to absorb power line disturbances that can cause damage to sensitive equipment such as Variable Frequency Drives (VFDs), motors, and more.

By reducing nuisance tripping, minimizing long lead effects, and lowering harmonic distortion, MTE line/load reactors and DC link chokes can significantly enhance productivity, making them the best-in-class choice for customers.

**Improve power quality. Enhance productivity. Increase your bottom line.**



# Contents

## Reactors

### Why Use a Reactor?

Learn the benefits of using a reactor

2

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

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

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### DC Link Chokes

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

20

# WHY Use A Reactor?

MTE's versatile family of reactors offer many benefits on both the line or load side of a VFD. With their impressive capability to reduce harmonic levels by almost 50%, these reactors serve as a reliable and cost-effective safeguard against power line disturbances, surge currents, and voltage distortions—an invaluable insurance policy for uninterrupted power quality and enhanced operational stability.





## Benefit 1: Equipment Protection

MTE line/load reactors offer equipment protection by limiting inrush currents, preventing damage from start-up or load changes, and reducing voltage transients, extending equipment life and minimizing downtime risk.



## Benefit 2: Harmonic Mitigation

MTE line/load reactors effectively reduce harmonic distortion in electrical systems, maintaining a cleaner power supply and protecting sensitive equipment.



## Benefit 3: Voltage Stabilization

MTE line/load reactors provide impedance to the system, smoothing out voltage spikes and sags, ensuring a stable voltage supply, and enhancing equipment reliability.



## Benefit 4: Power Loss Reduction

MTE line/load reactors minimize power losses by improving power factor and reducing reactive power flow, resulting in energy savings and potential cost reduction.

### RLW or RL - Which reactor should I use?

|                                              | RLW | RL |
|----------------------------------------------|-----|----|
| Concerned About Size                         | ✓   |    |
| Concerned About Weight                       | ✓   |    |
| Concerned About Watts Loss                   |     | ✓  |
| Application FLA rating >750A                 |     | ✓  |
| Reactor required on both line and load side  | ✓   | ✓  |
| Reactor Needs To Be Robust (Handle Overload) |     | ✓  |
| Need To Be Price Competitive                 | ✓   |    |

# Reactors

## RL Reactors

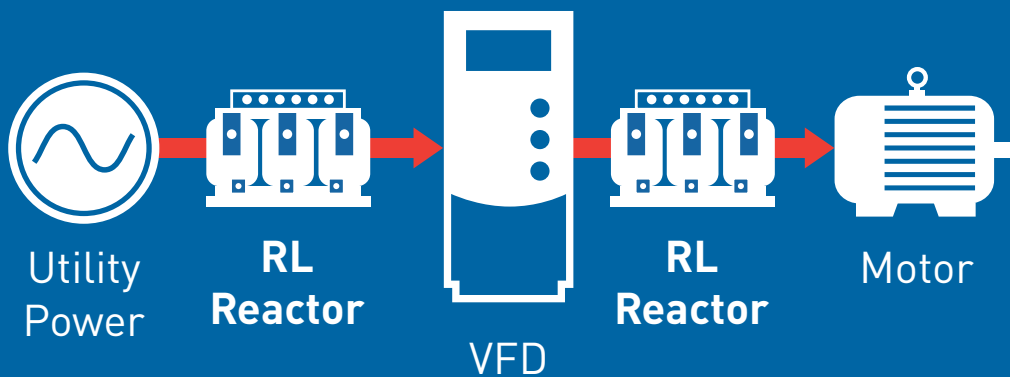
Best-in-class power quality units for absorbing power line disturbances

## 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



- **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 unequaled 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%).

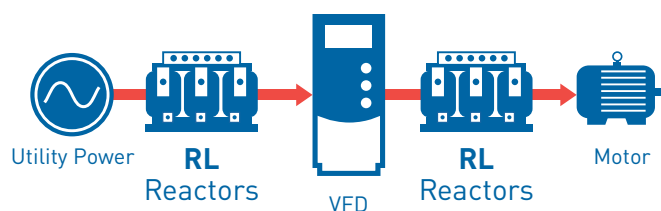
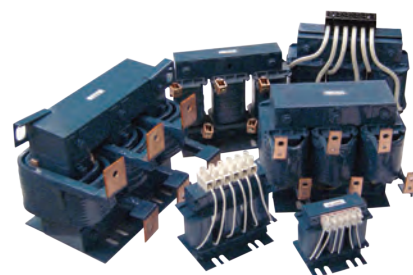
**Robust design and construction** for unequalled filtering of power line disturbances.

**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

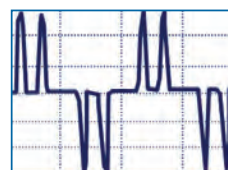


### Performance Specifications

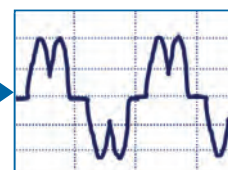
| Impedance Levels                  | 1.5%, 3% and 5%                                                                                 |
|-----------------------------------|-------------------------------------------------------------------------------------------------|
| Continuous Service Factor         | Reactors rated 1 to 750 Amps – 150% of rating<br>Reactors rated above 750 Amps – 125% of rating |
| Overload Rating                   | 200% of rated for 30 minutes<br>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<br>100% at 150% Current<br>50% at 350% Current                             |

Final product specifications subject to change at any time.

#### MTE Input Reactor

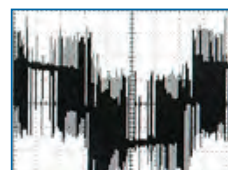


Waveform without reactor

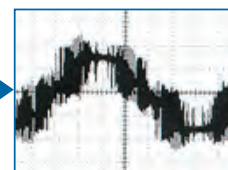


Waveform with reactor

#### MTE Output Reactor

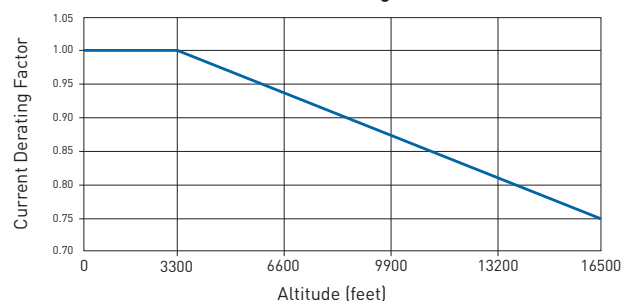


Waveform without reactor



Waveform with reactor

#### Altitude Derating Curve



## ENCLOSURES

FIGURE 1

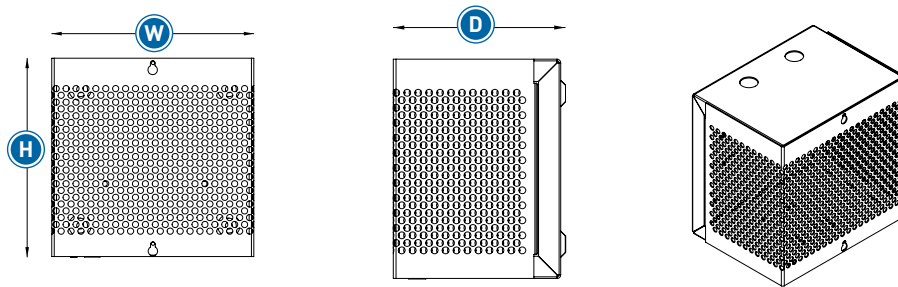
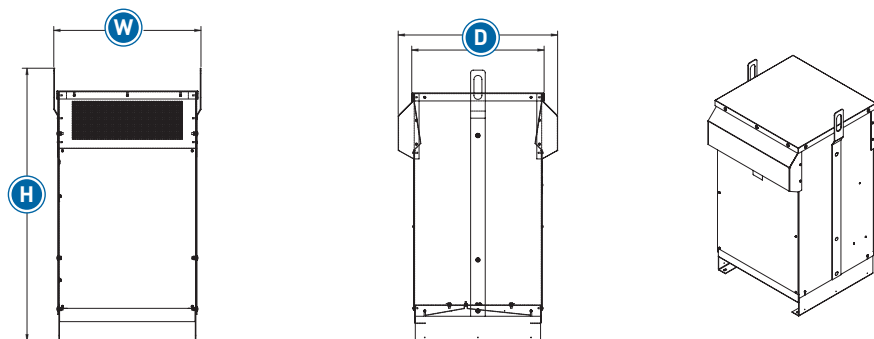
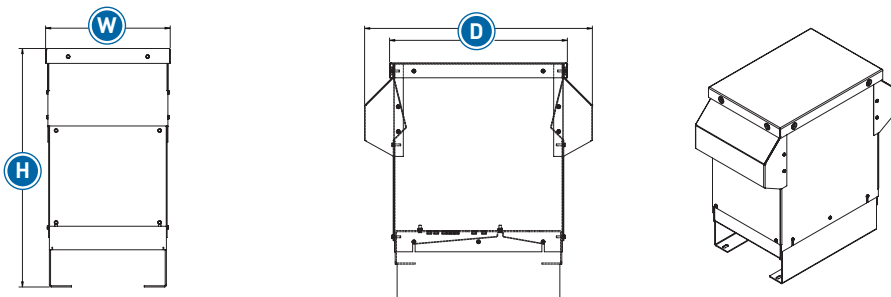


FIGURE 2



NOTE: HOODS  
ONLY ON NEMA  
3R ENCLOSURES

FIGURE 3



NOTE: HOODS  
ONLY ON NEMA  
3R ENCLOSURES

FIGURE 4

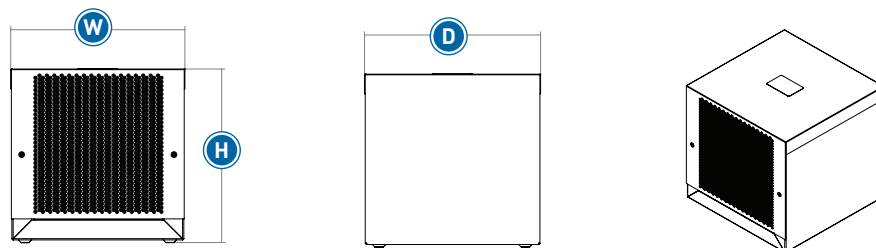
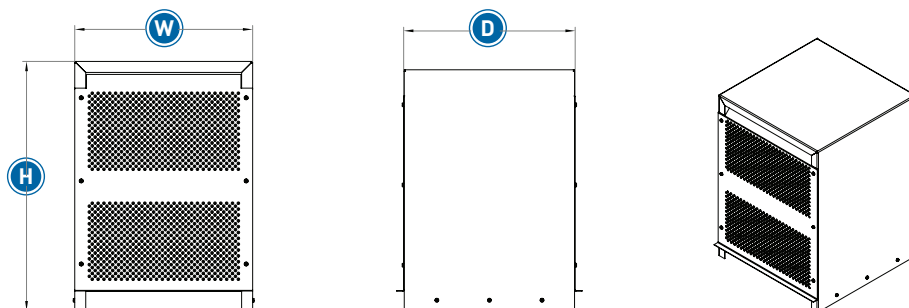


FIGURE 5



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

# Reactors

## RL Reactors

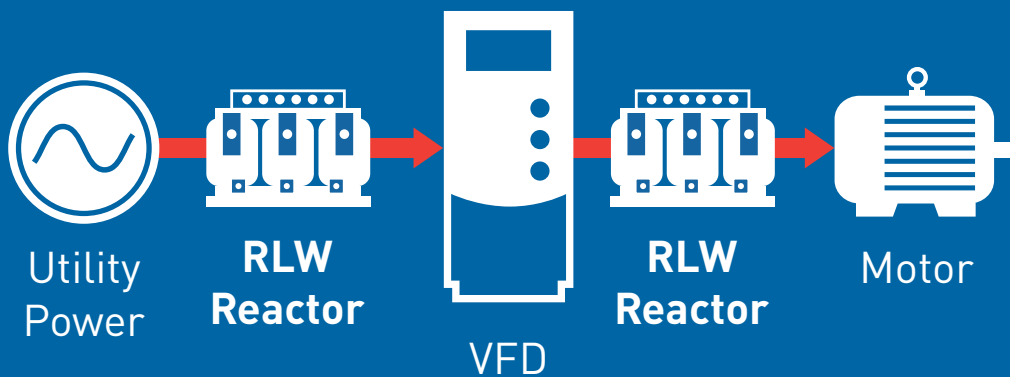
Best-in-class power quality units for absorbing power line disturbances

## RLW Reactors

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

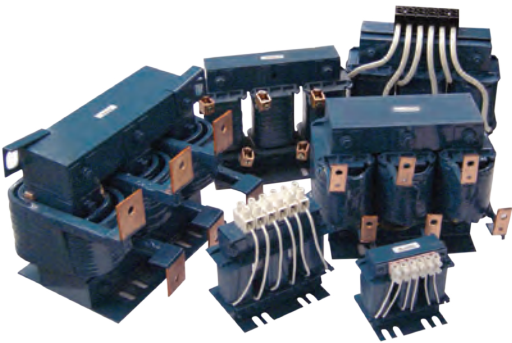
## DC Link Chokes

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





# RLW Reactors



- **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%.

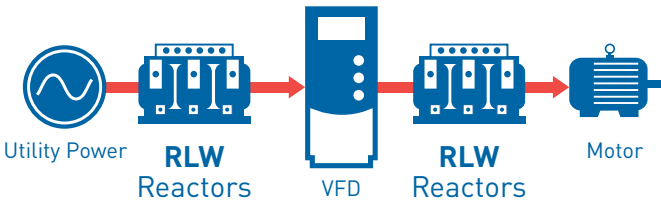
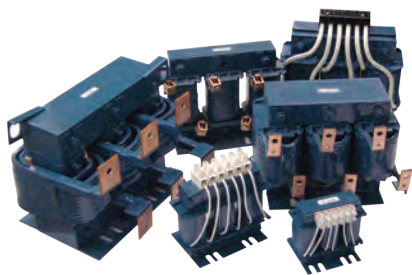
**Smaller size and weight** makes these units ideal for OEMs, integrators and panel builders.

**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.

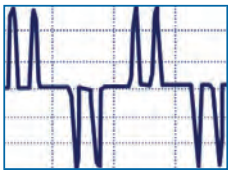
## RLW Reactors



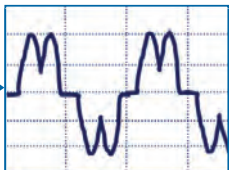
| Performance Specifications        |                                                                      |
|-----------------------------------|----------------------------------------------------------------------|
| Impedance Levels                  | 1.5%, 3% and 5%                                                      |
| Continuous Service Factor         | 100%                                                                 |
| Overload Rating - Line Side       | 150% of RMS rating for 1 minute<br>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<br>80% at 150% Current<br>50% at 200% Current   |

Final product specifications subject to change at any time.

### MTE Input Reactor

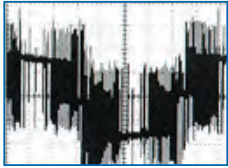


Waveform without reactor

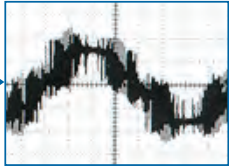


Waveform with reactor

### MTE Output Reactor

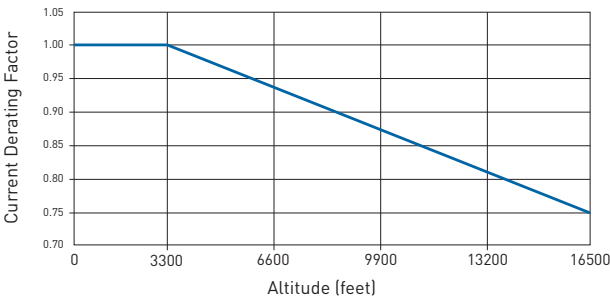


Waveform without reactor

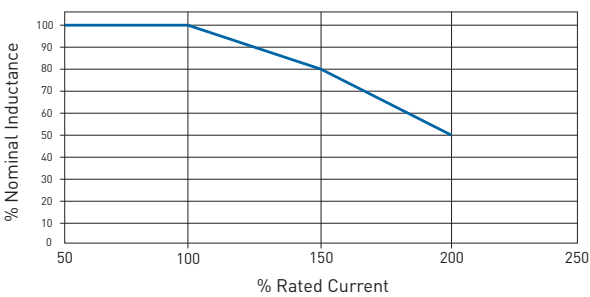


Waveform with reactor

Altitude Derating Curve



RLW Inductance Curve



## ENCLOSURES

FIGURE 1

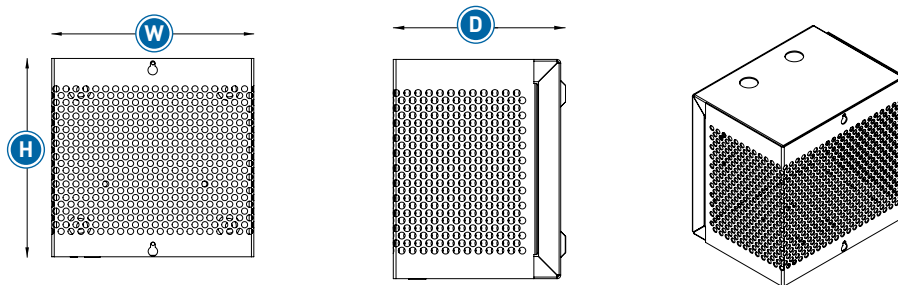
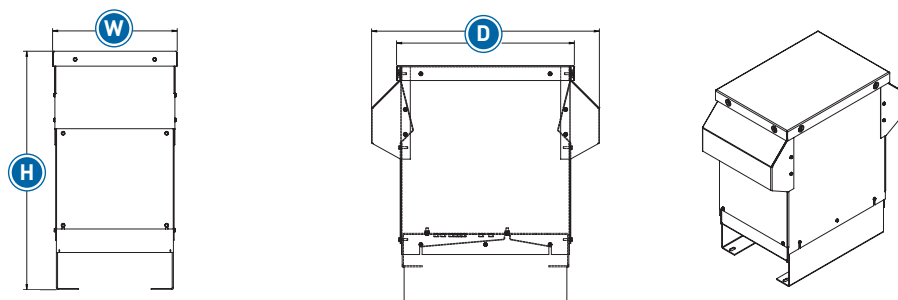


FIGURE 2



NOTE: HOODS  
ONLY ON NEMA  
3R ENCLOSURES

FIGURE 3

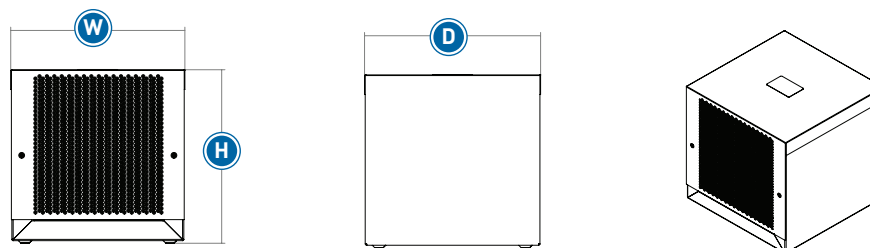
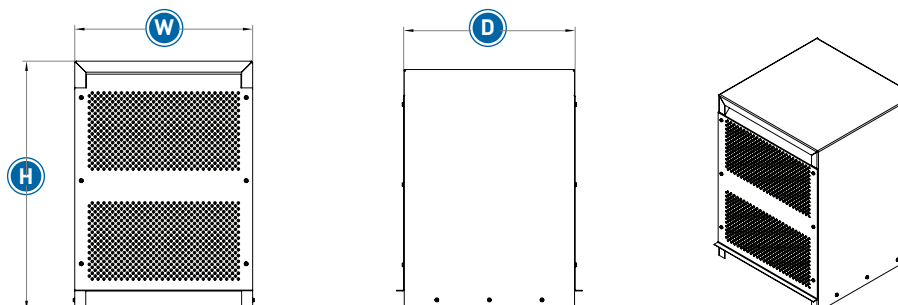


FIGURE 4



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

## Reactors

### RL Reactors

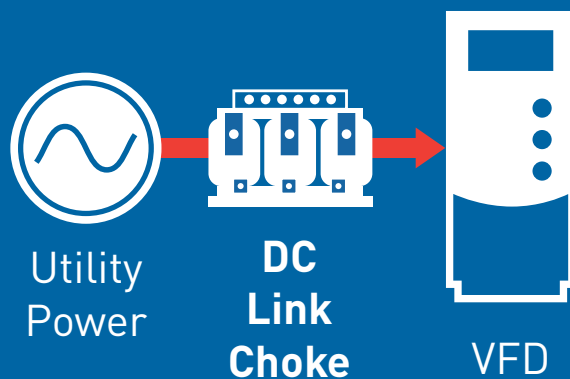
Best-in-class power quality units for absorbing power line disturbances

### 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



## Reactors

### RL Reactors

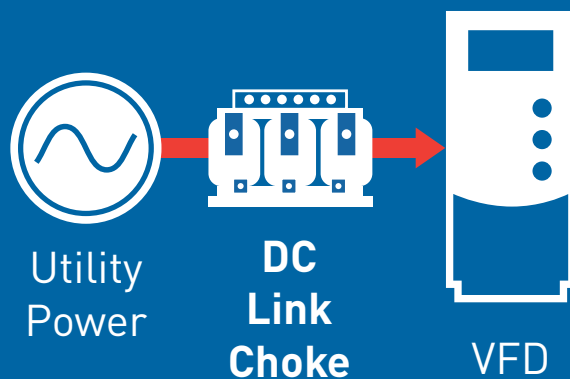
Best-in-class power quality units for absorbing power line disturbances

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# DC Link Chokes



- **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

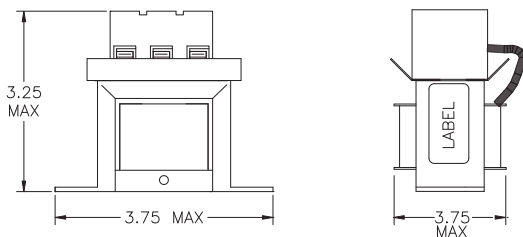


FIGURE 2

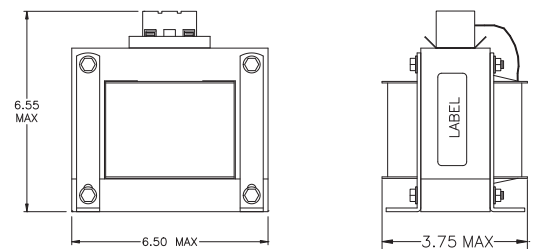


FIGURE 3

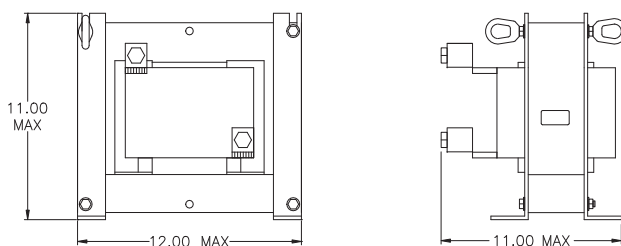
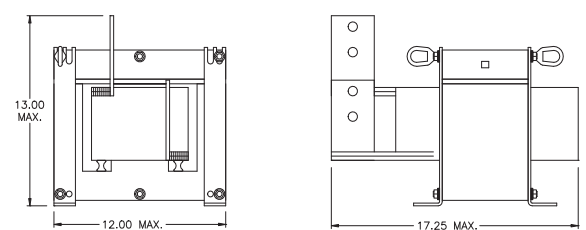


FIGURE 4



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

# Our Products

## REACTOR PRODUCTS



### 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.



### RLW Reactors

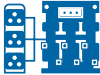
The RLW family of line and load reactors provides an engineered solution to protect electrical systems against harmful and annoying power distortions.



### DC Link Chokes

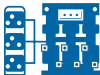
Designed to be added to a VFD's internal bridge and bus, DC Link Chokes help reduce AC input line current harmonic distortion while absorbing DC bus voltage spikes.

## HARMONIC MITIGATION FILTERS



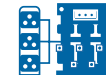
### Matrix® AP

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



### Matrix® ONE

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



### Matrix® E-Series

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

## MOTOR PROTECTION FILTERS



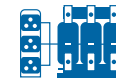
### dV E-Series

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



### dV Sentry®

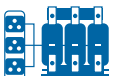
The dV Sentry® and its patented Triple Defense Core is proven to reduce common mode, protect against peak voltage, and reduce rise time – all-in-one unit.



### SineWave Guardian®

This best-in-class filter cleans up the PWM waveforms generated by VFDs. It virtually eliminates high frequency content and voltage peaks to reduce motor downtime.

**\*Also available for High Frequency and Permanent Magnet Motors**



### SineWave Nexus®

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



### microNexus™

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

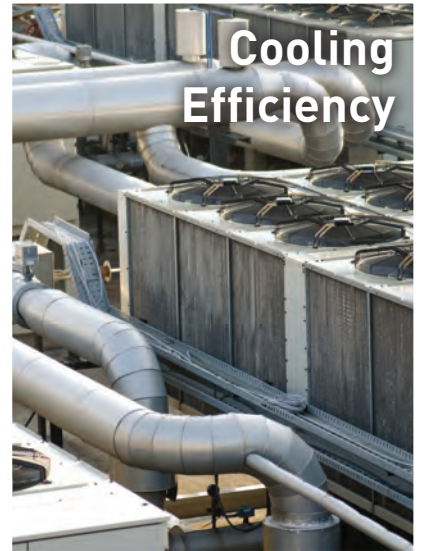
## Energy Resilience



## Cloud Uptime



## Cooling Efficiency



## Expedited Delivery



## Trusted by leading industries.

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

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

## Supply Assurance



## Food Safety



## Production Uptime



# Reactors

Product Catalog



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