

# Trane® Packaged Drive Solutions



## 12-Pulse & 18-Pulse Low Harmonic Solutions

Compact, cost-effective and completely integrated system solutions for applications requiring enhanced harmonic control. Packages seamlessly combine the reliability and advanced performance of the TR200 drives with best in class 12 & 18 pulse harmonic reduction technology. The result is a complete solution from the supplier you trust.

### Low Harmonic Solution Benefits

- Meet IEEE 519-1992 at drive input terminals (18-pulse)
- Help meet IEEE 519-1992 at the system level
- Improved total power factor
- No external filters or transformers needed
- Improves overall electrical system efficiency

### Package Features

#### Product Range

- 460-480vac +/-10%
- 15 to 250HP
- -10 to +40 degrees C (14-104F)

#### Package configurations

- Main fused disconnect
- Main fused disconnect, vfd fusing, 3-contactor bypass, advanced relay logic including; common start / stop in vfd and bypass mode, automatic bypass on vfd failure, run permissive circuit in vfd and bypass modes, and under voltage protection in bypass
- Add reduced voltage solid state soft starter to any bypass configuration

#### Enclosure Options

- All enclosures Heavy-Duty style free standing
- UL Type 1
- UL Type 12
- UL Type 3R outdoor



#### Performance Range

480 volt, 15 to 250 hp

#### Enclosures

NEMA 1, 12, 3R

## Best In Class Designs:

### All Units

Each unit will ship completely assembled in a free standing Heavy Duty Type enclosure labeled as conforming to UL Type 1, Type 12, or Type 3R environmental protection as required by the installation. Units will be ready for simple four-wire-in and four-wire-out power connecting. The entire package will comply with and be labeled as conforming to UL 508A, Industrial Control Panel.

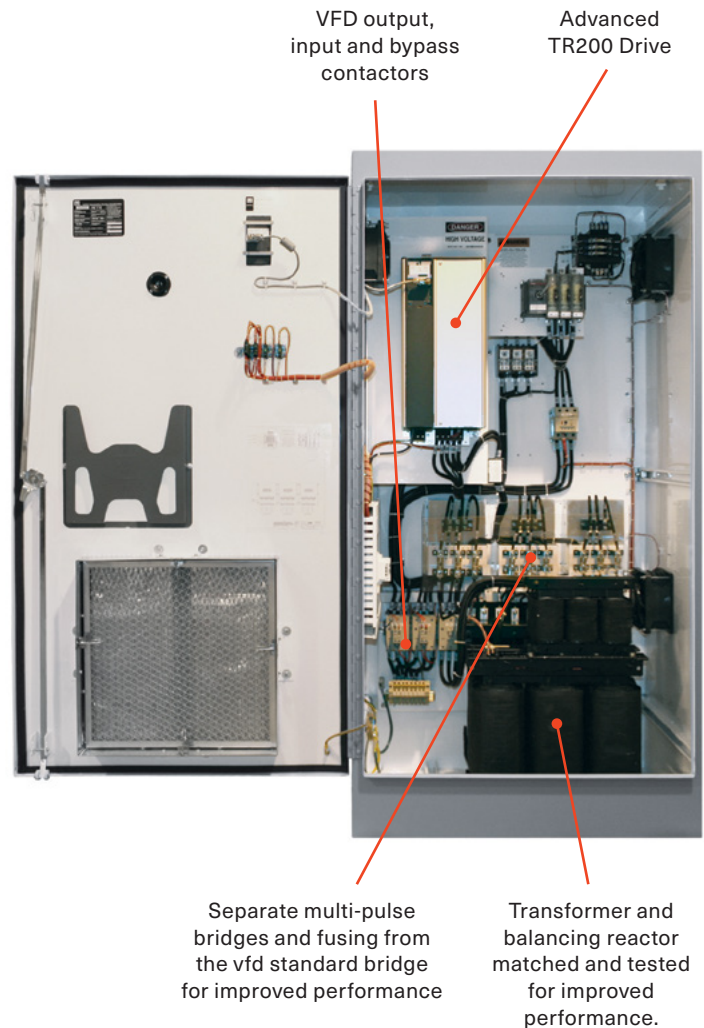
### 12-Pulse

All 12-pulse units include two 6 diode bridge inputs. These bridges are separate from the vfd's standard 6-pulse bridge to ensure appropriate load sharing and harmonic reduction. Feeding these inputs will be an electro-statically shielded phase shifting drive isolation transformer.

### 18-Pulse

All 18-pulse units include three 6 diode bridge inputs. These bridges are separate from the vfd's standard 6-pulse bridge to ensure appropriate load sharing and harmonic reduction. Feeding these inputs will be an auto-transformer with the following design criteria:

- Automatic shutdown with loss of a leg.
- Integral high impedance line reactor mated with the transformer by the transformer manufacture to ensure performance.
- Newest design topology that will perform as designed on a phase unbalance of up to 2%. Older design topologies have less performance on voltage unbalance, usually specified as 1/2% unbalance.
- Thermal switch on each transformer coil.



For more information, contact your local Trane office or e-mail us at [comfort@trane.com](mailto:comfort@trane.com)

Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.



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