### Warnings and Cautions

Warning	Dangerous Voltage Warning: warns of situations in which a high voltage can cause injury and/or equipment damage The text next to this symbol describes ways to avoid danger.
Warning	General Warning: warns of situations that can cause physical injury and/ or equipment damage by means other than electrical. The text next to this symbol describes ways to avoid the danger.

**General Safety Instructions** 

Warning	Be sure to read, understand, and follow all safety instructions. Only qualified electricians should carry out all electrical installation and maintenance work on capacitor bank.
Warning	All wiring must be in accordance with the National Electrical Code (NEC) and/or any other codes that apply to the installation site.
Warning	Disconnect all power before working on the equipment. Do not attempt any work on a powered capacitor bank.
Warning	The capacitor bank and other connected equipment must be properly grounded.
Warning	The terminals and connected cables are at a dangerously high voltage when power is applied.
Warning	Ensure bleeder resistors are installed across terminals of capacitors. If not installed, hazardous voltages will be present across terminals of capacitors after circuit power has been shut off. Use a meter to check voltage across capacitors before working on a KPC assembly.

## Torques to be used when rating is not marked explicitly on connection block

# 240V 12 kVAR 2/0 AWG - 8 AWG, 35.5 lb - in 25-30 kVAR 2/0 AWG - 4 AWG, 35 lb - in all other kVARs 1 AWG - 4 AWG, 35 lb - in 6 AWG - 14 AWG, 30 lb - in

400V							
1 kVAR to 31.93 kVAR	1 AWG - 4 AWG, 35 lb - in 6 AWG - 14 AWG, 30 lb - in						
37.73 kVAR to 63.85 kVAR	2/0 AWG - 8 AWG, 35.5 lb - in						
81.27 kVAR to 101.6 kVAR	350 kcmil - 3/0 AWG, 230 lb - in						
127.7 kVAR to 162.5 kVAR	2 x 300 kcmil - 2 x 4 AWG, 275 lb - in						

#### 480V

0.9 to 30 kVAR	1 AWG - 4 AWG, 35 lb - in 6 AWG - 14 AWG, 30 lb - in		
40 to 90kVAR	2/0 AWG - 8 AWG, 35.5 lb - in		
105to 150 kVAR	350 kcmil - 3/0 AWG, 230 lb - in		
above 150 kVAR	300 kcmil - 4 AWG, 275 lb - in		

# 600V

5 to 45 kVAR	1 AWG - 4 AWG, 35 lb - in 6 AWG - 14 AWG, 30 lb - in
60 to 105 kVAR	8 - 2/0 AWG, 35.5 lb - in
120 to 180 kVAR	3/0 AWG - 350 kcmil, 230 lb - in
above 180 kVAR	4 AWG - 300 kcmil, 275 lb - in



W132 N10611 Grant Drive Germantown, WI 53022 Ph: 800-TCI-8282 | transcoil.com







# KPC Capacitor Bank Installation Instructions





W132 N10611 Grant Drive Germantown, WI 53022 Ph: 800-TCI-8282 | transcoil.com

# **KPC Capacitor Bank Installation Instructions**

INPUT

When installing the KPC capacitor bank on the INPUT side of the Variable Frequency Drive (VFD) or induction motor, please use the following guidelines when wiring the unit:

- The KPC capacitor bank is wired in parallel with the load.
- Refer to NEC wiring practices for appropriate wire sizes for your application.
- Power Wiring: Only use 75°C copper conductors unless the wire connector is marked for Al/Cu, then the use of aluminum wire is permitted.
- In standard 40°C ambient or less installations, a clearance of 3 inches on all sides of the capacitor bank and its enclosure is recommended for assisting in heat dissipation and ample wire bending space.
- Assemblies with 3-phase capacitor cans must be mounted to a vertical panel with capacitors terminals facing up. Use top and bottom panel mounting holes for sufficient support.



# **Product Specifications**

- ► 3-phase, 600 Volt Class
- ► UL Listed; File E-116124
- ► kVAR rated device
- Ambient Temperature: 40°C Max

Wiring: KPC has 3 power terminals, 1 for each phase of 3-phase circuit. Wire in any order.





	Up through 40 kVAR	80 kVAR	180 kVAR	240 kVAR	300 kVAR
H (in.) for encl	17.4	28.0	52.0	70.0	72.0
W (in.) for encl	17.0	17.0	17.0	20.0	36.0
D (in.) for encl	12.3	12.3	16.3	20.0	24.0
Vent Area top (in <sup>2</sup> )	24.0	55.0	76.0	57.5	75.0
Vent Area bottom (in <sup>2</sup> )	21.0	10.0	28.5	50.0	112.5

# **Field Wiring Information**

Below are typical wiring diagrams for the 3-phase KPC applied to the Variable Frequency Drive (VFD) or motor.



