



# *VEXP*SERIES

***NEMA PREMIUM - EXPLOSION PROOF MOTOR***

*EXd - NEMA Std*

*CLASS I, DIV 1, GROUP C, D*

*CLASS II, DIV 1, GROUP E, F, G*



**VERSA CORPORATION PTY LTD  
AUSTRALIA**



# EXPLOSION PROOF MOTORS



- UL Listed  
Class I, Division I Groups C & D  
and Class II Division I, Groups E, F and G



Dual Rated Nameplate  
60Hz @ 1.15 SF  
50Hz @ 1.0 SF

NEMA Premium  
Efficient

Operating Temperature  
Code T3C

NEMA Design B

Heavy Duty  
FC 200 Cast Iron  
Construction

Greasable  
Bearing Used on  
Both Drive End  
and Opposite  
Drive End from  
254T to 449T

Heavy Gauge Steel  
Fan Cover - Cast  
Iron Fan Cover  
Available as Option

Shaft is made of  
1045 Carbon Steel

Oversized  
Conduit Box

Class F Insulation  
System with Class H  
VPI Epoxy Resin  
Protection

Totally Enclosed Explosion Proof  
(TEXP) Protection

Double Punched  
Foot Design

PTC Thermistor as  
Standars



## APPLICATIONS:

General Purpose Use on Pumps, Fans, Blowers, Compressors, Material Handling and Other Industrial Machinery Installed in Damp, Dusty or Dirty Environments. These Motors are Designed to be Used in Hazardous Locations as Defined by Class and Groups.



## Hazardous Area Explanation of Classes and Divisions

DESIGNATION	EXPLANATION
Class 1	Flammable Gases, Vapors or Liquids (Eg. Chemical Refinery, etc)
Class 2	Combustible Dusts (Eg. Sugar Mill, Grain Elevator, etc)
Class 3	Easily Ignitable Fibers (Eg. Cotton Lint Textile Mill, etc)
Division 1	Exists / Manufactured
Division 2	Not Exists / Stored

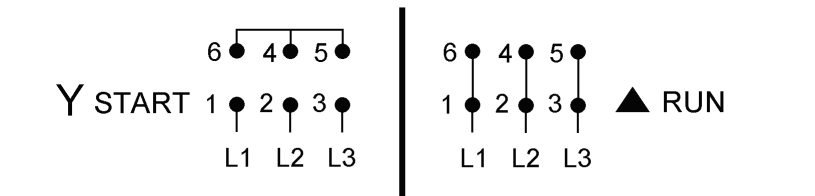
DESIGNATION	EXPLANATION
Class 1, Division 1	Where Flammable Gases, Vapors or Liquids can exist all of the time or some of the time under normal operating conditions
Class 1, Division 2	Where ignitable concentrations of flammable gases, vapors or liquids are not likely to exist under normal operating conditions.
Class 2, Division 1	Where ignitable concentrations of combustible dusts can exist all of the time or some of the time under normal operating conditions
Class 2, Division 2	Where ignitable concentrations of combustible dusts are not likely to exist under normal operating conditions.
Class 3, Division 1	Where easily ignitable fibers or materials producing combustible dust/fibers are handled, manufactured or used
Class 3, Division 2	Where easily ignitable fibers are stored and handled

Temperature Class	T1	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Max Temp °C	450	300	280	260	230	215	200	180	165	160	135	120	100	85

GAS GROUP	EXAMPLE GAS
Group A	Acetylene
Group B	Hydrogen
Group C	Ethylene
Group D	Methane, Propane

DUST GROUP	EXAMPLE DUST	TEMPERATURE LIMIT	EXAMPLE GAS
		Normal Operations	Abnormal Operations
Group E	Metal Dust	200°C	200°C
Group F	Coal Dust	150°C	200°C
Group G	Grain Dust	120°C	165°C

**Motor Wiring Diagram**  
**WYE Start - Delta Run**  
**Single Voltage Motors**  
 or  
**Dual Voltage Motors on Low Voltage Only**



SINGLE VOLTAGE MOTOR: START ON Y, RUN ON ▲. ALSO SUITABLE FOR FULL VOLTAGE ACROSS THE LINE START ON ▲ CONNECTION.

EACH LEAD MAY CONSIST OF ONE OR MORE CABLES HAVING THE SAME LEAD NUMBER.

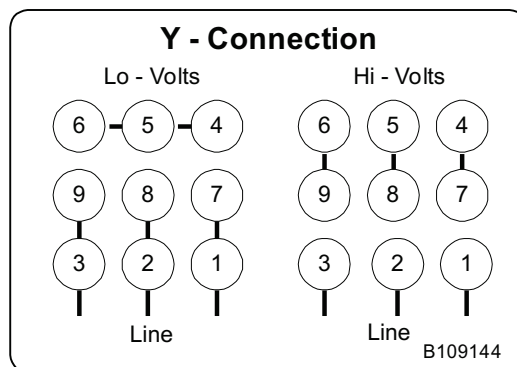
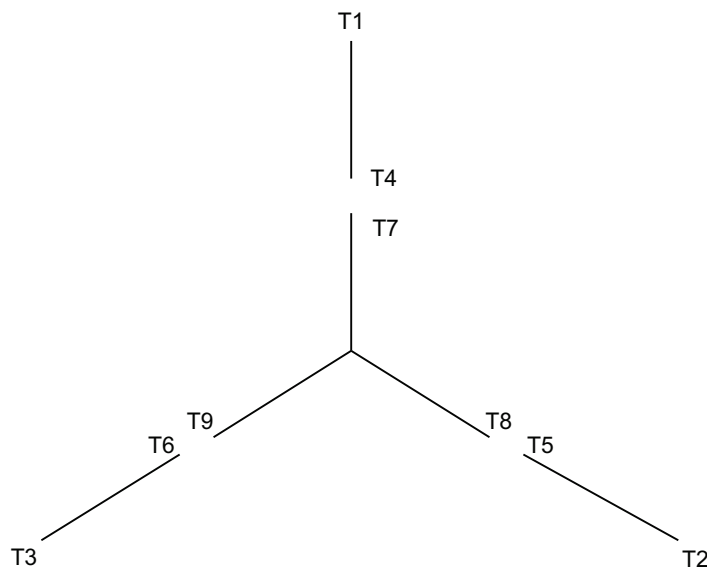
Per NEMA MG1 1998- 1.76, "A Wye Start, Delta Run motor is one arranged for starting by connecting to the supply with the primary winding initially connected in wye, then reconnected in delta for running condition." This is accomplished by a special Wye- Delta starter configuration using six leads from the motor and is intended to limit the inrush current required to start the motor.

Motors designed by VERSA for Wye start, Delta Run may also be used for across the line starting using only the Delta connection. Damage will occur if the motor is operated with load for more than 30 seconds on the Wye without transition to Delta.

To reverse direction of rotation, interchange leads L1 & L2.

Each lead may have one or more cables comprising that lead. In such case, each cable will be marked with the appropriate lead number.

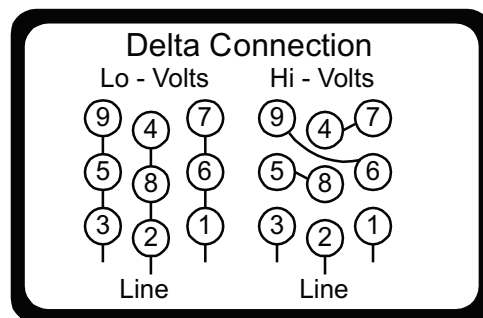
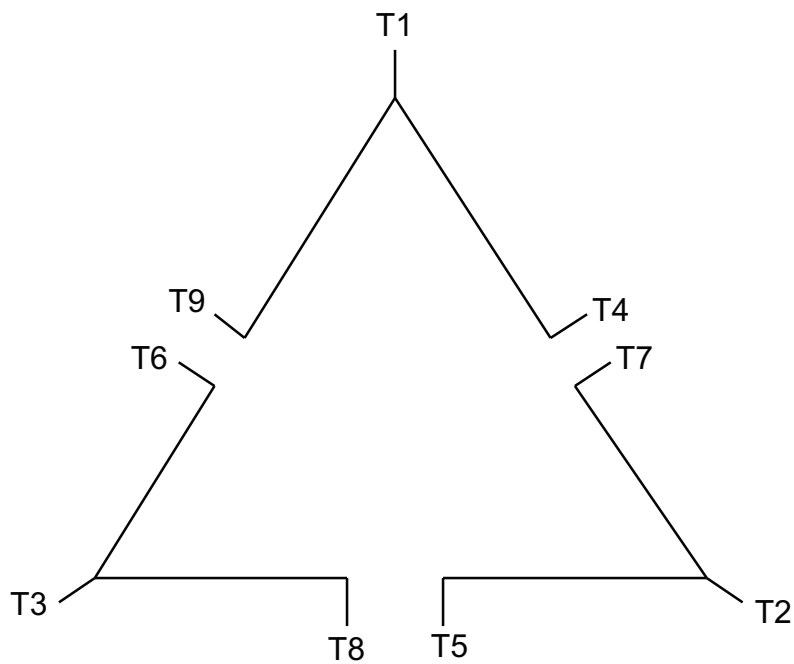
**Motor Wiring Diagram L**  
**9 lead, Dual Voltage (WYE Conn.)**



To reverse direction of rotation interchange connections L1 and L2.

Each lead may have one or more cables comprising that lead.  
 In such case each cable will be marked with the appropriate lead number.

**Motor Wiring Diagram L**  
**9 lead, Dual Voltage (DELTA Conn.)**



To reverse direction of rotation interchange connections L1 and L2.

Each lead may have one or more cables comprising that lead.  
 In such case each cable will be marked with the appropriate lead number.