

## Single Phase Power Distribution

The internal DC logic power supply of SAC-E series servodrives is powered and connected at terminals "r" and "t". For proper operation, the factory AC power source for "r" must derive from the same phase which supplies the main power at terminal "R". This applies to "t" and "T", they must both derive from their own AC power phase.

"R", "r" and L1 (on the Generation III controller) must be connected to one incoming line. Likewise, "T", "t" and L2 must be connected to a second incoming line. This wiring arrangement is shown in the Generation III controller manual (GN3-40e appendix B2) and the SAC-E Series Servodrive manual (SAC-E01a appendix A1).

**Failure to comply with the above can prevent the drive from enabling, or make the motor unable to run at maximum speed, and may cause permanent damage to the drive.**

Single Phase,  
last number in part number tells voltage.  
1 = 100-115 VAC  
2 = 200-230 VAC

### Main Circuit Breaker (MCCB)

**VTG** - Speed Monitor  
Bi-directional, 2.0v/kRPM  
**SG** - Signal Ground  
**T-MON** - Torque Monitor  
Bi-directional, 3.0v/100%rated torque

### ALARM Status Display

CN1 - To ORMEC DSP

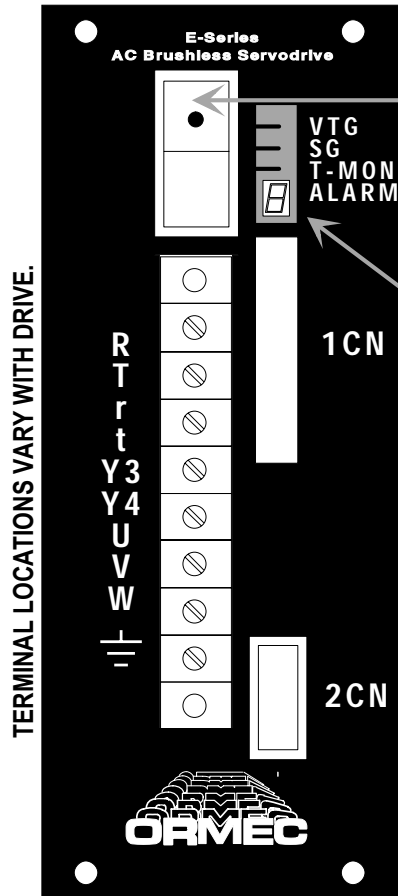
CN2 - To Motor Encoder

### Motor Cable

**U** - RED  
**V** - WHITE  
**W** - BLACK  
**Ground** - SILVER & GREEN

Terminal Locations vary with drive.

**R T** - Main Power  
**r t** - Control / Logic Power  
**Y3 Y4** - Regen Resistor Option



For more detail, refer to " Maintenance and Troubleshooting" section in the E-Series Manual .

ALARM Status Description

ALARM	Status	Description
.	Normal Operation	Servodrive is enabled and operating normally.
-	Servo Disabled	Base current is interrupted in the output circuitry.
1.	Overcurrent	Excess current in the main circuit (1.2 times the instantaneous max. current or more).
2.	Main Circuit Breaker Tripped	Main circuit breaker (MCCB) is tripped.
3.	Regeneration Problem	Regeneration circuit not operating properly, or excess regeneration
4.	Overvoltage	Excessive DC voltage in the bus power supply (approximately 420 vdc or more)
5.	Overspeed	Actual Motor speed is 20% over Maximum speed.
6.	Low Voltage	Low DC voltage in the bus power supply after Power ON
7.	Overload	Overload condition of the motor and servodrive
8.	A/D Error	Component problem on the printed circuit board of the servodrive
T.	Overrun Prevention	Alarm occurs only during acceleration with Motor Speed>120% of max. speed, and Motor Torque>120% rated torque, (Same Torque and Speed Direction)
11.	CPU Error	Any error in the servodrives microprocessor CPU.
12.	Optical Encoder Signal Error	The pole-sensor signals (PU, PV, PW) are out of phase .
13.		The pole-sensor signals are either all high logic level, or all low logic level.
14.	Forward Torque Inhibit	Servodrive forward torque enable signal not present.
15.	Reverse Torque Inhibit	Servodrive reverse torque enable signal not present

