Wiring Specifications

Refer to the following steps for details on power and accessory wiring for the operator.

⚠ WARNING ⚠

ALL AC ELECTRICAL CONNECTIONS TO THE POWER SOURCE AND THE OPERATOR MUST BE MADE BY A LICENSED ELECTRICIAN AND MUST OBSERVE ALL NATIONAL AND LOCAL ELECTRICAL CODES.

USE COPPER WIRE ONLY!

AC Power Wiring

1. Find the listing on this page corresponding to the model, voltage and horsepower rating of your operator.
2. The distance shown in the table is measured in feet from the operator to the power source. **DO NOT EXCEED THE MAXIMUM DISTANCE.** These calculations have been based on standard 115 V and 230 V supplies with a 10% drop allowable. If your supply is under the standard rating, the runs listed may be longer than what your application will handle, and you should not run wire too near the maximum distance for the gauge of wire you are using.
3. When large-gauge wire is used, a separate junction box (not supplied) may be needed for the operator power connection.
4. Wire length calculations are based on the National Electrical Code, Article 430 and have been carefully determined based on motor inrush, brake solenoids, and operator requirements.
5. Connect power in accordance with local codes. **The green ground wire must be properly connected.**
6. Wire insulation must be suitable to the application.
7. Electrical outlets are supplied in all 115 VAC models for convenience with occasional use or low power consumption devices only. If you choose to run dedicated equipment from these devices, it will decrease the distance for maximum length and the charts will no longer be accurate.

DC Control and Accessory Wiring

1. **All control devices are now 24 VDC, which can be run up to 2000 feet with 14 AWG wire.**
2. Control wiring must be run in a separate conduit from power wiring. Running them together may cause interference and faulty signals in some accessories.
3. A three-wire shielded conductor cable is required to connect two operators together for dual operation. You must use Belden 8760 Twisted Pair Shielded Cable (or equivalent) only – P/N 2500-1982, per foot). See Page 21 for details of this connection. **Note: The shield wire should be connected in both the operators.**

MODEL VS-GSWG SINGLE PHASE POWER WIRING

VOLTS & HP	MAXIMUM DISTANCE (FEET)		WIRE GAUGE
	SINGLE	DUAL	
115 VOLTS 1/2-HP	222	111	12
	354	177	10
	566	283	8
	900	450	6
	1430	715	4
115 VOLTS 3/4-HP	178	89	12
	282	141	10
	450	255	8
	716	358	6
	1140	570	4
115 VOLTS 1-HP	160	80	12
	254	127	10
	406	203	8
	646	323	6
	1026	513	4
208 VOLTS 1/2-HP	760	380	12
	1200	600	10
	1924	962	8
	3060	1830	6
	4864	2432	4
208 VOLTS 3/4-HP	604	302	12
	958	478	10
	1526	763	8
	2424	1212	6
	3856	1928	4
208 VOLTS 1-HP	544	272	12
	864	432	10
	1374	686	8
	2184	1092	6
	3476	1738	4
230 VOLTS 1/2-HP	894	447	12
	1422	711	10
	2264	1132	8
	3600	1800	6
	5724	2862	4
230 VOLTS 3/4-HP	710	355	12
	1128	564	10
	1796	898	8
	2852	1426	6
	4538	2269	4
230 VOLTS 1-HP	640	320	12
	1016	508	10
	1616	808	8
	2570	1285	6
	4090	2045	4

MODEL VS-GSWG THREE PHASE POWER WIRING

VOLTS & HP	MAXIMUM DISTANCE (FEET)		WIRE GAUGE
	SINGLE	DUAL	
208 VOLTS 1/2-HP	1142	571	12
	1816	908	10
	2890	1445	8
208 VOLTS 3/4-HP	920	460	12
	1464	732	10
	2330	1165	8
208 VOLTS 1-HP	714	357	12
	1136	568	10
	1804	902	8
230 VOLTS 1/2-HP	1344	672	12
	2137	1069	10
	3400	1700	8
230 VOLTS 3/4-HP	1084	542	12
	1723	862	10
	2741	1371	8
230 VOLTS 1-HP	840	420	12
	1336	668	10
	2124	1062	8
460 VOLTS 1/2-HP	3841	1921	12
	6106	3053	10
	9712	4856	8
460 VOLTS 3/4-HP	3279	1640	12
	5212	2606	10
	8291	4146	8
460 VOLTS 1-HP	2689	1345	12
	4274	2437	10
	6798	3399	8