

ELECTRICAL

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SIMFLO®

4" SIMFLO MOTORS

HP Rating	Leads	Phase	Voltage	Thrust Rating	Length	Diameter	Weight	List Price
½	2 Wire	1	115	300	10"	3.7"	15.0	\$ -
½	2 Wire	1	230	300	10"	3.7"	15.0	\$ -
¾	2 Wire	1	230	300	10.5"	3.7"	17.8	\$ -
1	2 Wire	1	230	650	12"	3.7"	23.3	\$ -
1½	2 Wire	1	230	650	13.5"	3.7"	24.6	\$ -
½	3 Wire	1	230	300	10"	3.7"	15.0	\$ -
¾	3 Wire	1	230	300	10.5"	3.7"	17.8	\$ -
1	3 Wire	1	230	650	12"	3.7"	23.3	\$ -
1½	3 Wire	1	230	650	13.5"	3.7"	24.6	\$ -
2	3 Wire	1	230	650	15"	3.7"	30.8	\$ -
3	3 Wire	1	230	900	17"	3.7"	36.1	\$ -
5	3 Wire	1	230	1500	27"	3.7"	64.5	\$ -
1½	3 Wire	3	230 - 460	650	12"	3.7"	24.0	\$ -
2	3 Wire	3	230 - 460	650	13.5"	3.7"	25.1	\$ -
3	3 Wire	3	230 - 460	900	15"	3.7"	31.2	\$ -
5	3 Wire	3	230 - 460	1500	22"	3.7"	51.5	\$ -
7½	3 Wire	3	230 - 460	1500	27"	3.7"	64.7	\$ -
10	3 Wire	3	460	1500	32"	3.7"	74.6	\$ -



NOTE: NATIONAL ELECTRICAL CODE REQUIRES THAT SUBMERSIBLE MOTORS BE GROUNDED.



4" AY MCDONALD MOTORS

HP Rating	Leads	Phase	Voltage	Thrust Rating	Length	Diameter	Weight	List Price
½	2 Wire	1	115	500	13.425"	3.662"	21.4	\$ -
½	2 Wire	1	230	500	13.031"	3.662"	21.0	\$ -
¾	2 Wire	1	230	500	13.819"	3.662"	23.2	\$ -
1	2 Wire	1	230	700	16.772"	3.662"	28.9	\$ -
1½	2 Wire	1	230	700	18.543"	3.662"	33.3	\$ -
½	3 Wire	1	115	500	10.472"	3.662"	19.4	\$ -
½	3 Wire	1	230	500	10.472"	3.662"	19.4	\$ -
¾	3 Wire	1	230	500	11.260"	3.662"	21.4	\$ -
1	3 Wire	1	230	700	13.622"	3.662"	27.8	\$ -
1½	3 Wire	1	230	700	16.181"	3.662"	32.5	\$ -
2	3 Wire	1	230	700	16.181"	3.662"	32.7	\$ -
3	3 Wire	1	230	1500	21.417"	3.662"	45.2	\$ -
5	3 Wire	1	230	1500	26.929"	3.662"	59.8	\$ -
1½	3 Wire	3	230 - 460	700	13.622"	3.662"	25.8	\$ -
2	3 Wire	3	230 - 460	700	15.394"	3.662"	30.5	\$ -
3	3 Wire	3	230 - 460	1500	19.843"	3.662"	40.8	\$ -
5	3 Wire	3	230 - 460	1500	24.173"	3.662"	51.9	\$ -
7½	3 Wire	3	230 - 460	1500	26.929"	3.662"	59.8	\$ -
10	3 Wire	3	460	1500	30.079"	3.662"	68.7	\$ -



NOTE: NATIONAL ELECTRICAL CODE REQUIRES THAT SUBMERSIBLE MOTORS BE GROUNDED.

6" HITACHI MOTORS

Horsepower	Phase	Voltage	Length	Diameter	Weight	List Price
5	1	230	26.97"	5.5"	110	\$ -
7½	1	230	29.92"	5.5"	128	\$ -
10	1	230	29.92"	5.5"	128	\$ -
15	1	230	33.46"	5.5"	148	\$ -
<hr/>						
5	3	230 - 460	22.95"	5.5"	95	\$ -
7½	3	230 - 460	24.80"	5.5"	99	\$ -
10	3	230 - 460	26.97"	5.5"	110	\$ -
15	3	230 - 460	29.92"	5.5"	128	\$ -
20	3	230 - 460	31.50"	5.5"	137	\$ -
25	3	230 - 460	36.22"	5.5"	161	\$ -
30	3	230 - 460	38.19"	5.5"	176	\$ -
40	3	460	40.55"	5.5"	187	\$ -
50	3	460	41.73"	5.5"	198	\$ -
60	3	460	41.73"	5.5"	198	\$ -

8" X 6" FLANGE HITACHI MOTORS

50	3	460	45.28"	7.52"	346	\$ -
60	3	460	48.03"	7.52"	401	\$ -

8" HITACHI MOTORS

40	3	460	44.09"	7.52"	320	\$ -
50	3	460	46.44"	7.52"	353	\$ -
60	3	460	49.19"	7.52"	408	\$ -
75	3	460	53.15"	7.52"	463	\$ -
100	3	460	58.27"	7.52"	518	\$ -
125	3	460	66.14"	7.52"	595	\$ -
150	3	460	70.08"	7.52"	661	\$ -

10" HITACHI MOTORS

200	3	460	69.68"	8.52"	816	\$ -
250	3	460	79.53"	8.52"	948	\$ -

HITACHI MOTOR ACCESSORIES

6" Hitachi Motor Leads - #10 AWG (5-30HP)	\$ -
6" Hitachi Motor Leads - #8 AWG (40-60HP)	\$ -
230/460 Volt Hitachi Motor Plug	\$ -



6" SME MOTORS

Horsepower	Phase	Voltage	Length	Diameter	Weight	List Price
5	3	230 or 460	28.03"	5.6"	122	\$ -
7½	3	230 or 460	28.03"	5.6"	122	\$ -
10	3	230 or 460	30.00"	5.6"	133	\$ -
15	3	230 or 460	33.35"	5.6"	155	\$ -
20	3	230 or 460	36.89"	5.6"	175	\$ -
25	3	230 or 460	40.43"	5.6"	197	\$ -
30	3	230 or 460	43.78"	5.6"	217	\$ -
40	3	460	49.09"	5.6"	248	\$ -
50	3	460	49.09"	5.6"	248	\$ -
60	3	460	51.77"	5.6"	259	\$ -
70	3	460	54.13"	5.6"	276	\$ -

8" SME MOTORS

40	3	460	44.8"	7.6"	375	\$ -
50	3	460	48.7"	7.6"	416	\$ -
60	3	460	51.9"	7.6"	451	\$ -
75	3	460	61.5"	7.6"	536	\$ -
100	3	460	68.0"	7.6"	609	\$ -
125	3	460	71.9"	7.6"	657	\$ -
150	3	460	75.9"	7.6"	701	\$ -
175	3	460	80.2"	7.6"	742	\$ -

10" SME MOTORS

150	3	460	56.3"	9.13"	794	\$ -
200	3	460	64.2"	9.13"	1014	\$ -
250	3	460	72.1"	9.13"	1256	\$ -



SUBMERSIBLE MOTOR ENGINEERING USA



6" AY MCDONALD MOTORS

Horsepower	Phase	Volts	Length	Diameter	Weight	List Price
5	3	230 or 460	23.661"	5.551"	91	\$ -
7½	3	230 or 460	24.843"	5.551"	98	\$ -
10	3	230 or 460	26.023"	5.551"	104	\$ -
15	3	230 or 460	28.779"	5.551"	120	\$ -
20	3	230 or 460	30.944"	5.551"	136	\$ -
25	3	230 or 460	33.897"	5.551"	151	\$ -
30	3	230 or 460	36.258"	5.551"	164	\$ -
40	3	460	41.377"	5.551"	196	\$ -
50	3	460	46.496"	5.551"	225	\$ -
60	3	460	53.582"	5.551"	262	\$ -

8" AY MCDONALD MOTORS

50	3	460	46"	7.559"	344	\$ -
60	3	460	50"	7.559"	390	\$ -
75	3	460	53"	7.559"	423	\$ -
100	3	460	63"	7.559"	522	\$ -
125	3	460	72"	7.559"	624	\$ -
150	3	460	81"	7.559"	734	\$ -

10" AY MCDONALD MOTORS

200	3	460	81"	9.134"	1102	\$ -
230	3	460	87"	9.134"	1190	\$ -
260	3	460	94"	9.134"	1279	\$ -



MOTOR SHROUDS

Pump O.D.	Skirt O.D.	Length	Material	Horsepower	List Price
4"	4.5"	30"	PVC	1-1/2 to 2	\$ -
4"	4.5"	36"	PVC	3 to 5	\$ -
4"	4.5"	42"	PVC	7-1/2 to 10	\$ -
5-1/4"	7"	36"	PVC	5 to 10	\$ -
5-1/4"	7"	48"	PVC	15 to 30	\$ -
5-1/4"	7"	54"	PVC	40	\$ -
5-1/4"	7"	74"	PVC	50 to 60	\$ -
6"	7"	36"	PVC	5 to 10	\$ -
6"	7"	48"	PVC	15 to 30	\$ -
6"	7"	54"	PVC	40	\$ -
6"	7"	74"	PVC	50 to 60	\$ -
7"	8"	36"	PVC	5 - 15	\$ -
7"	8"	48"	PVC	20 - 30	\$ -
7"	8"	54"	PVC	40	\$ -
7"	8"	74"	PVC	50 - 60	\$ -
8"	10"	42"	PVC	5 to 10	\$ -
8"	10"	48"	PVC	15 to 30	\$ -
8"	10"	54"	PVC	40	\$ -
8"	10"	68"	PVC	50	\$ -
8"	10"	74"	PVC	60	\$ -
8"	10"	82"	PVC	75	\$ -

COMPONENTS

4" PVC SHROUD HEAD	\$ -
5" PVC SHROUD HEAD	\$ -
6" PVC SHROUD HEAD	\$ -
7" PVC SHROUD HEAD	\$ -
8" PVC SHROUD HEAD	\$ -
SHROUD RIVETS	\$ -
#64 STAINLESS STEEL CLAMP	\$ -
#96 STAINLESS STEEL CLAMP	\$ -
#128 STAINLESS STEEL CLAMP	\$ -

STAINLESS STEEL CLAMPS

Mfg Number	Description	Size	Box Quantity	List Price
6308	8	7/16" x 1"	10	\$ -
6310	10	1/2" x 1-1/16"	10	\$ -
6312	12	1/2" x 1-1/4"	10	\$ -
6316	16	11/16" x 1-1/2"	10	\$ -
6320	20	3/4" x 1-3/4"	10	\$ -
6324	24	1" x 2"	10	\$ -
6328	28	1-15/16" x 2-1/2"	10	\$ -
6332	32	1-1/2" x 2-1/2"	10	\$ -
6336	36	1-3/4" x 2-3/4"	10	\$ -
6340	40	2" x 3"	10	\$ -
6352	52	2-3/4" x 3-3/4"	10	\$ -
6364	64	2-1/2" x 4-1/2"	10	\$ -
6372	72	3" x 5"	10	\$ -
6380	80	3-1/2" x 5-1/2"	10	\$ -
6396	96	4-1/2" x 6-1/2"	10	\$ -
63104	104	5" x 7"	10	\$ -
63128	128	6-1/2" x 8-1/2"	10	\$ -
63152	152	8" x 10"	10	\$ -





AY MCDONALD CONTROL BOXES

Standard

HP	Phase	Voltage	List Price
½	1	115	\$ -
½	1	230	\$ -
¾	1	230	\$ -
1	1	230	\$ -
1½	1	230	\$ -
2	1	230	\$ -
3	1	230	\$ -
5	1	230	\$ -

*Use Heavy duty pressure switches on 1 ½ hp and above with a standard control box



Deluxe

HP	Phase	Voltage	List Price
1½	1	230	\$ -
2	1	230	\$ -
3	1	230	\$ -
5	1	230	\$ -
7½	1	230	\$ -
10	1	230	\$ -
15	1	230	\$ -

*Deluxe control boxes allow the use of standard pressure switches

REPAIR PARTS

MFG NUMBER	DESCRIPTION	LIST PRICE
RD-10-370/440	10 MFD GE RUN CAPACITOR	\$ -
RD-15-370	15 MFD GE RUN CAPACITOR	\$ -
RD-20-370	20 MFD GE RUN CAPACITOR	\$ -
RD-35-370	35 MFD GE RUN CAPACITOR	\$ -
RD-40-370	40 MFD GE RUN CAPACITOR	\$ -
RD-45-370	45 MFD GE RUN CAPACITOR	\$ -

Run Capacitor Selection Chart

HP Rating	Capacitors Required		Total MFD Required
1½ HP	1	10 MFD	10
2 HP	1	20 MFD	20
3 HP	1	45 MFD	45
5 HP	2	40 MFD	80
7½ HP	1	45 MFD	45
10 HP	2	35 MFD	70
15 HP	3	45 MFD	135



MFG NUMBER	MFD'S	DESCRIPTION	HORSEPOWER	LIST PRICE
BC-243-125V	243-292	START CAPACITOR	½ HP 115V	\$ -
BC-64M-250V	64-77	START CAPACITOR	½ HP 230V	\$ -
BC-88M-250V	88-108	START CAPACITOR	¾ HP 230V	\$ -
BC-108M-250V	108-130	START CAPACITOR	1 - 2 HP 230V	\$ -
BC-216M-250V	216-259	START CAPACITOR	3 HP 230V	\$ -
BC-270M-330V	270-324	START CAPACITOR	5 - 7½ HP 230V	\$ -
BC-130M-330V	130-156	START CAPACITOR	10 HP 230V	\$ -
BC-161M-330V	161-193	START CAPACITOR	15 HP 230V	\$ -

MFG NUMBER	DESCRIPTION	LIST PRICE
45EG10AGA	30AMP 230V DP CONTACTOR	\$ -
45GG10AGA	40AMP 230V DP CONTACTOR	\$ -

MFG NUMBER	DESCRIPTION	LIST PRICE
111 INSIDER	SYMCOM PUMP PROTECTION RELAY 115V	\$ -
231 INSIDER	SYMCOM PUMP PROTECTION RELAY 230V	\$ -
777-P2	SYMCOM MOTOR SAVER PROGRAMMABLE O/L RELAY	\$ -

PRESSURE SWITCHES



Model #	Pressure Setting	Description / Features	List Price
1040	20/40	Standard Water Pump Switch	\$ -
1041	30/50	Standard Water Pump Switch	\$ -
1042	40/60	Standard Water Pump Switch	\$ -
1043	20/40	Pump Switch With Low Cut-Off	\$ -
1044	30/50	Pump Switch With Low Cut-Off	\$ -
1045	40/60	Pump Switch With Low Cut-Off	\$ -
1046	20/40	Heavy Duty Commercial Pump Switch	\$ -
1047	30/50	Heavy Duty Commercial Pump Switch	\$ -
1048	40/60	Heavy Duty Commercial Pump Switch	\$ -
1049	60/80	Heavy Duty Commercial Pump Switch	\$ -



- *Nema 1 Rated
- *1/4" FRT Connection
- *Suitable for all types of pumps
- *Standard, low pressure cutoff or HD switches available



Model #	Pressure Setting	Description / Features	List Price
FSG-2	20/40	Standard Water Pump Switch	\$ -
FSG-2	30/50	Standard Water Pump Switch	\$ -
FSG-2	40/60	Standard Water Pump Switch	\$ -
FSG-2 (M-1)	20/40	Pump Switch With Manual Cut-Off	\$ -
FSG-2 (M-1)	30/50	Pump Switch With Manual Cut-Off	\$ -
FSG-2 (M-4)	20/40	Pump Switch With Low Cut-Off	\$ -
FSG-2 (M-4)	30/50	Pump Switch With Low Cut-Off	\$ -
GSG-2	20/40	Heavy Duty Commercial Pump Switch	\$ -
GSG-2	30/50	Heavy Duty Commercial Pump Switch	\$ -
GSG-2	40/60	Heavy Duty Commercial Pump Switch	\$ -
GHG-2	40/60	Heavy Duty Commercial Pump Switch (High Pressure)	\$ -
GHG-2	60/80	Heavy Duty Commercial Pump Switch (High Pressure)	\$ -



- *1/4" FRT Connection
- *FS Series for use in 1.5hp and smaller
- *GS Series for use in higher HP applications

NEMA A Type 1 Enclosure		Poles	Cut-Out PSI Range	Differ- ential	Electrical Ratings - Horsepower							
Model No.	Special Features				1 Phase AC		Polyphase AC			Direct Current		
					110V	220V	220V	440V	550V	32V	115V	230V
FSG2	Standard Pump Switch	2	20-65	15-30	1 1/2	2	2	-	-	1/4	-	-
FSG2 (M1)	Manual Cut-Off Lever	2	20-65	15-30	1 1/2	2	2	-	-	1/4	-	-
FSG2 (M4)	Low Pressure Cut-Off Lever	2	20-65	15-30	1 1/2	2	2	-	-	1/4	-	-
GSG2	Heavy Duty Pump Switch	2	20-80	14-43	2	3	5	5	5	1/2	1	1
GHG2	Heavy Duty Pump Switch	2	65-200	25-60	2	3	5	5	5	1/2	1	1



SIEMENS
ESP200 Control Panel

NEMA Size	Max HP	Overload Range	Fuse Clip Size	MFG Number	List Price
230 Volt					
1	3	5.5 - 22	30	87DUD6LC	\$ -
1	5-7½	10-40	30	87DUE6LC	\$ -
1-3/4	10	10-40	60	87EUE6LC	\$ -
2	15	13-52	60	87FUF6LC	\$ -
2-1/2	20	25-100	100	87GUG6PC	\$ -
3	25-30	50-200	100	87HUG6LC	\$ -

Slim Line 460 Volt

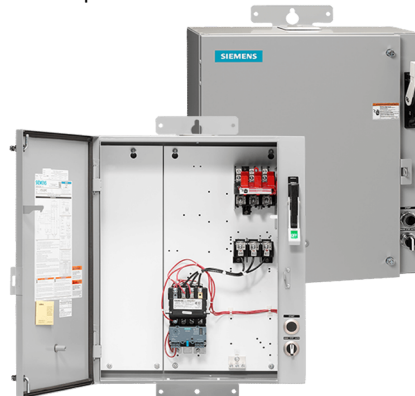
1	5-10	5.5 - 22	30	82ADD6FBH	\$ -
2	15-25	13-52	60	82AFF6FDH	\$ -

460 Volt

1	5-10	5.5 - 22	30	87DUD6FC	\$ -
1-3/4	15	10-40	30	87EUE6FC	\$ -
2	20-25	13-52	60	87FUF6FC	\$ -
2-1/2	30	25-100	60	87GUG6FC	\$ -
3	40-50	25-100	100	87HUG6FC	\$ -
3-1/2	60-75	50-200	200	87IUH6FC	\$ -
4	100	50-200	200	87JUH6FC	\$ -
5	125-200	55-250	400	87LPU6FH	\$ -
6	250	160-630	600	87MSW6FH	\$ -

- *Phase Loss Protection
- *Ambient Insensitive
- *FLA Adjustment Range
- *Heaterless Design
- *Trip Free Design
- *NEMA Class 10, 20, and 30 Trip Curves

- *+ or -2% Repeat Trip Accuracy
- *Manual Reset
- *-22° F to 159 ° F
- *Rated for both 50 & 60 Hz
- *UL Listed File # E22655
- *CSA Certified File #LR6535



SIEMENS STARTERS

MFG Number	NEMA Size	Overload Range	Max HP Rating 230V	Max HP Rating 460V	List Price
14DUD32AC	1	5.5-22 Amp	3	10	\$ -
14EUE32AC	1½	10-40 Amp	10	15	\$ -
14FUF32AC	2	13-52 Amp	15	25	\$ -
14GUG32AC	2½	25-100 Amp	20	30	\$ -



SIEMENS ESP200 OVERLOAD RELAY

MFG Number	Overload Range	Max HP Rating 230V	Max HP Rating 460V	List Price
48ATC3S00	3 to 12	2	5	\$ -
48ATD3S00	5.5 to 22	3	10	\$ -
48ATE3S00	10 to 40	10	15	\$ -
48BTF3S00	13 to 52	15	25	\$ -
48BTG3S00	25 to 100	30	50	\$ -
48BTH3S00	50 to 200	50	100	\$ -



SIEMENS PANEL PARTS

Mfg Number	Description	List Price
49SASB1	HOA SWITCH STARTER	\$ -
52SB2CAB	HOA SELECTOR	\$ -
52BAK	N/O CONTACT	\$ -
53BAJ	N/C CONTACT	\$ -
52PA8A1	START BUTTON	\$ -
52SA2CABA1P	BLISTER PACK WITH HOA	\$ -
75D73070C	00-2½ 240V/480V COIL	\$ -
75D73251C	3-3½ 240V/480V COIL	\$ -



Service Disconnects

Mfg Number	Description	List Price
D211N	30A 240V NEMA 1 FUSED - SCREW IN TYPE	\$ -
GF221N	30A 240V 2P NEMA 1 FUSED	\$ -
GF221NR	30A 240V 2P NEMA 3R FUSED	\$ -
GF222NR	60A 240V 3P NEMA 3R FUSED	\$ -
GF223NR	100A 240V 2P NEMA 3R FUSED	\$ -
GF323NR	100A 240V 3P NEMA 3R FUSED	\$ -
HF361R	30A 600V 3P NEMA 3R FUSED	\$ -
HF362R	60A 600V 3P NEMA 3R FUSED	\$ -
HF363R	100A 600V 3P NEMA 3R FUSED	\$ -
HF364R	200A 600V 3P NEMA 3R FUSED	\$ -



FUSES

Model	AMP Rating	HP Range 1 Phase	HP Range 3 Phase	Type	Box Quantity	List Price
GT15	15	½		Plug	4	\$ -
GT20	20	¾		Plug	4	\$ -
GT25	25	1		Plug	4	\$ -
GT30	30	1½		Plug	4	\$ -

125V

250V

TR-10R	10	1	1½ - 2	Cartridge	10	\$ -
TR-15R	15	1½ - 2	3	Cartridge	10	\$ -
TR-20R	20	3	5	Cartridge	10	\$ -
TR-30R	30	5	7½	Cartridge	10	\$ -
TR-35R	35		10	Cartridge	10	\$ -
TR-40R	40			Cartridge	10	\$ -
TR-45R	45	7½		Cartridge	10	\$ -
TR-60R	60	10	15	Cartridge	10	\$ -
TR-70R	70		20	Cartridge	5	\$ -
TR-80R	80	15		Cartridge	5	\$ -
TR-90R	90		25	Cartridge	5	\$ -
TR-100R	100		30	Cartridge	5	\$ -

- * AC & DC rated
- * Time-delay for motor start-ups and transformer inrush currents without nuisance opening
- * Current-limiting for low peak let-thru current
- * Easy-to-read label for quick brand recognition and replacement
- * Metal-embossed date and catalog number for traceability and lasting identification
- * Fiberglass body provides dimensional stability in harsh industrial settings
- * High-grade silica filler ensures fast arc quenching and high current limitation
- * UL Listed / CSA Certified



FUSES

Model	AMP Rating	HP Range 1 Phase	HP Range 3 Phase	Type	Box Quantity	List Price
<u>600V</u>						
TRS-5R	5		1½ - 2	Cartridge	10	\$ -
TRS-7R	7		3	Cartridge	10	\$ -
TRS-10R	10		5	Cartridge	10	\$ -
TRS-15R	15		7½	Cartridge	10	\$ -
TRS-20R	20		10	Cartridge	10	\$ -
TRS-30R	30		15	Cartridge	10	\$ -
TRS-35R	35		20	Cartridge	10	\$ -
TRS-40R	40			Cartridge	10	\$ -
TRS-45R	45		25	Cartridge	10	\$ -
TRS-50R			30	Cartridge	10	\$ -
TRS-60R	60			Cartridge	10	\$ -
TRS-70R	70		40	Cartridge	5	\$ -
TRS-80R	80			Cartridge	5	\$ -
TRS-90R	90		50	Cartridge	5	\$ -
TRS-100R	100			Cartridge	5	\$ -
TRS-110R	110		60	Cartridge	1	\$ -
TRS-125R	125		75	Cartridge	1	\$ -
TRS-150R	150			Cartridge	1	\$ -
TRS-175R	175		100	Cartridge	1	\$ -
TRS-200R	200			Cartridge	1	\$ -
TRS-225R	225		125	Cartridge	1	\$ -



- * AC & DC rated
- * Time-delay for motor start-ups and transformer inrush currents without nuisance opening
- * Current-limiting for low peak let-thru current
- * Easy-to-read label for quick brand recognition and replacement
- * Metal-embossed date and catalog number for traceability and lasting identification
- * Fiberglass body provides dimensional stability in harsh industrial settings
- * High-grade silica filler ensures fast arc quenching and high current limitation
- * UL Listed / CSA Certified

FUSE REDUCERS

Description	Manufacturer Number	List Price
60A - 30A Fuse Reducer - Cartridge Type	636	\$ -
100A - 30A Fuse Reducer - Cartridge Type	162	\$ -
100A - 60A Fuse Reducer - Cartridge Type	166	\$ -
200A - 60A Fuse Reducer - Cartridge Type	266	\$ -
200A - 100A Fuse Reducer - Cartridge Type	212	\$ -



PHASE PERFECT - SOLID STATE, DIGITAL PHASE CONVERTER

240V Output Phase Converters

<u>Model Number</u>	<u>HP Rating</u>	<u>Voltage Input</u>	<u>Voltage Output</u>	<u>List Price</u>
PTE007R	7.5	240V 1PH	240V 3PH	Call for Price
PTE010R	10	240V 1PH	240V 3PH	Call for Price
PTE015R	15	240V 1PH	240V 3PH	Call for Price
PTE020R	20	240V 1PH	240V 3PH	Call for Price

Voltage Doubling Phase Converters

<u>Model Number</u>	<u>HP Rating</u>	<u>Voltage Input</u>	<u>Voltage Output</u>	<u>List Price</u>
PTE207RQT	7.5	240V 1PH	480V 3PH	Call for Price
PTE210RQT	10	240V 1PH	480V 3PH	Call for Price
PTE215RQT	15	240V 1PH	480V 3PH	Call for Price
PTE220RQT	20	240V 1PH	480V 3PH	Call for Price



480V Output Phase Converters

<u>Model Number</u>	<u>HP Rating</u>	<u>Voltage Input</u>	<u>Voltage Output</u>	<u>List Price</u>
PTE407R	7.5	480V 1PH	480V 3PH	Call for Price
PTE410R	10	480V 1PH	480V 3PH	Call for Price
PTE415RQT	15	480V 1PH	480V 3PH	Call for Price
PTE420RQT	20	480V 1PH	480V 3PH	Call for Price

Increased Efficiency

- Now 98.7% efficient at full load
- Lower standby losses

The Best Power Quality

- Voltage balance within 2%

Less Noise

- Compared to rotary phase converters, the Phase Perfect® is 82% quieter

Improved Starting Capability

- NEW! PERFECTStart™ - Proprietary control algorithm that prevents overcurrent tripping

Rugged & Reliable

- NEMA 1 indoor & NEMA 3R outdoor enclosures available

Higher Power Ratings

- 240 V models - now up to 75 HP
- 480 V Models - now up to 100 HP

PTE Series Features

- Compact Frame
- NEW! - Voltage Doubling™
- Best in-class value

**PHASE
PERFECT®**
DIGITAL PHASE CONVERTERS

PHASE TECHNOLOGIES VFDS

Essential Series - 115V / 240V Single Phase Input and Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
ES3R	1/3 to 2	115v / 230v	115v / 230v	13A	13A	\$ -
* .5 to 150 PSI Digital Pressure Switch W/ 10' Lead Included						

Additional Panel Shop Options

<u>Description</u>	<u>List Price</u>
4-20mA Input Board and Transducer	Call For Price & Availability
Overpressure Switch	Call For Price & Availability

Features and Benefits

- *Single phase in, single phase out capabilities
- *Both 2-wire and 3-wire motor compatibility
- *Large easy to read graphic display
- *Easy field servicability
- *Large wiring area
- *Auto restart setting
- *60 psi pre-set digital pressure switch included
- *Easy setup with perfect pressure
- *NEMA 3R enclosure with insect guards
- *122°F (50°C) Rated
- *Rugged reliability



ES
SERIES



PHASE TECHNOLOGIES VFDS

SD Series - 208V / 240V Single Phase Input - 240V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
SD002R	½ - 2	240v, 1ph	240v, 3ph	20A	8A	\$ -
SD003R	3	240v, 1ph	240v, 3ph	30A	10A	\$ -
SD005R	5	240v, 1ph	240v, 3ph	42A	18A	\$ -
SD007R	7½	240v, 1ph	240v, 3ph	58A	27A	\$ -
SD010R	10	240v, 1ph	240v, 3ph	69A	33A	\$ -
SD015R	15	240v, 1ph	240v, 3ph	92A	46A	\$ -

* 0-150 psi Transducer with 15ft lead - included standard with all SD Series models

SD Series - 480V Single Phase Input - 480V Single Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
SD405	5	480v, 1ph	480v, 3ph	30A	10A	\$ -
SD407	7½	480v, 1ph	480v, 3ph	37A	13A	\$ -
SD410	10	480v, 1ph	480v, 3ph	42A	18A	\$ -
SD415R	15	480v, 1ph	480v, 3ph	56A	24A	\$ -

* 0-150 psi Transducer with 15ft lead - included standard with all SD models

Additional Panel Shop Options

Description

List Price

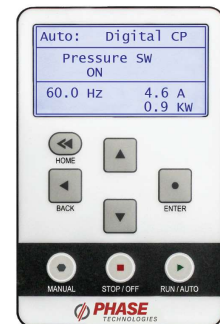
Sine Wave Output Filter	Call For Price & Availability
Strikesorb Surge Protection	Call For Price & Availability



Features and Benefits

- *User Friendly constant pressure setup wizard.
- *Designed and housed in NEMA 3R enclosure for durability and installation flexibility.
- *Easily serviceable in the field.
- *LCD screen shines bright for easy reading, and displays real time information.
- *Metal door for keypad protection with optional lock for safety.
- *Able to withstand operating temperatures of up to 122 degrees Fahrenheit.

SD SERIES



PHASE TECHNOLOGIES VFDS

2XD Series - 240V Single Phase Input - 460V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
2XD205R	5	240v, 1ph	460v, 3ph	31A	10A	Call for Price
2XD207R	7.5	240v, 1ph	460v, 3ph	52A	13A	Call for Price
2XD210R	10	240v, 1ph	460v, 3ph	64A	18A	Call for Price

* 0-150 psi Transducer with 15ft lead - included standard with all 2XD models

Additional Panel Shop Options

<u>Description</u>	<u>List Price</u>
0-150 PSI Transducer w/ 15' Lead	Call For Price & Availability
0-150 PSI Transducer w/ 25' Lead	Call For Price & Availability
0-150 PSI Transducer w/ 50' Lead	Call For Price & Availability
0-150 PSI Transducer w/ 100' Lead	Call For Price & Availability
Keypad Locking Cover	Call For Price & Availability
HOA Switch and Speed Potentiometer	Call For Price & Availability
Sine Wave Output Filter	Call For Price & Availability
Strikesorb Surge Protector	Call For Price & Availability

Features and Benefits

- ***Voltage doubling capabilities** to bring 240V to 480V for better motor efficiency and savings on cable in deep set
- *Included single event surge protection
- *Easy set up with Perfect Pressure
- *NEMA 3R rated outdoor enclosure
- *Integrated output filter options
- *Large easy to read graphic display
- *Metal door for keypad protection with optional lock for safety.



2XD SERIES

PHASE TECHNOLOGIES VFDS

1LHE Series - 240V Single Phase Input - 240V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
1LHE005R	5	240v, 1ph	240v, 3ph	26A	18A	Call for Price
1LHE007R	7.5	240v, 1ph	240v, 3ph	37A	24A	Call for Price
1LHE010R	10	240v, 1ph	240v, 3ph	48A	31A	Call for Price
1LHE015R	15	240v, 1ph	240v, 3ph	72A	46A	Call for Price
1LHE020R	20	240v, 1ph	240v, 3ph	97A	61A	Call for Price

* See Page B-29 For Additional Panel Shop Options

1LHE Series - 240V Single Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
1LHE205R	5	240v, 1ph	480v, 3ph	26A	9A	Call for Price
1LHE207R	7.5	240v, 1ph	480v, 3ph	37A	13A	Call for Price
1LHE210R	10	240v, 1ph	480v, 3ph	50A	18A	Call for Price
1LHE215R	15	240v, 1ph	480v, 3ph	67A	24A	Call for Price
1LHE220R	20	240v, 1ph	480v, 3ph	97A	31A	Call for Price
1LHE225R	25	240v, 1ph	480v, 3ph	115A	40A	Call for Price

* See Page B-29 For Additional Panel Shop Options

Features and Benefits

- ***Voltage doubling capabilities** to bring 240V to 480V for better motor efficiency and savings on cable in deep set
- *Guaranteed IEEE 519 compliant without additional harmonic filters.
- *Set up constant pressure in minutes.
- *Large backlit graphic display with intuitive menus.
- *NEMA 3R enclosure.
- *Compact and versatile enclosure for ease of installation.
- *Superior heat rejection and cooling capabilities.
- *Able to withstand temperatures up to 122° F.



1LH
SERIES



PHASE TECHNOLOGIES VFDS

1LHS Series - 480V Single Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
1LHS420R	20	480v, 1ph	480v, 3ph	48A	31A	Call for Price
1LHS430R	30	480v, 1ph	480v, 3ph	72A	46A	Call for Price
1LHS440R	40	480v, 1ph	480v, 3ph	98A	61A	Call for Price
1LHS450R	50	480v, 1ph	480v, 3ph	121A	77A	Call for Price
1LHS460R	60	480v, 1ph	480v, 3ph	143A	91A	Call for Price
1LHS475R	75	480v, 1ph	480v, 3ph	170A	107A	Call for Price
1LHS4100R	100	480v, 1ph	480v, 3ph	226A	142A	Call for Price

* See Page B-29 For Additional Panel Shop Options

Features and Benefits

- *Guaranteed IEEE 519 compliant without additional harmonic filters.
- *Set up constant pressure in minutes.
- *Large backlit graphic display with intuitive menus.
- *Phase changing.
- *NEMA 3R enclosure.
- *Slim, light design for larger applications.
- *Superior heat rejection and cooling capabilities.
- *Able to withstand temperatures up to 122° F.



1LH
SERIES

SIGNATURE



PHASE TECHNOLOGIES VFDS

LH Performance Series - 480V Single Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
1LH420R	20	480v, 1ph	480v, 3ph	48A	31A	Call for Price
1LH430R	30	480v, 1ph	480v, 3ph	72A	46A	Call for Price
1LH440R	40	480v, 1ph	480v, 3ph	98A	61A	Call for Price
1LH450R	50	480v, 1ph	480v, 3ph	121A	77A	Call for Price
1LH460R	60	480v, 1ph	480v, 3ph	143A	91A	Call for Price
1LH475R	75	480v, 1ph	480v, 3ph	170A	107A	Call for Price
1LH4100R	100	480v, 1ph	480v, 3ph	226A	142A	Call for Price
1LH4125R	125	480v, 1ph	480v, 3ph	273A	172A	Call for Price

* See Page B-29 For Additional Panel Shop Options

Features and Benefits

- *Guaranteed IEEE 519 compliant without additional harmonic filters.
- *Set up constant pressure in minutes.
- *Large backlit graphic display with intuitive menus.
- *Phase changing.
- *NEMA 3R enclosure.
- *Large enclosure with ample space for additional options.
- *Superior heat rejection and cooling capabilities.
- * **AUXPOWER™** can be added to run pivot and pump system in one unit.



1LH
SERIES

PERFORMANCE



PHASE TECHNOLOGIES VFDS

3LH Series - 240V Three Phase Input - 240V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
3LHE005R	5	240v, 3ph	240v, 3ph	18A	18A	Call for Price
3LHE007R	7.5	240v, 3ph	240v, 3ph	24A	24A	Call for Price
3LHE010R	10	240v, 3ph	240v, 3ph	31A	31A	Call for Price
3LHE015R	15	240v, 3ph	240v, 3ph	46A	46A	Call for Price
3LHE020R	20	240v, 3ph	240v, 3ph	61A	61A	Call for Price
3LHE025R	25	240v, 3ph	240v, 3ph	75A	75A	Call for Price
3LHE030R	30	240v, 3ph	240v, 3ph	91A	91A	Call for Price

3LHE - 240V Three Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
3LHE205R	5	240v, 3ph	480v, 3ph	18A	9A	Call for Price
3LHE207R	7.5	240v, 3ph	480v, 3ph	24A	13A	Call for Price
3LHE210R	10	240v, 3ph	480v, 3ph	30A	18A	Call for Price
3LHE215R	15	240v, 3ph	480v, 3ph	46A	24A	Call for Price
3LHE220R	20	240v, 3ph	480v, 3ph	61A	31A	Call for Price
3LHE225R	25	240v, 3ph	480v, 3ph	77A	38A	Call for Price

* See Page B-29 For Additional Panel Shop Options

Features and Benefits

- ***Voltage doubling capabilities** to bring 240V to 480V for better motor efficiency and savings on cable in deep set
- *Guaranteed IEEE 519 compliant without additional harmonic filters.
- *Set up constant pressure in minutes.
- *Large backlit graphic display with intuitive menus.
- * Voltage doubling eliminates need for transformer.
- *NEMA 3R enclosure.
- *Compact and versatile enclosure for ease of installation.
- *Superior heat rejection and cooling capabilities.



3LH
SERIES



PHASE TECHNOLOGIES VFDS

3LHE Series - 480V Three Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
3LHE405R	5	480v, 3ph	480v, 3ph	9A	9A	Call for Price
3LHE407R	7.5	480v, 3ph	480v, 3ph	13A	13A	Call for Price
3LHE410R	10	480v, 3ph	480v, 3ph	18A	18A	Call for Price
3LHE415R	15	480v, 3ph	480v, 3ph	24A	24A	Call for Price
3LHE420R	20	480v, 3ph	480v, 3ph	31A	31A	Call for Price
3LHE425R	25	480v, 3ph	480v, 3ph	38A	38A	Call for Price
3LHE430R	30	480v, 3ph	480v, 3ph	46A	46A	Call for Price
3LHE440R	40	480v, 3ph	480v, 3ph	61A	61A	Call for Price
3LHE450R	50	480v, 3ph	480v, 3ph	77A	77A	Call for Price

* See Page B-29 For Additional Panel Shop Options

Features and Benefits

- *Guaranteed IEEE 519 compliant without additional harmonic filters.
- *Set up constant pressure in minutes.
- *Large backlit graphic display with intuitive menus.
- *NEMA 3R enclosure.
- *Compact and versatile enclosure for ease of installation.
- *Superior heat rejection and cooling capabilities.



3LH
SERIES

ENTERPRISE



PHASE TECHNOLOGIES VFDS

3LHS - 240V Three Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
3LHS220R	20	240v, 3ph	480v, 3ph	61A	31A	Call for Price
3LHS230R	30	240v, 3ph	480v, 3ph	91A	46A	Call for Price
3LHS240R	40	240v, 3ph	480v, 3ph	121A	61A	Call for Price
3LHS250R	50	240v, 3ph	480v, 3ph	142A	77A	Call for Price
3LHS260R	60	240v, 3ph	480v, 3ph	172A	91A	Call for Price

3LHS - 480V Three Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
3LHS420R	20	480v, 3ph	480v, 3ph	31A	31A	Call for Price
3LHS430R	30	480v, 3ph	480v, 3ph	46A	46A	Call for Price
3LHS440R	40	480v, 3ph	480v, 3ph	61A	61A	Call for Price
3LHS450R	50	480v, 3ph	480v, 3ph	77A	77A	Call for Price
3LHS460R	60	480v, 3ph	480v, 3ph	91A	91A	Call for Price
3LHS475R	75	480v, 3ph	480v, 3ph	107A	107A	Call for Price
3LHS4100R	100	480v, 3ph	480v, 3ph	142A	142A	Call for Price
3LHS4125R	125	480v, 3ph	480v, 3ph	172A	172A	Call for Price
3LHS4150R	150	480v, 3ph	480v, 3ph	198A	198A	Call for Price
3LHS4200R	200	480v, 3ph	480v, 3ph	250A	250A	Call for Price

* See Page B-29 For Additional Panel Shop Options

Features and Benefits

- ***Voltage doubling capabilities** to bring 240V to 480V for better motor efficiency and savings on cable in deep set
- *Guaranteed IEEE 519 compliant without additional harmonic filters.
- *Set up constant pressure in minutes.
- *Large backlit graphic display with intuitive menus.
- *Voltage Doubling
- *NEMA 3R enclosure.
- *Slim, light design for larger applications.
- *Superior heat rejection and cooling capabilities.



3LH
SERIES



PHASE TECHNOLOGIES VFDS

3LH Performance Series - 240V Three Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
3LH220R	20	240v, 3ph	480v, 3ph	61A	31A	Call for Price
3LH230R	30	240v, 3ph	480v, 3ph	91A	46A	Call for Price
3LH240R	40	240v, 3ph	480v, 3ph	121A	61A	Call for Price
3LH250R	50	240v, 3ph	480v, 3ph	142A	77A	Call for Price
3LH260R	60	240v, 3ph	480v, 3ph	172A	91A	Call for Price

* See Page B-29 For Additional Panel Shop Options

3LH Performance Series - 480V Three Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
3LH420R	20	480v, 3ph	480v, 3ph	31A	31A	Call for Price
3LH430R	30	480v, 3ph	480v, 3ph	46A	46A	Call for Price
3LH440R	40	480v, 3ph	480v, 3ph	61A	61A	Call for Price
3LH450R	50	480v, 3ph	480v, 3ph	77A	77A	Call for Price
3LH460R	60	480v, 3ph	480v, 3ph	91A	91A	Call for Price
3LH475R	75	480v, 3ph	480v, 3ph	107A	107A	Call for Price
3LH4100R	100	480v, 3ph	480v, 3ph	142A	142A	Call for Price
3LH4125R	125	480v, 3ph	480v, 3ph	172A	172A	Call for Price
3LH4150R	150	480v, 3ph	480v, 3ph	198A	198A	Call for Price
3LH4200R	200	480v, 3ph	480v, 3ph	250A	250A	Call for Price
3LH4250R	250	480v, 3ph	480v, 3ph	304A	304A	Call for Price
3LH4300R	300	480v, 3ph	480v, 3ph	362A	362A	Call for Price
3LH4350R	350	480v, 3ph	480v, 3ph	415A	415A	Call for Price
3LH4400R	400	480v, 3ph	480v, 3ph	478A	478A	Call for Price
3LH4450R	450	480v, 3ph	480v, 3ph	515A	515A	Call for Price

* See Page B-29 For Additional Panel Shop Options

Features and Benefits

- ***Voltage doubling capabilities** to bring 240V to 480V for better motor efficiency and savings on cable in deep set
- *Guaranteed IEEE 519 compliant without additional harmonic filters.
- *Set up constant pressure in minutes.
- *Large backlit graphic display with intuitive menus.
- *Voltage Doubling
- *NEMA 3R enclosure.
- *Large enclosure with ample space for additional options.
- *Superior heat rejection and cooling capabilities.



PHASE TECHNOLOGIES VFDS

DXE Series - 240V Three Phase Input - 240V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
DXE005R	5	240v, 3ph	240v, 3ph	18A	18A	Call for Price
DXE007R	7.5	240v, 3ph	240v, 3ph	24A	24A	Call for Price
DXE010R	10	240v, 3ph	240v, 3ph	31A	31A	Call for Price
DXE015R	15	240v, 3ph	240v, 3ph	46A	46A	Call for Price
DXE020R	20	240v, 3ph	240v, 3ph	61A	61A	Call for Price
DXE025R	25	240v, 3ph	240v, 3ph	75A	75A	Call for Price
DXE030R	30	240v, 3ph	240v, 3ph	91A	91A	Call for Price

* See Page B-29 For Additional Panel Shop Options

DXE Series - 480V Three Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
DXE405R	5	480v, 3ph	480v, 3ph	9A	9A	Call for Price
DXE407R	7.5	480v, 3ph	480v, 3ph	13A	13A	Call for Price
DXE410R	10	480v, 3ph	480v, 3ph	18A	18A	Call for Price
DXE415R	15	480v, 3ph	480v, 3ph	24A	24A	Call for Price
DXE420R	20	480v, 3ph	480v, 3ph	31A	31A	Call for Price
DXE425R	25	480v, 3ph	480v, 3ph	38A	38A	Call for Price
DXE430R	30	480v, 3ph	480v, 3ph	46A	46A	Call for Price
DXE440R	40	480v, 3ph	480v, 3ph	61A	61A	Call for Price
DXE450R	50	480v, 3ph	480v, 3ph	77A	77A	Call for Price

* See Page B-29 For Additional Panel Shop Options

Features and Benefits

- *Three phase six pulse VFD.
- *Perfect Pressure setup for constant pressure in minutes.
- *Large backlit display with messages in clear english.
- *Advanced motor protection & PID control.
- *Sinewave filter integration.
- *Smallest enclosure for tight fitting applications.

DX
SERIES

ENTERPRISE



PHASE TECHNOLOGIES VFDS

DXS Series - 480V Three Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
DXS420R	20	480v, 3ph	480v, 3ph	31A	31A	Call for Price
DXS430R	30	480v, 3ph	480v, 3ph	46A	46A	Call for Price
DXS440R	40	480v, 3ph	480v, 3ph	61A	61A	Call for Price
DXS450R	50	480v, 3ph	480v, 3ph	77A	77A	Call for Price
DXS460R	60	480v, 3ph	480v, 3ph	91A	91A	Call for Price
DXS475R	75	480v, 3ph	480v, 3ph	107A	107A	Call for Price
DXS4100R	100	480v, 3ph	480v, 3ph	142A	142A	Call for Price
DXS4125R	125	480v, 3ph	480v, 3ph	172A	172A	Call for Price
DXS4150R	150	480v, 3ph	480v, 3ph	198A	198A	Call for Price
DXS4200R	200	480v, 3ph	480v, 3ph	250A	250A	Call for Price

* See Page B-29 For Additional Panel Shop Options

Features and Benefits

- *Three phase six pulse VFD.
- *Perfect Pressure setup for constant pressure in minutes.
- *Large backlit display with messages in clear english.
- *Advanced motor protection & PID control.
- *Sinewave filter integration.
- *Superior heat rejection, able to operate in conditions up to 122° F.
- *Slim and light panel design.

DX
SERIES

SIGNATURE



PHASE TECHNOLOGIES VFDS

DX Performance Series - 480V Three Phase Input - 480V Three Phase Output

<u>Model</u>	<u>HP</u>	<u>Voltage In</u>	<u>Voltage Out</u>	<u>Input Current</u>	<u>Output Current</u>	<u>List Price</u>
DX420R	20	480v, 3ph	480v, 3ph	31A	31A	Call for Price
DX430R	30	480v, 3ph	480v, 3ph	46A	46A	Call for Price
DX440R	40	480v, 3ph	480v, 3ph	61A	61A	Call for Price
DX450R	50	480v, 3ph	480v, 3ph	77A	77A	Call for Price
DX460R	60	480v, 3ph	480v, 3ph	91A	91A	Call for Price
DX475R	75	480v, 3ph	480v, 3ph	107A	107A	Call for Price
DX4100R	100	480v, 3ph	480v, 3ph	142A	142A	Call for Price
DX4125R	125	480v, 3ph	480v, 3ph	172A	172A	Call for Price
DX4150R	150	480v, 3ph	480v, 3ph	198A	198A	Call for Price
DX4200R	200	480v, 3ph	480v, 3ph	250A	250A	Call for Price
DX4250R	250	480v, 3ph	480v, 3ph	304A	304A	Call for Price
DX4300R	300	480v, 3ph	480v, 3ph	362A	362A	Call for Price
DX4350R	350	480v, 3ph	480v, 3ph	415A	415A	Call for Price
DX4400R	400	480v, 3ph	480v, 3ph	478A	478A	Call for Price
DX4450R	450	480v, 3ph	480v, 3ph	515A	515A	Call for Price

* See Page B-29 For Additional Panel Shop Options

Features and Benefits

- *Three phase six pulse VFD.
- *Perfect Pressure setup for constant pressure in minutes.
- *Large backlit display with messages in clear english.
- *Advanced motor protection & PID control.
- *Sinewave filter integration.
- *Superior heat rejection, able to operate in conditions up to 122° F.
- *Large enclosure with ample space for additional options.

DX
SERIES

PERFORMANCE



PHASE TECHNOLOGIES VFDS

LH & DX Series Additional Panel Shop Options

<u>Option Code</u>	<u>Description</u>	<u>List</u>
B	MCCB Service Disconnect	Call for Price
H	HOA Switch and Speed Potentiometer	Call for Price
H1	HOA Switch	Call for Price
H2	Speed Potentiometer	Call for Price
O	Sinewave Output Filter	Call for Price
ASPD013	Three Phase Strikesorb Surge Protection	Call for Price
ASPD014	Single Phase Strikesorb Surge Protection	Call for Price
S1	Protac Surge Protection	Call for Price
S00150	0 - 150 PSI Pressure Transducer w/ 15' Lead	Call for Price
S00150-25	0 - 150 PSI Pressure Transducer w/ 25' Lead	Call for Price
S00150-50	0 - 150 PSI Pressure Transducer w/ 50' Lead	Call for Price
S00150-100	0 - 150 PSI Pressure Transducer w/ 100' Lead	Call for Price
PSI SNUB	Pressure Snubber for Transducers	Call for Price
CVR0002	Keypad locking security cover for Enterprise Enclosures	Call for Price
CVR0001	HOA Switch and Speed Pot Security Cover	Call for Price
LEGS	Pad Mount Leg Kit (Drive Specific)	Call for Price

DX
SERIES

3LH
SERIES

1LH
SERIES

SINGLE PHASE																
Motor Rating		75 °C INSULATION - AWG COPPER WIRE SIZE														
Volts	HP	14	12	10	8	6	4	3	2	1	0	00	000	0000		
230 V Single-Phase	115 V 1ph	1/2	100	160	250	390	620	960	1190	1460	1780	2160	2630	3140	3770	
		3/4	400	650	1020	1610	2510	3880	4810	5880	7170	8720				
		1	300	480	760	1200	1870	2890	3580	4370	5330	6470	7870	9380		
		1.5	250	400	630	990	1540	2380	2960	3610	4410	5360	6520	7780	9350	
		2	190	310	480	770	1200	1870	2320	2850	3500	4280	5240	6300	7620	
		3	150	250	390	620	970	1530	1910	2360	2930	3620	4480	5470	6700	
		5	120*	190	300	470	750	1190	1490	1850	2320	2890	3610	4470	5550	
		7.5	0	110*	180	280	450	710	890	1110	1390	1740	2170	2680	3330	
		10	0	0	120*	200	310	490	610	750	930	1140	1410	1720	2100	
		15	0	0	0	160*	250	390	490	600	750	930	1160	1430	1760	
	15	0	0	0	0	170*	270	340	430	530	660	820	1020	1260		

THREE PHASE																				
Motor Rating		75 °C INSULATION - AWG COPPER WIRE SIZE													MCM COPPER WIRE SIZE					
Volts	HP	14	12	10	8	6	4	3	2	1	0	00	000	0000	250	300	350	400	500	
230 V 60 Hz Three-Phase 3-Lead	1/2	930	1490	2350	3700	5760	8910													
	3/4	670	1080	1700	2580	4190	6490	8060	9860											
	1	560	910	1430	2260	3520	5460	6780	8290											
	1.5	420	670	1060	1670	2610	4050	5030	6160	7530	9170									
	2	320	510	810	1280	2010	3130	3890	4770	5860	7170	8780								
	3	240	390	620	990	1540	2400	2980	3660	4480	5470	6690	8020	9680						
	5	140*	230	370	590	920	1430	1790	2190	2690	3290	4030	4850	5870	6650	7560	8460	9220		
	7.5	0	160*	260	420	650	1020	1270	1560	1920	2340	2870	3440	4160	4710	5340	5970	6500	7510	
	10	0	0	190*	310	490	760	950	1170	1440	1760	2160	2610	3160	3590	4100	4600	5020	5840	
	15	0	0	0	210*	330	520	650	800	980	1200	1470	1780	2150	2440	2780	3110	3400	3940	
	20	0	0	0	160*	250*	400	500	610	760	930	1140	1380	1680	1910	2180	2450	2680	3120	
	25	0	0	0	0	200*	320	400	500	610	750	920	1120	1360	1540	1760	1980	2160	2520	
	30	0	0	0	0	0	260*	330	410	510	620	760	930	1130	1280	1470	1650	1800	2110	

THREE PHASE																				
Motor Rating		75 °C INSULATION - AWG COPPER WIRE SIZE													MCM COPPER WIRE SIZE					
Volts	HP	14	12	10	8	6	4	3	2	1	0	00	000	0000	250	300	350	400	500	
460 V 60 Hz Three-Phase 3-Lead	1/2	3770	6020	9460																
	3/4	2730	4350	6850																
	1	2300	3670	5770	9070															
	1.5	1700	2710	4270	6730															
	2	1300	2070	3270	5150	8050														
	3	1000	1600	2520	3970	6200														
	5	590	950	1500	2360	3700	5750													
	7.5	420	680	1070	1690	2640	4100	5100	6260	7680										
	10	310	500	790	1250	1960	3050	3800	4680	5750	7050									
	15	0	340*	540	850	1340	2090	2600	3200	3930	4810	5900	7110							
	20	0	0	410	650	1030	1610	2000	2470	3040	3730	4580	5530							
	25	0	0	330*	530	830	1300	1620	1990	2450	3010	3700	4470	5430						
	30	0	0	270*	430	680	1070	1330	1640	2030	2490	3060	3700	4500	5130	5860				
	40	0	0	0	320*	500*	790	980	1210	1490	1830	2250	2710	3290	3730	4250				
	50	0	0	0	0	410*	640	800	980	1210	1480	1810	2190	2650	3010	3420	3830	4180	4850	
	60	0	0	0	0	0	540*	670*	830	1020	1250	1540	1850	2240	2540	2890	3240	3540	4100	
	75	0	0	0	0	0	440*	550*	680*	840	1030	1260	1520	1850	2100	2400	2700	2950	3440	
	100	0	0	0	0	0	0	0	500*	620*	760*	940	1130	1380	1560	1790	2010	2190	2550	
	125	0	0	0	0	0	0	0	0	0	600*	740*	890*	1000	1220	1390	1560	1700	1960	
	150	0	0	0	0	0	0	0	0	0	0	630*	760*	920*	1050	1190	1340	1460	1690	
175	0	0	0	0	0	0	0	0	0	0	0	670*	810*	930*	1060	1190	1300	1510		
200	0	0	0	0	0	0	0	0	0	0	0	590*	710*	810*	920*	1030	1130	1310		

Lengths with an asterik (*) meet the N.E.C. ampacity only for single conductor 75 degree Celsius cable.

FLAT JACKETED HEAVY DUTY CABLE

Size	Weight Per 1000 Feet	List Price
#14/3 Flat JKTD W-Grnd	151.6	
#12/3 Flat JKTD W-Grnd	199.6	
#10/3 Flat JKTD W-Grnd	268.5	
#8/3 Flat JKTD W-Grnd	383.7	
#6/3 Flat JKTD W-Grnd	531.9	<i>Call</i>
#4/3 Flat JKTD W-Grnd	733.0	<i>For</i>
#2/3 Flat JKTD W-Grnd	1048.3	<i>Price</i>
#0/3 Flat JKTD W-Grnd	1661.5	
#00/3 Flat JKTD W-Grnd	1904.0	
#000/3 Flat JKTD W-Grnd	2493.1	
#0000/3 Flat JKTD W-Grnd	2984.3	
#350 MCM/3 Flat JKTD W-Grnd	4592.3	



- Premium 600 volt cable featuring stranded copper conductors with a moisture resistant PVC insulation
- Conductors are individually colored black, red, and yellow with green ground
- Insulated conductors are assembled parallel in a flat configuration and covered with a tough, black thermoplastic jacket

TWISTED ROUND JACKETED

Size	Weight Per 1000 Feet	List Price
#12/3 Round JKTD W-Grnd	159.7	
#10/3 Round JKTD W-Grnd	220.9	<i>Call</i>
#8/3 Round JKTD W-Grnd	322.5	<i>For</i>
#6/3 Round JKTD W-Grnd	464.9	<i>Price</i>
#4/3 Round JKTD W-Grnd	641.7	



- Premium 600 volt cable featuring stranded copper conductors with a moisture resistant PVC insulation
- Conductors are individually colored black, red, and yellow with green ground
- Insulated conductors are assembled parallel in a round configuration and covered with a tough, black thermoplastic jacket

SPLICE KITS

Model	Size	Package Quantity	Master Quantity	List Price
A4C	14-12-10	1 Kit	50	\$ -
K8C4	8	1 Kit	50	\$ -
K6C4	6	1 Kit	50	\$ -
K44	4	1 Kit	10	\$ -
K24	2	1 Kit	10	\$ -

BUTT CONNECTORS

Model	Size	Package Quantity	Master Quantity	List Price
B1210	12-10	50	500	\$ -
B8	8	25	250	\$ -
B6	6	20	100	\$ -
B4	4	20	100	\$ -
B2	2	10	50	\$ -

TAPE

Description	Box Quantity	List Price
3M 1700 ELECTRICAL TAPE *General purpose vinyl tape	10	\$ -
3M SUPER 33 VINYL ELECTRICAL TAPE *General purpose vinyl tape	10	\$ -
3M SUPER 88 VINYL ELECTRICAL TAPE *Premium 8.5mil thick vinyl all weather tape	10	\$ -
LINERLESS RUBBER TAPE ¾" X 30' *Linerless ethylene proplene rubber based tape	10	\$ -
PLYMOUTH RUBBER TAPE ¾" X 22' *Low voltage rubber tape used to primary insolation for splices	10	\$ -
2" CABLE WRAP TAPE - BLACK *General purpose PVC tape	36	\$ -



METALLIC FLEXIBLE LIQUID TIGHT CONDUIT

Diameter	Roll Size	List Price
1" METALLIC L/T FLEXIBLE CONDUIT	100'	\$ -
1½" METALLIC L/T FLEXIBLE CONDUIT	50'	\$ -
2" METALLIC L/T FLEXIBLE CONDUIT	50'	\$ -



LIQUID TIGHT CONDUIT CONNECTORS

Description	Box Quantity	List Price
1" STRAIGHT STEEL L/T CONNECTOR	10	\$ -
1½" STRAIGHT STEEL L/T CONNECTOR	5	\$ -
2" STRAIGHT STEEL L/T CONNECTOR	5	\$ -
1" 90° STEEL L/T CONNECTOR	10	\$ -
1½" 90° DEGREE STEEL L/T CONNECTOR	5	\$ -
2" 90° DEGREE STEEL L/T CONNECTOR	5	\$ -



Ground Rods

Description	Box Quantity	List Price
5/8" x 8' COPPER GROUND ROD	N/A	\$ -
5/8" COPPER GROUND ROD CLAMP	25	\$ -
#6 BARE SOLID COPPER GROUND WIRE	315'	\$ -
#4 BARE SOLID COPPER GROUND WIRE	200'	\$ -



TOOLS & METERS

Description	List Price
Simpson Model 372 Ohmeter	\$ -
Case for Simpson 372 Ohmeter	\$ -



400A True RMS AC/DC Clamp Meter	\$ -
400A AC Clamp Meter	\$ -



9" Terminal Crimper / Cutter with Dipped Handles	\$ -
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*For use on wire from no. 10 to 22AWG. Wire cutter in nose.



BADGER FLOW METERS

M5000 MAG Meter

Size	GPM Flow Range		Length	List Price
	MIN	MAX		
1/2"	0.09	27	6.7"	
3/4"	0.15	49	6.7"	
1"	0.24	77	8.9"	
1-1/4"	0.39	127	8.9"	
1-1/2"	0.4	199	8.9"	Call
2"	0.94	311	8.9"	For
2-1/2"	1.58	525	11"	Current
3"	2.39	796	11"	Pricing
4"	3.74	1244	11"	
5"	5.84	1946	15.8"	
6"	8.4	2799	15.8"	
8"	15	4976	15.8"	
10"	23.4	7775	19.7"	
12"	33.6	11196	19.7"	

- Available in sizes 0.50...24 in. (15...600 mm)
- Battery powered (10 year life)
- ± 0.4% of measured value ± 2 mm/s accuracy independent of fluid viscosity, density and temperature
- Unaffected by most solids contained in fluids
- Pulsed DC magnetic field for zero point stability
- No pressure loss for low operational costs
- Corrosion resistant liners for long life
- Calibrated in state-of-the art facilities
- Integral and remote signal converter availability
- Optional grounding rings or grounding electrode
- Measurement largely independent of flow profile
- Low-power digital microcontroller (16 bit)
- Simple programming procedure
- Digital and infrared outputs
- Automatic zero-point stability
- Non-volatile programming
- NSF listed
- Data logging
- Available with a hard rubber liner or PTFE liner
- Available with 150-lb and 300-lb flanges

