

# FlexPak 3000 DC Drives and WebPak 3000 DC Drives Replacement Parts

Instruction Manual D2-3438-4

Effective Date: July 22, 2005



**ATTENTION:** Only qualified electrical personnel familiar with the construction of this equipment and the hazards involved should install, adjust, operate, and/or service this equipment. Read and understand the applicable FlexPak 3000 hardware manual in its entirety before proceeding. Failure to observe this precaution could result in severe bodily injury or loss of life

**ATTENTION:** Equipment is at line voltage when AC power is connected. Disconnect and lock out all ungrounded conductors of the AC power line before checking wiring. Failure to observe this precaution could result in severe bodily injury or loss of life.

**ATTENTION:** Replacing fuses with different ratings other than the ratings supplied with the original equipment can cause damage to the equipment. Replace fuses only with the same current, voltage, and class rating as supplied with the original equipment. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

The table that follows lists replacement parts for FlexPak™ 3000 DC drives and WebPak™ 3000 DC drives. Unless noted, the replacement parts are the same for both drives.

**Note:** All parts are subject to change. Please call Reliance Electric for the latest part information.

These parts are available from your local Reliance Electric Distributor or direct from Reliance Electric Company:

Reliance Electric Company  
Cleveland Service Center  
375 Alpha Drive  
Highland Heights, Ohio 44143  
Order Entry Phone: 440-646-6650  
Fax: 440-646-6618

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## FlexPak 3000 and WebPak 3000 DC Drive Replacement Parts

Part Description	Quantity Per Drive	Part Number
<b>AC Line Fuse (1FU, 2FU, 3FU):</b> (except as noted, Bussman series FWH) 1.5 thru 5 HP @ 230 VAC/3 thru 10 HP @ 460 VAC 7.5 thru 10 HP @ 230 VAC/15 thru 25 HP @ 460 VAC 15 HP @ 230 VAC/30 HP @ 460 VAC 20 thru 30 HP @ 230 VAC/40 thru 60 HP @ 460 VAC 40 thru 60 HP @ 230 VAC/75 thru 125 HP @ 460 VAC 75 HP @ 230 VAC/150 HP @ 460 VAC 100 HP @ 230 VAC/200 HP @ 460 VAC 125 thru 150 HP @ 230 VAC/250 thru 300 HP @ 460 VAC 400 thru 600 HP @ 460 VAC (Gould part # A70QS600-4K) 7 Amp Rated Output 29 Amp Rated Output 55 Amp Rated Output 110 Amp Rated Output 265 Amp Rated Output	3 3 3 3 3 3 3 3 6 3 3 3 3 3	64676-120AMX (40A, 500V) 64676-120ARX (80A, 500V) 64676-120ASX (90A, 500V) 64676-120AVX (150A, 500V) 64676-120AZX (300A, 500V) 64676-120BAX (350A, 500V) 64676-120BDX (600 A, 500 V) 64676-120BGX (800 A, 500V) 184972-Q07 (600 A, 700V) 64676-120AMX (40 A, 500 V) 64676-120ARX (80 A, 500 V) 64676-120ASX (90 A, 500 V) 64676-120AVX (150 A, 500 V) 64676-120BAX (350 A, 500 V)
<b>CCT Fuse (4FU, 5FU):</b> 1.5 thru 30 HP @ 230 VAC 3 thru 60 HP @ 460 VAC 40 thru 75 HP @ 230 VAC 75 thru 150 HP @ 460 VAC 100 HP @ 230 VAC/200 HP @ 460 VAC 125 thru 150 HP @ 230 VAC/250 thru 500 HP @ 460 VAC 600 HP @ 460 VAC 7 thru 110 Amp Rated Output 265 Amp Rated Output	2 2 2 2 2 2 2 2 2 2	64676-64F (1.5A, 600V) 64676-64U (.6A, 600V) 64676-64AC (4.5A, 600V) 64676-64Z (2.25A, 600V) 64676-64L (5.0A, 600V) 64676-64N (7.5 A, 600 V) 64676-64AG (10 A, 600 V) 64676-64D (1.0 A, 600 V) 64676-64G (2.0 A, 600 V)
<b>Field Fuse (6FU, 7FU, 8FU):</b> <u>FlexPak 3000 with Standard Field Supply</u> 1.5 thru 30 HP @ 230 VAC/3 thru 60 HP @ 460 VAC 40 thru 60 HP @ 230 VAC/75 thru 125 HP @ 460 VAC 75 HP @ 230 VAC/150 HP @ 460 VAC 100 thru 150 HP @ 230 VAC/200 thru 600 HP @ 460 VAC 7 thru 110 Amp Rated Output 265 Amp Rated Output  <u>FlexPak 3000 with Field Current Regulator</u> All drives  <u>WebPak 3000</u> 1.5 thru 75 HP @ 230 VAC/3 thru 150 HP @ 460 VAC	3 3 3 3 3 3 3 3	64676-30K (15A, 600V) 64676-30K (15A, 600V) 64676-30M (25A, 600V) 64676-30M (25 A, 600 V) 64676-30K (15 A, 600 V) 64676-30M (25 A, 600 V)  64676-30M (25A, 600V)  64676-30M (25A, 600V)
<b>Surge Suppressor Fuse (9FU, 10 FU):</b> 1.5 thru 15 HP @ 230 VAC/3 thru 30 HP @ 460 VAC 20 thru 75 HP @ 230 VAC/40 thru 150 HP @ 460 VAC 7 thru 55 Amp Rated Output 110 thru 265 Amp Rated Output (9FU, 10FU, 11FU) 100 thru 150 HP @ 230 VAC/200 thru 600 HP @ 460 VAC	N/R 2 N/R 2 3	Not Required (N/R) 64676-68X (4.0A, 500V) Not Required (N/R) 64676-68X (4.0 A, 500 V)  64676-30K (15 A, 600 V)

## FlexPak 3000 and WebPak 3000 DC Drive Replacement Parts

Part Description	Quantity Per Drive		Part Number
Armature Fuse (11FU, S6R ONLY) (Bussman series FWP up to 75 HP @ 230 VAC, 150 HP @ 460 VAC): 1.5 HP @ 230 VAC/3 HP @ 460 VAC 2 HP @ 230 VAC/5 HP @ 460 VAC 3 HP @ 230 VAC/7.5 HP @ 460 VAC 5 HP @ 230 VAC/10 HP @ 460 VAC 7.5 HP @ 230 VAC/15 HP @ 460 VAC 10 HP @ 230 VAC/20 HP @ 460 VAC 25 HP @ 460 VAC 15 HP @ 230 VAC/30 HP @ 460 VAC 20 thru 25 HP @ 230 VAC/40 thru 50 HP @ 460 VAC 30 HP @ 230 VAC/60 HP @ 460 VAC 40 HP @ 230 VAC/75 HP @ 460 VAC 50 HP @ 230 VAC/100 HP @ 460 VAC 60 HP @ 230 VAC/125 HP @ 460 VAC 75 HP @ 230 VAC/150 HP @ 460 VAC 7 Amp Rated Output 29 Amp Rated Output 55 Amp Rated Output 110 Amp Rated Output 265 Amp Rated Output	1		64676-130AGX (15A, 700V) 64676-130AHX (20A, 700V) 64676-130AJX (25A, 700V) 64676-130ALX (35A, 700V) 64676-130AMX (40A, 700V) 64676-130ANX (50A, 700V) 64676-130APX (60A, 700V) 64676-130AQX (70A, 700V) 64676-130AUX (125A, 700V) 64676-130AVX (150A, 700V) 64676-130AXX (200A, 700V) 64676-130AYX (250A, 700V) 64676-130AZX (300A, 700V) 64676-130BAX (350A, 700V) 64676-130AGX (15 A, 700V) 64676-130AMX (40 A, 700V) 64676-130AQX (70 A, 700V) 64676-130AVX (150 A, 700V) 64676-130BAX (350 A, 700V)
Power Supply Fuse (12FU)	1		64676-21AF (4.0A, 250 V)
Current Transformer (1CT, 3CT): 1.5 HP @ 230 VAC/3 HP @ 460 VAC 2 thru 7.5 HP @ 230 VAC / 4 thru 15 HP @ 460 VAC 10 thru 15 HP @ 230 VAC/20 thru 30 HP @ 460 VAC 20 thru 30 HP @ 230 VAC/40 thru 60 HP @ 460 VAC 40 thru 75 HP @ 230 VAC/75 thru 150 HP @ 460 VAC 100 thru 150 HP @ 230 VAC/200 thru 300 HP @ 460 VAC 400 thru 600 HP @ 460 VAC 7 Amp Rated Output 29 Amp Rated Output 55 Amp Rated Output 110 Amp Rated Output 265 Amp Rated Output	2		(Tp/Tn) 610273-121V (833/6) 610273-121T (833/4) 610273-121S (833/2) 610273-121R (833/1) 610274-21R (2000/1) 610275-41R (5230/1) 610276-39R (7770/1) 610273-121V (833/6) 610273-121T (833/4) 610273-121S (833/2) 610273-121R (833/1) 610274-21R (2000/1)
Armature Power Semiconductors: 1.5 thru 15 HP @ 230 VAC/3 thru 30 HP @ 460 VAC  20 thru 30 HP @ 230 VAC/40 thru 60 HP @ 460 VAC 40 thru 75 HP @ 230 VAC/75 thru 150 HP @ 460 VAC 100 thru 150 HP @ 230 VAC/200 thru 150 HP @ 460 VAC 400 thru 600 HP @ 460 VAC 7 thru 55 Amp Rated Output  110 Amp Rated Output 265 Amp Rated Output	S6	S6R	701819-306AW (before Jan, 1999) 179128-Q01 (after Jan, 1999) 701819-209AW 701819-205AW 610275-40R 410403-79AZ 701819-306AW (before Jan, 1999) 179128-Q01(after Jan, 1999) 701819-209AW 701819-205AW
dV/dT and Gate Drivers: 400 thru 600 HP @ 460 VAC	S6	S6R	O-58706-41 O-58706-40
MOV Suppressor Assembly (4SSR): 100 thru 150 HP @ 230 VAC/200 thru 300 HP @ 460 VAC 400 thru 600 HP @ 460 VAC	1		610275-52R 802276-815R

## FlexPak 3000 and WebPak 3000 DC Drive Replacement Parts

Part Description	Quantity Per Drive	Part Number
Coil Surge Suppressor (2SSR)	1	600686-33A
Surge Suppressor Resistor Assembly (R1): 1.5 thru 15 HP @ 230 VAC/3 thru 30 HP @ 460 VAC 20 thru 30 HP @ 230 VAC/40 thru 60 HP @ 460 VAC 40 thru 75 HP @ 230 VAC/75 thru 150 HP @ 460 VAC 100 thru 150 HP @ 230 VAC/200 thru 300 HP @ 460 VAC 400 thru 600 HP @ 460 VAC 7 thru 55 Amp Rated Output 110 Amp Rated Output 265 Amp Rated Output	N/R 2 2 1 1 N/R 2 2	Not Required 63481-101TAA (two 10K, 40W in series) 63481-102TAA (two 10K, 90W in parallel) 802275-41R (six 10K, 100W in parallel) 802272-13T (six 7.5K, 200W in parallel) Not Required 63481-101TAA (two 10K, 40W in series) 63481-102TAA (two 10K, 90W in parallel)
Surge Suppressor (C1): 1.5 thru 15 HP @ 230 VAC/3 thru 30 HP @ 460 VAC 20 HP thru 30 HP @ 230 VAC/40 thru 60 HP @ 460 VAC 40 thru 75 HP @ 230 VAC/75 thru 150 HP @ 460 VAC 100 thru 150 HP @ 230 VAC/200 thru 300 HP @ 460 VAC 400 thru 600 HP @ 460 VAC 7 thru 55 Amp Rated Output 110 Amp Rated Output 265 Amp Rated Output	N/R 1 1 1 3 N/R 1 1	Not Required 66056-49PH (2 $\mu$ F, 1500VDC) 66056-49PQ (4 $\mu$ F, 1500VDC) 610275-42R (8 $\mu$ F, 1500 VDC) 802276-819R (8 $\mu$ F, 1500 VDC) Not Required 66056-49PH (2 $\mu$ F, 1500 VDC) 66056-49PQ (4 $\mu$ F, 1500VDC)
Surge Suppressor Rectifier Heatsink Assembly: 100 thru 150 HP @ 230 VAC/200 thru 600 HP @ 460 VAC	1	802275-40R
Power Unit Fan: 1.5 thru 5 HP @ 230 VAC/3 thru 10 HP @ 460 VAC 7.5 thru 30 HP @ 230 VAC/15 thru 60 HP @ 460 VAC 40 thru 50 HP @ 230 VAC/75 thru 100 HP @ 460 VAC 60 thru 75 HP @ 230 VAC/125 thru 150 HP @ 460 VAC 100 HP @ 230 VAC/200 HP @ 460 VAC 125 thru 150 HP @ 230 VAC/250 thru 500 HP @ 460 VAC 600 HP @ 460 VAC 7 Amp Rated Output 29 thru 110 Amp Rated Output 265 Amp Rated Output	N/R 1 1 1 2 2 4 N/R 1 1	Not Required 69739-27X 69739-20R 69739-9R 69739-20R 69739-9R 69739-9R Not Required 69739-27X 69739-9R
Field Supply Assembly: <u>FlexPak 3000</u> 1.5 thru 15 HP @ 230 VAC/3 thru 30 HP @ 460 VAC 20 thru 60 HP @ 230 VAC/40 thru 125 HP @ 460 VAC 75 thru 150 HP @ 230 VAC/150 thru 600 HP @ 460 VAC 7 thru 55 Amp Rated Output 110 Amp Rated Output 265 Amp Rated Output <u>WebPak 3000</u> 1.5 thru 15 HP @ 230 VAC/3 thru 30 HP @ 460 VAC 20 thru 75 HP @ 230 VAC/40 thru 150 HP @ 460 VAC	1 1 1 1 1 1 1 1 1	179537 179536 911FK0151 179537 179536 911FK0151 911FK0101 911FK0151
Control Transformer CCT: 1.5 thru 30 HP @ 230 VAC/3 thru 60 HP @ 460 VAC 40 thru 75 HP @ 230 VAC/75 thru 150 HP @ 460 VAC 100 HP @ 230 VAC/200 HP @ 460 VAC 125 thru 150 HP @ 230 VAC/250 thru 300 HP @ 460 VAC 400 thru 500 HP @ 460 VAC 600 HP @ 460 VAC 7 thru 110 Amp Rated Output 265 Amp Rated Output	1 1 1 1 1 1 1 1	417155-6R (150VA) 417155-S (350VA) 417155-T (500VA) 417155-RB (750VA) 417155-SB (750VA) 417155-RV (1000VA) 411027-129A 411027-129B



## FlexPak 3000 and WebPak 3000 DC Drive Replacement Parts

Part Description	Quantity Per Drive	Part Number	
Power I/F PCB:		<u>S6</u>	<u>S6R</u>
1.5 thru 5 HP @ 230 VAC/3 thru 10 HP @ 460 VAC	1	O-58706-19 (before Jan 1999)	O-58706-16 (before Jan 1999)
	1	179125 (after Jan 1999)	179124 (after Jan 1999)
7.5 thru 15 HP @ 230 VAC/15 thru 30 HP @ 460 VAC	1	O-58706-20 (before Jan 1999)	O-58706-17 (before Jan 1999)
	1	179127 (after Jan 1999)	179126 (after Jan 1999)
20 thru 30 HP @ 230 VAC/40 thru 60 HP @ 460 VAC	1	O-58706-21	179679-A02
40 thru 75 HP @ 230 VAC/75 thru 150 HP @ 460 VAC	1	180041-A01	179978
100 thru 150 HP @ 230 VAC/200 thru 300 HP @ 460 VAC	1	O-58706-33	O-58706-32
400 thru 600 HP @ 460 VAC	1	O-58706-43	O-58706-42
7 Amp Rated Output	1	O-58706-19 (before Jan 1999)	O-58706-16 (before Jan 1999)
	1	179125 (after Jan 1999)	179124 (after Jan 1999)
29 thru 55 Amp Rated Output	1	O-58706-20 (before Jan 1999)	O-58706-17 (before Jan 1999)
	1	179127 (after Jan 1999)	179126 (after Jan 1999)
110 Amp Rated Output	1	O-58706-21	O-58706-18
265 Amp Rated Output	1	180041-A01	179978
Inverting Fault Breaker:			
1.5 thru 2 HP @ 230 VAC/3 thru 5 HP @ 460 VAC	1	77801-18DXA Set at A (40 A)	
3 thru 5 HP @ 230 VAC/7.5 thru 10 HP @ 460 VAC	1	419035-100DSA Set at L (50 A)	
7.5 thru 10 HP @ 230 VAC/15 thru 20 HP @ 460 VAC	1	419035-100HSA Set at 2 (90 A)	
15 thru 20 HP @ 230 VAC/25 thru 40 HP @ 460 VAC	1	419035-100NSA Set at L (150 A)	
25 thru 30 HP @ 230 VAC/50 thru 60 HP @ 460 VAC	1	419035-100SSA Set at L (450 A)	
40 thru 60 HP @ 230 VAC/75 thru 125 HP @ 460 VAC	1	419035-200ZSA Set at 2 (470 A)	
75 HP @ 230 VAC/150 HP @ 460 VAC	1	419035-300FSA Set at 2 (625 A)	
100 HP @ 230 VAC/200 HP @ 460 VAC	1	419035-400JSA Set at 2 (800 A)	
125 HP @ 230 VAC/250 HP @ 460 VAC	1	419035-400JSA Set at 4 (1100 A)	
150 HP @ 230 VAC/300 HP @ 460 VAC	1	419035-400JSA Set at HI (1250 A)	
400 HP @ 460 VAC	1	419035-600QSA Set at 2 (1900 A)	
500 HP @ 460 VAC	1	419035-600QSA Set at 3 (2300 A)	
600 HP @ 460 VAC	1	419035-600QSA Set at 4 (2600 A)	
7 Amp Rated Output	1	77801-18DXA Set at A (40A)	
29 Amp Rated Output	1	419035-100HSA Set at 2 (90A)	
55 Amp Rated Output	1	419035-100NSA Set at L (150 A)	
110 Amp Rated Output	1	419035-100SSA Set at L (450 A)	
265 Amp Rated Output	1	419035-300FSA Set at 2 (625 A)	
Heat Sink Assembly:	1	<u>S6</u>	<u>S6R</u>
1.5 thru 5 HP @ 230 VAC/3 thru 10 HP @ 460 HP	1	802273-308V	802273-307V
7.5 thru 10 HP @ 230 VAC/15 thru 20 HP @ 460 HP	1	802273-308T	802273-307T
25 HP @ 460 HP	1	802273-308SA	802273-307SA
15 HP @ 230 VAC/30 HP @ 460 HP	1	802273-308S	802273-307S
20 thru 30 HP @ 230 VAC/40 thru 60 HP @ 460 HP	1	802273-209R	802273-206S
40 thru 75 HP @ 230 VAC/75 thru 150 HP @ 460 HP	1	802274-206R	802274-207R
100 thru 150 HP @ 230 VAC/200 thru 300 HP @ 460 VAC	3	802275-2R	802275-3R
7 Amp Rated Output	1	802273-308V	802273-307V
29 Amp Rated Output	1	802273-308T	802273-307T
55 Amp Rated Output	1	802273-308S	802273-307S
110 Amp Rated Output	1	802273-209R	802273-206S
265 Amp Rated Output	1	802274-206R	802274-207R