

## LRVF Controller

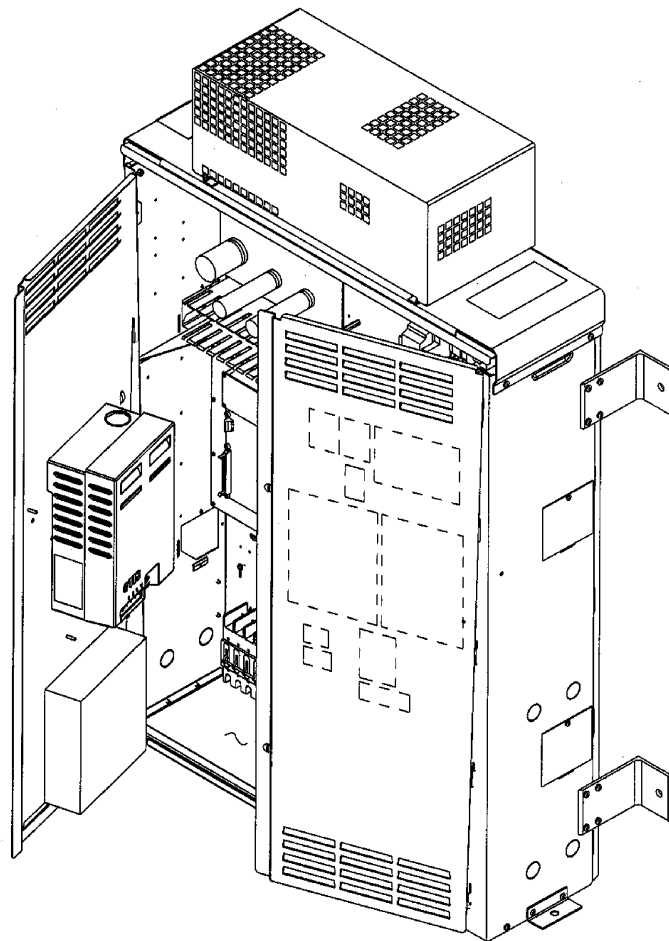
**Spare Parts Leaflet**

**10-AAA21290CF**

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# OBSOLESCENCE NOTICE

The product covered in this SPL has been designated as obsolete and is no longer supported. See TIP 32.2-1, *Obsolete Components*, for potential upgrade. Replacement lower-level parts listed within and unique to this design will be reviewed for obsolescence.



# OTIS

This document does not contain any technical data subject to EAR or ITAR

**SERVICE ENGINEERING**  
**Otis Elevator Company**  
**Bloomfield, Connecticut USA**

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**Leaflet Description**

This leaflet list the lowest replaceable units (LRUs) for the Low Rise Variable Frequency (LRVF) controller.

**Leaflet Revisions**

<b>Date Revised</b>	<b>Subject Matter Expert</b>	<b>Reason for Revision</b>
January 31, 2002	Christopher Koenig	New SPL
March 25, 2002	Christopher Koenig	Updated Part Numbers ACA26800YA1 and ACA26800YA2
December 6, 2007	Christopher Koenig	Updated views and part numbers: pp 6, 7, 11, and 12
October 24, 2012	Anh Pham	Updated parts list; Added pp. 15–17
September 21, 2022	Juan Murillo	Updated to include OBSOLESCENCE note on cover

**Related Drawings**

<b>Drawing No.</b>	<b>Title</b>	<b>Drawing No.</b>	<b>Title</b>
AAA21290CF	Assembly and arrangement for LRVF controller	ACA26800YK	211 Power Supply Subsystem
AAA21305BP	UCM Adder Box		

**Related Documents**

<b>Document ID</b>	<b>Title</b>
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**Subject Matter Expert**

<b>Name</b>	<b>Department</b>
Anh Pham	OSC Service Engineering

**About Spare Parts Leaflets...**

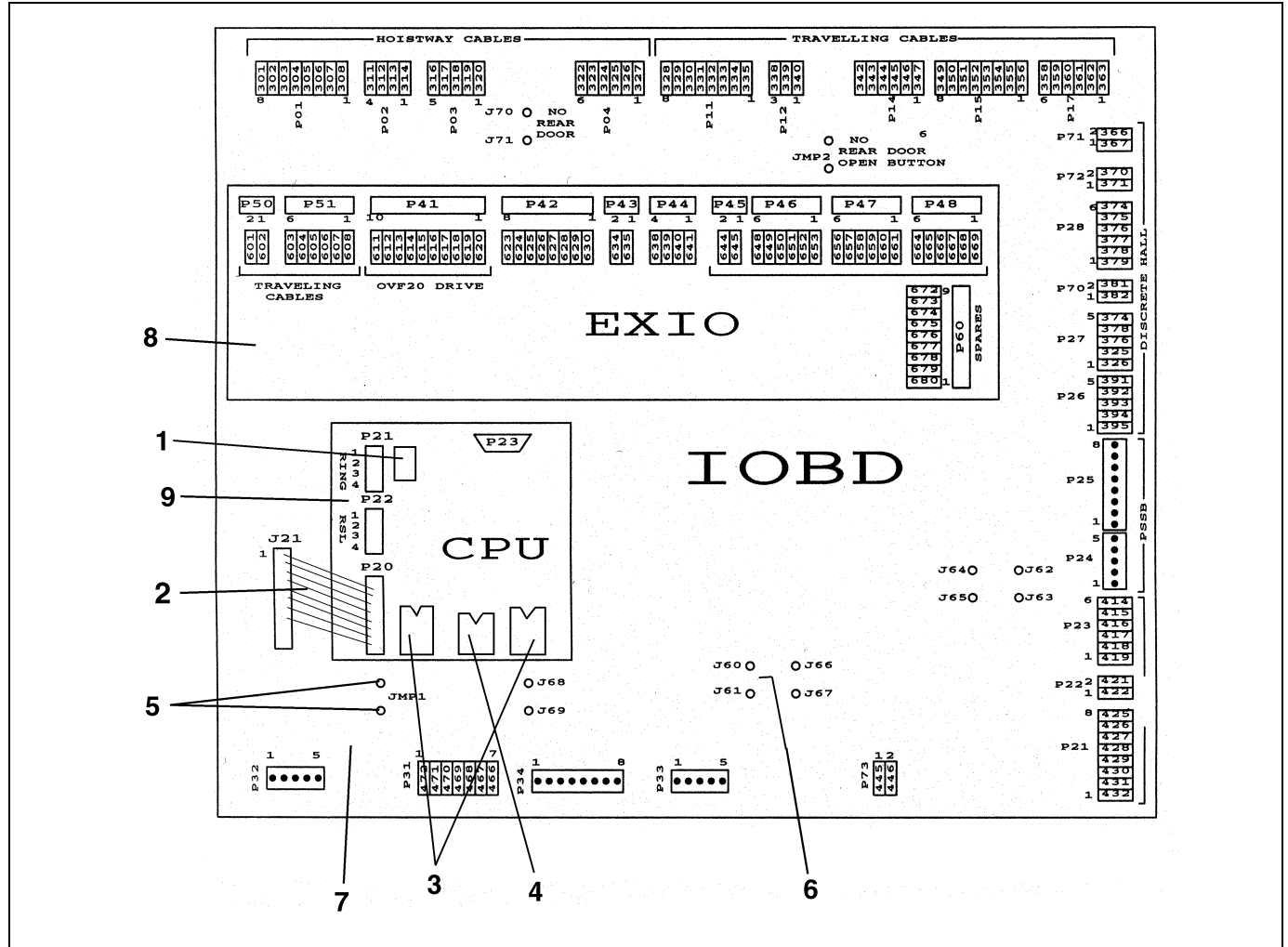
This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing.

While goal of this document is to make parts identification as easy as possible, the document cannot be all-inclusive. Elevator and escalator contracts classified as “special” or “custom” are not addressed here. For such contracts, please refer to specified information, the contract folder, TIPs, Field Education Articles, Construction Letters, etc. for further information.

If you have any suggestions about this document, please contact the subject matter expert listed on this page.

# CPU and I/O Boards

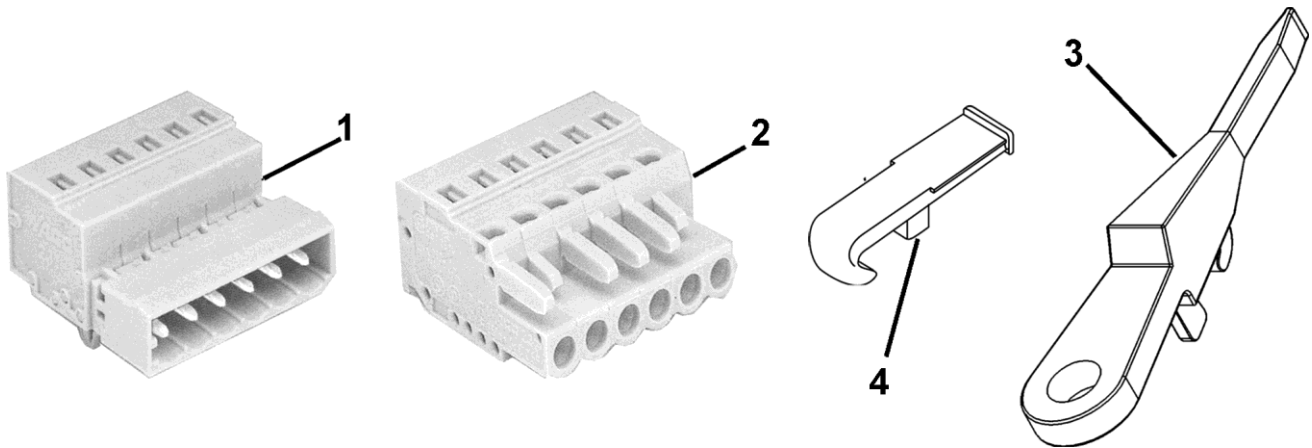
## 10-AAA21290CF



REF. No.	PART No.	DESCRIPTION	SYMBOL
	<b>AAA21290CF</b>		
1	AAA21241F4 AAA21241F2	Battery, 3.0 V, and Cable Assembly	---
2	AAA174TP4	Cable, Ribbon, 60-Position	---
3	AAA616NK2	EPROM (blank baseline & contract software)	U7, U8
	AAA30900AAC	EPROM (baseline)	U8
4	AAA616KM3	EEPROM	C29
5	AAA646D1	Jumper, Black	---
6	AAA646E4	Jumper, Red (used on IOBD & PSSB board)	Example J60-J61
7	ACA26800YA1	PC Board, I/O, w/Door Lock Bypass	IOBD
	ACA26800YA2	PC Board, I/O, w/o Door Lock Bypass	
8	AAA26800YB1	PC Board, I/O Extender (#1 mod and discrete fixtures)	EXIO
9	AAA26800TD1	PC Board, Microprocessor	CPU

# 10-AAA21290CF

# I/O Board Connectors

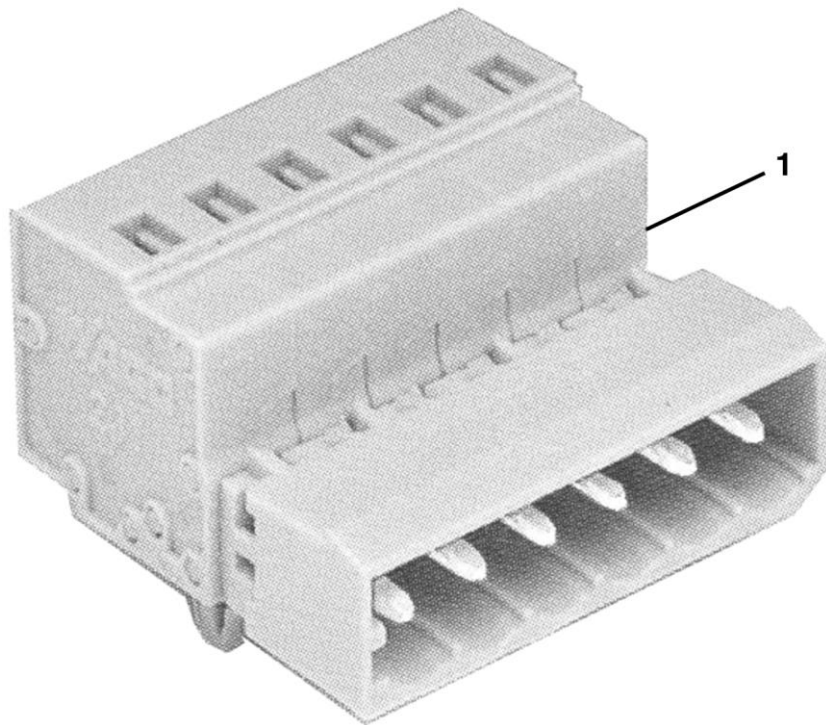


AAA21290CF				
REF. No.	PART No.	DESCRIPTION	CONDITION	SYMBOL
1	AAA447BE1	Connector, for I/O Board (IOBD)	Top Limits (Red)	P01
	AAA447BE2		Safety Chain (Red)	P02
	AAA447BE3		Door Link (Red)	P03
	AAA447BE4		Hall Fixtures (Brown)	P04
	AAA447BE5		Position System (Brown)	P11
	AAA447BE58		Front Door Opening (Blue)	P12
	AAA447BE59		Inspection (Orange)	P14
	AAA447BE60		Front I-MOTION (Yellow)	P15
	AAA447BE9		Gate Switches (Red)	P17
2	AAA447BE18		OVF20 Drive (Red)	P21
	AAA447BE17		OVF20 Drive (Red)	P22
	AAA447BE16		OVF20 Drive (Red)	P23
	AAA447BE15		Inspection (Brown)	P26
	AAA447BE14		Intercar Connection (Brown)	P27
	AAA447BE12		Smoke Sensors (Brown)	P28
	AAA447BE20		Run Bug (Red)	P31
	AAA447BE13		Spare—MOD	P70
	AAA447BE10		Spare—MOD (Red)	P71
	AAA447BE11		Spare—MOD (Brown)	P72
3	AAA27BZ1 AAA27EF11	Tool, Wago Terminal Tool		
	AAA447AP100 AAA27EF10	Tool, Wago Block Hook		

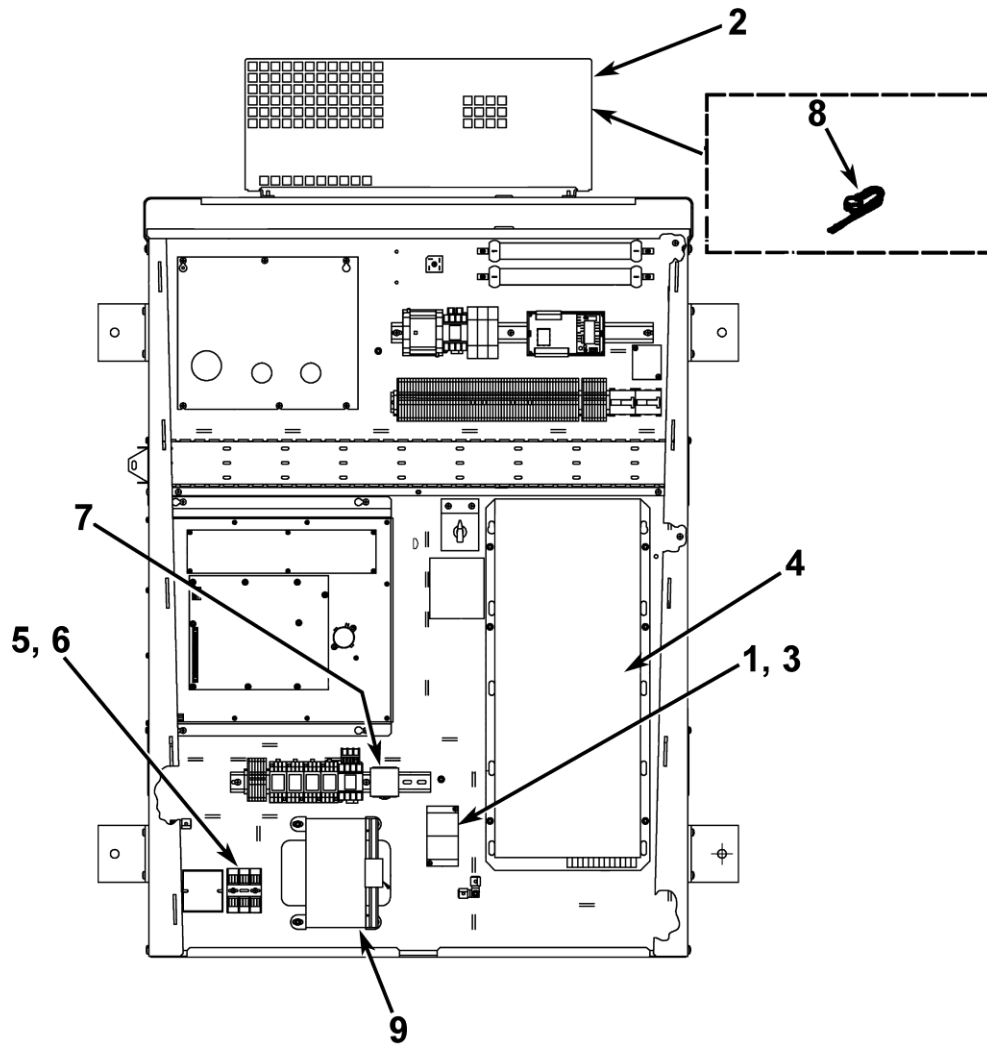
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# I/O Board Connectors

**10-AAA21290CF**



AAA21290CF				
REF. No.	PART No.	DESCRIPTION	CONDITION	SYMBOL
1	AAA447BE45	Connectors, for Extendor I/O Board (EXIO)	OVF20 Drive	P41
	AAA447BE46		EPO	P42
	AAA447BE47		Discrete COP	P43
	AAA447BE48		Discrete CPI	P44
	AAA447BE49		Discrete Hall	P45
	AAA447BE50		REFK	P46
	AAA447BE51		Relay Drivers	P47
	AAA447BE52		Discrete Hall	P48
	AAA447BE61		Rear Doors	P50
	AAA447BE62		Rear I-MOTION	P51
	AAA447BE53		Relay Drivers	P60

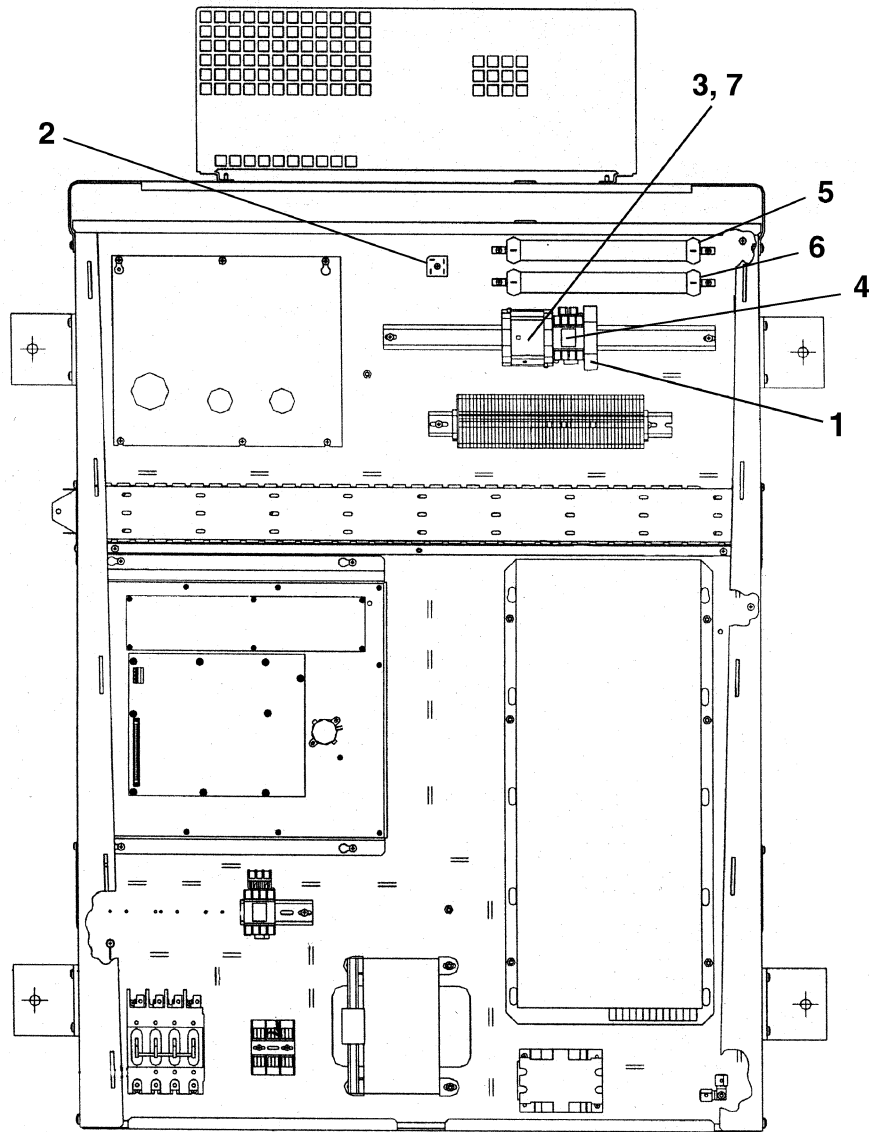


**NOTE:** Current Component Layout Shown

<b>AAA21290CF</b>			
<b>REF. No.</b>	<b>PART No.</b>	<b>DESCRIPTION</b>	<b>SYMBOL</b>
1	AAA156BN107	Auxiliary Contacts	SW1
2	GOA9673GV20	Cabinet, DBR	DBR
3	AAA638R107	Contactors, NEMA 2AC	SW1
4	GCA21150DL1	Drive, ACVF (also see pp. 13–14)	OVF20
	AAA21344H1	Drive Kit, ACVF (also see pp. 15–16)	
5	AAA180FK1	Holder, Fuse	F1, F2, F3
6	AAA180FK2	Puller, Fuse	F1, F2, F3
7	AAA630AC2	Relay, Phase Loss	J
8	GAA177HD3	Thermoswitch	---
9	AAA225JT16	Transformer	TRF

# Brake Circuit Hardware

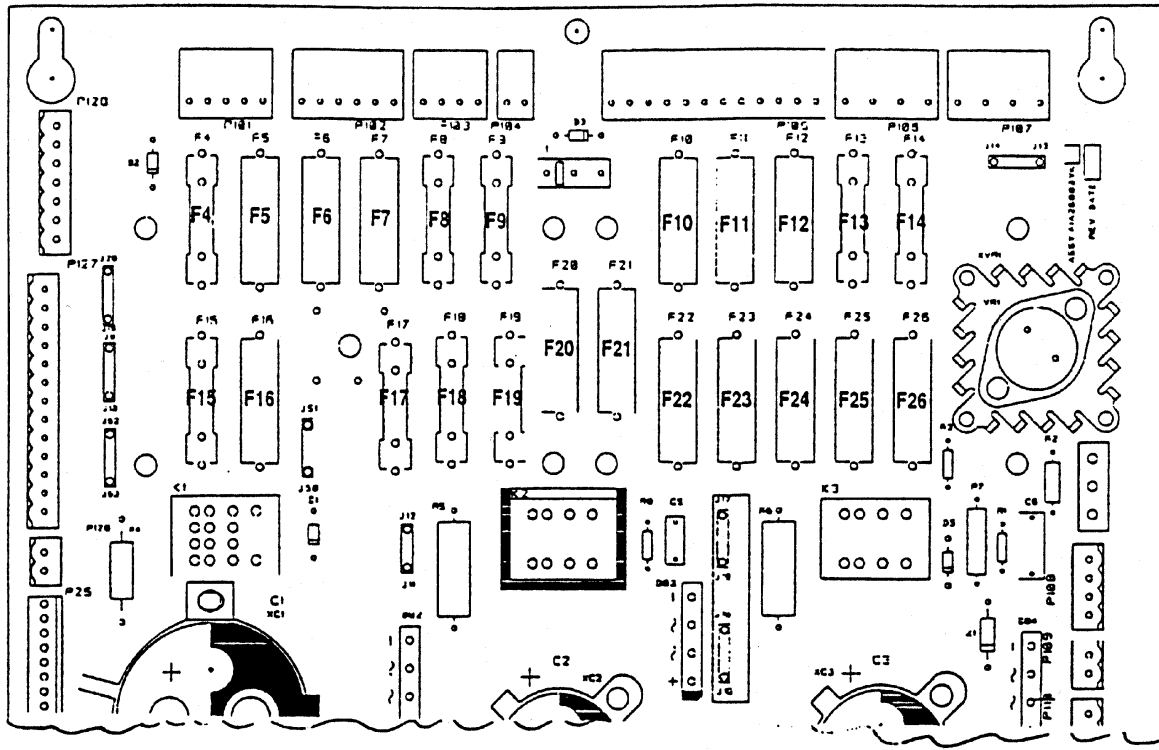
**10-AAA21290CF**



<b>AAA21290CF</b>			
<b>REF. No.</b>	<b>PART No.</b>	<b>DESCRIPTION</b>	<b>SYMBOL</b>
1	AAA00375AAF005	Breaker, Circuit 3A (with 240 V brake)	CB2
	AAA00375AAF007	Breaker, Circuit 6A (with 120 V brake)	CB2
2	230BS3	Rectifier	RF1
3	AAA638J6	Relay, Contactor NEMA 1	BP
4	AAA613DL91	Relay, General Purpose	BH
5	AAA617K9	Resistor, 225 W, 100 Ω	BR1
6	AAA617K10	Resistor, 225 W, 250 Ω	BR2
7	AAA00605AAA008	Suppressor, Relay	BP

# 10-AAA21290CF

# System Fuses



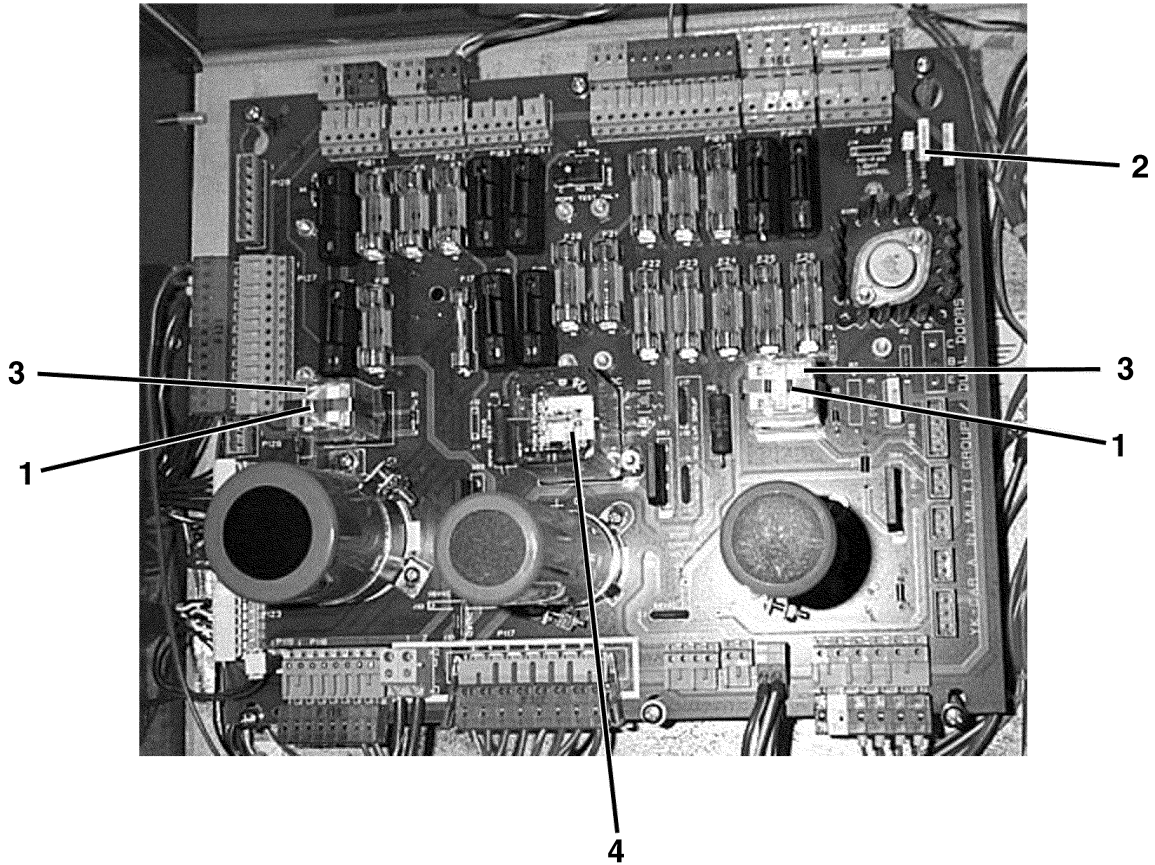
**ABA26800YK1**

AAA21290CF						
FUSE No.	PART No.	TYPE	AMPS	VOLTS	BUSSMAN	LITTLE FUSE
F1, F2, F3	AAA375BK38	Time Delay Rejection	9	600	FNQ-R-9	KLDR 009
F14	AAA375BT14	Fast Acting Ceramic Body	15	250	ABC-15	---
F17	AAA375CJ6	Time Delay	25	125	MDA-25	326 025
F9, F13	AAA375BR12	Glass Body Time Delay	3	250	MDL-3	313 003
F23, F100	AAA375BR6		1		MDL-1	313 001
F5, F16	AAA375BT19	Fast-Acting	5		AGC-5	312 005
F6	AAA375BT24		0.5		AGC-1/2	312 500
F7	AAA375BT25		0.75		AGC-3/4	312.75
F8, F24, F25	AAA375BT27		2		AGC-2	312 002
F10	AAA375BT18		3		AGC-3	312 003
F20, F21, F26	AAA375BT28		4		AGC-4	312 004
F12	AAA375BT22		0.125		AGC-1/8	312 125
F4, F15, F18, F19	AAA375BT32		10		AGC-10	312 010
F11	AAA375BT26	Fast Acting Time Delay	1.5		AGC-1 1/2	312 015
F22	AAA375BR14		4		MDL-4	313 004



# Power Supply Hardware

**10-AAA21290CF**

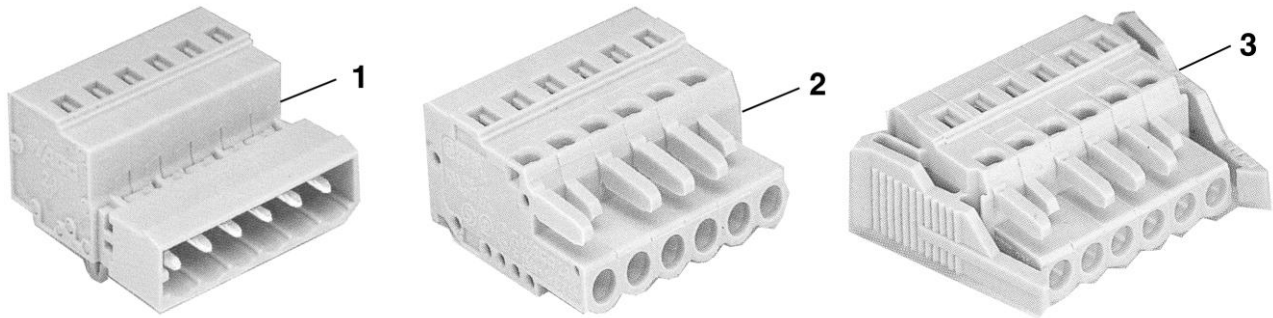


AAA21290CF				
REF. No.	PART No.	DESCRIPTION		SYMBOL
1	AAA618AF100	Clips, Relay		---
2	ABA26800YK1 ACA26800YK1	PC Board, Power Supply Subsystem		PSSB
3*	AAA613CZ8	Relay, Ice Cube, 24 VDC, Mounted on PSSB	Fire Service Relay to Cont. Hall Pos. Ind.	FSR
			Switchover Relay Elevator Relays A, B, C, or D	SWR
4	AAA613CZ9	Relay, Ice Cube, 120 VAC (Mounted on ABA26800YK PSSB)	REM Power Transfer Relay for Elevators B, C, or D	RPTR
	AAA613CZ24	Relay, Ice Cube, 110 VDC (mounted on ACA26800YK PSSB)		

\* Order two—one for each function.

# 10-AAA21290CF

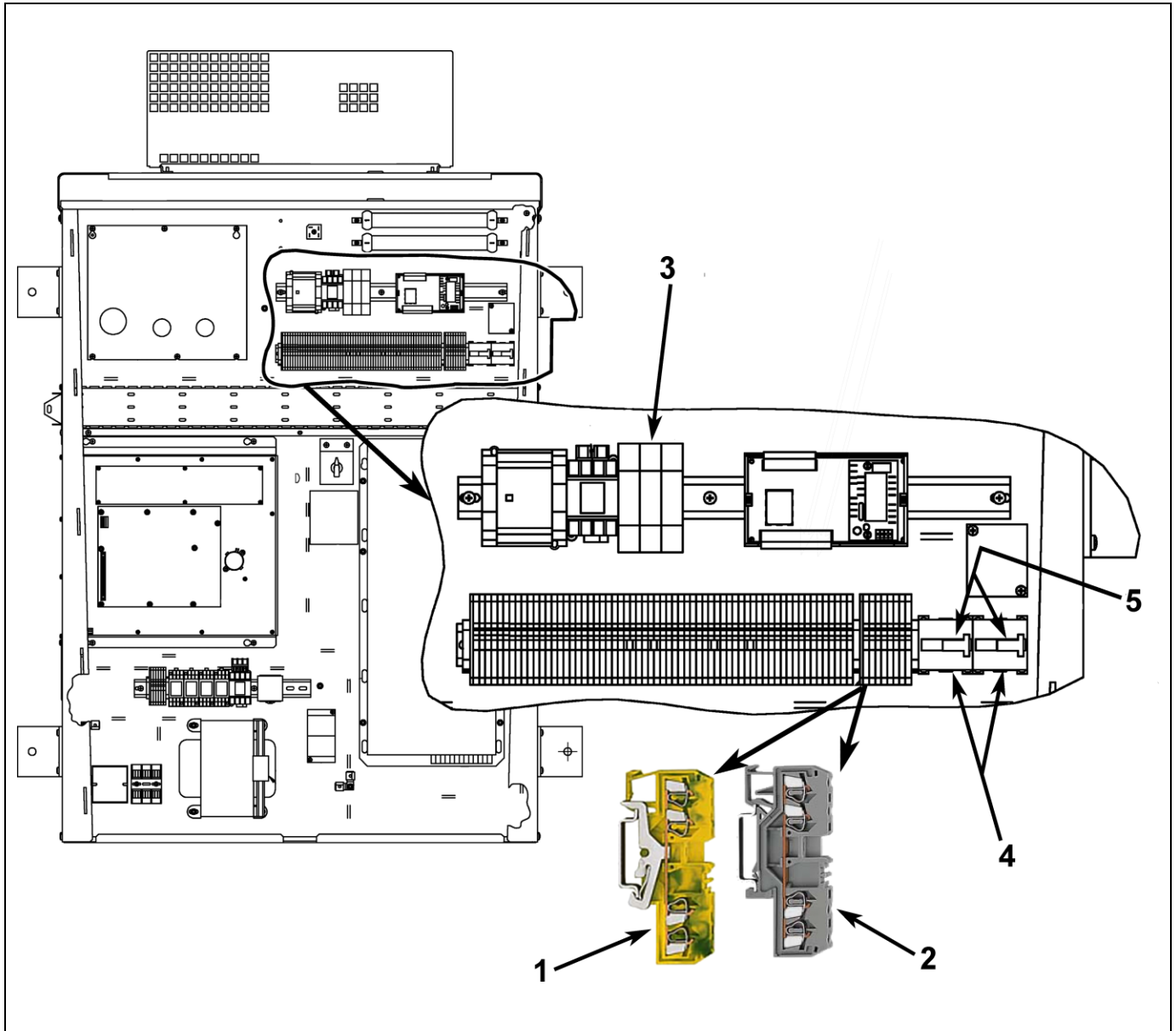
## Power Supply Hardware— Connectors



REF. No.	PART No.	DESCRIPTION	CONDITION	SYMBOL
	<b>AAA21290CF</b>			
1	AAA447BE21	Connectors, Power Supply Board	Hall	P101
	AAA447BE22		Intercar Connection	P130
	AAA447BE63		TOC	P105
	AAA447BE64		Door Operator	P106
	AAA447BE65		Front Only (YL) PC Board	P106
	AAA447BE66		Fan Light	P107
	AAA447BE37		LOS, LPS Sensors	P116
	AAA447BE39		Fan and Light	P113
	AAA447BE41		Controller Power	P127
2	AAA447BE23		Hall/Group	P102
	AAA447BE24		Card Reader	P103
	AAA447BE25		Rope Governor	P104
	AAA447BE29		120 VAC Door Operator	P108
	AAA447BE30		56 VAC	P109
	AAA447BE31		120 VAC HL	P110
	AAA447BE32		120 VDC HL	P111
	AAA447BE67		24 VDC	P112
	AAA447BE34		REM—Car A	P118
	AAA447BE35		REM—Car B, C, and D	P118
3	AAA447BE40	Intercar Connection	P128	
	AAA447BE42	Main Line Disconnect	P126	
	AAA447BE36	Transformer	P117	

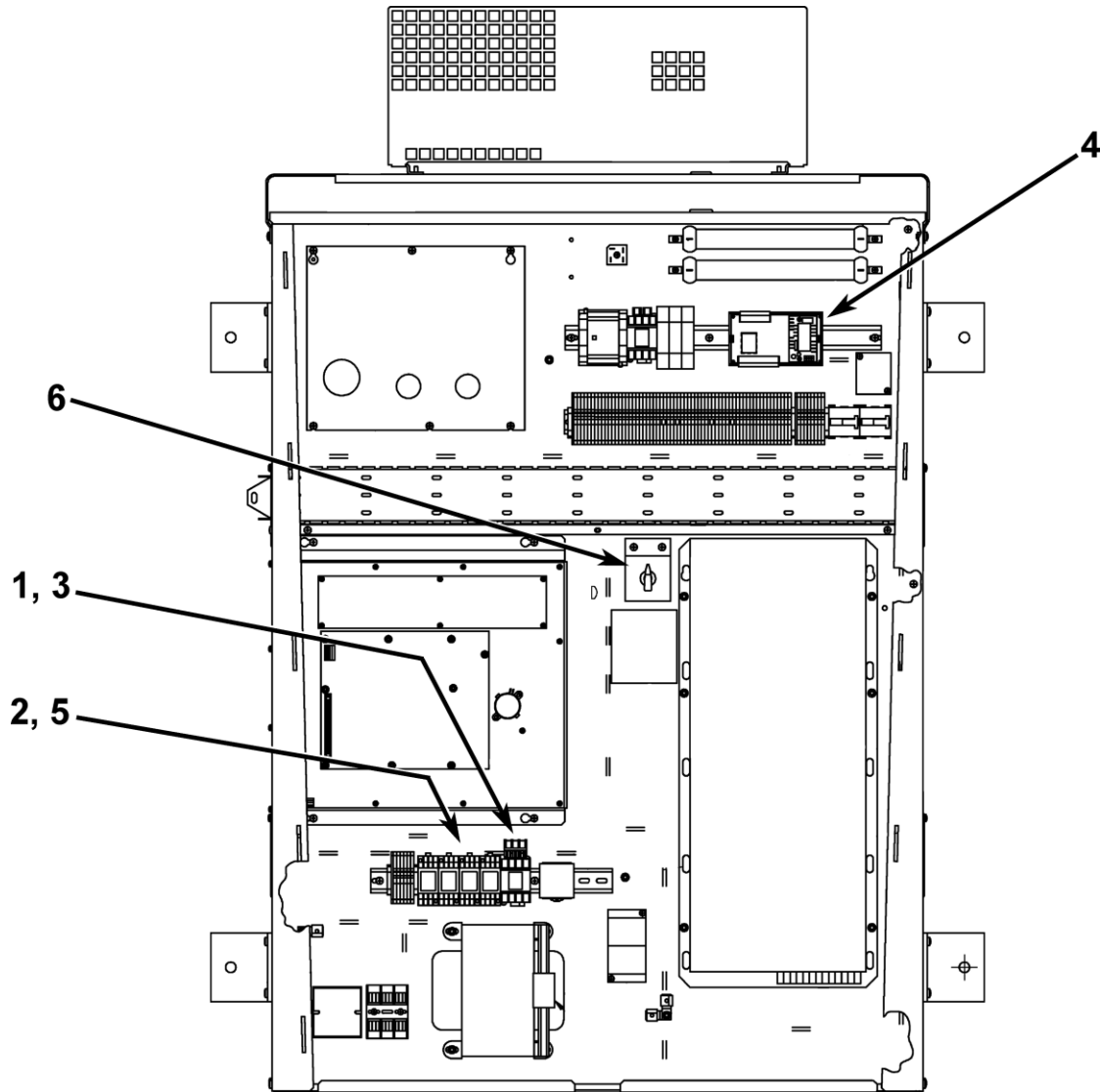
# Relays and Terminal Blocks

**10-AAA21290CF**

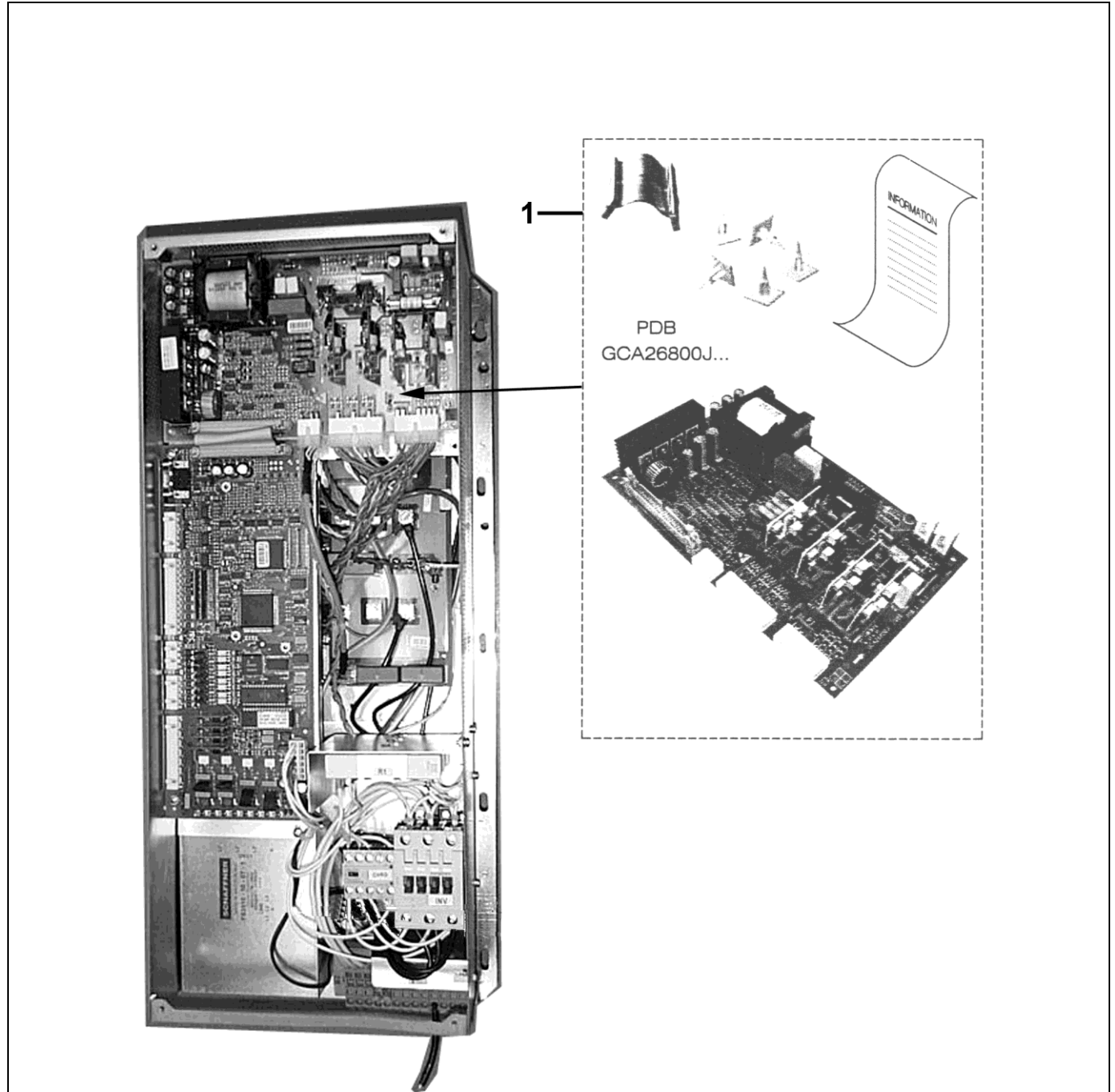


AAA21290CF			
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AAA303EP142	Block, Terminal, Yellow-Green, 4-Position	C
2	AAA303EP139	Block, Terminal, Grey, 4-Position	C
3	AAA00375AAF004	Breaker, Circuit, 1 A	CB3
4	AAA638B105	Contactor	CMR, RCMR
5	AAA613CX704	Suppressor	CMR, RCMR

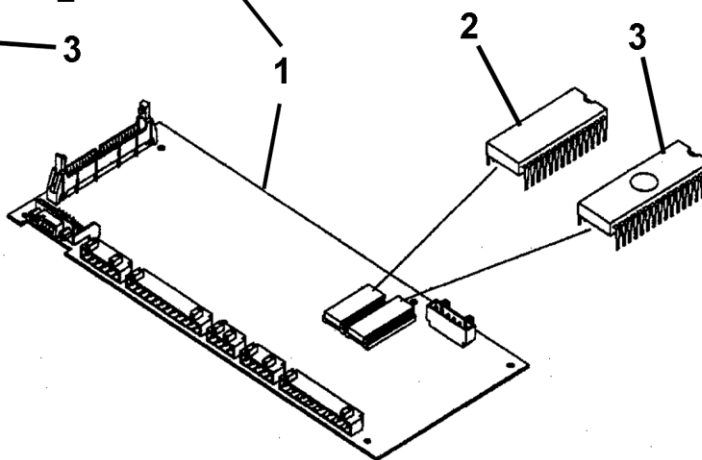
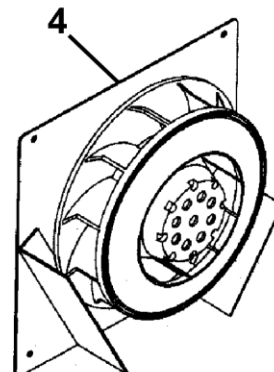
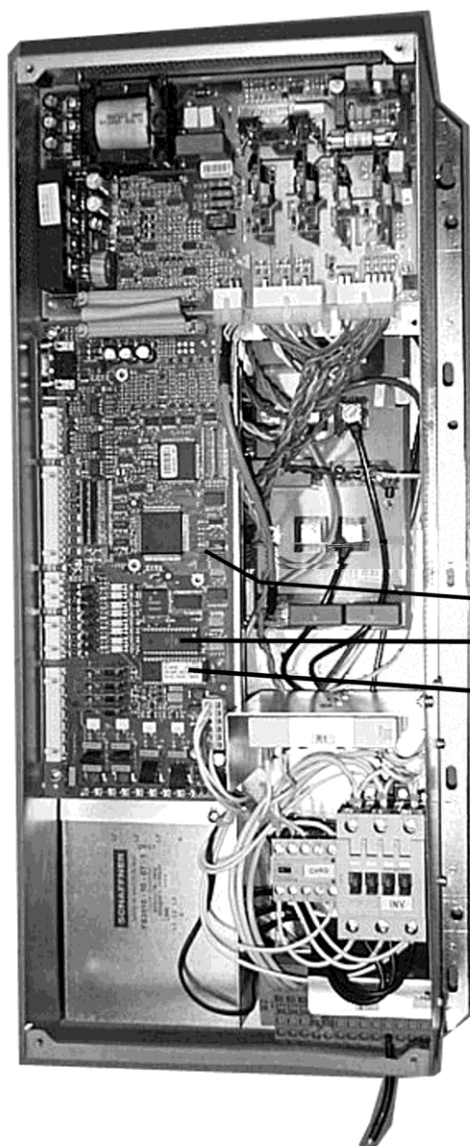
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<b>AAA21290CF</b>			
<b>REF. No.</b>	<b>PART No.</b>	<b>DESCRIPTION</b>	<b>VOLTAGE</b>
1	AAA613DL80 AAA613DL81	Drive, Coil, 24 VDC, Fan and Light Protection	FLP
2	AAA613CZ9	Relay, 120 VAC	ADR, LADR, UADR, RADR
3	AAA613DL31	Relay, 120 VAC, Fan and Light Protection	FLP
4	ABB21380E1	Seismic Module	EQM
5	AAA00605AAA014	Suppressor, RC	ADR, LADR, UADR, RADR
6	AAA636E3	Switch, Rotary	DBPS



AAA21290CF			
REF. No.	PART No.	DESCRIPTION	VOLTAGE
1	GCA26800J500 GDA26800J500	Kit, Replacement, Power Supply Board	480 V

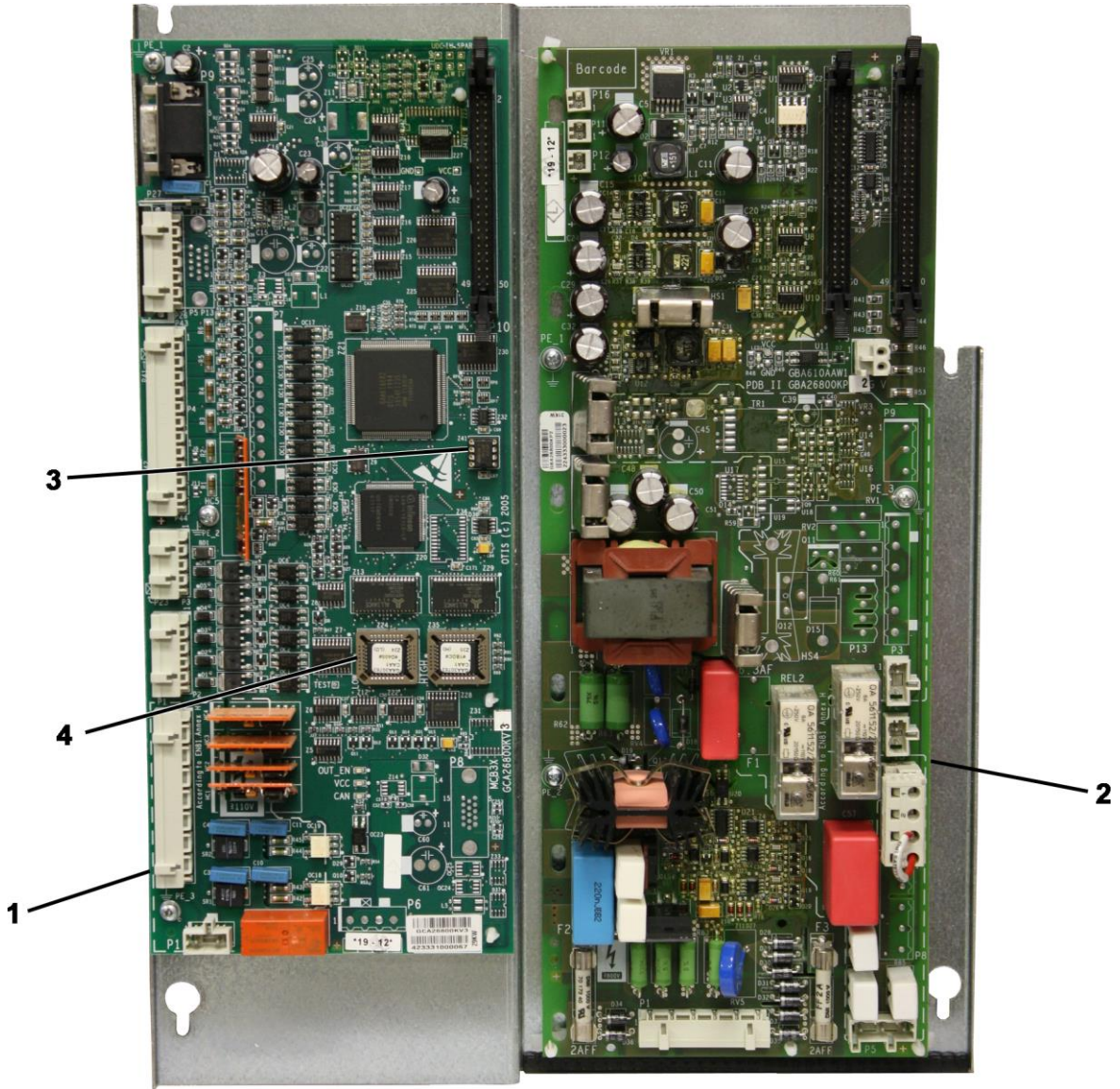


<b>AAA21290CF</b>		
<b>REF. No.</b>	<b>PART No.</b>	<b>DESCRIPTION</b>
1	GCA26800H10 GDA26800H10	Board, Motion Control (MCB II)
2	GO616BP6	EEPROM (blank)
3	GAA30158AAF021	EPROM (used for MCB II p/n GBA26800H1 & p/n GCA26800H1)
	GAA30150BAA1	EPROM (used for MCB II p/n GAA26800H1)
	AAA616LX3 GAA616HK1	EPROM (blank)
4	GAA713E1	Fan, Radial



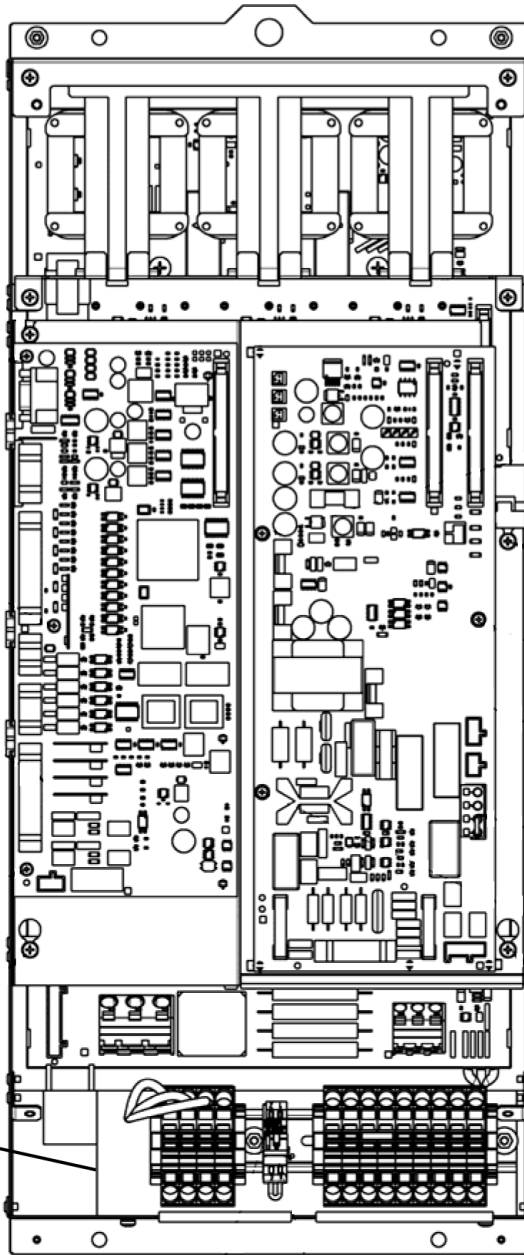
# 10-AAA21290CF

# Drive Components



AAA21290CF		
REF. No.	PART No.	DESCRIPTION
1	GCA26800KV30	Board, Motion Control (MCB IIIx) w/o Flash Software. See NOTE
2	GBA26800KP2	Board, Power Drive (PDB II)
3	GAA616JB1	EEPROM (blank)
4	GAA30763BAF	Software (burn on GAA616FL2 chip), Latest Version Z24 and Z35 (see NOTE)

**NOTE:** The software (p/n GAA307063BAF, check for the latest version) must be ordered when ordering the motion control board (p/n GCA26800KV30).



1

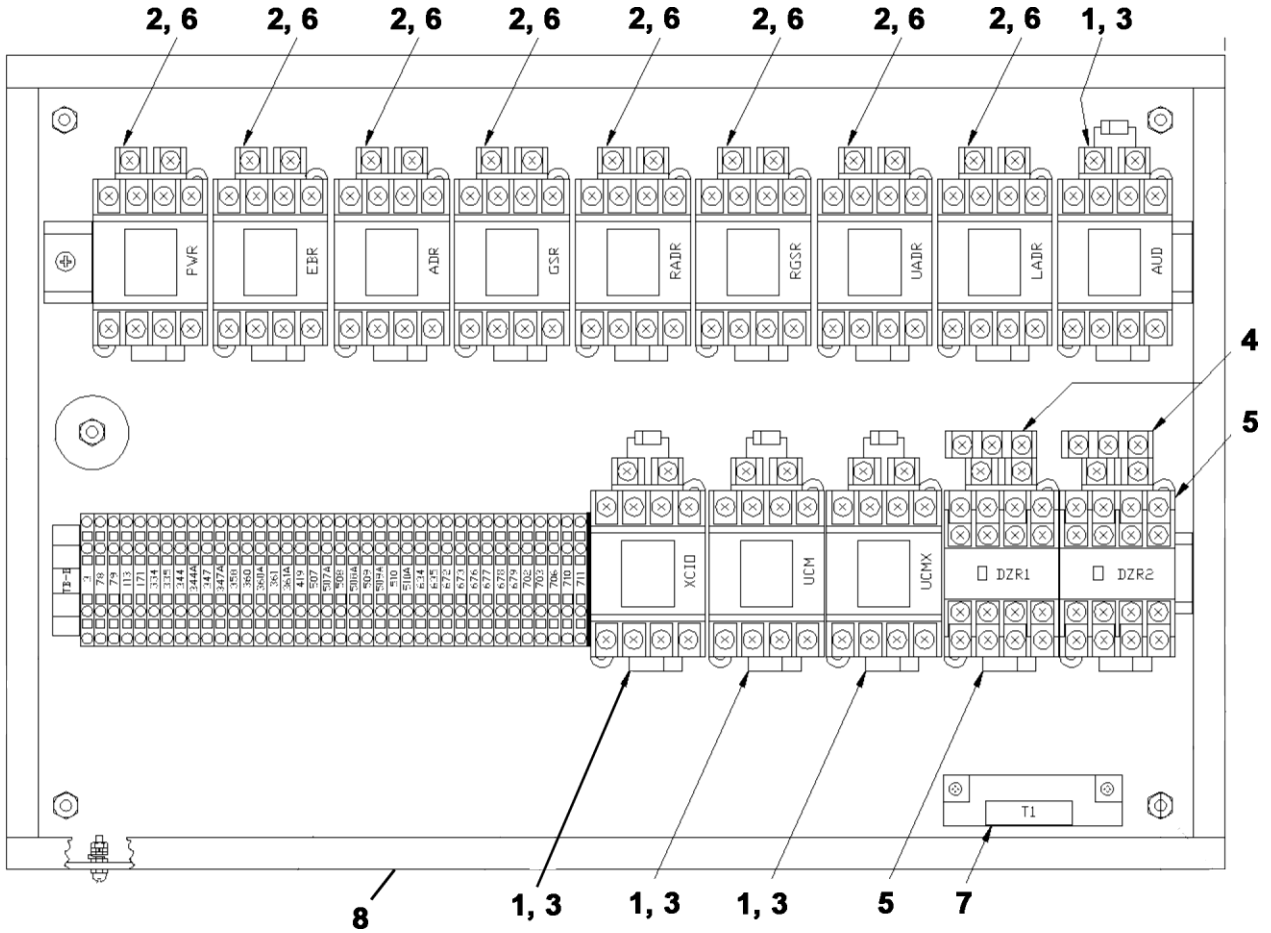
AAA21290CF		
REF. No.	PART No.	DESCRIPTION
*	GAA713M1	Fan
1	GAA657S2	Filter, ADP

\* Part not shown.



# 10-AAA21290CF

# Drive Components



AAA21290CF		
REF. No.	PART No.	DESCRIPTION
1	AAA612T7	Diode
2	AAA613DL30	Relay, 3NO, 1NC, 120VAC coil
3	AAA613DL92	Relay, 2NO, 2NC, 24VDC coil
4	AAA613DL81	Relay coil driver 24VDC coil
5	AAA613DL36	Relay, 4NC, 4NO, 120VAC coil
6	AAA613DL61	Suppressor
7	AAA623AA7	Timer
8	AAA21305BP1	UCM Adder box for front door only
	AAA21305BP2	UCM Adder box front and rear doors