

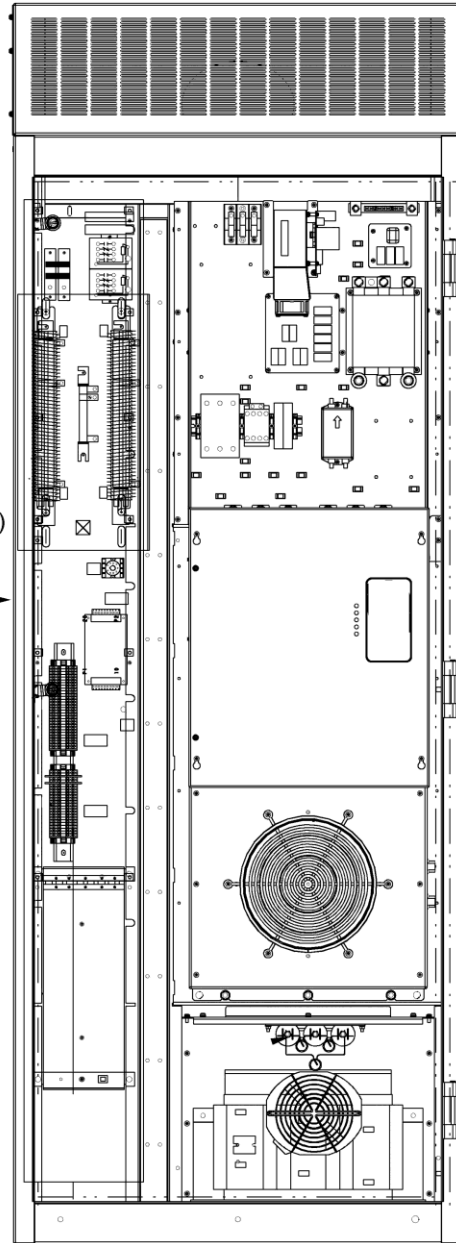
Quattro Direct Drive Cabinet

Spare Parts Leaflet 10-AAA21255AH

August 3, 2022 / Page 1 of 19

W/O VINTAGE

Nameplate on Side Wall (inside)



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 provides spare parts information for Quattro drive cabinet. The Quattro drive is manufactured by Magnetek® Inc. and has been modified from the commercial standard to match Otis interface requirements. The Quattro drive may be interfaced to several styles of Otis controllers.

NOTE: This leaflet describes the parts for Quattro I (manufactured 2007–2011) as well as the Quattro II (manufactured 2010 and later). Page headings will indicate which drive is shown on each page.

Leaflet Revisions

Date Revised	Subject Matter Expert	Reason for Revision
March 2, 2011	Chris Koenig	New SPL
February 3, 2016	Chris Koenig	Revised throughout
August 3, 2022	Chris Koenig	Updated TRF and Power Supplies

Related Drawings

Drawing No.	Title
AAA21255AH	Assembly, E411-Chameleon Direct Drive Cabinet
AAA27076FY	Software Assembly

Related Documents

Document ID	Title
TIP 1.1.21.0-8	Product Interface PCB Revision
TIP 1.1.21.0-10	Quattro® A8 Relay interface PCB
TIP 1.1.21.0-12	DPTRF Upgrade in the Quattro and DS-212 Cabinet Drives
TIP 1.1.21.2-1	Loop Contactor for Quattro® DC Drive

Subject Matter Expert

Name	Department
Chris Koenig	OSC Service Engineering

About Spare Parts Leaflets...

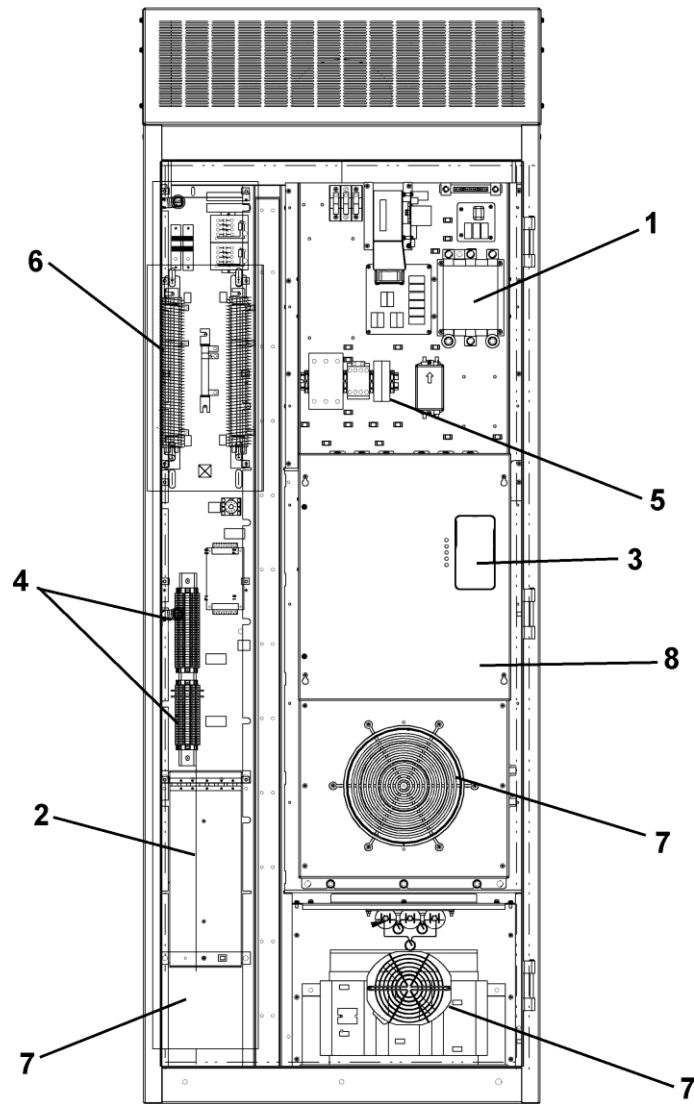
This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing.

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.

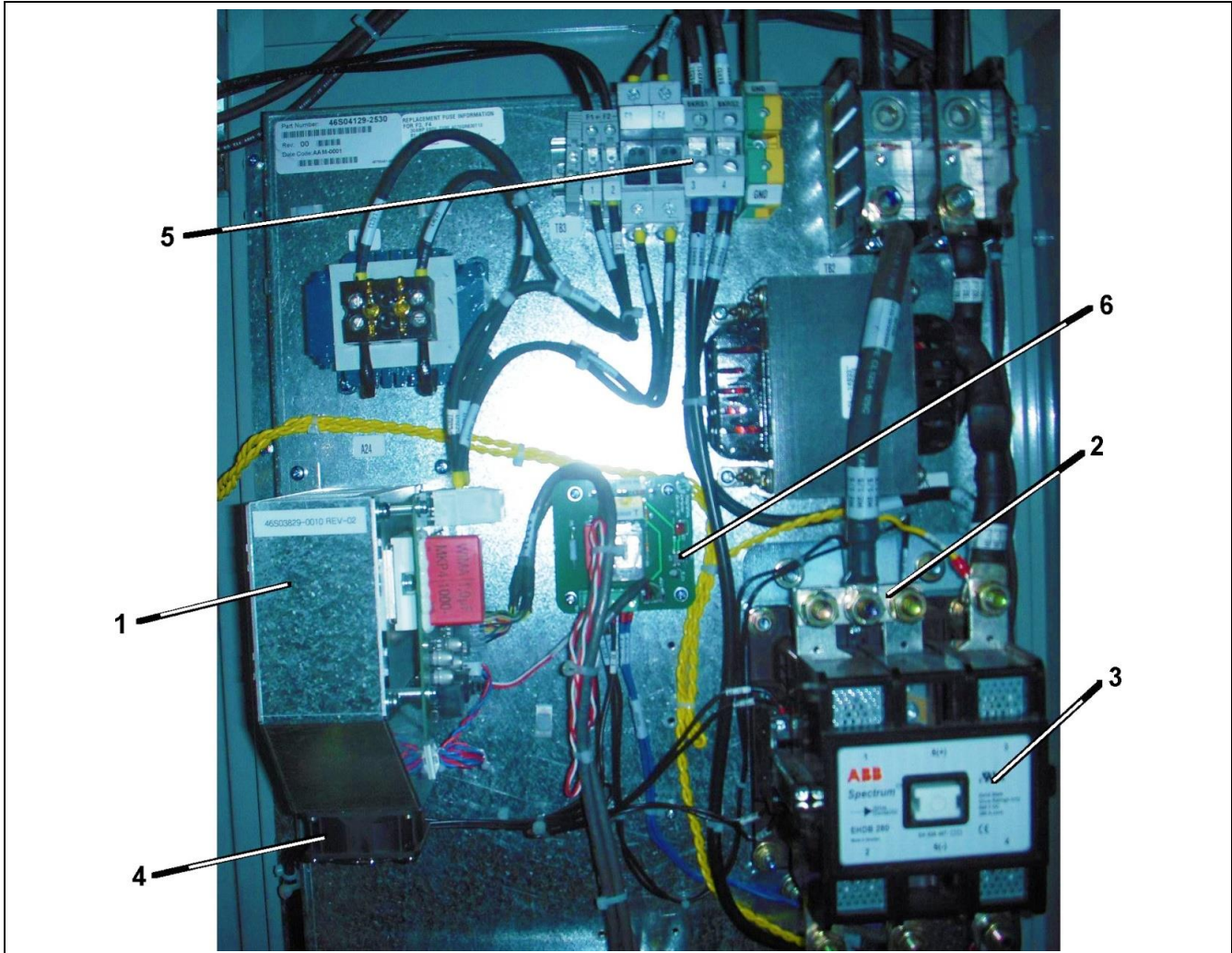
If you have any suggestions about this document, please contact the subject matter expert listed on this page.

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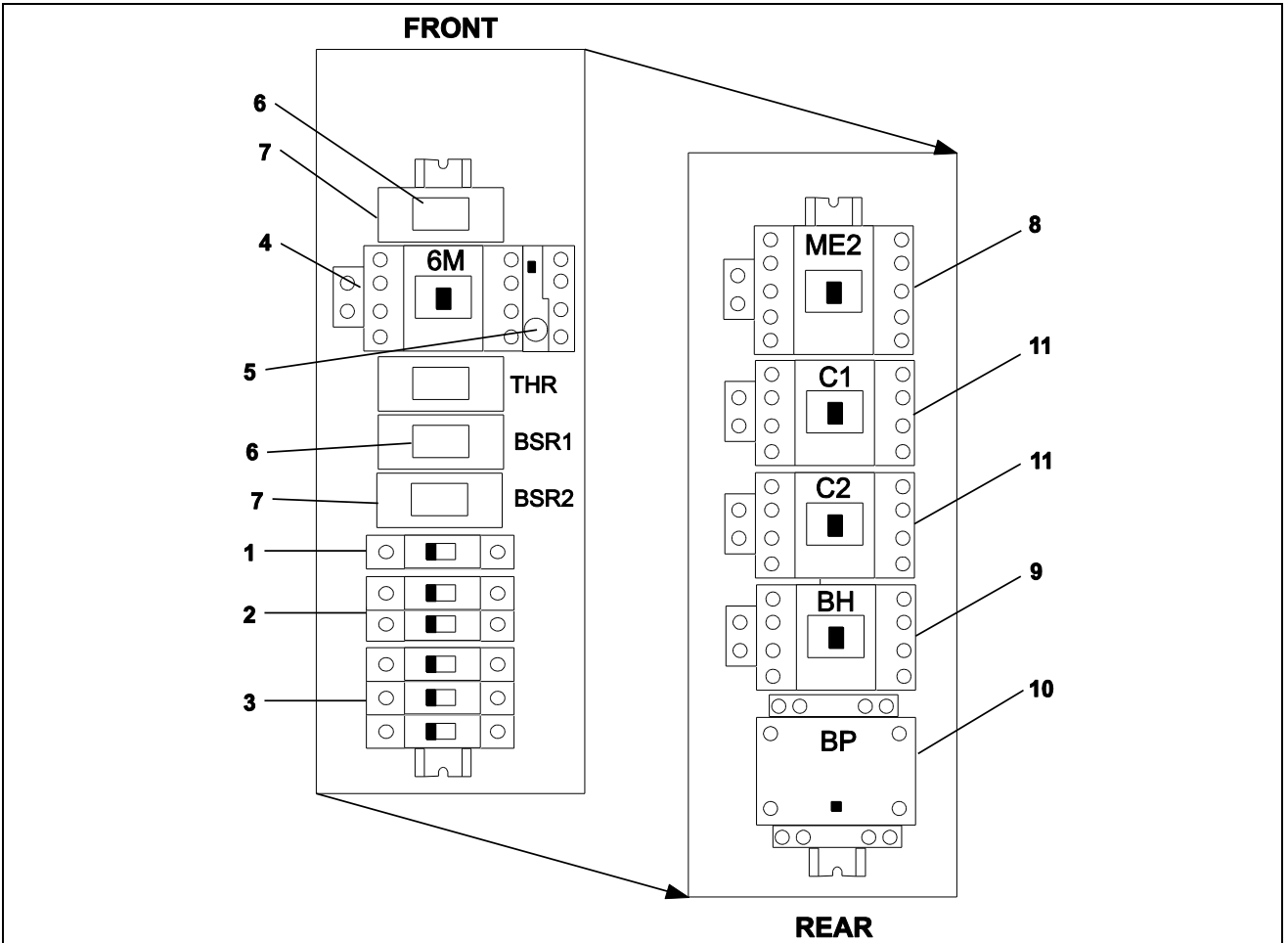
W/O VINTAGE

REF. No.	PART No.	DESCRIPTION	REMARKS
1	AAA21255AH513	Amplifier, Power, Motor Field	A24
2	AAA252BR2	Bar, Bus	(125-250A drives)
	AAA252BR4		(300A drive)
*	AAA447X37	Connector, Pluggable, 6-Position	A9-TB1
3	AAA638AE8	Contactors, Loop, EHDB-220 (240V coil)	ME (125, 150A drive)
	AAA638AE11	Contactors, Loop, EHDB-280 (240V coil)	ME (200, 250A drive)
	AAA638AE12	Contactors, Loop, EHDB-360 (120V, 60Hz coil)	ME (300A drive)
	AAA638AE10	Contactors, Loop, EHDB-360 (120V, 50Hz coil)	ME (300A drive)
4	LA05P00016-0086	Fan, Motor Field Power Supply (Q1)	FAN3
	AAA21255AN402	Fan, Motor Field Power Supply (Q2)	
5	LA5P00017-0597 AAA375CK9	Fuses, Motor Field	F1, F2
6	AAA21255AH508	PCB, Contactor Control for Quatro I	A9 (46S03799-0010)

* Part not shown.

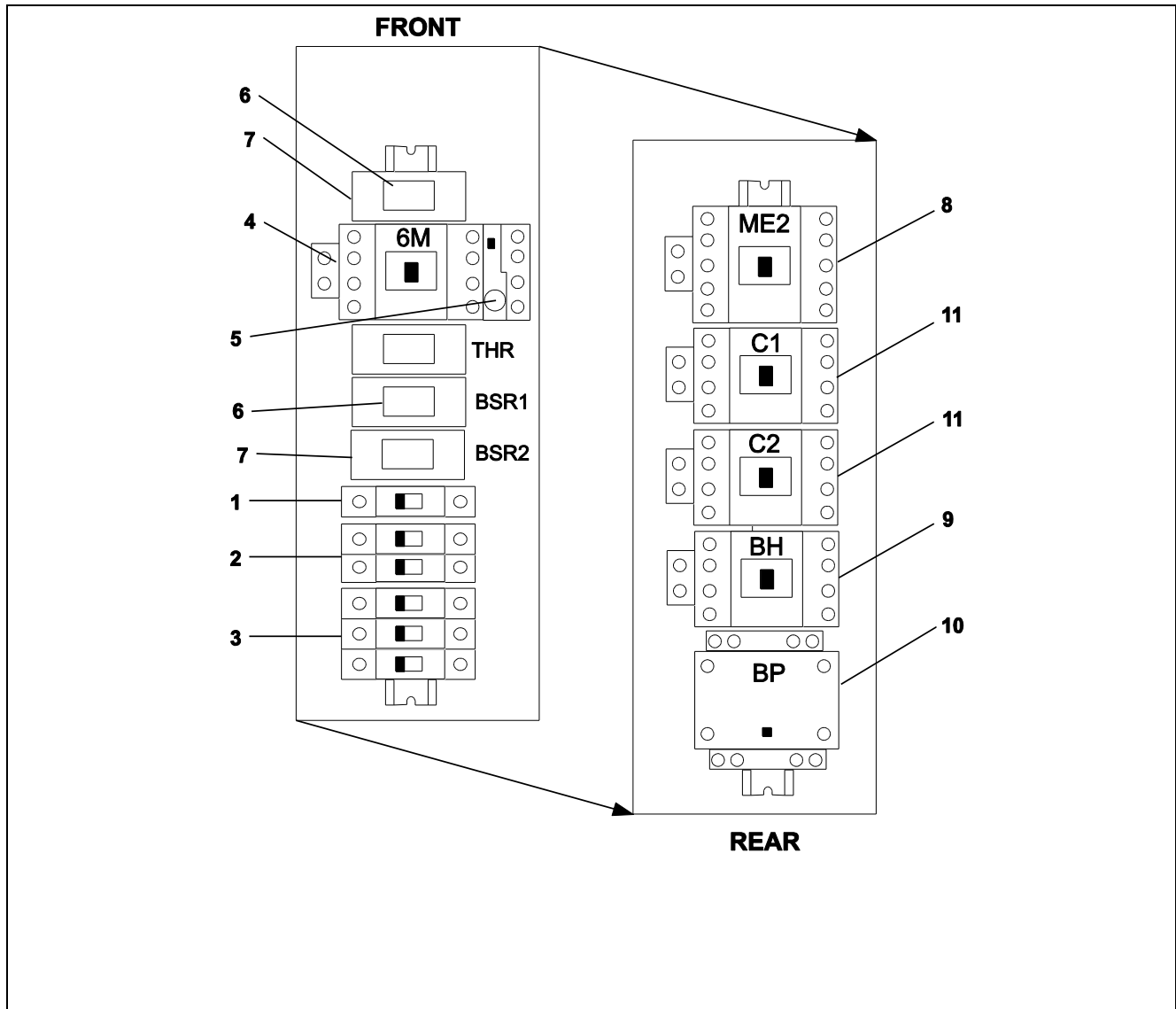
Relay Swing Panel (front)

10-AAA21255AH



REF. No.	W/O VINTAGE PART No.	DESCRIPTION	REMARKS
1	AAA00375AAF007	Breaker, Circuit, 1-Pole, 6 A	CB33 (with blower)
2	AAA00375AAD007	Breaker, Circuit, 2-Pole, 6 A	CB32
3	AAA00375AAJ007	Breaker, Circuit, 3-Pole, 6 A	CB31
4	AAA613DL29	Contactor, Machine Blower	6M
5	AAA660F3	Overload	6M-OL (0.9–1.45 A)
	AAA660F4		6M-OL (1.4–2.2 A)
	AAA660F5		6M-OL (1.7–2.6 A)
	AAA660F7		6M-OL (2.8–4.2 A)
	AAA660F8		6M-OL (4–6 A)
	AAA660F10		6M-OL (6–9 A)
	AAA660F11		6M-OL (7–11 A)
6	AAA613CZ9	Relay	BSR1, BSR2, THR

(Continued on next page)



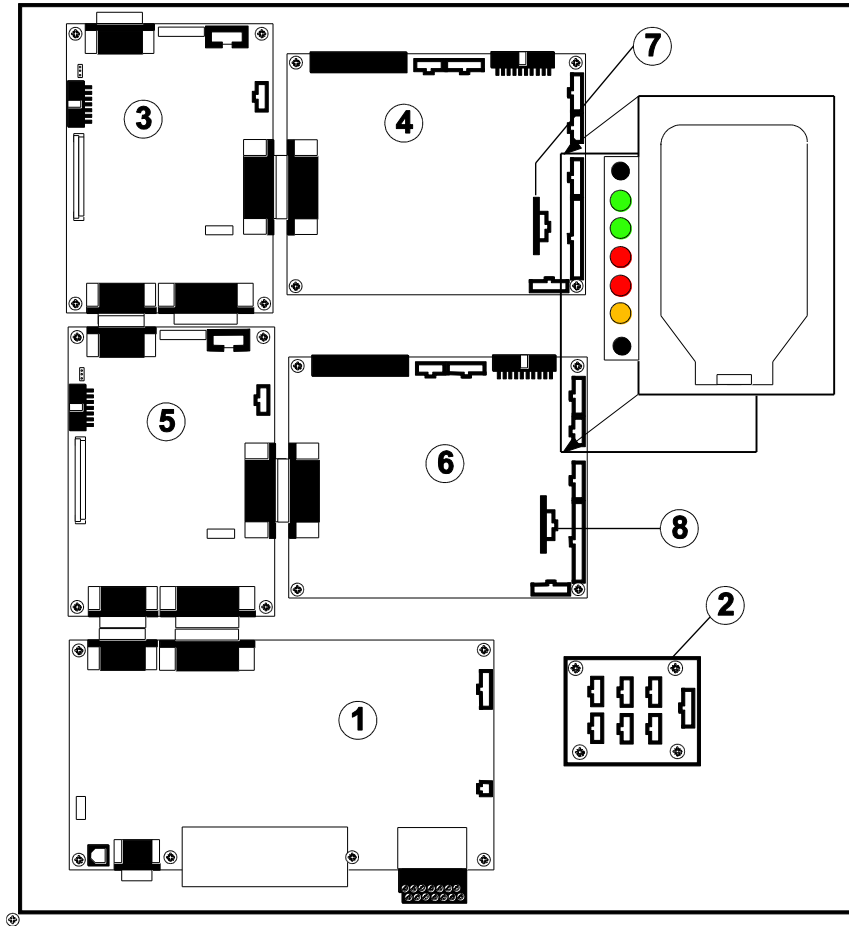
W/O VINTAGE

REF. No.	PART No.	DESCRIPTION	REMARKS
7	618AE2	Socket, Relay	BSR1, BSR2, THR
8	AAA638AF12	Contacteur	ME2
9	AAA613DL91	Relay, Brake Hold	BH
10	AAA638J6	Relay, Brake Pick	BP
11	AAA613DL30	Relay, Safety Chain	C1, C2
*	AAA612T7	Suppressor (diode)	BH, BP
*	AAA613DL61	Suppressor (RC)	C1, C2, ME2
*	AAA621AN20	Supply, Relay Power (Cosel: 24VDC)	A40 (05P00090-0918)
	AAA621AT25	Supply, Relay Power (Siemens: 24VDC)	A40 (05P00090-0927)

* Part not shown.

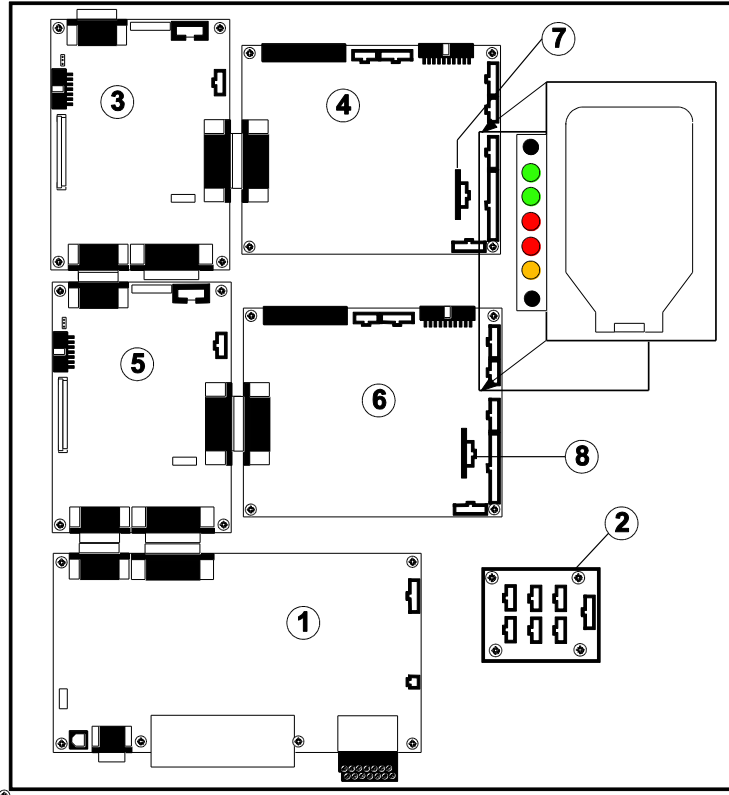
Control Panel PCBs: Q1

10-AAA21255AH



W/O VINTAGE			
REF. No.	PART No.	DESCRIPTION	REMARKS
1	AAA21255AH505	Board, Customer Interface	A6 (46S03950-0010)
2	AAA21255AH509	Board, Power Distribution	A10 (46S03862-0010)
3	AAA21255AH500	Card, Line-Side Processor	A1 (46S03776-2310)
4	AAA21255AH502	Card, Line-Side Product Interface	A3 (46S03954-0010)
5	AAA21255AH501	Card, Motor-Side Processor	A2 (46S03776-0310)
6	AAA21255AH502	Card, Motor-Side Product Interface	A4 (46S03954-0010)
7	AAA21255AH514	Module, Line-Side Cube ID, 125A Drive	(46S03842-2600)
	AAA21255AH515	Module, Line-Side Cube ID, 200A Drive	A25 (46S03842-2610)
	AAA21255AH516	Module, Line-Side Cube ID, 250A Drive	(46S03842-2630)
8	AAA21255AH517	Module, Motor-Side Cube ID, 125A Drive	(46S03842-0600)
	AAA21255AH518	Module, Motor-Side Cube ID, 200A Drive	A26 (46S03842-0620)
	AAA21255A519	Module, Motor-Side Cube ID, 250A Drive	(46S03842-0640)
*	AAA21255AH504	Supply, Logic Power	A5 (05P00090-0668)

* Part not shown.

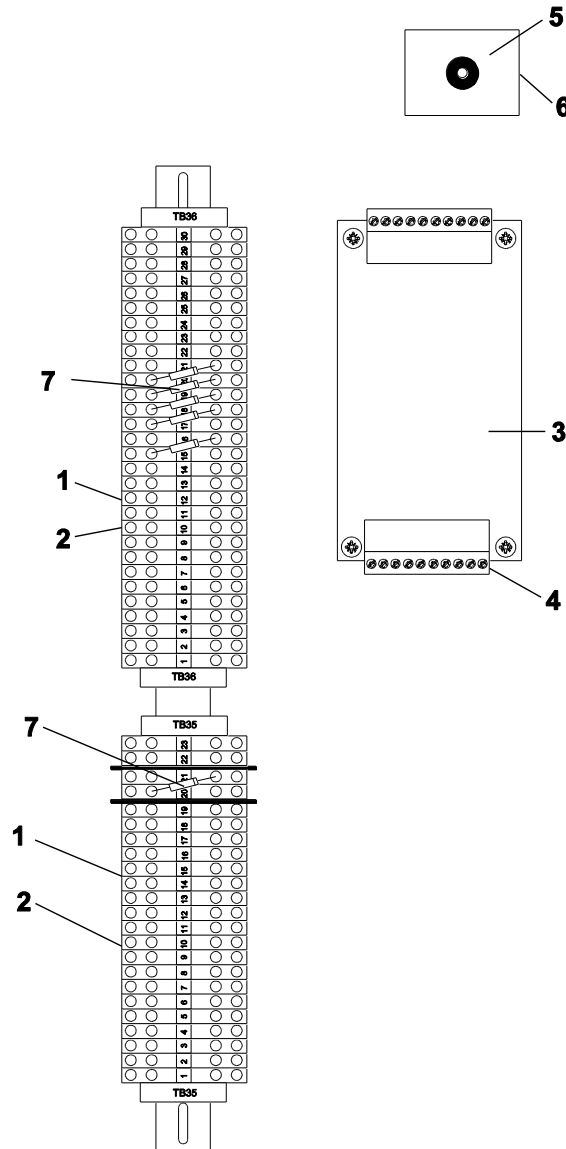


AAA21255AH			
REF. No.	PART No.	DESCRIPTION	REMARKS
1	AAA21255AH505	Board, Customer Interface	A6 (46S03950-0010)
2	AAA21255AH509	Board, Power Distribution	A10 (46S03862-0010)
3	AAA21255AH500	Card, Line-Side Processor	A1 (46S03776-2310)
4	AAA21255AH546	Card, Line-Side Product Interface	A3 (46S03954-0020)
	AAA21255AH547		A3 (46S03954-0030)
	AAA21255AH548		A3 (46S03954-0040)
	AAA21255AN549		A3 (46S03954-0041)
5	AAA21255AH501	Card, Motor-Side Processor	A2 (46S03776-0310)
6	AAA21255AH546	Card, Motor-Side Product Interface	A4 (46S03954-0020)
	AAA21255AH547		A4 (46S03954-0030)
	AAA21255AH548		A4 (46S03954-0040)
	AAA21255AN549		A4 (46S03954-0041)
7	LA46S4187-1550	Module, Line-Side Cube ID, 125A Drive	(46S04187-1550)
	LA46S4187-1570	Module, Line-Side Cube ID, 150A Drive	(46S04187-1570)
	LA46S4187-1670	Module, Line-Side Cube ID, 200A Drive	A25 (46S04187-1670)
	LA46S4187-1690	Module, Line-Side Cube ID, 250A Drive	(46S04187-1690)
	LA46S4187-1710	Module, Line-Side Cube ID, 300A Drive	(46S04187-1710)
8	LA46S4187-1560	Module, Motor-Side Cube ID, 125A Drive	(46S04187-1560)
	LA46S4187-1580	Module, Motor-Side Cube ID, 150A Drive	(46S04187-1580)
	LA46S4187-1680	Module, Motor-Side Cube ID, 200A Drive	A26 (46S04187-1680)
	LA46S4187-1700	Module, Motor-Side Cube ID, 250A Drive	(46S04187-1700)
	LA46S4187-1720	Module, Motor-Side Cube ID, 300A Drive	(46S04187-1720)
*	AAA21255AH504	Supply, Logic Power	A5 (05P00090-0668)
*	AAA27076FY10	Software, on Thumb Drive	L228, DT223

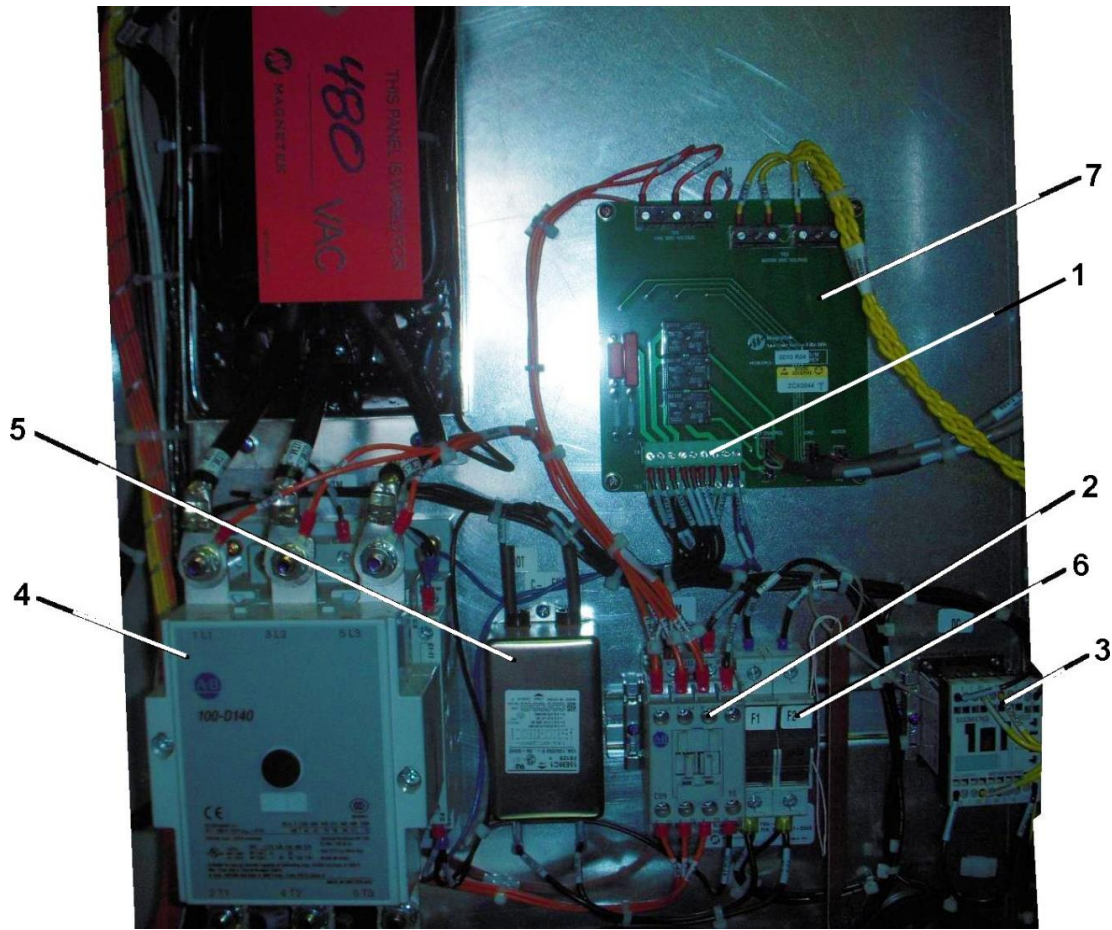
* Part not shown.

Terminal Blocks

10-AAA21255AH



W/O VINTAGE			
REF. No.	PART No.	DESCRIPTION	REMARKS
1	AAA303EP1	Block, Terminal (grey #14 AWG)	TB35, TB36
2	AAA303EP19	Block, Terminal (blue #14 AWG)	TB35, TB36
3	ABA26800QZ1 ACA26800QZ1	Board, PVT Buffer	---
4	AAA447X9	Connector	P1, P2
5	AAA630T4	Relay, Voltage Monitor	J2
6	AAA618AL1	Socket	J2
7	AAA612T7	Suppressor, Diode	BP, D32-D35

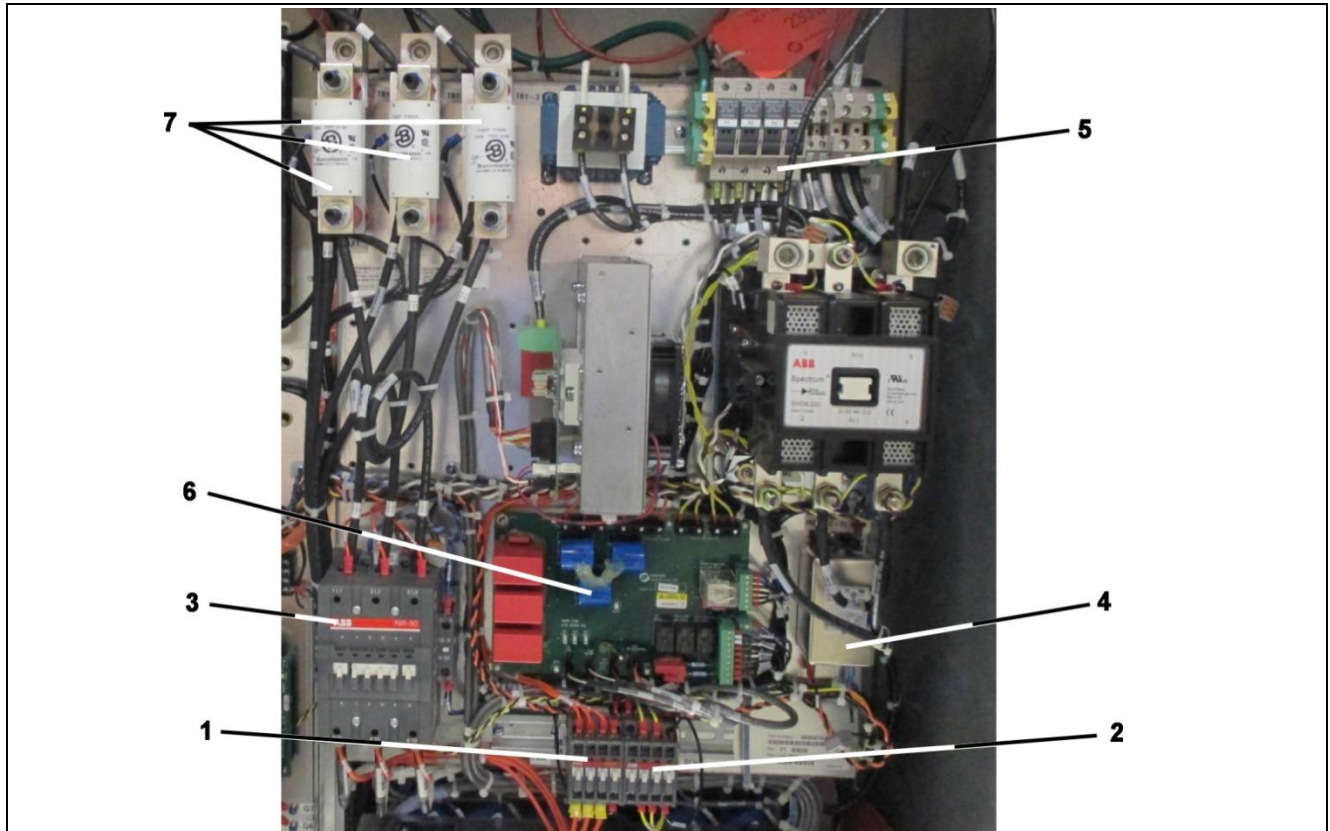


W/O VINTAGE			
REF. No.	PART No.	DESCRIPTION	REMARKS
1	AAA447X40	Connector, 9-Position Pluggable	A8-TB3
*	AAA638AF26	Contactora	3M, 4M
2	LA5P00032-0163	Contactora, Precharge	PCM
3	LA5P00032-0176	Contactora, DC Bus Discharge	DCHG
4	LA5P00032-0158	Contactora, Utility	UTM (125A drive)
	LA5P00032-0159		UTM (200, 250A drive)
*	LA5P50-0328	Diode	1RT, 2RT
5	LA05P00010-0586	Filter, Control Power EMI	L3
6	AAA375BK39	Fuses, Logic Power Supply	F1, F2
7	AAA21255AH507	PCB, Voltage Feedback	A8 (46S03963-0010)
*	AAA638AF100	Suppressora, Coil	3M, 4M

* Part not shown.

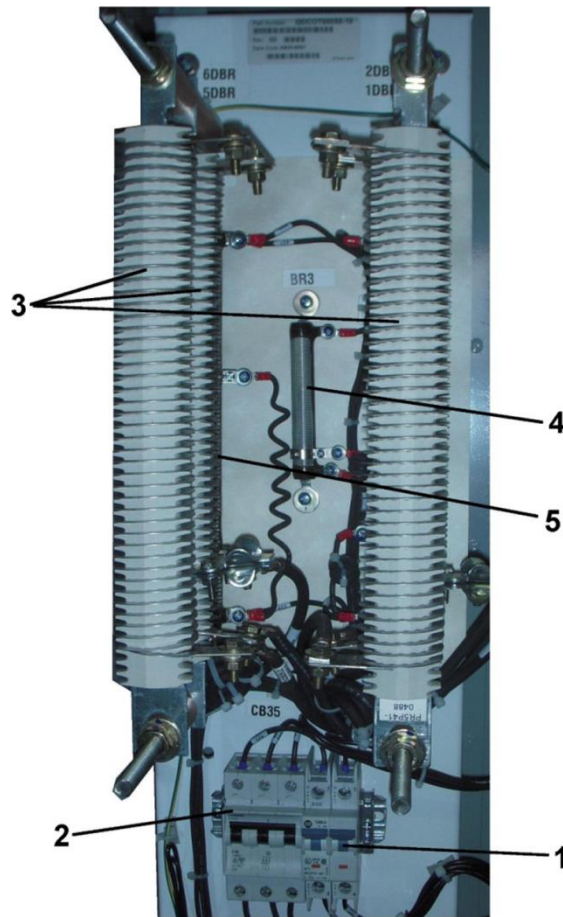
Contactors, Fuses: Q2 Drive

10-AAA21255AH



W/O VINTAGE			
REF. No.	PART No.	DESCRIPTION	REMARKS
1	AAA638AP1	Contactors, Precharge	PCM
2	AAA638AE2	Contactors, DC Bus Discharge	DCHG
3	LA5P00032-0204 AAA638AC200	Contactors, Utility	UTM (125-200A drive)
	LA5P00032-0202 AAA638AC201		UTM (250, 300A drive)
*	AAA638AF26	Contactors	3M, 4M
*	LA5P50-0328	Diode	1RT, 2RT
4	LA05P00010-0586	Filter, Control Power EMI	L3
5	AAA375BK39	Fuses, Logic Power Supply	F1, F2
6	LA46S4174-0010	PCB, Voltage Feedback (ME = 240V)	A8 (LA46S04174-0010)
	LA46S4174-0020	PCB, Voltage Feedback (ME = 120V)	A8 (LA46S04174-0020)
7	AAA21255J116	Fuse,150A	F1,2,3 (125A Q2 Drive)
	AAA375CD23	Fuse,200A	F1,2,3 (150A Q2 Drive)
	AAA375CD11	Fuse, 250A	F1,2,3 (200A Q2 Drive)
	AAA375CD13	Fuse, 350A	F1,2,3 (250A Q2 Drive)
	AAA375CD14	Fuse, 400A	F1,2,3 (300A Q2 Drive)
*	AAA638AF100	Suppressor, Coil	3M, 4M (LA5P90-0301)

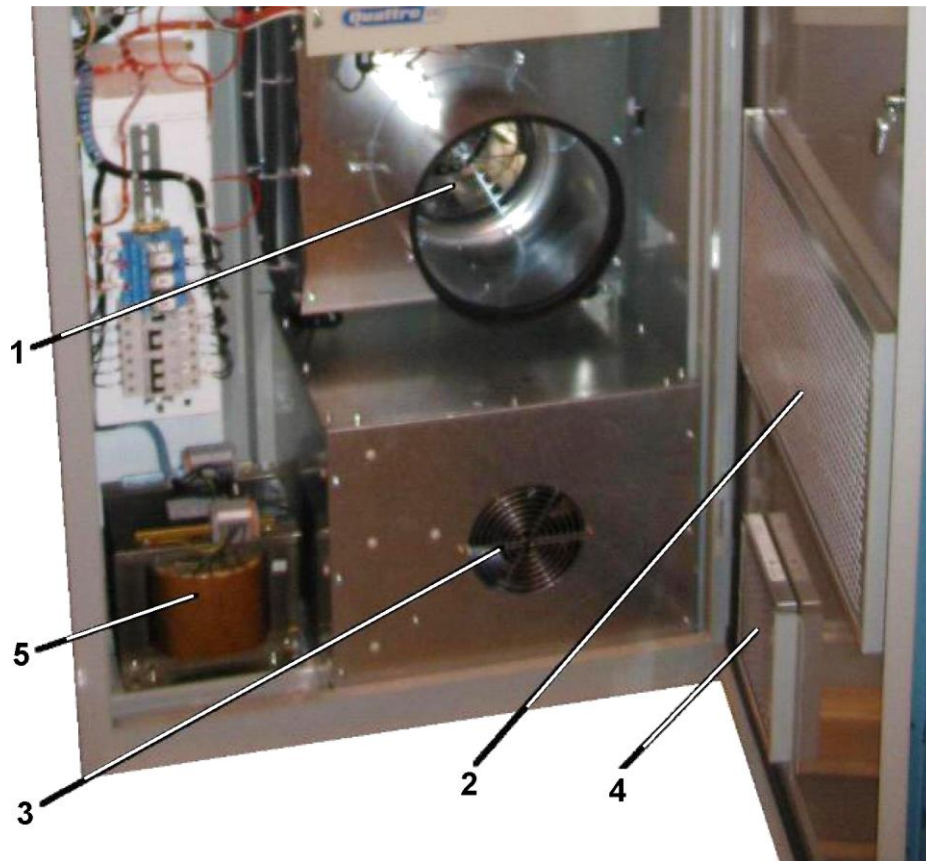
* Part not shown.



W/O VINTAGE			
REF. No.	PART No.	DESCRIPTION	REMARKS
1	LA05P00012-0496	Breaker, 2-Pole Circuit	CB34
2	AAA00375AAJ013	Breaker, 3-Pole Circuit	CB35
3	LA5P0041-0488 AAA232HK3	Resistor, Dynamic Breaking, 1.3 ohm	1DBR-12DBR
	LA5P0041-0500 AAA232HK2	Resistor, Dynamic Breaking, 1.02 ohm	
	LA5P0041-0504 AAA232HK1	Resistor, Dynamic Breaking, 0.65 ohm	
	LA5P0041-0545	Resistor, Dynamic Breaking, 1.6 ohm	
4	AAA617H11	Resistor, 100 Ohm, 50 W	BR3
5	AAA617K5	Resistor, 5 Ohm, 225 W	BR1
	AAA617K8	Resistor, 50 Ohm, 225 W	
	AAA617K9	Resistor, 100 Ohm, 225 W	
	AAA617K7	Resistor, 20 Ohm, 225 W	BR2
	AAA617K8	Resistor, 50 Ohm, 225 W	
	AAA617K9	Resistor, 100 Ohm, 225 W	
	AAA617K10	Resistor, 250 Ohm, 225 W	

Q1 Transformer and Fans

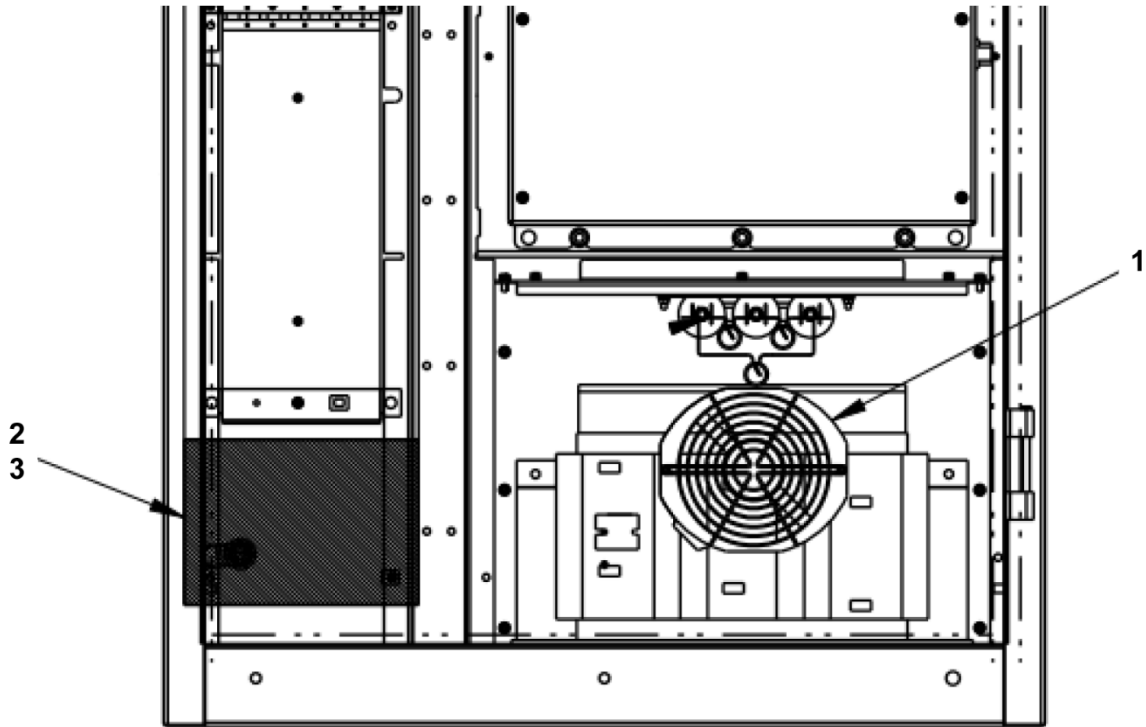
10-AAA21255AH



W/O VINTAGE			
REF. No.	PART No.	DESCRIPTION	REMARKS
1	LA46S3826-0010	Blower Assembly, IGBT Rack (see NOTE)	FAN1
2	LA05P00089-0197	Filter, IGBT Rack Blower	
3	LA05P00016-0088	Fan, Lower Panel	FAN2
4	LA05P00089-0199	Filter, Lower Fan	
5	LA05P0058-1130	Transformer, 208–240 VAC, 1.2kVA	DPTRF (See NOTE)
	LA05P00058-1133	Transformer, 208–240 VAC, 1.6kVA	
	LA05P0058-1131	Transformer, 346–416 VAC, 1.2kVA	
	LA05P00058-1134	Transformer, 346–416 VAC, 1.6kVA	
	LA05P0058-1132	Transformer, 440–480 VAC, 1.2kVA	
	LA05P00058-1135	Transformer, 440–480 VAC, 1.6kVA	

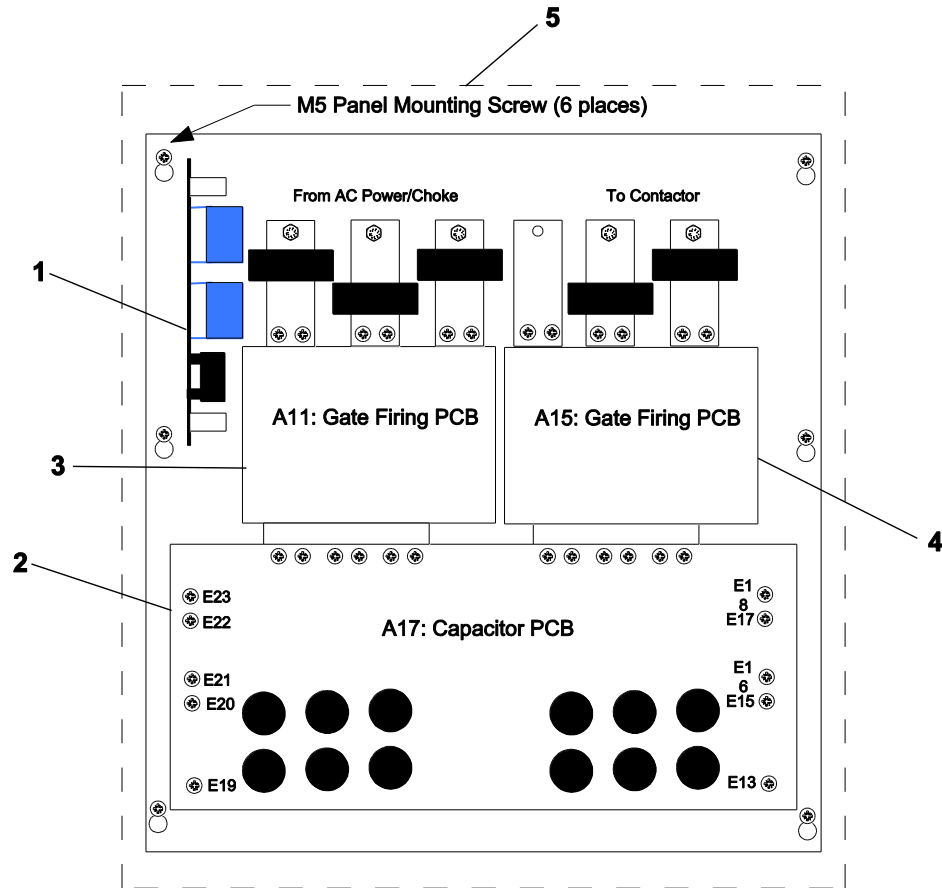
NOTE: Includes blower, control PCB, sheet metal front panel.

See TIP 1.1.21.0-12 for upgrading to post 2022 version transformers.



W/O VINTAGE (after 2022)			
REF. No.	PART No.	DESCRIPTION	REMARKS
1	AAA21255AN401	Fan (230VAC)	(LA05P00016-0101)
*	AAA21255AN400	Filter (9.5 x 18)	(LA05P00015-0049)
*	AAA375BK39	Fuse, 10A	F5, F6, F5A, F6A
	AAA375BK33	Fuse, 6A	
	AAA375BK31	Fuse, 5A	
	AAA375BK29	Fuse, 4A	
2	AAA225PD1	Transformer, 220–240 / 440-480V, 500VA	TR1
	AAA225PD2	Transformer, 550–600V, 500VA	
	AAA225PD3	Transformer, 380–415V, 500VA	
3	AAA225PE1	Transformer, 220–240 / 440-480V,1000VA	TR1, TR2
	AAA225PE2	Transformer, 550–600V,1000VA	
	AAA225PE3	Transformer, 380–415V, 1000VA	

* Not shown.



W/O VINTAGE			
REF. No.	PART No.	DESCRIPTION	REMARKS
*	---	Panel, Sheet Metal (see NOTE 2)	(46S04126-0010)
1	AAA21255AH512	PCB, Precharge	A23 (46S03802-0010)
2	---	PCB, Capacitor (see NOTE 2)	A17 (46S03766-0010)
3	---	PCB, Line-Side Gate Firing (see NOTE 2)	A11 (46S03941-0050)
4	---	PCB, Motor Side Gate Firing (see NOTE 2)	A15 (46S03941-0050)
5	AAA21255AH527	Rack, Combined IGBT, 125A Drive (see NOTE 1)	(LA46S03848-1010)

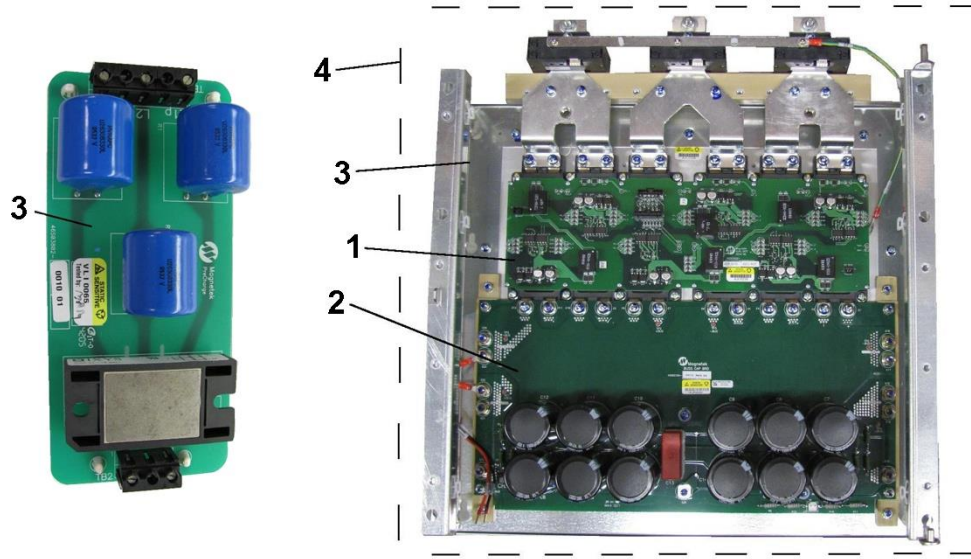
* Part not shown.

NOTE 1: Includes IGBTs, control PCBs, current sensors, sheet metal front and back panels.

NOTE 2: This component is not available for field replacement. Order complete rack, ref. 5.

10-AAA21255AH

Line-Side Power Section (200, 250A Q1 Drive)



W/O VINTAGE			
REF. No.	PART No.	DESCRIPTION	REMARKS
*	---	Panel, Sheet Metal (see NOTE 2)	(46S04126-0020)
1	---	PCB, Line-Side Gate Firing, 200A (see NOTE 2)	A11 (46S03936-0070)
		PCB, Line-Side Gate Firing 250A (see NOTE 2)	A11 (46S03936-0080)
2	---	PCB, Line-Side Capacitor, 200A and 250A	A17 (46S03766-0010)
3	AAA21255AH512	PCB, Precharge	A23 (46S03802-0010)
4	AAA21255AH528	Rack, Line-Side IGBT, 200A Drive (see NOTE 1)	(LA46S03848-2050)
	AAA21255AH529	Rack, Line-Side IGBT, 250A Drive (see NOTE 1)	(LA46S03848-2030)

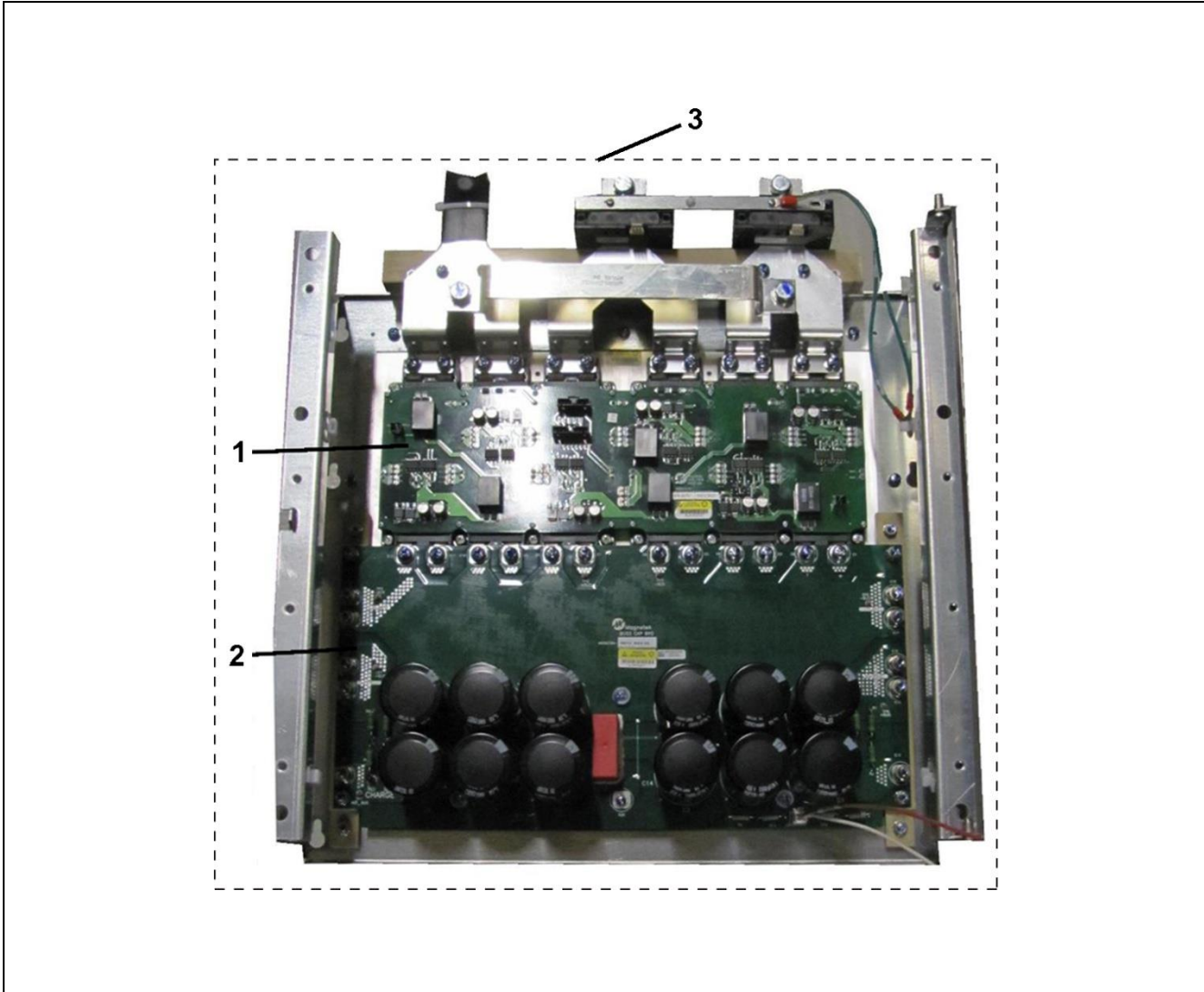
* Part not shown.

NOTE 1: Includes IGBTs, control PCBs, current sensors, sheet metal front and back panels.

NOTE 2: This component is not available for field replacement. Order complete rack, ref. 4.

Motor-Side Power Section (200, 250A Q1 Drive)

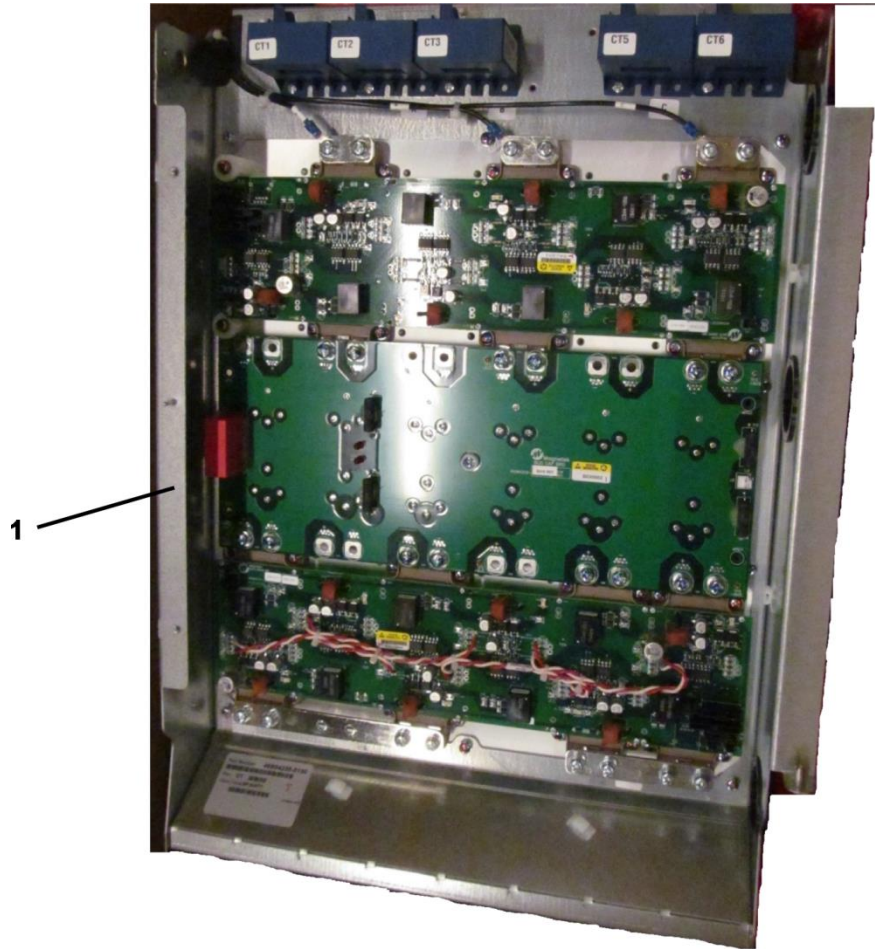
10-AAA21255AH



W/O VINTAGE			
REF. No.	PART No.	DESCRIPTION	REMARKS
1	---	PCB, Motor-Side Gate Firing, 200A (see NOTE 2)	A12 (46S03936-0070)
		PCB, Motor-Side Gate Firing, 250A (see NOTE 2)	A12 (46S03936-0080)
2	---	PCB, Motor-Side Capacitor (see NOTE 2)	A18 (46S03766-0010)
3	AAA21255AH530	Rack, Motor-Side IGBT, 200A Drive (see NOTE 1)	(LA46S03848-0050)
	AAA21255AH531	Rack, Motor-Side IGBT, 250A Drive (see NOTE 1)	(LA46S03848-0030)

NOTE 1: Includes IGBTs, control PCBs, current sensors, sheet metal front and back panels.

NOTE 2: This component is not available for field replacement. Order complete rack, ref. 3.

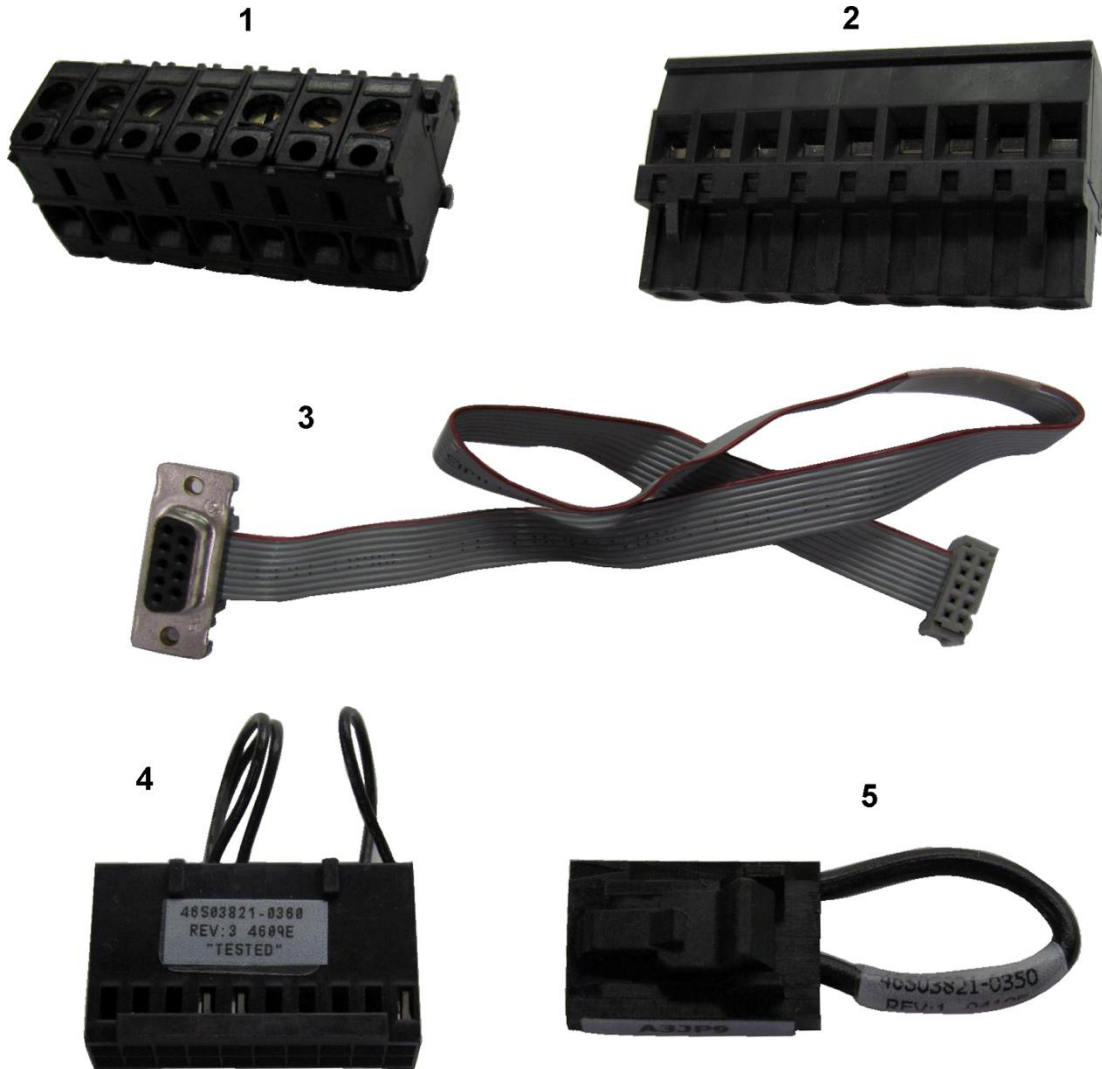


AAA21255AH			
REF. No.	PART No.	DESCRIPTION	REMARKS
*	LA46S4258-0125	Assembly, IGBT Bridge (includes sheet metal, fans, current sensors)	125A Drive
1	LA46S4258-0150		150A Drive
	LA46S4258-0200		200A Drive
*	LA46S4258-0250		250A Drive
	LA46S4258-0300		300A Drive

* Not shown but similar in appearance

PCB Plug Connectors

10-AAA21255AH



W/O VINTAGE			
REF. No.	PART No.	DESCRIPTION	REMARKS
1	AAA447X6	Connector, 7-Position Pluggable	A6-TB2
2	AAA447X40	Connector, 9-Position Pluggable	A8-TB3
	AAA447X37	Connector, 6-Position Pluggable	A9-TB1
3	LA46S3357-0060 AAA21255AH705	Harness, Ribbon Cable	A2-JM3 to DB9
4	LA46S3821-0360	Plug, 20-Position Dual-Row Jumper	A3-JP1
5	LA46S3821-0350	Plug, 4-Position Jumper	A3-JP9