



Controland Product Catalog
Aftermarket components for
Locomotive Control



Shanghai Controland Engineering Company

7/29/2023



Table of Contents

1.1 Company introduction	2
1.2 PN Comparison Chart for locomotive	3
1.3 Product Catalog	4
1.3.1 High Voltage Group	4
IGBT/Vertical Bus Bar/Capacitor/Capacitor Bus Bar/Cap Discharge Res Module/Phase Module Fuse/VAM	
1.3.2 Low Voltage Group	8
TMC Backplane/Gate Driver Power Converter	
1.3.3 Grid Box	15
D&J type Grid Resistor	

1.1 Company introduction

Shanghai Controland Engineering Company was founded in 2004, started as Eaton Cutler Hammer distributor and serve the Mining, Oil rig and Compressor Manufacture, with years development, we focused on open pit mining equipment since 2009.

China imported about 600 trucks with GE system, and 50 shovels (40 P&H, 10 BE), since year 1990, and most of them are engaged between 2005-2012. Our engineering team started with P&H shovel key element aftermarket, soon we devoted more efforts and focused on Dump truck GE drive system, as market demanded.

With a decade of consistent innovation/ development, we are targeting to provide a full list of excellent high quality aftermarket parts for Haul Truck GE drive system (especially Statex III DC drive and the Invertex I and II AC drive). You can find the system in Komatsu 730E, 830EDC, 830E-1AC, 930E4, 930E4-SE. Terex MT3700AC, MT4400AC, Hitachi 190, Belaz 75310, China NTL NTE240AC, XCME SF33900, etc.

With support by top ranked OEM companies, we can serve the industry with high quality alternative replacement parts without compromising the quality. Instead, we offer the market a stable stock supply and cost-saving advantage.

In the past year, we are supplying to more and more international customers: Mongolia, Chile, Canada, USA, Russia, India, Australia, and Peru.

We are expanding our product list every year, investing in new development. We welcome any discussions on developing products for customers, possibilities of cooperation on overhauling overseas.



A truck running in Jiangxi Group Dexing Copper mine.

This Copper mine has been developing for over 35 years, from an altitude of 300m to -300m. Controland components are running as the heart and brain.



1.2 PN Comparison Chart for Locomotive

Description	GE PN	Controland PN	Status
High Voltage Group			
1 IGBT POSITIVE (PM+)	17FM789A1/2/3	CLM789A1	AVAILABLE
2 IGBT NEGATIVE (PM-)	17FM790A1/2/3	CLM790A1	AVAILABLE
3 Vertical bus bar	41A296332BLP2	CL296332BLP2	AVAILABLE
4 Capacitor bus bar	41A296332BLP13/14	CL296332BLP13/14	AVAILABLE
5 Capacitor	41A296302CDP3/6	CL296302CDP6	AVAILABLE
6 Phase Module fuse	41A296321BSP2	CL296321BSP2	AVAILABLE
7 VAM 5 Channel	17FM681A1	CLM681A1	AVAILABLE
8 VAM 8 Channel	84A218010P1	CL218010P1	AVAILABLE
IGBT RECTIFIER	17FM792A1	CLM792A1	AVAILABLE
9 PANEL	17FM792A1	CLM792A1	AVAILABLE
10 Diode	84A232048P1	CL232048P1	AVAILABLE
11 Resistor Assembly	17FR402E1	CLR402E1	AVAILABLE
12 Resistor, 18K, 225W	41A296301AMP7	CL296301AMP7	AVAILABLE
13 Resistor, 250R, 225W	41A296301AMP1	CL296301AMP1	AVAILABLE
14 Resistor Assembly	17FR402A1	CLR402A1	AVAILABLE
15 Resistor, 375K, 225W	41A296301AMP4	CL296301AMP4	AVAILABLE
16 Panel	41C66658G1 84A219993P1	CL66658G1	AVAILABLE
17 Sensor, AC-DC	41A296328AKP2	CL296328AKP2	AVAILABLE
18 Insulator	41A260128P1	CL260128P1	AVAILABLE
19 Resistor Panel	41A321053G1 17FR201A1	CL321053G1	AVAILABLE
20 GDPC	41A296352CYP1	CL296353CYP1	AVAILABLE
Low voltage			
21 TMC Backplane	41A325942G1	CL325942G1	Developing
22 CIO Backplane	41A325916G5	CL325916G5	Developing
Grid Box			
23 GRID RESISTOR	17EA33D651/AC	CLA33D651	AVAILABLE
24 GRID RESISTOR	17EA33D750/AC	CLA33D750	AVAILABLE
25 GRID RESISTOR	17EA33J651/AC	CLA33J651	AVAILABLE
26 GRID RESISTOR	17EA33J750/AC	CLA33J750	AVAILABLE
27 Blower Brush Holder	41B530658G1	CL530658G1	AVAILABLE
28 Blower Carbon Brush	41A330375P1	CL330375P1	AVAILABLE
DC contactor, Replay			
29 RELAY	17LV66J10	CLV66J10	AVAILABLE
30 Interlock	17AF45C2	CLF45C2	AVAILABLE
31 Contact Tips	9960190G7	CL0190G7	AVAILABLE
DC contactor, Replay			
32 RELAY	17LV66J10	CLV66J10	AVAILABLE
33 Contact Tips	9960190G7	CL0190G7	AVAILABLE

1.3 Product Catalog

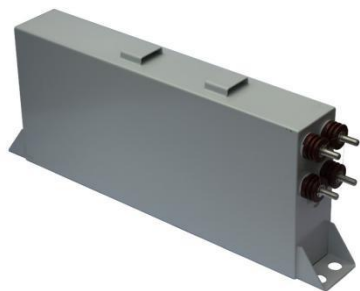
1.3.1 High Voltage Group

IGBT/Vertical Bus Bar/Capacitor/Capacitor Bus Bar/Cap Discharge Res Module/Phase Module Fuse/VAM



IGBT Positive (PM+)
17FM774/789/813/821
IGBT Negative (PM-)
17FM775/790/814/822

Vertical Bus Bar
41A296332BLP2



Capacitor, IGBT Inverter
41A296302CDP2
41A296302CDP3
41A296302CDP4
41A296302CDP6

Sensor, AC-DC
41A296328AKP2
41A296328AKP7





Capacitor Bus Bar

- 41A296332BLP13
- 41A296332BLP14
- 41A296332BLP15
- 41A296332BLP22



Cap Discharge Res Module

- 84A219993P1 41C666558G1
- 84A219993P2 41A323573G1



IGBT Fuse

- 41A296321BSP1
- 41A296321BSP2

Resistor Assembly

- 17FR402A1
- 41A296301AMP4 375K 225W Resistor
- Resistor Assembly
- 17FR402E1
- 41A296301AMP1 250R 225W Resistor
- 41A296301AMP7 18K 225W Resistor



VAM Panel 5 Channel

- 17FM681A1

VAM Panel 8 Channel

84A218010P1

17FM702A1



Insulator

41A260128P1

GDPC

41A296352CYP1



IGBT Rectifier Panel

17FM792A1

Diode for Rectifier

84A232048P1

Resistor Panel

41A321053G1/17FR201A1

-279382G20 Resistor 1.16 OHM





Contactors
17CM55AH6
17CM55AD5A

Contact Tips
9960190G7



Interlock
17AF45C2

Relay
17LV66J10



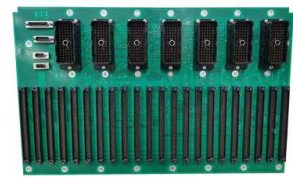
1.3.2 Low Voltage Group

TMC Backplane/CIO Backplane



TMC Backplane for 17FL384- Developing.
41A325942G1

CIO Backplane for 17FL440 – Developing.
41A325916G5



1.3.3 Grid Box

D&J type Grid Resistor



GRID RESISTOR D type

17EA32D110

17EA33D651

17EA33D750

GRID RESISTOR J TYPE

17EA33J110

17EA33J651

17EA33J750





Blower Carbon Brush

41A330375P1

Blower Brush Holder

41B530658G1

