



**ELECTRIC  
LOCOMOTIVE  
PARTS**



**DIESEL ELECTRIC  
LOCOMOTIVE  
AFTERMARKET  
PARTS  
- EMD**



**DIESEL ELECTRIC  
LOCOMOTIVE  
AFTERMARKET  
PARTS  
- GE**



**MINING  
TRUCK  
PARTS**



**LHB  
COACH  
PARTS**



**EE**

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## ABOUT THE COMPANY

Elixir Engineering, established in 2005, is an Engineering solutions Company Specializing in the Design, Development, and Manufacturing of Assemblies and Sub-assemblies for Diesel Electric and Electrical 3-Phase Locomotives, as well as Passenger Rail Coaches for Indian Railways and Rolling Stock Applications.

The Company is driven by a team of Passionate and Experienced Engineers with strong Expertise in Electrical, Electronics, and Mechanical Engineering, working collaboratively across multiple functional domains. With a deep understanding of Railway Systems and Industrial requirements, the team delivers Robust and Reliable Engineering Solutions tailored to demanding Operational Environments.

Elixir Engineering is committed to advancing Locomotive Quality, Innovation, and Technology by developing high-performance, Durable, and Future-ready products that contribute to the progress of the Railway and Mining Industries.

Over the past two decades, the Company has successfully developed and manufactured a wide range of Replacement Parts and Systems for GE, ALCO, and EMD Diesel Electric Locomotives, Electrical 3-Phase Locomotives, and Passenger Rail Coach applications. Our Products and Solutions are supplied to Indian Railways as well as International Railway Markets.

Our core competencies include Power Electronics, Embedded Systems, and Precision Mechanical Design and Development, supported by Advanced CAD/CAM tools and Modern Engineering practices. We adopt a Systematic approach to Design, Validation, and Manufacturing to ensure consistent Quality and Performance.

All Products are Designed and Developed in compliance with relevant Railway and International Standards, including DLW, CLW, RDSO, and IEC Specifications.

Elixir Engineering is an ISO 9001:2015 certified Organization and is currently in the process of obtaining IRIS (International Railway Industry Standard) Certification, further strengthening our commitment to Quality, Reliability, and Continuous improvement.

## AC FUEL PUMP MOTOR OEM PART NO. 40122943

This motor is available with these part Nos. 17454633, 40077367, 40302210, GE132x1820

### Specification:

Power Capacity: Continuous 800W, Peak 1500W

Supply of Voltage: 40 Volts DC To 90 Volts DC

Nominal Voltage: 74 VDC

Input Current: 8A @74 VDC with 40 Psi pressure  
continuous Max.15A @74 VDC with 120 Psi pressure

**Applications:** All EMD engines models 567, 645, 710 and all ALCO GE Diesel Models.

**Customers:** BLW, different Zonal Sheds of Indian Railway. Export to Australia, Canada, USA and Europe.

**Note:** Its available with different capacity - 4 GPM, 7 GPM, 8 GPM.



## INVERTER FOR FUEL PUMP MOTOR OEM PART NO. 40122943

### Specification:

This is the child part of Fuel Pump motor of EMD locomotives with converts the DC to AC with required power with respect Pump capacity. Its Direct replacement with similar model of fuel pump in any locomotives.

**Applications:** For all Kinds of Diesel Locomotives fitted with vertical type fuel Pump motor.

**Customers:** BLW, different Zonal Sheds of Indian Railways, Bangladesh Railways.



## **TURBO LUBE OIL SOAK BACK PUMP (VERTICLE TYPE –AC) OEM PART NO. 40182032**

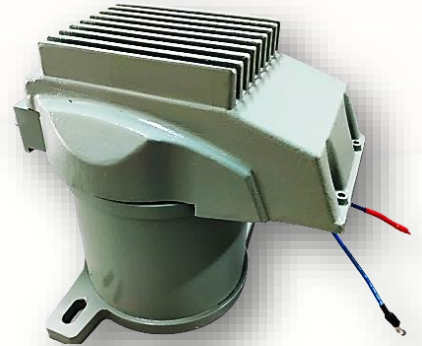
### **Specification:**

Power Capacity: Continuous 640W

Supply of Voltage: 40 Volts DC To 90 Volts DC Nominal  
Voltage: 74 VDC

Input Current: 4 A @74 VDC with 40 Psi pressure  
continuous Max.12A @74 VDC with 120 Psi pressure  
Flow rate output: 4GPM

**Applications:** All EMD engines models 567,645,710  
and all ALCO GE Diesel Models. Inverters are circuits  
that convert DC to AC i.e., transfer power from DC  
source to AC load at required frequency and amplitude.



## **STANDBY INVERTER FOR FUEL PUMP MOTOR OEM PART NO. 40122943**

### **Specification:**

Output Waveform: Quasi-Sine wave

Power Capacity: Continuous 800W Peak 1500W

Supply of voltage: 40 volts DC TO 90 VOLTS DC

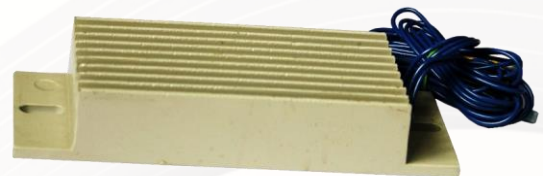
Nominal Voltage: 74 VDC

Input Current: 8 A @ 74 VDC with 40 Psi pressure  
continuous

Max.15A @ 74 VDC with 120 Psi pressure

Output Frequency: 50-60 Hz

**Applications:** For all Kinds of Diesel Locomotives  
fitted with vertical type fuel Pump motor.



## DIESEL ELECTRIC LOCOMOTIVE PRODUCTS

# LOCOMOTIVE SPEED SENSOR (K BAND RADAR)

## OEM PART NO 40081692

### Specification:

15VDC (+/-0.25)

0.5Amps

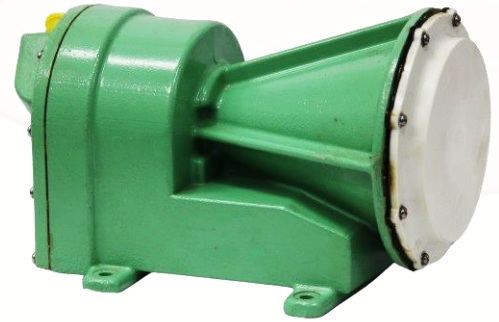
24.160GHz

Ground speed 22.2 Hz/mph

Integral Antenna.

**Applications:** For all EMD Super series Locomotives models.

**Customers:** BLW, different Zonal Sheds of Indian Railways, Bangladesh Railways, Australian Railways.



# CONTACTOR STARTING-DC (ST)

## OEM PART NO. 9325207

### Specification:

Contact rating: 2000Amps

working voltage: 74vdc

Main contacts: 2 NO-NC

Pickup voltage: 34 Volts

Drop voltage: 3-16V

**Applications:** For all EMD Diesel Electric Locomotives.

**Customers:** BLW, different Zonal Sheds of Indian Railways, Export to Australia, Canada, USA and Europe.

**Note:** This contactor is available with different Part Numbers with respect to rating and interlocking types. 8415485,9315518 and 9325207



## **CONTACTOR STARTING AUXILLARY (STA)**

**OEM PART NO. 8482180**

**Specification:**

Continuous rated current : 2 pole 30 Amps,

Aux Interlocks: 3NO,1NC-10Amps

Coil magnet: 66.6Ohms.

**Applications:** For all EMD Diesel Electric Locomotives.



## **GENERATOR FIELD CURRENT CONTACTOR**

**OEM PART NO. 8330937**

**Specification:**

working voltage :74vdc

Max pickup: 48vdc

Dropout: 5-28vdc

Contacts: 2NO 100Amps 230V AC

Aux Interlocks: 2 NO –NC 10Amps

**Applications:** For all EMD Diesel Electric Locomotives.

**Note:** These contactors are available in different part no with respect to Applications and models, 8332661,8247364,8302169



## DIESEL ELECTRIC LOCOMOTIVE PRODUCTS

# GENERATOR FIELD DECAY (GFD) CONTACTOR OEM PART NO. 40010561

### Specification:

Continuous coil rating :74V

Coil resistance:100OHMS,

Pickup : 48 VDC

Dropout: 5- 25 VDC

**Applications:** For all Kinds of EMD locomotives, and other make also with respect Applications and ratings.



# GROUND RELAY (GR) OEM PART NO. 40050359

### Specification:

Operating Voltage: 74vdc

Pickup Voltage: 48vdc max

Pickup current: 0.750 to 0.825 amp

Contacts: 4 N.O & 2 N.C

Coil Resistance: 0.86  $\Omega$

**Applications:** All types of EMD locomotive models controlling system cabinets.

**Customers:** BLW, different Zonal Sheds of Indian Railways, Export to Australia, Canada, USA and Europe.



## **GENERAL PURPOSE RELAY 2 POLE** **OEM PART NO. 8363168**

**Specification:**

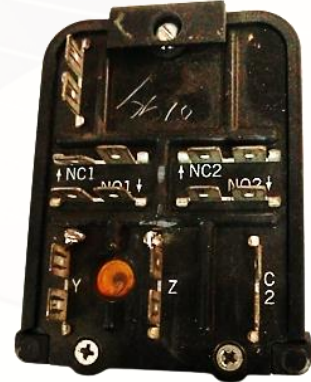
Contact rating : 10Amp 74VDC

Coil Rating :1853Ohms +/-15

Pickup :@48VDC

Drop out :@5-32 VDC.

**Applications:** All types of EMD locomotive models controlling system cabinets.



## **GENERAL PURPOSE RELAY 3 POLE** **OEM PART NO. 8357415**

**Specification:**

Contact rating : 10Amp 74VDC

Coil Rating :1128Ohms +/-15

Pickup :@48VDC

Drop out :@5-32 VDC

**Applications:** For all EMD Super series Locomotives models.



## **GENERAL PURPOSE RELAY 4 POLE** **OEM PART NO. 9516672**

**Specification:** Same as above spec except the number of poles and interlocks.

**Applications:** For all EMD Super series Locomotives models.



## ENGINE PROTECTION DEVICE OEM PART NO 9320130

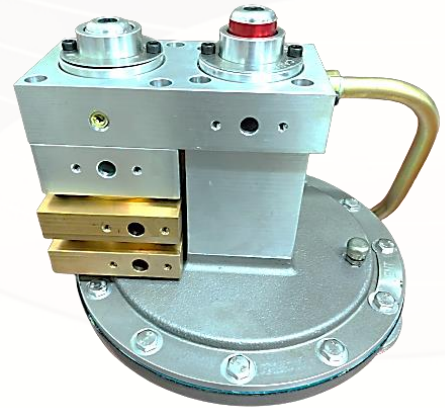
### **Specification:**

operating pressure- 100psi water level,

crank case - Device to trip at a pressure of 0.8 inches of WC to 1.8 inches of WC.

**Applications:** For all types EMD engines model 567, 645, 710 with different cycles.

**Customers:** BLW, different Zonal Sheds of Indian Railways, Export to Australia, Canada, USA and Europe.



## DETECTOR ASM KIT/EPD KIT OEM PART NO 9535869

**Specification:** The worn-out component elements of the primary detector assembly are to be replaced with the Engine Protection Device Kit (Kit Detector). These are the child parts that need to be changed when the main assembly needs to be renovated. hence the installed assembly on the locomotive ought to run faultlessly.

**Applications:** For all types EMD engines model 567,645,710 with different cycles.

**Customers:** BLW, different Zonal Sheds of Indian Railways, Export to Australia, Canada, USA and Europe.



## WATER PUMP REPAIR KIT OEM PART NO. 40000927

### **Specification:**

As per the Kit EMD part numbers mentioned and by Specific Components Drawings.

**Application :** For all EMD 567 ,645,710 Engines LH and RH pumps of engine.



## SLIP RING ASSEMBLY OEM PART NO. 8345866

### **Specification:**

Current :120A of continuous with peak up to 180A,  
Voltage : 60VDC,

Rotating speed :954rpm over speed up to 1080 rpm ,  
Conductivity 9.6%min.

**Applications :** AR-10,AR-12, TA-17 for All  
EMD and GE Locomotives Alternator.



## RECTIFIER BANK ASSY OEM PART NO 40027895 ALT CA

### **Specification:**

Input Nominal: 240 volts RMS

Maximum: 265 volts RMS

Diode Specification:

If diode is forward bias: 10 to 20 $\Omega$

If diode is reverse bias: 30,000 $\Omega$

Resistance: 2500 $\Omega$

Fuse Current Limiting: 350Amps ,

Body of Fuse: is Made of reinforced melamine.

**Applications:** This is for AR10 AR12 and TA17 ,TA-20  
for all kind of Diesel Locomotive Alternator.

**Note:** Available with different Part no with respect  
Model of Alternator of Locomotives. Also which  
comes with Molded Body and Fabricated Body.



## **SCR EXCITER BRIDGE ASSEMBLY**

**OEM PART NO. 8451653**

**Specification:**

Nominal 240 volts RMS

Maximum 265 volts RMS

Frequency 35 to 126.

**Applications:** For all EMD Diesel Electric Locomotives.



## **RECTIFIER & RESISTOR ASSEMBLY BATTERY CHARGER**

**OEM PART NO. 8479400**

**Specifications:**

Input Nominal Voltage : 55 volts RMS Max 75Volts  
RMS 3 Phase

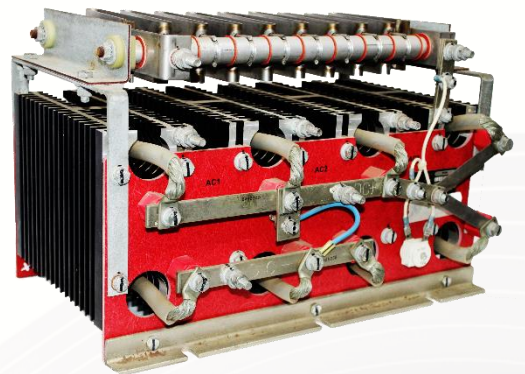
Frequency :35 to 126Hz

Out put :65-75 VDC 150Amp Max for battery  
charging resistor and rectifier 65-75 VDC

250Amps Max for 3 phase Bridge.

**Applications:** For all EMD Diesel Electric Locomotives.

**Note:** This item is available in different part  
Nos 8475590 ,8451653



## **TRANSDUCTOR REACTOR**

### **OEM PART NO. 9519568**

**Specification:**

Power Supply : 120V, 60hz  
Rated Current : 2Amps Output  
DC Control : 2Amps Each Winding  
Maximum Burden: 1:1 Each Winding  
Rated Burden : 60 Volts.

**Applications:** For all EMD Super series Locomotives models Electrical control cabinets.



## **ROTATING RING RECTIFIER**

### **OEM PART NO. 2803017**

**Specification:**

Max. Avg. forward current: 16A Max  
peak forward voltage drop: 1.2V Max  
peak one cycle surge current: 300A Max  
repetitive peak forward current: 80A

**Applications :** It is used in the auxiliary generator of locomotives which converts Alternating Current (AC) to Direct Current (DC). It is used to provide control delay.



## **CURRENT TRANSDUCER 1000A**

### **OEM PART NO. 40046385**

**Specification:**

Current rating :1000Amps,  
Ratio:1:4000  
power supply :+/-15VDC  
internal resistance : 28Ohms

**Applications:** For all Kinds of Locomotives and Industrial, other Heavy automotive .



## SENSOR CURRENT-1 BKBL1-2

### OEM PART NO. 40046384

#### **Specification:**

Nominal Current :200A RMS

Measuring range: 0-300A

Supply Voltage: 15V

Turn Ratio: 1:3000

Current measuring range: 100mA for 300A

**Applications:** For all Kinds of Locomotives and Industrial, other Heavy automotive



## CURRENT TRANSFORMER

#### **Specification:**

COIL: 11.8±10% OHMS @25°C

VOLTS: 900 RMS PRIMARY

CYCLES: 25 TO 75

CURRENT RATIO: 500/0.5

INSULATION: 1000V

AMBIENT TEMPERATURE: -40°C to 100°C

MAX. BURDEN: 100 OHMS

ACCURACY: 1%

**Applications:** It is used in generator wiring Applications in locomotives.

It is used in ground fault detection.

It is used in instruments transformer for measuring current.



## **TRANSFORMER T2**

### **OEM PART NO. 8234831**

**Specification:**

Primary volts :460/230 at 60Hz terminal H1 H2 H3 H4.

Secondary volts :115 tolerance+/-2%

Max primary Open circuit :Exciting current shall not exceed 0.46AMP (RMS) @230VAC(RMS) 60 Hz.

**Applications:** All kinds of Diesel Locomotives main Generators TA10 to TA17.



## **RECTIFIER ASSEMBLY**

### **OEM PART NO. 40079512**

**Specification:**

Each capacitor :2200PFD,1600VDC,+/\_10% Philips components, each resistor :10.0MEGOHMS

Each Diode Max Average forward current :3.0A.

**Applications:** For super series EMD locomotives Electrical control cabinets.



## **LABYRINTH SEALING RING TO**

### **OEM PART NO 40063837**

**Specification:**

Raw Material Spec.: Warm hardened high strength aluminum alloy-AISI7Mg WA (DIN 1725)

material no: 3.2371.61 (A356)

Hardness: 75-110 ON Test Bar and 75 Minimum on Casting.

Casting Process: Steel Gravity Die Casting.

Radiography Test: Will be conducted for qty 1: 10 rations as per applied standard to aluminum casting

**Applications:** AC TRACTION MOTOR MODEL 1TB2630, 1TB2830, 1TB2830B, A2916-8, AND A2916-8LW



## **TRACTION MOTOR SPEED SENSOR**

### **OEM PART NO 40142706**

**Specification:**

U-Nominal 15VDC;

Range 9 to 32 VDC  $\pm$  10% Harmonic Content,

Current consumption : < 20mA (without current output)

frequency Range: From <0.2 Hz to 6KHz

out put level high: < or equal to 0.8V at 15VDC ,10mA.

low :>or equal to  $U_b - 1.8V$  at 15VDC ,10mA.

**Applications:** For all AC and DC transmission motors with different types of output concerning sensor output and motor type.

**Customers:** BLW, different Zonal Sheds of Indian Railways.



## **TRACTION MOTOR TEMPERATURE SENSOR**

### **OEM PART NO 40171676**

**Specification:**

For all AC NOMINAL RESISTANCE: 100 $\Omega$  at 0 $^{\circ}$  C (Pt 100)

MEASURING RANGE: -50 $^{\circ}$ C to +230  $^{\circ}$  C

MEASURING CURRENT: Maximum 1mA (no self-heating).

**Applications:** DC transmission motors with different types of output concerning sensor output and motor type.

**Customers:** BLW, different Zonal Sheds of Indian Railways, Bangladesh Railways.



## CIRCUIT MODULE-PSM 320 OEM PART NO 40042256

**Specification:** The Power Distribution Panels (PDPs) get power from the PSM320, which converts the PRG300's 74 VDC input to +/- 15 VDC. The PSM320 requires at least 60 volts from the PRG300 to function properly. The PSM320's faceplate has three LEDs:

1. Two green LEDs indicate the supply is within 5% of its rated output voltage (14.25 to 15.75 VDC, or negative for -15 VDC output).
2. A red LED signals a transient input voltage outside the 55-90 VDC range, which may suggest an issue with the PRG300's 74 VDC supply or the PRG300 itself.
3. Another red LED indicates an output voltage or current fault.

The PSM320 has +/- 74 VDC input test pins, +5 VDC, and a common connection.

**Applications:** EMD diesel Electric Locomotive replacement , the Locomotive holds with EM-2000 control system..



## CIRCUIT MODULE- PRG 301 OEM PART NO 40081644

**PRG (Pre-Regulator Module)** is a power conditioner for the **PSM (Power Supply Modules)**, it is a specialized voltage regulation circuits designed to stabilize power before it reaches sensitive electronics, or to control the excitation of generators, these modules ensure that the electrical power generated is regulated to a constant voltage, protecting the control circuits



## CIRCUIT MODULE-DIO 300 OEM PART NO 40030373

**DIO 300 (Digital Input/Output Module)** is a module which act as an interface between the locomotive's 74 V DC control system and the computer's 5 VDC system. DIO has 24 input channels and 26 output channels Which are to and from the EM2000.



## PANEL MODULE – ASC300 OEM PART NO 40042056

**ASC 300 (Analog Signal Conditioner Modules)** it is a circuit module which provides analog feedbacks into DC voltage signals that can be handled by other components smoothly. It essentially converts raw signals into electrical signals.



## PANEL MODULE – TLF301 OEM PART NO 40077482

**TLF 301 (Train Line Module)** is an electronic device inserted between a power source and sensitive electronic equipment to suppress electromagnetic interference and radio-frequency interference. These are designed to protect electronic control systems, communication equipment, electrical noise and interference. These are essential in keeping DIO from going high erroneous; so that no stray voltage is passed on to the DIO. A total of 12 inputs are filtered by TLF.



## **DIGITAL SPEED INDICATOR (SPEEDOMETER)**

### **OEM PART NO 40153775**

**Specification:**

Operating Voltage1: 0-20VDC

Display: 3Digit 0.8"red seven segment Frequency range:  
0.2Hz-6KHz

**Applications:** for all EMD ,Alco and GE locomotives



## 3 PHASE ELECTRIC LOCOMOTIVE PRODUCTS

### DRIVER DISPLAY UNIT (DDU)

#### CLW SPEC. NO. CLW/ES/3/0487/C

**Specification:**

LCD Display Size :10.4 inch

Nominal battery voltage :110VDC which is subjected to variation from 77V to 137.7V,

Power supply cable :110VDC,3Pin Miniature Circular Connector.

**Applications:** 3 $\phi$  Electrical WAG-9, WAP-7, WAP-5, VCU Communication Control Systems. Like, DEMU, MEMU, ACMU, Metro Coaches Etc.

**Customers:** CLW, different Zonal Sheds of Indian Railways, CG Power.



### FIRE DETECTION UNIT (FDU)

#### CLW SPECN. NO. CLW/ES/3/057

**Specification:**

Supply Voltage- 6 to 120VDC

Power Consumption-250mA $\pm$  20%

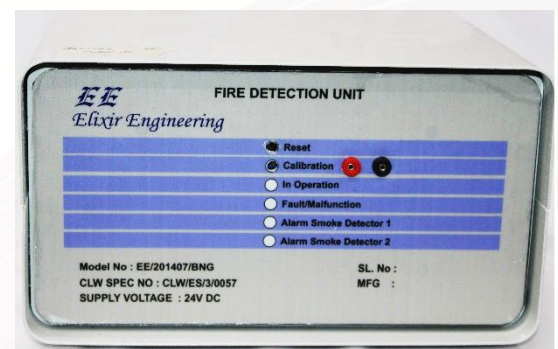
Contact rating alarm & fault relays- 120VDC/2A

Weight-7.1kg

Service life of the Fan-65,000hrs

**Applications:** WAG-9, WAP-7, WAP-5 Etc.

**Customers:** CLW, different Zonal Sheds of Indian Railways, Export to Australia, Canada, USA and Europe.



## 3 PHASE ELECTRIC LOCOMOTIVE PRODUCTS

# PRIMARY VOLTAGE TRANSFORMER TO CLW SPEC. NO. CLW/ES/3/0009

### Specification:

Maximum Voltage :36KV

Ratio :25000/200

Rated Output :30VA

Maximum Output :150A

Limiting Current :1.5A

Creepage Path:  $\geq 1190\text{mm}$

**Applications:** WAG-9, WAP-7, WAP-5 & All Over  
end Electrical Trainsets & Locomotives Etc.

**Customers:** CLW, different Zonal Sheds of  
Indian Railways.



# POTENTIAL TRANSFORMER FOR VANDE BHARAT

TO ICF DRAWING NO. ICF/SK/2 7 0 072

Specification:

TECHNICAL DATA DESCRIPTION	RANGE/ VALUE
Maximum Voltage	36kV
Ratio	25000V/200V
Rated output/burden	30VA
Maximum Output	150VA
Thermal limiting Current	1.5A
Class	0.5
Frequency	50Hz $\pm 4\text{Hz}$
Class	E
Winding	1
Creepage path	$\geq 1190\text{ mm}$
Voltage factor	1.5 $U_n/30\text{ sec}$
Primary Resistance	$\geq 50\text{ K}\Omega$
Insulation Level	27.5/70/170 KV

**Application:** VANDE BHARAT .

**Customers:** ICF



## 3 PHASE ELECTRIC LOCOMOTIVE PRODUCTS

### SURGE ARRESTSOR

#### CLW SPECN. NO. CLW/ES/3/0016

**Specification:**

Rated Voltage :41.4kv  
Impulse Withstands Current :100ka  
Rated Current :10ka  
Maximum Operating Voltage :33kv  
Creepage Distance :972mm  
Weight: 15-16kg  
Flashover distance :475mm± 2mm

**Applications:** WAG-9, WAP-7, WAP-5 & All Over end Electrical Trainsets & Locomotives Etc.

**Customers:** BLW, different Zonal Sheds of Indian Railways, Bangladesh Railways.



### DISTRIBUTED POWER WIRELESS CONTROL SYSTEM

#### RDSO SPEC. NO. RDSO/2019/EL/SPEC/0142

**Specification:**

Controller-ARM Cortex 32bit  
Clock Speed-300MHz  
Ram-512kb,UARTx4,Ethernetx1  
Power Supply-110vdc

**Applications:** WAG-9, WAP-7, WAP-5 & All kinds of MU Locomotives Sets Etc.



### HALL EFFECT ACTIVE SPEED SENSOR

#### CLW SPEC. NO. CLW/ES/3/0528

**Specification:**

Input Voltage- 15Vdc To 30Vdc  
Output Type-Open collector type 90-degree  
Phase shift  
Pulse-120 Pulse

**Applications:** WAG-9, WAP-7, WAP-5, 6FRA, DC Traction Motor Etc.



## SPEED SENSOR

**EQUIVALENT TO OEM PART. NO. 1135435/10012  
(or) 1135456/20013 (or) STN 31450/205A 18U**

### **Specification:**

Nominal Voltage (Ub): 15V DC,  
Operating Voltage Range: 12V to 16V DC,  
Voltage Ripple: 200mV Max,  
Signal Interface: Current Signal,  
Output Signal Form: Rectangle,  
Load Resistance: 100 Ohms,  
Air Gap (Sensor to Phonic Wheel):  $0.9 \pm 0.5\text{mm}$ ,  
Frequency Range: 1Hz to 8 KHz,  
Insulation resistance:  $>500\text{Mohms @ } 500\text{V DC}$ .

**Applications: For all LHB Axle Motor Disc type.**



## SPEED SENSOR

**EQUIVALENT TO OEM PART. NO.  
1/604501/2000 (or) 790040267**

### **Specification:**

Nominal Voltage (Ub): 15V DC  
Operating Voltage Range: 8V to 15V DC  
Voltage Ripple: 200mV Max  
Signal Interface: Voltage Signal  
Output Signal Form: Rectangle,  
Air Gap (Sensor to Phonic Wheel):  $0.9 \pm 0.5\text{mm}$   
Frequency Range: 1Hz to 8 KHz  
Insulation resistance:  $>500\text{ Mohms @ } 500\text{V DC}$

**Applications: For all LHB Axle Motor Disc type.**



## N1 BOARD

EQUIVALENT TO OEM PART. NO.: 1/600009  
(OR) 1/600009A

**Specification:**

Input Voltage- 24VDC

CURRENT-4.2Amp

**Applications:** WSP System for LHB Coaches.



## N2 BOARD

EQUIVALENT TO OEM PART NO.: 1/600008  
(OR) 1/600008A

**Specification:**

The current ratings of the voltages 5 VDC-1.6 Amp,

15VDC-500ma

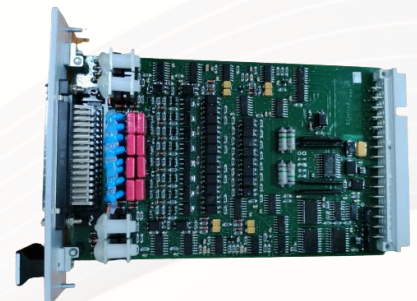
**Applications:** WSP System for LHB Coaches..



## MV BOARD

EQUIVALENT TO OEM PART NO. 1/600006 OR  
1/600000 OR 1/600006A

**Applications:** WSP System for LHB Coaches.



## LHB COACH PRODUCTS

### PHONIC WHEEL

**OEM PART NO: 1.2.748/ 1/604545**

**Specification:**

Number of Teeth: 80

Pressure Angle :20°

Air Gap between Sensor & Phonic Wheel :1.0 ± 0.1mm

Material: Ferro Magnetic

**Applications: For all LHB Coaches & Train sets fitted with independent disc braking system**



### REPAIR AND REHABILITATION OF EMD LCC CARDS, POWER MODULES, OTHER ELECTRICAL AND ELECTRONICS PARTS



1. MODULE CIRCUIT DIO 300
2. MODULE CIRCUIT CPU 302/CPM-401 402
3. MODULE CIRCUIT MEM300
4. MODULE CIRCUIT COM 300
5. MODULE CIRCUIT ADA 305



1. MODULE PRG 301
2. MODULE PSM 300
3. MODULE PSM 310
4. MODULE PSM 320
5. MODULE FCF 301
6. MODUEL FCD 300
7. MODULE ASC 300
8. MODULE TLF 301
9. MODULE DVR 301



1. GTO s/IGBT
2. INTERFACE MODULE
3. PHASE MODULE
4. CROW-BAR
5. TCC POWER CONTROLLER
6. EM-2000
7. OFC CABLE
8. TCC BLOWERS MOTORS

# ELIXIR MANUFACTURED PARTS FOR GE LOCOMOTIVES

17 IGBT+

17FM796A1  
/A2/A3 GE1255



IGBT-

17FM797A1  
/A2/A3 GE1256



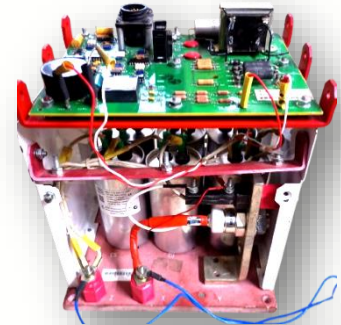
PANEL

41A296305EDP1



FCFP PANEL

17FM608D2



## ELIXIR MANUFACTURED PARTS LIST

SL NO.	DESCRIPTION	PART NUMBER
<b>VERTICAL FUEL TRANSFER PUMP</b>		
1	FUEL PUMP MOTOR 7 GPM @ 40PSI	40122943
2	FUEL PUMP MOTOR 7 GPM @ 40PSI	40077367
3	FUEL PUMP MOTOR 7 GPM @ 40 PSI	40302210
4	FUEL PUMP MOTOR 7 GPM @ 90 PSI	GE 132x1820
5	FUEL PUMP MOTOR 7 GPM @ 90 PSI	84A215264P1
6	FUEL PUMP MOTOR 7 GPM @ 90 PSI	84A207879P
7	FUEL PUMP MOTOR 7 GPM @ 120 PSI	84A215264P4
8	FUEL PUMP MOTOR 7 GPM @ 120 PSI	84A215264P5
9	PUMP .. AC Fuel Transfer 4 GPM	40095692
10	PUMP .. AC Fuel Transfer 4 GPM	132X1750
11	FUEL PUMP MOTOR 2 GPM	EE 62280-19
12	FUEL PUMP MOTOR 3 GPM	EE 62814-9
13	FUEL PUMP MOTOR 4 GPM	40182032
14	FUEL PUMP MOTOR 3.5 GPM @ 40 PSI	EE 63068-9
15	FUEL PUMP 8 GPM @ 120 PSI	10659917
16	FUEL PUMP 8 GPM @ 120 PSI	40232028
17	FUEL PUMP 2.1 gpm, 90 psi	EE 62441-9
18	FUEL PUMP 3 gpm, 90 psi	EE 62384-9
19	FUEL PUMP 6.5 gpm, 60 psi	EE 62359-9
20	FUEL PUMP 7 gpm, 90 psi	EE 61815-9
21	FUEL PUMP 7 gpm, 120 psi	EE 61859-9
22	FUEL PUMP 2.1 gpm, 90 psi	EE 62441-9
23	FUEL PUMP 3 gpm, 90 psi	EE 62384-9
24	FUEL PUMP 4 gpm, 90 psi	EE61276-9
25	FUEL PUMP 6.5 gpm, 60 psi	EE 62359-9
26	FUEL PUMP 7 gpm, 90 psi	EE 61815-9
27	FUEL PUMP 7 gpm, 120 psi	EE 61859-9
28	TURBO LUBE OIL SOAK BACK PUMP (VERTICLE TYPE –AC)	40182032
29	PUMP ASSEMBLY .. Fuel oil - Threaded connections - 4 G.P.M.	8080284
30	PUMP .. Soakback - Lube Oil	40094071
31	PUMP .. Soakback - Lube Oil	40182032
32	INVERTER FOR FUEL PUMP MOTOR	40122943
33	STANDBY INVERTER FOR FUEL PUMP MOTOR	40122943
34	STANDBY INVERTER FOR FUEL PUMP MOTOR with Installation Kit	
<b>DETECTOR ASSEMBLY (EPD ASSEMBLY)</b>		
1	Detector Assembly	9320130 (Turbo)
2	Detector Assembly	9505867 (Roots)
3	Detector Assembly	8464678 (Roots)
4	Detector Assembly	8428395 (Turbo)



## ELIXIR MANUFACTURED PARTS LIST

5	Crank Case Detector	8362040
<b>CONTACTORS</b>		
1	CONTACTOR STARTING-DC (ST)	9325207
2	CONTACTOR STARTING-DC (ST)	9351158
3	CONTACTOR STARTING-DC (ST)	9319422
4	CONTACTOR STARTING AUXILLARY (STA)	8482180
5	GENERATOR FIELD CURRENT CONTACTOR	8330937
6	GENERATOR FIELD CURRENT CONTACTOR	9332661
7	GENERATOR FIELD DECAY (GFD) CONTACTOR	8400143
8	GENERATOR FIELD DECAY (GFD) CONTACTOR	40010561
9	Starting contactor	8205673
10	FAN CONTACTOR	9575385
11	FAN CONTACTOR	8302169
12	FAN CONTACTOR	8307357
13	FAN CONTACTOR	8314549
14	BREAKING CONTACTOR	8461331
15	BREAKING CONTACTOR	8461332
16	BREAKING CONTACTOR	8340347
17	BREAKING CONTACTOR	8332085
18	BREAKING CONTACTOR	8464025
<b>RELAYS</b>		
1	GENERAL PURPOSE RELAY 3 POLE	8357415
2	GENERAL PURPOSE RELAY 4 POLE	9516672
3	GENERAL PURPOSE RELAY 2 POLE	8363168
4	GROUND RELAY (GR)	40050359
5	GROUND RELAY (GR)	8360045
<b>REPAIR KITS</b>		
1	DETECTOR KIT/EPD KIT	9535869
2	Crank Case DETECTOR KIT	8379503
3	KIT.. Water pump repair	40000927
4	KIT.. Water pump seal	9580758
5	WATER PUMP Assembly KIT	16070434
<b>TRANSFORMERS</b>		
1	TRANSDUCTOR REACTOR	9519568
2	CURRENT TRANSFORMER	8374003
3	TRANSFORMER T2	8234831
4	TRANSDUCTOR	8351993
5	TRANSDUCTOR	8331100
<b>CONTROL CARDS</b>		
1	DIO 300	40030373
2	PRG 300 , 301	40081644



## ELIXIR MANUFACTURED PARTS LIST

3	ASC 300 , 301	40042056
4	TLF 300 , 301	40077482
5	CIRCUIT MODULE-PSM 320	40042256
6	DIP CARD 30, 31 , 32	40028426 (Utex 40047879)
7	Circuit Module TDP	
8	HVRECP	40057403
<b>SENSOR FAMILY</b>		
1	LOCOMOTIVE SPEED SENSOR (RADAR)	40081692
2	SENSOR CURRENT-1 BKBL1-2	40046384
3	CURRENT TRANSDUCER 1000A	40046385
4	TRACTION MOTOR SPEED SENSOR	40142706
5	TRACTION MOTOR TEMPERATURE SENSOR	40171676
6	SENSOR RTD 1000	40029233
<b>OTHER PARTS</b>		
1	SLIP RING ASSEMBLY	8345866
2	RECTIFIER BANK ASSY	40027895
3	SCR EXCITER BRIDGE ASSEMBLY (SCR)	8451653
4	RECTIFIER & RESISTOR ASSEMBLY BATTERY CHARGER (BCR)	8479400
5	ROTATING RING RECTIFIER	2803017
6	RECTIFIER ASSEMBLY	40079512
7	INVERTER for Blower Motor	
8	DIGITAL SPEED INDICATOR (SPEEDOMETER)	40153775
<b>TRACTION MOTOR PARTS</b>		
1	LABYRINTH SEALING RING	40063837
2	COVER ASSEMBLY	40105347
3	GEAR CASE LABYRINTH RING	40012083
<b>PARTS FOR GE DIESEL ELECTRIC LOCOMOTIVES</b>		
1	FCFP PANEL Assembly	17FM608D2
2	FCFP CARD	17FM608D2
3	Complete IGBT Module +ve	17FM774A1
4	Complete IGBT Module -ve	17FM775A1
5	Vertical bus bar	41A296332BLP12
<b>PARTS FOR DUMP TRUCK PARTS</b>		
1	IGBT+	17FM796A1 /A2/A3 GE1255
2	IGBT-	17FM797A1 /A2/A3 GE1256
<b>ELECTRIC LOCOMOTIVE PARTS</b>		
1	DISTRIBUTED POWER WIRELESS CONTROL SYSTEM (DPWCS)	RDSO/ 2019/EL/SPEC/0142 Rev. '0'
2	DRIVER DISPLAY UNIT Railways	SPECN: CLW/ES/3/0487/C
3	DRIVER DISPLAY UNIT FOR ABB	
4	DRIVER DISPLAY UNIT FOR CG	
5	HALL EFFECT SPEED SENSOR/HALL EFFECT ACTIVE SPEED SENSOR	CLW/ES/3/0528 ALT-A

## ELIXIR MANUFACTURED PARTS LIST


6	SURGE ARRESTER / SURGE ARRESTOR	CLW/ES/3/0016 ALT- B
7	FDU WITH CONNECTOR POS212/ FIRE DETECTION UNIT	CLW/ES/3/0057
8	CURRENT SENSOR	CLW/ES/3/SK- 2/0084
9	PRIMARY VOLTAGE TRANSFORMER WAG 9 /WAP 7	CLW/ES/3/0009/B
10	PRIMARY VOLTAGE TRANSFORMER (ICF)	
<b>LHB COACH PARTS</b>		
1	MV DUMP VALVE	
2	MODIFIED JUNCTION BOX	
3	PHONIC WHEEL	1.2.748/ 1/604545
4	SPEED SENSOR EQUIVALENT TO OEM Part.No.	1135435/10012 (or) 1135456/20013 (or) STN 31450/205A 18U
5	SPEED SENSOR EQUIVALENT TO OEM Part. No	1/604501/2000 (or) 790040267
6	N1 BOARD EQUIVALENT TO OEM Part.No.	1/600009 (OR) 1/600009A
7	N2 BOARD EQUIVALENT TO OEM Part No.	1/600008 (OR) 1/600008A
8	MV BOARD EQUIVALENT TO OEM Part No.	1/600006 OR 1/60000 OR 1/600006A
9	GE BOARD	

## OUR PRESTIGIOUS CUSTOMERS



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