



PVG Automotive PVT LTD. Pune

IATF 16949-2016 Certified Company

<u>Company Profile</u>



ABOUT US

PVG Technology – Design & Development

PVG Automotive Pvt Ltd – Manufacturing of EV components

IATF 16949 : 2016 Certified Companies

Established in 2012

Headquartered in Pune, Maharashtra, India

Expertise in area of automotive, Aircraft components, Industrial equipment's and machine tools

Industrial training in Automotive product design i.e. Interior Trim Design, Exterior Trim Design, BIW Design, Vehicle Integration, Wiring Harness, Tool Design

Company Assets

Experienced team with more than 30 years of experience in automobile Plastic, Sheet Metal & Wiring Harness design.





- **Electric Vehicle Components**
- ELECTRONIC THROTTLE (SINGLE / TWO SWITCH)
- DC DC CONVERTOR
- > INDICATOR FLASHER RELAY
- > JUNCTION BOXES / CONNECTION BOXES 6 POLE
- POWER DISTRIBUTION BOX
- ELECTRIC VEHICLE WIRING HARNESS
- Wiring Harness
- Hybrid Electric Vehicle Wiring Harness
- Other Component
- □ 5 WAY ONE MEGA 4 MIDI- FUSE BOX
- OBD CABLE
- □ INJECTOR ADAPTOR CAPS, HATS
- DUAL TEMPERATURE SENSORS
- □ THERMO AMP UNITS
- BACK COVER
- POWER CORD (BATTERY CHARGING PLUG)

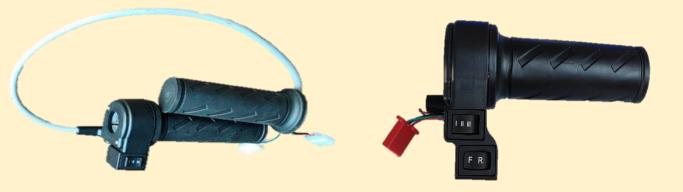
SINGLE / TWO SWITCH THROTTLE



Electronics Twist Throttle/ Accelerator Electric 2 & 3-wheeler

Key point:

- Suitable for battery operated bicycle, 2 and 3-Wheeler with 24, 36, 48, 60 and 72 V Battery system.
- Hall Effect magnetic sensor for long operational life with no friction.
- Without switches Throttle is also available.
- Easy adoptability Pig tail length and connector can be as per requirement.
- Customisation Customer's logo / name can be moulded on rubber grips
- Switches : I II III, L M H, F R , L H, H L, Push switches P, R etc, as per requirement



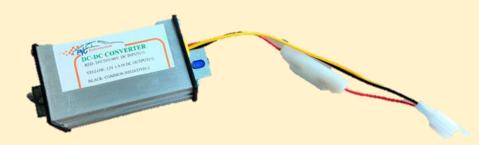
| SPECIFICATIONS | | | |
|-------------------------|---------------------|------------|--|
| DESCRIPTION | UNIT | VALUE | |
| Input Supply Voltage | Volt (V) | 5 | |
| Output Voltage | Volt (V) | 0.8 To 4.2 | |
| Maximum Operating Force | Newton (N) | 22-25 | |
| Ambient Tempreture | Degree Celcius (°C) | -10 TO 50 | |
| Handle Diameter | mm | 22 TO 22.4 | |
| Grip Outer Diameter | mm | 34.6 | |
| Throttle Rotation Angle | Degree | 67 +/- 0.2 | |

DC TO DC CONVERTERS



Key point:

- Protections Under voltage (input side), over current, short circuit (output side)
- Ingress protection level IP 65
- Line and load regulation 2%
- Easy installation Uses M6 screw for mounting
- Good heat dissipation Uses aluminum extruded housing
- Connectivity Pig tail length and connector type can be customized.



| SPECIFICATIONS | | | |
|----------------------|---------------------|------------------------------|--|
| DESCRIPTION | UNIT | VALUE | |
| Input Supply Voltage | Volt (V) | 24/36/48/60/72 | |
| Output Voltage | Volt (V) | 12 ± 0.5 | |
| Current | Ampere (A) | 10 | |
| Tempreture | Degree Celcius (°C) | -0 TO 70 | |
| Dimensions | mm | L= 88mm, W= 46mm, H= 28mm | |

FLASHER RELAY

The power of Innovation

- Long operational life No moving parts inside, no wear and tear
- State of the art technology Uses SMD chip Technology
- Protections Short circuit protection, overload protection, reverse polarity
- Flasher frequency In accordance with IS 4060
- Load 10W Front lamp.+ 10W Rear lamp + 3.4 W Tell tale lamp in instrument cluster.
- Outage lamp detection.
- Also available for LED and Filament type indicators.
- With and without Buzzer options are available.



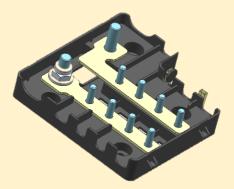
| SPECIFICATIONS | | |
|----------------------|------------------------|-------------------------|
| DESCRIPTION | UNIT | VALUE |
| Input Supply Voltage | Volt (V) | 12/24 |
| Output Voltage | Volt (V) | $12 \pm 0.5/24 \pm 0.5$ |
| Max. Output Current | Ampere (A) | 5 |
| Tempreture | Degree Celcius (°C) | -0 TO 70 |
| Flasher frequency | Flash per Minute (F/M) | 90 ± 10 |



JUNCTION BOXES / CONNECTION BOXES - 6 POLE

- 6 Pole
- Provision of rubber tie to hold cover with base
- Provision of captive screw
- Chamfer for easy fitment of nut & screw
- Provision of mounting holes for vehicle fitment





| SPECIFICATIONS | | |
|-----------------------------|---------------------|----------|
| DESCRIPTION | UNIT | VALUE |
| Supply Voltage | Volt (V) | 48/60/72 |
| Flange Nuts for Connections | - | M5 |
| Max. Output Current | Ampere (A) | 5 |
| Tempreture | Degree Celcius (°C) | -0 TO 50 |



POWER DISTRIBUTION BOX

- High Voltage Power Distribution Unit suitable for Electric Bus, Electric LCV and Two wheeler vehicle.
- Expertise in house design and development.
- Ingress protection IP 67
- Length of wire will be dependent on location of different equipment, location of PDU and routing of cables on vehicle.
- Harness connection are Lug mounted / Connector based.





Wiring Harness

Key Features

- All components complying to automotive standards
- Calculations related to harness are considered in design stage
- Reliability & quality assurance on process of harness manufacturing
- Harness guarantee for vehicle life if mounted & used as per drawings
- Close coordination's with OEM for better fitment of physical harness
- OEM support with circuit level schematics (for service engineers), fitment drawings for harnesses (for assembly operators), troubleshooting documents etc on demand
- In time delivery

Advantages : Developed in India

- Support to OEM for FAME II subsidy
- Guide to service team of OEM for troubleshooting of vehicle
- Wiring harness modifications can be done as per OEM suggestions
- Design consultancy regarding integration of electrical components in electric vehicles

Hybrid Electric Vehicle Wiring Harness









Electric Three Wheeler Wiring Harness



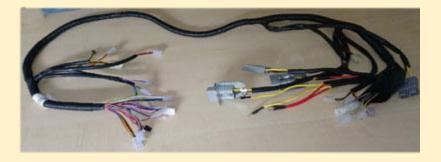
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Wiring Harness

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Electric Two Wheeler Wiring Harness



Regular Wiring Harness (IC Engine Vehicle) Truck, Car, Genset Main Wiring Harness





ONE MEGA FOUR MIDI-FUSE BOX

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- Fuse box is intended for use in commercial vehicle and Buses for power distribution purpose .
- It contains 1Mega fuse (for starter motor) and 4 midi fuses for power distribution in vehicle.
- Provision of rubber tie to hold cover with base
- Chamfer for easy fitment of nut & screw
- Provision of mounting holes for vehicle fitment



| SPECIFICATIONS | | | |
|-----------------------------|------------|--|--|
| DESCRIPTION | UNIT | VALUE | |
| Supply Voltage | Volt (V) | 12/24 | |
| Flange Nuts for Connections | - | M6 | |
| Current | Ampere (A) | Continuous current 50% of Fuse rating | |

OBD CABLES



Key Point:

- Material: Plastic casing
- Universal OBD II 16 Pin Connector
- DB9 Connector for PC interface





Application - Provides vehicle self-diagnosis

INJECTOR ADAPTOR CAP





Application

Used in wiring harness of vehicles and provide protection to wires from sharp metal edges.

Duel Temperature Sensor



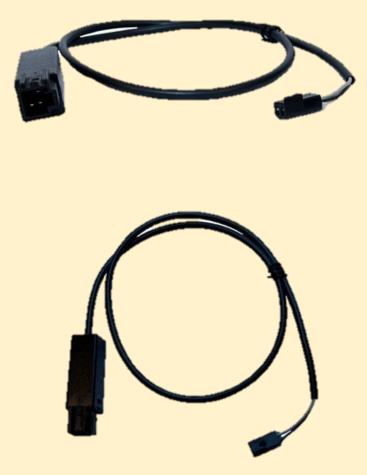


Application Used in all IC engine vehicles. Measures coolant temperature & provides information to relevant systems. ¹³

PVG AUTOMOTIVE PVT. LTD



THERMO AMP UNIT



Application Compressor cycles ON and OFF to maintain the evaporator temperature within a specified range.

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POWER CORD (BATTERY CHARGING PLUG)



Connector - IEC 320 C15 3-Port House Plug Port N = Positive Port L = Negative 250V, 10A

Application:- Power cord for charging two wheeler Electric vehicle.

BACK COVER



The adapter protection cap has been specially developed to protect exposed cables including strain relief for the cable harness, as well as protection against steel and splash. Temperature:- -40°C to +135°C Suitable for plug manufacturer: AMP-2 Suitable for corrugated tube profile Normal: NW 4.5

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Contact us

Manufacturing Plant

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