

## ➤ Precharge Module

RDVS designed a Precharge Module which provides current limited soft switch-on for HV systems, to allow system capacitance to charge in a controlled manner.

The Precharge Module is controlled over CAN with an additional hardwired interface for safety integrity. It works on HV systems up to 450V with >2000V galvanic isolation from the LV control circuitry, typically 7A current limit for a 400V system. A very compact unit, it also has capability to drive two contactors to provide complete HV switching functionality.



Electrical  
Engineering  
Solutions

[www.rdvs.co.uk](http://www.rdvs.co.uk)  
+44 (0)1295 709595



## Features

- › HV voltage: 400V DC
- › Current limited precharge, typical 7A at 400V
- › CAN controlled with feedback
- › Powered from vehicle LV system, typically <0.5A without utilising external contactor control
- › A hardwired control and status signals to allow safety integrity
- › LV control systems galvanically isolated to <2000V from HV, only isolated digital communications between HV and LV
- › Compact design using only PCB mounted components: no bulky power resistors or contactors
- › Measures HV supply voltage to 1% accuracy
- › Transmits real-time voltage measurements and module status over CAN
- › Provision for control of two external high power contactors
- › Software configurable for different applications
- › Conformal coated PCB

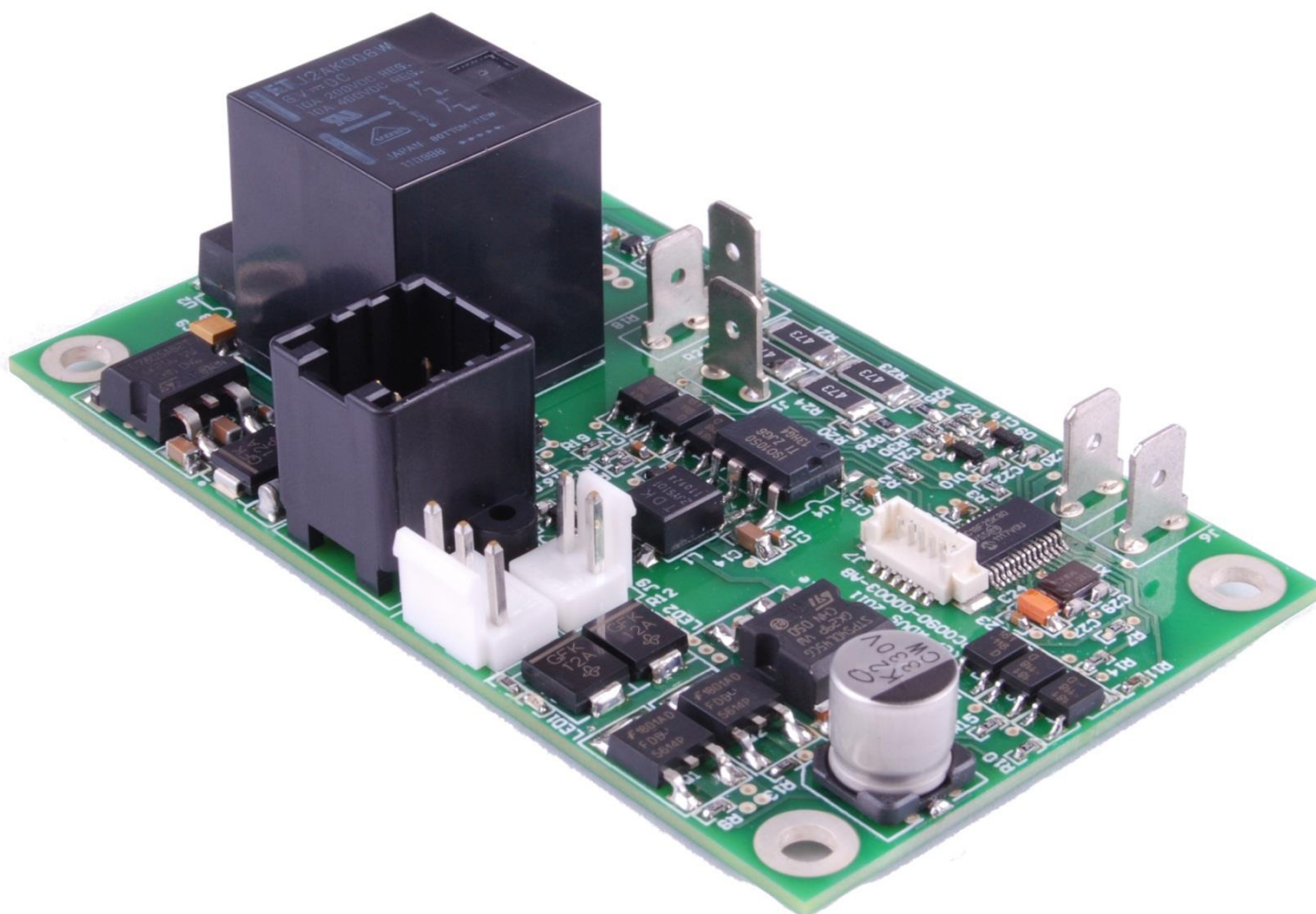
## Physical Attributes

- › Dimensions: 114mm x 60mm
- › LV Connections: 8-way Tyco 040 series
- › HV Connections: 6.3mm tabs, JST VH series
- › Mounting: 4 x M4

## Environmental

- › Operating voltage range: 9-16V DC
- › HV voltage range: 50-700V DC
- › Typical power consumption: <0.5
- › Temperature: -40°C to +85°C operating
- › Humidity: IEC 60068-2-38 Z/AD
- › Vibration/shock: IEC 60068-2-64, IEC 60068-2-6, IEC 60068-2-27
- › EMC: ISO7637, ISO11452, 2004/104/EC
- › ESD: ISO10605
- › RoHS compliant

All parameters are subject to individual installation conditions



Electrical  
Engineering  
Solutions

[www.rdvs.co.uk](http://www.rdvs.co.uk)

+44 (0)1295 709595



ISO 9001:2008  
FS 563617



ISO 14001:2004  
EMS 563618