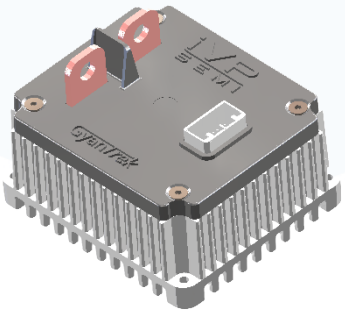
Smart Solid-State Contactor

Description

VPG20003BX is a Smart Solid-State Contactor incorporating semiconductor switches

which can replace electro-mechanical Power relays by providing a host of advanced
features like fast switching, pre-charge capability, and fault handling and a long operational life. It also has CAN and RS485 Communications rendering it easy to integrate into a system



Features

Bi-directional smart Solid-State Contactor.

- Integrated MCU with programable features.
- CAN and RS485 communication interface.
- Pre-charge capability.
- Better thermal performance.
- Designed for a host of applications.
- OVP, UVP, OTP, and short circuit protection.
- Over Current protection with programable i2t algorithm (e-fuse).
- Low quiescent current consumption.
- IP67 ingress protection.
- AEC 104 Automotive Qualified (planned).

Value Proposition

- Uses Patented Thermal design for enhanced Performance
- Compact, Lightweight solution
- Designed and Made-in India
- Long Operating life
- Local Technical Support and Service

Target Specifications for the Smart Solid-State Contactor

Parameter	Min.	Typ.	Max.	Units	Conditions
Operating Voltage	38	48	58	V	
Continuous Current			300	A	T_{SINK}= 25 °C
Continuous Current			200	A	T_{SINK} = 50 °C
Peak Current* Note 1			1200	A	T_{SINK}= 25 °C
Precharge Current			0.5	A	T_{SINK}= 25 °C
Precharge Time	--	--	300	m Sec	
Turn-ON delay time		TBD		µs	V_{BAT}= 48V, T_{SINK}= 25 °C
Turn-ON time		<100		µs	V_{BAT}= 48V, T_{SINK}= 25 °C
Turn-OFF delay time		TBD		µs	V_{BAT}= 48V, T_{SINK}= 25 °C
Turn-OFF time		<100		µs	V_{BAT}= 48V, T_{SINK}= 25 °C
Operating Temperature Range	-10		50	°C	
Operating Cycles			TBD		
Communication Protocols	CAN				
	RS 485				
Dimensions	L: 107	W: 93	49.5	mm	
Note 1: Limited by the pulse width, T_{SINK}					

** Advance Product information. All specifications are subjected to change without notice