

Power Rider- PDU

The Power to Manage and Protect, Multi Circuit breaker, relay and contactor

RD000050

MC 12 channel - Circuit breaker:

- Automotive and airborne applications
- 3 layers of prevention
- Smart, advanced vehicle power management
- Distributed EPD configuration
- Configurable
- Reducing TCO (Total Cost OF ownership)– automated recovery mechanism
- Increases Up time
- Mobile robots – smart energy management: extended battery life
- Prognostics and diagnostics tools
- Redundant mode, stand-by mode



Main Features:

- 0-25 Amp per channel – up to 240A simultaneously
- 6-48VDC
- Log file system management
- Communication: CAN BUS (1Mbit- J1939) or RS485, Ethernet
- Remote ON-OFF signal, digital status – 12 inputs, 2 out puts
- Master-Slave mode
- Read parameters and real timemonitoring
- Protections: Over current, i^2t , over temperature, over voltage over current
- Fast 1 μ Sec hardware cutoffprotection
- Comprehensive error message and BIT
 - Reliable - Low Rdson, 100V power MOSFETs
- Temperature operation environment -40°C to 85°C
- Automotive standard - Optional: standards by demand
- 3 over voltage protection points
- Power down (discreate), standby mode(communication)and Blackout mode
- Parallel independent channels
- 3 Possible scenarios for Channel prioritizing vs. total power



Smart Circuit Breaker board

Added values:

- Patent short circuit protection – never goes short.
- Configurable 40 parameters and recovery plan
- Channel base configuration option
- Supports Scenarios' based logic configuration and Iner-redundancy programing
- Non- developer: Easy to use, intuitive GUI/DLL
- Easy power Grid design and supports Protected Node mode

Specifications :

Function	Parameter	Remarks
CPU and Memory		
CORE	STM32F303	32bits DSP
Flash	512 Kbytes	
RAM	64 Kbytes	
CORE Speed	72Mhz	
MOSFET Interface		
Power MOSFET	2X100V@100A	
Nominal Channel resistance	<15mΩ	
SwitchTurn ON	500 nSec	
SwitchTurn OFF	350 nSec	
Power dissipation 12.5 Amp	< 0.75W	
Current measurement accuracy	Better than 2%	
General Purpose Interface		
Communication I	CANBUS	CAN J1939 2.0B 1Mbit/Sec
Communication II	RS422/RS485	614400 bit/Sec
Communication II	Ethernet UDP	
GPIO	12 Inputs 2 outputs	
Power Supply/Operating Temperature		
Operating voltage	8V to 48V	
Current range	0 to 25 Ampere	
Power consumption	Operating 110mA@28v Sleep mode<50ma@28V Shut down mode <1mA@28V	
Ambient Operating temperature	-40°C to +75°C	
I/O Connection		
Data and control connector	Harwin M80-5L10622MC	Dual row 3pin x 2 rows
Power In Power out	KeyStone-1265	TAB size 6.35 mm x 0.81 mm
Ground	KeyStone-4904	TAB size 4.75 mm x 0.51 mm
Dimensions and weight	240mm x 110mm X 32mm, 738g	



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