

Power Rider 25A

Sophisticated & Simple – Circuit Breaker, Relay, contactor

RD000085

Smart Single Circuit breakers - Advantages:

- 3 levels of protection:
 - Software – I^2t
 - Hardware – 1 μ second cutoff of over current
 - Thermal Fuse
- Multi Task element – High end Technology in a “small box”
- Solid state-based technology
- High Reliability and MTBF
- 20 configurable parameters
- Intuitive GUI – “non developer” (no code needed)
- Scenario based logics (upon discrete Inputs)
- Cascade option – one communication line for multiple connected units (in the 25A)
- Events log for improved maintenance
- Automatic recovery plan configuration



Single Power Rider 25A

- 0-25 Ampere
 - 2 MOSFET transistors, power switch
 - Master Slave Mode
 - One input/One output
 - Single rout protection
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- Data logger. Coulomb counter, High current situation
 - Discrete ON/OFF command and status output (open collector)
 - High reliability fuse replacement
 - Based on Redler’s IP. (Patent pending PCT)
 - 8-48VDC
 - Communication: CAN BUS (50kbps-1Mbps- J1939) and RS 422/485
 - Firmware upgrade via CAN BUS
 - MMI – Load/Read parameters and live graph monitor
 - Protections: Over current, i^2t , over Temperature, over voltage, Hardware tripped, more...
 - Fast 1 μ Sec hardwired cutoff protection - patented
 - Comprehensive error messages
 - Pilot LED
 - Reliable: high current, low RDS-on, 100V Power MOSFETs, Hardware fast short protection
 - New effective thermal solution
 - BIT
 - Black out and Power Down mode
 - 2 points overvoltage protection

Specifications:

Function	Parameter
Single Power Rider 25A	
CPU and Memory	
CORE	STM32F091CCT7 - 32bits DSP
Flash	256 Kbytes
RAM	32 Kbytes
CORE Speed	40Mhz
MOSFET Interface	
Nominal channel resistance (room temp.)	<12mΩ
Charge Pump	>10
Power MOSFET	8X100V@150A
SwitchTurn ON	200nSec
SwitchTurn OFF	300nSec
Current measurement accuracy	2%
General Purpose Interface	
Digital Input	4
OC output	2
Communication I	CANBUSj1939 - 2.0B 1Mbit/Sec
Communication II	RS422/RS485 - 614400 bit/Sec
Power Supply/Operating temperature	
Current consumption	30mA
Operating Voltage	8V to 48V
Ambient Operating Temperature	-40°c +71°c@ *derating table
Storage temp	-65°c +150°c
I/O Connection	
Data and control connector	Harwin M80-5L10622MC
Power In Power out	KeyStone-1265 KeyStone-4904
Ground	
Dimensions	46.4mm X 39mm X 16.4mm
Weight	52g



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