

## Reason DR60 PMU

## Digital Recorder and Synchrophasor Measurement Unit

The Reason DR60 is a centralized one-box multifunctional digital fault recorder (DFR) and PMU C37.118. The small form factor, together with the ruggedness of design drawn from field experience in yard-mounted applications, ensures that the Reason DR60 can be installed in harsh utility and industrial environments. The high scalability in binary I/O counts along with modern communications such as IEC61850 Edition 2 and synchronization protocols such as MMS, GOOSE and PTP precision-timing, place the DR60 at the forefront of digital recording and PMU technology.

### Phasor Measurement Unit (PMU)

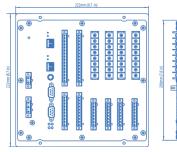
The DR60 provides powerful and cost-effective synchrophasor measurement solution according to IEEE C37.118.1/2-2011/1a-2014 standards and is capable of transmitting synchrophasors in up to 4 separate data streams. Each stream can be configurable independently based on: contents; frame rate; performance class (P or M) and communication mode (TCP or UDP).

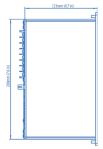
### **PMU Specification**

Number of simultaneous PMU streams	4
Performance Class	P and M
Communication Protocol C37.118.2	UDP or TCP
Communication mode	Commanded and spontaneous
PMU data	Voltage and current synchrophasors; frequency, rate of change of frequency and sequence components
Ethernet interfaces	2 RJ45 or 2 LC connector
VT inputs	115 V nominal; up to 16 inputs
CT inputs	1 or 5 A nominal; up to 16 inputs

### Dimensions of the equipment

Height	222 mm / 8.7 in (5 U)
Width	222 mm / 8.7 in (½ 19")
Depth	121 mm / 4.7 in
Weight	< 3.5 kg (< 7.72 lb)





## **Optimized Outcome**

- Helps to improve dynamic monitoring based on synchronized measurement
- Mitigate risk of major disturbances caused by dynamic conditions
- Accelerate resynchronization operation, leading to decreased down-time

# Complete digital recorder

 In addition to PMU capability the DR60 offers a full set of digital recorders: waveform, disturbance, trend and SOE

## High Density I/O

 Up to 32 analog inputs and 4 independent PMU streams

## Communication

- Supports modern industry protocols, such as: DNP3, MMS, GOOSE, PTP and IRIGB
- Serial and Ethernet interfaces



For more information please contact: **GE's Measurement & Networking Center of Excellence** 

Email: marketing.rtb@ge.com Phone: +55 48 21080300

#### Worldwide Contact Centre

Web: www.GEGridSolutions.com/contact Phone: +44 (0) 1785 250 070



### GEGridSolutions.com

IEC is a registered trademark of Commission Electrotechnique Internationale. IEEE is a registered trademark of the Institute of Electrical Electronics Engineers, Inc. Modbus is a registered trademark of Schneider Automation. NERC is a registered trademark of North American Electric Reliability Council. NIST is a registered trademark of the National Institute of Standards and Technology.

 ${\sf GE}, the {\sf \,GE \,monogram \,and \, Reason \, are \, trademarks \, of \, General \, Electric \, Company}.$ 

GE reserves the right to make changes to specifications of products described at any time without notice and without obligation to notify any person of such changes.

Copyright 2017, General Electric Company. All Rights Reserved.