

SYNC 2100 SERIES REMOTE TERMINAL UNITS

Overview

Kalkitech SYNC2111 is a compact and rugged remote terminal unit used for applications that control and monitor the distribution grid, including distribution feeders, auto reclosers, sectionalizers, disconnections switches, ring main units, capacitor banks, distributed energy resources, etc. Support for IEC61850/DNP3.0/IEC104 communication and IEC-61131 programming makes the RTU smart grid ready with multiple communication interfaces including options for integrated cellular modems. An in-built web HMI makes it possible to remotely monitor and perform control operations of the distribution grid.

Features

General

- 4 I/O card plug-in slots for SYNC 2111
- 16 digital input plug-in card for status indication
- 16 digital output plug-in card for remote commands
- 8 analog input plug-in card
- Event notification over SMS for operator assistance
- Internal and external pluggable cellular modem option (GPRS/EDGE/CDMA/EVDO/UMTS/HSDPA)
- Enabled with smartgrid protocols IEC60870-101/104, DNP3.0, Modbus, DLMS and IEC61850
- Basic logic engine and advanced logic engine based in IEC61131-3
- Automatic startup with restart notification following power restoration
- Time synchronization using NTP/SNTP/NMEA/IEEE1588/IEC60870/DNP3.0
- Device management using SNMP/Web HMI
- Remote configuration & software update over air
- Local/remote switch for safer maintenance operation
- Upto 5000 data point support with 1millisecond time resolution
- Persistent event storage
- Multi master communication capability
- Transparent/tunneling support for remote configuration
- External radio/ PSTN modem can be used
- Inbuilt Web HMI for monitoring and control

Security

- IEC62351-3 transport layer security
- IEC62351-5/DNP3 secure authentication
- SSL based VPN with AES, DES or 3DES encryption over WAN/LAN
- Compliant to NERC-CIP security standards



Applications

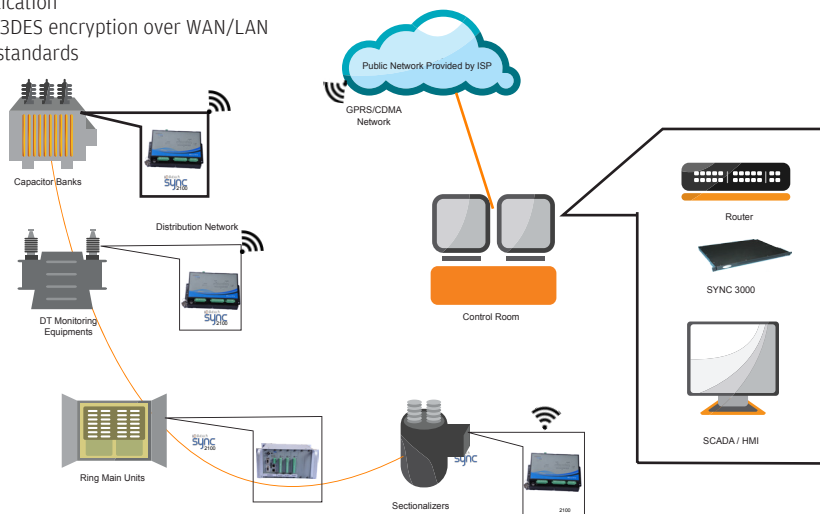
- Distributed automation
 - RMU automation
 - Sectionalizer automation
 - Auto-reclosure monitoring
- Asset monitoring
 - Power transformer
 - Distributed generation

Models

- SYNC 2111-M2: RTU with 4 IO cards
- SYNC 2111-M3: RTU with 7 IO cards

Related Products

- SYNC 4000: Control Center M2M Gateway



Disclaimer: Some of the features might not be available for select geographies. Product descriptions and features in this document subject to change without notice

FEEDER RTU SPECIFICATION SHEET

FEEDER RTU SPECIFICATION SHEET		
SYNC 2111		
Management	EasyConnect configuration utility/web HMI/SNMP & SSH interface over secure network FOTA support over GPRS/EDGE/CDMA/EVDO/UMTS/HSDPA Inbuilt Web HMI for monitoring and control Direct over debug port or console port	
System Protocols	TCP/IP, UDP/IP, SMTP, POP, HTTP, FTP, SNMP, ICMP, DHCP, BOOTP, Telnet, DNS, ARP, PPPoE, DDNS	
Application Protocol	IEC 60870-5-101/104, DNP3 serial/TCP, Modbus RTU.TCP, DLMS, IEC61850 and many more. Refer the full list of protocols at http://www.kalkitech.com/protocolsupport.htm	
LED Indications	LAN ready, data transfer, serial port RX/TX, status, power, IO card status	
Security	NERC/CIP Compliant, SSHv2 SSL based VPN tunnel using Blowfish/AES/3DES IEC62351-3, -5	
Logic Programming	Basic logic engine with AND/OR/NOT/Bit SHIFT/Split/Index support for digital and analog data delay operations Advanced logic based on IEC61131-3	
Serial		
Ports	1 RS232 DB9, 1 RS232/485 DB9, 2 RS485 Combicon terminal block	
Data Rate	110bps - 115.2kbps	
Ethernet		
Ports	1 RJ45	
Physical Layer	10/100 Base-T auto sensing	
Isolation	1500VAC min as per IEEE802.3/ANSI X3.263	
I/O Interfaces		
Number of Slots	4 I/O card slots	7 I/O card slots
Card Options	16DI card, 24VDC	
	16DO card, 500mA @ 24VDC	
	8AI card (0 - 10VDC, 0 - 5VDC, 4 - 20mA, 0 - 20mA)	
Digital Input Isolation	3kV optical	
Digital Output Isolation	3kV optical	
Power Requirements		
Power Supply	Order Code: PS-DC	19-58 VDC
	Order Code: PS-ACDC	85-264 VAC 50-60Hz
		120-370 VDC
Consumption Details	Communication Card	5Watt
	Internal Modem	8Watt peak
	16DI Card	1Watt
	16DO Card	1Watt
	8 AI Card	1Watt
Plug-in Modem		
Internal	GPRS/EDGE/CDMA/EVDO/UMTS/EVDO	
External	Radio modem, PSTN modem	
Physical		
Dimensions (H x W x D approx)	133mm x 270mm x 184mm	133mm x 482 mm x 184mm
Mounting	Wall mounting	
weight (approx)	1600 grams	1900 grams
IP as per IEC60529	IP20	
Environmental		
Operating Temperature	-10°C to 70°C (14°F to 158°F)	
Storage Temperature	-20°C to 80°C (-4°F to 176°F)	
Relative Humidity	5% - 95% RH non condensing	

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