

We touch your **electricity** everyday!

- * Versatile & programmable relay
- * Rated 1A/5A - 50/60 Hz site selectable
- * Modular design with self CT shorting



CSEPRO-F Advance Feeder Protection & Monitoring System

Application

The CSEPRO-F relays have been designed for controlling, protecting and monitoring industrial, utility distribution feeder networks and substations.

Features

Main Features:

- 1A & 5A programmable rated current
- Modular design with self CT shorting
- SCADA communication (local & remote)
- Wide auxiliary supply range
- DI / DO matrix programmability
- Disturbance record
- Event record
- Fault record

Protection & Control

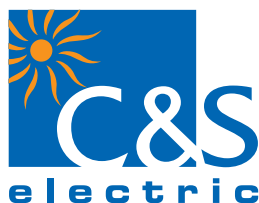
- Under / Over current
- Ground fault / Restricted earth fault
- Auto recloser
- Unbalance / NPS / PPS / ZPS
- CBFP / TCS / Broken conductor
- Under / Over / Rate of change of frequency
- Under / Over / Residual voltage
- Cold load pickup
- Inrush blocking
- Thermal over load

Metering & Monitoring

- Phase / Residual / REF current, NPS, PPS, ZPS
- Voltage, Frequency
- Disturbance / Harmonics / Event / Fault
- Maxi meter

Communication

- Modbus RTU
- IEC 60870-5-103
- IEC 61850
- Modbus TCP



Electronic Division
Unit - Protection & Control

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Model Selection Chart

CSEProF Series	ANSI	F120	F200	F220	F240	F260	F300	F400	F500
CT inputs		-	4	5	4	4	4	-	4
VT inputs		4	-	-	-	3	3	4	4
Opto inputs (max)		4	6	4	6	4	6	6	6
Output contacts (max)		4	6	4	6	6	6	6	6
Function keys / hot keys		●	●	●	●	●	●	●	●
Programming logic		-	-	-	-	-	●	●	●
Protection									
3 Phase over current	50/51P	-	●	●	●	●	●	-	●
Ground fault	50/51N	-	●	●	●	●	●	-	●
Phase directional	67P	-	-	-	-	●	-	-	-
Ground fault directional	67N	-	-	-	-	●	-	-	-
Sensitive earth fault	50/51SN	-	-	●	-	-	-	-	-
Restricted earth fault	64	-	-	●	●	-	●	-	●
Voltage controlled over current	51V	-	-	-	-	-	●	-	●
Negative sequence over current	46	-	●	●	●	●	●	-	●
Thermal over load	49	-	●	●	●	●	●	-	●
Under current	37	-	-	-	●	-	-	-	●
Over / Under voltage	27/59	●	-	-	-	-	●	●	●
Residual over voltage	59N	●	-	-	-	-	●	●	●
Negative sequence over voltage	47	●	-	-	-	-	●	●	●
Over/Under frequency	81O/U	-	-	-	-	-	-	●	●
Rate of change of frequency	87R	-	-	-	-	-	-	●	●
Circuit breaker failure	50BF	●	●	●	●	●	●	●	●
Auto reclose	79	●	●	-	●	-	●	●	●
Broken conductor	46BC	-	●	●	●	●	●	-	●
Cold load pick-up		-	●	●	●	●	●	-	●
Inrush blocking		-	●	●	●	●	●	-	●
Trip circuit supervision	74TC	●	●	●	●	●	●	●	●
Communication									
Front (USB)		●	●	●	●	●	●	●	●
RS-485 Modbus		●	●	●	●	●	●	●	●
Modbus on fiber optics		●	●	●	●	●	●	●	●
RJ-45 Modbus TCP/IP		●	●	●	●	●	●	●	●
IEC60870-5-103 on fiber optics		●	●	●	●	●	●	●	●
RJ-45 IEC60870-5-101		●	●	●	●	●	●	●	●
RS-485 IEC60870-5-103		●	●	●	●	●	●	●	●
RJ-45 IEC61850		●	●	●	●	●	●	●	●
SNTP Time synch Rj45		●	●	●	●	●	●	●	●
Websvrer on RJ-45		●	●	●	●	●	●	●	●

Technical Data

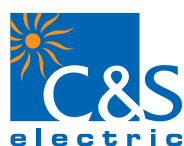
Auxiliary voltage Uaux	24-260V AC/DC
Rated phase current In	1A & 5A (site selectable)
-current measuring range	30xIn
Rated neutral current Ie	1A & 5A (site selectable)
Rated frequency fn	50/60 Hz (site selectable)
Digital inputs (external voltage)	6 programmable
Trip contacts	6 programmable
Thermal withstand capability in current circuit	At In=1A continuous=5xIn for 10 sec=30xIn for 1 sec=100xIn

Records

Event recorder	100 (non volatile memory with time stamp)
Fault recorder	10 (non volatile memory with time stamp)

Tests and Environment

(EMC Emission / Immunity / Mechanical / EMI)	IEC 60255 / 60068
Operating temperature	70° C
Degree of protection	IP54
Weight	1.5 kg
Dimension (WxHxD)	125.0x156.0x249.0 mm



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