EMKO energy

Trans AMF SYNCRO

Automatic Gen-Set Controller with Transfer Switching & Load Sharing

Mains voltages and frequency measurements
Generator voltages and frequency measurements
Peak lopping (mains or genset)
Power export to mains
Mains de-coupling protection with R.O.C.O.F and vector shift methods
Manual voltage/frequency adjustment
Direct/Reverse Governor and AVRcontrol
Auto adjust feature for Governor and AVR
Volts, frequency and phase matching
Synchroscope display
Logic Controller functionality for PLC

Pre-Alarm
Engine temperature
Oil pressure
Fuel level
Over / Under voltage
Over / Under frequency
Over / Under speed

Warning & Electrical trip
Earth fault
Over current
Short circuit
Mains rocof
Mains vector shift

Alarm
Generator breaker not opened
Generator breaker not closed
Mains breaker not opened
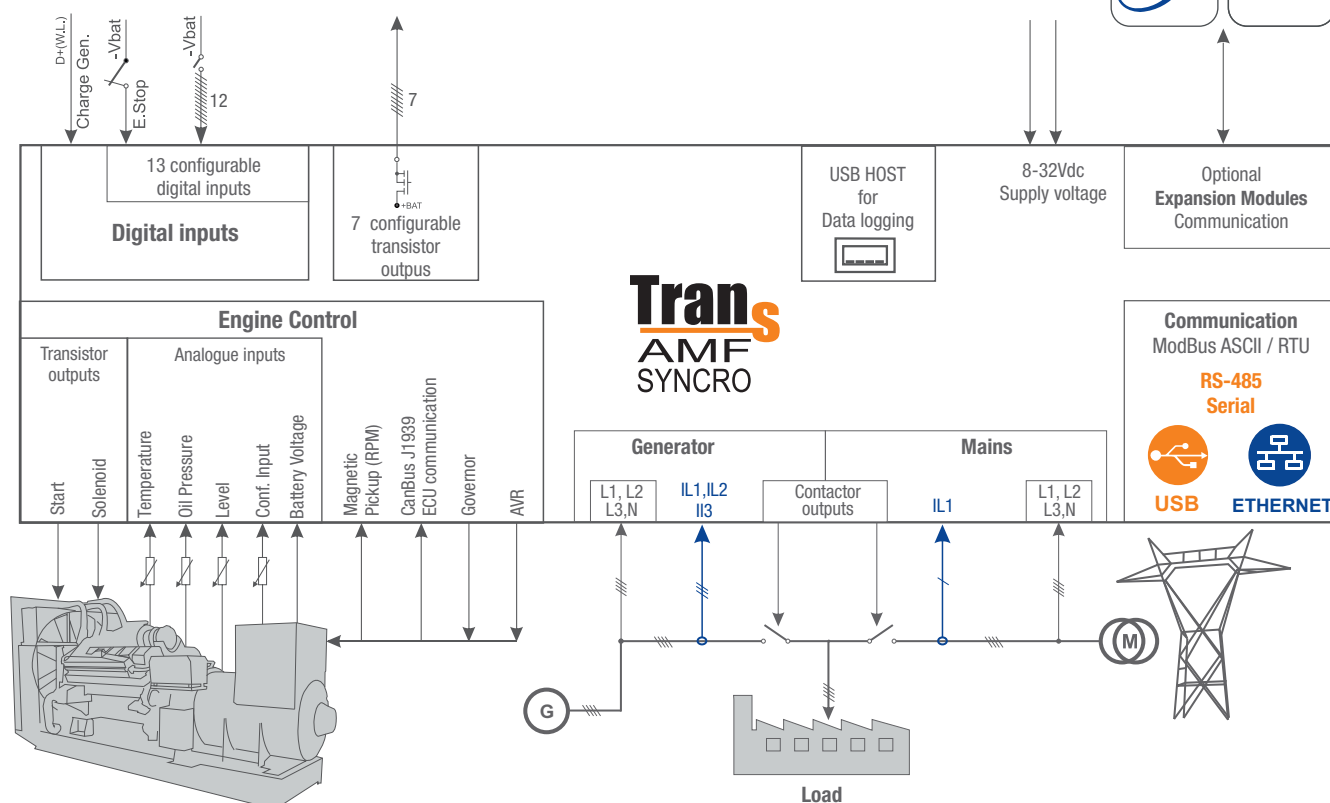Mains breaker not closed

Controls
Fuel and Stop solenoid
ECU power and stop
Starter motor
Automatic generator start
Preheat
External alarm horn
Engine cooling
Idle mode
Mains supply
Load transfer
Load sharing

Fail Monitoring
Mains failure
Emergency stop
Failed to start
Low oil pressure
High temperature
Speed failure
Voltage failure
Charging fail
Shutdown
Warning

Error
Synchronising
Over / Under speed
Speed loss
Earth fault
Fuel level
Battery low
Battery high
Maintenance
Over current
Short circuit
Engine stop
CanBus
Charge alternator

SYNCHROSCOPE

Δf: 0.00Hz
ΔV: 0.0V
Δ°: 0.0°

Web Server GSM

GPRS Expansion I/O Board

Digital inputs

13 configurable digital inputs

7 configurable transistor outpus

USB HOST for Data logging

8-32Vdc Supply voltage

Optional **Expansion Modules** Communication

Engine Control

Transistor outputs	Analogue inputs

Start, Solenoid, Temperature, Oil Pressure, Level, Conf. Input, Battery Voltage, Magnetic Pickup (RPM), CanBus J1939 ECU communication, Governor, AVR

Tran**s** AMF SYNCRO

Generator

L1, L2 L3,N   IL1,IL2 II3

Contactor outputs

Mains

IL1   L1, L2 L3,N

Communication
ModBus ASCII / RTU
RS-485 Serial

USB   ETHERNET

Load

Dimensions	: 276 mm x 189 mm x 45 mm. (including connectors). Plastic housing for panel mounting.
Panel Cut-Out	: 223mm x 162mm.
Protection	: IP65 at front panel.
Weight	: Approximately 0,82 Kg.
Environmental rating	: Standard, indoor at an altitude of less then 2000 meters with non-condensing humidity.
Operating/Storage Temperature	: -20°C to +70°C / -30°C to +80°C
DC Battery Supply Voltage	: 8 to 32 V dc. Max. operating current is 860 mA.
CT secondary	: 5A.
Sender Measurement	: 0 to 1300 ohm, accuracy: 1 % FS, resolution: 1 ohm.
Communication interface	: USB programming and communication port, Ethernet, RS485.

Order Information

Trans-AMF.SYNCRO	Synchronising & Automatic Mains Failure Unit for Generators with J1939 ECU communication