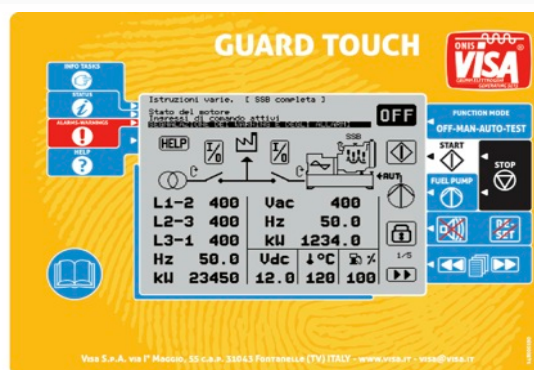




"GUARD TOUCH" CONTROL PANEL

MAIN FEATURES

Guard Touch is the new revolutionary controller with touch screen, researched and developed by Visa S.p.A., which will be standard supply on our gensets. From a technical and operational viewpoint, the new device is different from its predecessors, but still maintains Visa's main characteristic: MODULARITY! Guard Touch is a versatile controller able to satisfy all the requests of the end-user. From manual to automatic (AMF), up to complete synchronisation in parallel. GUARD TOUCH is much more than a simple controller, it's the evolution of perfection.



FUNCTIONS

COMMANDS AND FUNCTIONS:

- Genset status: OFF, MAN, AUTO, TEST;
- Fuel refilling pump status: OFF, MAN, AUTO;
- Start;
- Stop;
- Remote start;
- Manual command opening / closing GCB and MCB;
- Manual command START ON;
- Manual command STOP ON;
- 16 programmable time-out (or countdown) for maintenance (per hour and months);
- Monitoring output of coil relay continuity outputs;
- GCB and MCB feedback monitoring;
- CANbus SAE J1939 communication monitoring
- BLACK BOX: 2500 events;
- 4 graphic TREND (choose among 40 measurements);
- HELP with descriptions and solutions for recorded problems;
- Acoustic alarm ;
- Date and clock with battery.

APPLICATIONS:

- SPM: single prime mover;
- SSB: single stand-by.

COMMUNICATION with external hardware:

- 1 CANbus for SAE J1939 opto-isolated for engine communication;
- 1 proprietary CANbus opto-isolated for Guard Touch communications;
- 1 RS485 for GSM communications, PC monitoring, MODbus, Ethernet connection;
- 1 RS485 for external connection, battery charger, remote alarm card, expansion board I/O.

DISPLAY

- Display black and white with 16 grey tones
- Touch screen
- 320 (W) x 240 (H) pixels
- Range of operation -20°C +70°C

MEASUREMENTS AND PROTECTION

MAINS measurements:

Voltage VAC mains: L1-L2, L2-L3, L3-L1, L1-N, L2-N, L3-N; Lx-N <= 300V (RMS); Lx-N <= 300V (RMS).

GENSET measurements:

Voltage VAC genset: L1-L2, L2-L3, L3-L1, L1-N, L2-N, L3-N; Lx-N <= 300V (RMS); Lx-N <= 300V (RMS); Currents: L1, L2, L3, - L4 (RMS); Active power: sum and per each phase; Apparent power: sum and per each phase; Reactive power: sum and per each phase; Power factor: average and per each phase; Active energy produced: sum and per each phase; Battery voltage VDC; Battery charger current (up to max 2 bc); Speed; Working hours; Rental hours (for rent applications); Starting attempts counter; Successful starts in % ; ACB MCB manoeuvres counter ; Coolant liquid temperature ; Oil pressure; Oil temperature; Engine exhaust temperature main bearings 1; Engine exhaust temperature main bearings 2; Fuel level in % ; Engine power used in % ; Air turbo pressure ; Air turbo temperature ; Immediate fuel consumption; Fuel consumption from the last start up; Total fuel consumption (calculated on engine lifespan); Alternator windings temperature.

ALTERNATOR protections:

Max voltage (59); Min voltage (27); Max frequency (81U); Min frequency (81O); Phase sequence error; Voltage asymmetry; Currents asymmetry ; Energy reversal (32); Short circuit (50); Max temperature alternator windings; Alternator capability: Max kW (51), Max kVAR inductive and capacitive.

MAINS protection:

Max voltage (59); Min voltage (27); Max frequency (81U); Min frequency (81O); Phase sequence error ; Voltage asymmetry.

ENGINE protections:

Coolant liquid temperature; Oil pressure; Oil temperature; Oil level; Low fuel level; Max power; Over-speed (12); Broken belt; Missed start; Missed stop; Min coolant level; Visualisation of engine error codes via CANbus SAE J1939.