AUTOMATIC smooth TRANSFER SWITCH (AsTS)

Principle of Operation

Transfers load from one source to other in 25 milliseconds, without neutral break. Thus load practically experiences no break. It works in open Transition. It is practically an alternative to Closed Transition.

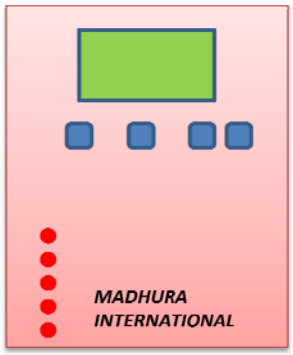
Ratings

Current ratings of 100/200/400/600/800/1200/1600 Amps @ 3 ph, 415 volt, 50 Hz, 4 wire supply

Scope

Option 1 – ATS Switchgear + ATS Controller: Automatically transfers load from Mains to DG and Vice-Versa with a break.

Option 2 - AsTS Kit consists of - ATS switchgear + ATS controller + Soft Transfer Switch (STS) with controller: Automatically transfers load from Mains to DG and Vice-Versa within 20 msec.



Option 3 – Complete Panel with Option 2 + Cables + CT+ Bus bars + Terminals + MCBs + Relay board

Features:(Option 1)

- Three phase true RMS voltage measurement for Mains & DG.
- Under & Over Voltage/Hz, Overload, Short circuit protection for both sources
- 3 phase true RMS current, KW, KVAR, PF,KWH
- 7 inputs/7 outputs (binary), Event/performance log
- Active calls/SMS ,RS 232 port
- Works on 24 volt VDC from DG battery
- ATS switch, 4 pole, ON–OFF–ON position, with Manual override handle

Features: (Option 2)

- Solid state AC switching, Only 25 milliseconds break (for planned transfer)
- DG start/stop control with additionally Soft switches working in parallel.
- Source difference of 4% in Frequency and 10 % in Voltage is acceptable
- Neutral overlapping, Zero maintenance
- Retrofit possible on existing panels
- No speed adjustment, No synchronization with Mains

Single Line Diagram (SLD)

Applications:

- AMF DG set with soft transfer from Mains to DG and back to Mains.
- Load testing of AMF DG when Mains is healthy. Some load is transferred to DG SET in 25 milliseconds, so that DG is tested on load. It is then transferred back to Mains after test is over.
- Mains Demand control by using DG power is achieved by transferring some load from Mains to AMF DG and back to Mains each time in 25 milliseconds.
- Source optimization by transferring loads among various sources viz. Steam Turbine/Mains /Gensets (FO,Gas,Diesel), as required , with practically no interruption.

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