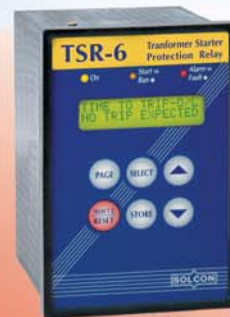




HRVS-TX

Medium and Low Voltage Transformer Soft-Starter
Eliminating Transformer Inrush Current ($I_{start} \ll I_n$)
30MVA, 15kV



HRVS-TX

Eliminating Transformer Inrush Current. Transformer Soft- Starter, for every type of transformer in Low and Medium Voltage, Up to 30MVA at 15kV

The HRVS-TX is the ideal soft-starting solution for medium and low voltage transformers. The sophisticated control ensures the elimination of the magnetizing inrush current, thus, eliminates nuisance tripping as well as dynamic shock to the transformer windings. The starter can be supplied as IP31-67, NEMA 1-6X with options such as Line and Bypass vacuum contactors or circuit breakers, is connect switches, main and control protection fuses, transformer protection relay, etc.

HRVS-TX Advantages at a glance

- TSR-6 Control and protection relay-the only relay of its kind
- Heavy duty design at 50°C ambient temperature
- Reduced inrush current and dynamic shock
- Applicable models for any transformer
- Optional protection package provides many features
- Transformer heat protection relay - optional
- Communication - RS485 Modbus
- Unique starting characteristics
- User friendly, easy setup and operation
- IP31-standard, higher protection by special order
- Phase shift transformer starting, unique technology
- Advanced "wireless" Electronic Potential Transformer (optional)
- Fault indication to each individual fuse
- Each transformer starter is tested for Partial Discharge (Korona)
- Wide 40-70Hz range for fluctuating frequency systems
- Available as stand alone or Integratable with Solcon's HRVS-DN medium and low voltage soft starters

Standard & special Transformers

Standard: Oil, Dry, Molded, etc.
Special: Multi-pole and phase shift

Ratings:

Maximum Ratings 30MVA, 15kV

Temperature:

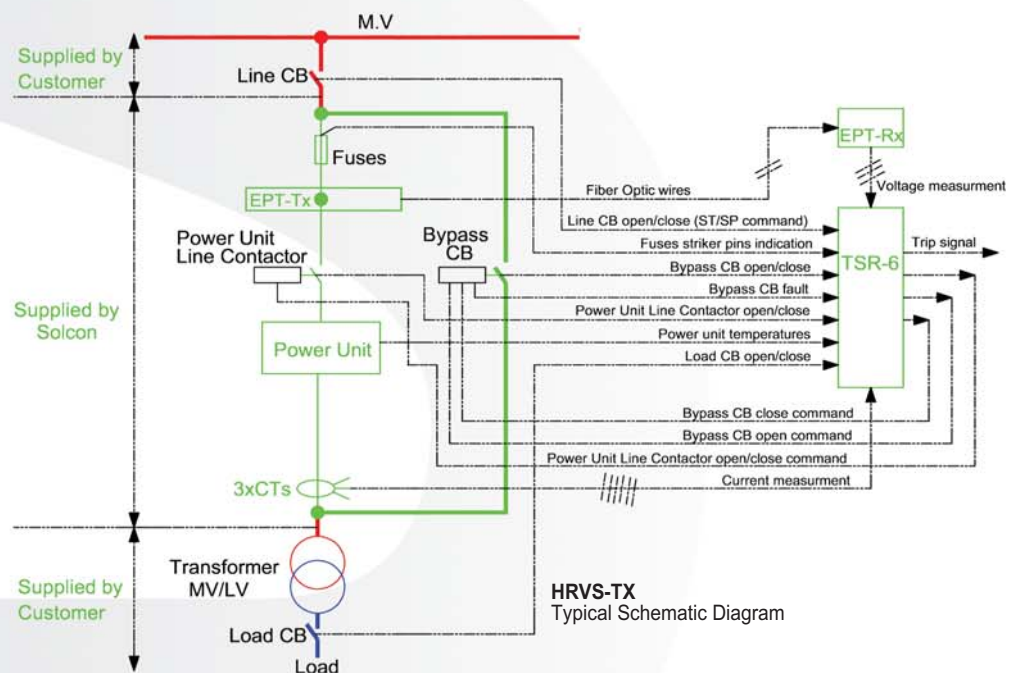
Operating -10° to 50°C
Storage -20° to 70°C
Electrical safety-Council Directive



TSR-6
Transformer starter protection relay

Design Criteria:

- | | |
|----------------------|---|
| 1. IEC 62271-200 | High Voltage switchgear and control gear. |
| 2. IEC 60061-1 | High Voltage test techniques, General definitions and test requirements. |
| 3. IEC 60694 | Common specifications for high voltage switchgear and control gear standard. |
| 4. IEC 71-1 | Insulation co- ordination. |
| 5. IEC 71-2 | Insulation co- ordination. |
| 6. EN 50178:1998 | Electronic equipment for use in power installation. |
| 7. IEC 664 | Insulated coordination within low- voltage systems and including clearances and creepage distances for equipment. |
| 8. IEC 60470, UL 347 | Vacuum contactors. |
| 9. IEC 282-1 | Vacuum contactors |
| 10. DIN 46234 | Cable lugs |
| 11. DIN 0472+IEC 754 | Medium voltage cables |
| 12. EN 61000-6-2 / 4 | Electromagnetic compatibility (EMC)- Immunity/(EMC)- Emission |
| 13. EEC/72/23 | Electrical safety-Council Directive |



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