

		<p>commissioning and checking of the measurement circuit connection and vector group matching.</p> <p>35. Transformer trouble trips</p> <p>Transformer troubles like Buchholz, winding temperature, Oil temperature & Pressure Relief Device trips shall be wired to separate binary inputs of the relay and shall be configured to issue trip command to the breaker.</p> <p>36. Transformer trouble alarm</p> <p>alarm contacts of the above transformer troubles shall be wired to separate binary inputs of the relay for communication to HMI / DDCMIS / PLC.</p>
20	Alarm Annunciations	All electrical fault, tripped, alarm and equipment malfunction signals from the communicable relays should be accessible via a computer connected to the communication port in each EHV, MV & LT switchgear. In addition, certain signal shall bring up alarms/indication in central control room (CCR) or in DCS.
21	Other Protection & Control System	<ol style="list-style-type: none"> Control of breakers / vacuum contactors shall be carried out from PLC/DCS through hardwired control commands in the form of 24V DC signal. Preferably, binary input of all relays shall be configurable to accept 24V DC signals directly from DDCMIS and no separate coupling relays shall be provided. Trip circuit supervision shall be provided for all feeders to monitor the circuit breaker / contactor trip circuit both in pre-trip and post-trip conditions. Schematics requiring auxiliary relays / timers for protection function shall be a part of numerical relay. The number of auxiliary relay and timer functions shall be as required for the application. Timer functions shall be configurable for on & off delays as per requirement. The numerical relay shall be able to provide supervisory functions such as trip circuit monitoring, circuit breaker status monitoring, VT, and CT supervision. The numerical processor shall be capable of measuring and storing values of a wide range of quantities, all events, faults, and disturbance recordings with a time stamping using the internal real time clock. Battery backup for real time clock in the event of power supply failure shall be provided. At least 200 time tagged events / records shall be stored with time stamping. Details of at least 5 previous faults including the type of protection operated, operating time, all currents & voltages and time of fault. Diagnostics Automatic testing, power on diagnostics with continuous monitoring to ensure high degree of reliability shall be provided.