

Letter	Circuit Function	Wire Numbers *
A	Current Transformers for primary protection, excluding overcurrent	10-29 Red Phase 30-49 White Phase 50-69 Blue Phase 70-89 Residual circuits and neutral current transformers 90 Earth wires directly connected to the earth bar 91-99 Test windings, normally inoperative
B	Current transformers for busbar protection	
C	Current transformers for overcurrent protection (including combined earth-fault protection and instruments)	
D	Current transformers for instruments, metering and voltage control	
E	Reference voltage of instruments, metering and protection.	
F	Reference voltage for voltage control	
G	Reference voltage for synchronizing	
H	a.c. and a.c./d.c. supplies	1-69 Switchgear and generators 70-99 Transformers
J	d.c. supplies	1-69 Switchgear and generators 70-99 Transformers
K	Closing and tripping control circuits	Any number from 1 upwards
L	Alarms and indications initiated by auxiliary switches and relay contacts, excluding those for remote selective control and for general indication equipment	Any number from 1 upwards
M	Auxiliary and control motor devices, eg governor motor, rheostat motor, generator automatic voltage regulator control, spring-charging motors, transformer cooler-motor control, motors for isolator operation.	1-19 Switchgear 20-69 Generators 70-99 Transformers
N	Tap-change control including automatic voltage control, tap position and progress indications.	Any number from 1 upwards

Reference:

PWC Drawing Procedure No 6D – Schematic Drawing Structure and Standards for Technology.

Version No.: Approved Date Issued: 26/02/2007

EDMS document No.: f2005/3202

## Schematic Drawing Structure and Standards for Electrotechnology

O	An indication that the ferruling is not in accordance with the general scheme and that if it is not altered double ferruling will be required for coordination with the remaining equipment in the station.	Any number from 1 upwards
P	d.c. tripping circuits used solely for busbar protection	Any number from 1 upwards
R	Interlock circuits and covered above	Any number from 1 upwards
S	d.c. instruments and relays, exciter and field circuits for generators	Any number from 1 upwards
T	Pilot conductors (including directly associated connections) between panels, independent of the distance between them, for pilot-wire protection, for inter-tripping or for both	Any number from 1 upwards
U	Spare cores and connections to spare contacts	Spare cores should be numbered from 1 upwards in each cable, and should be so arranged that they can be readily identified on site with the cable containing them. This should be achieved by suitable group, and unless the location of each group is clear from the diagram, the groups should be labelled. Alternatively the core number should be preceded by the cable number.
W	Connections to and from light current control equipment	Any number from 1 upwards
X	Alarms and indications to and from generation indication and remote selective control ÷ equipment	Any number from 1 upwards
Y	Telephones	Any number from 1 upwards