

Table 3.2 Calculation Results by Y-method

(Excitation System Model : LAT = 1, Load Characteristic : Constant Current [NLT = 2])

Fault Location	Daytime Condition	Nighttime Condition
1cct. 3LG-O at Point A	(Fig.) 2nd (4.3 sec) [G2, etc.] <3.4 sec>	2nd (4.9 sec) [G2, etc.] <3.1 sec >
1cct. 3LG-O at Point B	Stable < 3.0 sec >	Stable < 2.6 sec >
1cct. 3LG-O at Point C	(Add.) Stable < 3.0 sec >	Stable < 2.8 sec >
1cct. 3LG-O at Point D	Stable < 3.0 sec >	Stable < 2.6 sec >
1cct. 3LG-O at Point E	Stable < 3.0 sec >	Stable < 2.5 sec >
1cct. 3LG-O at Point F	Stable < 3.0 sec >	Stable < 2.4 sec >
1cct. 3LG-O at Point G	Stable < 2.9 sec >	(Fig.) Stable < 2.5 sec >
1cct. 3LG-O at Point H	Stable < 3.2 sec >	Stable < 2.5 sec >
1cct. 3LG-O at Point I	(Fig.) Stable < 2.8 sec >	Stable < 2.2 sec >
1cct. 3LG-O at Point J	Stable < 3.3 sec >	Stable < 2.4 sec >
1cct. 3LG-O at Point K	Stable < 3.0 sec >	Stable < 2.5 sec >
1cct. 3LG-O at Point L	3rd (7.0 sec) [G1, etc.] <3.1 sec>	Stable < 2.3 sec >
G8 Shedding	Diverged Swing 4.4 sec	Stable < 2.6 sec >

Legend :

2nd : Step-out in 2nd internal angle swing after the fault cleared.

3rd : Step-out in 3rd internal angle swing after the fault cleared.

N th : Step-out in several swing after the fault cleared.

(Fig.) : In this case, the calculation results are shown in graph figures.

(Add.) : In this case, the load characteristic is changed as additional case.

(? sec) : Approximate time that any generator is step-out.

< ? sec > : Swing period of the generator Internal Angle by Y-method results.

[G?] : Generator(s) No. that is step-out.

Note1 : Fault Duration Time is 70 [ms] in All Cases.

Note2 : The "Step-Out" is judged when the generator internal angle is more than 360 [deg] from the reference generator G10.