

7PG21 Solkor Rf

Feeder Protection

Document Release History

This document is Version 06/2012. The list of revisions up to and including this issue is:

06/2012	Release version corrected on this page
02/2010	Document Reformat due to Rebrand

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1 Differential Protection settings

1.1 Protection Sensitivity

Protection sensitivity is fixed, based on secondary current rating, with the only settable variable being the use of the N/N1 tap. Different sensitivity is applicable to different phases and fault types.

The following settings are shown as a percentage of rated current and are directly applicable to the local relay of a connected pair when subjected to current injection at the local end only.

Relays in R mode will typically have sensitivity similar to the settings quoted below as Nominal for the Rf mode.

If the local relay is injected in isolation i.e. with pilots disconnected, the operate level will be approximately 50% of the quoted value.

If Pilot Supervision is fitted, the settings will be increased by 20-50%.

In Rf mode the remote end relay will operate at a similar level to the local relay, typically within +-10% of quoted setting.

In R mode the remote end will typically operate at 2.5 times the local end setting.

Type of fault	Fault settings (% In)							
	Solkor Rf without isolating transformers				Solkor Rf with isolating transformers			
	Nominal		Typical		Nominal		Typical	
	N1 tap	N tap	N1 tap	N tap	N1 tap	N tap	N1 tap	N tap
R-E	16	22	18	25	22	31	25	35
Y-E	18	27.5	21	32	26	39	30	44
B-E	22	37	25	42	31	52	35	59
R-Y	110		125		155		177	
Y-B	110		125		155		177	
B-R	55		62		77.5		88.5	
3 P	63		72		89		101	

1.2 Pilot Resistance

The padding resistance is set by adding series resistance to that of the pilots to achieve a standard value. The total loop resistance required depend on the R or Rf mode selected and the tap position of the isolation transformers if they are used, see Applications Guide in this manual.

The link is fitted in the 'OUT' position to short out the resistor.

2 Pilot Supervision

There are no variable settings associated with the Pilot Supervision system.