



Protection Systems

SIPROTEC 7PJ81 Fast Tripping Module

Catalog E1.2

7PJ81

Fast Tripping Module

Description

The fast tripping module 7PJ81 series are designed for direct action to HV and MV switchgear in power station and substation due to its making/breaking capacity. The kinds of variant meet for various applications and multi tripping objects. Control voltages of 110V DC, 125V DC and 220V DC are supported.

Some special concerning to 7PJ81 is taken into account. The picking-up voltage is restrained to range of 0.55-0.70Un. The picking-up power is increased to 5W or higher. These help to secure the stabilization against transient disturbance.

The lock-out variants 7PJ812 and 7PJ813 are respectively equipped with 10 and 4 normal open (NO) contacts, the lock-out variants 7PJ814 and 7PJ815 are respectively equipped with 8 normal open (NO)/2 normal close (NC) and 3 normal open (NO)/1 normal close (NC) contacts. The outputting contacts will remain on opposite position and tripping indicating light will be on after operation. The module can be electrically reset by locally pushing RESET button on the front panel or externally resetting input. No permanent power consumption is required due to itself cut-off of excitation circuit after operation. Only construction of flushing mounting is available.

The non lock-out variants 7PJ816 and 7PJ817 are respectively equipped with 10 normal open (NO) and 4 normal open (NO) contacts. The outputting contacts and tripping indicating light will dropout after the excitation is removed. The power consumption after operation drops down to a low level. Both constructions of flushing and rail mounting are available.

The connection diagrams can be referred to Fig.1- Fig.8.

Technical Data

Electric	Rated control voltage	DC 110V, 125V or 220V
	Picking-up voltage	(0.55-0.70)Un
	Picking-up power	5.0-6.5W, MLFB dependent
	Power consumption after operation, Un	7PJ81 2/3/4/5: approx. 0.0W 7PJ81 6/7: 1.0-2.4W, MLFB dependent
	Operating time at 20°C/68°F	Typical value at approx. 8ms (excl. contact bounce time)
Unit	Contact continuous current	8A
	Contact breaking capacity	Resistive 3,040VA@380V AC 100W@250V DC
		Inductive 1,600VA@380V AC (Cosφ = 0.4) 50W@250V DC (L/R = 40ms)
	Degree of protection	IEC 60529
Climatic	Housing	IP51
	Terminals	IP21
Climatic	Recommended permanent operating temperature	-10°C to +55°C

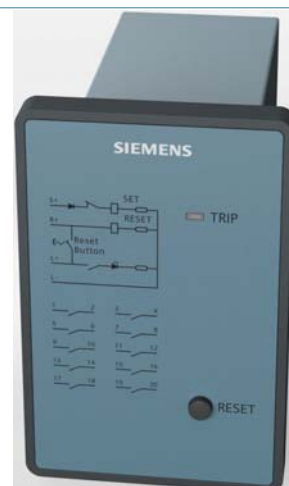


Fig.1 7PJ812



Fig.2 7PJ813

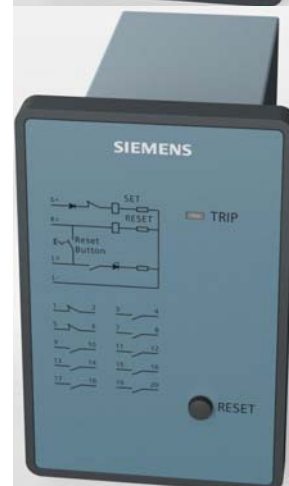


Fig.3 7PJ814

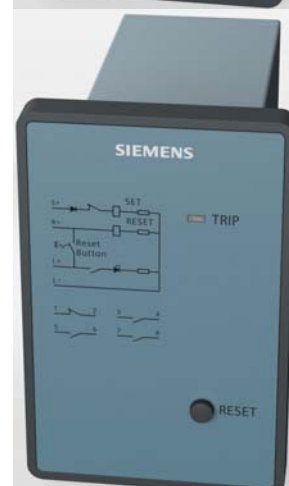


Fig.4 7PJ815



Fig5. 7PJ816**-1



Fig.6 7PJ817**-1



Fig.7 7PJ816**-2

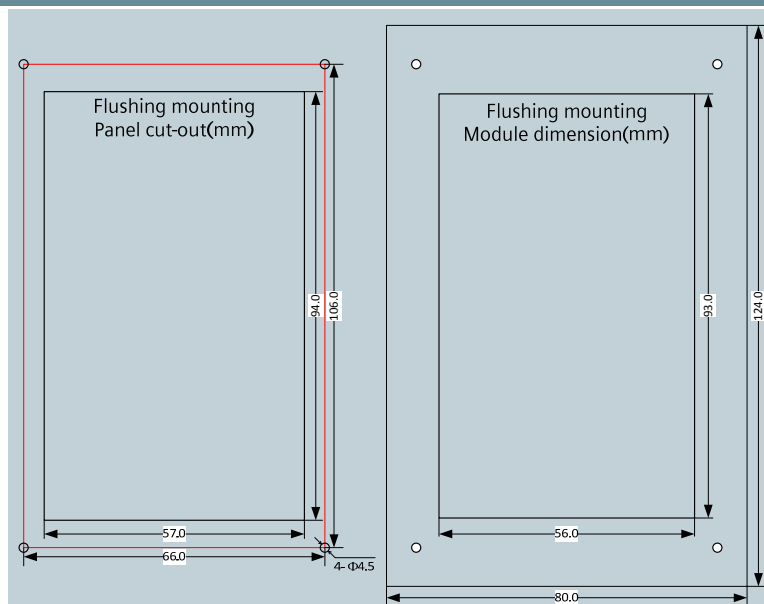


Fig.8 7PJ817**-2

Standard

Insulation tests	IEC 60255-5
- High voltage test (routine test)	2.5kV(rms), 50Hz
Binary outputs	
- High voltage test (routine test)	DC 3.5kV
Binary inputs	
- Impulse voltage test (type test)	5kV(peak), 1.2/50μs
Binary inputs, binary outputs, class III	
Vibration and shock test	
- Oscillation	IEC 60255-21-1 Class II
	IEC 60068-2-6
- Shock	IEC 60255-21-2, Class I
	IEC 60068-2-27
- Seismic Vibration	IEC 60255-21-3, Class I
	IEC 60068-3-3
- Continuous shock	IEC 60255-21-2, Class I
	IEC 60068-2-29

Dimensioning and Cutting-out



Ordering Code (MLFB)

1	2	3	4	5	6	7	8	9	10	11	12	13
7	P	J	8	1			-	0	A	A	0	-
Fast Tripping Module												
Contact types												
10NO contacts, latched							2					
4NO contacts, latched							3					
8NO/2NC contacts, latched							4					
3NO/1NC contacts, latched							5					
10NO contacts, un-latched							6					
4NO contacts, un-latched							7					
Rated control voltage												
DC 110V							3					
DC 220V							4					
DC 125V							5					
Construction												
Flush mounting							1					
Rail mounting (only valid if position 6 th = 6 or 7)							2					

Energy Management

Digital Grid

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