Overview

Effective Relay for Basic Application

ANSI or IEC

Ideal for industrial buildings, distribution utilities and LV applications (if ANSI functions are needed)

Features and options	P1F	P1V
Current	3CT + 1CT	–
Voltage	1VT (option)	3VT or 4VT*
Overcurrent protection	✓	–
Directional earth-fault protection	✓*	–
Voltage protection	–	✓
Frequency protection	–	✓*
Inputs	up to 8	up to 6
Outputs	up to 8	up to 8
Programmable LEDs	6	6
CB control keys	✓	✓
Communications	USB* & RS485*	USB* & RS485*
Records	✓*	✓*
Display	LCD 32 x 2	LCD 32 x 2

* Depending on the model

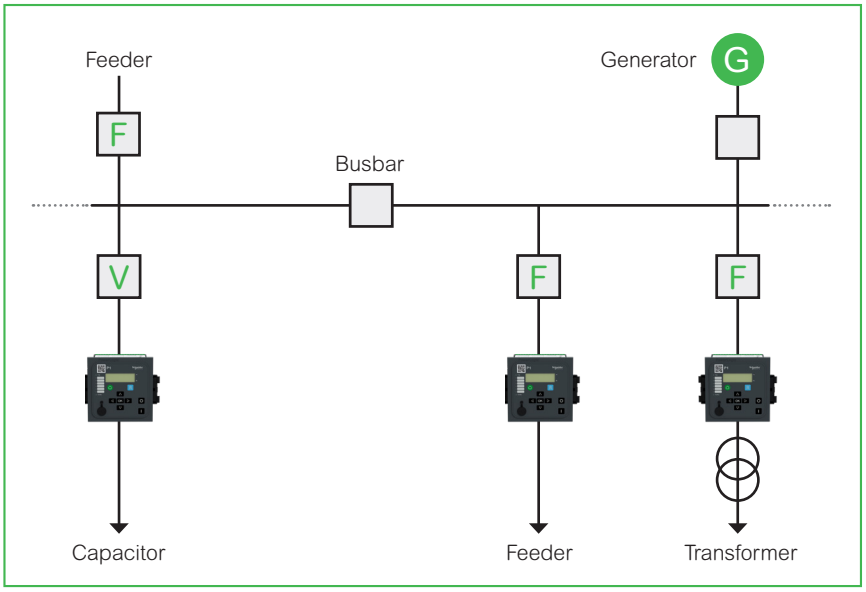
CE markings as per Directive 93/98/CEE

ISO/EHS/OHSAS certified manufacturing facility reinforces product quality and reliability. Independent lab reports available for CE.

Green Premium™

Schneider Electric commits to disclose reliable, comprehensive information on the environmental impacts of our products.

More info on page 56.



Selection Guide
by Protection Functions

		PowerLogic P1F							PowerLogic P1V		
Protection functions	**ANSI code**	**P1F1L**	**P1F1L+**	**P1F1N**	**P1F1B**	**P1F1A**	**P1F1E**	**P1F1E+**	**P1V1L**	**P1V1N**	**P1V1A**
Undervoltage	27	-	-	-	-	-	-	-	3	3	3
Positive sequence undervoltage	27P	-	-	-	-	-	-	-	-	-	2
Negative sequence overcurrent	46	-	-	-	-	-	1	1	-	-	-
Cur. unbalance, broken conductor	46BC	-	-	-	-	-	1	1	-	-	-
Negative sequence overvoltage	47	-	-	-	-	-	-	-	-	2	2
Thermal overload	49	-	-	1	1	1	1	1	-	-	-
Phase overcurrent	50/51	3	3	3	3	3	3	3	-	-	-
Earth fault overcurrent	50N/51N	2	2	2	2	2	3	-	-	-	-
Breaker failure	50BF	1	1	1	1	1	1	1	-	-	-
Switch On To Fault (SOTF)	50HS	-	-	-	1	1	1	1	-	-	-
Overvoltage	59	-	-	-	-	-	-	-	3	3	3
Neutral voltage displacement	59N	-	-	-	-	-	-	-	-	3	3
Derived Vo sequence overvoltage	59N	-	-	-	-	-	-	-	3	3	3
VT supervision	60FL	-	-	-	-	-	-	-	-	1	1
Directional earth-fault o/c	67N/21Y*	-	-	-	-	-	-	2	-	-	-
Magnetizing inrush detection	68F2	-	-	-	-	1	1	1	-	-	-
Auto-recloser	79	-	-	-	-	-	4	4	-	-	-
Over or under frequency	81	-	-	-	-	-	-	-	-	-	6
Lockout	86	1	1	1	1	1	1	1	1	1	1
Cold load pick-up		1	1	1	1	1	1	1	-	-	-
Blocking logic		-	-	-	1	1	1	1	-	1	1
IDMT curves		21	21	21	21	21	21	21	15	15	15
Setting groups		2	2	2	2	2	2	2	2	2	2

* E/F Protection can be set as directional E/F protection or admittance protection

Selection Guide
by Characteristics

	PowerLogic P1F							PowerLogic P1V		
Hardware	**P1F1L**	**P1F1L+**	**P1F1N**	**P1F1B**	**P1F1A**	**P1F1E**	**P1F1E+**	**P1V1L**	**P1V1N**	**P1V1A**
Phase current inputs	3	3	3	3	3	3	3	-	-	-
Residual current inputs	1	1	1	1	1	1	1	-	-	-
Phase voltage inputs	-	-	-	-	-	-	-	3	3	3
Neutral voltage inputs	-	-	-	-	-	-	1	-	1	1
Digital inputs	-	-	-	4	4	8	8	-	2	6
Digital outputs	3+WD	3+WD	5+WD	3+WD	7+WD	5+WD	5+WD	3+WD	5+WD	7+WD
USB front port	-	-	1	1	1	1	1	-	1	1
RS485 rear port	-	1	1	1	1	1	1	-	1	1
Control functions										
Local/remote function	-	●	●	●	●	●	●	-	●	●
Local control with I/O keys	●	●	●	●	●	●	●	●	●	●
Remote control with RS485	-	●	●	●	●	●	●	-	●	●
Remote control with digital inputs	-	-	-	●	●	●	●	-	-	●
Time Synchronization with digital input	-	-	-	-	-	●	●	-	-	●
Measurement										
RMS current values	●	●	●	●	●	●	●	-	-	-
Fundamental voltage values	-	-	-	-	-	-	-	-	-	●
Frequency	●	●	●	●	●	●	●	-	-	●
Positive sequence of voltage	-	-	-	-	-	-	-	-	-	●
Negative sequence of voltage	-	-	-	-	-	-	-	-	●	●
Thermal overload	-	-	●	●	●	●	●	-	-	-
Inrush current ratio	-	-	-	-	●	●	●	-	-	-
Positive sequence of current IS1	-	-	-	-	-	●	●	-	-	-
Negative sequence of current IS2	-	-	-	-	-	●	●	-	-	-
Relative IS2/IS1	-	-	-	-	-	●	●	-	-	-
Phase Peak Demand Current Values	●	●	●	●	●	●	●	-	-	-
Logs and Records										
Tripping context record	20	20	20	20	20	20	20	20	20	20
Sequence of event record	-	200	200	200	200	200	200	-	200	200
Disturbance record	-	-	-	-	4 s	4 s	3 s	-	-	4 s
Monitoring functions										
Trip circuit supervision (ANSI 74)	-	-	-	1	1	1	1	-	-	-
Basic circuit breaker monitoring	-	-	-	-	1	1	1	-	-	1
Counters	-	-	-	-	1	1	1	-	-	1
Self-supervision (WD)	●	●	●	●	●	●	●	●	●	●