Product datasheet

Specifications



universal protection relay, PowerLogic P3U20 universal protection feeder and motors

P3U20

Main

Range of product	PowerLogic P3
Relay application	Feeder Motor
product reference	P3U
Device mounting	Flush
Mounting support	Rack
Mounting mode	Disconnectable
power supply	110...230 V AC/DC 50/60 Hz tolerance: + 10 % - 15 % 24...48 V AC/DC
measuring inputs	: 1/5 A CT 8 : 1/0.2 A CT
number of Digital Outputs (DO)	10 digital
communication protocols	TCP/IP all counters conforming to 60255-5 TCP/IP -
Redundancy communication port protocol	PRP RSTP
Cybersecurity	Enable/disable communication ports Firmware signature Password protection Port hardening Role-based access control

Disclaimer. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

protection functions	Phase overcurrent 50/51 Phase overcurrent 50/51 8 Earth fault overcurrent 50N/51N Directional earth fault 67N Transient earth fault 67NI Capacitor bank unbalance 51C Current protection 46 I2/I1 Cold load pick-up CPLU 50/51 Harmonic distortion 50/51 Circuit breaker protection 50 BF Switch ON to fault (SOTF) 50/51 Fault locator 21FL Recloser 79 Undercurrent 37 Locked rotor for starting 48/51LR Motor restart inhibition 66 Capacitor overvoltage 59C Negative sequence overcurrent 46 Earth fault overcurrent 51N/51G Underfrequency 81 Overfrequency 81O Rate of change of frequency 81R Lockout 86 CT supervision 60 VT supervision 60 Programmable stages 99 Programmable curve 99 Logic selectivity Thermal overload for feeder 49T Thermal overload for machines 49T
Relay type	Multifunction control relay
controllable switchgear devices	4 controlled + 8 displayed
number of setting groups	User
monitoring functions	Trip circuit supervision 74 Circuit breaker monitoring Relay self-monitoring
Switchgear diagnosis type	Cumulative breaking current (2 configurable buttons) Trip circuit supervision Nb of operations, operating time, charging time, nb of racking out operations VT supervision CT supervision
Connections - terminals	Ring lugs flush mounting Clamp terminal

Complementary

Input power interruption	50 ms
Maximum power consumption in W	15 W typical 25 W maximum
Time synchronisation protocol	SNTP IRIG-B
Software name	Easergy SmartApp ESetup Easergy Pro
Number of key	2 contextual key 1 home 1 for LED test 1 local/remote 5 for navigation 2 for switchgear control
Local signalling	11 x LED red status and alert 1 x LED green programmable

Communication compatibility	IEC 61850 Modbus RTU DNP3 IEC 60870-5-103 IEC 61850 goose message Modbus TCPIP Modbus
Device connection	Extension port straight Serial port straight Serial port fiber optic Ethernet port straight Ethernet port fiber optic
Standards	EN 60255-26 EN 60255-27
Height	Total: 176 mm
Width	Total: 171 mm
Depth	Total : 226 mm
Net weight	2.5 kg minimum

Environment

IP degree of protection	IP54 conforming to IEC 60529
Relative humidity	0…95 % at -40…60 °C

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Use Longer

Lifetime extension

Repair	No