



### Main

Range of product	Easergy P3
Product or component type	Protection relay
Relay application	Feeder
Product reference	P3F30-DCGAD-DA1FA-BAAAB
Device mounting	Flush
Power supply	24...48 V DC
Measuring inputs	3 1/5 A CT phase current 1 5/1 A CT residual current 1 1/0.2 A CT residual current 4 100 V/110 V VT voltage
Number of sensors	0 temperature 0 arc
Number of Digital Inputs (DI)	6.0
Number of Digital Outputs (DO)	10 DO 1 watchdog
Number of analogue inputs	0
Number of analogue outputs	0
Communication ports	Front USB port 1 Rear RJ45 1 Rear RS485 1
Communication protocols	IEC 61850 ed. 1 IEC 61850 ed. 2 IEC 60870-5-101 DNP3 TCP Modbus TCP Ethernet/IP IEC 60870-5-103 DNP3 Modbus RTU DeviceNet SPAbus
Cybersecurity	Password protection Port hardening

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Protection functions	<ul style="list-style-type: none"> <li>Fault locator 21FL</li> <li>Synchro-check 25</li> <li>Undervoltage 27</li> <li>Directional active underpower 37P</li> <li>Broken conductor 46BC</li> <li>Thermal overload protection 49</li> <li>Earth fault overcurrent 50N/51N</li> <li>Phase overcurrent 50/51</li> <li>Breaker failure 50BF</li> <li>Switch ON to fault (SOTF)</li> <li>Capacitor bank unbalance 51C</li> <li>Voltage-restrained overcurrent 51V</li> <li>Capacitor overvoltage 59C</li> <li>Overvoltage 59</li> <li>Earth fault overvoltage 59N</li> <li>Directional phase overcurrent 67</li> <li>Directional earth fault 67N</li> <li>Transient earth fault 67NI</li> <li>H2 detection 68H2</li> <li>H5 detection 68H5</li> <li>Recloser 79</li> <li>Underfrequency 81/81N</li> <li>Rate of change of frequency 81R</li> <li>Lockout relay 86</li> <li>Programmable stages 99</li> <li>Programmable curve</li> <li>Cold load pick-up</li> </ul>
Arc flash protection	Yes
Measurement functions	<ul style="list-style-type: none"> <li>Current 3-phase</li> <li>Current zero sequence</li> <li>Current positive sequence</li> <li>Current negative sequence</li> <li>Current ratio of negative and positive</li> <li>Voltage phase to earth</li> <li>Voltage phase to phase</li> <li>Voltage zero sequence</li> <li>Voltage positive sequence</li> <li>Voltage negative sequence</li> <li>Voltage ratio of negative and positive</li> <li>Short circuit fault reactance</li> <li>Fault location current</li> <li>Earth fault reactance</li> <li>Frequency</li> <li>Active power</li> <li>RMS active power</li> <li>Reactive power</li> <li>RMS reactive power</li> <li>Apparent power</li> <li>RMS apparent power</li> <li>Active energy</li> <li>Reactive energy</li> <li>Cos <math>\varphi</math></li> <li>Tan <math>\varphi</math></li> <li>Power angle</li> <li>Power factor</li> <li>Voltage phasor diagram view</li> <li>Current phasor diagram view</li> <li>Current 2nd, 15th harmonics with THD</li> <li>Voltage 2nd, 15th harmonics with THD</li> <li>Condition monitoring CB wear</li> <li>Voltage interruption</li> </ul>
Control functions	<ul style="list-style-type: none"> <li>Switchgear control and monitoring</li> <li>Programmable switchgear interlocking</li> <li>Local control on single-line diagram</li> <li>Local control with I/O keys</li> <li>Local/Remote control</li> <li>2 function keys</li> <li>Mobile application with Easergy SmartApp</li> <li>Web-server</li> </ul>
Controllable switchgear devices	3 controlled + 5 displayed
Number of setting groups	4
Monitoring functions	<ul style="list-style-type: none"> <li>Trip circuit supervision 74</li> <li>Circuit breaker monitoring</li> <li>Relay self-monitoring</li> </ul>

Logs and records	Event recording Disturbance recording Tripping context
Switchgear diagnosis type	CT/VT supervision Trip circuit supervision TCS
Connections - terminals	Screw Ring lugs Pin

## Complementary

Operating threshold	24 V AC/DC
Time synchronisation protocol	SNTP
Web server	Embedded HTTP server
Display type	LCD LCD
Number of key	2 customizable
Local signalling	2 LEDs 16 LEDs programmable
Height	6.93 in (176 mm)
Width	10.63 in (270 mm)
Depth	9.06 in (230 mm)
Net weight	9.26 lb(US) (4.2 kg) maximum

## Environment

Electromagnetic compatibility	Emission tests IEC/EN 60255-26 ed. 3 Emission tests class A CISPR 11 Emission tests class A CISPR 22 EMC immunity IEC/EN 60255-26 ed. 3 EMC immunity EN/IEC 61000-4-18 EMC immunity IEC 60255-22-1 EMC immunity level 4 EN/IEC 61000-4-2 EMC immunity IEC 60255-22-2 EMC immunity level 3 EN/IEC 61000-4-3 EMC immunity IEC 60255-22-3 EMC immunity level 4 EN/IEC 61000-4-4 EMC immunity IEC 60255-22-4 EMC immunity level 3 EN/IEC 61000-4-5 EMC immunity IEC 60255-22-5 EMC immunity level 3 EN/IEC 61000-4-6 EMC immunity IEC 60255-22-6 EMC immunity EN/IEC 61000-4-8 EMC immunity level 5 EN/IEC 61000-4-9 EMC immunity EN/IEC 61000-4-29 EMC immunity EN/IEC 61000-4-11 EMC immunity EN/IEC 61000-4-17 EMC immunity IEC 60255-27 EMC immunity class III IEC 60255-5 EMC immunity EN/IEC 60255-1
Mechanical robustness	Vibrations class II) IEC 60255-21-1 VibrationsFc IEC 60068-2-6 Shocks class II) IEC 60255-21-2 ShocksEa IEC 60068-2-27 Seismic tests method A class II) IEC 60255-21-3
Climatic withstand	Exposure to dry heat Bd EN/IEC 60068-2-2 Exposure to cold Ad EN/IEC 60068-2-1 Exposure to damp heat in service Db EN/IEC 60068-2-30 Exposure to damp heat in service Cab EN/IEC 60068-2-78
Ambient air temperature for operation	-40...149 °F (-40...65 °C)
Ambient air temperature for storage	-40...158 °F (-40...70 °C)
IP degree of protection	IP54 IEC 60529
Relative humidity	0...95 %, without condensation
Maximum operating altitude	6561.68 ft (2000 m)
Protective treatment	Conformal coating

## Ordering and shipping details

Category	11405 - EASERGY P3 PROTECTIVE RELAYS
Discount Schedule	PL1S
GTIN	03606481499967
Package weight(Lbs)	1 lb(US) (0.45 kg)
Returnability	Yes
Country of origin	US