

European Union Recognised Organisation (EU RO) Mutual Recognition Type Approval Certificate in accordance with Article 10.1 of EU Regulation 391/2009.

This is to certify to the Manufacturer named below, that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

This certificate is issued to:

PRODUCER Vamp Ltd. (a member of Schneider Electric Group)

Yrittäjänkatu 15 65380 Vaasa Finland

PLACE OF Crimppi Oy **PRODUCTION** Liikekuja 7

65380 Vaasa Finland

DESCRIPTION AND/OR NAME OF PRODUCT

Protection relay

Certificate No. 18/00068

Issue Date 06 September 2018

Expiry Date 05 September 2023

Sheet 1 of 5

Lloyd's Register EMEA 71 Fenchurch Street, London EC3M 4BS



Jörn Brügmann Hamburg Technical Support Office Lloyd's Register EMEA

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TYPE DESIGNATION Easergy P3 protection relays

P3 @ - 0 2 3 4 5 - 6 A 7 8 A - 9 @ Version 2.1

Software version: 30. xxx

F30 = Feeder

L30 = Feeder with line differential and distance

M30 = Motor

M32 = Motor with differential

T32 = Transformer with differential

G30 = Generator

G32 = Generator with differential

① Nominal supply voltage [V]

C = Power C 110 - 230 V (80 .. 265V ac/dc, $5 \times DO$ heavy

duty, A1, SF)

D = Power D 24 - 48 V (18 .. 60Vdc, 5 x DO heavy duty, A1, SF)

2 I/O Card I

A = None

 $G = 6DI+4DO (6 \times DI, 4 \times DO)$

 $H = 6DI+4DO (6 \times DI, 4 \times DO(NC))$

 $I = 10DI (10 \times DI)$

3 I/O Card II

A = None

 $G = 6DI+4DO (6 \times DI, 4 \times DO)$

 $H = 6DI+4DO (6 \times DI, 4 \times DO(NC))$

 $I = 10DI (10 \times DI)$

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TYPE DESIGNATION (continued)

4 I/O Card III

A = None

 $G = 6DI+4DO (6 \times DI, 4 \times DO)$

 $H = 6DI+4DO (6 \times DI, 4 \times DO(NC))$

 $I = 10DI (10 \times DI)$

T = 3xI(5/1A) + Io(5/1A) for transformer differential,

excludes I/O card in slot 5 (for T,/G32 /M32 types only)

⑤ I/O Card IV

A = None

 $G = 6DI+4DO (6 \times DI, 4 \times DO) (for F/G30/M30/L types)$

only)

 $H = 6DI+4DO (6 \times DI, 4 \times DO(NC)) (for F/G30/M30/L types)$

only)

I = $10DI (10 \times DI) (for F/G30/M30/L types only)$

© Option Card I

A = None

D = 4Arc (4 x arc sensor)

K = RS232 (RS232)

S = Line differential communication card with distance

(for F/L types only)

T = RS232 with line differential interface (for L type only)

② Analog measurement card

E = 3L(5A)+4U+2Io(5/1A+1/0,2A)

F = 3L(1A)+4U+2Io(5/1A+1/0.2A)

K = 3L(5A)+4U+2Io(5/1A+1/0.2A) with intermittent e/f

L = 3L(1A)+4U+2Io(5/1A+1/0.2A) with intermittent e/f

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TYPE DESIGNATION (continued)

® Communication interface I

A = None

B = RS232 (RS232, IRIG-B)

C = RS232+RJ (RS232, IRIG-B + Ethernet RJ-45 100 Mbs) D = RS232+LC (RS232, IRIG-B + Ethernet LC 100 Mbs)

N = 2xRJ (Ethernet RJ 100 Mbs, RSTP) O = 2xLC (Ethernet LC 100 Mbs, RSTP)

Display type

 $B = 128x128 (128 \times 128 LCD matrix)$

DI nominal voltage

A = 24Vdc/ac, with conformal coating B = 110 V dc/ac, with conformal coating C = 200 V dc/ac, with conformal coating

APPLICATION

Applicable for ships as defined in Mutual Recognition provisions Article 10 Regulation on Common Rules and Standards for Ship Inspection and Survey Organisations.

Restricted to LV relays according to IEC 60947 - 5 - 1 and IEC 60255 installed on board ships with exceptions as per SOLAS Ch. I, Reg. 3;

Installation on board ships within locations with climatic, biological, chemically active, mechanically active and mechanical environmental conditions not exceeding those for which performance has been proved according to IEC 60721 - 3 - 6 (1993) + A2 (1997);

The requirements are not applicable for relays to be installed in areas where explosive gases or vapour atmospheres may occur.

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APPLICATION Environmental conditions: (continued) Environmental conditions: Temperature: -40°C and 70°C

Vibration: 5 – 100 Hz, ±1mm / 0.7g_n, 10 -150 Hz ±0.075mm / 1g_n

Shock: $100 \text{ m/s}^2 (0.7g_n)$, $300 \text{ m/s}^2 (30g_n)$

Bump: $200 \text{ m/s}^2 (20g_n)$

EMC: general power distribution zones

Enclosure: IP20 (back side), IP54 without vacuum front panel

STANDARDS EU RO Mutual Recognition Technical Requirements,

Electrical / Electronic Relays Version: 0.3 / 01.10.2016

Applicable test for measuring relays and protection equipment according IEC60255-1:2009, EC60529:1989 + A1:1999 and

IACS E10 Revision 6:2014.

RATINGS Power supply: 110 to 230V ac/dc

24 to 48V dc

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No. 18/00068 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

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