

ELEKTROTECHNICKÝ ZKUŠEBNÍ ÚSTAV



ELECTROTECHNICAL TESTING INSTITUTE - CZECH REPUBLIC
ELEKTROTECHNISCHE PRÜFANSTALT - TSCHECHISCHE REPUBLIK
INSTITUT ELECTROTECHNIQUE D'ESSAIS - RÉPUBLIQUE TCHÈQUE
ЭЛЕКТРОТЕХНИЧЕСКИЙ ИСПЫТАТЕЛЬНЫЙ ИНСТИТУТ - ЧЕШСКАЯ РЕСПУБЛИКА

Pod Lisem 129, 171 02 Praha 8 - Troja

CERTIFICATE

No.: 1120695

Product: Surge Protective Device

Type: SPUM..., P-k16, PK2, ZS-1P, HZ110, SPC..., SPU..., P..., Pl-k..., P-3k..., Pl-p16, ZS-1..., H-FAX... (see enclosure)

Rating: see enclosure

Ordering firm: HAKEL spol. s r.o.
Bratří Štefanů 980, 500 03 Hradec Králové, Slezské Předměstí, Czech Republic

Manufacturer: HAKEL spol. s r.o.
Bratří Štefanů 980, 500 03 Hradec Králové, Slezské Předměstí, Czech Republic

Trade mark:

The test results are stated in the test-report No.: 204177-01/01 of: 10.09.2012

A sample of the product was found to be in conformity with:
ČSN EN 61643-11:03+A11:07

The validity of the certificate is limited to: 30.9.2015

10.9.2012

Prague

Miroslav Sedláček
Head of Certification Body



Stamp



204177-01

Overvoltage protection SPUM series: SPUM1-240 (DS), SPUM1-385 (DS), SPUM3-240 (DS), SPUM3-385 (DS)

AC 240 V, 3x416/240 V, In 15 kA, IP 20

Test report: 802532-01/01 issued 30.3.2009

Overvoltage protection P-k16

DC 12, 24, 48, 110 V; AC 230 V/ 50 Hz; Uoc=6 kV

Test report: 802532-06/01 issued 4.2.2009

Overvoltage protection PK2

Un 230 V/ 50Hz, Uc 275 V/ 50 Hz, Uoc=6 kV

Test report: 802532-04/01 issued 30.1.2009

Surge voltage protector ZS-1P

Un 230 V/ 50Hz, Uc 275 V/ 50 Hz, Up<1200 V, Uoc=6 kV

Test report: 802532-03/01 issued 4.2.2009

Lightning arrester HZ110, HZ110/400

Un 230 V/ 50Hz, I_{imp} 110 kA(10/350), In 110 kA(8/20), Up<2,5 kV

Un 400 V/ 50Hz, I_{imp} 110 kA(10/350), In 110 kA(8/20), Up<1,5 kV

Test report: 802532-08/01 issued 23.1.2009

Compact overvoltage protection SPC..., SPU...

AC 120-230-240 V, 3x400/230 V, 3x208/120 V, 3x416/240 V, 50 Hz

Test report:701127-01/01 issued 11.4.2007

Surge protective devices P III, P III-DS, P IV, P IV-DS

230-720 V, I max= 40 kA (P III), 85 kA (P IV)

Test report:701127-01/01 issued 11.4.2007

One phase SPD with hf filter - class III PI-k8,16,25,32, PI-k16DS,25DS, PI-k16/400DS, PI-k32,50,63,80,120,150, PD*DS

Un=230 V AC,DC, 400 V AC,DC(PI-k16/400DS), 8-150 A

Test report:701127-01/01 issued 11.4.2007

Y. Holavský



Surge arresters with hf filter P-3k 400, P-3k 400DS, PI-3k 16, PI-3k 25, PI-3k 32, PI-3k 50, PI-3k 63, PI-3k 80

3x230/400 V, 50 Hz, 16-80 A

Test report:701127-01/01 issued 11.4.2007

Overvoltage protection PI-p16

230 V, 50 Hz, I=16 A, isn=4 kA

Test report:701127-01/01 issued 11.4.2007

Socket-outlet with overvoltage protection ZS-1.1T, ZS-1.2T, ZS-1.1C, ZS-1.2C

230 V, 50 Hz, In=16 A, I_{max} (wave 8/20 *s) 4,5/9 kA

Test report:701127-01/01 issued 11.4.2007

Overvoltage protection H-FAX, H-FAX II

230 V, 50 Hz, isn=4 kA

Test report:701127-01/01 issued 11.4.2007

