

SPECIFICATION

DATE: November 10, 2015

REVISION: 1.0

CUSTOMER: TECO

CUSTOMER P/N: 102675

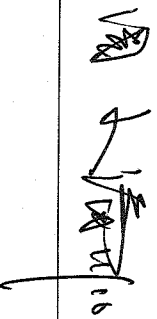
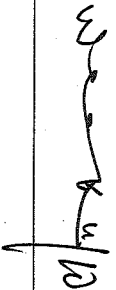
PART NAME: POWER SUPPLY CORD

PHP-311

PHINO P/N: P311-0297-1

無騎縫章無效

Invalid without Perforation Seal

ISSUED BY	REVIEWED BY	APPROVED BY
羅嘉威		

CUSTOMER APPROVED BY:

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PHINO ELECTRIC (HUIZHOU)LTD.

NO.86,NORTH OF LIANFA RD,TONGQIAO INDUSTRY BASE,
ZHONGKAI HIGHTECH DISTRICT,HUIZHOU CITY,GUANGDONG,CHINA
TEL: 86-752-3199200 FAX: 86-752-3199215

PHINO ELECTRIC (HUIZHOU) LTD.

Catalog

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PHINO ELECTRIC (HUIZHOU) LTD

1 PVC FLEXIBLE CORD

THIS SPECIFICATION SHALL BE IN ACCORDANCE WITH IEC STANDARD.(IEC 60227)

1.1 CONSTRUCTION

CONDUCTOR	ANNEALED COPPER WIRE
INSULATION	PVC (BROWN,BLUE,YELLOW/GREEN) MEAN VALUE OF THICKNESS: MIN. 0.60 MM MINIMUM VALUE OF THICKNESS: MIN. 0.50 MM
SHEATH	MEAN VALUE OF THICKNESS: MIN. 0.90 MM MINIMUM VALUE OF THICKNESS: MIN. 0.80 MM

1.2 PHYSICAL CHARACTERISTICS OF INSULATION AND SHEATH.

TABLE 1.

ITEM	UNITS	SPEC. VALUE
RATED VOLTAGE	V/V	300/500
CONDUCTOR	NO. OF CORD	NO. 3
	NOMINAL AREA CONSTRUCTION	MM ² 1.0 NO/MM 32/0.20
	OUTER DIAMETER	MM 1.5
THICKNESS OF INSULATION	MM	0.60
THICKNESS OF SHEATH	MM	0.80
NOMINAL OVERALL DIAMETER (APPROX.)	MM	7.0±0.2
CONDUCTOR RESISTANCE (AT 20°C)	Ω/KM	MAX. 19.5
TEST VOLTAGE	V/MIN.	2000/15
INSULATION RESISTANCE AT 70°C	MΩ . KM	MIN. 0.010

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1.3 CHARACTERISTICS OF INSULATION AND SHEATH.

TABLE 2

INSULATION PHYSICAL PROPERTIES	BEFORE AGING	ELONGATION		%		150% MIN. OF THE VALUE BEFORE AGING	
		TENSILE STRENGTH	N/MM ²			10N/MM ² MIN. OF THE VALUE BEFORE AGING	VALUE BEFORE AGING
AFTER AGING IN HEATING CABINET	ELONGATION	%	N/MM ²	%	80±2°C, 168H,	±20% OF THE VALUE BEFORE AGING	±20% OF THE VALUE BEFORE AGING
		TENSILE STRENGTH				N/MM ²	
BEFORE AGING	ELONGATION	%	N/MM ²	%	80±2°C, 168H,	±20% OF THE VALUE BEFORE AGING	±20% OF THE VALUE BEFORE AGING
		TENSILE STRENGTH				N/MM ²	
AFTER AGING IN HEATING CABINET	ELONGATION	%	N/MM ²	%	80±2°C, 168H,	±20% OF THE VALUE BEFORE AGING	±20% OF THE VALUE BEFORE AGING
		TENSILE STRENGTH				N/MM ²	

1.4 FLAME RESISTANCE:
THE SAMPLE BE SELF-EXTINGUISHING AFTER ALL BURNING HAS CEASED.

1.5 CORD BEND:
NO CRACK ON THE SURFACE OF CORD SAMPLE WHICH IS WIND ROUND 6 TURNS ON
MANDREL OF 4~5×OD (OD: WIRE DIAMETER) SUBJECTED TO A TEMPERATURE OF -15±2°C
FOR 4 HOURS.

1.6 CROSS SECTION OF THE FLEXIBLE CORD AND MARKING IS REFER TO DRAWING.

PHINO ELECTRIC (HUZHOU) LTD

2. PVC PLUG CHARACTERISTICS:

THE PLUG SHALL BE IN ACCORDANCE WITH IEC STANDARD.

2.1 INSULATION RESISTANCE: MIN. $5M\Omega$ AT 500V DC/1 MIN.

2.2 WITHSTAND VOLTAGE: 2000V AC/1MIN.

2.3 STRAIN RELIEF:

THE PLUG SHALL BE FIXED IN THE SPECIFIED APPARATUS. A PULL OF MAXIMUM 50N(54N, FOR 3 PIN PLUG) WITHDRAWAL FORCE IS APPLIED, WITHOUT JERKS, FOR 1 MIN. ON EACH PIN IN TURN, IN THE DIRECTION OF THE LONGITUDINAL AXIS OF THE PIN. THE PULL IS APPLIED WITHIN A HEATING CABINET AT A TEMPERATURE OF $70^{\circ}C\pm 2^{\circ}C$, 1 HOUR AFTER THE TEST, THE PLUG IS ALLOWED TO COOL DOWN TO AMBIENT TEMPERATURE. AND THEN ANY PIN SHALL NOT HAVE BEEN DISPLACED IN THE BODY OF PLUG MORE THAN 1MM.

2.4 FLEXING TEST:

THE INSULATION LAYER OF THE FLEXIBLE CORD SHALL NOT BE DAMAGED AFTER 10000 FLEXING TIMES, WHILE BEING TESTED, THE CORD IS HANGED VERTICALLY WITH 10N, FOR NOMINAL AREA $\cong 0.75MM^2$; 20N, FOR NOMINAL AREA $> 0.75MM^2$.

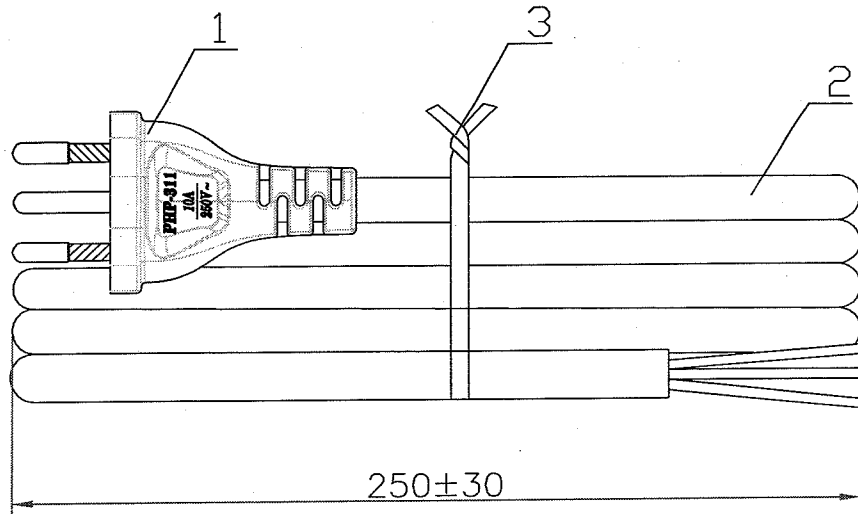
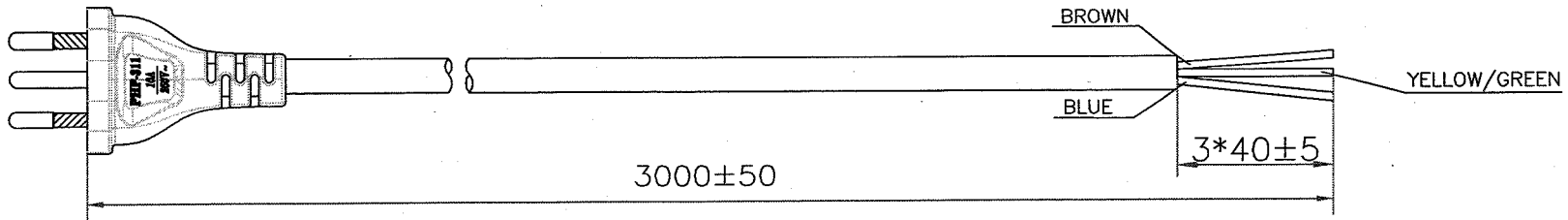
A FLEXING CYCLE: A ROTATION OF THE SPECIMEN FROM VERTICAL POSITION UNTIL 45° TO ONE SIDE, AND BACK PAST THE VERTICAL POSITION UNTIL 45° TO THE OTHER SIDE, AND BACK TO THE VERTICAL POSITION, THE RATE OF TESTING SHALL BE 60 TIMES PER MINUTE.

SAMPLE WITH CIRCULAR SECTION CABLES OR CORDS ARE TURNED THROUGH 90° IN THE OSCILLATING MEMBER AFTER 5000 FLEXINGS, SAMPLES WITH FLAT CORDS ARE BENT ONLY IN A DIRECTION PERPENDICULAR TO THE PLANE CONTAINING THE AXIS OF THE CORES.

NOT MORE THAN 20% OF THE MEMBER OF STRANDS OF EACH CONDUCTOR SHALL HAVE BROKEN.

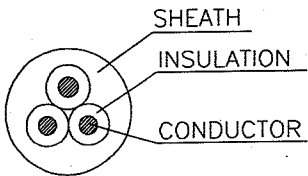
2.5 RESISTANCE TO AGING:

THE SAMPLE ARE KEPT FOR IN A HEATING CABINET AT TEMPERATURE OF $70^{\circ}C\pm 2^{\circ}C$, FOR SEVEN DAYS(168H), AFTER THE TREATMENT THE SAMPLE ARE KEPT AT A ROOM TEMPERATURE FOR FOUR DAYS(96H) THE SAMPLE SHALL SHOW NO CRACK VISIBLE WITH NORMAL, NOR SHALL THE MATERIAL HAVE BECOME STICK OR GREASY.



1. PVC MOLDED PLUG: PHP-311 (BLACK)
 2. RUBBER FLEXIBLE CORD: H05VV-F 3G1.0mm² (BLACK)
 3. ELLIPTIC TIE (BLACK)
- NOTE: ALL MATERIALS ARE RoHS COMPLIANCE.

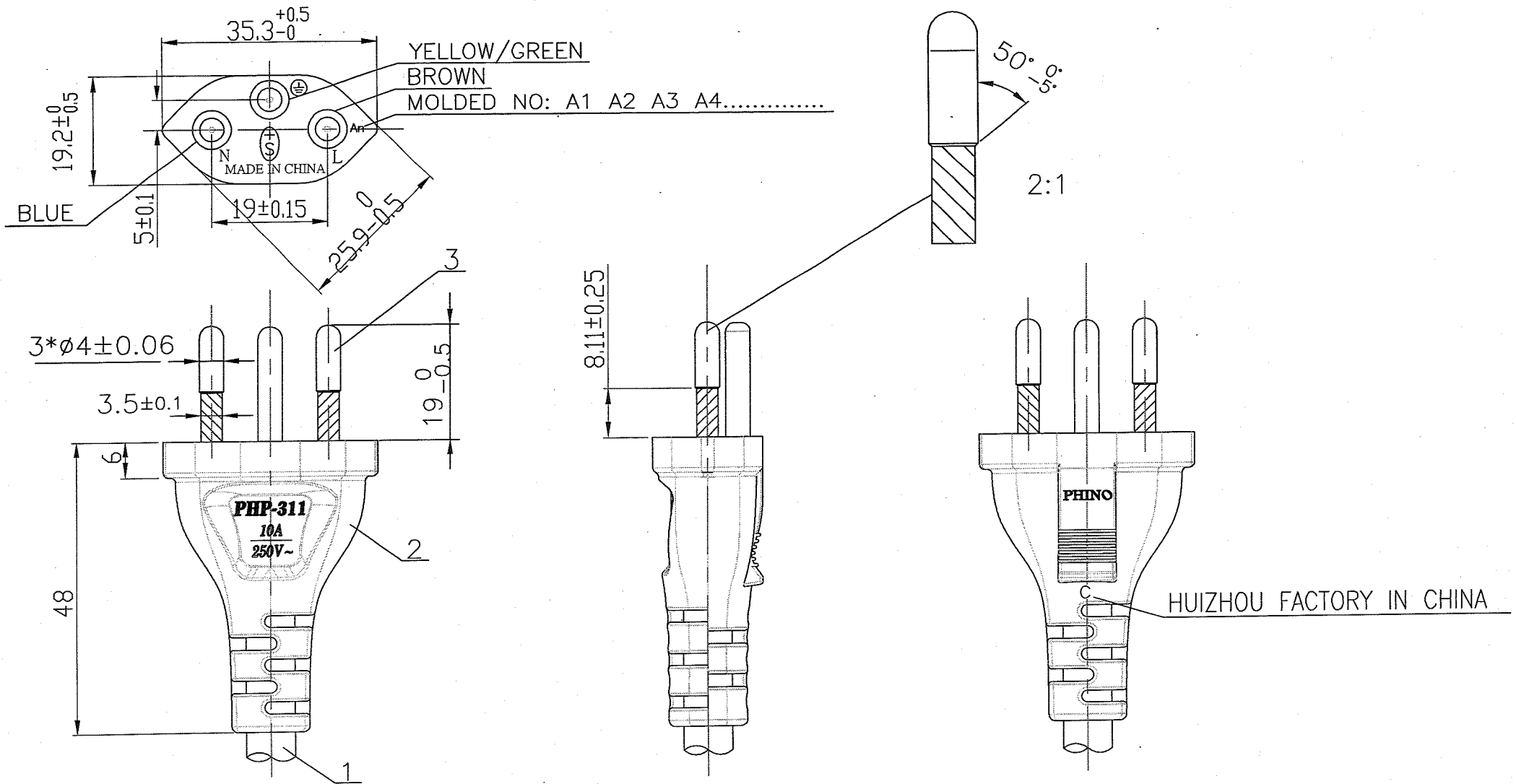
CORD SECTION:



CORD MARKING:

PHINO Cabo H05VV-F 3G1.0mm² <VDE> KEMA-KEUR IEMMEQU +++++ <öVE>
 CE BEC (S) (N) (D) (F) SABS SANS 60227-5 60227 IEC 53 300/500V CE Cn -LF-
 ROLL NO: 1,2,3... CHINA FACTORY

P/N	102675	TITLE	POWER SUPPLY CORD		
			PHP-311		
		INTER NO	P311-0297-1		
DESIGNED	LuoJiaWei 2015.11.10	UNIT	MM	SCALE	
CHECKED	<i>[Signature]</i>	MATERIAL	PHINO		
APPROVED	<i>[Signature]</i>	PROJECTION			



1. PVC FLEXIBLE CORD;
2. PVC MOLDED PLUG: PHP-311;
3. PIN.

TOLERANCE:

- $>20: \pm 2.0$
- $\leq 20: \pm 1.0$
- $\leq 10: \pm 0.5$
- $\leq 1.0: \pm 0.3$

		TITLE	PHP-311	
REVISION		DRAWING NO	EP311-A01-A	
DESIGNED	Ye shaomao 2014.11.20	UNIT	MM	SCALE 1:1
CHECKED	<i>[Signature]</i>	MATERIAL	PHINO	
APPROVED	<i>[Signature]</i>	PROJECTION		



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Confederation

Federal Inspectorate for Heavy Current Installations (ESTI)
Market Surveillance/Authorization of the Safety Mark

Phino Electric Co. Ltd.
Floor 6, No. 50, Zhou-Z Street
Nel-Hu Area
TW-Taipei City
Taiwan

Client no.
4485

Your ref.
Winson Hsu

Our Ref.
Ts

Date
2013/05/03

Authorization

Number
valid until:

13.0327
2016/07/07

 company logo

Based on the documents contained in file 13-BS-0120 the Federal Inspectorate for Heavy Current Installations grants the firm named above the right, to put the equipment listed below on the market marked with the safety mark in accordance with the NEY.

Equipment: **Plug non-rewirable**
Tradename: **PHINO**

Type designation:

Nominal values:

PHP-203
250V~ 10A L+N
CH-Typ 11 standard sheet SEV 6533-2
with non-rewirable cords:
H03VVH2-F 2x0.75mm² [Phino]
H05VVH2-F 2x0.75mm² [Phino]
H05VWH2-F 2x1.00mm² [Phino]
PHP-311
250V~ 10A L+N+PE
CH-Typ 12 standard sheet SEV 6534-2
with non-rewirable cords:

H03VV-F	3G0.75mm ²	[Phino]
H05VV-F	3G0.75mm ²	[Phino]
H05VV-F	3G1.00mm ²	[Phino]
H05RR-F	3G0.75mm ²	[New Top]
H05RR-F	3G1.00mm ²	[New Top]
H05RN-F	3G0.75mm ²	[New Top]





Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Confederation

Authorization

Number: 13.0327

Page 2

Type designation:

Nominal values:

H05RN-LF 3G1.00mm² [New Top]
H03RT-F 3G0.75mm² [New Top]

Protection class:

ordinary

Protection degree:

Basis:

Test Report / electrosuisse / 10-IK-0185.01 dated 2010/07/06
Test Report / electrosuisse / 10-IK-0185.02 dated 2010/07/06

Remark:

Test standards:

IEC 60884-1 (ed. 3):02+Amd.1:06
SEV 1011:09

Federal Inspectorate for Heavy Current Installations ESTI

P. Fluri

Head of Market Surveillance/Authorization of the Safety Mark

DUPLICATED PHILINO ELECTRIC CO. LTD. 復印無效



ZEICHENGENEHMIGUNG MARKS APPROVAL

Phino Electric Co., Ltd.
Floor 6 No. 50 Zhou-Z Street
Nei-Hu Area
TAIPEI CITY
TAIWAN

ist berechtigt, für ihr Produkt /
is authorized to use for their product

Starkstromleitungen für allgemeine Anwendungen

- Flexible Leitungen

mit thermoplastischer PVC-Isolierung

Cables for general applications

- Flexible cables with

thermoplastic PVC insulation

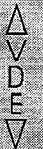
die hier abgebildeten markenrechtlich geschützten Zeichen

für die ab Blatt 2 aufgeführten Typen zu benutzen /

the legally protected Marks as shown below for the types referred to on page 2 ff



oder/or



oder/or



Gepflicht und zertifiziert nach /
Tested and certified according to

DIN EN 50525-2-11 (VDE 0285-525-2-11):2012-01, EN 50525-2-11:2011

Aktenzeichen: 1528500-5140-0005 / 188119

File ref.:

Ausweis-Nr. 113841

Blatt 1

VDE Prüf- und Zertifizierungsinstitut GmbH

Certificate No.

Page

Zertifizierungsstelle / Certification

Weitere Bedingungen siehe Rückseite und Folgenblätter /
further conditions see overleaf and following pages

Offenbach, 1998-09-04

(letzte Änderung/updated 2013-10-02)

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<http://www.vde.com/zertifikat>
<http://www.vde.com/certificate>

VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Blatt /
Certificate No. Page
113841 2

Name und Sitz des Genehmigungsinhabers / Name and registered seat of the Certificate holder
Phino Electric Co., Ltd., Floor 6 No. 50 Zhou-Z. Street, Nei-Hu Area, TAIPEI CITY, TAIWAN

Aktenzeichen / File ref.
1528500-5140-0005 / 188-119 / CC5 / HEG

letzte Änderung / updated Datum / Date
2013-10-02 1998-09-04

Dieses Blatt gilt nur in Verbindung mit Blatt 1 des Zeichengenehmigungsausweises Nr. 113841.
This supplement is only valid in conjunction with page 1 of the Certificate No. 113841.

Starkstromleitungen für allgemeine Anwendungen
- Flexible Leitungen
mit thermoplastischer PVC-Isolierung

Cables for general applications
- Flexible cables with
thermoplastic PVC insulation

Typ(en) / Type(s)	
H03VV-F 2...3 x 0,75 mm ²	+
H03VVH2-F 2 x 0,5...0,75 mm ²	+
H05VV-F 2...3 x 0,75...1,5 mm ²	+
H05VVH2-F 2 x 0,75 mm ²	+

Leitungsbauart
Type of cable

Standardleitungen
General purpose cables

Firmenzeichen
Trademark

PHINO

Dieser Zeichengenehmigungs-Ausweis bildet eine Grundlage für die EG-Konformitätserklärung und CE-Kennzeichnung durch den Hersteller oder dessen Bevollmächtigten und bescheinigt die Konformität mit den grundlegenden Schutzanforderungen der **EG-Niederspannungsrichtlinie 2006/95/EG** mit ihren Änderungen.

*This Marks Approval is a basis for the EC Declaration of conformity and the CE Marking by the manufacturer or his agent and proves the conformity with the essential safety requirements of the **EC Low-Voltage Directive 2006/95/EC** including amendments.*

VDE Prüf- und Zertifizierungsinstitut GmbH
VDE Testing and Certification Institute
Fachgebiet CC5
Section CC5

VDE Prüf- und Zertifizierungsinstitut GmbH * Testing and Certification Institute



VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Beiblatt /
Certificate No. Supplement
113841

Name und Sitz des Genehmigungs-Inhabers / Name and registered seat of the Certificate holder
Primo Electric Co., Ltd., Floor 6 No. 50 Zhou-Z Street, Nei-Hu Area, TAIPEI CITY, TAIWAN

Aktenzeichen / File ref.
1528500-5140-0005 / 188119 / CC5 / HEG

letzte Änderung / updated Datum / Date
2013-10-02 1998-09-04

Dieses Beiblatt ist Bestandteil des Zeichengenehmigungsausweises Nr. 113841.
This supplement is part of the Certificate No. 113841.

Starkstromleitungen für allgemeine Anwendungen

**- Flexible Leitungen
mit thermoplastischer PVC-Isolierung**
**Cables for general applications
- Flexible cables with
thermoplastic PVC insulation**

**Fertigungsstätte(n)
Place(s) of manufacture**

Referenz/Reference
30022105

Primo Electric (Huizhou) Co., Ltd
No.86 North of Lianfa Rd Tongjiao, Ind
Base, Zhongkai High Tech District
516000 HUIZHOU CITY
Guangdong
CHINA

VDE Prüf- und Zertifizierungsinstitut GmbH
VDE Testing and Certification Institute
Fachgebiet CC5
Section CC5

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