

Zertifikat

Certificate



Zertifikat Nr. Certificate No.
R 50310004

Blatt Page
0001

Ihr Zeichen Client Reference
X.C.

Unser Zeichen Our Reference
01-ZWC- 15082499 001

Ausstellungsdatum
09.06.2015

Date of Issue
(day/mo/yr)

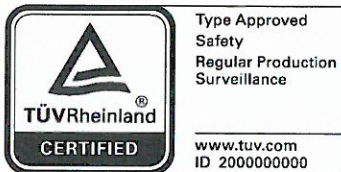
Genehmigungsinhaber License Holder

Yueqing Langir Electric Co., Ltd.
4F, No.188 Liuging North Road,
Liushi, Wenzhou, 325604
P.R. China

Fertigungsstätte Manufacturing Plant

Yueqing Langir Electric Co., Ltd.
4F, No.188 Liuging North Road,
Liushi, Wenzhou, 325604
P.R. China

Prüfzeichen Test Mark



Geprüft nach Tested acc. to
EN 60947-2:2006+A1+A2

Zertifiziertes Produkt (Geräteidentifikation) Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Circuit Breaker (DC Circuit Breaker)

Type Designation : JB (Langir) 8
Utilization category : A
Number of Poles : 1) 1P appearance 2) 1P appearance
3) 1P appearance 4) 4P appearance
Rated Operation Voltage (Ue) : 1) DC 250V 2) DC 500V
3) DC 750V 4) DC 1000V
Rated Current (In) : 1/2/3/4/6/10/16/20/25/32/40/50/
63A
Rated Service Short-circuit
Breaking Capacity (Ics) : 10kA
Rated Ultimate Short-circuit
Breaking Capacity (Icu) : 10kA
Conventional Free Air
Thermal Current (Ith) : Same as In
Rated Insulation Voltage : Same as Ue



Continued on page 0002

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ANLAGE (Appendix) : 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.

This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com
Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

Zertifizierungsstelle

Jie Zhang

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50310004

Blatt *Page*
0002

Ihr Zeichen *Client Reference*
X.C.

Unser Zeichen *Our Reference*
01-ZWC- 15082499 001

Ausstellungsdatum
09.06.2015

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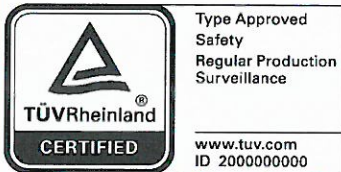
Genehmigungsinhaber *License Holder*

Yueqing Langir Electric Co., Ltd.
4F, No.188 Liuging North Road,
Liushi, Wenzhou, 325604
P.R. China

Fertigungsstätte *Manufacturing Plant*

Yueqing Langir Electric Co., Ltd.
4F, No.188 Liuging North Road,
Liushi, Wenzhou, 325604
P.R. China

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*
EN 60947-2:2006+A1+A2

Zertifiziertes Produkt (Geräteidentifikation)
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Lizenzentgelte - Einheit
License Fee - Unit

Circuit Breaker (DC Circuit Breaker)

Continuation from page 0001

Rated Impulse Withstand

Voltage (Uimp) : 1) 4,0kV; 2) 6,0kV; 3) 4) 8,0kV

Rated Instantaneous

Short-circuit Current (Ii) : 5,5In (C); 8,5In (D); 14In (K)

Suitability for Isolation : Yes

Pollution Degree : 3

IP Code : IP20

The labelling requirements acc. to EU Directive 2001/95
have to be observed for distribution within the EEA.



ANLAGE (Appendix): 1

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TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

Tel.: (+49/221) 8 06 - 13 71 e-mail: cert-validity@de.tuv.com

Fax: (+49/221) 8 06 - 39 35 http://www.tuv.com/safety

Zertifizierungsstelle

Jie Zhang

Yueqing Langir Electric Co., Ltd.
Mr. Xiong Chun
GM office
4F, No.188 Liuqing North Road,
Liushi, Wenzhou, 325604
P.R. China

Date : 09.06.2015
Our ref. : ZWC 01
Your ref.: X.C.

Ref : R TÜV-Mark Approval

Type of Equipment : DC Circuit Breaker
Model Designation : See Certificate
Certificate No. : R 50310004 0001
Report No. : 15082499 001

Dear Mr. Xiong Chun,

A specimen of above mentioned product has been tested and found to be technically in compliance with § 20 and § 21 of the ProdSG (= Product Safety Act).

The certificate is issued with the reservation that the licence holder applies all information required in § 6 of the ProdSG related to name and address of the manufacturer or his authorized representative / importer including their respective addresses on the product prior to marketing the product in the European Economic Area. Enclosed please find the certificate of approval No. R 50310004 0001.

If cancellation of the certificate is submitted by November 15 in a given year, no fee will be charged for the following year.

Please contact our office for approval of your new products.

With kind regards,

Certification Body


Jie Zhang

CC: Yueqing Langir Electric Co., Ltd.

Enclosure

证书的详细资料请登陆www.tuvdotcom.com查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

C E R T I F I C A T E



of Conformity
Low Voltage Directive 2006/95/EC

Registration No.: AN 50310005 0001

Report No.: 15082499 001

Holder: Yueqing Langir Electric Co., Ltd.
4F, No.188 Liuqing North Road,
Liushi, Wenzhou, 325604
P.R. China

Product: Circuit Breaker
(DC Circuit Breaker)

Identification: Type Designation: JB (Langir)
Serial No. : Engineering sample

Remark: Issued in conjunction with TÜV Rheinland license
R 50310004 0001-0002.

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all revision of Annex I of Council Directive 2006/95/EC, in its latest amended version, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex III of the Directive.



Certification Body

Date 09.06.2015

A handwritten signature in black ink, appearing to read 'Jie Zhang', written over a horizontal line.
Jie Zhang

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

CE The CE marking may be used if all relevant and effective EC Directives are complied with. CE

Yueqing Langir Electric Co., Ltd.
Mr. Xiong Chun
GM office
4F, No.188 Liuqing North Road,
Liushi, Wenzhou, 325604
P.R. China

Date : 09.06.2015
Our ref. : ZWC 01
Your ref.: X.C.

Ref : AN Certificate of Conf. Low Voltage D.

Type of Equipment : DC Circuit Breaker
Model Designation : See Certificate
Certificate No. : AN 50310005 0001
Report No. : 15082499 001

Dear Mr. Xiong Chun,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body


Jie Zhang

CC: Yueqing Langir Electric Co., Ltd.

Enclosure

证书的详细资料请登陆www.tuvdotcom.com查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

Certificate No. R 50310004 0001-0002 Our Reference 01-ZWC-15082499 001 Appendix No. 1

Constructional Data Form for Circuit-breaker EN 60947-2

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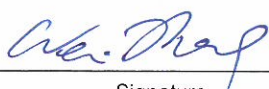
License holder: Yueqing Langir Electric Co., Ltd.
 (full address): 4F, No.188 Liuqing North Road, Liushi, Wenzhou, P. R. China
 Factory : Yueqing Langir Electric Co., Ltd.
 (full address) 4F, No.188 Liuqing North Road, Liushi, Wenzhou, P. R. China
 Type or Model Number: JB
 Kind of device: DC Circuit Breaker

Specification [Main – Circuit]					
Type designation		JB			
Contact material		Moving/Fixed: T2Y2			
Number of poles	-	1P appearance	3P appearance	3P appearance	4P appearance
Number of protection pole	-	1-pole	2-pole	3-pole	4-pole
Rated operational voltage	Ue	250V	500V	750V	1000V
Nature of supply	-	DC			
Rated frequency	-	N/A			
Rated current (A)	In	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63A			
Conventional free air thermal current	Ith	Same as In			
Rated service short-circuit breaking capacity	Ics	10kA			
Rated ultimate short-circuit breaking capacity	Icu	10kA			
Rated short-circuit withstand current	Icw	N/A			
Conventional enclosed thermal current	Ithe	N/A			
Ambient air temperature	-	-5...40°C			
Reference temperature		N/A			
Individual pole short-circuit breaking capacity	I _{su}	N/A			
Individual pole short-circuit breaking capacity (Annex H)	I _{IT}	N/A			
Utilization category	-	A			
Interruption medium	-	☒ air	☐ vacuum	☐ gas	
Design	-	☐ open construction	☒ moulded case		
Suitability for isolation	-	☒ yes	☐ no		
Provision of maintenance	-	☐ maintainable	☒ non maintainable		

TÜV Rheinland Group

License holder

08.06.2015



Date

Signature

Name

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Certificate No. R 50310004 0001-0002 Our Reference 01-ZWC-15082499 001 Appendix No. 1

Constructional Data Form for Circuit-breaker EN 60947-2

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Method of installation	-	☒ fixed	☐ plug in	☐ withdrawable
Type of release	-	☒ thermo-magnetic	☐ electronic	
Electromagnetic compatibility (EMC)	-	☐ Environment A	☐ Environment B	
Suitability for using on phase-earthed systems	-	☐ yes	☒ no	
Suitability for using in IT system	-	☐ yes	☐ no	
Reversibility of connection	-	☒ reversible	☐ non-reversible, Line/Load marked	
Rated insulation voltage	Ui	Same as Ue		
Rated impulse withstand voltage	Uimp	4,0kV	6,0kV	8,0 kV
Overvoltage category		Overvoltage category III		
Pollution degree		3		
IP code		IP20		

Specification [Control - Circuit]				
	Shunt releases		Under-voltage releases	
Thermal insulation class	-		-	
Rated insulation voltage	-		-	
Kind of current/rated frequency	DC/ -	- / -	- / -	- / -
Rated control circuit voltage	-V	- V	-V	-V
Rated control supply voltage	- V	- V	-V	-V

Specification [Control - Circuit]				
	Motor-operators		Closing coils	
Thermal insulation class	-		-	
Rated insulation voltage	-		-	
Kind of current/rated frequency	- / -	- / -	- / -	- / -
Rated control circuit voltage	-V	-V	- V	- V
Rated control supply voltage	-V	-V	-V	- V

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Date

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Certificate No. R 50310004 0001-0002 **Our Reference** 01-ZWC-15082499 001 **Appendix No.** 1

Constructional Data Form for Circuit-breaker EN 60947-2

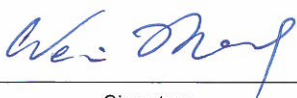
Page 3 of 7

Specification [Auxiliary - Circuit]		
Type designation	-	
Contact configuration	-	
Change-over contact element	☒ C ☐ Za ☐ Zb	
Utilization category	-	-
Operational voltage	-	-
Operational current	-	-
Conventional free air thermal current	- A	
Frequency	-	
Rated conditional short-circuit current	- kA	
Short circuit protective device	-	

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Constructional Data Form for Circuit-breaker EN 60947-2

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Releases:

Type designation	JB
Shunt release	N/A
Over current release	Yes
a) Instantaneous	Yes
b) definite time delay	No
c) Inverse time delay	Yes
-Independent of previous load	No
-Dependent on previous load	Yes (thermal type)
Undervoltage release (for opening)	No
Other releases	No
Characteristics :	See below
1) Shunt release and undervoltage release (for opening)	N/A
- rated control circuit voltage: U_c (nature, frequency, V)	N/A
- kind of current	N/A
- rated frequency: (if AC)	N/A
2) Over-current release	Yes
- rated current	$I_n = 1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63A$
- kind of current	DC
- rated frequency: (if AC)	N/A
- current setting (or range of settings)	$I_r = I_n$; $I_i = 5,5 I_n$ (for C-type); $I_i = 8,5 I_n$ (for D-type); $I_i = 14 I_n$ (for K-type);
- time settings (or range of settings)	80% times of I_i , Operating time: $>0,2s$; 120% times of I_i , Operating time: $<0,2s$;

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Date

Signature

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Certificate No. R 50310004 0001-0002 **Our Reference** 01-ZWC-15082499 001 **Appendix No.** 1

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Terminals [Main circuit]	
Type designation	JB
Terminal designation, main circuit	N/A
Type of terminal, main circuit	Pillar terminal and screw terminal
Connectable cross-sections of copper conductors mm ²	1,0-25mm ²
Type of conductor	Copper
Required preparation of the conductor	Unprepared
Stripping length (mm)	13mm
Tightening torque, main circuit (Nm)	2,0Nm
Tightening torque, control circuit (Nm)	-
Material/plating terminal, main circuit	Copper plated silver
Material/plating terminal, control circuit	
Material/plating of the screw	Zn plated steel
Material/plating of the washer	Zn plated steel

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08.06.2015

We: [Signature]

Date

Signature

Name

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Certificate No. R 50310004 0001-0002 Our Reference 01-ZWC-15082499 001 Appendix No. 1

Constructional Data Form for Circuit-breaker EN 60947-2

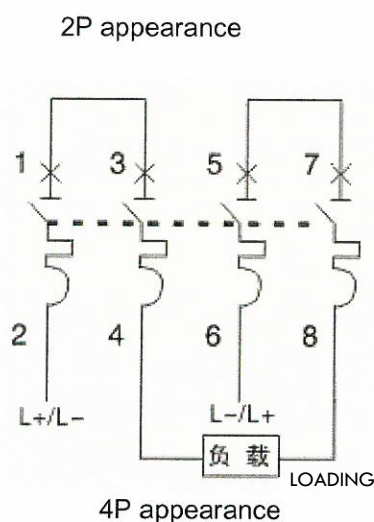
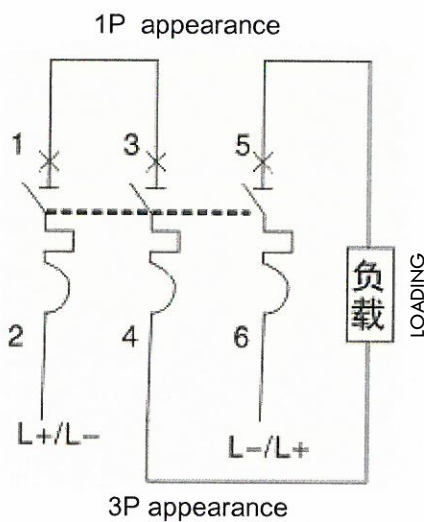
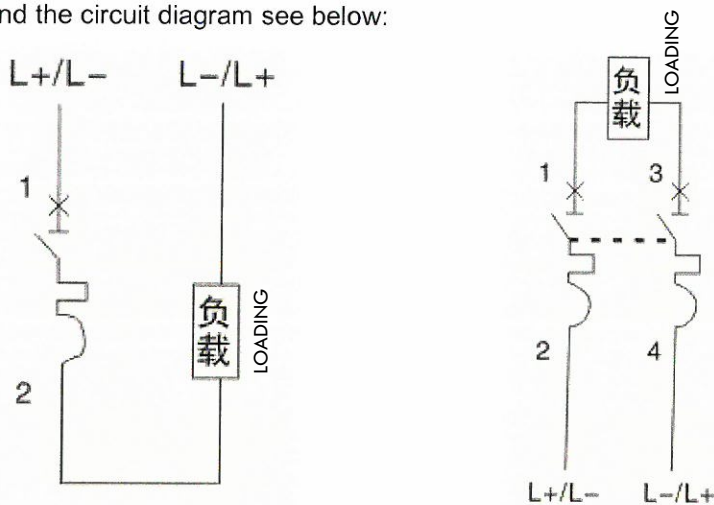
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Plastic insulating parts:

Insulating Materials						
Part name	Material name	Manufacturer	Colour	PTI	Flame class	Material Group
Base & Cover & Handle	PA6-A4-1a	Yueqing Langir Electric Co., Ltd.	Grey	>175V	GWT; 960°C	IIIb

Remark:

And the circuit diagram see below:



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He: Rep

Date

Signature

Name

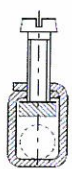
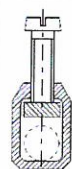
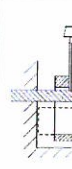
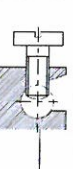
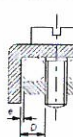
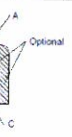
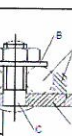
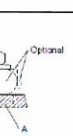
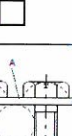
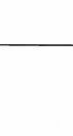
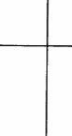
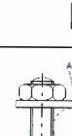
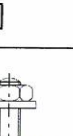
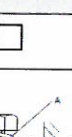
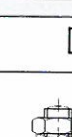
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Certificate No. R 50310004 0001-0002 Our Reference 01-ZWC-15082499 001 Appendix No. 1

Constructional Data Form for Circuit-breaker EN 60947-2

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Terminal Figure

Pillar terminal	☒	☐	☐	☐	☐	☐	☐	☐
								Other
Screw terminal	☒	☐	☐	☐	☐	☐	☐	☐
								
Stud terminal	☐	☐	☐	☐	☐	☐	☐	☐
								
Saddle terminal	☐	☐	☐	☐	☐	☐	☐	☐
								
Lug terminal	☐	☐	☐	☐	☐	☐	☐	☐
								

TÜV Rheinland Group

License holder

08.06.2015

ck. Dr. J. P. H. J.

Date

Signature

Name

Company Stamp and Signature