

Zertifikat Certificate



Zertifikat Nr. Certificate No.
R 50244085

Blatt Page
0008

Ihr Zeichen Client Reference
K.S.

Unser Zeichen Our Reference
ZJL-MAS- 12027924 007

Ausstellungsdatum
20.12.2023

Date of Issue
(day/mo/yr)

Genehmigungsinhaber License Holder

Hirose Electric Co., Ltd.
2-6-3 Nakagawa-Chuo, Tsuzuki-ku
Yokohama-shi, Kanagawa
224-8540 Japan

Fertigungsstätte Manufacturing Plant

Koriyama Hirose Electric Co., Ltd.
87-3 Okawara
Koriyama-shi, Fukushima
963-8828 Japan

Prüfzeichen Test Mark



Type Approved
Safety
Regular Production
Surveillance

www.tuv.com
ID 2000000000

Geprüft nach Tested acc. to

EN 61984:2009
IEC 61984:2008

Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Connector Connector without breaking capacity, as page 0001

Addition

Type Designation: DF60A-xEP-10.16C(zz) (Socket)
x = 1 to 5
(zz) = (01) to (99) or blank

1

Classification: non-CBC
Number of Poles: 1 to 4
Rated Voltage: AC/DC 600V
Rated Current: (see Appendix 1.5)
Overvoltage Category: III
Pollution Degree: 3
IP-degree: IP00
Max Ambient Temperature: +75°C
Upper Limit Temperature: +105°C
Lower Limit Temperature: -55°C

Remark: Replaces R 50244085 page 0008, dated 21.01.2021.



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ANLAGE (Appendix): 1.5

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

Vilmos Sztaroveczki

Certificate No. R50244085
Our reference ZJL-MAS- 12027924 007
Appendix No. 1.5



(To be filled in by TÜV Rheinland)

Constructional Data Form

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License holder: Hirose Electric Co., Ltd.
2-6-3 Nakagawa Chuoh, Tsuzuki-Ku, Yokohama 224-5840 Japan

Factory : Koriyama Hirose Electric Co., Ltd.
(full address) 87-3 Ogawara Koriyama – Shi , Fukushima 963-8828 Japan

Type or Model Number: 1)Header(DF60-*P-10.16DSA(zz), DF60-*P-10.16DS(zz), DF60R-*P-10.16DSA(zz), DF60R-*P-10.16DS(zz))
+ Socket(DF60-*S-10.16C(zz), DF60A-*S-10.16C(zz) , DF60AR-*S-10.16C(zz)
DF60R-*S-10.16C(zz))
2)Socket(DF60-*S-10.16C(zz), DF60A-*S-10.16C(zz) , DF60AR-*S-10.16C(zz)
DF60R-*S-10.16C(zz))
+Plug Socket(DF60-*EP-10.16C(zz), DF60R-*EP-10.16C(zz),
DF60A-*EP-10.16C(zz))
Contacts for Socket
DF60-8SCFA(zz), DF60-1012SCFA(zz), DF60-8SCA(zz), DF60-1012SCA(zz)
Contacts for Plugsocket
DF60-8PCFA(zz), DF60-1012PCFA(zz), DF60-8PCA(zz), DF60-1012PCA(zz),
DF60A-8PCFA(zz)
(zz) : (01) to (99) or blank.

Kind of device: Connector without breaking capacity

Specifications	
Type designation	DF60-*P-10.16DSA(zz), DF60-*P-10.16DS(zz), DF60-*S-10.16C(zz), DF60A-*S-10.16C(zz) , DF60AR-*S-10.16C(zz), DF60-8SCFA(zz), DF60-1012SCFA(zz), DF60-8SCA(zz), DF60-1012SCA(zz) DF60R-*P-10.16DSA(zz), DF60R-*P-10.16DS(zz), DF60R-*S-10.16C(zz) DF60-*EP-10.16C(zz), DF60R-*EP-10.16C(zz), DF60-8PCFA(zz), DF60-1012PCFA(zz) , DF60-8PCA(zz), DF60-1012PCA(zz) ,DF60A-8PCFA(zz)
Contact material	Cu-Ni copper alloy (contain not less than 98.5 wt % of Cu), gold plating Copper alloy(contain not less than 99 wt % of Cu) , gold plating.
Number of poles	DF60R-*EP : 1,2,3,4,5 DF60-*EP : 1,2,3,4,5 DF60A-*EP : 1,2,3,4 DF60R : 1,2,3,4,5,6 DF60:1,2,3,4,5,6 DF60AR : 1,2,3,4,5,6 DF60A:1,2,3,4,5,6
Rated voltage	AC / DC 600 V

TÜV Rheinland

2021 Jan. 22

(Date)

(Signature)

Yokohama, Japan

(Place)

Hirose Electric Co., Ltd.

Kenichi SATO

(Stamp and Signature of Applicant)

01. 22., 2021

(Date)

Constructional Data Form

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Rated current	<table border="1"> <thead> <tr> <th></th> <th>AWG8</th> <th>AWG10</th> <th>AWG12</th> </tr> </thead> <tbody> <tr> <td>1pos</td> <td>45A</td> <td>38A</td> <td>30A</td> </tr> <tr> <td>2pos</td> <td>40A</td> <td>31A</td> <td>26A</td> </tr> <tr> <td>3pos</td> <td>42A</td> <td>31A</td> <td>26A</td> </tr> <tr> <td>4pos</td> <td>42A</td> <td>30A</td> <td>25A</td> </tr> <tr> <td>5pos</td> <td>42A</td> <td>30A</td> <td>25A</td> </tr> <tr> <td>6pos</td> <td>42A</td> <td>30A</td> <td>25A</td> </tr> </tbody> </table>		AWG8	AWG10	AWG12	1pos	45A	38A	30A	2pos	40A	31A	26A	3pos	42A	31A	26A	4pos	42A	30A	25A	5pos	42A	30A	25A	6pos	42A	30A	25A
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5pos	42A	30A	25A																										
6pos	42A	30A	25A																										
DF60(R)-*P-10.16DSA(zz) DF60(R)-*P-10.16DS(zz) DF60(R)-*S-10.16C(zz) DF60A(R)-*S-10.16C(zz) DF60(R)-*EP-10.16C(zz) DF60A-*EP-10.16C(zz) DF60-8SCFA(zz) DF60-1012SCFA(zz) DF60-8PCFA(zz) DF60-1012PCFA(zz)																													
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Rated frequency	50 / 60 Hz																												
Mechanical endurance	30 times																												
Number of bendings (non-rewirable terminals only)	N/A																												
Classification	☐ CBC ☒ Non CBC ☐ other:																												
Upper limit temperature	105 °C																												
Lower limit temperature	- 55 °C																												

TÜV Rheinland

Yokohama, Japan

(Place)

01. 22., 2021

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Hirose Electric Co., Ltd.

(Stamp and Signature of Applicant)



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Appendix No. 1.5



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Constructional Data Form

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Specifications

Max. ambient temp. at rated current	75 °C
IP code	IP00

Insulation Coordination

Overvoltage category	III
Pollution degree	3
Test voltages	3,310 V
Minimum creepage distances	DF60R-*P-10.16DS(zz), DF60-*P-10.16DSA(zz) 5.66mm DF60R-*EP-10.16C(zz), DF60-*EP-10.16C(zz) 8.85mm DF60A-*EP-10.16C(zz) 8.85mm
Minimum clearance	DF60R-*P-10.16DS(zz), DF60-*P-10.16DSA(zz) 5.66mm DF60R-*EP-10.16C(zz), DF60-*EP-10.16C(zz) 8.34mm DF60A-*EP-10.16C(zz) 8.34mm
Insulation system (IEC 60664-1) Under the following conditions: $U_i = 500V$, OV-cat. III Material gr. IIIa, Poll. deg. 3	contact– contact: ☒ basic ☐ reinforced ☐ N/A

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2021 Jan. 22

(Date)

M. Masuda

(Signature)

Yokohama, Japan

(Place)

Hirose Electric Co., Ltd.

K. Sato

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01. 22., 2021

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Constructional Data Form

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Specifications (terminals)	
Type of terminals	☐ WRAPPED CONNECTION ☒ CRIMPED CONNECTION ☐ CLIP CONNECTION ☐ PRESS-IN CONNECTIONS ☐ INSULATION DISPLACEMENT CONNECTION ☐ SCREWLESS TERMINALS ☐ SCREW TERMINALS ☐ FLAT, QUICK CONNECT TERMINATIONS ☐ SOLDER TERMINALS ☐ other:
Spec. Tightening torque	N/A
Rated cross section of conductor	DF60-8PCFA(zz),DF60A-8PCFA(zz),DF60-8SCFA(zz): 8.92 mm ² DF60-1012PCFA(zz),DF60-1012SCFA(zz): 5.52 mm ² to 3.45 mm ²
Kind of conductor	Flexible
Required preparation of the conductor	Strip
Max. Stripping length	7.5 mm
Max. Number of conductors per terminal	1

Materials	
Contact material	Cu-Ni copper alloy (contain not less than 98.5 wt % of Cu), gold plating Copper alloy(contain not less than 99 wt % of Cu), gold plating.
Contact block	PBT: 5010GN1-15 (MITSUBISHI ENGINEERING-PLASTICS CORP) CTI: 175V to 249 V, RTI: 130 °C
Connector body	Same as above
Other parts	N/A

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Constructional Data Form

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TYPE NOMENCLATURE:

1. Header

Example: DF60 R – x P - 10.16 y (zz)
(i) (ii) (iii) (iv) (v) (vi)

(i) Guide key type

Blank : Inside

R : Right side

(ii) Number of contacts: 1 to 6

(iii) Contact type

P: male contact

(iv) Contact pitch :10.16mm

(v) Connector type

DSA: straight header

DS : right-angle header

(vi) Customer specifications

none or (01) to (99)

2 Plug Socket

Example: DF60A R – x EP - 10.16 C (zz)
(i) (ii) (iii) (iv) (v) (vi) (vii)

(i) with or without Flange

Blank : with Flange

A : without Flange

(ii) Guide key type

Blank : Inside

R : Right side

(iii) Number of contacts: 1 to 5

(iv) EP: in-line plug

(v) Contact pitch :10.16mm

(vi) Connector type

C: Crimp housing

(vii) Customer specifications

none or (01) to (99)

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Constructional Data Form

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3. Socket

Example: DF60 u R – x S - 10.16 C (zz)
(i) (ii) (iii) (iv) (v) (vi) (vii)

(i) Lock type

Blank : Inside,

A : Robust type

(ii) Guide key type

Blank : Inside

R : Right side

(iii) Number of contacts: 1 to 6

(iv) Contact type

S: female contact

(v) Contact pitch :10.16mm

(vi) Connector type

C : Crimp housing

(vii) Customer specifications

none or (01) to (99)

4. Crimp contact

Example: DF60 A – v w (zz)
(i) (ii) (iii) (iv)

(i) Sequence type

A : Sequence type, None: Standard spec

(ii) Applicable conductor

8 : AWG8, 1012: AWG10 to AWG12

(iii) Packaging

SCFA : socket contact , reel, SCA : socket contact , bag

PCFA : plug contact , reel, PCA : plug contact , bag

(iv) Customer specifications

none or (01) to (99)

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