

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50400864

Blatt *Sheet*
0005

Ihr Zeichen *Client Reference*
K.S.

Unser Zeichen *Our Reference*
ZJL-MAS-50116089 003

Ausstellungsdatum *Date of Issue*
26.01.2024 (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*

Hirose Electric (Dongguan) Co.,Ltd.
Shen Gjing Gong Ye Qu
Su Xin Gun Lu Duar, Chan Ma Gong Lu
Chang Ping Zhen, Dong Guan City
Guangdong
P.R. China

Prüfzeichen *Test Mark*



Type Approved
Safety
Regular Production
Surveillance

www.tuv.com
ID 1419055571

Geprüft nach *Tested acc. to*

EN 61984:2009
IEC 61984:2008

Zertifiziertes Produkt (Geräteidentifikation) *Certified Product (Product Identification)*

Lizenzentgelte - Einheit *License Fee - Unit*

Connector

Addition

Type Designations: DF60Fuw-xS-10.16Cz (Socket)

u = S , w = R or blank

x = 2 or 3

z = (01) to (99), or blank

DF60s-vyz (Crimp Contact)

s = S or blank , v = 8 or 1012

y = PCFA, PCA, SCFA or SCA

z = (01) to (99), or blank

Classification: COC (Mechanical Endurance: 30 times)

Number of Poles: 2 or 3

Rated Voltage: AC/DC 600V

Rated Current: 28A/34A/35A/42A/45A

Overvoltage Category: III

Pollution Degree: 2

IP-degree: IP20

(Finger protection after installed)

Max Ambient Temperature: +75°C

Upper Limit Temperature: +105°C

Lower Limit Temperature: -55°C

ANLAGE (Appendix): 1.2

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.

Zertifizierungsstelle

Vilmos Sztaroveczki

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

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Constructional Data Form for Connector

License holder: Hirose Electric Co., Ltd.
 2-6-3 Nakagawa Chuo Tsuzuki-ku Yokohama-Shi, Kanagawa 224-8540 Japan

Factory (Full address) 1) Koriyama Hirose Electric Co., Ltd.
 87-3 Okawara, Koriyama-shi, Fukushima 963-8828 Japan
 2) Hirose Electric (Dongguan) Co., Ltd.
 Shen Gjing Gong Ye Qu Su Xin Gun Lu Duar, Chan Ma Gong Lu Chang Ping
 Zhen, Dong Guan City Guang Dong Province P. R. China

Type or Model Number: DF60F(R)-3P-10.16DSAz, DF60F(R)-3EP-10.16C
 DF60F(R)-3S-10.16Cz, DF60F(R)-3S-10.16Cz,
DF60FS(R)-3S-10.16Cz

DF60F(R)-2P-10.16DSAz, DF60F(R)-2EP-10.16Cz
 DF60F(R)-2S-10.16Cz, DF60F(R)-2S-10.16Cz,
DF60FS(R)-2S-10.16Cz

Accessories of contacts: DF60-8SCFA, DF60-8SCA, DF60-1012SCFA, DF60-1012SCA, DF60-8PCFA(07), DF60-8PCA(07), DF60-1012PCFA(07), DF60-1012PCA(07), **DF60S-8SCFA, DF60S-8SCA, DF60S-1012SCFA, DF60S-1012SCA**

 Kind of device: **Connectors**

Specifications			
Type designation	See type nomenclature.		
Contact material	Male contact,Crimp contact:Copper alloy, gold plating		
Number of poles	2 or 3 (10.16mm pitch)		
Rated voltage	AC / DC 600 V		
Rated current	Conductor size (AWG SIZE)	2pos	3pos
	AWG #8	45 A	42A
	AWG #10	35 A	34A
	AWG #12	28 A	28A
Mechanical endurance	30 times		
Classification	<input type="checkbox"/> CBC	<input checked="" type="checkbox"/> COC (Non CBC)	<input type="checkbox"/> other
Number of bendings (non-rewirable terminals only)	N/A		
Upper limit temperature	105°C		
Lower limit temperature	-55°C		
Maximum ambient temperature at rated current	75°C		

TÜV Rheinland

 25 January
 2024

(Date)



(Signature)

Yokohama, Japan

(Place)

25 January 2024

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Kenichi SATO

(Stamp and Signature of Applicant)



Constructional Data Form for Connector

Page 2/5

Classification of Connectors <input checked="" type="checkbox"/> COC <input type="checkbox"/> CBC						
Type of connector	Style	Enclosure		Cable Clamp		Function
Socket DF60F(R) – *S – 10.16 C (z) DF60FS(R) – *S – 10.16 C (z)	<input checked="" type="checkbox"/> Free Connector <input type="checkbox"/> Fixed Connector	<input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Un-enclosed	<input checked="" type="checkbox"/> Hand Back Safety mated <input type="checkbox"/> Hand Back Safety unmated <input checked="" type="checkbox"/> Finger Safety mated <input checked="" type="checkbox"/> Finger Safety unmated <input type="checkbox"/> IP67 mated <input type="checkbox"/> P20 unmated	<input type="checkbox"/> with additional insulation bushing <input checked="" type="checkbox"/> without	Applicable Cable Size Range: N/A	<input type="checkbox"/> with PE <input checked="" type="checkbox"/> without PE
		*1) Protection class mated: <input checked="" type="checkbox"/> built in <input type="checkbox"/> Class II <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Hand Back Safety mated <input type="checkbox"/> Hand Back Safety unmated <input checked="" type="checkbox"/> Finger Safety mated <input checked="" type="checkbox"/> Finger Safety unmated <input type="checkbox"/> IP67 mated <input type="checkbox"/> IP20 unmated	<input type="checkbox"/> with additional insulation bushing <input checked="" type="checkbox"/> without		<input type="checkbox"/> with interlock <input checked="" type="checkbox"/> without interlock
Header DF60F(R)– *P – 10.16DSA (z)	<input type="checkbox"/> Free Connector <input checked="" type="checkbox"/> Fixed Connector	<input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Un-enclosed	<input checked="" type="checkbox"/> Hand Back Safety mated <input type="checkbox"/> Hand Back Safety unmated <input checked="" type="checkbox"/> Finger Safety mated <input checked="" type="checkbox"/> Finger Safety unmated <input type="checkbox"/> IP67 mated <input type="checkbox"/> IP20 unmated	<input type="checkbox"/> with additional insulation bushing <input checked="" type="checkbox"/> without	Applicable Cable Size Range: N/A	<input type="checkbox"/> with PE <input checked="" type="checkbox"/> without PE
		*1) Protection class mated: <input checked="" type="checkbox"/> built in <input type="checkbox"/> Class II <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Hand Back Safety mated <input type="checkbox"/> Hand Back Safety unmated <input checked="" type="checkbox"/> Finger Safety mated <input checked="" type="checkbox"/> Finger Safety unmated <input type="checkbox"/> IP67 mated <input type="checkbox"/> IP20 unmated	<input type="checkbox"/> with additional insulation bushing <input checked="" type="checkbox"/> without		<input type="checkbox"/> with interlock <input checked="" type="checkbox"/> without interlock
In-line Plug DF60F(R) – *EP – 10.16 C (z)	<input checked="" type="checkbox"/> Free Connector <input type="checkbox"/> Fixed Connector	<input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Un-enclosed	<input checked="" type="checkbox"/> Hand Back Safety mated <input type="checkbox"/> Hand Back Safety unmated <input checked="" type="checkbox"/> Finger Safety mated <input checked="" type="checkbox"/> Finger Safety unmated <input type="checkbox"/> IP67 mated <input type="checkbox"/> IP20 unmated	<input type="checkbox"/> with additional insulation bushing <input checked="" type="checkbox"/> without	Applicable Cable Size Range: N/A	<input type="checkbox"/> with PE <input checked="" type="checkbox"/> without PE
		*1) Protection class mated: <input checked="" type="checkbox"/> built in <input type="checkbox"/> Class II <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Hand Back Safety mated <input type="checkbox"/> Hand Back Safety unmated <input checked="" type="checkbox"/> Finger Safety mated <input checked="" type="checkbox"/> Finger Safety unmated <input type="checkbox"/> IP67 mated <input type="checkbox"/> IP20 unmated	<input type="checkbox"/> with additional insulation bushing <input checked="" type="checkbox"/> without		<input type="checkbox"/> with interlock <input checked="" type="checkbox"/> without interlock

Remark: *1)The protection class of components is dependent upon the equipment in which they are used, these connectors are intended for class I equipment normally.

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Constructional Data Form for Connector

Page 3/5

Insulation Coordination	
Overvoltage category	III
Pollution degree	2
Insulation voltage	AC/DC 600V
Test voltages	3310Vac
Minimum creepage distances (mated)	1) Between poles/Contacts : (terminals of socket) Fixed Connector (Socket + Header): ≥ 9.5mm Free Connector (Socket + In-line Socket): ≥ 8.8mm 2) Contacts – Mounting Surface/mating surface Fixed Connector (Socket + Header): ≥ 10.0 mm Free Connector (Socket + In-line Socket): ≥ 10.0 mm
Minimum clearance distances (mated)	1) Between poles/Contacts : (terminals of socket) Fixed Connector (Socket + Header): ≥ 5.6mm Free Connector (Socket + In-line Socket): ≥ 8.8mm 2) Contacts – Mounting Surface/mating surface Fixed Connector (Socket + Header): ≥ 10.0 mm Free Connector (Socket + In-line Socket): ≥ 10.0 mm
Insulation system (IEC 60664-1)	Contact – Contact : <input checked="" type="checkbox"/> basic <input type="checkbox"/> reinforced <input type="checkbox"/> NA Contacts – Mounting Surface: <input checked="" type="checkbox"/> basic <input type="checkbox"/> reinforced <input type="checkbox"/> NA

Specifications of Terminals / Connection _ <input checked="" type="checkbox"/> Rewirable <input type="checkbox"/> Non-rewirable	
Type of terminals	<input checked="" type="checkbox"/> solder(Header) <input checked="" type="checkbox"/> crimp(Socket, In-line plug)
Terminal designation	Marking of the terminals: 1, 2, 3
Spec. Tightening torque	N/A
Rated cross section of conductor	8.92mm ² - 5.52 mm ² (AWG#8 – AWG#12)
Type of conductor	Flexible
Required preparation of the conductor	N/A
Max. Stripping length	7.5mm
Max. Number of conductors per terminal	1

Materials			
Type designation	See Nomenclature		
Contact material	Crimp contact:Copper alloy, gold plating		
Contact block (housing)	Insulator	Header / In-line Plug	Socket
Mitsubishi Engineering-Plastics Co., LTD Black : PBT 5010GN1-15AM -BK88 Red : PBT 5010GN1-15AM -RD1094			

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Constructional Data Form for Connector

Page 4/5

TYPE NOMENCLATURE:**1. Header**

Example: DF60Fw – x P – 10.16DSA z
(i) (ii) (iii) (iv) (v)

(i) Keying
none or R

(ii) Number of contacts: 2 or 3

(iii) Contact type
P: male contact

(iv) Contact pitch : 10.16mm

(v) Customer specifications
none or (01) to (99)

2. Socket

Example: DF60F u w – x S – 10.16 C z
(i) (ii) (iii) (iv) (v) (vi)

(i) connector style
none or S

(ii) Keying
none or R

(iii) Number of contacts: 2 or 3

(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)

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Constructional Data Form for Connector

Page 5/5

3. In-line Plug**Example: DF60Fw – x EP – 10.16 C z**
(i) (ii) (iii) (iv) (v) (vi)

(i) Keying

none or R

(ii) Number of contacts: 2 or 3

(iii) Contact type

EP: In-line male contact

(iv) Contact pitch :10.16mm

(v) Connector type

C: Crimp housing

(vi) Customer specifications

none or (01) to (99)

4. Crimp contact**Example: DF60 s – v y z**
(i) (ii) (iii) (iv)

(i) style

None: Standard

S: with side feed connector

(ii) Applicable conductor

8: AWG8

1012: AWG10-12

(iii) Packaging

PCFA : plug contact , reel

PCA : plug contact , bag

SCFA : socket contact , reel

SCA : socket contact , bag

(iv) none or (01) to (99)

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