TeSys® DF IEC-Type Fuseholders

Catalog
9080CT0801

08



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Schneider Electric

TeSys® DF IEC-Type Fuseholders
Fuseholders

Fuseholder type			DF8		DF10		DF14		DF22		DFCC	
Environment characteristics												
Conforming to standards			IEC 60947-3, UL 512, CSA 22-2 n° 39									
Protective treatment			"TH," treatment for hot and humid environments									
Degree of protection	Conforming to IEC 60529		IP 20									
Ambient air temperature	Storage	**°C (°F)**	- 40…+ 80 (- 40...+ 176)									
	For operation, with derating *(1)*	**°C (°F)**	- 20…+ 60 (- 4...+ 140)									
Flame resistance	Conforming to IEC 60695-2-1	**°C (°F)**	960 (1760)									
Pole characteristics												
Fuse size		**mm (inch)**	8.5 x 31.5 (0.3 x 1.2)		10 x 38 (0.4 x 1.5)		14 x 51 (0.6 x 51)		22 x 58 (0.9 x 2.3)		10 x 38 (0.4 x 1.5) CC fuse	
Utilization category			AC20B									
Rated insulation voltage (Ui) with tubular links, a.c. supply		**V**	500		690		690		690		600	
Rated operational		**Hz**	50/60									
Rated impulse withstand voltage (Uimp)		**kV**	6		6		8		8		6	
Conventional thermal current (Ith) for ambient air temperature ≤ 40 °C *(1)*												
	With tubular links	**A**	25		32		50		125		30	
	With aM cartridge fuses	**A**	25		32		50		125		30	
	With gG cartridge fuses	**A**	25		32		50		100		30	
Short-circuit characteristics (with tubular links)												
	Permissible short-time rating (low) (rms value Cos φ = 0.35) Conforming to IEC 60947-3	**A**	300		385		800		1200		300	
	Maximum permissible peak value (dynamic stress) Conforming to IEC 60269-1	**kA**	11		15		15		19		11	
Certifications			—		c UL us File E310269 CCN IZLT2 File E310269 CCN IZLT8						UL E310269 CCN IZLT	
Wire sizes (number of conductors x c.s.a.)			**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**	**Min.**	**Max.**
	Solid wire	**mm² (AWG)**	1 x 1.5 (1 x 16)	1 x 6 (1 x 16) 2 x 6 (2 x 10)	1 x 1.5 (1 x 16)	1 x 6 (1 x 16) 2 x 6 (2 x 10)	1 x 2.5 (1 x 14)	1 x 25 (1 x 4) 2 x 10 (2 x 8)	1 x 2.5 (1 x 14)	1 x 35 (1 x 2) 2 x 25 (2 x 4)	1 x 1.5 (1 x 16)	1 x 16 (1 x 6) 2 x 6 (2 x 10)
	Flexible wire without cable end	**mm² (AWG)**	1 x 1.5 (1 x 16)	1 x 6 (1 x 16) 2 x 6 (2 x 10)	1 x 1.5 (1 x 16)	1 x 6 (1 x 16) 2 x 6 (2 x 10)	1 x 2.5 (1 x 14)	1 x 25 (1 x 4) 2 x 10 (2 x 8)	1 x 2.5 (1 x 14)	1 x 35 (1 x 2) 2 x 25 (2 x 4)	1 x 1.5 (1 x 16)	1 x 16 (1 x 6) 2 x 6 (2 x 10)
	Flexible wire with cable end	**mm² (AWG)**	1 x 1.5 (1 x 16)	1 x 6 (1 x 16) 2 x 6 (2 x 10)	1 x 1.5 (1 x 16)	1 x 6 (1 x 16) 2 x 6 (2 x 10)	1 x 2.5 (1 x 14)	1 x 25 (1 x 4) 2 x 10 (2 x 8)	1 x 2.5 (1 x 14)	1 x 35 (1 x 2) 2 x 25 (2 x 4)	1 x 1.5 (1 x 16)	1 x 16 (1 x 6) 2 x 6 (2 x 10)
Tightening torque		**Nm (lb-in)**	2.2 (19)				3.5 (31)		4 (35)		2.2 (19)	

Characteristics of early break and signalling contacts DF14AM and DF22AM						
Rated insulation voltage (Ui) a.c. supply		**V**	250			
Conventional thermal current (Ith) for ambient air temperature ≤ 40 °C *(1)*		**A**	5			
Rated operational current			**24 V**	**48 V**	**127 V**	**240 V**
	Category AC-15	**A**	4	4	3	2.5
	Category DC-13	**A**	3	1	0.2	0.1
Definition of rated characteristics	Conforming to IEC 60947-5-1		B300			
Low load operating characteristics	Minimum voltage	**V**	10			
	Minimum current	**mA**	30			
Cabling			Faston connectors			

(1) For use in an installation with ambient temp. > 20 °C (68 °F), apply a derating coefficient:

Max temperature °C (°F)	20 (68)	30 (86)	40 (104)	50 (122)	60 (140)
Max. relative humidity	95 %	90 %	80 %	50 %	50 %
Current derating coefficient	1	0.95	0.9	0.8	0.7

TeSys® DF IEC-Type Fuseholders
Fuseholders


106786

DF101


106788

DF103N


106793

DF141


106795

DF143NC


106823

DF221


106825

DF223NC


106791

DF101NV


106792

DF103V


106834

DF141NV


106822

DF143VC


106834

DF221NV


106835

DF223VC

Fuseholders *(1)*

Conventional thermal current (Ith)	Size of cartridge fuse or link	Composition P = Poles(s) N = Neutral	Sold in lots of	Catalog numbers	Weight
A	mm (inch)				kg (oz)
25	8.5 x 31.5 (0.3 x 1.2)	1 P	**12**	**DF81**	0.061 (2.15)
		N	**12**	**DF10N**	0.071 (2.50)
		1 P + N *(2)*	**6**	**DF81N**	0.132 (4.66)
		2 P	**6**	**DF82**	0.122 (4.30)
		3 P	**4**	**DF83**	0.183 (6.46)
		3 P + N *(2)*	**3**	**DF83N**	0.254 (8.96)
32	10 x 38 (0.4 x 1.5)	1 P	**12**	**DF101**	0.061 (2.15)
		N	**12**	**DF10N**	0.071 (2.50)
		1 P + N *(2)*	**6**	**DF101N**	0.132 (4.66)
		2 P	**6**	**DF102**	0.122 (4.30)
		3 P	**4**	**DF103**	0.183 (6.46)
		3 P + N *(2)*	**3**	**DF103N**	0.254 (8.96)
50	14 x 51 (0.6 x 2.0)	1 P	**6**	**DF141**	0.140 (4.94)
		N	**6**	**DF14N**	0.150 (5.29)
		1 P + N *(2)*	**3**	**DF141N**	0.290 (10.23)
		2 P	**3**	**DF142**	0.280 (9.88)
		3 P	**2**	**DF143C** *(3)*	0.420 (14.82)
		3 P + N *(2)*	**1**	**DF143NC** *(3)*	0.570 (20.11)
125	22 x 58 (0.9 x 2.3)	1 P	**6**	**DF221**	0.218 (7.69)
		N	**6**	**DF22N**	0.238 (8.40)
		1 P + N *(2)*	**3**	**DF221N**	0.456 (16.09)
		2 P	**3**	**DF222**	0.436 (15.38)
		3 P	**2**	**DF223C** *(3)*	0.654 (23.07)
		3 P + N *(2)*	**1**	**DF223NC** *(3)*	0.892 (31.46)

Fuseholders with "blown fuse" indicators (neon) *(1) (4)*

Conventional thermal current (Ith)	Size of cartridge fuse or link	Composition P = Pole(s) N = Neutral	Sold in lots of	Catalog numbers	Weight
A	mm (inch)				kg (oz)
25	8.5 x 31.5 (0.3 x 1.2)	1 P	**12**	**DF81V**	0.064 (2.26)
		1 P + N *(2)*	**6**	**DF81NV**	0.135 (4.76)
		2 P	**6**	**DF82V**	0.125 (4.41)
		3 P	**4**	**DF83V**	0.186 (6.56)
		3 P + N *(2)*	**3**	**DF83NV**	0.257 (9.07)
32	10 x 38 (0.4 x 1.5)	1 P	**12**	**DF101V**	0.064 (2.26)
		1 P + N *(2)*	**6**	**DF101NV**	0.135 (4.76)
		2 P	**6**	**DF102V**	0.125 (4.41)
		3 P	**4**	**DF103V**	0.186 (6.56)
		3 P + N *(2)*	**3**	**DF103NV**	0.257 (9.07)
50	14 x 51 (0.6 x 2.0)	1 P	**6**	**DF141V**	0.143 (5.04)
		1 P + N *(2)*	**3**	**DF141NV**	0.293 (10.34)
		2 P	**3**	**DF142V**	0.283 (9.98)
		3 P	**2**	**DF143VC** *(3)*	0.423 (14.92)
		3 P + N *(2)*	**1**	**DF143NVC** *(3)*	0.573 (20.21)
125	22 x 58 (0.9 x 2.3)	1 P	**6**	**DF221V**	0.221 (7.80)
		1 P + N *(2)*	**3**	**DF221NV**	0.459 (16.19)
		2 P	**3**	**DF222V**	0.439 (15.49)
		3 P	**2**	**DF223VC** *(3)*	0.657 (23.18)
		3 P + N *(2)*	**1**	**DF223NVC** *(3)*	0.895 (31.57)

(1) Each pole can be marked. A clip-in marker holder is provided for this purpose. Clip-in markers type AB1 R● or AB1 G● can also be used.
(2) N: neutral pole fitted with a locked tubular link as standard.
(3) A letter "C" in the catalog number indicates that the fuseholder can be fitted with auxiliary early break, "blown fuse" signalling and "fuse present" signalling contacts.
(4) Operational voltage of the blown fuse indicator: 110 V...690 V.

TeSys® DF IEC-Type Fuseholders
Fuseholders

106786



DFCC1V

106786



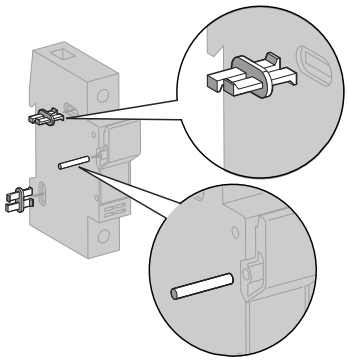
DFCC3V

106836



DF14 AM●

524196



Detail of assembly clip and pin mounting

Fuseholders *(1)*

Conventional thermal current (Ith)	Size of cartridge fuse or link	Composition P = Poles	Sold in lots of	Catalog numbers	Weight
A					kg (oz)
30	Class CC	1 P	**12**	**DFCC1**	0.061 (2.15)
		2 P	**6**	**DFCC2**	0.122 (4.30)
		3 P	**4**	**DFCC3**	0.183 (6.46)

Fuseholders with "blown fuse" indicators (neon) *(1)*

Conventional thermal current (Ith)	Size of cartridge fuse or link	P = Poles	Sold in lots of	Catalog numbers	Weight
A					kg (oz)
30	Class CC	1 P	**12**	**DFCC1V**	0.064 (2.26)
		2 P	**6**	**DFCC2V**	0.125 (4.41)
		3 P	**4**	**DFCC3V**	0.186 (6.56)

Accessories

Auxiliary early break and "blown fuse" signalling contacts *(2)*

	Size of cartridge fuse or link mm (inch)	Number of contacts	Sold in lots of	Catalog numbers	Weight kg (oz)
DF14	14 x 51 (0.6 x 20)	1	**1**	**DF14AM1**	0.025 (0.88)
		2	**1**	**DF14AM2**	0.029 (1.02)
DF22	22 X 58 (0.9 x 2.3)	1	**1**	**DF22AM1**	0.032 (1.13)
		2	**1**	**DF22AM2**	0.035 (1.23)

Fuseholder assembly kits *(3)*

Fuseholders to be assembled	Size of cartridge fuse or link mm (inch)	Composition	Sold in lots of	Catalog numbers	Weight kg (oz)
DF8	8.5 x 31.5 (0.3 x 1.2)	12 pins, 24 clips	**12**	**DF10AP**	0.007 (0.25)
DF10	10 x 38 (0.4 x 1.5)				
DF14	14 x 51 (0.6 x 2.0)	10 pins, 30 clips	**10**	**DF14AP**	0.025 (0.88)
DF22	22 x 58 (0.9 x 2.3)	10 pins, 30 clips	**10**	**DF22AP**	0.028 (0.99)

Marking accessories

Description	Composition	Marking	Sold in lots of	Catalog numbers	Weight kg (oz)
Clip-in markers	Strip of 10 identical numbers or letters	0…9	**25**	**AB1R●** *(4)*	0.002 (0.07)
		A…Z	**25**	**AB1G●** *(4)*	0.002 (0.07)

(1) Each pole can be marked. A clip-in marker holder is provided for this purpose. Clip-in markers type AB1 R● or AB1 G● can also be used.
(2) These auxiliary contacts provide the following functions: early break, "blown fuse" signalling (if the Fuseholder is fitted with striker fuses) and "fuse present" signalling.
(3) 1 pin and 2 clips are required to assemble two DF8 or DF10 fuseholders together. 1 pin and 3 clips are required to assemble two DF14 or DF22 fuseholders together.
*(4) When ordering, replace the ● in the catalog number with the number or letter required. Example: **AB1-R1** or **AB1-GA.***

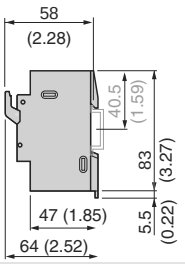
Note:
DF10 and DFCC fuseholders have been subjected to a current withstand of Ip = 9 kA and 12T = 38 kA2s at 800 V ac maximum, 200 kA.
DF14 fuseholders have been subjected to a current withstand of Ip = 24.2 kA and 12T = 130 kA2s at 750 V ac maximum, 200 kA.
DF22 fuseholders have been subjected to a current withstand of Ip = 20.4 kA and 12T = 141 kA2s at 750 V ac maximum, 200 kA.
DF10, DF14, and DF22 devices accept fuses which provide supplementary protection and have not been evaluated by UL for use where branch circuit protection is needed.

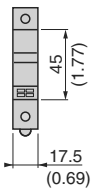
Dimensions: mm (inch)

Modular fuseholders 25 A and 32 A

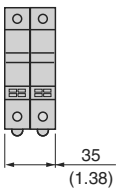
Mounting on 35 mm ⊥ rail

DF81 and DF81V
DF101 and DF101V
DF10N
DFCC1 and DFCC1V

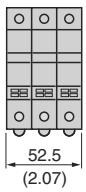




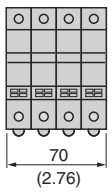
DF81N and DF81NV
DF82 and DF82V
DF101N and DF101NV
DF102 and DF102V
DFCC2 and DFCC2V



DF83 and DF83V
DF103 and DF103V
DFCC3 and DFCC3V



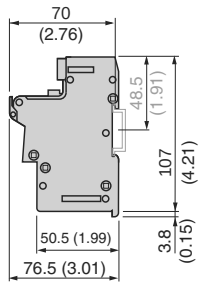
DF83N and DF83NV
DF103N and DF103NV

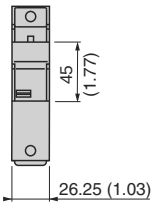


Modular fuseholders 50 A

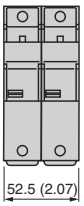
Mounting on 35 mm ⊥ rail

DF141 and DF141V
DF14N

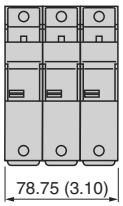




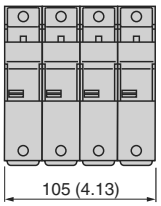
DF141N and DF141NV
DF142 and DF142V



DF143C and DF143VC



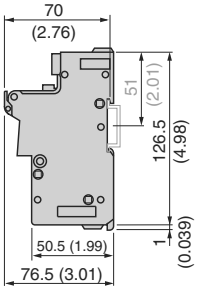
DF143NC and DF143NVC

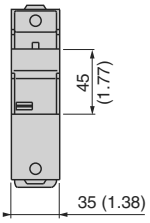


Modular fuseholders 125 A

Mounting on 35 mm ⊥ rail

DF221 and DF221V
DF22N

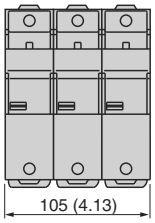




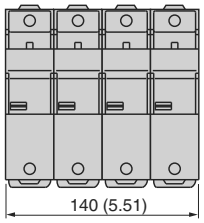
DF221N and DF221NV
DF222 and DF222V



DF223C and DF223VC



DF223NC and DF223NVC



Wiring diagrams

Modular fuseholders

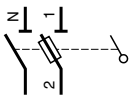
DF● 1P



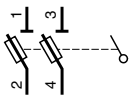
DF● N



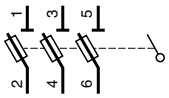
DF● 1P + N



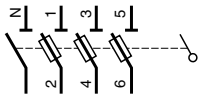
DF● 2P



DF● 3P



DF● 3P + N

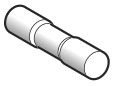


TeSys® DF IEC-Type Fuseholders

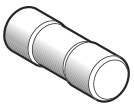
DF6 and GK1 Cartridge fuses



DF2CA•••



DF2EA•••



DF2FA••

Cartridge fuses without striker, Type aM

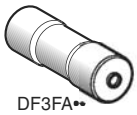
Cartridge fuse type	Maximum rated voltage	Rating	Sold in lots of	Catalog numbers	Weight
mm (inch)	Vac	A			g (oz)
Cylindrical 8.5 x 31.5 (0.3 x 1.2)	400	1	**10**	**DF2BA0100**	10 (0.35)
		2	**10**	**DF2BA0200**	10 (0.35)
		4	**10**	**DF2BA0400**	10 (0.35)
		6	**10**	**DF2BA0600**	10 (0.35)
		8	**10**	**DF2BA0800**	10 (0.35)
		10	**10**	**DF2BA1000**	10 (0.35)
Cylindrical 10 x 38 (0.4 x 1.5)	500	0.16	**10**	**DF2CA001**	10 (0.35)
		0.25	**10**	**DF2CA002**	10 (0.35)
		0.50	**10**	**DF2CA005**	10 (0.35)
		1	**10**	**DF2CA01**	10 (0.35)
		2	**10**	**DF2CA02**	10 (0.35)
		4	**10**	**DF2CA04**	10 (0.35)
		6	**10**	**DF2CA06**	10 (0.35)
		8	**10**	**DF2CA08**	10 (0.35)
		10	**10**	**DF2CA10**	10 (0.35)
		12	**10**	**DF2CA12**	10 (0.35)
		16	**10**	**DF2CA16**	10 (0.35)
	400	20	**10**	**DF2CA20**	10 (0.35)
		25	**10**	**DF2CA25**	10 (0.35)
Cylindrical 14 x 51 (0.6 x 2.0)	500	0.25	**10**	**DF2EA002**	20 (0.71)
		0.50	**10**	**DF2EA005**	20 (0.71)
		1	**10**	**DF2EA01**	20 (0.71)
		2	**10**	**DF2EA02**	20 (0.71)
		4	**10**	**DF2EA04**	20 (0.71)
		6	**10**	**DF2EA06**	20 (0.71)
		8	**10**	**DF2EA08**	20 (0.71)
		10	**10**	**DF2EA10**	20 (0.71)
		12	**10**	**DF2EA12**	20 (0.71)
		16	**10**	**DF2EA16**	20 (0.71)
		20	**10**	**DF2EA20**	20 (0.71)
		25	**10**	**DF2EA25**	20 (0.71)
		32	**10**	**DF2EA32**	20 (0.71)
		40	**10**	**DF2EA40**	20 (0.71)
	400	50	**10**	**DF2EA50**	20 (0.71)
C ylindrical 22 x 58 (0.9 x 2.3)	690	4	**10**	**DF2FA04**	45 (1.59)
		6	**10**	**DF2FA06**	45 (1.59)
		8	**10**	**DF2FA08**	45 (1.59)
		10	**10**	**DF2FA10**	45 (1.59)
		16	**10**	**DF2FA16**	45 (1.59)
		20	**10**	**DF2FA20**	45 (1.59)
		25	**10**	**DF2FA25**	45 (1.59)
		32	**10**	**DF2FA32**	45 (1.59)
		40	**10**	**DF2FA40**	45 (1.59)
		50	**10**	**DF2FA50**	45 (1.59)
	500	63	**10**	**DF2FA63**	45 (1.59)
		80	**10**	**DF2FA80**	45 (1.59)
		100	**10**	**DF2FA100**	45 (1.59)
	400	125	**10**	**DF2FA125**	45 (1.59)

TeSys® DF IEC-Type Fuseholders

DF6 and GK1 Cartridge fuses



DF3EA••



DF3FA••

Cartridge fuses with striker, Type aM

Cartridge fuse type	Maximum rated voltage	Rating	Sold in lots of	Catalog numbers	Weight
mm (inch)	Vac	A			g (oz)
Cylindrical 14 x 51 (0.6 x 2.0)	500	2	**10**	**DF3EA02**	20 (0.71)
		4	**10**	**DF3EA04**	20 (0.71)
		6	**10**	**DF3EA06**	20 (0.71)
		8	**10**	**DF3EA08**	20 (0.71)
		10	**10**	**DF3EA10**	20 (0.71)
		12	**10**	**DF3EA12**	20 (0.71)
		16	**10**	**DF3EA16**	20 (0.71)
		20	**10**	**DF3EA20**	20 (0.71)
		25	**10**	**DF3EA25**	20 (0.71)
		32	**10**	**DF3EA32**	20 (0.71)
		40	**10**	**DF3EA40**	20 (0.71)
	400	50	**10**	**DF3EA50**	20 (0.71)
C ylindrical 22 x 58 (0.9 x 2.3)	690	4	**10**	**DF3FA04**	45 (1.59)
		6	**10**	**DF3FA06**	45 (1.59)
		8	**10**	**DF3FA08**	45 (1.59)
		10	**10**	**DF3FA10**	45 (1.59)
		16	**10**	**DF3FA16**	45 (1.59)
		20	**10**	**DF3FA20**	45 (1.59)
		25	**10**	**DF3FA25**	45 (1.59)
		32	**10**	**DF3FA32**	45 (1.59)
		40	**10**	**DF3FA40**	45 (1.59)
		50	**10**	**DF3FA50**	45 (1.59)
	500	63	**10**	**DF3FA63**	45 (1.59)
		80	**10**	**DF3FA80**	45 (1.59)
		100	**10**	**DF3FA100**	45 (1.59)
	400	125	**10**	**DF3FA125**	45 (1.59)

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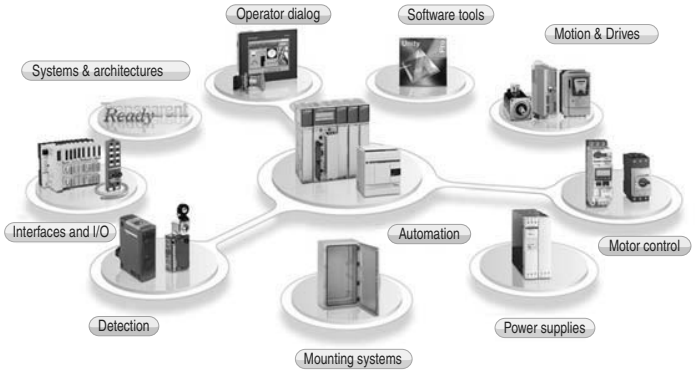

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