

D70QS Series aR 700VDC

Fast-Acting DC Fuses

HIGH SPEED DC FUSES

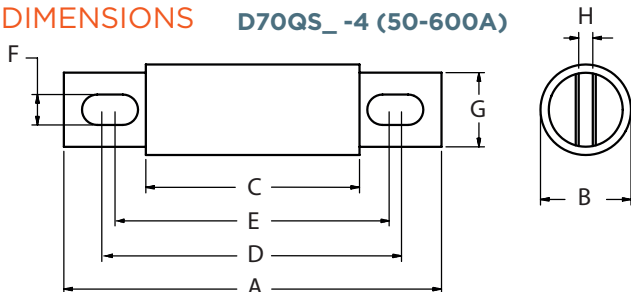


Electrification in construction, marine, agriculture, manufacturing, mining, and other industries, in addition to transportation, is a critical trend in cleaner energy. The D70QS North American style round body high-speed fuse series is Mersen's next evolution for high-power conversion applications protection for those industries shifting to Direct Current(DC) systems today. The D70QS fuse series is specifically designed to reduce the I²t, peak let-through current, and arc voltages during fault conditions to protect applications such as battery charging systems and other DC components like relays and contactors.

Technical Data Overview

DC Ratings	50-600A, 700VDC, L/R ≤1ms, 20kA IR
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DIMENSIONS D70QS_ -4 (50-600A)



Article Number	A	B	C	D	E	F	G	H
D70QS50 to 100 in (mm)	3.63 [92.2]	1 [25.4]	2.13 [54.1]	2.94 [74.7]	2.75 [69.8]	0.31 [7.9]	0.50 [19]	0.13 [3.2]
D70QS125 to 200 in (mm)	3.63 [92.2]	1.22 [31]	2.13 [54.1]	2.94 [74.7]	2.81 [71.4]	0.31 [7.9]	1 [25.4]	0.19 [4.8]
D70QS225 to 400 in (mm)	4.34 [110]	1.50 [38.1]	2.09 [53.1]	3.41 [86.6]	2.78 [70.6]	0.41 [10.4]	1 [25.4]	0.25 [6.4]
D70QS450 to 600 in (mm)	4.47 [114]	2 [50.8]	2.22 [56.4]	3.53 [89.7]	2.91 [73.9]	0.41 [10.4]	1.5 [38.1]	0.25 [6.4]

FEATURES/BENEFITS

- Lower I²t performance for improved protection of equipment
- Superior cycling ability for long, reliable life on high cyclic loading
- Low watts losses
- High Interrupting rating for optimal short circuit protection

APPLICATIONS

- High Power battery charging and management systems protection
- Energy Storage Systems (ESS)
- Electrical Energy Storage (EES)
- Battery Disconnect Unit (BDU)
- Battery pack protection
- DC Fast-Charging station for EV applications
- Backup protection for DC relay/disconnector/switch
- Protection of 700VDC or less, UPS and inverters

APPROVALS/STANDARDS

- UL Recognized
UL File: E60314
DC: 50-600A, 700VDC
- Power Cycling & Vibration
- REACH/RoHS compliant



PRODUCT RANGE



D70QS100-4

D70QS 50-100A Round Body Fuse

Catalog number	Rated DC voltage	Rated current I_n	Power dissipation at 0.5 I_n	Min. breaking capacity (MBC)*	Max. time to clear MBC	Weight
D70QS50-4	700 V	50 A	1.4 W	380 A	50 ms	99 g
D70QS60-4	700 V	60 A	1.8 W	460 A	50 ms	99 g
D70QS70-4	700 V	70 A	2.2 W	540 A	50 ms	99 g
D70QS80-4	700 V	80 A	2.5 W	610 A	50 ms	99 g
D70QS90-4	700 V	90 A	2.7 W	690 A	50 ms	99 g
D70QS100-4	700 V	100 A	3.1 W	760 A	50 ms	99 g



D70QS200-4

D70QS 125-200A Round Body Fuse

Catalog number	Rated DC voltage	Rated current I_n	Power dissipation at 0.5 I_n	Min. breaking capacity (MBC)*	Max. time to clear MBC	Weight
D70QS125-4	700 V	125 A	3.8 W	870 A	60 ms	0.17 kg
D70QS150-4	700 V	150 A	4.5 W	1040 A	60 ms	0.17 kg
D70QS175-4	700 V	175 A	5.2 W	1210 A	60 ms	0.17 kg
D70QS200-4	700 V	200 A	5.9 W	1380 A	60 ms	0.17 kg



D70QS400-4

D70QS 225-400A Round Body Fuse

Catalog number	Rated DC voltage	Rated current I_n	Power dissipation at 0.5 I_n	Min. breaking capacity (MBC)*	Max. time to clear MBC	Weight
D70QS225-4	700 V	225 A	6.7 W	1190 A	140 ms	0.26 kg
D70QS250-4	700 V	250 A	7.4 W	1320 A	140 ms	0.26 kg
D70QS300-4	700 V	300 A	8.8 W	1580 A	140 ms	0.26 kg
D70QS350-4	700 V	350 A	10.2 W	1840 A	140 ms	0.26 kg
D70QS400-4	700 V	400 A	11.7 W	2100 A	140 ms	0.26 kg



D70QS600-4

D70QS 450-600A Round Body Fuse

Catalog number	Rated DC voltage	Rated current I_n	Power dissipation at 0.5 I_n	Min. breaking capacity (MBC)*	Max. time to clear MBC	Weight
D70QS450-4	700 V	450 A	12.4 W	2200 A	360 ms	0.52 kg
D70QS500-4	700 V	500 A	13.9 W	2460 A	360 ms	0.52 kg
D70QS600-4	700 V	600 A	16.6 W	2950 A	360 ms	0.52 kg

*Time Constant: L/R ≤ 1ms

ACCESSORIES



P243C

Fuse blocks

Catalog number	Item number	Rated DC voltage	Application DC Fuses	Contact Materials	Weight
P243 Fuse blocks					
P243C	P243C	700 V	D70QS fuses from 225 to 600A	Tin-Plated Copper	0.12 kg
P266 Fuse blocks					
P266A	P266A	1000 V	D100QS fuses from 225 to 300A	Stainless Steel	0.39 kg
1SC/1MSC Modular Fuse blocks					
1SCM8	1SCM8	1000 V	D100QS up to 200A and D70QS up to 400A	Zinc-Plated Steel	68 g
1SC250	1SC250	1000 V	D100QS up to 200A and D70QS up to 400A	Zinc-Plated Steel	68 g
1SC375	1SC375	1000 V	D100QS 225A-300A and D70QS 450A-600A	Zinc-Plated Steel	68 g
1SCM10	1SCM10	1000 V	D100QS 225A-300A and D70QS 450A-600A	Zinc-Plated Steel	68 g



1SC250