



ATX 1000 Vdc / 1300Vac EV FUSE



DESCRIPTION

Adler ATX series EV fuses are specially engineered and tested to provide best-in-class protection performance in protecting high power battery charging and managing systems of Electrical Vehicles and Hybrid Electrical Vehicles, up to 1000 Vdc (800Vdc)/1300Vac (1100Vac) in ratings from 160A to 1400A.

FEATURES

- Reliable clearing of DC fault currents
- High cycling performance
- Low watt losses
- Ultra-compact size and power density
- High breaking capacity to 50kA@1000Vdc time constant 1-3ms/ 100kA@1300Vac
- Full coverage of battery module current
- Low costs
- QR code marks on each fuse for traceability
- Optional micro switch available PN: MS0003

AGENCY INFORMATION

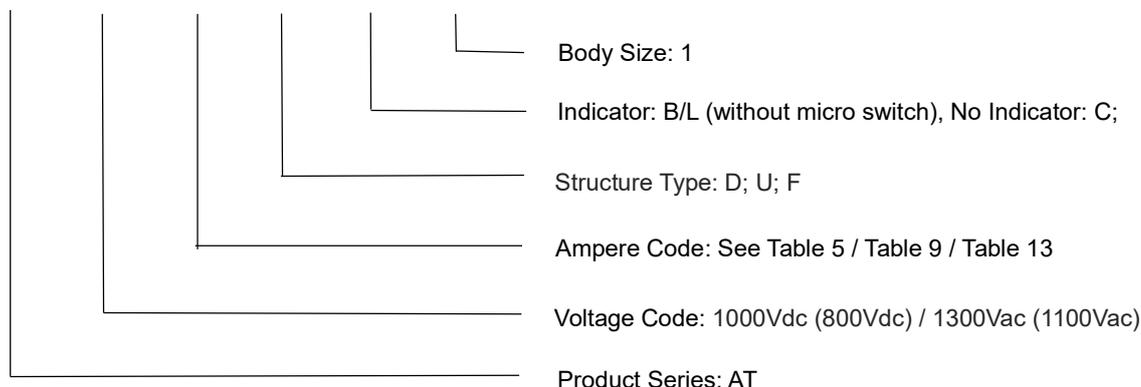
- Designed to IEC60269, UL248
- Manufactured under IATF 16949 quality system
- RoHS and REACH Compliant

APPLICATION

- Battery Charging Protection
- Low BDU Protection

PART NUMBERING SYSTEM

AT X 3160 D C 1

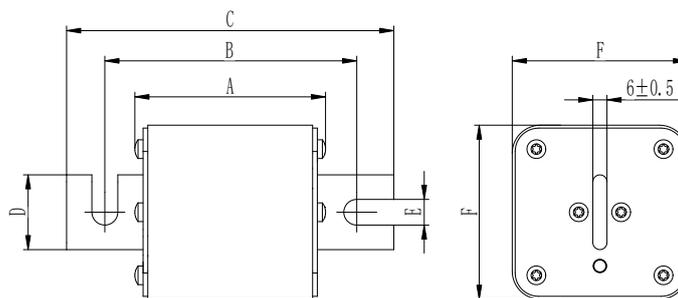




EV AUTOMOTIVE FUSE LINKS

DIMENSIONS (mm):

ATXxxxxDCx

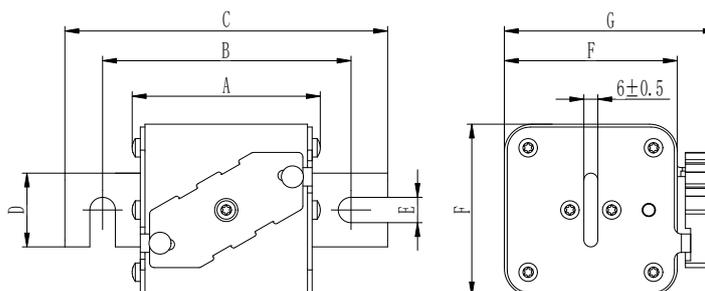


Size	A ± 2mm	B ± 2mm	C ± 3mm	D ± 1mm	E ± 0.5mm	F ± 1.5mm
1	80	107	139	25	11	51
2	80	107	139	32	11	59
3	81	107	139	32	11	74

Table 1

Note: The position of sand filling hole is not fixed. Please contact us if you need to know the specific position.

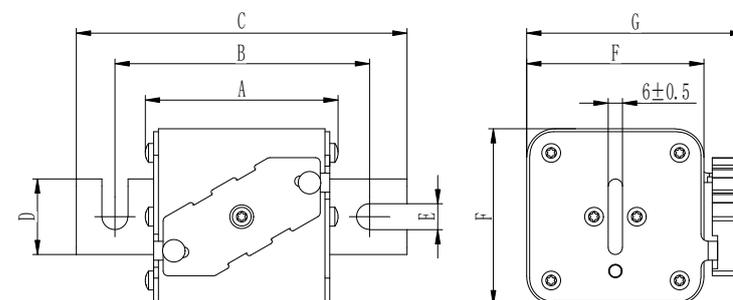
ATXxxxxDBx



Size	A ± 2mm	B ± 2mm	C ± 3mm	D ± 1mm	E ± 0.5mm	F ± 1.5mm	G ± 1mm
1	80	107	139	25	11	51	67

Table 2

ATXxxxxDBx



Size	A ± 2mm	B ± 2mm	C ± 3mm	D ± 1mm	E ± 0.5mm	F ± 1.5mm	G ± 1mm
2	80	107	139	32	11	59	75
3	81	107	139	32	11	74	90

Table 3

Note: The position of sand filling hole is not fixed. Please contact us if you need to know the specific position.




PACKING INFORMATION

Fuse Size	Box specifications (mm)	Packing quantity / per container	Weight / PCS (g)	Recommended Screw	Recommended tightening torque (N·m)
ATXxxxxDC1	380×255×230	15pcs	627±3%	M10	21±1
ATXxxxxDC2	380×255×230	12pcs	827±3%	M10	21±1
ATXxxxxDC3	380×255×230	8pcs	1312±3%	M10	21±1
ATXxxxxDB1	380×255×230	12pcs	655±3%	M10	21±1
ATXxxxxDB2	380×255×230	12pcs	855±3%	M10	21±1
ATXxxxxDB3	380×255×230	8pcs	1340±3%	M10	21±1

Table 4

ELECTRICAL SPECIFICATIONS

Size (mm)	Rated Voltage	Rated Current	Ampere Code	Part Number (Din)		Breaking Capacity		Pre-arcing I ² t (A ² s)	Clearing I ² t (A ² s)	Watt Loss (W) I _n
				No Indicator	Indicator	TUV**	Self-Certified			
1	1000Vdc 1300Vac	160A	3160	ATX3160DC1	ATX3160DB1	-	50kA@1000Vdc 100kA@1300Vac	2000	12100	45
		200A	3200	ATX3200DC1	ATX3200DB1	-		3950	23400	50
		250A	3250	ATX3250DC1	ATX3250DB1	-		9500	56000	60
		315A	3315	ATX3315DC1	ATX3315DB1	-		15000	90000	65
		350A	3350	ATX3350DC1	ATX3350DB1	-		21500	134000	70
		400A	3400	ATX3400DC1	ATX3400DB1	-		29500	175000	75
		450A	3450	ATX3450DC1	ATX3450DB1	-		43000	256000	80
		500A	3500	ATX3500DC1	ATX3500DB1	-		70000	342000	86
		550A	3550	ATX3550DC1	ATX3550DB1	-		96000	470000	95
		630A	3630	ATX3630DC1	ATX3630DB1	-		130000	660000	100
2	1000Vdc 1300Vac	250A	3250	ATX3250DC2	ATX3250DB2	-	50kA@1000Vdc 100kA@1300Vac	11500	68000	60
		315A	3315	ATX3315DC2	ATX3315DB2	-		19600	116000	65
		350A	3350	ATX3350DC2	ATX3350DB2	-		22000	126000	70
		400A	3400	ATX3400DC2	ATX3400DB2	-		31500	188000	75



EV AUTOMOTIVE FUSE LINKS

		450A	3450	ATX3450DC2	ATX3450DB2	-		43500	258000	80	
		500A	3500	ATX3500DC2	ATX3500DB2	-		70000	415000	86	
		550A	3550	ATX3550DC2	ATX3550DB2	-		96000	478000	96	
		630A	3630	ATX3630DC2	ATX3630DB2	-		129000	645000	99	
		700A	3700	ATX3700DC2	ATX3700DB2	-		160000	790000	124	
		800A	3800	ATX3800DC2	ATX3800DB2	-		245000	1250000	130	
	800Vdc 1100Vac	*900A	3900	ATX3900DC2	ATX3900DB2	-	50kA@800Vdc 100kA@1100Vac	365000	178100	135	
		*1000A	4100	ATX4100DC2	ATX4100DB2	-		470000	2298000	145	
	3	1000Vdc 1300Vac	315A	3315	ATX3315DC3	ATX3315DB3	-	50kA@1000Vdc 100kA@1300Vac	9700	59500	85
			350A	3350	ATX3350DC3	ATX3350DB3	-		14000	84500	90
			400A	3400	ATX3400DC3	ATX3400DB3	-		20000	123000	95
			450A	3450	ATX3450DC3	ATX3450DB3	-		32000	191000	100
500A			3500	ATX3500DC3	ATX3500DB3	-	40000		241000	105	
550A			3550	ATX3550DC3	ATX3550DB3	-	56500		334000	110	
630A			3630	ATX3630DC3	ATX3630DB3	-	84000		498000	115	
700A			3700	ATX3700DC3	ATX3700DB3	-	115500		708000	120	
800A			3800	ATX3800DC3	ATX3800DB3	-	206000		1226000	125	
900A			3900	ATX3900DC3	ATX3900DB3	-	309000		1520000	130	
1000A			4100	ATX4100DC3	ATX4100DB3	-	458000		2188000	135	
1100A		4110	ATX4110DC3	ATX4110DB3	-	577000	2809000	140			
800Vdc 1100Vac		*1250A	4125	ATX4125DC3	ATX4125DB3	-	50kA@800Vdc 100kA@1100Vac	813000	3951000	145	
	*1400A	4140	ATX4140DC3	ATX4140DB3	-	1251000		2315000	150		

Table 5

1. * 800Vdc / 1100Vac

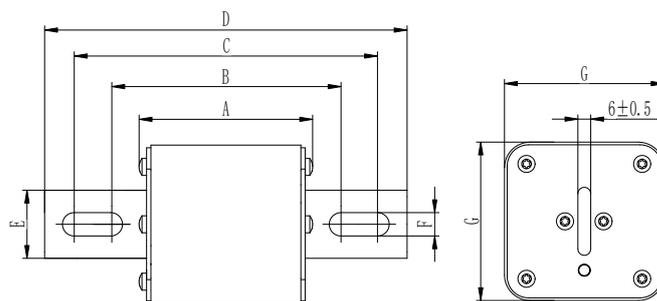




EV AUTOMOTIVE FUSE LINKS

DIMENSIONS (mm):

ATXxxxxUCx

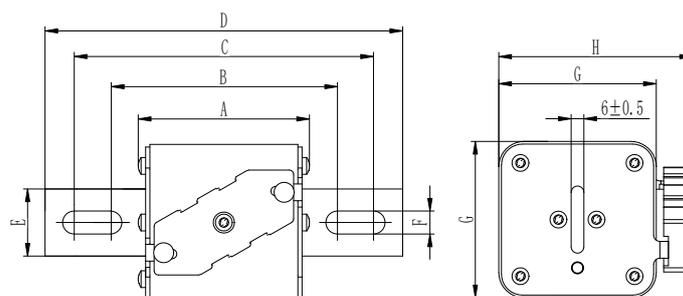


Size	A ± 2mm	B ± 2mm	C ± 2mm	D ± 3mm	E ± 1mm	F ± 0.5mm	G ± 2mm
1	80	101	139	165	25	11	51
2	80	105	140	165	32	14	59
3	80	105	140	166	38	16	74

Table 6

Note: The position of sand filling hole is not fixed. Please contact us if you need to know the specific position.

ATXxxxxUBx



Size	A ± 2mm	B ± 2mm	C ± 2mm	D ± 3mm	E ± 1mm	F ± 0.5mm	G ± 2mm	H ± 1mm
1	80	101	139	165	25	11	51	67
2	80	105	140	165	32	14	59	75
3	80	105	140	166	38	16	74	90

Table 7

Note: The position of sand filling hole is not fixed. Please contact us if you need to know the specific position.

PACKING INFORMATION

Fuse Size	Box specifications (mm)	Packing quantity / per container	Weight / PCS (g)	Recommended Screw	Recommended tightening torque (N·m)
ATXxxxxUC1	380×255×230	18pcs	840±3%	M10	21±1
ATXxxxxUC2	380×255×230	12pcs	857±3%	M12	38±1
ATXxxxxUC3	380×255×230	8pcs	832±3%	M12	38±1
ATXxxxxUB1	380×255×230	12pcs	681±3%	M10	21±1
ATXxxxxUB2	380×255×230	12pcs	885±3%	M12	38±1
ATXxxxxUB3	380×255×230	8pcs	1365±3%	M12	38±1

Table 8





EV AUTOMOTIVE FUSE LINKS

ELECTRICAL SPECIFICATIONS

Size (mm)	Rated Voltage	Rated Current	Ampere Code	Part Number (Bolted)		Breaking Capacity		Pre-arcing I ² t (A ² s)	Clearing I ² t (A ² s)	Watt Loss (W) I _n
				No Indicator	Indicator	TUV**	Self-Certified			
1	1000Vdc 1300Vac	160A	3160	ATX3160UC1	ATX3160UB1	-	50kA@1000Vdc 100kA@1300Vac	2000	12100	45
		200A	3200	ATX3200UC1	ATX3200UB1	-		3950	23400	50
		250A	3250	ATX3250UC1	ATX3250UB1	-		9500	56000	60
		315A	3315	ATX3315UC1	ATX3315UB1	-		15000	90000	65
		350A	3350	ATX3350UC1	ATX3350UB1	-		21500	134000	70
		400A	3400	ATX3400UC1	ATX3400UB1	-		29500	175000	75
		450A	3450	ATX3450UC1	ATX3450UB1	-		43000	256000	80
		500A	3500	ATX3500UC1	ATX3500UB1	-		70000	342000	86
		550A	3550	ATX3550UC1	ATX3550UB1	-		96000	470000	95
		630A	3630	ATX3630UC1	ATX3630UB1	-		130000	660000	100
2	1000Vdc 1300Vac	250A	3250	ATX3250UC2	ATX3250UB2	-	50kA@1000Vdc 100kA@1300Vac	11500	68000	60
		315A	3315	ATX3315UC2	ATX3315UB2	-		19600	116000	65
		350A	3350	ATX3350UC2	ATX3350UB2	-		22000	126000	70
		400A	3400	ATX3400UC2	ATX3400UB2	-		31500	188000	75
		450A	3450	ATX3450UC2	ATX3450UB2	-		43500	258000	80
		500A	3500	ATX3500UC2	ATX3500UB2	-		70000	415000	86
		550A	3550	ATX3550UC2	ATX3550UB2	-		96000	478000	96
		630A	3630	ATX3630UC2	ATX3630UB2	-		129000	645000	99
		700A	3700	ATX3700UC2	ATX3700UB2	-		160000	790000	124
		800A	3800	ATX3800UC2	ATX3800UB2	-		245000	1250000	130
	800Vdc 1100Vac	*900A	3900	ATX3900UC2	ATX3900UB2	-	50kA@800Vdc 100kA@1100Vac	365000	1781000	135
		*1000A	4100	ATX4100UC2	ATX4100UB2	-		470000	2298000	145


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3	1000Vdc 1300Vac	315A	3315	ATX3315UC3	ATX3315UB3	-	50kA@1000Vdc 100kA@1300Vac	9700	59500	85
		350A	3350	ATX3350UC3	ATX3350UB3	-		14000	84500	90
		400A	3400	ATX3400UC3	ATX3400UB3	-		20000	123000	95
		450A	3450	ATX3450UC3	ATX3450UB3	-		32000	191000	100
		500A	3500	ATX3500UC3	ATX3500UB3	-		40000	241000	105
		550A	3550	ATX3550UC3	ATX3550UB3	-		56500	334000	110
		630A	3630	ATX3630UC3	ATX3630UB3	-		84000	498000	115
		700A	3700	ATX3700UC3	ATX3700UB3	-		115500	708000	120
		800A	3800	ATX3800UC3	ATX3800UB3	-		206000	1226000	125
		900A	3900	ATX3900UC3	ATX3900UB3	-		309000	1520000	130
		1000A	4100	ATX4100UC3	ATX4100UB3	-		458000	2188000	135
		1100A	4110	ATX4110UC3	ATX4110UB3	-		577000	2809000	140
		800Vdc 1100Vac	*1250A	4125	ATX4125UC3	ATX4125UB3		-	50kA@800Vdc 100kA@1100Vac	813000
*1400A	4140		ATX4140UC3	ATX4140UB3	-	1251000	2315000	150		

Table 9

1.* 800Vdc / 1100Vac

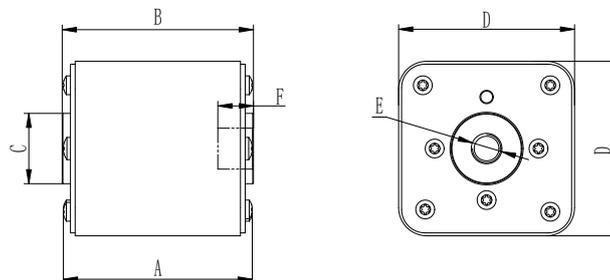




EV AUTOMOTIVE FUSE LINKS

DIMENSIONS (mm):

ATXxxxxFCx

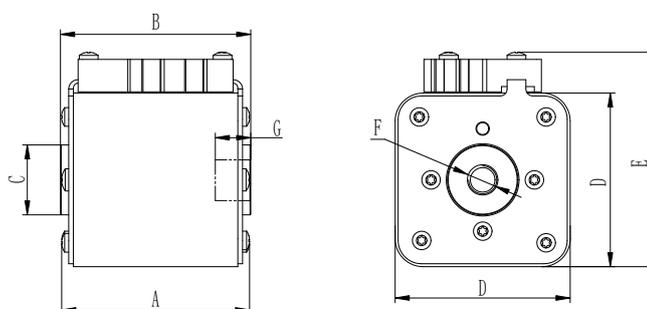


Size	A ± 2mm	B ± 2.5mm	C ± 2mm	D ± 3mm	E ± 1mm	F ± 1mm
1	80	81	Φ 20	51	M8	8
2	80	81 91 (900A-1000A)	Φ 24	59	M10	10
3	80	81 91 (1250A-1400A)	Φ 30	74	M12	10

Table 10

Note: The position of sand filling hole is not fixed. Please contact us if you need to know the specific position.

ATXxxxxFLx



Size	A ± 2mm	B ± 2.5mm	C ± 2mm	D ± 3mm	E ± 1mm	F ± 1mm	G ± 1mm
1	80	81	Φ 20	51	67	M8	8
2	80	81 91 (900A-1000A)	Φ 24	59	75	M10	10
3	80	81 91 (1250A-1400A)	Φ 30	74	90	M12	10

Table 11

Note: The position of sand filling hole is not fixed. Please contact us if you need to know the specific position.





EV AUTOMOTIVE FUSE LINKS

PACKING INFORMATION

Fuse Size	Box specifications (mm)	Packing quantity / per container	Weight / PCS (g)	Recommended Screw	Recommended tightening torque (N·m)
ATXxxxxFx1	380×255×230	20pcs	610±3%	M8	13.5±1
ATXxxxxFx2	380×255×230	12pcs	795±3%	M10	26±1
ATXxxxxFx3	380×255×230	10pcs	1280±3%	M12	46±1

Table 12

ELECTRICAL SPECIFICATIONS

Size (mm)	Rated Voltage	Rated Current	Ampere Code	Part Number (Flush)		Breaking Capacity		Pre-arcing I ² t (A ² s)	Clearing I ² t (A ² s)	Watt Loss (W) I _n
				No Indicator	Indicator	TUV**	Self-Certified			
1	1000Vdc 1300Vac	160A	3160	ATX3160FC1	ATX3160FL1	-	50kA@1000Vdc 100kA@1300Vac	2000	12100	45
		200A	3200	ATX3200FC1	ATX3200FL1	-		3950	23400	50
		250A	3250	ATX3250FC1	ATX3250FL1	-		9500	56000	60
		315A	3315	ATX3315FC1	ATX3315FL1	-		15000	90000	65
		350A	3350	ATX3350FC1	ATX3350FL1	-		21500	134000	70
		400A	3400	ATX3400FC1	ATX3400FL1	-		29500	175000	75
		450A	3450	ATX3450FC1	ATX3450FL1	-		43000	256000	80
		500A	3500	ATX3500FC1	ATX3500FL1	-		70000	342000	86
		550A	3550	ATX3550FC1	ATX3550FL1	-		96000	470000	95
		630A	3630	ATX3630FC1	ATX3630FL1	-		130000	660000	100
2	1000Vdc 1300Vac	250A	3250	ATX3250FC2	ATX3250FL2	-	50kA@1000Vdc 100kA@1300Vac	11500	68000	60
		315A	3315	ATX3315FC2	ATX3315FL2	-		19600	116000	65
		350A	3350	ATX3350FC2	ATX3350FL2	-		22000	126000	70
		400A	3400	ATX3400FC2	ATX3400FL2	-		31500	188000	75
		450A	3450	ATX3450FC2	ATX3450FL2	-		43500	258000	80
		500A	3500	ATX3500FC2	ATX3500FL2	-		70000	415000	86



EV AUTOMOTIVE FUSE LINKS

3		550A	3550	ATX3550FC2	ATX3550FL2	-		96000	478000	96
		630A	3630	ATX3630FC2	ATX3630FL2	-		129000	645000	99
		700A	3700	ATX3700FC2	ATX3700FL2	-		160000	790000	124
		800A	3800	ATX3800FC2	ATX3800FL2	-		245000	1250000	130
	800Vdc 1100Vac	*900A	3900	ATX3900FC2	ATX3900FL2	-	50kA@800Vdc 100kA@1100Vac	365000	1781000	135
		*1000A	4100	ATX4100FC2	ATX4100FL2	-		470000	2298000	145
	1000Vdc 1300Vac	315A	3315	ATX3315FC3	ATX3315FL3	-	50kA@1000Vdc 100kA@1300Vac	9700	59500	85
		350A	3350	ATX3350FC3	ATX3350FL3	-		14000	84500	90
		400A	3400	ATX3400FC3	ATX3400FL3	-		20000	123000	95
		450A	3450	ATX3450FC3	ATX3450FL3	-		32000	191000	100
		500A	3500	ATX3500FC3	ATX3500FL3	-		40000	241000	105
		550A	3550	ATX3550FC3	ATX3550FL3	-		56500	334000	110
		630A	3630	ATX3630FC3	ATX3630FL3	-		84000	498000	115
		700A	3700	ATX3700FC3	ATX3700FL3	-		115500	708000	120
800A		3800	ATX3800FC3	ATX3800FL3	-	206000		1226000	125	
900A		3900	ATX3900FC3	ATX3900FL3	-	309000		1520000	130	
1000A		4100	ATX4100FC3	ATX4100FL3	-	458000		2188000	135	
1100A		4110	ATX4110FC3	ATX4110FL3	-	577000		2809000	140	
800Vdc 1100Vac	*1250A	4125	ATX4125FC3	ATX4125FL3	-	50kA@800Vdc 100kA@1100Vac	813000	3951000	145	
	*1400A	4140	ATX4140FC3	ATX4140FL3	-		1251000	2315000	150	

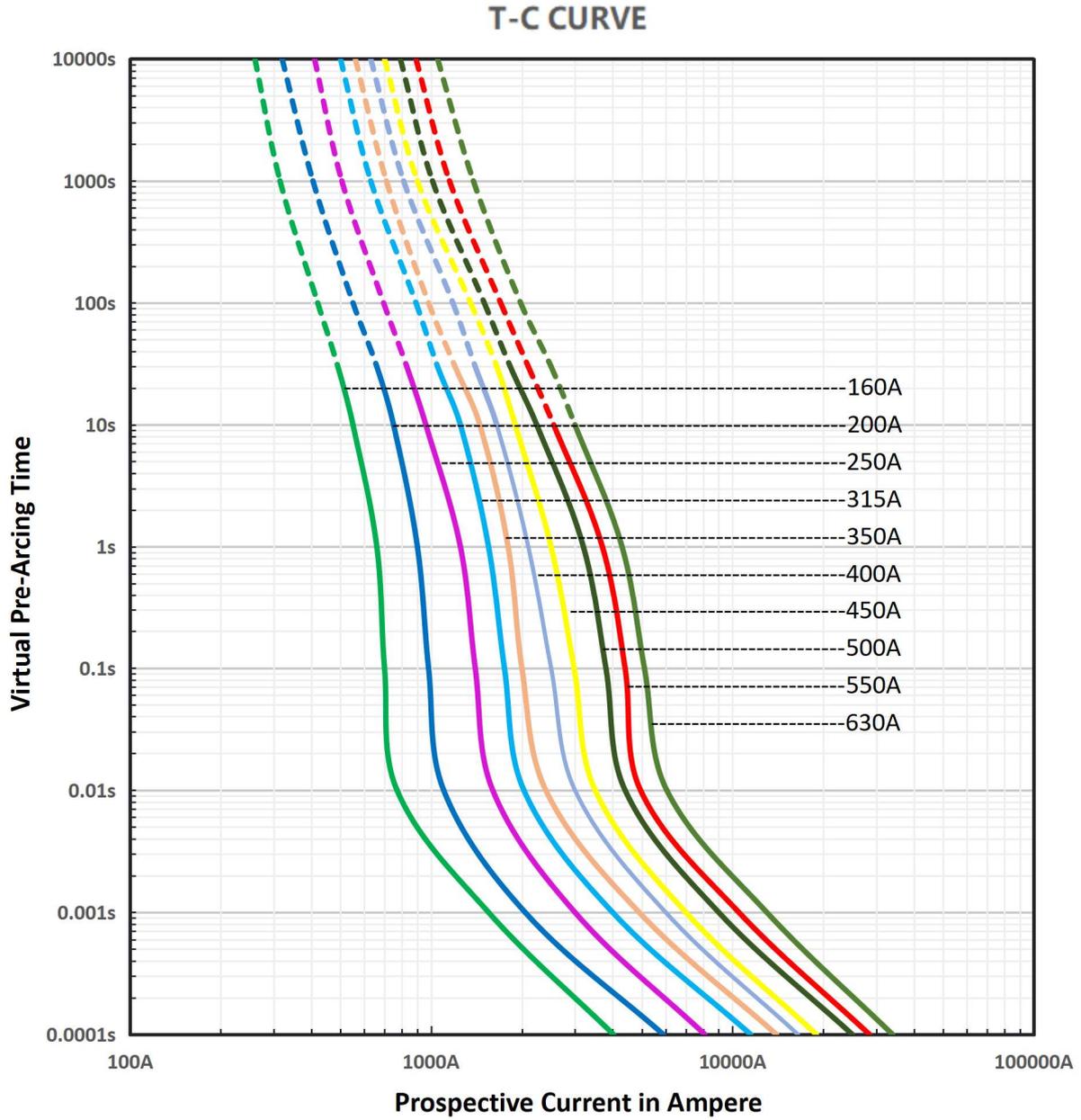
Table 13

1. * 800Vdc / 1100Vac



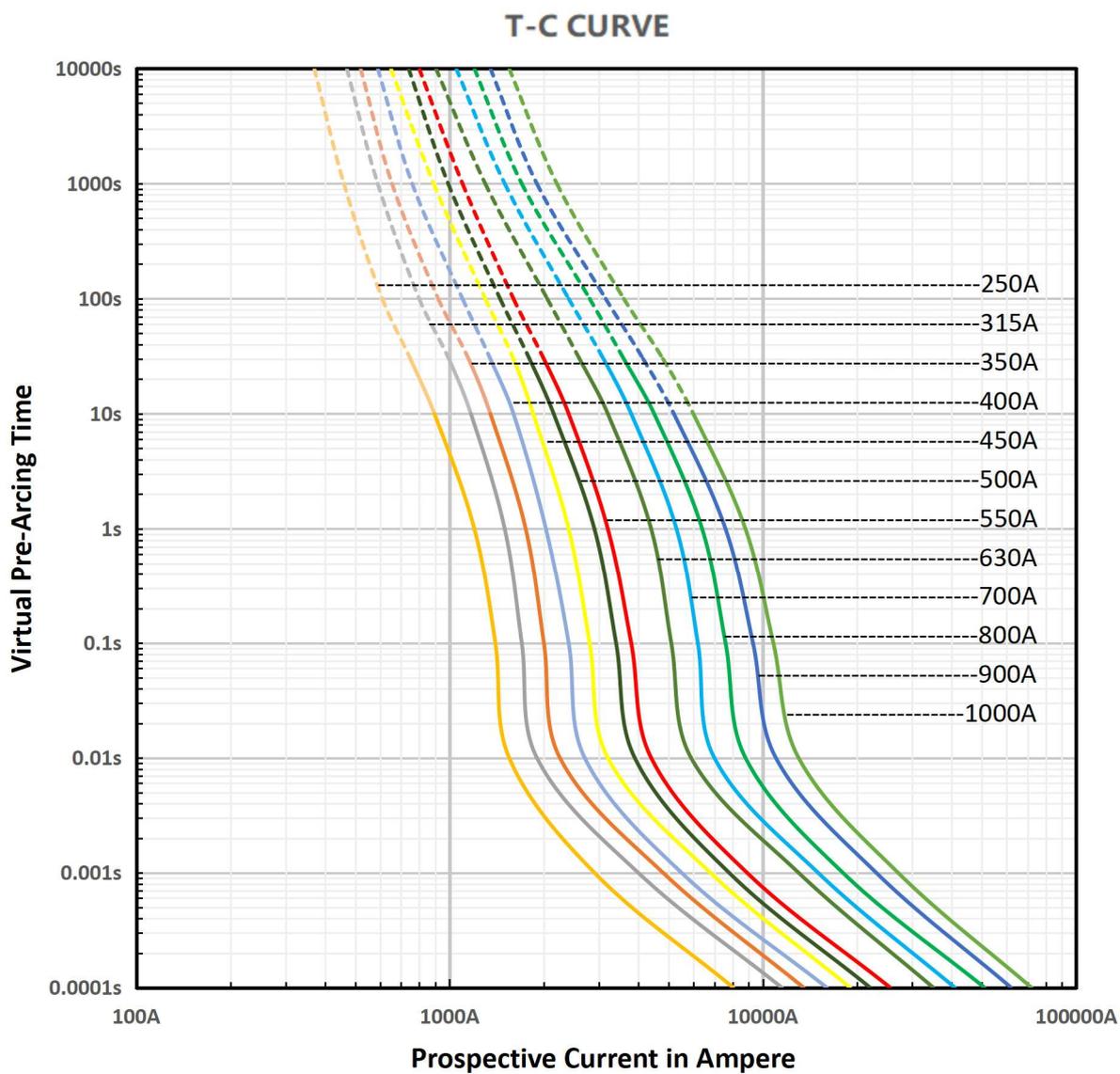
TIME CURRENT CURVE

Fuse body size 1



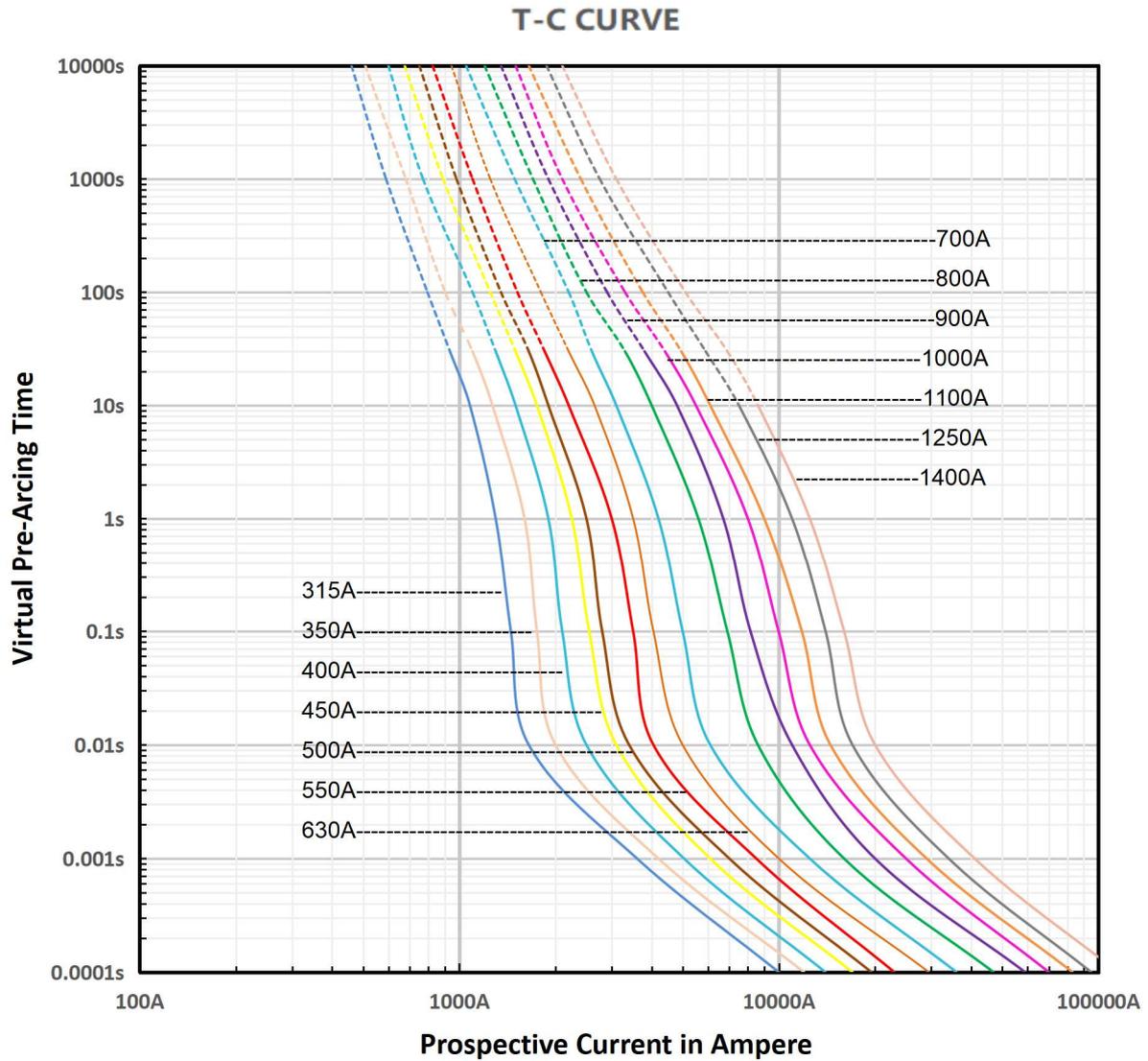


Fuse body size 2





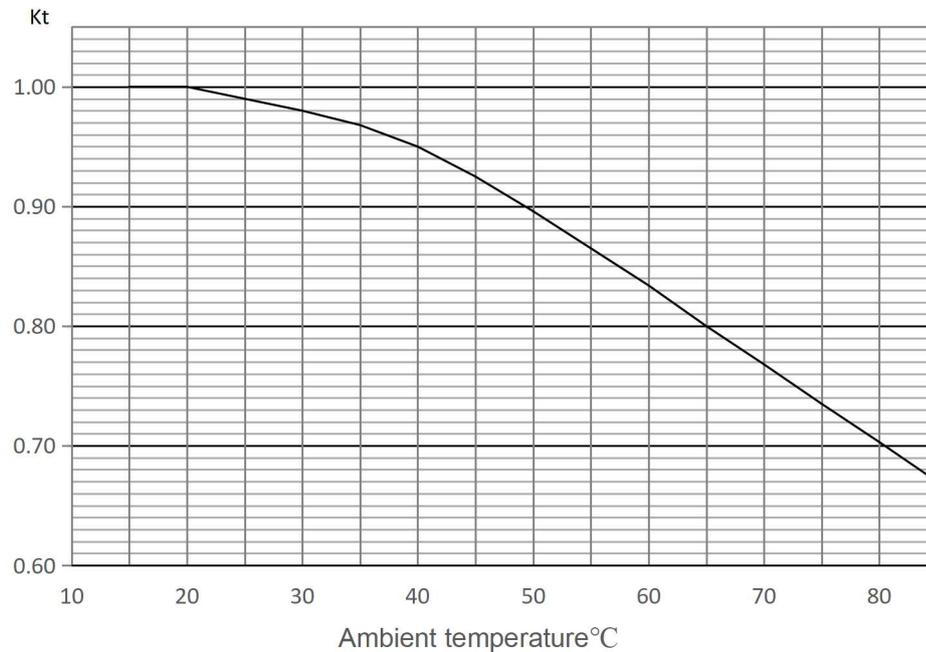
Fuse body size 3





TEMPERATURE CORRECTION CURVE

When the fuse is operating below -5°C or above 40°C , the rated current needs additional modification. The correction factor is K_t .



OPERATION CONDITIONS

Where the following conditions apply, fuses complying with this standard are deemed capable of operating satisfactorily without further qualification.

- Normal temperature: $-5^{\circ}\text{C} \sim 40^{\circ}\text{C}$, permissible operating temperature: $-40^{\circ}\text{C} \sim 120^{\circ}\text{C}$.
- The altitude of the site of installation of the fuses should not exceed 2000 m above sea level and permissible altitude site of installation does not exceed 5000m.
- The air should be clean and its relative humidity does not exceed 50% at the maximum temperature of 40°C .
- Higher relative humidity is permitted at lower temperatures, e.g. 90% at 20°C .
- Under these conditions, moderate condensation may occasionally occur due to variation in temperatures.
- For operating conditions other than detailed above, please contact manufacturer.

STORAGE

During transportation and storage, avoid water seepage and mechanical damage.

WEB RESOURCES

Download the latest technical documents: www.adlerelectric.com. Specifications are subject to change without notice.

