

ATX 1000Vdc/1300Vac ESS FUSES



DESCRIPTION

Adler ATX series ESS fuses are engineered and manufactured for use in Industrial ESS and Power Distribution Protection, made from the highest quality materials and tested to the highest standards. With rated currents from 160A to 1400A with a breaking capacity of 50kA.

AGENCY INFORMATION

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

FEATURES

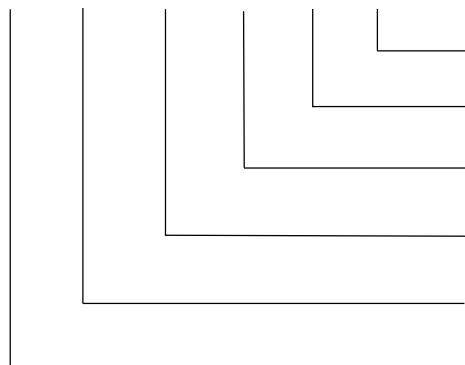
- Reliable clearing of DC fault currents
- High cycling performance
- Low watt losses
- Ultra-compact size and power density
- High breaking capacity to 50kA@1000Vdc time constant 1-3ms/ 100kA@1300Vac
- Full coverage of battery module current
- Low costs
- QR code marks on each fuse for traceability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

APPLICATIONS

- ESS and BESS circuit protection
- Inverter Protection
- Power storage protection

PART NUMBERING SYSTEM

AT X 3160 S DC 1



Body Size: 1

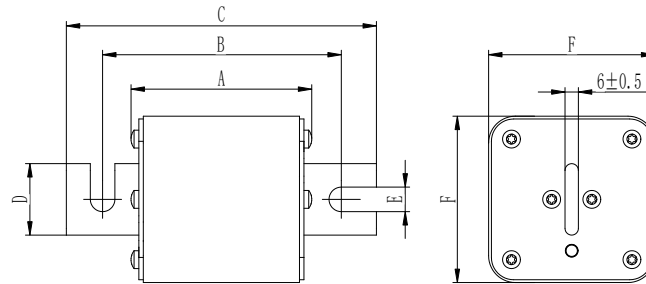
Structure Type: DC Assembly type: see to dimension drawing, without micro switch;

Applications: PU

Ampere Code: See Table 5 / Table 9 / Table 13

Voltage Code: 1000Vdc (800Vdc) / 1300Vac (1100Vac)

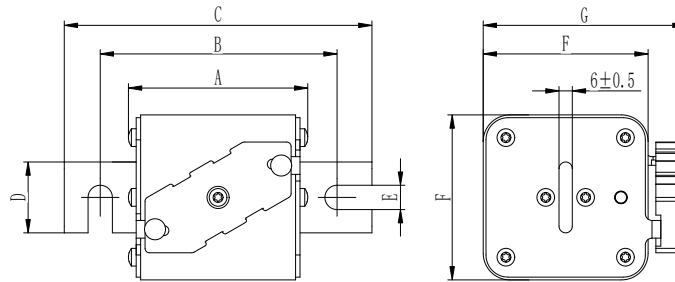
Product Series: AT

DIMENSIONS (mm):
ATXxxxxSDCx


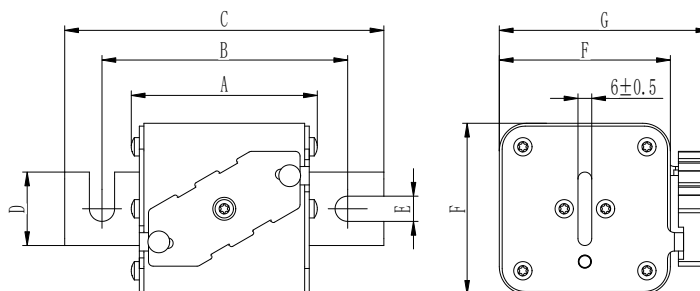
Size	A ± 2mm	B ± 2mm	C ± 3mm	D ± 1mm	E ± 0.5mm	F ± 1.5mm
1	80	107	139	25	11	51
2	80	107	139	32	11	59
3	81	107	139	32	11	74

Table 1

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

ATXxxxxSDBx


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
ATXxxxxSDBx


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

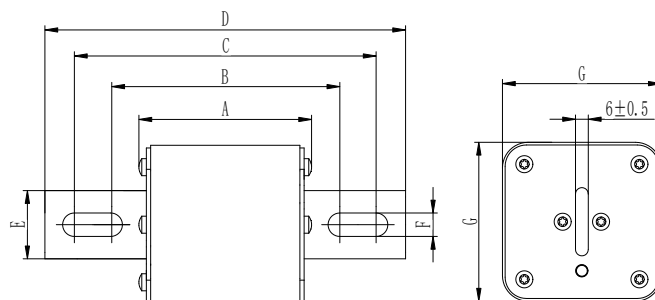
Fuse Size	Box specifications (mm)	Packing quantity / per container	Weight / PCS (g)	Recommended Screw	Recommended tightening torque (N·m)
ATXxxxxSDC1	380×255×230	15pcs	627±3%	M10	21±1
ATXxxxxSDC2	380×255×230	12pcs	827±3%	M10	21±1
ATXxxxxSDC3	380×255×230	8pcs	1312±3%	M10	21±1
ATXxxxxSDB1	380×255×230	12pcs	655±3%	M10	21±1
ATXxxxxSDB2	380×255×230	12pcs	855±3%	M10	21±1
ATXxxxxSDB3	380×255×230	8pcs	1340±3%	M10	21±1

Table 4
ELECTRICAL SPECIFICATIONS

Size	Rated Voltage	Rated Current	Part Number (Din)		Breaking Capacity		Pre-arcing I ² t	Clearing I ² t	Watt Loss (W)
			No Indicator	Indicator	TUV**	Self-Certified	(A ² s)	(A ² s)	I _n
1	1000Vdc 1300Vac	160A	ATX3160SDC1	ATX3160SDB1	-	50kA@1000Vdc 100kA@1300Vac	2000	12100	45
		200A	ATX3200SDC1	ATX3200SDB1	-		3950	23400	50
		250A	ATX3250SDC1	ATX3250SDB1	-		9500	56000	60
		315A	ATX3315SDC1	ATX3315SDB1	-		15000	90000	65
		350A	ATX3350SDC1	ATX3350SDB1	-		21500	134000	70
		400A	ATX3400SDC1	ATX3400SDB1	-		29500	175000	75
		450A	ATX3450SDC1	ATX3450SDB1	-		43000	256000	80
		500A	ATX3500SDC1	ATX3500SDB1	-		70000	342000	86
		550A	ATX3550SDC1	ATX3550SDB1	-		96000	470000	95
		630A	ATX3630SDC1	ATX3630SDB1	-		130000	660000	100
2	1000Vdc 1300Vac	250A	ATX3250SDC2	ATX3250SDB2	-	50kA@1000Vdc 100kA@1300Vac	11500	68000	60
		315A	ATX3315SDC2	ATX3315SDB2	-		19600	116000	65
		350A	ATX3350SDC2	ATX3350SDB2	-		22000	126000	70
		400A	ATX3400SDC2	ATX3400SDB2	-		31500	188000	75

3		450A	ATX3450SDC2	ATX3450SDB2	-		43500	258000	80
		500A	ATX3500SDC2	ATX3500SDB2	-		70000	415000	86
		550A	ATX3550SDC2	ATX3550SDB2	-		96000	478000	96
		630A	ATX3630SDC2	ATX3630SDB2	-		129000	645000	99
		700A	ATX3700SDC2	ATX3700SDB2	-		160000	790000	124
		800A	ATX3800SDC2	ATX3800SDB2	-		245000	1250000	130
	800Vdc 1100Vac	*900	ATX3900SDC2	ATX3900SDB2		50kA@800Vdc 100kA@1100Vac	365000	178100	135
		*1000	ATX4100SDC2	ATX4100SDB2			470000	2298000	145
	1000Vdc 1300Vac	315A	ATX3315SDC3	ATX3315SDB3		50kA@1000Vdc 100kA@1300Vac	9700	59500	85
		350A	ATX3350SDC3	ATX3350SDB3			14000	84500	90
		400A	ATX3400SDC3	ATX3400SDB3			20000	123000	95
		450A	ATX3450SDC3	ATX3450SDB3			32000	191000	100
		500A	ATX3500SDC3	ATX3500SDB3			40000	241000	105
		550A	ATX3550SDC3	ATX3550SDB3			56500	334000	110
		630A	ATX3630SDC3	ATX3630SDB3			84000	498000	115
		700A	ATX3700SDC3	ATX3700SDB3			115500	708000	120
		800A	ATX3800SDC3	ATX3800SDB3			206000	1226000	125
		900A	ATX3900SDC3	ATX3900SDB3			309000	1520000	130
		1000A	ATX4100SDC3	ATX4100SDB3			458000	2188000	135
		1100A	ATX4110SDC3	ATX4110SDB3			577000	2809000	140
	800Vdc 1100Vac	*1250A	ATX4125SDC3	ATX4125SDB3		50kA@800Vdc 100kA@1100Vac	813000	3951000	145
		*1400A	ATX4140SDC3	ATX4140SDB3			1251000	2315000	150

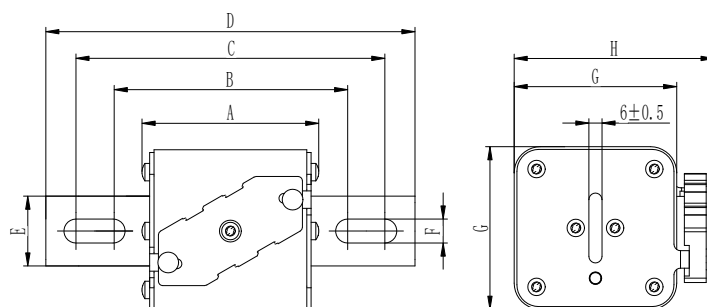
Table 5
1. * 800Vdc / 1100Vac

DIMENSIONS (mm)
ATXxxxxSUCx


Size	A ± 2mm	B ± 2mm	C ± 3mm	D ± 1mm	E ± 0.5mm	F ± 1.5mm	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.

ATXxxxxSUBx


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.

PACKAGING INFORMATION

Fuse Size	Box specifications (mm)	Packing quantity / per container	Weight / PCS (g)	Recommended Screw	Recommended tightening torque (N·m)
ATXxxxxSUC1	380×255×230	18pcs	840±3%	M10	21±1
ATXxxxxSUC2	380×255×230	12pcs	857±3%	M12	38±1
ATXxxxxSUC3	380×255×230	8pcs	832±3%	M12	38±1
ATXxxxxSUB1	380×255×230	12pcs	681±3%	M10	21±1
ATXxxxxSUB2	380×255×230	12pcs	885±3%	M12	38±1
ATXxxxxSUB3	380×255×230	8pcs	1365±3%	M12	38±1

Table 8

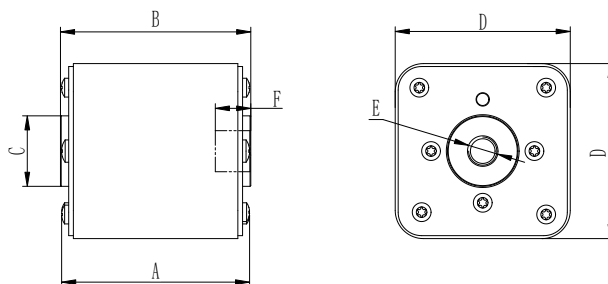
ELECTRICAL SPECIFICATIONS

Size	Rated Voltage	Rated Current	Part Number (Bolted)		Breaking Capacity		Pre-arcing I ² t	Clearing I ² t	Watt Loss (W)
			No Indicator	Indicator	TUV**	Self-Certified	(A ² s)	(A ² s)	I _n
1	1000Vdc 1300Vac	160A	ATX3160SUC1	ATX3160SUB1	-	50kA@1000Vdc 100kA@1300Vac	2000	12100	45
		200A	ATX3200SUC1	ATX3200SUB1	-		3950	23400	50
		250A	ATX3250SUC1	ATX3250SUB1	-		9500	56000	60
		315A	ATX3315SUC1	ATX3315SUB1	-		15000	90000	65
		350A	ATX3350SUC1	ATX3350SUB1	-		21500	134000	70
		400A	ATX3400SUC1	ATX3400SUB1	-		29500	175000	75
		450A	ATX3450SUC1	ATX3450SUB1	-		43000	256000	80
		500A	ATX3500SUC1	ATX3500SUB1	-		70000	342000	86
		550A	ATX3550SUC1	ATX3550SUB1	-		96000	470000	95
		630A	ATX3630SUC1	ATX3630SUB1	-		130000	660000	100
2	1000Vdc 1300Vac	250A	ATX3250SUC2	ATX3250SUB2	-	50kA@1000Vdc 100kA@1300Vac	11500	68000	60
		315A	ATX3315SUC2	ATX3315SUB2	-		19600	116000	65
		350A	ATX3350SUC2	ATX3350SUB2	-		22000	126000	70
		400A	ATX3400SUC2	ATX3400SUB2	-		31500	188000	75
		450A	ATX3450SUC2	ATX3450SUB2	-		43500	258000	80
		500A	ATX3500SUC2	ATX3500SUB2	-		70000	415000	86
		550A	ATX3550SUC2	ATX3550SUB2	-		96000	478000	96
		630A	ATX3630SUC2	ATX3630SUB2	-		129000	645000	99
		700A	ATX3700SUC2	ATX3700SUB2	-		160000	790000	124

	800Vdc 1100Vac	800A	ATX3800SUC2	ATX3800SUB2	-		245000	1250000	130
		*900A	ATX3900SUC2	ATX3900SUB2		50kA@800Vdc	365000	178100	135
		*1000A	ATX4100SUC2	ATX4100SUB2		100kA@1100Vac	470000	2298000	145
3	1000Vdc 1300Vac	315A	ATX3315SUC3	ATX3315SUB3		50kA@1000Vdc 100kA@1300Vac	9700	59500	85
		350A	ATX3350SUC3	ATX3350SUB3			14000	84500	90
		400A	ATX3400SUC3	ATX3400SUB3			20000	123000	95
		450A	ATX3450SUC3	ATX3450SUB3			32000	191000	100
		500A	ATX3500SUC3	ATX3500SUB3			40000	241000	105
		550A	ATX3550SUC3	ATX3550SUB3			56500	334000	110
		630A	ATX3630SUC3	ATX3630SUB3			84000	498000	115
		700A	ATX3700SUC3	ATX3700SUB3			115500	708000	120
		800A	ATX3800SUC3	ATX3800SUB3			206000	1226000	125
		900A	ATX3900SUC3	ATX3900SUB3			309000	1520000	130
		1000A	ATX4100SUC3	ATX4100SUB3			458000	2188000	135
		1100A	ATX4110SUC3	ATX4110SUB3			577000	2809000	140
	800Vdc 1100Vac	*1250A	ATX4125SUC3	ATX4125SUB3		50kA@800Vdc	813000	3951000	145
		*1400A	ATX4140SUC3	ATX4140SUB3		100kA@1100Vac	1251000	2315000	150

Table 9

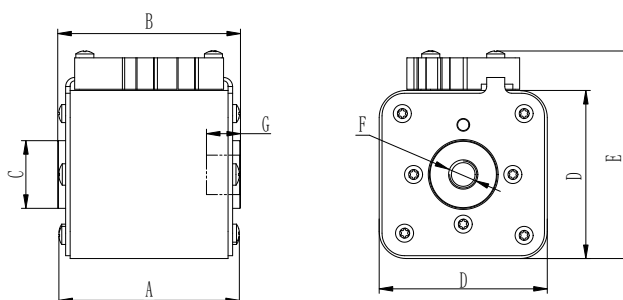
1. * 800Vdc / 1100Vac

DIMENSIONS (mm):
ATXxxxxSFCx


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.

ATXxxxxSFLx


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.

PACKAGING INFORMATION

Fuse Size	Box specifications (mm)	Packing quantity / per container	Weight / PCS (g)	Recommended Screw	Recommended tightening torque (N·m)
ATXxxxxSFx1	380×255×230	20pcs	610±3%	M8	13.5±1
ATXxxxxSFx2	380×255×230	12pcs	795±3%	M10	26±1
ATXxxxxSFx3	380×255×230	10pcs	1280±3%	M12	46±1

Table 12

ELECTRICAL SPECIFICATIONS

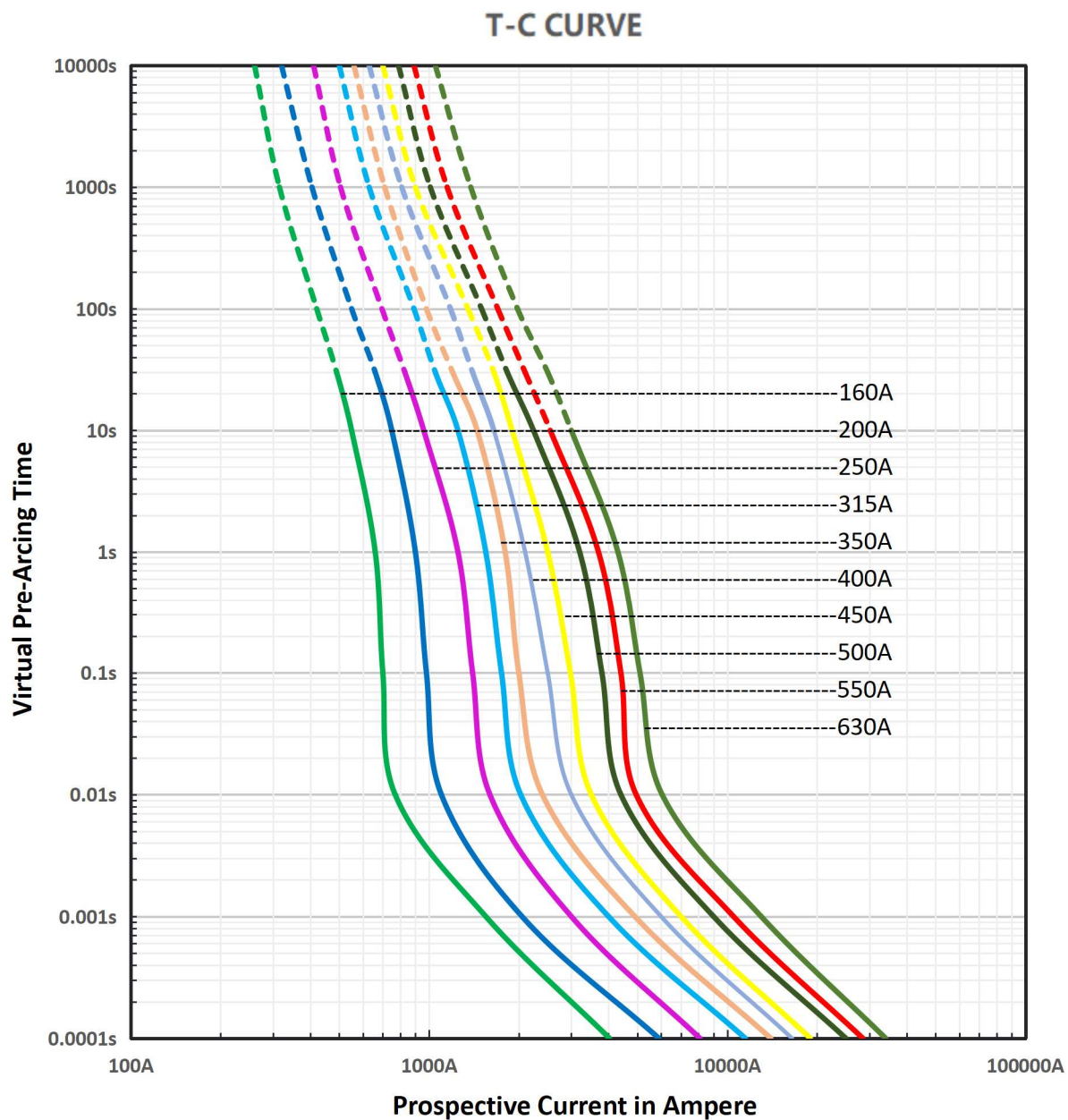
Size	Rated Voltage	Rated Current	Part Number (Flush)		Breaking Capacity		Pre-arcing I ² t	Clearing I ² t	Watt Loss (W)
			No Indicator	Indicator	TUV**	Self-Certified	(A ² s)	(A ² s)	I _n
1	1000Vdc 1300Vac	160A	ATX3160SFC1	ATX3160SFL1	-	50kA@1000Vdc 100kA@1300Vac	2000	12100	45
		200A	ATX3200SFC1	ATX3200SFL1	-		3950	23400	50
		250A	ATX3250SFC1	ATX3250SFL1	-		9500	56000	60
		315A	ATX3315SFC1	ATX3315SFL1	-		15000	90000	65
		350A	ATX3350SFC1	ATX3350SFL1	-		21500	134000	70
		400A	ATX3400SFC1	ATX3400SFL1	-		29500	175000	75
		450A	ATX3450SFC1	ATX3450SFL1	-		43000	256000	80
		500A	ATX3500SFC1	ATX3500SFL1	-		70000	342000	86
		550A	ATX3550SFC1	ATX3550SFL1	-		96000	470000	95
		630A	ATX3630SFC1	ATX3630SFL1	-		130000	660000	100
2	1000Vdc 1300Vac	250A	ATX3250SFC2	ATX3250SFL2	-	50kA@1000Vdc 100kA@1300Vac	11500	68000	60
		315A	ATX3315SFC2	ATX3315SFL2	-		19600	116000	65
		350A	ATX3350SFC2	ATX3350SFL2	-		22000	126000	70
		400A	ATX3400SFC2	ATX3400SFL2	-		31500	188000	75
		450A	ATX3450SFC2	ATX3450SFL2	-		43500	258000	80
		500A	ATX3500SFC2	ATX3500SFL2	-		70000	415000	86
		550A	ATX3550SFC2	ATX3550SFL2	-		96000	478000	96
		630A	ATX3630SFC2	ATX3630SFL2	-		129000	645000	99
		700A	ATX3700SFC2	ATX3700SFL2	-		160000	790000	124

		800A	ATX3800SFC2	ATX3800SFL2	-		245000	1250000	130
		*900A	ATX3900SFC2	ATX3900SFL2		50kA@800Vdc	365000	178100	135
	800Vdc 1100Vac	*1000A	ATX4100SFC2	ATX4100SFL2		100kA@1100Vac	470000	2298000	145
3	1000Vdc 1300Vac	315A	ATX3315SFC3	ATX3315SFL3		50kA@1000Vdc 100kA@1300Vac	9700	59500	85
		350A	ATX3350SFC3	ATX3350SFL3			14000	84500	90
		400A	ATX3400SFC3	ATX3400SFL3			20000	123000	95
		450A	ATX3450SFC3	ATX3450SFL3			32000	191000	100
		500A	ATX3500SFC3	ATX3500SFL3			40000	241000	105
		550A	ATX3550SFC3	ATX3550SFL3			56500	334000	110
		630A	ATX3630SFC3	ATX3630SFL3			84000	498000	115
		700A	ATX3700SFC3	ATX3700SFL3			115500	708000	120
		800A	ATX3800SFC3	ATX3800SFL3			206000	1226000	125
		900A	ATX3900SFC3	ATX3900SFL3			309000	1520000	130
		1000A	ATX4100SFC3	ATX4100SFL3			458000	2188000	135
		1100A	ATX4110SFC3	ATX4110SFL3			577000	2809000	140
	800Vdc 1100Vac	*1250A	ATX4125SFC3	ATX4125SFL3		50kA@800Vdc	813000	3951000	145
		*1400A	ATX4140SFC3	ATX4140SFL3		100kA@1100Vac	1251000	2315000	150

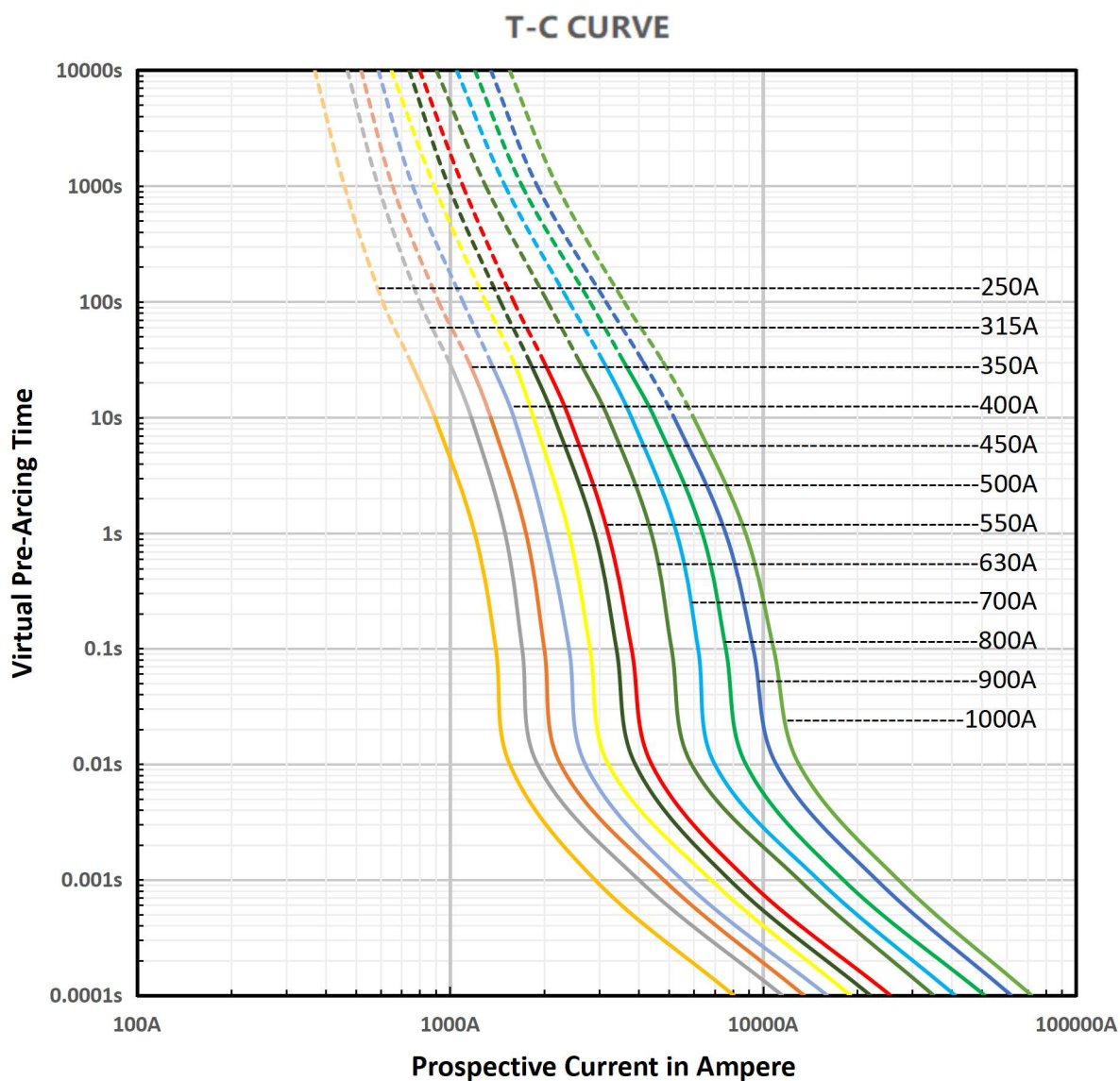
Table 13

1. * 800Vdc / 1100Vac

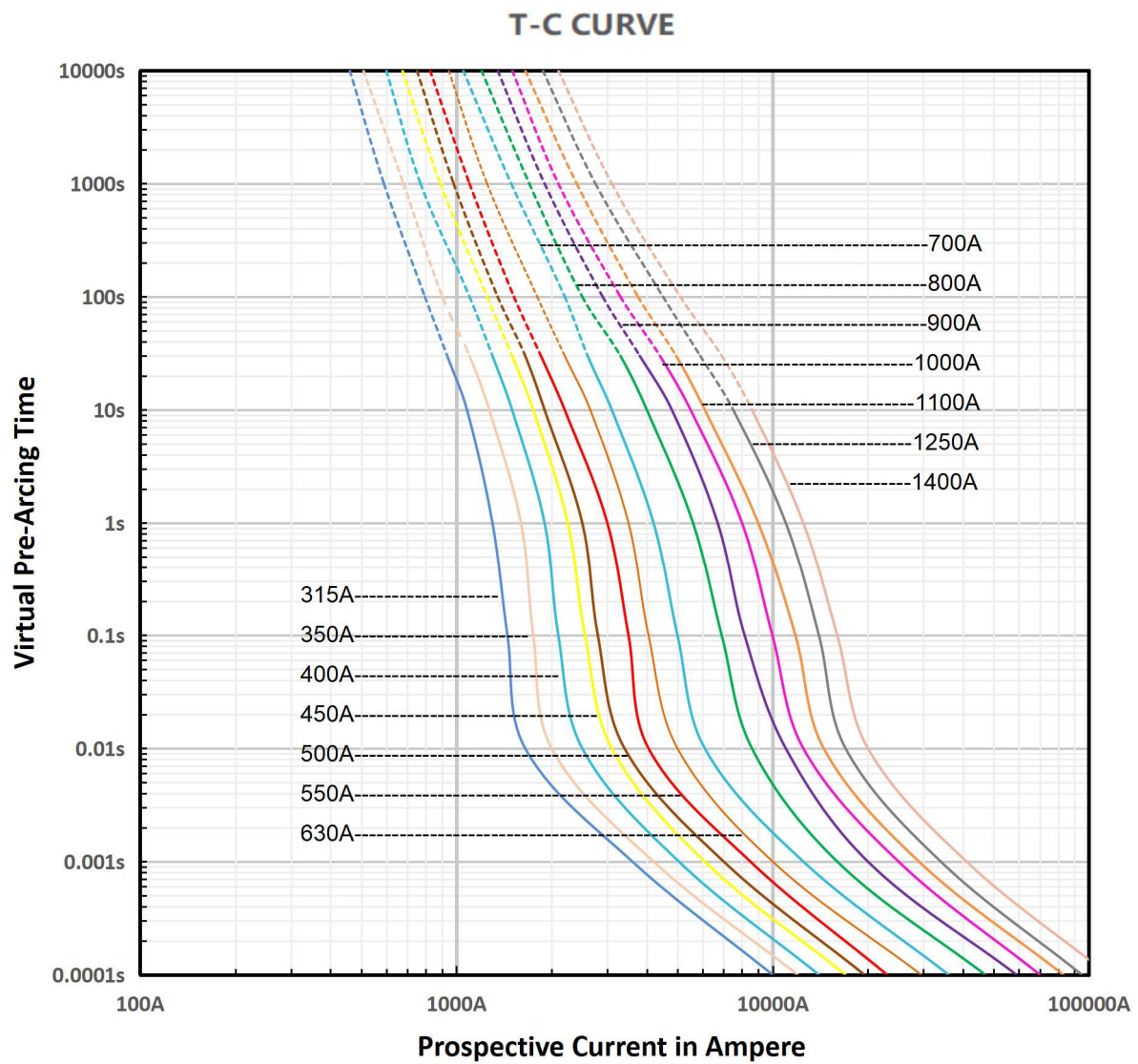
Fuse body size 1



Fuse body size 2

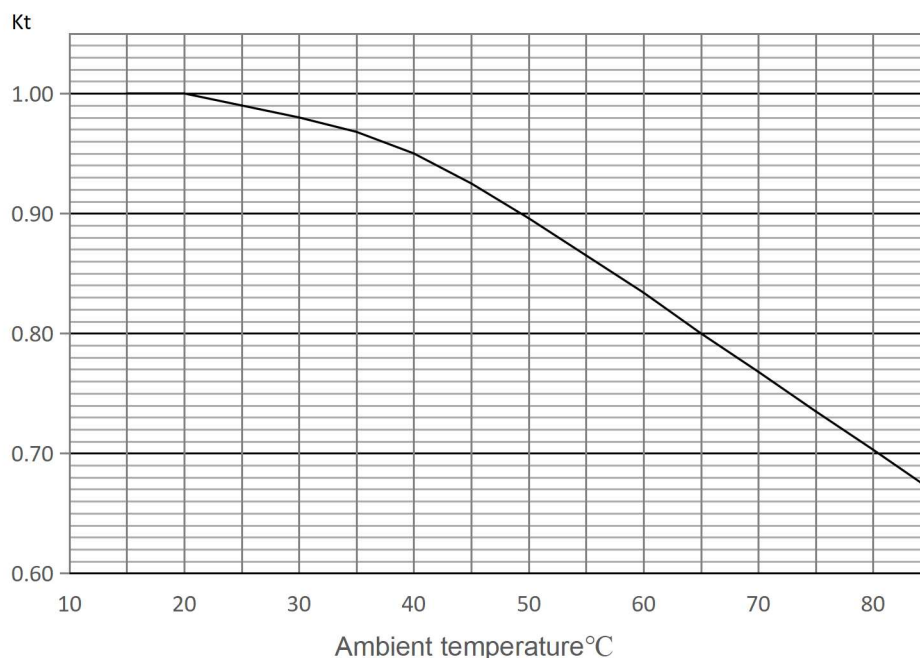


Fuse body size 3



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 it's 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.