

Soft starters for asynchronous motors

Altistart 48 soft start - soft stop units
230 V power supply, type 1 coordination

1

1.3

Components for use together in accordance with standards IEC 60947-4-1 and IEC 60947-4-2 (see schemes on pages 1/54 to 1/59)

Combine either circuit-breaker (light blue columns), contactor, starter, or switches/fuse (dark blue columns), contactor, starter

Motor kW	A	Starter (1) Class 10 Standard applications		Class 20 Severe applications	Type of circuit-breaker Telemecanique Merlin Gerin		Rating A	Type of contactor	Type of switch or switch disconnecter (bare unit)	Am fuses Unit reference (3)		Size	Rating A
						Without striker				With striker			
M1	A1				Q1			KM1, KM2, KM3					
3	11.5	–		ATS 48D17●	GV2 L20	18		LC1 D18	LS1 D32	DF2 CA16	–	10 x 38	16
					NS80H MA	12.5		LC1 D18	LS1 D32	DF2 CA16	–	10 x 38	16
4	14.5	ATS 48D17●		ATS 48D22●	GV2 L20	18		LC1 D18	LS1 D32	DF2 CA16	–	10 x 38	16
					NS80H MA	25		LC1 D18	LS1 D32	DF2 CA16	–	10 x 38	16
5.5	20	ATS 48D22●		ATS 48D32●	GV2 L22	25		LC1 D25	LS1 D32	DF2 CA25	–	10 x 38	25
					NS80H MA	25		LC1 D25	LS1 D32	DF2 CA25	–	10 x 38	25
7.5	27	ATS 48D32●		ATS 48D38●	GV2 L32	32		LC1 D32	GK1 EK	DF2 EA32	DF3 EA32	14 x 51	32
					NS80H MA	50		LC1 D32	GK1 EK	DF2 EA32	DF3 EA32	14 x 51	32
9	32	ATS 48D38●		ATS 48D47●	GK3 EF40	40		LC1 D38	GK1 EK	DF2 EA40	DF3 EA40	14 x 51	40
					NS80H MA	50		LC1 D38	GK1 EK	DF2 EA40	DF3 EA40	14 x 51	40
11	39	ATS 48D47●		ATS 48D62●	GK3 EF65	65		LC1 D50	GK1 FK	DF2 FA50	DF3 FA50	22 x 58	50
					NS80H MA	50		LC1 D50	GK1 FK	DF2 FA50	DF3 FA50	22 x 58	50
15	52	ATS 48D62●		ATS 48D75●	GK3 EF65	65		LC1 D65	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
					NS80H MA	80		LC1 D65	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
18.5	64	ATS 48D75●		ATS 48D88●	GK3 EF80	80		LC1 D80	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
					NS80H MA	80		LC1 D80	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
22	75	ATS 48D88●		ATS 48C11●	NS100● MA (2)	100		LC1 D115	GK1 FK	DF2 FA100	DF3 FA100	22 x 58	100
30	103	ATS 48C11●		ATS 48C14●	NS160● MA (2)	150		LC1 D115	GK1 FK	DF2 FA125	DF4 FA125	22 x 58	125
37	126	ATS 48C14●		ATS 48C17●	NS160● MA (2)	150		LC1 D150	GS1 L	DF2 GA1161	DF4 GA1161	0	160
45	150	ATS 48C17●		ATS 48C21●	NS250● MA (2)	220		LC1 F185	GS1 N	DF2 HA1201	DF4 HA1201	1	200
55	182	ATS 48C21●		ATS 48C25●	NS250● MA (2)	220		LC1 F225	GS1 N	DF2 HA1201	DF4 HA1201	1	200
75	240	ATS 48C25●		ATS 48C32●	NS400● MA (2)	320		LC1 F265	GS1 QQ	DF2 JA1251	DF4 JA1251	2	250
90	295	ATS 48C32●		ATS 48C41●	NS400● MA (2)	320		LC1 F330	GS1 QQ	DF2 JA1311	DF4 JA1311	2	315
110	356	ATS 48C41●		ATS 48C48●	NS630● MAE (2)	500		LC1 F400	GS1 S	DF2 KA1401	DF4 KA1401	3	400
132	425	ATS 48C48●		ATS 48C59●	NS630● MAE (2)	500		LC1 F500	GS1 S	DF2 KA1501	DF4 KA1501	3	500
160	520	ATS 48C59●		ATS 48C66●	NS630b● (2) Micrologic 5.0	630		LC1 F630	GS1 S	DF2 KA1631	DF4 KA1631	3	630
					C801● (2) STR35 ME	800		LC1 F630	GS1 S	DF2 KA1631	DF4 KA1631	3	630
–	–	ATS 48C66●		ATS 48C79●	NS800● (2) Micrologic 5.0	800		LC1 F800	GS1 S	DF2 KA1631	DF4 KA1631	3	630
					C801● (2) STR35 ME	800		LC1 F800	GS1 S	DF2 KA1631	DF4 KA1631	3	630
220	700	ATS 48C79●		ATS 48M10●	NS800● (2) Micrologic 5.0	800		LC1 F800	GS1 V	DF2 LA1801	DF4 LA1801	4	800
					C801● (2) STR35 ME	800		LC1 F800	GS1 V	DF2 LA1801	DF4 LA1801	4	800
250	800	ATS 48M10●		ATS 48M12●	NS1000● (2) Micrologic 5.0	1000		LC1 BM33	GS1 V	DF2 LA1101	DF4 LA1101	4	1000
					C1001● (2) STR35 ME	1000		LC1 BM33	GS1 V	DF2 LA1101	DF4 LA1101	4	1000
355	1115	ATS 48M12●	–		NS1250● (2) Micrologic 5.0	1250		LC1BP33	–	DF2 LA1251	DF4 LA1251	4	1250
					C1251● (2) STR35 ME	1250		LC1BP33	–	DF2 LA1251	DF4 LA1251	4	1250

(1) Replace ● with Q or Y according to the starter voltage range.

(2) Replace ● with N, H or L, according to the breaking capacity (see table below).

(3) DF2 CA, DF● EA, DF● FA: sold in lots of 20.

DF● GA, DF● KA: sold in lots of 3.

DF● LA: sold singly.

Maximum prospective short-circuit current of the starter
according to standard IEC 60947-4-2

Starter	Iq (kA)
ATS 48D17● to ATS 48C32●	50
ATS 48C41● to ATS 48M12●	70

Breaking capacity of circuit-breakers according to standard IEC 60947-2

230 V	Icu (kA)		
	N	H	L
GV2 L20, GK3 EF40, NS80	100		
GV2 L22, GV2 L32, GK3 EF65, GK3 EF80	50		
NS100, NS160, NS250, NS400, NS630	85	100	150
NS800, NS1000	50	70	150
NS1250	50	70	–
C801, C1001	85	100	150
C1251	85	100	–

Soft starters for asynchronous motors

Altistart 48 soft start - soft stop units
230 V power supply, type 2 coordination

Components for use together in accordance with standards IEC 60947-4-1 and IEC 60947-4-2 (see schemes on pages 1/54 to 1/59) **circuit-breakers, contactors, fast-acting fuses, starters**

Combination: circuit-breaker, contactor, starter

Motor		Starter (1) Class 10		Type of circuit-breaker Telemechanique Merlin Gerin	Rating A	Type of contactor
kW	A	Standard applications	Class 20 Severe applications			
M1		A1		Q1		KM1, KM2, KM3
3	11.5	—	ATS 48D17●	GV2 L20 NS80H MA	18 12.5	LC1 D40 LC1 D40
4	14.5	ATS 48D17●	ATS 48D22●	GV2 L20 NS80H MA	18 25	LC1 D40 LC1 D40
5.5	20	ATS 48-D22●	ATS 48D32●	GV2 L22 NS80H MA	25 25	LC1 D40 LC1 D40
7.5	27	ATS 48D32●	ATS 48D38●	GV2 L32 NS80H MA	32 50	LC1 D80 LC1 D80
9	32	ATS 48D38●	ATS 48D47●	GK3 EF40 NS80H MA	40 50	LC1 D80 LC1 D80
11	39	ATS 48D47●	ATS 48D62●	GK3 EF65 NS80H MA	65 50	LC1 D80 LC1 D80
15	52	ATS 48D62●	ATS 48D75●	GK3 EF65 NS80H MA	65 80	LC1 D80 LC1 D80
18.5	64	ATS 48D75●	ATS 48D88●	GK3 EF80 NS80H MA	80 80	LC1 D80 LC1 D80
22	75	ATS 48D88●	ATS 48C11●	NS100● MA (2)	100	LC1 D115
30	103	ATS 48C11●	ATS 48C14●	NS160● MA (2)	150	LC1 D115
37	126	ATS 48C14●	ATS 48C17●	NS160● MA (2)	150	LC1 D150
45	150	ATS 48C17●	ATS 48C21●	NS250● MA (2)	220	LC1 F185
55	182	ATS 48C21●	ATS 48C25●	NS250● MA (2)	220	LC1 F225
75	240	ATS 48C25●	ATS 48C32●	NS400● MA (2)	320	LC1 F265
90	295	ATS 48C32●	ATS 48C41●	NS400● MA (2)	320	LC1 F330
110	356	ATS 48C41●	ATS 48C48●	NS630● MAE (2)	500	LC1 F400
132	425	ATS 48C48●	ATS 48C59●	NS630● MAE (2)	500	LC1 F500
160	520	ATS 48C59●	ATS 48C66●	NS630bL Micrologic 5.0	630	LC1 F630
200	626	ATS 48C66●	ATS 48C79●	NS800L Micrologic 5.0	800	LC1 F800
220	700	ATS 48C79●	ATS 48M10●	NS800L Micrologic 5.0	800	LC1 F800
250	800	ATS 48M10●	ATS 48M12●	NS1000L Micrologic 5.0	1000	LC1 BM33
355	1115	ATS 48M12●	—	NS1250● (2) Micrologic 5.0 (3)	1250	LC1 BP33

(1) Replace ● with Q or Y according to the starter voltage range.

(2) Replace ● with N, H or L, according to the breaking capacity (see the breaking capacity table on the previous page).

(3) Type 2 coordination is only possible if the fast-acting fuses remain in the motor supply circuit and are not bypassed at the end of starting.

Maximum prospective short-circuit current of the starter according to standard IEC 60947-4-2

Starter	Iq (kA)
ATS 48D17● to ATS 48C79●	50
ATS 48M10● and ATS 48M12●	85

Fast-acting fuse (essential for type 2 coordination), starter combinations

Starter Reference	Fast-acting fuses with micro-contact			
	Unit reference (4)	Size	Rating A	I ² t kA ² .s
A1	Q3			
ATS 48D17●	DF3 ER50	14 x 51	50	2.3
ATS 48D22● and ATS 48D32●	DF3 FR80	22 x 58	80	5.6
ATS 48D38● and ATS 48D47●	DF3 FR100	22 x 58	100	12
ATS 48D62● and ATS 48D75●	DF4 00125	00	125	45
ATS 48D88● and ATS 48C11●	DF4 00160	00	160	82
ATS 48C14● and ATS 48C17●	DF4 30400	30	400	120
ATS 48C21● to ATS 48C32●	DF4 31700	31	700	490
ATS 48D75●	DF4 33800	33	800	490
ATS 48C48● and ATS 48C59●	DF4 331000	33	1000	900
ATS 48C66●	DF4 2331400	2 x 33	1400	1200
ATS 48C79●	DF4 441600	44	1600	1600
ATS 48M10● and ATS 48M12●	DF4 442200	44	2200	4100

(4) DF3 ER, DF3 FR: sold in lots of 10

DF4: sold singly.

Soft starters for asynchronous motors

Altistart 48 soft start - soft stop units

380 V, 400 V or 415 V power supply, type 1 coordination

1

1.3

Components for use together in accordance with standards IEC 60947-4-1 and IEC 60947-4-2 (see schemes on pages 1/54 to 1/59)

Combine either circuit-breaker (light blue columns), contactor, starter, or switch/fuse (dark blue columns), contactor, starter

Motor kW		Starter (1) Class 10		Class 20 Severe applications	Type of circuit-breaker Telemecanique Merlin Gerin		Type of contactor	Type of switch or switch disconnecter (bare unit)	Am fuses Unit reference (3)		Size	Rating
		Standard applications			Rating				Without striker	With striker		
M1		A1			Q1		KM1, KM2, KM3					
5.5	11	–		ATS 48D17●	GV2 L20	18	LC1 D18	LS1 D32	DF2 CA16	–	10 x 38	16
					NS80H MA	12.5	LC1 D18	LS1 D32	DF2 CA16	–	10 x 38	16
7.5	14.8	ATS 48D17●		ATS 48D22●	GV2 L20	18	LC1 D18	LS1 D32	DF2 CA16	–	10 x 38	16
					NS80H MA	25	LC1 D18	LS1 D32	DF2 CA16	–	10 x 38	16
11	21	ATS 48D22●		ATS 48D32●	GV2 L22	25	LC1 D25	LS1 D32	DF2 CA25	–	10 x 38	25
					NS80H MA	25	LC1 D25	LS1 D32	DF2 CA25	–	10 x 38	25
15	28.5	ATS 48D32●		ATS 48D38●	GV2 L32	32	LC1 D32	GK1 EK	DF2 EA32	DF3 EA32	14 x 51	32
					NS80H MA	50	LC1 D32	GK1 EK	DF2 EA32	DF3 EA32	14 x 51	32
18.5	35	ATS 48D38●		ATS 48D47●	GK3 EF40	40	LC1 D38	GK1 EK	DF2 EA40	DF3 EA40	14 x 51	40
					NS80H MA	50	LC1 D38	GK1 EK	DF2 EA40	DF3 EA40	14 x 51	40
22	42	ATS 48D47●		ATS 48D62●	GK3 EF65	65	LC1 D50	GK1 FK	DF2 FA50	DF3 FA50	22 x 58	50
					NS80H MA	50	LC1 D50	GK1 FK	DF2 FA50	DF3 FA50	22 x 58	50
30	57	ATS 48D62●		ATS 48D75●	GK3 EF65	65	LC1 D65	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
					NS80H MA	80	LC1 D65	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
37	69	ATS 48D75●		ATS 48D88●	GK3 EF80	80	LC1 D80	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
					NS80H MA	80	LC1 D80	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
45	81	ATS 48D88●		ATS48C11●	NS100● MA (2)	100	LC1 D115	GK1 FK	DF2 FA100	DF3 FA100	22 x 58	100
55	100	ATS 48C11●		ATS 48C14●	NS160● MA (2)	150	LC1 D115	GK1 FK	DF2 FA125	DF4 FA125	22 x 58	125
75	131	ATS 48C14●		ATS 48C17●	NS160● MA (2)	150	LC1 D150	GS1 L	DF2 GA1161	DF4 GA1161	0	160
90	162	ATS 48C17●		ATS 48C21●	NS250● MA (2)	220	LC1 F185	GS1 N	DF2 HA1201	DF4 HA1201	1	200
110	195	ATS 48C21●		ATS 48C25●	NS250● MA (2)	220	LC1 F225	GS1 N	DF2 HA1201	DF4 HA1201	1	200
132	233	ATS 48C25●		ATS 48C32●	NS400● MA (2)	320	LC1 F265	GS1 QQ	DF2 JA1251	DF4 JA1251	2	250
160	285	ATS 48C32●		ATS 48C41●	NS400● MA (2)	320	LC1 F330	GS1 QQ	DF2 JA1311	DF4 JA1311	2	315
220	388	ATS 48C41●		ATS 48C48●	NS630● MAE (2)	500	LC1 F400	GS1 S	DF2 KA1401	DF4 KA1401	3	400
250	437	ATS 48C48●		ATS 48C59●	NS630● MAE (2)	500	LC1 F500	GS1 S	DF2 KA1501	DF4 KA1501	3	500
315	560	ATS 48C59●		ATS 48C66●	NS630b● (2) Micrologic 5.0	630	LC1 F630	GS1 S	DF2 KA1631	DF4 KA1631	3	630
					C801● (2) STR35ME	800	LC1 F630	GS1 S	DF2 KA1631	DF4 KA1631	3	630
355	605	ATS 48C66●		ATS 48C79●	NS800● (2) Micrologic 5.0	800	LC1 F800	GS1 V	DF2 LA1631	DF4 LA1631	4	630
					C801● (2) STR35ME	800	LC1 F800	GS1 V	DF2 LA1631	DF4 LA1631	4	630
400	675	ATS 48C79●		ATS 48M10●	NS800● (2) Micrologic 5.0	800	LC1 F800	GS1 V	DF2 LA1801	DF4 LA1801	4	800
					C801● (2) STR35ME	800	LC1 F800	GS1 V	DF2 LA1801	DF4 LA1801	4	800
500	855	ATS 48M10●		ATS 48M12●	NS1000● (2) Micrologic 5.0	1000	LC1 BM33	GS1 V	DF2 LA1101	DF4 LA1101	4	1000
					C1001● (2) STR35ME	1000	LC1 BM33	GS1 V	DF2 LA1101	DF4 LA1101	4	1000
630	1045	ATS48M12●		–	NS1250● (2) Micrologic 5.0	1250	LC1 BP33	–	DF2 LA1251	DF4 LA1251	4	1250
					C1251● (2) STR35ME	1250	LC1 BP33	–	DF2 LA1251	DF4 LA1251	4	1250

(1) Replace ● with Q or Y according to the starter voltage range.

(2) Replace ● with N, H or L, according to the breaking capacity (see table below).

(3) DF2 CA, DF● EA, DF● FA: sold in lots of 20.

DF● GA, DF● KA: sold in lots of 3.

DF● LA: sold singly.

Maximum prospective short-circuit current of the starter according to IEC 60947-4-2		Breaking capacity of circuit-breakers according to standard IEC 60947-2		
Starter		380 V, 400 V, 415 V		
		Icu (kA)		
ATS 48D17● to ATS 48C32●		GV2 L20, GV2 L22, GV2 L32, GK3 EF40		
ATS 48C41● to ATS 48M12●		GK3 EF65, GK3 EF80		
		NS80		
		380 V, 400 V, 415 V		
		Icu (kA)		
		N	H	L
NS100		25	70	150
NS160, NS250		36	70	150
NS400, NS630		45	70	150
NS800, NS1000, C801, C1001		50	70	150
NS1250, C1251		50	70	–

Soft starters for asynchronous motors

Altistart 48 soft start - soft stop units

380 V, 400 V or 415 V power supply, type 2 coordination

Components for use together in accordance with standards IEC 60947-4-1 and IEC 60947-4-2 (see schemes on pages 1/54 to 1/59) **circuit-breakers, contactors, fast-acting fuses, starters**

Combination: circuit-breaker, contactor, starter

Motor		Starter (1)		Type of circuit-breaker		Rating A	Type of contactor
kW	A	Class 10 Standard applications	Class 20 Severe applications	Telemechanique Merlin Gerin			
M1		A1		Q1			KM1, KM2, KM3
5.5	11	–	ATS 48D17●	GV2 L20	18	18	LC1 D40
				NS80H MA	12.5	12.5	LC1 D40
7.5	14.8	ATS 48D17●	ATS 48D22●	GV2 L20	18	18	LC1 D40
				NS80H MA	25	25	LC1 D40
11	21	ATS 48D22●	ATS 48D32●	GV2 L22	25	25	LC1 D40
				NS80H MA	25	25	LC1 D40
15	28.5	ATS 48D32●	ATS 48D38●	GV2 L32	32	32	LC1 D80
				NS80H MA	50	50	LC1 D80
18.5	35	ATS 48D38●	ATS 48D47●	NS80H MA	50	50	LC1 D80
22	42	ATS 48D47●	ATS 48D62●	NS80H MA	50	50	LC1 D80
30	57	ATS 48D62●	ATS 48D75●	NS80H MA	80	80	LC1 D80
37	69	ATS 48D75●	ATS 48D88●	NS80H MA	80	80	LC1 D80
45	81	ATS 48D88●	ATS 48C11●	NS100● MA (2)	100	100	LC1 D115
55	100	ATS 48C11●	ATS 48C14●	NS160● MA (2)	150	150	LC1 D115
75	131	ATS 48C14●	ATS 48C17●	NS160● MA (2)	150	150	LC1 D150
90	162	ATS 48C17●	ATS 48C21●	NS 250● MA (2)	220	220	LC1 F185
110	195	ATS 48C21●	ATS 48C25●	NS 250● MA (2)	220	220	LC1 F225
132	233	ATS 48C25●	ATS 48C32●	NS400● MA (2)	320	320	LC1 F265
160	285	ATS 48C32●	ATS 48C41●	NS400● MA (2)	320	320	LC1 F330
220	388	ATS 48C41●	ATS 48C48●	NS630● MAE (2)	500	500	LC1 F500
250	437	ATS 48C48●	ATS 48C59●	NS630● MAE (2)	500	500	LC1 F500
315	560	ATS 48C59●	ATS 48C66●	NS630bL Micrologic 5.0	630	630	LC1 F630
355	605	ATS48C66●	ATS48C79●	NS800L Micrologic 5.0	800	800	LC1 F800
400	675	ATS48C79●	ATS48M10●	NS800L Micrologic 5.0	800	800	LC1 F800
500	855	ATS48M10●	ATS48M12●	NS1000L Micrologic 5.0	1000	1000	LC1 BM33
630	1045	ATS48M12●	–	NS1250● (2) Micrologic 5.0 (3)	1250	1250	LC1 BP33

(1) Replace ● with Q or Y according to the starter voltage range.

(2) Replace ● with N, H or L, according to the breaking capacity (see the breaking capacity table on the previous page).

(3) Type 2 coordination is only possible if the fast-acting fuses remain in the motor supply circuit and are not bypassed at the end of starting.

Maximum prospective short-circuit current of the starter according to standard IEC 60947-4-2

Starter	Iq (kA)	Reference	Unit reference (4)	Size	Rating A	I ² t kA ² .s
ATS 48D17●	50	A1	Q3			
ATS 48D22● to ATS 48D47●	40		DF3 ER50	14 x 51	50	2.3
ATS 48D62● to ATS 48C79●	50		DF3 FR80	22 x 58	80	5.6
ATS 48M10● and ATS 48M12●	85		DF3 FR100	22 x 58	100	12
			DF4 00125	00	125	45
			DF4 00160	00	160	82
			DF4 30400	30	400	120
			DF4 31700	31	700	490
			DF4 33800	33	800	490
			DF4 331000	33	1000	900
ATS 48C66●	DF4 2331400		2 x 33	1400	1200	
ATS 48C79●	DF4 441600		44	1600	1600	
ATS 48M10● and ATS 48M12●	DF4 442200		44	2200	4100	

(4) DF3 ER, DF3 FR: sold in lots of 10.

DF4: sold singly.

Soft starters for asynchronous motors

Altistart 48 soft start - soft stop units
440 V power supply, type 1 coordination

1

1.3

Components for use together in accordance with standards IEC 60947-4-1 and IEC 60947-4-2 (see schemes on pages 1/54 to 1/59)

Combine either circuit-breaker (light blue columns), contactor, starter, or switch/fuse (dark blue columns), contactor, starter

Motor		Starter		Type of circuit-breaker		Type of contactor	Type of switch or switch disconnecter (bare unit)	Am fuses		Size	Rating
		Class 10 Standard applications	Class 20 Severe applications	Telemeccanique Merlin Gerin	Rating			Unit reference (2)			
kW	A					A		Without striker	With striker		A
M1	A1			Q1		KM1, KM2, KM3					
5.5	10.4	–	ATS 48D17Y	NS100●MA (1) NS80H MA	12.5	LC1 D12	LS1 D32	DF2 CA16	–	10 x 38	16
7.5	13.7	ATS 48D17Y	ATS 48D22Y	NS100●MA (1) NS80H MA	25	LC1 D18	LS1 D32	DF2 CA16	–	10 x 38	16
11	20.1	ATS 48D22Y	ATS 48D32Y	NS100●MA (1) NS80H MA	25	LC1 D25	GK1 EK	DF2 EA25	DF3 EA25	14 x 51	25
15	26.5	ATS 48D32Y	ATS 48D38Y	NS100●MA (1) NS80H MA	50	LC1 D32	GK1 EK	DF2 EA32	DF3 EA32	14 x 51	32
18.5	32.8	ATS 48D38Y	ATS 48D47Y	NS100●MA (1) NS80H MA	50	LC1 D40	GK1 EK	DF2 EA40	DF3 EA40	14 x 51	40
22	39	ATS 48D47Y	ATS 48D62Y	NS100●MA (1) NS80H MA	50	LC1 D40	GK1 FK	DF2 FA50	DF3 FA50	22 x 58	50
30	52	ATS 48D62Y	ATS 48D75Y	NS80H MA	80	LC1 D65	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
37	64	ATS 48D75Y	ATS 48D88Y	NS80H MA	80	LC1 D65	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
45	76	ATS 48D88Y	ATS 48C11Y	NS100●MA (1)	100	LC1 D115	GK1 FK	DF2 FA100	DF3 FA100	22 x 58	100
55	90	ATS 48C11Y	ATS 48C14Y	NS100●MA (1)	100	LC1 D115	GS1 L	DF2 GA1121	DF4 GA1121	0	125
75	125	ATS 48C14Y	ATS 48C17Y	NS160●MA (1)	150	LC1 D150	GS1 L	DF2 GA1161	DF4 GA1161	1	160
90	150	ATS 48C17Y	ATS 48C21Y	NS250●MA (1)	220	LC1 F185	GS1 N	DF2 HA1201	DF4 HA1201	1	200
110	178	ATS 48C21Y	ATS 48C25Y	NS250●MA (1)	220	LC1 F225	GS1 N	DF2 HA1251	DF4 HA1251	1	250
132	215	ATS 48C25Y	ATS 48C32Y	NS250●MA (1)	220	LC1 F265	GS1 QQ	DF2 JA1311	DF4 JA1311	2	315
160	256	ATS 48C32Y	ATS 48C41Y	NS400●MA (1)	320	LC1 F265	GS1 QQ	DF2 JA1401	DF4 JA1401	2	315
220	353	ATS 48C41Y	ATS 48C48Y	NS630●MAE (1)	500	LC1 F400	GS1 S	DF2 KA1501	DF4 KA1501	3	500
250	401	ATS 48C48Y	ATS 48C59Y	NS630●MAE (1)	500	LC1 F400	GS1 S	DF2 KA1501	DF4 KA1501	3	500
355	549	ATS 48C59Y	ATS 48C66Y	NS630b●(1) Micrologic 5.0	630	LC1 F630	GS1 V	DF2 LA1801	DF4 LA1801	4	800
400	611	ATS 48C66Y	ATS 48C79Y	NS630b●(1) Micrologic 5.0	630	LC1 F630	GS1 V	DF2 LA1801	DF4 LA1801	4	800
500	780	ATS 48C79Y	ATS 48M10Y	NS800●(1) Micrologic 5.0	800	LC1 BM33	GS1 V	DF2 LA1801	DF4 LA1801	4	800
				C801●(1) STR35ME	800	LC1 BM33	GS1 V	DF2 LA1801	DF4 LA1801	4	800
630	965	ATS 48M10Y	ATS 48M12Y	NS1000●(1) Micrologic 5.0	1000	LC1 BP33	GS1 V	DF2 LA1101	DF4 LA1101	4	1000
				C1001L STR35ME	1000	LC1 BP33	GS1 V	DF2 LA1101	DF4 LA1101	4	1000
710	1075	ATS 48M12Y	–	NS1250●(1) Micrologic 5.0	1250	LC1 BP33	–	DF2 LA1251	–	4	1250
				C1251●(1) STR35ME	1250	LC1 BP33	–	DF2 LA1251	–	4	1250

(1) Replace ● with N, H or L, according to the breaking capacity (see table below).

(2) DF2 CA, DF● EA, DF● FA: sold in lots of 20.

DF● GA, DF● KA: sold in lots of 3.

DF● LA: sold in lots of 1.

Maximum prospective short-circuit current of the starter according to standard IEC 60947-4-2		Breaking capacity of circuit-breakers according to standard IEC 60947-2			
		440 V	Icu (kA)		
Starter	Iq (kA)	GV2 L20, GV2 L22, GV2 L32	20		
ATS 48D17Y to ATS 48C32Y	50	GK3 EF40	30		
ATS 48C41Y to ATS 48M12Y	70	GK3 EF65, GK3 EF80	25		
		NS80	65		
		440 V	Icu (kA)		
			N	H	L
		NS100	25	65	130
		NS160, NS250	35	65	130
		NS400, NS630	42	65	130
		NS800, NS1000	50	65	130
		NS1250	50	65	–
		C801, C1001	42	65	150
		C1251	42	65	–

Soft starters for asynchronous motors

Altistart 48 soft start - soft stop units
440 V power supply, type 2 coordination

Components for use together in accordance with standards IEC 60947-4-1 and IEC 60947-4-2 (see schemes on pages 1/54 to 1/59) **circuit-breakers, contactors, fast-acting fuses, starters**

Combination: circuit-breaker, contactor, starter

Motor		Starter		Type of circuit-breaker	Rating A	Type of contactor
kW	A	Class 10 Standard applications	Class 20 Severe applications	Telemecanique Merlin Gerin		KM1, KM2, KM3
M1		A1		Q1		
5.5	10.4	–	ATS 48D17Y	NS80H MA	12.5	LC1 D40
				NS100● MA (1)	12.5	LC1 D80
7.5	13.7	ATS 48D17Y	ATS 48D22Y	NS80H MA	25	LC1 D40
				NS100● MA (1)	25	LC1 D80
11	20.1	ATS 48D22Y	ATS 48D32Y	NS80H MA	25	LC1 D40
				NS100● MA (1)	25	LC1 D80
15	26.5	ATS 48D32Y	ATS 48D38Y	NS100● MA (1) NS80H MA	50	LC1 D80
18.5	32.8	ATS 48D38Y	ATS 48D47Y	NS100● MA (1) NS80H MA	50	LC1 D80
22	39	ATS 48D47Y	ATS 48D62Y	NS100● MA (1) NS80H MA	50	LC1 D80
30	52	ATS 48D62Y	ATS 48D75Y	NS100● MA (1)	100	LC1 D80
				NS80H MA	80	LC1 D80
37	64	ATS 48D75Y	ATS 48D88Y	NS100● MA (1)	100	LC1 D80
				NS80H MA	80	LC1 D80
45	76	ATS 48D88Y	ATS 48C11Y	NS100● MA (1)	100	LC1 D115
55	90	ATS 48C11Y	ATS 48C14Y	NS100● MA (1)	100	LC1 D115
75	125	ATS 48C14Y	ATS 48C17Y	NS160● MA (1)	150	LC1 D150
90	150	ATS 48C17Y	ATS 48C21Y	NS160● MA (1)	150	LC1 D150
110	178	ATS 48C21Y	ATS 48C25Y	NS250● MA (1)	220	LC1 F185
132	215	ATS 48C25Y	ATS 48C32Y	NS400● MA (1)	320	LC1 F265
160	256	ATS 48C32Y	ATS 48C41Y	NS400● MA (1)	320	LC1 F265
220	353	ATS 48C41Y	ATS 48C48Y	NS630● MAE (1)	500	LC1 F400
250	401	ATS 48C48Y	ATS 48C59Y	NS630● MAE (1)	500	LC1 F500
355	549	ATS 48C59Y	ATS 48C66Y	NS630bL Micrologic 5.0	630	LC1 F630
400	611	ATS 48C66Y	ATS 48C79Y	NS800L Micrologic 5.0	800	LC1 F800
500	780	ATS 48C79Y	ATS 48M10Y	NS800L Micrologic 5.0	800	LC1 F800
630	965	ATS 48M10Y	ATS 48M12Y	NS1000L Micrologic 5.0	1000	LC1 BP33
710	1075	ATS 48M12Y	–	NS1250● (1) Micrologic 5.0 (2)	1250	LC1 BP33

(1) Replace ● with N, H or L, according to the breaking capacity (see the breaking capacity table on the previous page).

(2) Type 2 coordination is only possible if the fast-acting fuses remain in the motor supply circuit and are not bypassed at the end of starting.

Maximum prospective short-circuit current of the starter according to standard IEC 60947-4-2		Fast-acting fuse (essential for type 2 coordination), starter combinations			
Starter	Iq (kA)	Starter Reference	Fast-acting fuses with micro-contact		
			Unit reference (3)	Size	Rating A I ² t kA ² .s
ATS 48D17Y	50				
ATS 48D22Y to ATS 48D47Y	20	A1	Q3		
ATS 48D62Y and ATS 48D75Y	50	ATS 48D17Y	DF3 ER50	14 x 51	50 2.3
ATS 48D88Y ATS 48C41Y	40	ATS 48D22Y and ATS 48D32Y	DF3 FR80	22 x 58	80 5.6
ATS 48C11Y to ATS 48C32Y	50	ATS 48D38Y and ATS 48D47Y	DF3 FR100	22 x 58	100 12
ATS 48C48Y to ATS 48C79Y	50	ATS 48D62Y and ATS 48D75Y	DF4 00125	00	125 45
ATS 48M10Y and ATS 48M12Y	85	ATS 48D88Y and ATS 48C11Y	DF4 00160	00	160 82
		ATS 48C14Y and ATS 48C17Y	DF4 30400	30	400 120
		ATS 48C21Y to ATS 48C32Y	DF4 31700	31	700 490
		ATS 48C41Y	DF4 33800	33	800 490
		ATS 48C48Y and ATS 48C59Y	DF4 331000	33	1000 900
		ATS 48C66Y	DF4 2331400	2 x 33	1400 1200
		ATS 48C79Y	DF4 441600	44	1600 1600
		ATS 48M10Y and ATS 48M12Y	DF4 442200	44	2200 4100

(3) DF3 ER, DF3 FR: sold in lots of 10
DF4: sold singly.

Soft starters for asynchronous motors

Altistart 48 soft start - soft stop units
500 V power supply, type 1 coordination

1

1.3

Components for use together in accordance with standards IEC 60947-4-1 and IEC 60947-4-2 (see schemes on pages 1/54 to 1/59)

Combine either circuit-breaker (light blue columns), contactor, starter, or switch/fuse (dark blue columns), contactor, starter

Motor		Starter		Type of circuit-breaker		Type of contactor	Type of switch or switch disconnecter (bare unit)	Am fuses		Size	Rating
		Class 10	Class 20	Telemecanique				Unit reference (2)			
		Standard applications	Severe applications	Merlin Gerin				Without striker	With striker		
kW	A					A					A
M1	A1			Q1	KM1, KM2, KM3						
7.5	12	–	ATS 48D17Y	NS100●MA (1) NS80H MA	12.5	LC1 D12	LS1 D32	DF2 CA16	–	10 x 38	16
9	14	ATS 48D17Y	ATS 48D22Y	NS100●MA (1) NS80H MA	25	LC1 D18	LS1 D32	DF2 CA16	–	10 x 38	16
11	18.4	ATS 48D22Y	ATS 48D32Y	NS100●MA (1) NS80H MA	25	LC1 D25	GK1 EK	DF2 EA25	DF3 EA25	14 x 51	25
18.5	28.5	ATS 48D32Y	ATS 48D38Y	NS100●MA (1) NS80H MA	50	LC1 D32	GK1 EK	DF2 EA32	DF3 EA32	14 x 51	32
22	33	ATS 48D38Y	ATS 48D47Y	NS100●MA (1) NS80H MA	50	LC1 D40	GK1 EK	DF2 EA40	DF3 EA40	14 x 51	40
30	45	ATS 48D47Y	ATS 48D62Y	NS100●MA (1) NS80H MA	50	LC1 D50	GK1 FK	DF2 FA50	DF3 FA50	22 x 58	50
37	55	ATS 48D62Y	ATS 48D75Y	NS100●MA (1)	100	LC1 D65	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
45	65	ATS 48D75Y	ATS 48D88Y	NS100●MA (1)	100	LC1 D80	GK1 FK	DF2 FA80	DF3 FA80	22 x 58	80
55	80	ATS 48D88Y	ATS 48C11Y	NS100●MA (1)	100	LC1 D80	GK1 FK	DF2 FA100	DF3 FA100	22 x 58	100
75	105	ATS 48C11Y	ATS 48C14Y	NS160●MA (1)	150	LC1 D115	GS1 L	DF2 GA1121	DF4 GA1121	0	125
90	130	ATS 48C14Y	ATS 48C17Y	NS160●MA (1)	150	LC1 D150	GS1 L	DF2 GA1161	DF4 GA1161	0	160
110	156	ATS 48C17Y	ATS 48C21Y	NS250●MA (1)	220	LC1 F185	GS1 N	DF2 HA1201	DF4 HA1201	1	200
132	207	ATS 48C21Y	ATS 48C25Y	NS250●MA (1)	220	LC1 F265	GS1 N	DF2 HA1251	DF4 HA1251	1	250
160	257	ATS 48C25Y	ATS 48C32Y	NS400●MA (1)	320	LC1 F265	GS1 QQ	DF2 JA1311	DF4 JA1311	2	315
220	310	ATS 48C32Y	ATS 48C41Y	NS630●MAE (1)	500	LC1 F400	GS1 QQ	DF2 JA1401	DF4 JA1401	2	400
250	360	ATS 48C41Y	ATS 48C48Y	NS630●MAE (1)	500	LC1 F400	GS1 S	DF2 KA1501	DF4 KA1501	3	500
315	460	ATS 48C48Y	ATS 48C59Y	NS630●MAE (1)	500	LC1 F500	GS1 S	DF2 KA1631	DF4 KA1631	3	630
400	540	ATS 48C59Y	ATS 48C66Y	NS630b● (1) Micrologic 5.0	630	LC1 F630	GS1 V	DF2 LA1801	DF4 LA1801	4	800
450	630	ATS 48C66Y	ATS 48C79Y	NS630b● (1) Micrologic 5.0	630	LC1 F800	GS1 V	DF2 LA1801	DF4 LA1801	4	800
500	680	ATS 48C79Y	ATS 48M10Y	NS800●MA (1) Micrologic 5.0	800	LC1 BL33	GS1 V	DF2 LA1801	DF4 LA1801	4	800
				C1001● (1) STR35 ME	1000	LC1 BL33	GS1 V	DF2 LA1801	DF4 LA1801	4	800
630	850	ATS 48M10Y	ATS 48M12Y	NS1000● (1) Micrologic 5.0	1000	LC1 BP33	GS1 V	DF2 LA1101	DF4 LA1101	4	1000
				C1001● (1) STR35 ME	1000	LC1 BP33	GS1 V	DF2 LA1101	DF4 LA1101	4	1000
800	1100	ATS 48M12Y	–	NS1250● (1) Micrologic 5.0	1250	LC1 BP33	–	DF2 LA1251	–	4	1250
				C1251● (1) STR35 ME	1250	LC1 BP33	–	DF2 LA1251	–	4	1250

(1) Replace ● with N, H or L, according to the breaking capacity (see table below).

(2) DF2 CA, DF● EA, DF● FA: sold in lots of 20.

DF● GA, DF● KA: sold in lots of 3.

DF● LA: sold singly.

Breaking capacity of circuit-breakers according to standard IEC 60947-2

500 V	Icu (kA)		
GV2 L20, GV2 L22, GV2 L32	10		
GK3 EF40	20		
GK3 EF65, GK3 EF80	15		
NS80	25		
500 V	Icu (kA)		
	N	H	L
NS100	18	50	100
NS160, NS250, NS630	30	50	70
NS400	30	50	100
NS800, NS1000, C801, C1001	40	50	100
NS1250, C1251	40	50	–
Maximum prospective short-circuit current of the starter according to standard IEC 60947-4-2			
Starter	Iq (kA)		
ATS 48D17Y to ATS 48C32Y	50		
ATS 48C41Y to ATS 48M12Y	70		

Soft starters for asynchronous motors

Altistart 48 soft start - soft stop units
500 V power supply, type 2 coordination

Components for use together in accordance with standards IEC 60947-4-1 and IEC 60947-4-2 (see schemes on pages 1/54 to 1/59) **circuit-breakers, contactors, fast-acting fuses, starters**

Combination: circuit-breaker, contactor, starter

Motor		Starter		Type of circuit-breaker	Rating A	Type of contactor
kW	A	Class 10 Standard applications	Class 20 Severe applications	Telemechanique Merlin Gerin		
M1		A1		Q1		KM1, KM2, KM3
7.5	12	–	ATS 48D17Y	NS80H MA	12.5	LC1 D40
				NS100● MA (1)	12.5	LC1 D80
9	14	ATS 48D17Y	ATS 48D22Y	NS80H MA	25	LC1 D40
				NS100● MA (1)	25	LC1 D80
11	18.4	ATS 48D22Y	ATS 48D32Y	NS80H MA	25	LC1 D40
				NS100● MA (1)	25	LC1 D80
18.5	28.5	ATS 48D32Y	ATS 48D38Y	NS100● MA (1) NS80H MA	50	LC1 D80
22	33	ATS 48D38Y	ATS 48D47Y	NS100● MA (1) NS80H MA	50	LC1 D80
30	45	ATS 48D47Y	ATS 48D62Y	NS100● MA (1) NS80H MA	50	LC1 D80
37	55	ATS 48D62Y	ATS 48D75Y	NS100● MA (1)	100	LC1 D80
45	65	ATS 48D75Y	ATS 48D88Y	NS100● MA (1)	100	LC1 D80
55	80	ATS 48D88Y	ATS 48C11Y	NS100● MA (1)	100	LC1 D115
75	105	ATS 48C11Y	ATS 48C14Y	NS160● MA (1)	150	LC1 D115
90	130	ATS 48C14Y	ATS 48C17Y	NS160● MA (1)	150	LC1 D150
110	156	ATS 48C17Y	ATS 48C21Y	NS250● MA (1)	220	LC1 F185
132	207	ATS 48C21Y	ATS 48C25Y	NS250● MA (1)	220	LC1 F265
160	257	ATS 48C25Y	ATS 48C32Y	NS400● MA (1)	320	LC1 F400
220	310	ATS 48C32Y	ATS 48C41Y	NS400● MA (1)	320	LC1 F400
250	360	ATS 48C41Y	ATS 48C48Y	NS630● MAE (1)	500	LC1 F500
315	460	ATS 48C48Y	ATS 48C59Y	NS630● MAE (1)	500	LC1 F500
400	540	ATS 48C59Y	ATS 48C66Y	NS630bL Micrologic 5.0	630	LC1 F630
450	630	ATS 48C66Y	ATS 48C79Y	NS630bL Micrologic 5.0	630	LC1 F800
500	680	ATS 48C79Y	ATS 48M10Y	NS800L Micrologic 5.0	800	LC1 BL33
630	850	ATS 48M10Y	ATS 48M12Y	NS1000L Micrologic 5.0	1000	LC1 BP33
800	1100	ATS 48M12Y	–	NS1250● (1) Micrologic 5.0 (2)	1250	LC1 BP33

(1) Replace ● with N, H or L, according to the breaking capacity (see the breaking capacity table on the previous page).

(2) Type 2 coordination is only possible if the fast-acting fuses remain in the motor supply circuit and are not bypassed at the end of starting.

Fast-acting fuse (essential for type 2 coordination), starter combinations

Starter Reference	Fast-acting fuses with micro-contact			
	Unit reference (3)	Size	Rating A	I _{pt} kA ² .s
A1	Q3			
ATS 48D17Y	DF3 ER50	14 x 51	50	2.3
ATS 48D22Y and ATS 48D32Y	DF3 FR80	22 x 58	80	5.6
ATS 48D38Y and ATS 48D47Y	DF3 FR100	22 x 58	100	12
ATS 48D62Y and ATS 48D75Y	DF4 00125	00	125	45
ATS 48D88Y and ATS 48C11Y	DF4 00160	00	160	82
ATS 48C14Y and ATS 48C17Y	DF4 30400	30	400	120
ATS 48C21Y to ATS 48C32Y	DF4 31700	31	700	490
ATS 48C41Y	DF4 33800	33	800	490
ATS 48C48Y and ATS 48C59Y	DF4 331000	33	1000	900
ATS 48C66Y	DF4 2331400	2 x 33	1400	1200
ATS 48C79Y	DF4 441600	44	1600	1600
ATS 48M10Y and ATS 48M12Y	DF4 442200	44	2200	4100

Maximum prospective short-circuit current of the starter according to standard IEC 60947-4-2

Starter	I _q (kA)
ATS 48D17Y	50
ATS 48D22Y to ATS 48D47Y	20
ATS 48D62Y and ATS 48D75Y	50
ATS 48D88Y	40
ATS 48C11Y to ATS 48C32Y	50
ATS 48C41Y	40
ATS 48C48Y to ATS 48C79Y	50
ATS 48M10Y and ATS 48M12Y	85

(3) DF3 ER, DF3 FR: sold in lots of 10
DF4: sold singly.

Soft starters for asynchronous motors

Altistart 48 soft start - soft stop units
690 V power supply, type 1 coordination

1

1.3

Components for use together in accordance with standards IEC 60947-4-1 and IEC 60947-4-2 (see schemes on pages 1/54 to 1/59)

Combine either circuit-breaker (light blue columns), contactor, starter, or switch/fuse (dark blue columns), contactor, starter

Motor		Starter		Type of circuit-breaker		Type of contactor	Type of switch or switch disconnecter (bare unit)	Am fuses		Size	Rating
kW	A	Class 10 Standard applications	Class 20 Severe applications	Telemecanique Merlin Gerin	Rating			Unit reference (2)			
					A		Without striker	With striker		A	
M1	A1			Q1		KM1, KM2, KM3					
11	12.1	—	ATS 48D17Y	NS100●MA (1) NS80H MA	12.5 12.5	LC1 D18	GK1 FK	DF2 FA16	DF3 FA16	22 x 58	16
15	16.5	ATS 48D17Y	ATS 48D22Y	NS100●MA (1) NS80H MA	25 25	LC1 D25	GK1 FK	DF2 FA20	DF3 FA20	22 x 58	20
18.5	20.2	ATS 48D22Y	ATS 48D32Y	NS100●MA (1) NS80H MA	50 50	LC1 D32	GK1 FK	DF2 FA25	DF3 FA25	22 x 58	25
22	24.2	ATS 48D32Y	ATS 48D38Y	NS100●MA (1) NS80H MA	50 50	LC1 D40	GK1 FK	DF2 FA32	DF3 FA32	22 x 58	32
30	33	ATS 48D38Y	ATS 48D47Y	NS100●MA (1) NS80H MA	50 50	LC1 D40	GK1 FK	DF2 FA40	DF3 FA40	22 x 58	40
37	40	ATS 48D47Y	ATS 48D62Y	NS100●MA (1) NS80H MA	50 50	LC1 D65	GK1 FK	DF2 FA50	DF3 FA50	22 x 58	50
45	49	ATS 48D62Y	ATS 48D75Y	NS100●MA (1)	100	LC1 D80	—	—	—	—	—
55	58	ATS 48D75Y	ATS 48D88Y	NS100●MA (1)	100	LC1D-115	—	—	—	—	—
75	75.5	ATS 48D88Y	ATS 48C11Y	NS100●MA (1)	100	LC1D-115	—	—	—	—	—
90	94	ATS 48C11Y	ATS 48C14Y	NS160●MA (1)	150	LC1D-150	—	—	—	—	—
110	113	ATS 48C14Y	ATS 48C17Y	NS160●MA (1)	150	LC1D-150	—	—	—	—	—
160	165	ATS 48C17Y	ATS 48C21Y	NS250●MA (1)	220	LC1F-265	—	—	—	—	—
200	203	ATS 48C21Y	ATS 48C25Y	NS400●MA (1)	320	LC1F-330	—	—	—	—	—
250	253	ATS 48C25Y	ATS 48C32Y	NS400●MA (1)	320	LC1F-400	—	—	—	—	—
315	321	ATS 48C32Y	ATS 48C41Y	NS630●MAE (1)	500	LC1F-500	—	—	—	—	—
400	390	ATS 48C41Y	ATS 48C48Y	NS630●MAE (1)	500	LC1 F630	—	—	—	—	—
500	490	ATS 48C48Y	ATS 48C59Y	NS630b● (1) Micrologic 5.0	630	LC1 BL33	—	—	—	—	—
				C801● (1) STR35 ME	800	LC1 BL33	—	—	—	—	—
560	549	ATS 48C59Y	ATS 48C66Y	NS630b● (1) Micrologic 5.0	630	LC1 BL33	—	—	—	—	—
				C801● (1) STR35 ME	800	LC1 BL33	—	—	—	—	—
630	605	ATS 48C66Y	ATS 48C79Y	NS800● (1) Micrologic 5.0	800	LC1 BP33	—	—	—	—	—
				C801● (1) STR35 ME	800	LC1 BP33	—	—	—	—	—
710	694	ATS 48C79Y	ATS 48M10Y	NS800● (1) Micrologic 5.0	800	LC1 BP33	—	—	—	—	—
				C801● (1) STR35 ME	800	LC1 BP33	—	—	—	—	—
900	880	ATS 48M10Y	ATS 48M12Y	NS1000● (1) Micrologic 5.0	1000	LC1 BR33	—	—	—	—	—
				C1001L STR35 ME	1000	LC1 BR33	—	—	—	—	—
950	1000	ATS 48M12Y	—	NS1250● (1) Micrologic 5.0	1250	LC1 BR33	—	—	—	—	—
				C1251● (1) STR35 ME	1250	LC1 BR33	—	—	—	—	—

(1) Replace ● with N, H or L, according to the breaking capacity (see table below).

(2) DF●FA: sold in lots of 10.

Maximum prospective short-circuit current of the starter according to standard IEC 60947-4-2

Starter	Iq (kA)
ATS 48D17Y and ATS 48C32Y	50
ATS 48C41Y to ATS 48M12Y	70

Breaking capacity of circuit-breakers according to standard IEC 60947-2

690 V	Icu (kA)		
GV2 L20, GV2 L22, GV2 L32	4		
GK3 EF40, GK3 EF65, GK3 EF80, NS80	6		
690 V	Icu (kA)		
	N	H	L
NS100	8	10	75
NS160, NS250	8	10	20
NS400	10	20	75
NS630	10	20	35
NS800, NS1000	30	42	25
NS1250	30	42	—
C801, C1001	25	40	60
C1251	25	40	—

Presentation:
pages 1/30 and 1/31

Characteristics:
pages 1/32 to 1/35

References:
pages 1/40 to 1/43

Dimensions:
pages 1/48 to 1/53

Schemes:
pages 1/54 to 1/59

Soft starters for asynchronous motors

Altistart 48 soft start - soft stop units
690 V power supply, type 2 coordination

Components for use together in accordance with standards IEC 60947-4-1 and IEC 60947-4-2 (see schemes on pages 1/54 to 1/59) **circuit-breakers, contactors, fast-acting fuses, starters**

Combination: circuit-breaker, contactor, starter

Motor		Starter		Type of circuit-breaker	Rating A	Type of contactor
kW	A	Class 10 Standard applications	Class 20 Severe applications	Telemechanique Merlin Gerin		
M1		A1		Q1		KM1, KM2, KM3
11	12.1	–	ATS 48D17Y	NS100● MA (1)	12.5	LC1 D80
15	16.5	ATS 48D17Y	ATS 48D22Y	NS100● MA (1)	25	LC1 D80
18.5	20.2	ATS 48D22Y	ATS 48D32Y	NS100● MA (1)	50	LC1 D80
22	24.2	ATS 48D32Y	ATS 48D38Y	NS100● MA (1)	50	LC1 D80
30	33	ATS 48D38Y	ATS 48D47Y	NS100● MA (1)	50	LC1 D80
37	40	ATS 48D47Y	ATS 48D62Y	NS100● MA (1)	50	LC1 D80
45	49	ATS 48D62Y	ATS 48D75Y	NS100● MA (1)	100	LC1 D115
55	58	ATS 48D75Y	ATS 48D88Y	NS100● MA (1)	100	LC1 D115
75	75.5	ATS 48D88Y	ATS 48C11Y	NS100● MA (1)	100	LC1 D115
90	94	ATS 48C11Y	ATS 48C14Y	NS400● MA (1)	320	LC1 F265
110	113	ATS 48C14Y	ATS 48C17Y	NS400● MA (1)	320	LC1 F265
160	165	ATS 48C17Y	ATS 48C21Y	NS 400● MA (1)	320	LC1 F265
200	203	ATS 48C21Y	ATS 48C25Y	NS400● MA (1)	320	LC1 F400
250	253	ATS 48C25Y	ATS 48C32Y	NS400● MA (1)	320	LC1 F500
315	321	ATS 48C32Y	ATS 48C41Y	NS630● MAE (1)	500	LC1 F500
400	390	ATS 48C41Y	ATS 48C48Y	NS630● MAE (1)	500	LC1 F630
500	490	ATS 48C48Y	ATS 48C59Y	NS630bL Micrologic 5.0	630	LC1 BL33
560	549	ATS 48C59Y	ATS 48C66Y	NS630bL Micrologic 5.0	630	LC1 BL33
630	605	ATS 48C66Y	ATS 48C79Y	NS800L Micrologic 5.0	800	LC1 BP33
710	694	ATS 48C79Y	ATS 48M10Y	NS800L Micrologic 5.0	800	LC1 BP33
900	880	ATS 48M10Y	ATS 48M12Y	NS1000L Micrologic 5.0	1000	LC1 BR33
950	1000	ATS 48M12Y	–	NS1250● (1) Micrologic 5.0 (2)	1250	LC1 BR33

(1) Replace ● with N, H or L, according to the breaking capacity (see the breaking capacity table on the previous page).

(2) Type 2 coordination is only possible if the fast-acting fuses remain in the motor supply circuit and are not bypassed at the end of starting.

Fast-acting fuse (essential for type 2 coordination), starter combinations				
Starter reference	Fast-acting fuses with micro-contact			
	Unit reference (3)	Size	Calibre A	I _{pt} kA ² .s
A1	Q3			
ATS 48D17Y	DF3 ER50	14 x 51	50	2.3
ATS 48D22Y and ATS 48D32Y	DF3 FR80	22 x 58	80	5.6
ATS 48D38Y and ATS 48D47Y	DF3 FR100	22 x 58	100	12
DF3 ER50	DF4 00125	00	125	45
ATS 48D88Y and ATS 48C11Y	DF4 00160	00	160	82
ATS 48C14Y and ATS 48C17Y	DF4 30400	30	400	120
ATS 48C21Y to ATS 48C32Y	DF4 31700	31	700	490
ATS 48C41Y	DF4 33800	33	800	490
ATS 48C48Y and ATS 48C59Y	DF4 331000	33	1000	900
ATS 48D17Y	DF4 2331400	2 x 33	1400	1200
ATS 48C79Y	DF4 441600	44	1600	1600
ATS 48M10Y and ATS 48M12Y	DF4 442200	44	2200	4100

Maximum prospective short-circuit current of the starter according to standard IEC 60947-4-2

Starter	I _q (kA)
ATS 48D17Y	50
ATS 48M10Y and ATS 48M12Y	15
ATS 48M10Y and ATS 48M12Y	20
ATS 48D62Y and ATS 48D75Y	50
ATS 48D88Y	20
ATS 48C11Y to ATS 48C32Y	50
ATS 48C41Y	25
ATS 48C48Y to ATS 48C79Y	50
ATS 48M10Y and ATS 48M12Y	85

(3) DF3 ER, DF3 FR: sold in lots of 10
DF4: sold singly.