Soft starters
Altistart 22

Catalogue

October 2009



Schneider Electric

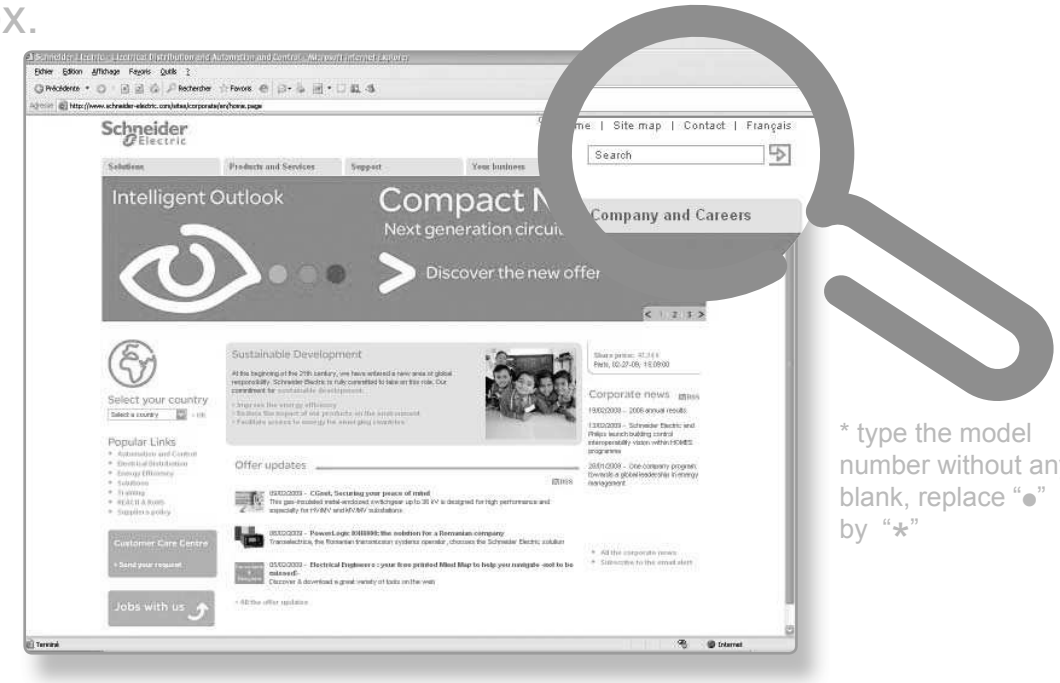
All technical information about products listed in this catalogue are now available on:

www.schneider-electric.com

Browse the “product data sheet” to check out :

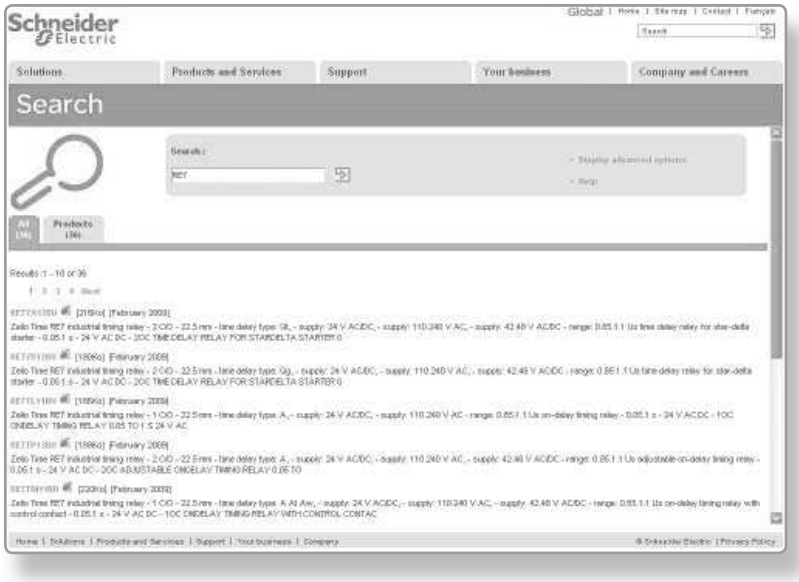
- characteristics,
- dimensions,
- curves, ...
- and also the links to the user guides and the CAD les.

1 From the home page, type the model number* into the “Search” box.



* type the model number without any blank, replace “●” by “*”

2 Under ”All” tab, click the model number that interests you.



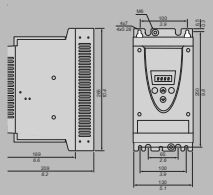
3 The product data sheet displays.



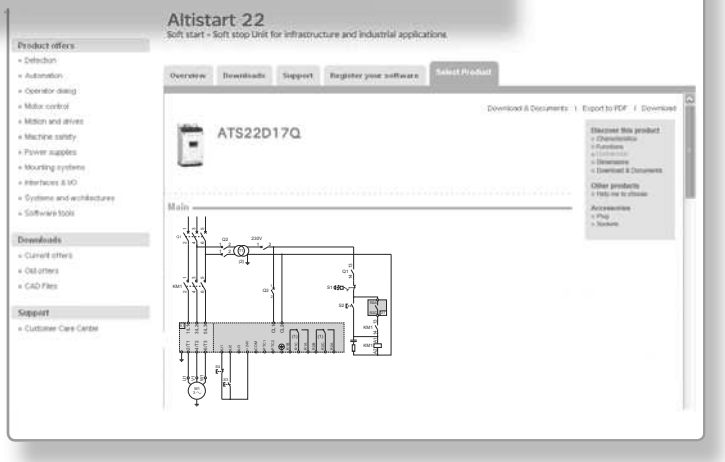
Discover this product
- Characteritics
- Functions
- Connection
- Dimensions
- Download & Documents

Other products
- Help me to choose

Accessories
- Plug
- Sockets







☑ You can get this information in one single pdf le.


Make the most of your energy!

Altistart 22 soft start/ soft stop unit

Innovative
Economical
Safe

- Reduce your operating costs
- Simplify wiring
- Protect your electrical installation
- Save space with a fully equipped product

Contents

Selection guide	p. 6
Presentation	p. 8
References	p. 12
Motor starters	p. 16

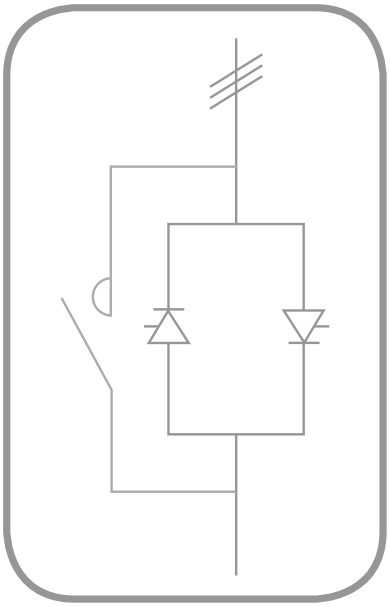
Reduce your costs with an integrated bypass function*

Installation and operation couldn't be simpler

- Save time on wiring (6 terminals instead of 12)
- Optimise the size of your enclosures (Altistart 22 is very compact)
- Keep temperature rises to a minimum (low heat dissipation)
- Reduce the number of components you need to manage (multifunction product)



3 controlled phases



50% reduction in wiring time

* shuntage

Bypass the stresses and let your applications take the strain

Protect your installations

- By minimising jolts and shocks, Altistart 22 reduces mechanical stresses on your machines and increases their service life.
- Altistart 22 prevents installation failure by detecting and signalling faults such as a blocked motor, underload or incorrect earthing of one of the 3 motor phases.
- Cards are coated as standard to provide enhanced resistance to harsh environments.

Play it safe with a complete product

- Altistart 22, with its three controlled phases, incorporates all the protection functions required to monitor the motor, the electrical installation and the starter itself.
- Simplify setup and operation with:
  - 4 light emitting diodes (LEDs)
  - 4 navigation keys
  - 4-digit display
  - SoMove setup software (common to the Altivar, Lexium and TeSys ranges)







Soft starters for asynchronous motors

Applications		**Starting simple machines**	**Controlled starting and deceleration of simple machines**
			
Power range for 50...60 Hz (kW) line supply (connection to the motor's power supply line)		**0.37...11**	**0.75...15**
	Single-phase 110...230 V (kW)	0.37...2.2	–
	Three-phase 200...240 V (kW)	–	0.75...7.5
	Three-phase 200...480 V (kW)	0.37…11	–
	Three-phase 208...600 V (kW)	–	–
	Three-phase 208...690 V (kW)	–	–
	Three-phase 230...415 V (kW)	–	–
	Three-phase 230...440 V (kW)	–	–
	Three-phase 380...415 V (kW)	–	1.5…15
Drive	Number of controlled phases	1	2
	Type of control	–	–
	Operating cycle	–	–
Functions			
Bypass		Integrated	
Number of I/O	Analogue inputs	–	
	Logic inputs	–	
	Analogue outputs	–	
	Logic outputs	–	
	Relay outputs	–	
Communication	Integrated	–	
	Available as an option	–	
Standards and certifications		IEC/EN 60947-4-2 CE, UL, CSA, C-Tick and CCC	
References		**ATS 01N1●●●●**	**ATS 01N2●●●●**
Page		Please refer to the "Soft starters and variable speed drives" catalogue.	

Controlled starting and deceleration of simple and complex machines





4…400	**3…900**	
–	–	–
–	–	–
–	–	–
4…400	–	–
–	–	3…900
–	3…630	–
4…355	–	–
–	–	–

3	3
Configurable voltage ramp	TCS (Torque Control System)
Standard	Standard and severe

Integrated	Available as an option
1 PTC probe	1 PTC probe
3	4
–	1
–	2
2 ("N/C" / "N/O")	3

Modbus	Modbus
–	Fipio, PROFIBUS DP, DeviceNet, Modbus TCP

IEC/EN 60947-4-2, EMC class A CE, UL, CSA, C-Tick, GOST, CCC	IEC/EN 60947-4-2, EMC classes A and B CE, UL, CSA, DNV, C-Tick, GOST, CCC, NOM, SEPRO and TCF

ATS 22●●●●	**ATS 48●●●Q**	**ATS 48●●●Y**
12	Please refer to the “Soft starters and variable speed drives”catalogue.	

Altistart 22
soft start - soft stop units



The Altistart 22 soft start - soft stop unit offer

Presentation

The Altistart 22 soft start - soft stop unit supports the controlled starting and stopping, via voltage and torque, of three-phase squirrel cage asynchronous motors for power ratings between 4 and 400 kW.

It comes ready to use for standard applications with class 10 motor protection.

The Altistart 22 soft start - soft stop unit has been designed to satisfy the performance requirements of applications where ruggedness, the safety of personnel and equipment, and easy commissioning are at a premium.

The bypass function (based on a bypass contactor) has been made easier to use by integrating it into the starter. This approach suits applications where it may be necessary to bypass the starter at the end of the starting process in order, for example, to limit the starter's heat dissipation.

The Altistart 22 soft start - soft stop unit contains an integrated display terminal which allows the user to change both the programming and the adjustment or monitoring parameters in order to adapt and customize the application in line with customer needs.

The unit also features thermal protection for motors as well as a monitoring facility for machines and, thanks to the SoMove setup software, enables the installation to be commissioned immediately.

Applications

The integrated functions of the Altistart 22 soft start - soft stop unit are compatible with the more common types of application found in the construction, infrastructure or industrial sectors:

- Centrifugal pumps, piston pumps
- Fans
- Screw compressors, etc.
- Material handling (conveyors, etc.)
- Specialist machines (agitators, mixers, centrifugal machines)

The Altistart 22 soft start - soft stop unit represents a truly cost-effective solution, as it supports:

- A reduction in installation costs by optimizing product sizes, integrating the bypass function and reducing wiring time
- A reduction in the stress associated with electrical distribution by reducing the current peaks and line voltage drops caused by motors starting up
- A reduction in running costs for machines by reducing mechanical stress

Controlling the three phases of the motor windings ensures that performance remains satisfactory, whatever the situation (with or without a load, all voltage and power ranges, etc.).

Conformity to standards

Type		Performance
Conducted and radiated emissions	Conforming to IEC 60947-4-2	Class A
Vibration resistance	Conforming to IEC 60068-2-6	1.5 mm from 2 to 13 Hz, 1 gn from 13 to 200 Hz
Shock resistance	Conforming to IEC 60068-2-27	15 gn for 11 ms
Maximum ambient pollution	Conforming to IEC 60664-1	Step 2
Relative humidity	Conforming to IEC 60068-2-3	95% non-condensing, no dripping water
Degree of protection	For ATS 22D17…C11	IP 20 (IP 00 if no connections)
	For ATS 22C14…C59	IP 00

The Altistart 22 soft start - soft stop unit conforms to the RoHS Directive.

References:
page 12

Combinations:
page 16

Altistart 22
soft start - soft stop units

Functions

The main functions integrated in the drive are as follows:

Adjustment functions

- Adjustment of the Altistart 22 soft start - soft stop unit's current in line with the motor's nominal current
- Limiting current
- Selection of the type of stop (freewheel or deceleration)

Drive performance functions

- Management of the three supply phases
- Option of connecting the starter in the motor delta connection in series with each winding. This supports the use of a soft start - soft stop unit with a lower rating (only applies to the ATS 22●●●Q range)
- Management of the ramp and torque supplied to the motor throughout the acceleration and deceleration period (significantly less jerk)
- Variety of control profiles to suit different applications
- Integrated and automated management of the bypass function at the end of the starting process (based on a bypass contactor), whilst preserving electronic protection features

Protection functions for the motor and machine

- Integration of configurable motor thermal protection
- Thermal protection for the Altistart 22 soft start - soft stop unit
- Integrated processing of the PTC thermal probe with electrical isolation (optimum management of motor protection)
- Monitoring of the duration and number of starts (better installation safety)
- Management of stopping time before restart
- Automatic restart
- Protection against underloads and overcurrents in transient or steady state
- Automatic adjustment to the line frequency
- Detection of phase sequence
- Detection of phase loss
- Detection of imbalances between phases and of leakage currents (for the ATS 22●●●S6 and S6U ranges)

Functions to ease integration into control systems

- 3 programmable logic inputs
- 2 programmable N/C / N/O relay outputs
- Pluggable connectors for I/O
- Second set of parameters for motor operation
- Modbus serial link via RJ45 connector
- Display of soft start - soft stop unit and machine states
- Display of I/O currents and states
- Error log, diagnostics for soft start - soft stop unit
- Return to factory settings
- 4 LEDs on the front face (Ready, Communication, Run and Trip)

References:
page 12

Combinations:
page 16

Altistart 22
soft start - soft stop units



Commissioning the ATS 22 soft start - soft stop unit with SoMove lite setup software

The offer

The Altistart 22 soft start - soft stop unit offer comprises 2 voltage ranges for motor power ratings from 4 to 400 kW:
- Three-phase power supply voltage from 230 V to 440 V, 50/60 Hz **(ATS 22●●●Q)**
- Three-phase power supply voltage from 208 V to 600 V, 50/60 Hz **(ATS 22●●●S6** and **ATS 22●●●S6U)**

Options

The Altistart 22 soft start - soft stop unit range also offers a number of options:
- A remote terminal unit can be installed on the front face of a floor-standing enclosure with IP 54/NEMA 12 or IP 65 protection (depending on the model). It offers the same functions as an integrated display terminal.
- Additional fans to support a greater number of starts
- SoMove lite setup software
- Protection shrouds for terminals to ensure compliance with IP 20 degree of protection

Selection criteria

The Altistart 22 soft start - soft stop unit has been designed for standard control system applications.

In addition to the chosen application, the choice of starter will depend on the following main criteria:
- The power and nominal current on the motor rating plate
- The load factor for the application

The starting capacity also needs to be considered when selecting an Altistart 22 soft start - soft stop unit:

Starting capacity

The standard starting capacity for a class 10 motor is:
- 3.5 In for 40 seconds from cold with S1 motor duty
- 3.5 In for 20 seconds with S4 motor duty, based on a load factor of 95%

Note:
S1 motor duty is based on a start followed by operation at constant load, making it possible to achieve thermal equilibrium.
S4 motor duty is based on a cycle consisting of a start, operation at constant load and an idle period.

Number of starts per hour

Assuming the starting capacity remains the same, the number of starts per hour can be increased by adding a fan.
The ATS 22D17Q…C17Q, ATS 22D17S6…C17S6 and ATS 22D17S6U…C17S6U soft start - soft stop units can be fitted with an additional fan. Page 15 has details of this option.

Possible number of starts per hour based on a capacity of 3.5 In for 20 seconds (S4 motor duty) after adding a fan:

Soft start - soft stop units	Number of starts per hour	
	Without fan	With additional fan
ATS 22D17●…D47●	6	**10**
ATS 22D62●…D88●	6	**10**
ATS 22C11●…C17●	4	**10**

Note:
The ATS 22C21Q…C59Q, ATS 22C21S6…C59S6 and ATS 22C21S6U…C59S6U soft start - soft stop units come with a fan as standard.
The standard number of starts per hour for S4 motor duty is 4. Anything more would require the next lowest rating.

References:
page 12

Combinations:
page 16

Altistart 22
soft start - soft stop units



Example of pumping application using the Altistart 22 soft start - soft stop unit

Standard application areas

Examples of functions performed by the Altistart 22 soft start - soft stop unit depending on the application chosen

Type of machine	Functions performed by the Altistart 22
Centrifugal pump	Controlled slowing-down and stopping (fewer hammer blows) Protection against underload or reversal of phase rotation direction
Piston pump	Control of pump priming and the pump's direction of rotation
Fan	Detection of overloads and underloads (motor/fan transmission broken) Braking torque on stopping
Turbine	Thermal monitoring of motor via electrically isolated PTC probe
Refrigeration compressor	Control of starting characteristics Management of automatic restart
Screw compressor	Protection against reversal of phase rotation direction Contact for automatic emptying on stopping
Centrifugal compressor	Protection against reversal of phase rotation direction Contact for automatic emptying on stopping
Conveyor	Monitoring of overloads for incident detection or underloads for break detection
Conveyor belt	Second set of motor parameters depending on the load transported
Lifting screw	Monitoring of overloads for hard spot detection or underloads for break detection
Agitator	Displaying the current indicates the density of the material.
Mixer	Displaying the current indicates the density of the material. Boost on start-up
Refiner	Torque control on starting and stopping

Dedicated applications

The ATS 22 soft start - soft stop unit can be used for applications outside the standard characteristics, but this could involve derating to at least the next lowest level.

Examples of applications outside the standard characteristics:

- Greater number of starts
- Motor thermal protection higher than class 10
- Excess current required at time of start
- Certain ambient temperatures:

For ambient temperatures between +40°C and +60°C, derate the nominal current of the Altistart by 2.2% for each additional degree.

- Certain altitudes:

For altitudes between 1000 and 2000 metres, derate the nominal current of the Altistart by 2% for each additional 100 metres.

- Etc.

References:
page 12

Combinations:
page 16

Altistart 22
soft start - soft stop units
Three-phase power supply voltage 230…440 V



ATS 22D17Q

Connection to the motor's power supply line

Motor power given in kW in accordance with standard IEC/EN 60947-4-2. 220 V control power supply

Motor			230…440 V - 50/60 Hz soft start - soft stop unit					
Power indicated on rating plate			Nominal current (In) *(1)*	Factory setting for current (IcL) *(1) (2)*	Dissipated power at nominal current *(4)*	Dimensions (W x D x H)	Reference	Weight
230 V	400 V	440 V						
kW	kW	kW	A	A	W	mm		kg
4	7.5	7.5	14.8	17	39	130 x 169 x 265	**ATS 22D17Q**	7.000
7.5	15	15	28.5	32	44	130 x 169 x 265	**ATS 22D32Q**	7.000
11	22	22	42	47	48	130 x 169 x 265	**ATS 22D47Q**	7.000
15	30	30	57	62	59	145 x 207 x 295	**ATS 22D62Q**	12.000
18.5	37	37	69	75	63	145 x 207 x 295	**ATS 22D75Q**	12.000
22	45	45	81	88	66	145 x 207 x 295	**ATS 22D88Q**	12.000
30	55	55	100	110	73	150 x 229 x 356	**ATS 22C11Q**	18.000
37	75	75	131	140	82	150 x 229 x 356	**ATS 22C14Q**	18.000
45	90	90	162	170	91	150 x 229 x 356	**ATS 22C17Q**	18.000
55	110	110	195	210	117	206 x 299 x 425	**ATS 22C21Q**	33.000
75	132	132	233	250	129	206 x 299 x 425	**ATS 22C25Q**	33.000
90	160	160	285	320	150	206 x 299 x 425	**ATS 22C32Q**	33.000
110	220	220	388	410	177	206 x 299 x 425	**ATS 22C41Q**	33.000
132	250	250	437	480	218	304 x 340 x 455	**ATS 22C48Q**	50.000
160	315	355	560	590	251	304 x 340 x 455	**ATS 22C59Q**	50.000



ATS 22D62Q

Connection to the motor's delta connection

Motor power given in kW in accordance with the standard IEC/EN 60947-4-2. 220 V control power supply

Motor			230…440 V - 50/60 Hz soft start - soft stop unit					
Power indicated on rating plate			Nominal current (In) *(1)*	Factory setting for current (IcL) *(1) (3)*	Dissipated power at nominal current *(4)*	Dimensions (W x D x H)	Reference	Weight
230 V	400 V	440 V						
kW	kW	kW	A	A	W	mm		kg
5.5	11	15	25	17	39	130 x 169 x 265	**ATS 22D17Q**	7.000
11	22	22	48	32	44	130 x 169 x 265	**ATS 22D32Q**	7.000
18.5	45	45	70	47	48	130 x 169 x 265	**ATS 22D47Q**	7.000
22	55	55	93	62	59	145 x 207 x 295	**ATS 22D62Q**	12.000
30	55	75	112	75	63	145 x 207 x 295	**ATS 22D75Q**	12.000
37	75	75	132	88	66	145 x 207 x 295	**ATS 22D88Q**	12.000
45	90	90	165	110	73	150 x 229 x 356	**ATS 22C11Q**	18.000
55	110	110	210	140	82	150 x 229 x 356	**ATS 22C14Q**	18.000
75	132	132	255	170	91	150 x 229 x 356	**ATS 22C17Q**	18.000
90	160	160	315	210	117	206 x 299 x 425	**ATS 22C21Q**	33.000
110	220	220	375	250	129	206 x 299 x 425	**ATS 22C25Q**	33.000
132	250	250	480	320	150	206 x 299 x 425	**ATS 22C32Q**	33.000
160	315	355	615	410	177	206 x 299 x 425	**ATS 22C41Q**	33.000
220	355	400	720	480	218	304 x 340 x 455	**ATS 22C48Q**	50.000
250	400	500	885	590	251	304 x 340 x 455	**ATS 22C59Q**	50.000



ATS 22C11Q

(1) In refers to the maximum continuous current for class 10. IcL refers to the starter rating.
(2) The factory setting for the current equates to the nominal current of a standard 4-pole, 400 V, class 10 motor (standard application). It should be adjusted in line with the current indicated on the motor rating plate.
(3) The factory setting for the current should be adjusted in line with the current indicated on the motor rating plate.
(4) Includes the power dissipated by the fan

Presentation: page 8
Combinations: page 16

Altistart 22
soft start - soft stop units
Three-phase power supply voltage 208…600 V



ATS 22C21S6

Connection to the motor's power supply line

Motor power given in kW in accordance with standard IEC/EN 60947-4-2. 220 V control power supply

Motor				230…600 V - 50/60 Hz soft start - soft stop unit					
Power indicated on rating plate				Nominal current (In) *(1)*	Factory setting for current (IcL) *(1) (2)*	Dissipated power at nominal current *(3)*	Dimensions (W x D x H)	Reference	Weight
230 V	400 V	440 V	500 V						
kW	kW	kW	kW	A	A	W	mm		kg
4	7.5	7.5	9	14	17	39	130 x 169 x 265	**ATS 22D17S6**	7.000
7.5	15	15	18.5	27	32	44	130 x 169 x 265	**ATS 22D32S6**	7.000
11	22	22	30	40	47	48	130 x 169 x 265	**ATS 22D47S6**	7.000
15	30	30	37	52	62	59	145 x 207 x 295	**ATS 22D62S6**	12.000
18.5	37	37	45	65	75	63	145 x 207 x 295	**ATS 22D75S6**	12.000
22	45	45	55	77	88	66	145 x 207 x 295	**ATS 22D88S6**	12.000
30	55	55	75	96	110	73	150 x 229 x 356	**ATS 22C11S6**	18.000
37	75	75	90	124	140	82	150 x 229 x 356	**ATS 22C14S6**	18.000
45	90	90	110	156	170	91	150 x 229 x 356	**ATS 22C17S6**	18.000
55	110	110	132	180	210	117	206 x 299 x 425	**ATS 22C21S6**	33.000
75	132	132	160	240	250	129	206 x 299 x 425	**ATS 22C25S6**	33.000
90	160	160	220	302	320	150	206 x 299 x 425	**ATS 22C32S6**	33.000
110	220	220	250	361	410	177	206 x 299 x 425	**ATS 22C41S6**	33.000
132	250	250	315	414	480	218	304 x 340 x 455	**ATS 22C48S6**	50.000
160	315	355	400	477	590	251	304 x 340 x 455	**ATS 22C59S6**	50.000



ATS 22C48S6U

Motor power given in *HP*. 110 V control power supply

Motor				208…600 V - 50/60 Hz soft start - soft stop unit					
Power indicated on rating plate				Nominal current (In) *(1)*	Factory setting for current (IcL) *(1) (2)*	Dissipated power at nominal current *(3)*	Dimensions (W x D x H)	Reference	Weight
208 V	230 V	460 V	575 V						
HP	*HP*	*HP*	*HP*	A	A	W	mm		kg
3	*5*	*10*	*15*	14	17	39	130 x 169 x 265	**ATS 22D17S6U**	7.000
7.5	*10*	*20*	*25*	27	32	44	130 x 169 x 265	**ATS 22D32S6U**	7.000
–	*15*	*30*	*40*	40	47	48	130 x 169 x 265	**ATS 22D47S6U**	7.000
15	*20*	*40*	*50*	52	62	59	145 x 207 x 295	**ATS 22D62S6U**	12.000
20	*25*	*50*	*60*	65	75	63	145 x 207 x 295	**ATS 22D75S6U**	12.000
25	*30*	*60*	*75*	77	88	66	145 x 207 x 295	**ATS 22D88S6U**	12.000
30	*40*	*75*	*100*	96	110	73	150 x 229 x 356	**ATS 22C11S6U**	18.000
40	*50*	*100*	*125*	124	140	82	150 x 229 x 356	**ATS 22C14S6U**	18.000
50	*60*	*125*	*150*	156	170	91	150 x 229 x 356	**ATS 22C17S6U**	18.000
60	*75*	*150*	*200*	180	210	117	206 x 299 x 425	**ATS 22C21S6U**	33.000
75	*100*	*200*	*250*	240	250	129	206 x 299 x 425	**ATS 22C25S6U**	33.000
100	*125*	*250*	*300*	302	320	150	206 x 299 x 425	**ATS 22C32S6U**	33.000
125	*150*	*300*	*350*	361	410	177	206 x 299 x 425	**ATS 22C41S6U**	33.000
150	*–*	*350*	*400*	414	480	218	304 x 340 x 455	**ATS 22C48S6U**	50.000
–	*200*	*400*	*500*	477	590	251	304 x 340 x 455	**ATS 22C59S6U**	50.000

(1) In refers to the maximum continuous current for class 10. IcL refers to the starter rating.
(2) The factory setting for the current should be adjusted in line with the current indicated on the motor rating plate.
(3) Includes the power dissipated by the fan

Presentation: page 8
Combinations: page 16

Altistart 22
soft start - soft stop units
Options: Dialogue and configuration tools, Modbus serial link



SoMove setup software

SoMove setup software

Presentation

This software enables the user to configure, set, debug and organize maintenance tasks for the Altistart 22 soft start - soft stop unit. It can also be used to customize the integrated display terminal menus.
It can be downloaded from our website, “www.schneider-electric.com”.

References

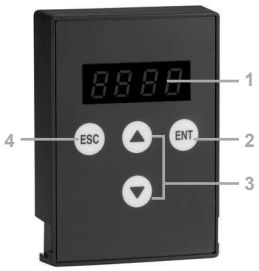
Description	For soft start - soft stop units	Reference	Weight kg
SoMove lite setup software	ATS 22	**–**	–
USB/RJ45 cordset equipped with a USB connector and an RJ45 connector. For connecting a PC to the Altistart 22 soft start - soft stop unit. Length: 2.5 m	ATS 22	**TCSM CNAM 3M002P**	0.115

Remote display terminal

Presentation

This terminal enables the human machine interface of the Altistart 22 soft start - soft stop unit to be positioned remotely on the door of a floor-standing enclosure. It has IP 54/NEMA12 or IP 65 degree of protection depending on the model.
It is used to:
- Set and configure the soft start - soft stop unit remotely
- Display the status and faults of the soft start - soft stop unit remotely

Its maximum operating temperature is 50°C. Please refer to our website at "www.schneider-electric.com" if the temperature exceeds this.



VW3 G22 101

Description

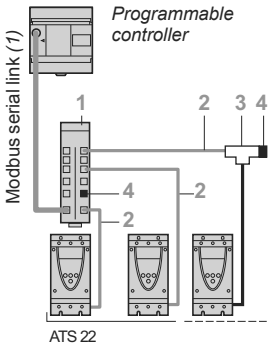
1 4-digit display
2 Selection/validation key **ENT**: opens a menu or validates the value chosen
3 Navigation keys ▲, ▼
4 Selection key **ESC**: used to exit a menu

References

Description	Degree of protection	Length	Dimensions W x D x H	Reference	Weight
		m	mm		kg
Remote display terminals A remote-mounting cordset is also required - VW3 A1 104 R●●	IP 54/NEMA 12	–	50 x 15 x 70	**VW3 G22 101**	0.250
	IP 65	–	66 x 19 x 106	**VW3 G22 102**	0.275
Remote-mounting cordsets equipped with 2 RJ45 connectors	–	1	–	**VW3 A1 104 R10**	0.050
	–	3	–	**VW3 A1 104 R30**	0.150

Modbus serial link

Connection via splitter box and RJ45 connectors



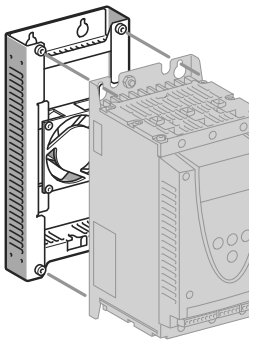
Example of a connection using a Modbus serial link via a splitter box with RJ45 connectors

Description		Number	Length m	Unit reference	Weight kg
Modbus splitter box with 10 RJ45 connectors		1	–	**LU9 GC3**	0.500
Cordsets for Modbus serial link with 2 RJ45 connectors		2	0.3	**VW3 A8 306 R03**	0.025
			1	**VW3 A8 306 R10**	0.060
			3	**VW3 A8 306 R30**	0.130
Modbus T-junction boxes (with integrated cable)		3	0.3	**VW3 A8 306 TF03**	0.190
			1	**VW3 A8 306 TF10**	0.210
Line terminators *(2)* *(3)*	R = 120 Ω C = 1 nf	4	–	**VW3 A8 306 RC**	0.010
	R = 120 Ω	4	–	**VW3 A8 306 R**	0.010

(1) Cable depends on the type of controller or PLC
(2) Sold in lots of 2
(3) Depends on the bus architecture

Presentation: page 8
Combinations: page 16

Altistart 22
soft start - soft stop units
Options: Fans, accessories and documentation



VW3 G22 40●

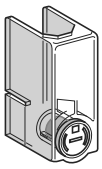
Fans

Presentation

The ATS 22C21Q…C59Q, ATS 22C21S6…C59S6 and ATS 22C21S6U…C59S6U soft start - soft stop units come with an integrated fan.
The ATS 22D17Q…C17Q, ATS 22D17S6…C17QS6 and ATS 22D17S6U…C17S6U soft start - soft stop units are ventilated by means of natural convection.
For more demanding applications, such as those with a greater number of starts, the Altistart 22 range offers fans as an option. These are driven by the soft start - soft stop unit and attached to the back of the device.
The fan's noise level is less than 60 dBA.

References

Description	Power supply voltage for control	For soft start - soft stop units	Dimensions W x D x H	Reference	Weight
	V		mm		kg
Fans	220	ATS 22D17Q…D47Q, ATS 22D17S6…D47S6	130 x 40 x 265	**VW3 G22 400**	1.200
		ATS 22D62Q…D88Q, ATS 22D62S6…D88S6	145 x 40 x 295	**VW3 G22 401**	1.400
		ATS 22C11Q…C17Q, ATS 22C11S6…C17S6	150 x 40 x 350	**VW3 G22 402**	1.600
	110	ATS 22D17S6U…D47S6U	130 x 40 x 265	**VW3 G22 U400**	1.200
		ATS 22D62S6U…D88S6U	145 x 40 x 295	**VW3 G22 U401**	1.400
		ATS 22C11S6U…C17S6U	150 x 40 x 350	**VW3 G22 U402**	1.600



LA9 F70●

Protection shrouds for power terminals (to be used with eyelet connections)

The ATS 22C11Q…C59Q, ATS 22C11S6…C59S6 and ATS 22C11S6U…C59S6U soft start - soft stop units have 6 unprotected power terminals. These terminals can be fitted with protection shrouds.

Description	For soft start - soft stop units	Reference	Weight kg
Set of 6 power terminal protection shrouds	ATS 22C11Q…C17Q, ATS 22C11S6…C17S6, ATS 22C11S6U…C17S6U	**LA9 F702**	0.250
	ATS 22C21Q…C59Q, ATS 22C21S6…C59S6, ATS 22C21S6U…C59S6U	**LA9 F703**	0.250

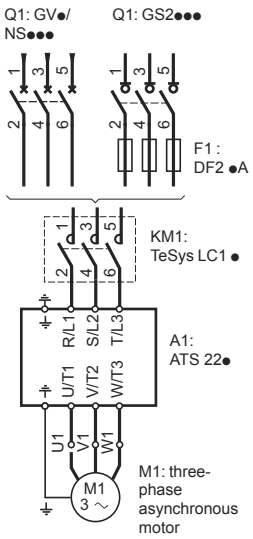
Documentation

Description	Reference	Weight kg
"Description of the Motion & Drives Offer" DVD ROM *(1)* It consists of: ■ Technical documentation (programming manuals, installation manuals, quick reference guides) ■ SoMove lite setup software ■ Brochures, catalogues. The documentation relating to the ATS 22 offer is also available on our website, "www.schneider-electric.com".	**VW3 A8 200**	0.100

(1) Updated version including the Altistart 22 range available 1st quarter 2010.

Presentation: page 8
Combinations: page 16

Altistart 22
soft start - soft stop units
Motor starters:
400…440 V three-phase power supply voltage
Type 1 coordination



Motor starter with protection by circuit breaker or switch disconnector

Compatible components in accordance with standard IEC/EN 60947-4-2

Use the contactor and starter with either a circuit breaker or a fuse switch disconnector.

Three-phase, 4-pole motor 50/60 Hz			Class 10 starter *(1)*	Circuit breaker		Contactor *(3)*	Fuse switch disconnector (for front and side control)	aM fuse		
				Reference	Rating			Unit reference *(4)*	Size	Rating
400 V kW	440 V kW	A			A				mm	A
M1	M1		A1	Q1		KM1		F1		
7.5	7.5	14.8	**ATS 22D17●**	**GV3 L20**	–	**LC1 D18●●**	**GS1 DD3**	**DF2 CA16**	10 x 38	16
				NS80H6-MA	25					
15	15	28.5	**ATS 22D32●**	**GV3 L32**	–	**LC1 D32●●**	**GS1 DD3**	**DF2 CA32**	10 x 38	32
				NS80H6-MA	50					
22	22	42	**ATS 22D47●**	**GV3 L50**	–	**LC1 D50A●●**	**GS2 F3**	**DF2 EA50**	14 x 51	50
				NS80H6-MA	50					
30	30	57	**ATS 22D62●**	**GV3 L65**	–	**LC1 D65A●●**	**GS2 J3**	**DF2 FA63**	22 x 58	63
				NS80H6-MA	80					
37	37	69	**ATS 22D75●**	***NS80H6-MA***	80	**LC1 D80●●**	**GS2 J3**	**DF2 FA80**	22 x 58	80
45	45	81	**ATS 22D88●**	***NSX100●MA*** *(2)*	100	**LC1 D115●●**	**GS2 J3**	**DF2 FA100**	22 x 58	100
55	55	100	**ATS 22C11●**	***NSX160●MA*** *(2)*	150	**LC1 D115●●**	**GS2 K3**	**DF2 FA125**	22 x 58	125
75	75	131	**ATS 22C14●**	***NSX160●MA*** *(2)*	150	**LC1 D150●●**	**GS2 L3**	**DF2 GA1161**	0	160
90	90	162	**ATS 22C17●**	***NSX250●MA*** *(2)*	220	**LC1 F185●●**	**GS2 N3**	**DF2 HA1201**	1	200
110	110	195	**ATS 22C21●**	***NSX250●MA*** *(2)*	220	**LC1 F225●●**	**GS2 N3**	**DF2 HA1251**	1	250
132	132	233	**ATS 22C25●**	***NSX400● Micrologic 1.3-M*** *(2)*	320	**LC1 F265●●**	**GS2 N3**	**DF2 HA1251**	1	250
160	160	285	**ATS 22C32●**	***NSX400● Micrologic 1.3-M*** *(2)*	320	**LC1 F330●●**	**GS2 QQ3**	**DF2 JA1311**	2	315
220	220	388	**ATS 22C41●**	***NSX630● Micrologic 1.3-M*** *(2)*	500	**LC1 F400●●**	**GS2 S3**	**DF2 KA1401**	3	400
250	250	437	**ATS 22C48●**	***NSX630● Micrologic 1.3-M****(2)*	500	**LC1 F500●●**	**GS2 S3**	**DF2 KA1501**	3	500
315	355	560	**ATS 22C59●**	***NS630b● Micrologic 5.0*** *(2)*	500	**LC1 F630●●**	**GS2 S3**	**DF2 KA1631**	3	630

(1) Replace ● with Q or S6 depending on the starter's voltage range.
To find more information on combinations for motor power supply voltages of 230 V (ATS 22●●●Q starters) or 500 V (ATS 22●●●S6 starters), please visit our website at "www.schneider-electric.com".
(2) Replace ● with F, N, H, S or L depending on the breaking capacity; see table below.
(3) Replace ●● with the control circuit voltage reference: please consult our "Motor starter solutions. Control and protection components" catalogue.
(4) DF2 CA, EA, FA: sold in lots of 10.
DF2 GA, HA, JA, KA: sold in lots of 3.

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

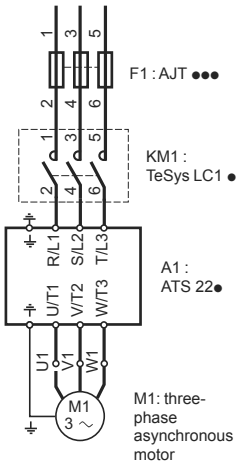
Starter	Iq (kA) in 500 V
ATS 22D17●… ATS 22D75●	25
ATS 22D88●… ATS 22C59●	50

Breaking capacity of circuit-breakers according to standard IEC/EN 60947-4-2

Circuit-breaker	Icu (kA) in 400 V					Icu (kA) in 440 V				
GV3 L	50					50				
NS80H6-MA	70					65				
Circuit-breaker	**Icu (kA) in 400 V**					**Icu (kA) in 440 V**				
	F	**N**	**H**	**S**	**L**	**F**	**N**	**H**	**S**	**L**
NSX100…NSX630	36	50	70	100	150	35	50	65	90	130
NS630b	–	50	70	–	150	–	50	65	–	130

Presentation: page 8
References: page 12

Altistart 22
soft start - soft stop units
Motor starters:
208…575 V three-phase power supply voltage



Motor starter with protection by fuse

Compatible components in accordance with standard UL 508

Product without enclosure

Three-phase, 4-pole motor 50/60 Hz					Class 10 starter	Maximum short-circuit current (SCC) at 600 V	Contactor *(1)*	Time delay fuse (sold by Ferraz)
208 V *HP*	230 V *HP*	460 V *HP*	575 V *HP*	A		kA		Class J
M1	M1	M1	M1		A1		KM1	F1
3	*5*	*10*	*15*	14	**ATS 22D17S6U**	5	**LC1 D18●●**	**AJT 40**
7.5	*10*	*20*	*25*	27	**ATS 22D32S6U**	5	**LC1 D32●●**	**AJT 70**
–	*15*	*30*	*40*	40	**ATS 22D47S6U**	5	**LC1 D50A●●**	**AJT 100**
15	*20*	*40*	*50*	52	**ATS 22D62S6U**	10	**LC1 D65A●●**	**AJT 125**
20	*25*	*50*	*60*	65	**ATS 22D75S6U**	10	**LC1 D80A●●**	**AJT 175**
25	*30*	*60*	*75*	77	**ATS 22D88S6U**	10	**LC1 D115●●**	**AJT 200**
30	*40*	*75*	*100*	96	**ATS 22C11S6U**	10	**LC1 D115●●**	**AJT 250**
40	*50*	*100*	*125*	124	**ATS 22C14S6U**	10	**LC1 D150●●**	**AJT 300**
50	*60*	*125*	*150*	156	**ATS 22C17S6U**	10	**LC1 F185●●**	**AJT 400**
60	*75*	*150*	*200*	180	**ATS 22C21S6U**	18	**LC1 F225●●**	**AJT 500**
75	*100*	*200*	*250*	240	**ATS 22C25S6U**	18	**LC1 F265●●**	**AJT 600**
100	*125*	*250*	*300*	302	**ATS 22C32S6U**	18	**LC1 F330●●**	**2 x AJT 350**
125	*150*	*300*	*350*	361	**ATS 22C41S6U**	18	**LC1 F400●●**	**2 x AJT 400**
150	*–*	*350*	*400*	414	**ATS 22C48S6U**	18	**LC1 F500●●**	**2 x AJT 500**
–	*200*	*400*	*500*	477	**ATS 22C59S6U**	30	**LC1 F630●●**	**2 x AJT 600**

Enclosed product

Three-phase, 4-pole motor 50/60 Hz					Class 10 starter	Maximum short-circuit current (SCC) at 600 V	Minimum wall-mounted enclosure volume		Contactor *(1)*	Time delay fuse	
208 V *HP*	230 V *HP*	460 V *HP*	575 V *HP*	A		kA	cm^3	$inch^3$		Class J A	Class L A
M1	M1	M1	M1		A1				KM1	F1	
3	*5*	*10*	*15*	14	**ATS 22D17S6U**	100	40	2406	**LC1 D18●●**	**30**	**–**
7.5	*10*	*20*	*25*	27	**ATS 22D32S6U**	100	40	2406	**LC1 D32●●**	**60**	**–**
–	*15*	*30*	*40*	40	**ATS 22D47S6U**	100	40	2406	**LC1 D50A●●**	**90**	**–**
15	*20*	*40*	*50*	52	**ATS 22D62S6U**	100	52	3149	**LC1 D65A●●**	**110**	**–**
20	*25*	*50*	*60*	65	**ATS 22D75S6U**	100	52	3149	**LC1 D80A●●**	**150**	**–**
25	*30*	*60*	*75*	77	**ATS 22D88S6U**	100	52	3149	**LC1 D115●●**	**175**	**–**
30	*40*	*75*	*100*	96	**ATS 22C11S6U**	100	125	7630	**LC1 D115●●**	**200**	**–**
40	*50*	*100*	*125*	124	**ATS 22C14S6U**	100	125	7630	**LC1 F150●●**	**250**	**–**
50	*60*	*125*	*150*	156	**ATS 22C17S6U**	100	125	7630	**LC1 F185●●**	**300**	**–**
60	*75*	*150*	*200*	180	**ATS 22C21S6U**	100	130	7892	**LC1 F225●●**	**400**	**–**
75	*100*	*200*	*250*	240	**ATS 22C25S6U**	100	130	7892	**LC1 F265●●**	**450**	**–**
100	*125*	*250*	*300*	302	**ATS 22C32S6U**	100	130	7892	**LC1 F330●●**	**600**	**–**
125	*150*	*300*	*350*	361	**ATS 22C41S6U**	100	130	7892	**LC1 F400●●**	**600**	**–**
150	*–*	*350*	*400*	414	**ATS 22C48S6U**	100	195	11,869	**LC1 F500●●**	**–**	**800**
–	*200*	*400*	*500*	477	**ATS 22C59S6U**	100	195	11,869	**LC1 F630●●**	**–**	**800**

(1) Replace ●● with the control circuit reference: please consult our "Motor starter solutions. Control and protection components" catalogue.

Presentation: page 8
References: page 12

Schneider Electric Industries SAS

www.schneider-electric.com

Head Of ce
35, rue Joseph Monier
F-92500 Rueil-Malmaison
France

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for speci c user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant speci c application or use thereof. Neither Schneider Electric nor any of its af liates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Design: Schneider Electric
Photos: Schneider Electric
Printed by:

DIA2ED2090804EN

ART. 960386

October 2009