



### Main

Range of product	Altistart 48
Product or component type	Soft starter
Product destination	Asynchronous motors
Product specific application	Heavy duty industry and pumps
Device short name	ATS48
[Us] rated supply voltage	208...690 V (- 15...10 %)
Motor power kW	110 kW at 400 V for standard applications 110 kW at 440 V for standard applications 110 kW at 500 V for severe applications 110 kW at 525 V for severe applications 132 kW at 500 V for standard applications 132 kW at 525 V for standard applications 132 kW at 660 V for severe applications 160 kW at 660 V for standard applications 160 kW at 690 V for severe applications 200 kW at 690 V for standard applications 45 kW at 230 V for severe applications 55 kW at 230 V for standard applications 90 kW at 400 V for severe applications 90 kW at 440 V for severe applications
Motor power hp	125 hp at 460 V for severe applications 150 hp at 460 V for standard applications 150 hp at 575 V for severe applications 200 hp at 575 V for standard applications 50 hp at 208 V for severe applications 60 hp at 208 V for standard applications 60 hp at 230 V for severe applications 75 hp at 230 V for standard applications
Power dissipation in W	For standard applications 468 W For standard applications 580 W
Utilisation category	AC-53A
Type of start	Start with torque control (current limited to 5 In)
IcL starter rating	170 A for standard applications 210 A for standard applications
IP degree of protection	IP00

### Complementary

Assembly style	With heat sink
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Function available	External bypass (optional)
Supply voltage limits	177...759 V
Supply frequency	50...60 Hz (- 5...5 %)
Network frequency	47.5...63 Hz
Device connection	In the motor supply line
Factory setting current	180 A
[Uc] control circuit voltage	110 - 15 % to 230 + 10 %, 50/60 Hz
Control circuit consumption	50 W
Discrete output number	2
Discrete output type	(LO1) logic output 0 V common configurable (LO2) logic output 0 V common configurable (R1) relay outputs fault relay NO (R2) relay outputs end of starting relay NO (R3) relay outputs motor powered NO
Output absolute accuracy precision	+/- 5 %
Minimum switching current	Relay outputs 10 mA at 6 V DC
Maximum switching current	Logic output 0.2 A at 30 V DC Relay outputs 1.8 A at 230 V AC inductive load, cos phi = 0.5, L/R = 20 ms Relay outputs 1.8 A at 30 V DC inductive load, cos phi = 0.5, L/R = 20 ms
Discrete input number	5
Discrete input type	PTC, 750 Ohm at 25 °C (Stop, Run, LI3, LI4) logic, <= 8 mA 4300 Ohm
Discrete input voltage	24 V (<= 30 V)
Discrete input logic	Positive logic (Stop, Run, LI3, LI4) state 0 < 5 V and <= 2 mA, state 1 > 11 V and >= 5 mA
Supply inrush current	Adjustable 0.4...1.3 Icl
Analogue output type	(AO) current output 0-20 mA or 4-20 mA <= 500 Ohm
Communication port protocol	Modbus
Connector type	1 RJ45
Communication data link	Serial
Physical interface	RS485 multidrop
Transmission rate	4800, 9600 or 19200 bps
Installed device	31
Protection type	Phase failure (line) Thermal protection (motor) Thermal protection (starter)
Marking	CE
Type of cooling	Forced convection
Operating position	Vertical +/- 10 degree
Height	380 mm
Width	320 mm
Depth	265 mm
Product weight	18.2 kg
Power range	30...50 kW at 200...240 V 3 phases 55...100 kW at 200...240 V 3 phases 110...220 kW at 380...440 V 3 phases 110...220 kW at 480...500 V 3 phases
Motor starter type	Soft starter

## Environment

Electromagnetic compatibility	Conducted and radiated emissions conforming to IEC 60947-4-2 level A Damped oscillating waves conforming to IEC 61000-4-12 level 3 Electrostatic discharge conforming to IEC 61000-4-2 level 3 Immunity to electrical transients conforming to IEC 61000-4-4 level 4 Immunity to radiated radio-electrical interference conforming to IEC 61000-4-3 level 3 Voltage/Current impulse conforming to IEC 61000-4-5 level 3
Standards	EN/IEC 60947-4-2
Product certifications	GOST CCC

UL  
DNV  
CSA  
TCF  
C-Tick  
SEPRO  
NOM 117

Vibration resistance	1 gn (f = 13...200 Hz) conforming to EN/IEC 60068-2-6 1.5 mm (f = 2...13 Hz) conforming to EN/IEC 60068-2-6
Shock resistance	15 gn for 11 ms conforming to EN/IEC 60068-2-27
Noise level	54 dB
Pollution degree	Level 3 conforming to IEC 60664-1
Relative humidity	0...95 % without condensation or dripping water conforming to EN/IEC 60068-2-3
Ambient air temperature for operation	-10...40 °C without derating > 40...60 °C with current derating of 2 % per °C
Ambient air temperature for storage	-25...70 °C
Operating altitude	<= 1000 m without derating > 1000...2000 m with current derating of 2.2 % per additional 100 m

### Contractual warranty

Warranty period	18 months
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Dimensions

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- (1) Right View
- (2) Front View

Clearance



Our Proposal: Circuit Breaker + Contactor + Soft starter for Motor Power from 45 to 110 kW and 230 to 440 VAC

Motor power (kW)	ICU (kA)	Breaker	Contactor (*)	Instantaneous auxiliary contact	Motor Starter
45 kW for 230 V	85	 LV431748	 LC1F185P7	 LADN22	 ATS48C21Y
55 kW for 230 V	85	 LV431748	 LC1F225P7	 LADN22	 ATS48C21Y
90 kW for 400 V	36	 LV431748	 LC1F185P7	 LADN22	 ATS48C21Y
90 kW for 440 V	35	 LV431748	 LC1F185P7	 LADN22	 ATS48C21Y
110 kW for 400 V	36	 LV431748	 LC1F225P7	 LADN22	 ATS48C21Y
110 kW for 440 V	35	 LV431748	 LC1F225P7	 LADN22	 ATS48C21Y

Non contractual pictures.

Motor power kW	Coil voltage VDC	24	48	110	125	220	230	Other
45 kW for 230 V	LC1F185 ..	BD	ED	FD	GD	MD	MD	Complete Offer
90 kW for 400/440 V	LC1F185 ..	BD	ED	FD	GD	MD	MD	Complete Offer
55 kW for 230 V	LC1F225 ..	BD	ED	FD	GD	MD	MD	Complete Offer
110 kW for 400/440 V	LC1F225 ..	BD	ED	FD	GD	MD	MD	Complete Offer

(\*) You can select the contactor proposed or variants. Please consider examples hereafter or follow the link to the complete offer.

Motor power kW	Coil voltage VAC 40...400 Hz	24	48	110	115	120	220	230	240	400	Other
45 kW for 230 V	LC1F185 ..	-	<a href="#">E7</a>	<a href="#">F7</a>	<a href="#">FE7</a>	<a href="#">G7</a>	<a href="#">M7</a>	<a href="#">P7</a>	<a href="#">U7</a>	<a href="#">V7</a>	<a href="#">Complete Offer</a>
90 kW for 400/440 V	LC1F185 ..	-	<a href="#">E7</a>	<a href="#">F7</a>	<a href="#">FE7</a>	<a href="#">G7</a>	<a href="#">M7</a>	<a href="#">P7</a>	<a href="#">U7</a>	<a href="#">V7</a>	<a href="#">Complete Offer</a>
55 kW for 230 V	LC1F225 ..	-	<a href="#">E7</a>	<a href="#">F7</a>	<a href="#">FE7</a>	<a href="#">G7</a>	<a href="#">M7</a>	<a href="#">P7</a>	<a href="#">U7</a>	<a href="#">V7</a>	<a href="#">Complete Offer</a>
110 kW for 400/440 V	LC1F225 ..	-	<a href="#">E7</a>	<a href="#">F7</a>	<a href="#">FE7</a>	<a href="#">G7</a>	<a href="#">M7</a>	<a href="#">P7</a>	<a href="#">U7</a>	<a href="#">V7</a>	<a href="#">Complete Offer</a>

(\*\*) You can select the breaker proposed or variants. Please consider examples hereafter or follow the link to the complete offer.

Motor power kW	ICU ( Breaker with capacity level		ICU ( Breaker with capacity level		ICU ( Breaker with capacity level		Other
	F	F	H	H	N	N	
45 to 55 kW for 230 V	85	<a href="#">LV431748</a>	100	<a href="#">LV431756</a>	90	<a href="#">LV431752</a>	<a href="#">Complete Offer</a>
90 to 110 kW for 400 V	36	<a href="#">LV431748</a>	70	<a href="#">LV431756</a>	50	<a href="#">LV431752</a>	<a href="#">Complete Offer</a>
90 to 110 kW for 440 V	35	<a href="#">LV431748</a>	65	<a href="#">LV431756</a>	50	<a href="#">LV431752</a>	<a href="#">Complete Offer</a>