

ATS48C59Y

soft starter for asynchronous motor - ATS48 - 477 A
- 208..690 V - 132..560 KW



Main

Range of product	Altistart 48
Product or component type	Soft starter
Product destination	Asynchronous motors
Product specific application	Pumping and ventilation machine Severe and standard applications
Device short name	ATS48
[Us] rated supply voltage	208...690 V (- 15...10 %)
Motor power kW	132 kW at 230 V for severe applications 160 kW at 230 V for standard applications 250 kW at 400 V for severe applications 250 kW at 440 V for severe applications 315 kW at 400 V for standard applications 315 kW at 500 V for severe applications 315 kW at 525 V for severe applications 355 kW at 440 V for standard applications 400 kW at 500 V for standard applications 400 kW at 525 V for standard applications 400 kW at 660 V for severe applications 500 kW at 690 V for severe applications 560 kW at 660 V for standard applications 560 kW at 690 V for standard applications
Motor power hp	150 hp at 208 V for severe applications 200 hp at 230 V for standard applications 350 hp at 460 V for severe applications 400 hp at 460 V for standard applications 400 hp at 575 V for severe applications 500 hp at 575 V for standard applications
Power dissipation in W	For standard applications 1386 W For standard applications 1731 W
Utilisation category	AC-53A
Type of start	Start with torque control (current limited to 5 In)
IcL starter rating	480 A for standard applications 590 A for standard applications
IP degree of protection	IP00

Complementary

Assembly style	With heat sink
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	477 A
Control circuit voltage	110 - 15 % to 230 + 10 %, 50/60 Hz
Control circuit consumption	80 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

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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	(Stop, Run, LI3, LI4) positive logic 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) Phase failure (line) Thermal protection (motor) Thermal protection (starter)
Marking	CE
Type of cooling	Forced convection
Operating position	Vertical ± 10 degree
Height	670 mm
Width	400 mm
Depth	300 mm
Product weight	51.4 kg

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	CCC CSA C-Tick DNV GOST NOM 117 SEPRO TCF UL
vibration resistance	1 gn ($f = 13...200$ Hz) conforming to EN/IEC 60068-2-6 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	55 dB
pollution degree	Level 3 conforming to IEC 60664-1
relative humidity	≤ 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 $> 40...60$ °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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