DNV·GL

Certificate No:
TAE00001AZ

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Motor Starter

with type designation(s)
Altistart 48

Issued to
STIE
PACY SUR EURE, France

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Rated Voltage (V)	**208 - 690**
Rated Current (A)	**17 - 1200**
Frequency (Hz)	**50 - 60**

This Certificate is valid until **2021-06-30**.
Issued at **Høvik** on **2016-08-10**

DNV GL local station: **Marseille**

Approval Engineer: **Nicolay Horn**

for **DNV GL**

Digitally Signed By: Laumann, Marit
Location: DNV GL Høvik, Norway
Signing Date: 2016-08-12

Marit Laumann
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

AC Semiconductor Motor Starters for asynchronous motors.

Type designation	Mains supply	FLA (IcL)	3-phase Starter rating (AC-53a)			
			Connected in line			
	(V)	(A)	(kW) (1)			
			230V	400V	500V	690V
ATS48D17Y	208 - 690	17	4	7,5	9	15
ATS48D22Y	208 - 690	22	5,5	11	11	18,5
ATS48D32Y	208 - 690	32	7,5	15	18,5	22
ATS48D38Y	208 - 690	38	9	18,5	22	30
ATS48D47Y	208 - 690	47	11	22	30	37
ATS48D62Y	208 - 690	62	15	30	37	45
ATS48D75Y	208 - 690	75	18,5	37	45	55
ATS48D88Y	208 - 690	88	22	45	55	75
ATS48C11Y	208 - 690	110	30	55	75	90
ATS48C14Y	208 - 690	140	37	75	90	110
ATS48C17Y	208 - 690	170	45	90	110	160
ATS48C21Y	208 - 690	210	55	110	132	200
ATS48C25Y	208 - 690	250	75	132	160	250
ATS48C32Y	208 - 690	320	90	160	220	315
ATS48C41Y	208 - 690	410	110	220	250	400
ATS48C48Y	208 - 690	480	132	250	315	500
ATS48C59Y	208 - 690	590	160	315	400	560
ATS48C66Y	208 - 690	660	--	355	--	630
ATS48C79Y	208 - 690	790	220	400	500	710
ATS48M10Y	208 - 690	1000	250	500	630	900
ATS48M12Y	208 - 690	1200	355	630	800	--
ATS48D17Q	230 - 415	17	4	7,5	--	--
ATS48D22Q	230 - 415	22	5,5	11	--	--
ATS48D32Q	230 - 415	32	7,5	15	--	--
ATS48D38Q	230 - 415	38	9	18,5	--	--
ATS48D47Q	230 - 415	47	11	22	--	--
ATS48D62Q	230 - 415	62	15	30	--	--
ATS48D75Q	230 - 415	75	18,5	37	--	--
ATS48D88Q	230 - 415	88	22	45	--	--
ATS48C11Q	230 - 415	110	30	55	--	--
ATS48C14Q	230 - 415	140	37	75	--	--
ATS48C17Q	230 - 415	170	45	90	--	--
ATS48C21Q	230 - 415	210	55	110	--	--
ATS48C25Q	230 - 415	250	75	132	--	--
ATS48C32Q	230 - 415	320	90	160	--	--
ATS48C41Q	230 - 415	410	110	220	--	--
ATS48C48Q	230 - 415	480	132	250	--	--
ATS48C59Q	230 - 415	590	160	315	--	--
ATS48C66Q	230 - 415	660	--	355	--	--
ATS48C79Q	230 - 415	790	220	400	--	--
ATS48M10Q	230 - 415	1000	250	500	--	--
ATS48M12Q	230 - 415	1200	355	630	--	--

1) Values applicable for 40 °C. To be modified for ships application at 45 °C. See under "Application / limitation".

Job Id: **262.1-006096-4**
Certificate No: **TAE00001AZ**

Manufactured by

Company Name	Address
SCHNEIDER TOSHIBA INVERTER EUROPE (STIE)	Rue Andre Blanchet 27120 Pacy Sur Eure FRANCE
SCHNEIDER (SUZHOU) DRIVES CO LTD (SSD)	No. 555 Fengting Avenue Sip Weiting Town, Suzhou Jiangsu 215121, CHINA
PT SCHNEIDER ELECTRIC MFG BATAM (SEMB)	Batam Industrial Park BLK 4 Mukakuning, Batam Riau, 29433, INDONESIA

Application/Limitation

Supply voltage range:	
ATS48 Y-series	208 - 690 V, 17-1200A, 50/60 Hz
ATS48 Q-series	230 - 415 V, 17-1200A, 50/60 Hz
Voltage variation:	- 15 % + 10%
Frequency variation:	- 5 % (automatic) or ± 20 % by pre setting program
Temperature range in operation:	0 - 40 °C (40 - 60 °C when derated)
DNV Temperature class:	A
DNV Vibration class:	A
DNV Humidity class:	A
EMC:	EMC Directive To be used on DNV class A locations. For emission: EMC class A for all starters, EMC class B above 170 A starters if bypassed by starting ramp.

The Altistart 48 must be regarded as a component. The actual installation to be designed according to Schneider Electric Users Manual and according to the applicable DNV GL Rules for the actual application. Applicable for certification (product certificate) as part of a switchboard.

To be installed in an enclosure with an IP degree in accordance with DNV Rules w.r.t. location.

For marine applications size of softstarter to be chosen according to chapter "Technical Specification" and derated with respect to an ambient temperature of 45°C and drive mode in accordance with chapter "Environment" in "Altivar 48 Users Manual" (2,0% per deg. C for ambient above 45 °C).

To be installed with marine kits (vibration dampers). See document "Recommmendations for use of ATS48 Series in Navy Application" for details

These products may also be connected INSIDE DELTA. See manufacturer's documentation for applicable re-rating.

Type Approval documentation

Technical info:
"Altistart 48 soft start – soft stop units" Schneider Electric catalogue February 2002 (parts).

"Recommendations for use of ATS48 Series in Navy Application" July 2003 (part 3 in volume 1 of 3 of DNV type approval file from Schneider).

Test reports:
EMITECH technical report ref. RT-03-8001 1/LP/CD, dated 2003-06-03.
SOPEMEMA test report nos. LK 31118, dated 2001-12-10, LH 32204/1 & LH 32204/2 dated 2002-12-17.

SQUARE D EMC laboratory test raport EMC01-29, dated 2001-06-25. SQUARE D Engineering order (with incl. test reports) 2001-107 rev. A, 2001-109 rev. A & 2001-118 rev. A, dated 2001-01-19. Scheider test reports Nos. Plan: 267, dated 2001-12-04 &18, 2001-09-27, 2001-10-8, 15 &17. Scheider test reports Nos. 370-01 & 373-01, dated 2001-2-03, 457-01 & 458-01, dated 2001-12-12 and PV3_007P.

Tests carried out

Visual inspection, Performance, Power supply failure, Power supply variations, Voltage/frequency variation, Vibration, Dry heat, Damp heat, Insulation resistance, High voltage.

EMC: The following tests are in accordance with the EMC directive / IEC 60947-4-1: Electrical fast transient (Burst), electrical slow transient (Surge), RF-common mode Voltage, radiated RF-electromagnetic fields, electric discharge (ESD), radiated and conducted emission.

Marking of product

Altistart 48 - Type designation – Factory code - Power – Voltage

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Survey to be performed at least every second year.

END OF CERTIFICATE