

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Frequency Converter**with type designation(s)
Altivar 930 / 950 SeriesIssued to
STIE
Pacy Sur Eure, Eure, Franceis found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.****Range:**
0,75 kW to 75 kW 200 - 240 V AC supply,
0,75 kW to 315 kW 380 - 480 V AC supply,
2.2 kW to 90 kW 575 - 690 V AC supplyThis Certificate is valid until **2021-08-07**.Issued at **Høvik** on **2018-07-31**DNV GL local station: **Marseille**Approval Engineer: **Nicolay Horn**for **DNV GL**

Andreas Kristoffersen
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.

Job Id: **262.1-019346-3**
 Certificate No: **TAE0000176**
 Revision No: **2**

Name and place of manufacturer

Schneider Electric industries 2, rue du Pont Vert ZAC - Le Village 27109 - Le Vaudreuil - France	PT SCHNEIDER ELECTRIC MFG BATAM (SEMB) BATAM INDUSTRIAL PARK BLK 4 MUKAKUNING, BATAM RIAU, 29433, INDONESIA
Schneider Suzhou Drives Co Ltd No.7 Loujiang East Road, Weiting Town, SIP Suzhou P.R.China	APC India Pvt Ltd 187/3 & 188/3, Jigani Village, Jigani Hobli Bangalore India

Product description

Altivar 930/950. Variable speed controller for asynchronous motor. Constant torque applications.

Technical data for 200 -240 V supply:

Type designation	Mains supply (V)	Number of phases	Motor power output (kW)
ATV930U07M3*	200 – 240	3	0,75
ATV930U15M3*	200 – 240	3	1,5
ATV930U22M3*	200 – 240	3	2,2
ATV930U30M3*	200 – 240	3	3,0
ATV930U40M3*	200 – 240	3	4,0
ATV930U55M3*	200 – 240	3	5,5
ATV930U75M3*	200 – 240	3	7,5
ATV930D11M3*	200 – 240	3	11
ATV930D15M3*	200 – 240	3	15
ATV930D18M3*	200 – 240	3	18,5
ATV930D22M3*	200 – 240	3	22
ATV930D30M3(C)*	200 – 240	3	30
ATV930D37M3(C)*	200 – 240	3	37
ATV930D45M3(C)*	200 – 240	3	45
ATV930D55M3C*	200 – 240	3	55
ATV930D75M3C*	200 – 240	3	75

Technical data for 380 - 480 V supply:

Type designation	Mains supply (V)	Number of phases	Motor power output (kW)
ATV930U07N4*	380 – 480	3	0,75
ATV930U15N4*	380 – 480	3	1,5
ATV930U22N4**	380 – 480	3	2,2
ATV930U30N4*	380 – 480	3	3,0
ATV930U40N4*	380 – 480	3	4,0
ATV930U55N4*	380 – 480	3	5,5
ATV930U75N4*	380 – 480	3	7,5
ATV930D11N4*	380 – 480	3	11
ATV930D15N4*	380 – 480	3	15
ATV930D18N4*	380 – 480	3	18,5
ATV930D22N4*	380 – 480	3	22
ATV930D30N4*	380 – 480	3	30

Job Id: **262.1-019346-3**
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Type designation	Mains supply (V)	Number of phases	Motor power output (kW)
ATV930D37N4*	380 – 480	3	37
ATV930D45N4*	380 – 480	3	45
ATV930D55N4(C)*	380 – 480	3	55
ATV930D75N4(C)*	380 – 480	3	75
ATV930D90N4(C)*	380 – 480	3	90
ATV930C11N4C*	380 – 480	3	110
ATV930C13N4C*	380 – 480	3	132
ATV930C16N4C*	380 – 480	3	160
ATV930C22N4*)**)	380 – 480	3	220
ATV930C25N4*)**)	380 – 480	3	250
ATV930C31N4*)**)	380 – 480	3	315

Technical data for 380 480 V supply, IP55:

Type designation	Mains supply (V)	Number of phases	Motor power output (kW)
ATV950U07N4*	380 – 480	3	0,75
ATV950U15N4*	380 – 480	3	1,5
ATV950U22N4*	380 – 480	3	2,2
ATV950U30N4*	380 – 480	3	3,0
ATV950U40N4*	380 – 480	3	4,0
ATV950U55N4*	380 – 480	3	5,5
ATV950U75N4*	380 – 480	3	7,5
ATV950D11N4*	380 – 480	3	11
ATV950D15N4*	380 – 480	3	15
ATV950D18N4*	380 – 480	3	18,5
ATV950D22N4*	380 – 480	3	22
ATV950D30N4*	380 – 480	3	30
ATV950D37N4*	380 – 480	3	37
ATV950D45N4*	380 – 480	3	45
ATV950D55N4*	380 – 480	3	55
ATV950D75N4*	380 – 480	3	75
ATV950D90N4*	380 – 480	3	90

Technical data for 575 - 690 V supply:

Type designation	Mains supply (V)	Number of phases	Motor power output (kW)
ATV930U22Y6*	575 - 690	3	2,2
ATV930U30Y6*	575 - 690	3	3,0
ATV930U40Y6*	575 - 690	3	4,0
ATV930U55Y6*	575 - 690	3	5,5
ATV930U75Y6*	575 - 690	3	7,5
ATV930D11Y6*	575 - 690	3	11
ATV930D15Y6*	575 - 690	3	15
ATV930D18Y6*	575 - 690	3	18,5
ATV930D22Y6*	575 - 690	3	22
ATV930D30Y6*	575 - 690	3	30
ATV930D37Y6*	575 - 690	3	37
ATV930D45Y6*	575 - 690	3	45

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Type designation	Mains supply (V)	Number of phases	Motor power output (kW)
ATV930D55Y6*	575 - 690	3	55
ATV930D75Y6*	575 - 690	3	75
ATV930D90Y6*	575 - 690	3	90

* May be followed by 1 to 3 additional digits for optional identification.

**See Application / limitation.

Application/Limitation

Supply voltage range:	200 - 240 / 380 - 480 V / 575 - 690 V / 50 or 60 Hz
Voltage variation:	+ 6 - 10 % stationary, \pm 20% transient
Frequency variation:	\pm 5 % stationary, \pm 10% transient
Output frequency:	0 - 599 Hz
Temperature range in operation:	- 10 to +50 °C
Protection degree:	IP20 (ATV930), IP55 (ATV 950)
Temperature class:	A
Vibration class:	A
Humidity class:	A
EMC class:	DNVGL-CG-0339 / IEC 60533 (small sizes), IEC61800-3. To be used on EMC class A locations (see below).

The Altivar 930 / 950 must be regarded as a component. The actual installation to be designed according to Schneider Toshiba Technical Construction File and according to the applicable DNV GL Rules for the actual application. A product certificate is required case by case in accordance with Rule requirement Pt.4. Ch.8. Sec.1 for units \geq 100 kW.

ATV930 to be installed in an enclosure with an IP degree in accordance with DNV Rules w.r.t. location.

Converters with EMC classed C2 or C3 according to IEC 61800-3 can be installed in "special distribution zone" and "general power distribution zone" in accordance with IEC 60533 provided precautions are taken to attenuate these effects on the distribution system, so the safe operation is assured.

**Use of filter required to achieve EMC class C3.

For IT installations, Earth Monitoring System compatibility, must be investigated prior to installation onboard.

To be installed in climatically controlled areas.

Type Approval documentation

Technical info:

Schneider Toshiba Inverter Europe LETTER "sti LETTER dnv – KALA PROJECT 690V dated 2017-07-21.
Schneider Toshiba Inverter Europe Technical Construction File Part A, rev. 04 issued 2015-10-08.

Test reports:

UL Test Report nos. ATV630 CERTIF 17214 IE02 & ATV630 CERTIF 17227 IE02 DATED 2017-12-01
CNPP TEST REPORT no. LM 17 00 08 dated 2017-03-01.

LCIE test reports nos. 154293-7180020 A & B dated 2018-04-17 & 19.

LNE test reports nos. P174526 – Document DE/1 & P174526 Document DE/* dated 2018-03-14

STIE Type Test Datasheets Folder No. DO_17012 dated from 2017-06-02 to 2018-03-27.

Tgm test reports doc. nos. TGM-VA-EE- 36662 EMC dated 2016-03-11 & TGM-VA-EE- 36768 EMC dated 2016-03-09.

UL reports dated 2016-06-03

UL report Project No. 4787344739 dated 2016-06-10

Complete KALA file ST03423 dated 2016-05-24.

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Tests carried out

Type tests in accordance with the IEC 61800 series and UL 508C. Environmental tests in accordance with DNVGL-CG-0339 as Visual inspection, Performance, Power supply failure, Power supply variations, Voltage/frequency variation, Vibration, Dry heat, Damp heat static, Insulation resistance, High voltage.

EMC: The following tests are in accordance with DNVGL-CG-0339 / IEC 61800-3: 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

Altivar 930/950 – Type designation – 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.

Assessment to be performed at 2 and 3.5 year and at renewal.

END OF CERTIFICATE