



TYPE APPROVAL CERTIFICATE

Certificate No:
TAE0000175
Revision No:
3

This is to certify:

That the Frequency Converter

with type designation(s)
Altivar 630 / 650 Series

Issued to

Schneider Toshiba Inverter Europe S.A.S.
Pacy Sur Eure, Eure, France

is found to comply with

DNV 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.

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 supply

Issued at **Høvik** on **2021-09-27**

for **DNV**

This Certificate is valid until **2026-08-07**.

DNV local station: **France CMC**

Approval Engineer: **Nicolay Horn**

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Marta Alonso Pontes
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Name and place of manufacturer

Schneider (Wuxi) Drives Co., Ltd. No.20 Hanjiang Road, Wuxi City, Jiangsu Province, Chian, 214028 - P.R.China	PT SCHNEIDER ELECTRIC MFG BATAM (SEMB) BATAM INDUSTRIAL PARK BLK 4 MUKAKUNING, BATAM RIAU, 29433, INDONESIA
Schneider–Electric India 187/3 & 188/3, Jigani Village, Jigani Hobli Bangalore India	

Product description

Ativar 630/650. 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)
ATV630U07M3*	200 – 240	3	0,75
ATV630U15M3*	200 – 240	3	1,5
ATV630U22M3*	200 – 240	3	2,2
ATV630U30M3*	200 – 240	3	3,0
ATV630U40M3*	200 – 240	3	4,0
ATV630U55M3*	200 – 240	3	5,5
ATV630U75M3*	200 – 240	3	7,5
ATV630D11M3*	200 – 240	3	11
ATV630D15M3*	200 – 240	3	15
ATV630D18M3*	200 – 240	3	18,5
ATV630D22M3*	200 – 240	3	22
ATV630D30M3*	200 – 240	3	30
ATV630D37M3*	200 – 240	3	37
ATV630D45M3*	200 – 240	3	45
ATV630D55M3*	200 – 240	3	55
ATV630D75M3*	200 – 240	3	75

Technical data for 380 - 480 V supply:

Type designation	Mains supply (V)	Number of phases	Motor power output (kW)
ATV630U07N4*	380 – 480	3	0,75
ATV630U15N4*	380 – 480	3	1,5
ATV630U22N4*	380 – 480	3	2,2
ATV630U30N4*	380 – 480	3	3,0
ATV630U40N4*	380 – 480	3	4,0
ATV630U55N4*	380 – 480	3	5,5
ATV630U75N4*	380 – 480	3	7,5
ATV630D11N4*	380 – 480	3	11
ATV630D15N4*	380 – 480	3	15
ATV630D18N4*	380 – 480	3	18,5
ATV630D22N4*	380 – 480	3	22
ATV630D30N4*	380 – 480	3	30
ATV630D37N4*	380 – 480	3	37
ATV630D45N4*	380 – 480	3	45
ATV630D55N4*	380 – 480	3	55
ATV630D75N4*	380 – 480	3	75
ATV630D90N4*	380 – 480	3	90

Type designation	Mains supply (V)	Number of phases	Motor power output (kW)
ATV630C11N4*	380 – 480	3	110
ATV630C13N4*	380 – 480	3	132
ATV630C16N4*	380 – 480	3	160
ATV630C22N4**)	380 – 480	3	220
ATV630C25N4**)	380 – 480	3	250
ATV630C31N4**)	380 – 480	3	315

Technical data for 380 - 480 V, IP55 supply:

Type designation	Mains supply (V)	Number of phases	Motor power output (kW)
ATV650U07N4*	380 – 480	3	0,75
ATV650U15N4*	380 – 480	3	1,5
ATV650U22N4*	380 – 480	3	2,2
ATV650U30N4*	380 – 480	3	3,0
ATV650U40N4*	380 – 480	3	4,0
ATV650U55N4*	380 – 480	3	5,5
ATV650U75N4*	380 – 480	3	7,5
ATV650D11N4*	380 – 480	3	11
ATV650D15N4*	380 – 480	3	15
ATV650D18N4*	380 – 480	3	18,5
ATV650D22N4*	380 – 480	3	22
ATV650D30N4*	380 – 480	3	30
ATV650D37N4*	380 – 480	3	37
ATV650D45N4*	380 – 480	3	45
ATV650D55N4*	380 – 480	3	55
ATV650D75N4*	380 – 480	3	75
ATV650D90N4*	380 – 480	3	90

Technical data for 575 - 690 V supply:

Type designation	Mains supply (V)	Number of phases	Motor power output (kW)
ATV630U22Y6*	575 - 690	3	2,2
ATV630U30Y6*	575 - 690	3	3,0
ATV630U40Y6*	575 - 690	3	4,0
ATV630U55Y6*	575 - 690	3	5,5
ATV630U75Y6*	575 - 690	3	7,5
ATV630D11Y6*	575 - 690	3	11
ATV630D15Y6*	575 - 690	3	15
ATV630D18Y6*	575 - 690	3	18,5
ATV630D22Y6*	575 - 690	3	22
ATV630D30Y6*	575 - 690	3	30
ATV630D37Y6*	575 - 690	3	37
ATV630D45Y6*	575 - 690	3	45
ATV630D55Y6*	575 - 690	3	55
ATV630D75Y6*	575 - 690	3	75
ATV630D90Y6*	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 / 575 - 690 V / 50 or 60 Hz
Voltage variation:	+ 6 - 10 % stationary, ± 20% transient
Frequency variation:	± 5 % stationary, ± 10% transient
Output frequency:	1 - 599 Hz
Temperature range in operation:	- 10 to +50 °C
Protection degree:	IP20 (ATV630) or IP55 (ATV650)
Temperature class:	A
Vibration class:	A
Humidity class:	A
EMC class:	DNV-CG-0339 / IEC 60533 (small sizes), IEC61800-3. To be used on EMC class A locations (see below).

The Altivar 630 / 650 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 Rules for the actual application.

Frequency converters rated equal or larger than 100 kW serving essential or important functions as defined in DNV rules Pt.4 Ch.8 shall have a product certificate according to DNV Pt.4 Ch.8 Sec.1 Table 3 for each delivery to DNV classed vessels.

For product certification, the following documents should be submitted for approval, Ref. to DNV Pt.4 Ch.8 Sec.1 Table 2:

- Reference to this Type Approval Certificate
- (E180) A drawing showing external location of instruments and devices for operation (panel layout)
- (E240) Functional description for the intended use, configuration and interface (e.g. alarms, monitoring and auxiliary power supplies)
- (Z252) Test program at manufacturer for routine tests and functional tests as per DNV Pt.4 Ch.8 Sec.7, 2.1.1
- Single line diagram (only applicable for multi drive configuration)
- If additional components to the type approved frequency converter are delivered, documentation according to DNV rules Pt.4 Ch.8 Sec.1 table 2 shall be submitted for review.

ATV630 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.

**Filter to be used 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:

Emitech test report no. RCE-100-21-100669-1-A dated 2021-03-09.
CNPP test reports nos. LM 210021, LM210022, LM210023 dated 2021-03-22.
UL Test Report nos. ATV630 CERTIF 17214 IE02 & ATV630 CERTIF 17227 IE02 DATED2017-12-01
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/2 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.

Tests carried out

Type tests in accordance with the IEC 61800 series and UL 508C. Environmental tests in accordance with DNV-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 DNV-CG-0339 / IACS E10 rev.8 / 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 630 / 650 – 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