

LLOYD'S REGISTER TYPE APPROVAL – DESIGN APPRAISAL DOCUMENT

Issue by: **HAMBURG TECHNICAL SUPPORT OFFICE (HPC2062004)**

Issued to: **Schneider Electric Industries SAS**

For: **Altivar Process Modular ATV Electronic Frequency Converter and Accessories**

Types: **ATV6x, ATV9x, and MODBUOCx, according TAC listing**

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System Procedure TA14 Version 03 (July 2017) and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Form (2019.05)	Type Application Checklist	20.01.2020
Form 2502(2017.01)	Request for Marine Services	26.05.2020
PRJ11100267067	Production Quality Assessment, Wuxi Pro Face, 2 pages	08.05.2021
DIA2ED2180301EN	Catalogue Variable Speed Drives, Rev V3.0, 71 pages	09.2019
PHA2452602_03	Altivar Process Modular Low Harmonic / Regen Integration Manual, Rev 03, 165 pages	11.2019
PHA2451702_05	Altivar Process Modular Standard Integration Manual, Rev 05, 174 pages	11.2019
GDE53524.01	Altivar Process Modular Standard Reduced Height Integration Manual, Rev 01, 174 pages	05.2020
GDE89130.01	Altivar Process Modular Optional Braking Reduced Height Unit Integration Manual, Rev 01, 98 pages	05.2020
Unnumbered C3337	APM - EU Declaration of Conformity, 12 pages Process Instruction Mastery of Documentation, Rev01, 5 pages	06.2020 13.11.2018
NNZ4690200.00 MFR77831	Clearance & Creepage Distances for KALA, 1 page Altivar Process Modular Optional Braking Unit Integration Manual, Rev 02, 96 pages	03.07.2020 11.2019
NVE7510402	Assembly Drawing AFE APM REGEN 690V, Rev 06, 21 pages	06.03.2020
NVE7536801	Assembly Drawing INV APM 690V, Rev 03, 15 pages	06.03.2020
PHA6819002	Assembly Drawing FILTER APM REGEN 690V, Rev 02, 15 pages	06.03.2020
PHA7027702	Assembly Drawing POWER UNIT APM REGEN 690V, Rev 01, 20 pages	06.03.2020
PHA7832102	Assembly Drawing POWER UNIT APM REGEN 690V, Rev 01, 6 pages	06.03.2020
PHA73855-06	Part List Mechanical/Electrical Parts AFE APM REGEN 690V	05.03.2020
PHA75373-02	Part List Mechanical/Electrical Parts FILTER APM REGEN 400V	05.03.2020
PHA76067-03	Part List Mechanical/Electrical Parts INV APM REGEN 400V	05.03.2020
PHA85825-02	Part List Mechanical/Electrical Parts POWER UNIT APM REGEN 400V	05.03.2020

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PHA85980-02	Part List Mechanical/Electrical Parts POWER UNIT APM REGEN 400V	05.03.2020
NVE75104-12	Part List Mechanical/Electrical Parts AFE APM REGEN 690V	05.03.2020
PHA68190-05	Part List Mechanical/Electrical Parts FILTER APM REGEN 690V	05.03.2020
NVE75368-07	Part List Mechanical/Electrical Parts INV APM REGEN 690V	05.03.2020
PHA70277-04	Part List Mechanical/Electrical Parts POWER UNIT APM REGEN 690V	05.03.2020
PHA78321-07	Part List Mechanical/Electrical Parts POWER UNIT APM REGEN 690V	05.03.2020
MFR51279-05	Part List STD PU 400V	05.03.2020
MFR51280-01	Part List STD PM 400V	05.03.2020
PHA41909-03	Part List STD MU 400V	05.03.2020
PHA4511300	Assembly Drawing PU APM, Rev 07, 30 pages	06.03.2020
PHA4511400	Assembly Drawing MU APM, Rev 01, 11 pages	06.03.2020
MFR87998-03	Part List STD PU 400V RH	05.03.2020
MFR88002-05	Part List STD MM 160KW RH 400V	05.03.2020
MFR88003-03	Part List STD MM 160KW PACK RH 400V	05.03.2020
MFR88004-05	Part List STD MM 315KW RH 400V	05.03.2020
MFR88005-03	Part List STD MM 315KW PACK RH 400V	05.03.2020
MFR88006-05	Part List STD MM 500KW RH 400V	05.03.2020
MFR88007-03	Part List STD MM 500KW PACK RH 400V	05.03.2020
MFR9089400	Assembly Drawing MM, Rev 03, 24 pages	06.03.2020
PHA68582-04	Part List STD PU 690V	05.03.2020
PHA68583-01	Part List STD MU 690V	05.03.2020
PHA68585-03	Part List STD PM 690V	05.03.2020
MFR88000-02	Part List STD PU 690V RH	05.03.2020
MFR88008-05	Part List STD MM 200KW RH 690V	05.03.2020
MFR88009-03	Part List STD MM 200KW PACK RH 690V	05.03.2020
MFR88010-06	Part List STD MM 400KW RH 690V	05.03.2020
MFR88011-03	Part List STD MM 400KW PACK RH 690V	05.03.2020
MFR88012-06	Part List STD MM 600KW RH 690V	05.03.2020
MFR88013-04	Part List STD MM 600KW PACK RH 690V	05.03.2020
PHA5741501	Assembly Drawing PU 400V, Rev 06, 28 pages	06.03.2020
PHA57415-08	Part List STD PU 400V	05.03.2020
PHA72016-07	Part List STD PU 690V	05.03.2020
MCN-KALA-EE-194101	Manufacturing Change Notification Software Release Update of NERA Firmware to V2.5IE30B10, Rev 01, 4 pages	10.10.2019
MCN-KALA-EE-194102	Manufacturing Change Notification Software Release	10.10.2019

Update of FORTIS Firmware to V2.2IE21B10, Rev 01, 4 pages

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ST6JB83D	Project Quality Plan for Software PMP, Rev 01 34 pages	10.10.2019
DA400	Certificate of Participation UL acc. ISO17025, 1 page	13.10.2020
DQD 309-586.31	Certificate of Qualification CSA acc. ISO17025.2017, 1 page	27.10.2020

TEST REPORTS

C3687	Product Test Report IEC61800-5-1 ATV9A0C31x4/6 and MODBUOC31x4/6, 9 pages	02.05.2019
C3624	Product Test Report Mechanical ATV9A0C50x4 and MODBUOC50x4, 9 pages	29.04.2019
C3638	Product Test Report Mechanical ATV9A0C31x4 and MODBUOC31x4, 7 pages	04.03.2019
C3749	Product Test Report Labels APMBC0C50N4 + APMBC0CTLN4, 8 pages	06.08.2019
FP17195	Product Test Report IEC61800-5-1 MCE 1P 400V/ 160kW, 6 pages	19.12.2014
C3731	Product Test Report EMC ATV9A0C31x4 and MODBUOC31x4, 12 pages	10.07.2019
C3730	Product Test Report EMC ATV9A0C31x4 and MODBUOC31x4, 7 pages	10.07.2019
C3632	Product Test Report EMC ATV9A0C31x4 and MODBUOC31x4, 13 pages	20.02.2019
C3677	Product Test Report EMC ATV9A0C31x4 and MODBUOC31x4, 11 pages	18.03.2019
C3676	Product Test Report EMC ATV9A0C31x4 and MODBUOC31x4, 9 pages	18.03.2019
TGM-VAEE38007EMC	Product Test Report EMC ATV9A0C31x4 and MODBUOC31x4, 42 pages	10.04.2019
SGP-09636-020-02	Product Test Report, 22 pages	07.12.2018
SGP-09636-020-03	Product Test Report, 22 pages	07.12.2018
C2827V03	Product Test Report Mechanical APM1B0C20Y6, 17 pages	03.05.2019
C3634	Product Test Report Mechanical APM6B0C31x4, 6 pages	25.02.2019
FP17477	Product Test Report IEC61800-5-1 MCE 1A GS 480T/ 160kW, 5 pages	20.07.2015

TEST REPORTS continued

C3650	Product Test Report EMC APM6B0C31x4, 14 pages,	25.03.2019
C3651	Product Test Report EMC APM6B0C31x4, 12 pages,	25.03.2019
C3652	Product Test Report EMC APM6B0C31x4, 10 pages,	26.03.2019
TGM-VAEE38006EMC	Product Test Report EMC ATV6B0C31x4, 36 pages	10.04.2019
C3834	Product Test Report Mechanical ATV6A0C31Q4RH, 7 pages	19.11.2019
C3872	Product Test Report Mechanical APMxA0C31x4RH, 10 pages	20.12.2019
C3880	Product Test Report Mechanical APM RH 400V, 9 pages	09.01.2020
C3879	Product Test Report Mechanical APM RH 400V, 8 pages	09.01.2020
C2812	Product Test Report APM 400 STD 160kW, 9 pages	19.06.2019
C2232	Product Test Report Mechanical APM 400V, 11 pages	29.01.2018
C1758	Product Test Report Mechanical APM 400V 315kW, 6 pages	04.10.2017
C2554	Product Test Report Mechanical APM 400 T 160kW, 4 pages	26.03.2018
C3782	Product Test Report Mechanical ATV9A0C31N4 and MODBUO, 9 pages	24.10.2019
C2717	Product Test Report APM 400 STD 160kW, 12 pages	19.06.2018
FP17289	Product Test Report IEC61800-5-1 MCE, 10 pages	11.06.2018
C2814	Product Test Report APM 400V 160kW, 4 pages	18.06.2018
FP17195	Product Test Report IEC61800-5-1 MCE 400V 160kW, 6 pages	19.12.2014
FP17219	Product Test Report IEC61800-5-1 MCE 480T 315kW, 7 pages	27.01.2015
FP17315	Product Test Report IEC61800-5-1 MCE 400V 315kW, 6 pages	07.04.2015
FP17128	Product Test Report IEC61800-5-1 MCE 400V 160kW, 13 pages	04.11.2014
2.34.00585.1.0	Product Test Report ENV MCE, 7 pages	08.05.2014
C1777	Product Test Report EMC APM 480T 315kW, 11 pages	09.10.2017
TGM-VAEE37333EMC	Product Test Report EMC APM9A0C31Q4, 40 pages	27.10.2017
C2230	Product Test Report EMC APM 480T 315kW, 10 pages	26.01.2018
C2231	Product Test Report EMC APM 480T 315kW, 11 pages	26.01.2018
C2405	Product Validation Report ATV6A0CxxQ4 and ATV6A0CxxR4, 8 pages	06.04.2018
C2406	Product Validation Report ATV6A0CxxQ4 and ATV6A0CxxR4, 8 pages	06.04.2018
C2487	Product Test Report IEC61800-5-1 APM 400V 160kW, 18 pages	06.03.2018
C2518	Product Test Report IEC61800-5-1 APM 400V 160kW, 19 pages	07.03.2018
SGP-09636-002-01	Product Test Report, 8 pages	17.01.2018
C2520	Product Test Report ATV6A0C16Q4, 14 pages	28.11.2017
C2405	Product Test Report ATV6A0C31Q4, 9 pages	15.03.2018
C2666	SW Validation Report ATV9xx, 17 pages	12.04.2018

TEST REPORTS continued

2018-0036201	Product Test Report ATVxA0C16x4, 35 pages	06.04.2018
FP17035	Product Test Report MCE 1P 400V/ 160kW, 6 pages	09.08.2014
FP15370	Product Test Report IEC61800-5-1 Fortis Project, Issue 01, 8 pages	07.09.2015
TGM-VAEE37435EMC	Product Test Report EMC APM6A0C16x4, 46 pages	15.12.2017
C3669	Product Test Report IEC61800-5-1 ATV9A0C31x6 and MODBUOC31x6, 9 pages	12.04.2019
C3657	Product Test Report IEC61800-5-1 ATV9A0C31x6 and MODBUOC31x6, 7 pages	01.04.2019
C3658	Product Test Report IEC61800-5-1 ATV9A0C31x6 and MODBUOC31x6, 17 pages	01.04.2019
C3683	Product Test Report IEC61800-5-1 ATV9A0C40x6 and MODBUOC40x6, 15 pages	23.04.2019
TGM-VAEE38082EMC	Product Test Report EMC ATV9A0C40x6 and MODBUOC40x6, 48 pages	10.06.2019
C3655	Product Test Report IEC61800-5-1 APM1B0C20Y6, 8 pages	28.03.2019
C3633	Product Test Report Mechanical APM6B0C31x4, 8 pages	21.02.2019
C2713	Product Test Report APM 690V, 9 pages	24.04.2018
2018-0136304	Product Test Report Mechanical LH Single Drive, 14 pages	25.10.2018
2018-0136403	Product Test Report Mechanical ATVxB0C20x6, 11 pages	25.10.2018
C2723	Product Test Report Mechanical APM 690V 400kW, 6 pages	26.04.2018
C3547	Product Test Report Mechanical APM LH Module, 4 pages	14.09.2018
C3781	Product Test Report Mechanical ATV6B0C40N6, 10 pages	30.10.2019
C3647	Product Test Report Mechanical ATVxB0Cxxx6, 10 pages	25.03.2019
C3668	Product Test Report Label APM1B0C20Y6, 13 pages	20.02.2019
C2736	Product Test Report APM 690V 400kW, 9 pages	02.05.2018
C3755	Product Test Report EMC APM6B0C31x4, 16 pages	23.07.2019
C3810	Product Test Report EMC ATV9B0C40Q6, 12 pages	08.10.2019
C3812	Product Test Report EMC ATV9B0C40Q6, 7 pages	09.10.2019
C3245	Product Test Report APM LH 690V 200kW, 24 pages	13.09.2018
ATV630_LTR_14069	Product Test Report Nera Project, Issue 02, 37 pages	26.06.2014
SGP-09636-020-02#01	Product Test Report, 11 pages	30.07.2018
C2631	Product Test Report EMC APM 690V 400kW, 11 pages	05.04.2018
C2637	Product Test Report EMC APM 690V 400kW, 11 pages	06.04.2018
C2648	Product Test Report EMC APM 690V 400kW, 13 pages	10.04.2018
C2649	Product Test Report EMC APM 690V 400kW, 11 pages	10.04.2018

TEST REPORTS continued

C3191	Product Test Report APM LH 690V 200kW, 21 pages	23.08.2018
TGM-VAEE37725aEMC	Product Test Report EMC ATV6B0C40x6, 12 pages	07.08.2018
TGM-VAEE37725EMC	Product Test Report EMC ATV9B0C40x6, 37 pages	07.08.2018
C3845	Product Test Report Mechanical ATV660C40T6RH and, ATV660C31N4RH, 9 pages	19.11.2019
C3853	Product Test Report Mechanical ATV6A0C40Q, 9 pages	25.11.2019
C3881	Product Test Report APM RH 690V, 10 pages	23.01.2019
C3882	Product Test Report APM RH 690V, 8 pages	23.01.2019
C3420	Product Test Report Mechanical ATV9A0C40x6, 12 pages	31.01.2019
C3246	Product Test Report Mechanical ATV9A0C40xx, 9 pages	12.09.2018
C3249	Product Test Report Mechanical ATV9A0C40xx, 6 pages	13.09.2018
C3110	Product Test Report Mechanical ATV6A0C63x6, 8 pages	23.07.2018
C3656	Product Test Report ATVxA0Cxxx6, 10 pages	28.03.2019
C3627	Product Test Report ATVxA0Cxxx6, 13 pages	20.02.2019
C3637	Product Test Report STD & LH Mains Unit 400/690V, 18 pages	28.02.2019
C3602-V2	Product Test Report ATV6A0C20Q6, 21 pages	07.02.2019
C3590-V2	Product Test Report ATV6A0C20Q6, 19 pages	09.01.2019
C3166-V2	Product Test Report EMC ATV9A0C40x6, 11 pages	17.08.2018
C3167	Product Test Report EMC ATV9AxC40x6, 9 pages	17.08.2018
C3214	Product Test Report EMC ATV9AxC40x6, 13 pages	31.08.2018
C3215	Product Test Report EMC ATV9AxC40x6, 13 pages	16.10.2018
C3167	Product Test Report EMC ATV9AxC40x6, 9 pages	17.08.2018
C3331	Product Test Report EMC ATV9A0C11x6, 12 pages	04.10.2018
TGM-VAEE37768aEMC	Product Test Report EMC ATV6A0C40x6, 11 pages	05.09.2018
TGM-VAEE37768aEMC-1	Product Test Report EMC ATV6A0C40x6, 11 pages	05.10.2020
TGM-VAEE37768EMC-2	Product Test Report EMC ATV9A0C40x6, 11 pages	05.10.2020
TGM-VAEE38499EMC	Product Test Report EMC ATV9A0C40Q6, 28 pages	06.08.2020
TGM-VAEE37768EMC	Product Test Report EMC ATV9A0C40x6, 35 pages	05.09.2018
C3395	Product Test Report EMC ATV9A0C63x6, 12 pages	22.10.2018
TGM-VAEE38379EMC	Product Test Report EMC ATV9B0C31x4, 23 pages	15.04.2020
2.00.80515.1.0	Product Test Report ENV ATV6A0C31N4, 6 pages	26.09.2019
Unnumbered	Overview Type Test Marine APM	23.09.2020
TGM-VAEE38661EMC	Product Test Report EMC ATV6A0C4Q6, 21 pages	08.12.2020
C4174	Environmental Test Report ATV6A0C16Q4X1, 6 pages	03.12.2020
2.00.80530.1.0-60	Environmental Test Report ATV6A0C16Q4X1, 11 pages	12.01.2021
1E32446M1-1	Vibration Test Report ATV6B0C40N6, Issue 1, 97 pages	13.08.2019
1E32446M1-1	Vibration Test Report ATV9A0C31N4, Issue 1, 92 pages	13.08.2019
1E32446M1-2	Vibration Test Report APMxA0C31x4RH, 63 pages	13.12.2019



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Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations. Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.