Product data sheet
Characteristics

VW3A7251
active infeed converter - 145 kW - 380...480 V



To be discontinued

Commercial status

To be discontinued on: 31 December 2024

To be end-of-service on: 31 December 2032

Main

Device short name	AIC
Network number of phases	3 phases
[Us] rated supply voltage	380...480 V +/- 10 %
Network frequency	50/60 Hz
Rated power in W	145 kW
Range compatibility	Altivar 71 Altivar 61
Product specific application	Low harmonics Energy regeneration Component of the Active Front End
Product compatibility	ATV61HC13N4D 380...440 V AC with one variable speed drive ATV71HC11N4D 380...440 V AC with one variable speed drive ATV61HC13N4D 480 V AC with one variable speed drive ATV71HC11N4D 480 V AC with one variable speed drive ATV61H075N4...C40N4D DC with several variable speed drive on a common DC bus ATV71H075N4...C31N4D DC with several variable speed drive on a common DC bus
Assembly style	Built-in unit
Type of cooling	Forced convection

Complementary

Line current	160 A at 480 V 212 A at 400 V
Input power	146 kW at 400 V 166 kW at 480 V
Continuous output current	220 A at 400 V 203 A at 480 V
Output voltage	650 V DC - supply: 380...400 V AC 720 V DC - supply: 440 V AC 770 V DC - supply: 480 V AC
Thermal losses	2660 W
Max current	1.20 x nominal current (duration = 60 s) 1.35 x nominal current (duration = 2 s)

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Maximum voltage drop at rated load	<30 % at 380...400 V, <= 60 s <40 % at 440 V, <= 60 s <40 % at 480 V, <= 60 s
Communication port protocol	CANopen Modbus
Connector type	1 RJ45 for Modbus Male SUB-D 9 on RJ45 for CANopen
Option card	Communication bridge
Operating position	Vertical +/- 10 degree
Height	782 mm
Width	350 mm
Depth	377 mm
Net weight	74 kg

Environment

Environmental characteristic	3K3 conforming to EN/IEC 60721-3-3 3C2 conforming to EN 60721-3-3 3S2 conforming to EN 60721-3-3
Relative humidity	0…95 %
Ambient air temperature for operation	45…60 °C (with current derating of 2 % per °C) -10…45 °C
Ambient air temperature for storage	-25…70 °C
Operating altitude	<= 1000 m without derating 1000...3000 m with current derating 1 % per 100 m
Pollution degree	2 conforming to EN 61800-5-1
Vibration resistance	1.5 mm (f= 3…10 Hz) conforming to EN/IEC 60068-2-6 0.6 gn (f= 10…200 Hz) conforming to EN/IEC 60068-2-6
Shock resistance	7 gn for 11 ms conforming to EN/IEC 60721-3-3
Air flow surface	700 cm²
Volume of cooling air	600 m3/h for power circuit 145 m3/h for control circuit
IP degree of protection	IP00
Standards	EN/IEC 61800-5-1
Product certifications	UL (pending) CE CSA (pending)

Packing Units

Package 1 Weight	95.000 kg
Package 1 Height	5.300 dm
Package 1 width	4.200 dm
Package 1 Length	12.300 dm

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

Warranty	18 months