

ATV320 leakage current

This document gives the value of leakage current of Altivar 320 book and compact variable speed drives.

The leakage current values are given for a mains network (TT/TN) at 3% unbalance between phases at maximum voltage and worst case tolerance of internal components.

Leakage currents are sometimes shared in 2 values with different frequencies. Values cannot be strictly added but both act together in Residual Current Device tripping.

1. ATV320 mains network 200-240V single-phase.

- IT jumper CLOSED

Commercial references	Mains network 200-240V 1ph @50Hz	
	Leakage current	
	@50Hz	@100Hz
ATV320U02M2B	4.25mA	1.99mA
ATV320U04M2B		
ATV320U06M2B		
ATV320U07M2B		
ATV320U11M2B	7.42mA	1.99mA
ATV320U15M2B		
ATV320U22M2B		
ATV320U02M2C		
ATV320U04M2C	5.1mA	-
ATV320U06M2C		
ATV320U07M2C		
ATV320U11M2C		
ATV320U15M2C	7.42mA	-
ATV320U22M2C		

Commercial references	Mains network 200-240V 1ph @60Hz	
	Leakage current	
	@60Hz	@120Hz
ATV320U02M2B	5.10mA	2.39mA
ATV320U04M2B		
ATV320U06M2B		
ATV320U07M2B		
ATV320U11M2B	8.9mA	2.39mA
ATV320U15M2B		
ATV320U22M2B		
ATV320U02M2C		
ATV320U04M2C	6.1mA	-
ATV320U06M2C		
ATV320U07M2C		
ATV320U11M2C		
ATV320U15M2C	8.9mA	-
ATV320U22M2C		

- IT jumper OPEN

Commercial references	Mains network 200-240V 1ph @50Hz	
	Leakage current	
	@50Hz	@100Hz
ATV320U02M2B	0.2mA	1.99mA
ATV320U04M2B		
ATV320U06M2B		
ATV320U07M2B		
ATV320U11M2B	0.43mA	1.99mA
ATV320U15M2B		
ATV320U22M2B		

Commercial references	Mains network 200-240V 1ph @60Hz	
	Leakage current	
	@60Hz	@120Hz
ATV320U02M2B	0.24mA	2.39mA
ATV320U04M2B		
ATV320U06M2B		
ATV320U07M2B		
ATV320U11M2B	0.51mA	2.39mA
ATV320U15M2B		
ATV320U22M2B		

When the IT jumper is open for the ATV320U..M2C, the leakage current is <0.5mA.

2. ATV320 mains network 200V-240V three phases

The leakage current is <0.5mA.

3. ATV320 mains network 400-480V three phases

- IT jumper CLOSED

Commercial references	Mains network 400-480V 3ph @50Hz	
	Leakage current	
	@50Hz	
ATV320U04N4B	5.36mA	
ATV320U06N4B		
ATV320U07N4B		
ATV320U11N4B		
ATV320U15N4B		
ATV320U22N4B	8.17mA	
ATV320U30N4B		
ATV320U40N4B		
ATV320U55N4B	8.23mA	
ATV320U75N4B		
ATV320D11N4B	8.47mA	
ATV320D15N4B		
ATV320U04N4C	4.75mA	
ATV320U06N4C		
ATV320U07N4C		
ATV320U11N4C		
ATV320U15N4C		
ATV320U22N4C	4.33mA	
ATV320U30N4C		
ATV320U40N4C		

Commercial references	Mains network 400-480V 3ph @60Hz	
	Leakage current	
	@60Hz	
ATV320U04N4B	6.43mA	
ATV320U06N4B		
ATV320U07N4B		
ATV320U11N4B		
ATV320U15N4B		
ATV320U22N4B	9.81mA	
ATV320U30N4B		
ATV320U40N4B		
ATV320U55N4B	9.88mA	
ATV320U75N4B		
ATV320D11N4B	10.16mA	
ATV320D15N4B		
ATV320U04N4C	5.7mA	
ATV320U06N4C		
ATV320U07N4C		
ATV320U11N4C		
ATV320U15N4C		
ATV320U22N4C	5.2mA	
ATV320U30N4C		
ATV320U40N4C		

- IT jumper OPEN

When the IT jumper is open the leakage current is <0.5mA.