

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/W/WS	5.1mA	-
ATV320U04M2C/W/WS		
ATV320U06M2C/W/WS		
ATV320U07M2C/W/WS		
ATV320U11M2C/W/WS	7.42mA	-
ATV320U15M2C/W/WS		
ATV320U22M2C/W/WS		

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/W/WS	6.1mA	-
ATV320U04M2C/W/WS		
ATV320U06M2C/W/WS		
ATV320U07M2C/W/WS		
ATV320U11M2C/W/WS	8.9mA	-
ATV320U15M2C/W/WS		
ATV320U22M2C/W/WS		

- 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		
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		
ATV320U22M2B		

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

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

The leakage current for the ATV320...M3C 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/W/WS	4.75mA
ATV320U06N4C/W/WS	
ATV320U07N4C/W/WS	
ATV320U11N4C/W/WS	
ATV320U15N4C/W/WS	
ATV320U22N4C/W/WS	4.33mA
ATV320U30N4C/W/WS	
ATV320U40N4C/W/WS	
ATV320U55N4C/W/WS	8.23mA
ATV320U75N4C/W/WS	
ATV320D11N4C/W/WS	8.47mA
ATV320D15N4C/W/WS	

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/W/WS	5.7mA
ATV320U06N4C/W/WS	
ATV320U07N4C/W/WS	
ATV320U11N4C/W/WS	
ATV320U15N4C/W/WS	
ATV320U22N4C/W/WS	5.2mA
ATV320U30N4C/W/WS	
ATV320U40N4C/W/WS	
ATV320U55N4C/W/WS	9.88mA
ATV320U75N4C/W/WS	
ATV320D11N4C/W/WS	10.16mA
ATV320D15N4C/W/WS	

- IT jumper OPEN

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

4. ATV320 mains network 525V-600V three phases

The leakage current for the ATV320...S6C is <0.5mA.