Dissipated power, Impedance and Voltage drop

Acti 9 products

The following table indicates the average dissipated power per pole in W for a current equal to the rating of the device and at the operating voltage.

Rating (A)		0.5	1	1.6	2	2.5	3	4	6	6.3	10	12.5	13	16	20	25	32	40	50	63	80	100	125
Circuit breakers																							
iC60N/H/L		2.3	2.3		1.9		2.2	2.4	1.3		2		2	2.1	2.2	2.7	2.8	3.6	4	5.6			
iC60L-MA				0.7		0.2		0.6		0.9	1.1	1.5		1.6		0.8		2					
iK60			2.3		1.9		2.2	2.4	2.7		1.8			2.5	3	3.1	3.5	3.6	4	5.6			
Integrated control circuit breakers																							
Reflex iC60N/H	Power circuit										2			2.1		2.7		3.6		5.6			
	Control circuit	See module CA904012																					
RCCB																							
iID	2P													0.8		0.9		2.6		2.6	3	5	
	4P															0.7		1.9		1.5	2.6	4.3	
iID K																2.7		3.6		5.6			
Add-on residual current devices																							
Vigi iC60	10 mA															3							
	30 mA															1.4		1.1		2.3			
	100 mA															1.1				2.3			
	300 mA															1.3		0.9		2.3			
	500 mA															1.1		0.9		2.3			
	1000 mA																			2.3			
Contactors																							
iCT/iCT+	Power circuit													0.6	0.9	1.4		1.5		3.4		4	
	Control circuit	See module CA904007																					
Impulse relays																							
iTL/iTL+	Power circuit													0.6			1.5						
	Control circuit	See module CA904008																					
Push-buttons																							
iPB															0.6								
Selector switches																							
iSSW															0.8								
iCMA/iCMB/iCMC/ iCMDV/iCMV											0.4												
Load-shedders																							
DSE1, CDS, CDSc																	1.8				3		
Relays																							
iRTA, iRTB, iRTC, iRTH, iRTL, iRTMF														2.5									
Switch-disconnectors																							
iSW																		0.6		1.8		4.7	6.4
iSW-NA	2P																	0.7		1.8		3	5
	4P																	0.6		1.5		2.5	4.1
Remote controls																							
RCA, ARA		See module CA904010 and CA904011																					
Indication auxiliaries																							
iOF, iSD, iOF/SD+OF		See module CA908028																					
Tripping auxiliaries																							
iMN, iMNs, iMNx, iMX+OF, iMX, iMSU		See module CA908029																					
Indicator lights																							
iIL		0.3																					
Transformers																							
iTR		4																					

***Note**: When the enclosure's thermal balance, consider the 4P devices load is only on 3 phases.*
RCBO dissipated power per pole is the sum of circuit breaker dissipated power per pole + add-on residual current device dissipated power per pole.
Example: iC60N (25 A) + Vigi iC60 (30 mA) = 2.7 + 1.4 = 4.1 W.

Impedance calculation:
$Z = P / I^2$
Z: impedance in Ohms
P: dissipated power in Watts (table values)
I: rating in Amperes

Voltage drop calculation:
$U = P / I$
U: voltage drop in Volts
P: dissipated power in Watts (table values)
I: rating in Amperes

Dissipated power, Impedance and Voltage drop (cont.)

Multi 9 products

The following table indicates the average dissipated power per pole in W for a current equal to the rating of the device and at the operating voltage.

Rating (A)	0.5	1	1.6	2	2.5	3	4	6	6.3	10	12.5	13	16	20	25	32	40	50	63	80	100	125
Circuit breakers																						
DPN		2.5		1.9		2.1	2.6	2.7		2.7		3.3	3.2	4.7	4.7	4.6	5.8					
C60/C60H-DC	2.2	2.3		2.6		2.2	2.4	2.7		1.8		2.5	2.5	3	3.1	3.5	4.3	4.8	6.1			
C120										1.3			2.1	2.3	2.5	3.2	3.1	3.2	3	3.2	2	4.1
NG125										1.7			2.4	2.7	2.7	3.8	3.8	4.2	4	5.6	5.2	8
C60L-MA			2.4		2.5		2.4		3	2	2.5		2.6		3		4.6					
NG125L-MA							0.15		0.15	0.2	0.4		0.3		0.6		1.4		2	2.7		
RCCB																						
ID Type A/AC															1.4		3.6		4.4	7.2	18	28
ID Type B															1.2		2.9		7.2	12	18	28
Add-on residual current devices																						
Vigi DPN															1.4		2.1					
Vigi C60															2.8		1.6		3			
Vigi C120																						3.6
Vigi NG125																						4
Residual current device reclosers																						
RED, REDs, REDtest															1.5		2.7		3.1			
Contactors																						
CT/CT+ Power circuit													0.9	1	1.4		1.4		3.4		4	
Control circuit	See module 92020																					
Impulse relays																						
TL/TL+ Power circuit													0.9			1.4						
Control circuit	See module 92011																					
Push-buttons																						
BP														0.6								
Selector switches																						
CM														0.8								
CMA/CMB/CMC/CMD/CMV										0.4												
Load-shedders																						
DSE1, CDS, CDSc																1.8				3		
Relays																						
RTA, RTB, RTC, RTH, RTL, RTMF													2.5									
Switch-disconnectors																						
I, iSW														0.8		1.3	1.1		1.8		3.4	4.2
I-NA																	3.2		3.2			
NG125NA																			2	2.7	4	7
Indication auxiliaries																						
OF, SD, OF+SD/OF	See module 92605																					
Tripping auxiliaries																						
MN, MNs, MNx, MX+OF, MX, MSU	See module 92605																					
Indicator lights																						
V	0.3																					
Transformers																						
TR	4																					

***Note**: When the enclosure's thermal balance, consider the 4P devices load is only on 3 phases.*
RCBO dissipated power per pole is the sum of circuit breaker dissipated power per pole + add-on residual current device dissipated power per pole.
Example: C60N (25 A) + Vigi C60 (25 A) = 3.1 + 1.8 = 4.9 W.

Impedance calculation:
$Z = P / I^2$
Z: impedance in Ohms
P: dissipated power in Watts (table values)
I: rating in Amperes

Voltage drop calculation:
$U = P / I$
U: voltage drop in Volts
P: dissipated power in Watts (table values)
I: rating in Amperes