

## Vampset: Adapted frequency off (50Hz)

### Test State:

Command executed

Test passed

### Test Module

|             |                           |           |                        |
|-------------|---------------------------|-----------|------------------------|
| Name:       | OMICRON ExeCute           | Version:  | 3.00 SR 2              |
| Test Start: | 05-joulu-2014 15:51:49    | Test End: | 05-joulu-2014 15:52:06 |
| User Name:  | Jesse Saastamoinen        | Manager:  |                        |
| Company:    | Schneider Electric - Vamp |           |                        |

----- Group end:Common preparations-----

## Vampset: CT&VT settings + output matrix

### Test State:

Command executed

Test passed

### Test Module

|             |                           |           |                        |
|-------------|---------------------------|-----------|------------------------|
| Name:       | OMICRON ExeCute           | Version:  | 3.00 SR 2              |
| Test Start: | 05-joulu-2014 15:52:40    | Test End: | 05-joulu-2014 15:55:33 |
| User Name:  | Jesse Saastamoinen        | Manager:  |                        |
| Company:    | Schneider Electric - Vamp |           |                        |

----- Group end:265 Sn.xxxx personal preparations-----

## Hardware Configuration

### Test Equipment

| Type   | Serial Number |
|--------|---------------|
| CMC356 | HE344P        |

### Hardware Check

| Performed At       | Result | Details |
|--------------------|--------|---------|
| 5.12.2014 10:47:20 | Passed |         |

Group:Motor mode

Group:CT 5A

## Test Object - Device Settings

### Substation/Bay:

Substation:  
Bay:

Substation address:  
Bay address:

### Device:

Name/description: CT=5A Mot.Nom.=4A  
Device type:  
Serial/model number:  
Additional info 1:  
Additional info 2:

Manufacturer:  
Device address:

## Vampset: Disable stages

### Test State:

Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 15:56:06  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 15:56:23  
Manager:

## Vampset: 50/51

### Test State:

Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 15:56:57  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 15:58:37  
Manager:

## Test Settings

### General

No. of ramp states: 6  
Total steps per test: 306  
Total time per test: 32,400  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

### Ramped Quantities

I 1 / Magnitude

### Ramp States

| Ramp              | Ramp 1                           | Ramp 2                           | Ramp 3                           | Ramp 4                          | Ramp 5                          | Ramp 6                          |
|-------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------------------|
| I 1               | 360,0 mA<br>30,00 °<br>50,000 Hz | 360,0 mA<br>30,00 °<br>50,000 Hz | 440,0 mA<br>30,00 °<br>50,000 Hz | 7,600 A<br>30,00 °<br>50,000 Hz | 7,600 A<br>30,00 °<br>50,000 Hz | 8,400 A<br>30,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                              | No                               | No                               | No                              | No                              | No                              |

|                      |           |            |             |           |            |             |
|----------------------|-----------|------------|-------------|-----------|------------|-------------|
| <b>Sig 1 From</b>    | 360,0 mA  | 360,0 mA   | 440,0 mA    | 7,600 A   | 7,600 A    | 8,400 A     |
| <b>Sig 1 To</b>      | 360,0 mA  | 440,0 mA   | 320,0 mA    | 7,600 A   | 8,400 A    | 7,200 A     |
| <b>Sig 1 Delta</b>   | 0,000 A   | 1,000 mA   | -1,000 mA   | 0,000 A   | 20,00 mA   | -20,00 mA   |
| <b>Sig 1 d/dt</b>    | 0,000 A/s | 10,00 mA/s | -10,00 mA/s | 0,000 A/s | 200,0 mA/s | -200,0 mA/s |
| <b>DI1</b>           | 0         | 0          | 0           | 1         | 1          | 1           |
| <b>dt per Step</b>   | 1,000 s   | 100,0 ms   | 100,0 ms    | 1,000 s   | 100,0 ms   | 100,0 ms    |
| <b>Ramp Steps</b>    | 1         | 81         | 121         | 1         | 41         | 61          |
| <b>Ramp Time</b>     | 1,000s    | 8,100s     | 12,100s     | 1,000s    | 4,100s     | 6,100s      |
| <b>Trigger</b>       | None      | Bin        | Bin         | None      | Bin        | Bin         |
| <b>Trigger Logic</b> |           | OR         | OR          |           | OR         | OR          |
| <b>Start (A1)</b>    |           | 1          | 0           |           | 1          | 0           |
| <b>Step back</b>     | No        | No         | No          | No        | No         | No          |
| <b>Delay Time</b>    | 0,000 s   | 0,000 s    | 0,000 s     | 0,000 s   | 0,000 s    | 0,000 s     |

## Test Module

Name: OMICRON Ramping  
 Test Start: 05-joulu-2014 15:59:14  
 User Name: Jesse Saastamoinen  
 Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
 Test End: 05-joulu-2014 15:59:23  
 Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-    | Tol.+    | Dev.     | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|----------|----------|----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 1 | 400,0 mA | 404,0 mA | 10,00 mA | 10,00 mA | 4,000 mA | +      | 32,00 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 1 | 388,0 mA | 390,0 mA | 10,00 mA | 10,00 mA | 2,000 mA | +      | 11,90 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I 1 | 8,000 A  | 8,020 A  | 200,0 mA | 200,0 mA | 20,00 mA | +      | 30,00 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I 1 | 7,760 A  | 7,760 A  | 200,0 mA | 200,0 mA | 0,000 A  | +      | 64,40 |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**  
 Test passed

## Test Settings

### General

No. of ramp states: 6  
 Total steps per test: 306  
 Total time per test: 32,400  
 No. of test executions: 1

Input Mode: Direct  
 Fault Type:

### Ramped Quantities

I 2 / Magnitude

### Ramp States

| Ramp                     | Ramp 1                            | Ramp 2                            | Ramp 3                            | Ramp 4                           | Ramp 5                           | Ramp 6                           |
|--------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| <b>I 2</b>               | 360,0 mA<br>-70,00 °<br>50,000 Hz | 360,0 mA<br>-70,00 °<br>50,000 Hz | 440,0 mA<br>-70,00 °<br>50,000 Hz | 7,600 A<br>-70,00 °<br>50,000 Hz | 7,600 A<br>-70,00 °<br>50,000 Hz | 8,400 A<br>-70,00 °<br>50,000 Hz |
| <b>Force abs. Phases</b> | Yes                               | No                                | No                                | No                               | No                               | No                               |
| <b>Sig 1 From</b>        | 360,0 mA                          | 360,0 mA                          | 440,0 mA                          | 7,600 A                          | 7,600 A                          | 8,400 A                          |
| <b>Sig 1 To</b>          | 360,0 mA                          | 440,0 mA                          | 320,0 mA                          | 7,600 A                          | 8,400 A                          | 7,200 A                          |
| <b>Sig 1 Delta</b>       | 0,000 A                           | 1,000 mA                          | -1,000 mA                         | 0,000 A                          | 20,00 mA                         | -20,00 mA                        |
| <b>Sig 1 d/dt</b>        | 0,000 A/s                         | 10,00 mA/s                        | -10,00 mA/s                       | 0,000 A/s                        | 200,0 mA/s                       | -200,0 mA/s                      |
| <b>DI1</b>               | 0                                 | 0                                 | 0                                 | 1                                | 1                                | 1                                |
| <b>dt per Step</b>       | 1,000 s                           | 100,0 ms                          | 100,0 ms                          | 1,000 s                          | 100,0 ms                         | 100,0 ms                         |

|               |         |         |         |         |         |         |
|---------------|---------|---------|---------|---------|---------|---------|
| Ramp Steps    | 1       | 81      | 121     | 1       | 41      | 61      |
| Ramp Time     | 1,000s  | 8,100s  | 12,100s | 1,000s  | 4,100s  | 6,100s  |
| Trigger       | None    | Bin     | Bin     | None    | Bin     | Bin     |
| Trigger Logic |         | OR      | OR      |         | OR      | OR      |
| Start (A1)    |         | 1       | 0       |         | 1       | 0       |
| Step back     | No      | No      | No      | No      | No      | No      |
| Delay Time    | 0,000 s | 0,000 s | 0,000 s | 0,000 s | 0,000 s | 0,000 s |

## Test Module

Name: OMICRON Ramping  
 Test Start: 05-joulu-2014 15:59:59  
 User Name: Jesse Saastamoinen  
 Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
 Test End: 05-joulu-2014 16:00:08  
 Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-    | Tol.+    | Dev.     | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|----------|----------|----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 2 | 400,0 mA | 407,0 mA | 10,00 mA | 10,00 mA | 7,000 mA | +      | 22,70 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 2 | 388,0 mA | 391,0 mA | 10,00 mA | 10,00 mA | 3,000 mA | +      | 63,60 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I 2 | 8,000 A  | 8,020 A  | 200,0 mA | 200,0 mA | 20,00 mA | +      | 52,50 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I 2 | 7,760 A  | 7,760 A  | 200,0 mA | 200,0 mA | 0,000 A  | +      | 51,00 |

Assess: + .. Passed x .. Failed o .. Not assessed

### Test State:

Test passed

## Test Settings

### General

No. of ramp states: 6  
 Total steps per test: 306  
 Total time per test: 32,400  
 No. of test executions: 1

Input Mode: Direct  
 Fault Type:

### Ramped Quantities

I 3 / Magnitude

### Ramp States

| Ramp              | Ramp 1                             | Ramp 2                             | Ramp 3                             | Ramp 4                            | Ramp 5                            | Ramp 6                            |
|-------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I 3               | 360,0 mA<br>-150,00 °<br>50,000 Hz | 360,0 mA<br>-150,00 °<br>50,000 Hz | 440,0 mA<br>-150,00 °<br>50,000 Hz | 7,600 A<br>-150,00 °<br>50,000 Hz | 7,600 A<br>-150,00 °<br>50,000 Hz | 8,400 A<br>-150,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                                | No                                 | No                                 | No                                | No                                | No                                |
| Sig 1 From        | 360,0 mA                           | 360,0 mA                           | 440,0 mA                           | 7,600 A                           | 7,600 A                           | 8,400 A                           |
| Sig 1 To          | 360,0 mA                           | 440,0 mA                           | 320,0 mA                           | 7,600 A                           | 8,400 A                           | 7,200 A                           |
| Sig 1 Delta       | 0,000 A                            | 1,000 mA                           | -1,000 mA                          | 0,000 A                           | 20,00 mA                          | -20,00 mA                         |
| Sig 1 d/dt        | 0,000 A/s                          | 10,00 mA/s                         | -10,00 mA/s                        | 0,000 A/s                         | 200,0 mA/s                        | -200,0 mA/s                       |
| DI1               | 0                                  | 0                                  | 0                                  | 1                                 | 1                                 | 1                                 |
| dt per Step       | 1,000 s                            | 100,0 ms                           | 100,0 ms                           | 1,000 s                           | 100,0 ms                          | 100,0 ms                          |
| Ramp Steps        | 1                                  | 81                                 | 121                                | 1                                 | 41                                | 61                                |
| Ramp Time         | 1,000s                             | 8,100s                             | 12,100s                            | 1,000s                            | 4,100s                            | 6,100s                            |
| Trigger           | None                               | Bin                                | Bin                                | None                              | Bin                               | Bin                               |
| Trigger Logic     |                                    | OR                                 | OR                                 |                                   | OR                                | OR                                |
| Start (A1)        |                                    | 1                                  | 0                                  |                                   | 1                                 | 0                                 |
| Step back         | No                                 | No                                 | No                                 | No                                | No                                | No                                |

|            |         |         |         |         |         |         |
|------------|---------|---------|---------|---------|---------|---------|
| Delay Time | 0,000 s | 0,000 s | 0,000 s | 0,000 s | 0,000 s | 0,000 s |
|------------|---------|---------|---------|---------|---------|---------|

## Test Module

Name: OMICRON Ramping Version: 3.00 SR 2  
 Test Start: 05-joulu-2014 16:00:45 Test End: 05-joulu-2014 16:00:54  
 User Name: Jesse Saastamoinen Manager:  
 Company: Schneider Electric - Vamp

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-    | Tol.+    | Dev.     | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|----------|----------|----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 3 | 400,0 mA | 404,0 mA | 10,00 mA | 10,00 mA | 4,000 mA | +      | 40,60 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 3 | 388,0 mA | 389,0 mA | 10,00 mA | 10,00 mA | 1,000 mA | +      | 25,30 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I 3 | 8,000 A  | 8,020 A  | 200,0 mA | 200,0 mA | 20,00 mA | +      | 49,00 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I 3 | 7,760 A  | 7,760 A  | 200,0 mA | 200,0 mA | 0,000 A  | +      | 55,00 |

Assess: + .. Passed x .. Failed o .. Not assessed

### Test State:

Test passed

## Test Settings

### General

No. of ramp states: 3  
 Total steps per test: 283  
 Total time per test: 29,200  
 No. of test executions: 1

Input Mode: Direct  
 Fault Type:

### Ramped Quantities

I 1 / Magnitude  
 I 1(+) / Magnitude

### Ramp States

| Ramp              | Ramp 1                           | Ramp 2                           | Ramp 3                           |
|-------------------|----------------------------------|----------------------------------|----------------------------------|
| I 1               | 200,0 mA<br>30,00 °<br>50,000 Hz | 200,0 mA<br>30,00 °<br>50,000 Hz | 360,0 mA<br>30,00 °<br>50,000 Hz |
| I 1(+)            | 240,0 mA<br>30,00 °<br>100,00 Hz | 240,0 mA<br>30,00 °<br>100,00 Hz | 240,0 mA<br>30,00 °<br>100,00 Hz |
| Force abs. Phases | Yes                              | Yes                              | Yes                              |
| Sig 1 From        | 200,0 mA                         | 200,0 mA                         | 360,0 mA                         |
| Sig 1 To          | 200,0 mA                         | 360,0 mA                         | 240,0 mA                         |
| Sig 1 Delta       | 0,000 A                          | 1,000 mA                         | -1,000 mA                        |
| Sig 1 d/dt        | 0,000 A/s                        | 10,00 mA/s                       | -10,00 mA/s                      |
| Sig 2 From        | 240,0 mA                         | 240,0 mA                         | 240,0 mA                         |
| Sig 2 To          | 240,0 mA                         | 240,0 mA                         | 240,0 mA                         |
| Sig 2 Delta       | 0,000 A                          | 0,000 A                          | 0,000 A                          |
| Sig 2 d/dt        | 0,000 A/s                        | 0,000 A/s                        | 0,000 A/s                        |
| DI1               | 0                                | 0                                | 0                                |
| dt per Step       | 1,000 s                          | 100,0 ms                         | 100,0 ms                         |
| Ramp Steps        | 1                                | 161                              | 121                              |
| Ramp Time         | 1,000s                           | 16,100s                          | 12,100s                          |
| Trigger           | None                             | Bin                              | Bin                              |
| Trigger Logic     |                                  | OR                               | OR                               |
| Start (A1)        |                                  | 1                                | 0                                |

|                   |         |         |         |
|-------------------|---------|---------|---------|
| <b>Step back</b>  | No      | No      | No      |
| <b>Delay Time</b> | 0,000 s | 0,000 s | 0,000 s |

## Test Module

Name: OMICRON Ramping Version: 3.00 SR 2  
 Test Start: 05-joulu-2014 16:01:30 Test End: 05-joulu-2014 16:01:42  
 User Name: Jesse Saastamoinen Manager:  
 Company: Schneider Electric - Vamp

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 1 | 320,0 mA | 319,0 mA | 10,00 mA | 10,00 mA | -1,000 mA | +      | 7,900 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 1 | 310,4 mA | 304,0 mA | 10,00 mA | 10,00 mA | -6,400 mA | +      | 42,40 |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**  
**Test passed**

## Test Settings

### General

No. of ramp states: 3  
 Total steps per test: 283  
 Total time per test: 29,200  
 No. of test executions: 1

Input Mode: Direct  
 Fault Type:

### Ramped Quantities

I 2 / Magnitude  
 I 2(+) / Magnitude

### Ramp States

| Ramp                     | Ramp 1                                   | Ramp 2                                   | Ramp 3                                   |
|--------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| I 2                      | <u>200,0 mA</u><br>-70,00 °<br>50,000 Hz | <u>200,0 mA</u><br>-70,00 °<br>50,000 Hz | <u>360,0 mA</u><br>-70,00 °<br>50,000 Hz |
| I 2(+)                   | <u>240,0 mA</u><br>-70,00 °<br>100,00 Hz | <u>240,0 mA</u><br>-70,00 °<br>100,00 Hz | <u>240,0 mA</u><br>-70,00 °<br>100,00 Hz |
| <b>Force abs. Phases</b> | Yes                                      | Yes                                      | Yes                                      |
| <b>Sig 1 From</b>        | 200,0 mA                                 | 200,0 mA                                 | 360,0 mA                                 |
| <b>Sig 1 To</b>          | 200,0 mA                                 | 360,0 mA                                 | 240,0 mA                                 |
| <b>Sig 1 Delta</b>       | 0,000 A                                  | 1,000 mA                                 | -1,000 mA                                |
| <b>Sig 1 d/dt</b>        | 0,000 A/s                                | 10,00 mA/s                               | -10,00 mA/s                              |
| <b>Sig 2 From</b>        | 240,0 mA                                 | 240,0 mA                                 | 240,0 mA                                 |
| <b>Sig 2 To</b>          | 240,0 mA                                 | 240,0 mA                                 | 240,0 mA                                 |
| <b>Sig 2 Delta</b>       | 0,000 A                                  | 0,000 A                                  | 0,000 A                                  |
| <b>Sig 2 d/dt</b>        | 0,000 A/s                                | 0,000 A/s                                | 0,000 A/s                                |
| <b>DI1</b>               | 0                                        | 0                                        | 0                                        |
| <b>dt per Step</b>       | 1,000 s                                  | 100,0 ms                                 | 100,0 ms                                 |
| <b>Ramp Steps</b>        | 1                                        | 161                                      | 121                                      |
| <b>Ramp Time</b>         | 1,000s                                   | 16,100s                                  | 12,100s                                  |
| <b>Trigger</b>           | None                                     | Bin                                      | Bin                                      |
| <b>Trigger Logic</b>     |                                          | OR                                       | OR                                       |
| <b>Start (A1)</b>        |                                          | 1                                        | 0                                        |
| <b>Step back</b>         | No                                       | No                                       | No                                       |
| <b>Delay Time</b>        | 0,000 s                                  | 0,000 s                                  | 0,000 s                                  |

## Test Module

Name: OMICRON Ramping  
Test Start: 05-joulu-2014 16:02:18  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:02:30  
Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 2 | 320,0 mA | 323,0 mA | 10,00 mA | 10,00 mA | 3,000 mA  | +      | 25,70 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 2 | 310,4 mA | 307,0 mA | 10,00 mA | 10,00 mA | -3,400 mA | +      | 23,10 |

Assess: + .. Passed x .. Failed o .. Not assessed

### Test State:

Test passed

## Test Settings

### General

No. of ramp states: 3  
Total steps per test: 283  
Total time per test: 29,200  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

### Ramped Quantities

I 3 / Magnitude  
I 3(+) / Magnitude

### Ramp States

| Ramp              | Ramp 1                             | Ramp 2                             | Ramp 3                             |
|-------------------|------------------------------------|------------------------------------|------------------------------------|
| I 3               | 200,0 mA<br>-150,00 °<br>50,000 Hz | 200,0 mA<br>-150,00 °<br>50,000 Hz | 360,0 mA<br>-150,00 °<br>50,000 Hz |
| I 3(+)            | 240,0 mA<br>-150,00 °<br>100,00 Hz | 240,0 mA<br>-150,00 °<br>100,00 Hz | 240,0 mA<br>-150,00 °<br>100,00 Hz |
| Force abs. Phases | Yes                                | Yes                                | Yes                                |
| Sig 1 From        | 200,0 mA                           | 200,0 mA                           | 360,0 mA                           |
| Sig 1 To          | 200,0 mA                           | 360,0 mA                           | 240,0 mA                           |
| Sig 1 Delta       | 0,000 A                            | 1,000 mA                           | -1,000 mA                          |
| Sig 1 d/dt        | 0,000 A/s                          | 10,00 mA/s                         | -10,00 mA/s                        |
| Sig 2 From        | 240,0 mA                           | 240,0 mA                           | 240,0 mA                           |
| Sig 2 To          | 240,0 mA                           | 240,0 mA                           | 240,0 mA                           |
| Sig 2 Delta       | 0,000 A                            | 0,000 A                            | 0,000 A                            |
| Sig 2 d/dt        | 0,000 A/s                          | 0,000 A/s                          | 0,000 A/s                          |
| DI1               | 0                                  | 0                                  | 0                                  |
| dt per Step       | 1,000 s                            | 100,0 ms                           | 100,0 ms                           |
| Ramp Steps        | 1                                  | 161                                | 121                                |
| Ramp Time         | 1,000s                             | 16,100s                            | 12,100s                            |
| Trigger           | None                               | Bin                                | Bin                                |
| Trigger Logic     |                                    | OR                                 | OR                                 |
| Start (A1)        |                                    | 1                                  | 0                                  |
| Step back         | No                                 | No                                 | No                                 |
| Delay Time        | 0,000 s                            | 0,000 s                            | 0,000 s                            |

## Test Module

Name: OMICRON Ramping  
 Test Start: 05-joulu-2014 16:03:07  
 User Name: Jesse Saastamoinen  
 Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
 Test End: 05-joulu-2014 16:03:18  
 Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 3 | 320,0 mA | 317,0 mA | 10,00 mA | 10,00 mA | -3,000 mA | +      | 45,30 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 3 | 310,4 mA | 302,0 mA | 10,00 mA | 10,00 mA | -8,400 mA | +      | 37,90 |

Assess: + .. Passed x .. Failed o .. Not assessed

### Test State:

Test passed

Operation time (DT) min. 40ms and 1.0s:

## Test Settings

| State | Normal situation                   | Pick-up Grp1                       | Drop-off Grp1                      | Normal situation grp2              | Pick-up Grp2                       | Drop-off Grp2                      | Cold boot #1                       | No trip after boot (Grp1)          |
|-------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| I 1   | 200,0 mA<br>-10,00 °<br>50,000 Hz  | 414,0 mA<br>-10,00 °<br>50,000 Hz  | 376,0 mA<br>-10,00 °<br>50,000 Hz  | 376,0 mA<br>-10,00 °<br>50,000 Hz  | 8,280 A<br>-10,00 °<br>50,000 Hz   | 7,520 A<br>-10,00 °<br>50,000 Hz   | 7,520 A<br>-10,00 °<br>50,000 Hz   | 376,0 mA<br>-10,00 °<br>50,000 Hz  |
| I 2   | 200,0 mA<br>-130,00 °<br>50,000 Hz | 414,0 mA<br>-130,00 °<br>50,000 Hz | 376,0 mA<br>-130,00 °<br>50,000 Hz | 376,0 mA<br>-130,00 °<br>50,000 Hz | 376,0 mA<br>-130,00 °<br>50,000 Hz | 376,0 mA<br>-130,00 °<br>50,000 Hz | 376,0 mA<br>-130,00 °<br>50,000 Hz | 376,0 mA<br>-130,00 °<br>50,000 Hz |
| I 3   | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 8,280 A<br>110,00 °<br>50,000 Hz   | 7,520 A<br>110,00 °<br>50,000 Hz   | 7,520 A<br>110,00 °<br>50,000 Hz   | 376,0 mA<br>110,00 °<br>50,000 Hz  |
| State | Cold boot #2                       | No trip after boot (Grp2)          |                                    |                                    |                                    |                                    |                                    |                                    |
| I 1   | 376,0 mA<br>-10,00 °<br>50,000 Hz  | 7,520 A<br>-10,00 °<br>50,000 Hz   |                                    |                                    |                                    |                                    |                                    |                                    |
| I 2   | 376,0 mA<br>-130,00 °<br>50,000 Hz | 7,520 A<br>-130,00 °<br>50,000 Hz  |                                    |                                    |                                    |                                    |                                    |                                    |
| I 3   | 376,0 mA<br>110,00 °<br>50,000 Hz  | 7,520 A<br>110,00 °<br>50,000 Hz   |                                    |                                    |                                    |                                    |                                    |                                    |

## Test Module

Name: OMICRON State Sequencer  
 Test Start: 05-joulu-2014 16:03:55  
 User Name: Jesse Saastamoinen  
 Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
 Test End: 05-joulu-2014 16:04:16  
 Manager:

## Test Results



## Time Assessment

| Name                | Ignore before | Start         | Stop           | Tnom     | Tdev-    | Tdev+    | Tact     | Tdev      | Assess |
|---------------------|---------------|---------------|----------------|----------|----------|----------|----------|-----------|--------|
| Start pick-up Grp1  | Pick-up Grp1  | Pick-up Grp1  | Start (A1) 0>1 | 30,00 ms | 30,00 ms | 30,00 ms | 52,40 ms | 22,40 ms  | +      |
| Trip pick-up Grp1   | Pick-up Grp1  | Pick-up Grp1  | Trip (T1) 0>1  | 40,00 ms | 23,00 ms | 23,00 ms | 56,20 ms | 16,20 ms  | +      |
| Start drop-off Grp1 | Drop-off Grp1 | Drop-off Grp1 | Start (A1) 1>0 | 95,00 ms | 95,00 ms | 0,000 s  | 47,70 ms | -47,30 ms | +      |
| Trip drop-off Grp1  | Drop-off Grp1 | Drop-off Grp1 | Trip (T1) 1>0  | 95,00 ms | 95,00 ms | 0,000 s  | 46,40 ms | -48,60 ms | +      |
| Start pick-up Grp2  | Pick-up Grp2  | Pick-up Grp2  | Start (A1) 0>1 | 30,00 ms | 30,00 ms | 30,00 ms | 48,30 ms | 18,30 ms  | +      |
| Trip pick-up Grp2   | Pick-up Grp2  | Pick-up Grp2  | Trip (T1) 0>1  | 1,000 s  | 23,00 ms | 23,00 ms | 1,012 s  | 11,80 ms  | +      |
| Start drop-off Grp2 | Drop-off Grp2 | Drop-off Grp2 | Start (A1) 1>0 | 95,00 ms | 95,00 ms | 0,000 s  | 47,90 ms | -47,10 ms | +      |
| Trip drop-off Grp2  | Drop-off Grp2 | Drop-off Grp2 | Trip (T1) 1>0  | 95,00 ms | 95,00 ms | 0,000 s  | 46,70 ms | -48,30 ms | +      |

Assess: + .. Passed x .. Failed o .. Not assessed

## State Assessment

|            | Normal situation | Pick-up Grp1              | Drop-off Grp1 | Normal situation grp2 | Pick-up Grp2 | Drop-off Grp2 | Cold boot #1 | No trip after boot (Grp1) |
|------------|------------------|---------------------------|---------------|-----------------------|--------------|---------------|--------------|---------------------------|
| Assess     | +                | +                         | +             | +                     | +            | +             | +            | +                         |
| Tolerance  | 0,000 s          | 63,00 ms                  | 95,00 ms      | 0,000 s               | 1,023 s      | 95,00 ms      | 0,000 s      | 0,000 s                   |
| Start (A1) | 0                | 1                         | 0             | 0                     | 1            | 0             | 0            | 0                         |
| Trip (T1)  | 0                | 1                         | 0             | 0                     | 1            | 0             | 0            | 0                         |
|            | Cold boot #2     | No trip after boot (Grp2) |               |                       |              |               |              |                           |
| Assess     | +                | +                         |               |                       |              |               |              |                           |
| Tolerance  | 0,000 s          | 0,000 s                   |               |                       |              |               |              |                           |
| Start (A1) | 0                | 0                         |               |                       |              |               |              |                           |
| Trip (T1)  | 0                | 0                         |               |                       |              |               |              |                           |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**  
**Test passed**

-----Group end:CT 5A-----

-----Group end:Motor mode-----

-----Group end:Overcurrent stage I> (50/51)-----

-----Group:Overcurrent stage I'> (50/51)-----

-----Group:Motor mode-----

-----Group:CT 5A-----

## Test Object - Device Settings

**Substation/Bay:**

Substation:  
Bay:

Substation address:  
Bay address:

**Device:**

Name/description: CT=5A Mot.Nom.=4A  
Device type:  
Serial/model number:  
Additional info 1:  
Additional info 2:

Manufacturer:  
Device address:

**Vampset: Disable stages****Test State:****Command executed****Test passed****Test Module**

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:04:50  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:05:11  
Manager:

**Vampset: 50/51****Test State:****Command executed****Test passed****Test Module**

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:05:44  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:05:58  
Manager:

**Test Settings****General**

No. of ramp states: 6  
Total steps per test: 186  
Total time per test: 20,400  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

**Ramped Quantities**I<sup>1</sup> / Magnitude**Ramp States**

| Ramp              | Ramp 1                           | Ramp 2                           | Ramp 3                           | Ramp 4                          | Ramp 5                          | Ramp 6                          |
|-------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------------------|
| I <sup>1</sup>    | 360,0 mA<br>30,00 °<br>50,000 Hz | 360,0 mA<br>30,00 °<br>50,000 Hz | 440,0 mA<br>30,00 °<br>50,000 Hz | 7,600 A<br>30,00 °<br>50,000 Hz | 7,600 A<br>30,00 °<br>50,000 Hz | 8,400 A<br>30,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                              | No                               | No                               | No                              | No                              | No                              |
| Sig 1 From        | 360,0 mA                         | 360,0 mA                         | 440,0 mA                         | 7,600 A                         | 7,600 A                         | 8,400 A                         |
| Sig 1 To          | 360,0 mA                         | 440,0 mA                         | 320,0 mA                         | 7,600 A                         | 8,400 A                         | 7,200 A                         |
| Sig 1 Delta       | 0,000 A                          | 2,000 mA                         | -2,000 mA                        | 0,000 A                         | 25,00 mA                        | -25,00 mA                       |
| Sig 1 d/dt        | 0,000 A/s                        | 20,00 mA/s                       | -20,00 mA/s                      | 0,000 A/s                       | 250,0 mA/s                      | -250,0 mA/s                     |
| DI1               | 0                                | 0                                | 0                                | 1                               | 1                               | 1                               |
| dt per Step       | 1,000 s                          | 100,0 ms                         | 100,0 ms                         | 1,000 s                         | 100,0 ms                        | 100,0 ms                        |
| Ramp Steps        | 1                                | 41                               | 61                               | 1                               | 33                              | 49                              |
| Ramp Time         | 1,000s                           | 4,100s                           | 6,100s                           | 1,000s                          | 3,300s                          | 4,900s                          |
| Trigger           | None                             | Bin                              | Bin                              | None                            | Bin                             | Bin                             |
| Trigger Logic     |                                  | OR                               | OR                               |                                 | OR                              | OR                              |

|            |         |         |         |         |         |         |
|------------|---------|---------|---------|---------|---------|---------|
| Start (A1) |         | 1       | 0       |         | 1       | 0       |
| Step back  | No      | No      | No      | No      | No      | No      |
| Delay Time | 0,000 s | 0,000 s | 0,000 s | 0,000 s | 0,000 s | 0,000 s |

## Test Module

Name: OMICRON Ramping Version: 3.00 SR 2  
 Test Start: 05-joulu-2014 16:06:34 Test End: 05-joulu-2014 16:06:40  
 User Name: Jesse Saastamoinen Manager:  
 Company: Schneider Electric - Vamp

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I'1 | 400,0 mA | 404,0 mA | 10,00 mA | 10,00 mA | 4,000 mA  | +      | 55,20 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I'1 | 388,0 mA | 390,0 mA | 10,00 mA | 10,00 mA | 2,000 mA  | +      | 49,60 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I'1 | 8,000 A  | 8,025 A  | 200,0 mA | 200,0 mA | 25,00 mA  | +      | 45,70 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I'1 | 7,760 A  | 7,750 A  | 200,0 mA | 200,0 mA | -10,00 mA | +      | 64,20 |

Assess: + .. Passed x .. Failed o .. Not assessed

Test State:  
Test passed

## Test Settings

### General

No. of ramp states: 6  
 Total steps per test: 186  
 Total time per test: 20,400  
 No. of test executions: 1

Input Mode: Direct  
 Fault Type:

### Ramped Quantities

I'2 / Magnitude

### Ramp States

| Ramp              | Ramp 1                                   | Ramp 2                                   | Ramp 3                                   | Ramp 4                                  | Ramp 5                                  | Ramp 6                                  |
|-------------------|------------------------------------------|------------------------------------------|------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| I'2               | <u>360,0 mA</u><br>-70,00 °<br>50,000 Hz | <u>360,0 mA</u><br>-70,00 °<br>50,000 Hz | <u>440,0 mA</u><br>-70,00 °<br>50,000 Hz | <u>7,600 A</u><br>-70,00 °<br>50,000 Hz | <u>7,600 A</u><br>-70,00 °<br>50,000 Hz | <u>8,400 A</u><br>-70,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                                      | No                                       | No                                       | No                                      | No                                      | No                                      |
| Sig 1 From        | 360,0 mA                                 | 360,0 mA                                 | 440,0 mA                                 | 7,600 A                                 | 7,600 A                                 | 8,400 A                                 |
| Sig 1 To          | 360,0 mA                                 | 440,0 mA                                 | 320,0 mA                                 | 7,600 A                                 | 8,400 A                                 | 7,200 A                                 |
| Sig 1 Delta       | 0,000 A                                  | 2,000 mA                                 | -2,000 mA                                | 0,000 A                                 | 25,00 mA                                | -25,00 mA                               |
| Sig 1 d/dt        | 0,000 A/s                                | 20,00 mA/s                               | -20,00 mA/s                              | 0,000 A/s                               | 250,0 mA/s                              | -250,0 mA/s                             |
| DI1               | 0                                        | 0                                        | 0                                        | 1                                       | 1                                       | 1                                       |
| dt per Step       | 1,000 s                                  | 100,0 ms                                 | 100,0 ms                                 | 1,000 s                                 | 100,0 ms                                | 100,0 ms                                |
| Ramp Steps        | 1                                        | 41                                       | 61                                       | 1                                       | 33                                      | 49                                      |
| Ramp Time         | 1,000s                                   | 4,100s                                   | 6,100s                                   | 1,000s                                  | 3,300s                                  | 4,900s                                  |
| Trigger           | None                                     | Bin                                      | Bin                                      | None                                    | Bin                                     | Bin                                     |
| Trigger Logic     |                                          | OR                                       | OR                                       |                                         | OR                                      | OR                                      |
| Start (A1)        |                                          | 1                                        | 0                                        |                                         | 1                                       | 0                                       |
| Step back         | No                                       | No                                       | No                                       | No                                      | No                                      | No                                      |
| Delay Time        | 0,000 s                                  | 0,000 s                                  | 0,000 s                                  | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 |

## Test Module

Name: OMICRON Ramping Version: 3.00 SR 2

Test Start: 05-joulu-2014 16:07:16  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Test End:  
Manager:

05-joulu-2014 16:07:21

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I'2 | 400,0 mA | 402,0 mA | 10,00 mA | 10,00 mA | 2,000 mA  | +      | 72,40 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I'2 | 388,0 mA | 390,0 mA | 10,00 mA | 10,00 mA | 2,000 mA  | +      | 61,00 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I'2 | 8,000 A  | 8,000 A  | 200,0 mA | 200,0 mA | 0,000 A   | +      | 58,90 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I'2 | 7,760 A  | 7,750 A  | 200,0 mA | 200,0 mA | -10,00 mA | +      | 54,00 |

Assess: + .. Passed x .. Failed o .. Not assessed

Test State:  
Test passed

## Test Settings

### General

No. of ramp states: 6  
Total steps per test: 186  
Total time per test: 20,400  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

### Ramped Quantities

I'3 / Magnitude

### Ramp States

| Ramp              | Ramp 1                             | Ramp 2                             | Ramp 3                             | Ramp 4                            | Ramp 5                            | Ramp 6                            |
|-------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I'3               | 360,0 mA<br>-150,00 °<br>50,000 Hz | 360,0 mA<br>-150,00 °<br>50,000 Hz | 440,0 mA<br>-150,00 °<br>50,000 Hz | 7,600 A<br>-150,00 °<br>50,000 Hz | 7,600 A<br>-150,00 °<br>50,000 Hz | 8,400 A<br>-150,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                                | No                                 | No                                 | No                                | No                                | No                                |
| Sig 1 From        | 360,0 mA                           | 360,0 mA                           | 440,0 mA                           | 7,600 A                           | 7,600 A                           | 8,400 A                           |
| Sig 1 To          | 360,0 mA                           | 440,0 mA                           | 320,0 mA                           | 7,600 A                           | 8,400 A                           | 7,200 A                           |
| Sig 1 Delta       | 0,000 A                            | 2,000 mA                           | -2,000 mA                          | 0,000 A                           | 25,00 mA                          | -25,00 mA                         |
| Sig 1 d/dt        | 0,000 A/s                          | 20,00 mA/s                         | -20,00 mA/s                        | 0,000 A/s                         | 250,0 mA/s                        | -250,0 mA/s                       |
| DI1               | 0                                  | 0                                  | 0                                  | 1                                 | 1                                 | 1                                 |
| dt per Step       | 1,000 s                            | 100,0 ms                           | 100,0 ms                           | 1,000 s                           | 100,0 ms                          | 100,0 ms                          |
| Ramp Steps        | 1                                  | 41                                 | 61                                 | 1                                 | 33                                | 49                                |
| Ramp Time         | 1,000s                             | 4,100s                             | 6,100s                             | 1,000s                            | 3,300s                            | 4,900s                            |
| Trigger           | None                               | Bin                                | Bin                                | None                              | Bin                               | Bin                               |
| Trigger Logic     |                                    | OR                                 | OR                                 |                                   | OR                                | OR                                |
| Start (A1)        |                                    | 1                                  | 0                                  |                                   | 1                                 | 0                                 |
| Step back         | No                                 | No                                 | No                                 | No                                | No                                | No                                |
| Delay Time        | 0,000 s                            | 0,000 s                            | 0,000 s                            | 0,000 s                           | 0,000 s                           | 0,000 s                           |

## Test Module

Name: OMICRON Ramping  
Test Start: 05-joulu-2014 16:07:58  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version:  
Test End:  
Manager:

3.00 SR 2  
05-joulu-2014 16:08:03

## Test Results

## Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I'3 | 400,0 mA | 404,0 mA | 10,00 mA | 10,00 mA | 4,000 mA  | +      | 43,70 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I'3 | 388,0 mA | 390,0 mA | 10,00 mA | 10,00 mA | 2,000 mA  | +      | 46,40 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I'3 | 8,000 A  | 8,000 A  | 200,0 mA | 200,0 mA | 0,000 A   | +      | 53,80 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I'3 | 7,760 A  | 7,750 A  | 200,0 mA | 200,0 mA | -10,00 mA | +      | 53,90 |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**  
**Test passed**

**Operation time (DT) min. 80ms and 1.0s:**

## Test Settings

| State | Normal situation                   | Pick-up Grp1                       | Drop-off Grp1                      | Normal situation grp2              | Pick-up Grp2                       | Drop-off Grp2                      | Cold boot #1                       | No trip after boot (Grp1)          |
|-------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| I'1   | 200,0 mA<br>-10,00 °<br>50,000 Hz  | 415,0 mA<br>-10,00 °<br>50,000 Hz  | 380,0 mA<br>-10,00 °<br>50,000 Hz  | 380,0 mA<br>-10,00 °<br>50,000 Hz  | 8,280 A<br>-10,00 °<br>50,000 Hz   | 7,520 A<br>-10,00 °<br>50,000 Hz   | 7,520 A<br>-10,00 °<br>50,000 Hz   | 380,0 mA<br>-10,00 °<br>50,000 Hz  |
| I'2   | 200,0 mA<br>-130,00 °<br>50,000 Hz | 415,0 mA<br>-130,00 °<br>50,000 Hz | 380,0 mA<br>-130,00 °<br>50,000 Hz | 380,0 mA<br>-130,00 °<br>50,000 Hz | 380,0 mA<br>-130,00 °<br>50,000 Hz | 380,0 mA<br>-130,00 °<br>50,000 Hz | 380,0 mA<br>-130,00 °<br>50,000 Hz | 380,0 mA<br>-130,00 °<br>50,000 Hz |
| I'3   | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 8,280 A<br>110,00 °<br>50,000 Hz   | 7,520 A<br>110,00 °<br>50,000 Hz   | 7,520 A<br>110,00 °<br>50,000 Hz   | 380,0 mA<br>110,00 °<br>50,000 Hz  |
| State | Cold boot #2                       | No trip after boot (Grp2)          |                                    |                                    |                                    |                                    |                                    |                                    |
| I'1   | 380,0 mA<br>-10,00 °<br>50,000 Hz  | 7,520 A<br>-10,00 °<br>50,000 Hz   |                                    |                                    |                                    |                                    |                                    |                                    |
| I'2   | 380,0 mA<br>-130,00 °<br>50,000 Hz | 7,520 A<br>-130,00 °<br>50,000 Hz  |                                    |                                    |                                    |                                    |                                    |                                    |
| I'3   | 380,0 mA<br>110,00 °<br>50,000 Hz  | 7,520 A<br>110,00 °<br>50,000 Hz   |                                    |                                    |                                    |                                    |                                    |                                    |

## Test Module

|             |                           |           |                        |
|-------------|---------------------------|-----------|------------------------|
| Name:       | OMICRON State Sequencer   | Version:  | 3.00 SR 2              |
| Test Start: | 05-joulu-2014 16:08:40    | Test End: | 05-joulu-2014 16:09:00 |
| User Name:  | Jesse Saastamoinen        | Manager:  |                        |
| Company:    | Schneider Electric - Vamp |           |                        |

## Test Results

## Time Assessment

| Name                | Ignore before | Start         | Stop           | Tnom     | Tdev-    | Tdev+    | Tact     | Tdev      | Assess |
|---------------------|---------------|---------------|----------------|----------|----------|----------|----------|-----------|--------|
| Start pick-up Grp1  | Pick-up Grp1  | Pick-up Grp1  | Start (A1) 0>1 | 60,00 ms | 60,00 ms | 20,00 ms | 65,50 ms | 5,500 ms  | +      |
| Trip pick-up Grp1   | Pick-up Grp1  | Pick-up Grp1  | Trip (T1) 0>1  | 80,00 ms | 28,00 ms | 28,00 ms | 88,90 ms | 8,900 ms  | +      |
| Start drop-off Grp1 | Drop-off Grp1 | Drop-off Grp1 | Start (A1) 1>0 | 95,00 ms | 95,00 ms | 0,000 s  | 67,60 ms | -27,40 ms | +      |
| Trip drop-off Grp1  | Drop-off Grp1 | Drop-off Grp1 | Trip (T1) 1>0  | 95,00 ms | 95,00 ms | 0,000 s  | 66,40 ms | -28,60 ms | +      |
| Start pick-up Grp2  | Pick-up Grp2  | Pick-up Grp2  | Start (A1) 0>1 | 60,00 ms | 60,00 ms | 20,00 ms | 48,80 ms | -11,20 ms | +      |
| Trip pick-up Grp2   | Pick-up Grp2  | Pick-up Grp2  | Trip (T1) 0>1  | 1,000 s  | 28,00 ms | 28,00 ms | 992,2 ms | -7,800 ms | +      |
| Start drop-off Grp2 | Drop-off Grp2 | Drop-off Grp2 | Start (A1) 1>0 | 95,00 ms | 95,00 ms | 0,000 s  | 67,60 ms | -27,40 ms | +      |
| Trip drop-off Grp2  | Drop-off Grp2 | Drop-off Grp2 | Trip (T1) 1>0  | 95,00 ms | 95,00 ms | 0,000 s  | 66,30 ms | -28,70 ms | +      |

Assess: + .. Passed x .. Failed o .. Not assessed

## State Assessment

|            | Normal situation | Pick-up Grp1              | Drop-off Grp1 | Normal situation grp2 | Pick-up Grp2 | Drop-off Grp2 | Cold boot #1 | No trip after boot (Grp1) |
|------------|------------------|---------------------------|---------------|-----------------------|--------------|---------------|--------------|---------------------------|
| Assess     | +                | +                         | +             | +                     | +            | +             | +            | +                         |
| Tolerance  | 0,000 s          | 108,0 ms                  | 95,00 ms      | 0,000 s               | 1,028 s      | 95,00 ms      | 0,000 s      | 0,000 s                   |
| Start (A1) | 0                | 1                         | 0             | 0                     | 1            | 0             | 0            | 0                         |
| Trip (T1)  | 0                | 1                         | 0             | 0                     | 1            | 0             | 0            | 0                         |
|            | Cold boot #2     | No trip after boot (Grp2) |               |                       |              |               |              |                           |
| Assess     | +                | +                         |               |                       |              |               |              |                           |
| Tolerance  | 0,000 s          | 0,000 s                   |               |                       |              |               |              |                           |
| Start (A1) | 0                | 0                         |               |                       |              |               |              |                           |
| Trip (T1)  | 0                | 0                         |               |                       |              |               |              |                           |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**  
**Test passed**

----- Group end:CT 5A-----

----- Group end:Motor mode-----

----- Group end:Overcurrent stage I'> (50/51)-----

----- Group:Overcurrent stage I>> (50/51)-----

----- Group:Motor mode-----

----- Group:CT 5A-----

## Test Object - Device Settings

### Substation/Bay:

Substation:  
Bay:

Substation address:  
Bay address:

### Device:

Name/description: CT=5A Mot.Nom.=4A  
Device type:  
Serial/model number:  
Additional info 1:  
Additional info 2:

Manufacturer:  
Device address:

## Vampset: Disable stages

### Test State:

Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:09:35  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:09:55  
Manager:

## Vampset: 50/51

### Test State:

Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:10:29  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:12:08  
Manager:

## Operation time (DT) min. 40ms:

### Test Settings

| State | Normal<br>situation                | Pick-up<br>Grp1                    | Drop-off<br>Grp1                   |
|-------|------------------------------------|------------------------------------|------------------------------------|
| I 1   | 200,0 mA<br>-10,00 °<br>50,000 Hz  | 415,0 mA<br>-10,00 °<br>50,000 Hz  | 375,0 mA<br>-10,00 °<br>50,000 Hz  |
| I 2   | 200,0 mA<br>-130,00 °<br>50,000 Hz | 415,0 mA<br>-130,00 °<br>50,000 Hz | 375,0 mA<br>-130,00 °<br>50,000 Hz |
| I 3   | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  |

### Test Module

Name: OMICRON State Sequencer  
Test Start: 05-joulu-2014 16:12:45  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:12:45  
Manager:

## Test Results

## Time Assessment

| Name                | Ignore before | Start         | Stop           | Tnom     | Tdev-    | Tdev+    | Tact     | Tdev      | Assess |
|---------------------|---------------|---------------|----------------|----------|----------|----------|----------|-----------|--------|
| Start pick-up Grp1  | Pick-up Grp1  | Pick-up Grp1  | Start (A1) 0>1 | 30,00 ms | 30,00 ms | 30,00 ms | 37,50 ms | 7,500 ms  | +      |
| Trip pick-up Grp1   | Pick-up Grp1  | Pick-up Grp1  | Trip (T1) 0>1  | 40,00 ms | 23,00 ms | 23,00 ms | 41,20 ms | 1,200 ms  | +      |
| Start drop-off Grp1 | Drop-off Grp1 | Drop-off Grp1 | Start (A1) 1>0 | 95,00 ms | 95,00 ms | 0,000 s  | 47,70 ms | -47,30 ms | +      |
| Trip drop-off Grp1  | Drop-off Grp1 | Drop-off Grp1 | Trip (T1) 1>0  | 95,00 ms | 95,00 ms | 0,000 s  | 46,60 ms | -48,40 ms | +      |

Assess: + .. Passed x .. Failed o .. Not assessed

## State Assessment

|            | Normal situation | Pick-up Grp1 | Drop-off Grp1 |
|------------|------------------|--------------|---------------|
| Assess     | +                | +            | +             |
| Tolerance  | 0,000 s          | 63,00 ms     | 95,00 ms      |
| Start (A1) | 0                | 1            | 0             |
| Trip (T1)  | 0                | 1            | 0             |

Assess: + .. Passed x .. Failed o .. Not assessed

## Test State:

Test passed

----- Group end:CT 5A-----

----- Group end:Motor mode-----

----- Group end:Overcurrent stage I>> (50/51)-----

----- Group:Overcurrent stage I>>> (50/51)-----

----- Group:Motor mode-----

----- Group:CT 5A-----

## Test Object - Device Settings

### Substation/Bay:

Substation:  
Bay:

Substation address:  
Bay address:

### Device:

Name/description: CT=5A Mot.Nom.=4A  
Device type:  
Serial/model number:  
Additional info 1:  
Additional info 2:

Manufacturer:  
Device address:

## Vampset: Disable stages

## Test State:

Command executed  
Test passed

## Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:13:19  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:13:35  
Manager:



**ampset: 50/51**

**Test State:**  
**Command executed**  
**Test passed**

## Test Module

|             |                           |           |                        |
|-------------|---------------------------|-----------|------------------------|
| Name:       | OMICRON ExeCute           | Version:  | 3.00 SR 2              |
| Test Start: | 05-joulu-2014 16:14:09    | Test End: | 05-joulu-2014 16:15:49 |
| User Name:  | Jesse Saastamoinen        | Manager:  |                        |
| Company:    | Schneider Electric - Vamp |           |                        |

**Operation time (DT) min. 30ms:**

## Test Settings

| State | Normal<br>situation                | Pick-up 1<br>Grp1                  | Drop-off<br>1 Grp1                 | Normal<br>situation                | Pick-up 2<br>Grp1                  | Drop-off<br>2 Grp1                 |
|-------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| I 1   | 200,0 mA<br>-10,00 °<br>50,000 Hz  | 414,4 mA<br>-10,00 °<br>50,000 Hz  | 376,0 mA<br>-10,00 °<br>50,000 Hz  | 200,0 mA<br>-10,00 °<br>50,000 Hz  | 600,0 mA<br>-10,00 °<br>50,000 Hz  | 376,0 mA<br>-10,00 °<br>50,000 Hz  |
| I 2   | 200,0 mA<br>-130,00 °<br>50,000 Hz | 414,4 mA<br>-130,00 °<br>50,000 Hz | 376,0 mA<br>-130,00 °<br>50,000 Hz | 200,0 mA<br>-130,00 °<br>50,000 Hz | 600,0 mA<br>-130,00 °<br>50,000 Hz | 376,0 mA<br>-130,00 °<br>50,000 Hz |
| I 3   | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  |

## Test Module

|             |                           |           |                        |
|-------------|---------------------------|-----------|------------------------|
| Name:       | OMICRON State Sequencer   | Version:  | 3.00 SR 2              |
| Test Start: | 05-joulu-2014 16:16:25    | Test End: | 05-joulu-2014 16:16:26 |
| User Name:  | Jesse Saastamoinen        | Manager:  |                        |
| Company:    | Schneider Electric - Vamp |           |                        |

## Test Results

### Time Assessment

| Name                        | Ignore<br>before   | Start              | Stop              | Tnom     | Tdev-    | Tdev+    | Tact     | Tdev      | Assess |
|-----------------------------|--------------------|--------------------|-------------------|----------|----------|----------|----------|-----------|--------|
| Start 1<br>pick-up<br>Grp1  | Pick-up 1<br>Grp1  | Pick-up 1<br>Grp1  | Start (A1)<br>0>1 | 30,00 ms | 30,00 ms | 20,00 ms | 38,80 ms | 8,800 ms  | +      |
| Start 2<br>pick-up<br>Grp1  | Pick-up 2<br>Grp1  | Pick-up 2<br>Grp1  | Start (A1)<br>0>1 | 30,00 ms | 30,00 ms | 0,000 s  | 21,80 ms | -8,200 ms | +      |
| Trip 1<br>pick-up<br>Grp1   | Pick-up 1<br>Grp1  | Pick-up 1<br>Grp1  | Trip (T1)<br>0>1  | 50,00 ms | 50,00 ms | 0,000 s  | 42,90 ms | -7,100 ms | +      |
| Trip 2<br>pick-up<br>Grp1   | Pick-up 2<br>Grp1  | Pick-up 2<br>Grp1  | Trip (T1)<br>0>1  | 30,00 ms | 30,00 ms | 0,000 s  | 25,60 ms | -4,400 ms | +      |
| Start 1<br>drop-off<br>Grp1 | Drop-off 1<br>Grp1 | Drop-off 1<br>Grp1 | Start (A1)<br>1>0 | 95,00 ms | 95,00 ms | 0,000 s  | 47,60 ms | -47,40 ms | +      |
| Start 2<br>drop-off<br>Grp1 | Drop-off 2<br>Grp1 | Drop-off 2<br>Grp1 | Start (A1)<br>1>0 | 95,00 ms | 95,00 ms | 0,000 s  | 54,30 ms | -40,70 ms | +      |
| Trip 1<br>drop-off<br>Grp1  | Drop-off 1<br>Grp1 | Drop-off 1<br>Grp1 | Trip (T1)<br>1>0  | 95,00 ms | 95,00 ms | 0,000 s  | 46,60 ms | -48,40 ms | +      |
| Trip 2<br>drop-off<br>Grp1  | Drop-off 2<br>Grp1 | Drop-off 2<br>Grp1 | Trip (T1)<br>1>0  | 95,00 ms | 95,00 ms | 0,000 s  | 53,30 ms | -41,70 ms | +      |

Assess: + .. Passed x .. Failed o .. Not assessed

## State Assessment

|            | Normal<br>situation | Pick-up 1<br>Grp1 | Drop-off<br>1 Grp1 | Normal<br>situation | Pick-up 2<br>Grp1 | Drop-off<br>2 Grp1 |
|------------|---------------------|-------------------|--------------------|---------------------|-------------------|--------------------|
| Assess     | +                   | +                 | +                  | +                   | +                 | +                  |
| Tolerance  | 0,000 s             | 50,00 ms          | 95,00 ms           | 0,000 s             | 50,00 ms          | 95,00 ms           |
| Start (A1) | 0                   | 1                 | 0                  | 0                   | 1                 | 0                  |
| Trip (T1)  | 0                   | 1                 | 0                  | 0                   | 1                 | 0                  |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**  
**Test passed**

----- Group end:CT 5A-----

----- Group end:Motor mode-----

----- Group end:Overcurrent stage I>>> (50/51)-----

----- Group:Overcurrent stage I'>> (50/51)-----

----- Group:Motor mode-----

----- Group:CT 5A-----

## Test Object - Device Settings

### Substation/Bay:

Substation:  
Bay:

Substation address:  
Bay address:

### Device:

Name/description: CT=5A Mot.Nom.=4A  
Device type:  
Serial/model number:  
Additional info 1:  
Additional info 2:

Manufacturer:  
Device address:

## Vampset: Disable stages

**Test State:**  
**Command executed**  
**Test passed**

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:17:00  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:17:16  
Manager:

## Vampset: 50/51

**Test State:**  
**Command executed**  
**Test passed**

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:17:50  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:18:02  
Manager:

## Operation time (DT) min. 40ms:

## Test Settings

| State | Normal<br>situation                | Pick-up<br>Grp1                    | Drop-off<br>Grp1                   |
|-------|------------------------------------|------------------------------------|------------------------------------|
| I'1   | 200,0 mA<br>-10,00 °<br>50,000 Hz  | 415,0 mA<br>-10,00 °<br>50,000 Hz  | 375,0 mA<br>-10,00 °<br>50,000 Hz  |
| I'2   | 200,0 mA<br>-130,00 °<br>50,000 Hz | 415,0 mA<br>-130,00 °<br>50,000 Hz | 375,0 mA<br>-130,00 °<br>50,000 Hz |
| I'3   | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  | 200,0 mA<br>110,00 °<br>50,000 Hz  |

## Test Module

Name: OMICRON State Sequencer  
Test Start: 05-joulu-2014 16:18:39  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:18:39  
Manager:

## Test Results

### Time Assessment

| Name                      | Ignore<br>before | Start            | Stop              | Tnom     | Tdev-    | Tdev+    | Tact     | Tdev      | Assess |
|---------------------------|------------------|------------------|-------------------|----------|----------|----------|----------|-----------|--------|
| Start<br>pick-up<br>Grp1  | Pick-up<br>Grp1  | Pick-up<br>Grp1  | Start (A1)<br>0>1 | 30,00 ms | 30,00 ms | 30,00 ms | 46,00 ms | 16,00 ms  | +      |
| Trip<br>pick-up<br>Grp1   | Pick-up<br>Grp1  | Pick-up<br>Grp1  | Trip (T1)<br>0>1  | 40,00 ms | 23,00 ms | 23,00 ms | 49,70 ms | 9,700 ms  | +      |
| Start<br>drop-off<br>Grp1 | Drop-off<br>Grp1 | Drop-off<br>Grp1 | Start (A1)<br>1>0 | 95,00 ms | 95,00 ms | 0,000 s  | 47,90 ms | -47,10 ms | +      |
| Trip<br>drop-off<br>Grp1  | Drop-off<br>Grp1 | Drop-off<br>Grp1 | Trip (T1)<br>1>0  | 95,00 ms | 95,00 ms | 0,000 s  | 46,70 ms | -48,30 ms | +      |

Assess: + .. Passed x .. Failed o .. Not assessed

### State Assessment

|            | Normal<br>situation | Pick-up<br>Grp1 | Drop-off<br>Grp1 |
|------------|---------------------|-----------------|------------------|
| Assess     | +                   | +               | +                |
| Tolerance  | 0,000 s             | 63,00 ms        | 95,00 ms         |
| Start (A1) | 0                   | 1               | 0                |
| Trip (T1)  | 0                   | 1               | 0                |

Assess: + .. Passed x .. Failed o .. Not assessed

Test State:  
Test passed

----- Group end:CT 5A -----

----- Group end:Motor mode -----

----- Group end:Overcurrent stage I'>> (50/51) -----

----- Group:Thermal overload stage T> (49) -----

Group:Motor mode

Group:CT 5A

## Test Object - Device Settings

### Substation/Bay:

Substation:  
Bay:

Substation address:  
Bay address:

### Device:

Name/description: CT=5A Mot.Nom.=4A  
Device type:  
Serial/model number:  
Additional info 1:  
Additional info 2:

Manufacturer:  
Device address:

## Vampset: Disable stages

### Test State:

Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:19:13  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:19:30  
Manager:

## Vampset: 49

### Test State:

Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:20:03  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:21:48  
Manager:

**Mcc=0.10xIn,A=60%,Tau=2min,Cool=1.0xTau:**

## Test Settings

| State | Pick-up                           | Steady                             | Drop-off                          | Cold boot #1                      | No trip after boot                |
|-------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I 1   | 1,200 A<br>-10,00 °<br>50,000 Hz  | 400,0 mA<br>-10,00 °<br>50,000 Hz  | 0,000 A<br>-10,00 °<br>50,000 Hz  | 0,000 A<br>-10,00 °<br>50,000 Hz  | 0,000 A<br>-10,00 °<br>50,000 Hz  |
| I 2   | 1,200 A<br>-130,00 °<br>50,000 Hz | 400,0 mA<br>-130,00 °<br>50,000 Hz | 0,000 A<br>-130,00 °<br>50,000 Hz | 0,000 A<br>-130,00 °<br>50,000 Hz | 0,000 A<br>-130,00 °<br>50,000 Hz |
| I 3   | 1,200 A<br>110,00 °<br>50,000 Hz  | 400,0 mA<br>110,00 °<br>50,000 Hz  | 0,000 A<br>110,00 °<br>50,000 Hz  | 0,000 A<br>110,00 °<br>50,000 Hz  | 0,000 A<br>110,00 °<br>50,000 Hz  |

### Test Module

Name: OMICRON State Sequencer  
Test Start: 05-joulu-2014 16:22:25  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version:  
Test End:  
Manager:

3.00 SR 2  
05-joulu-2014 16:26:54

## Test Results

### Time Assessment

| Name                | Ignore before | Start    | Stop           | Tnom    | Tdev-    | Tdev+    | Tact    | Tdev     | Assess |
|---------------------|---------------|----------|----------------|---------|----------|----------|---------|----------|--------|
| Start pick-up Grp1  | Pick-up       | Pick-up  | Start (A1) 0>1 | 8,279 s | 800,0 ms | 800,0 ms | 8,422 s | 143,2 ms | +      |
| Trip pick-up Grp1   | Pick-up       | Pick-up  | Trip (T1) 0>1  | 14,13 s | 800,0 ms | 800,0 ms | 14,42 s | 282,4 ms | +      |
| Start drop-off Grp1 | Steady        | Drop-off | Start (A1) 1>0 | 67,45 s | 3,200 s  | 3,200 s  | 68,98 s | 1,530 s  | +      |
| Trip drop-off Grp1  | Steady        | Drop-off | Trip (T1) 1>0  | 6,155 s | 2,800 s  | 2,800 s  | 7,485 s | 1,330 s  | +      |

Assess: + .. Passed x .. Failed o .. Not assessed

### State Assessment

|            | Pick-up | Steady  | Drop-off | Cold boot #1 | No trip after boot |
|------------|---------|---------|----------|--------------|--------------------|
| Assess     | +       | +       | +        | +            | +                  |
| Tolerance  | 15,03 s | 0,000 s | 74,56 s  | 0,000 s      | 0,000 s            |
| Start (A1) | 1       | 1       | 0        | 0            | X                  |
| Trip (T1)  | 1       | 1       | 0        | 0            | 0                  |

Assess: + .. Passed x .. Failed o .. Not assessed

Test State:  
Test passed

## Vampset: Disable stages

Test State:  
Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:27:28  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version:  
Test End:  
Manager:

3.00 SR 2  
05-joulu-2014 16:27:49

## Vampset: 49

Test State:  
Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:28:23

Version:  
Test End:

3.00 SR 2  
05-joulu-2014 16:30:08

User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Manager:

**Mcc=1.20xIn,A=99%,Tau=180min,Cool=1.0xTau:**

## Test Settings

| State | Pick-up                           | Drop-off                          |
|-------|-----------------------------------|-----------------------------------|
| I 1   | 12,00 A<br>-10,00 °<br>50,000 Hz  | 0,000 A<br>-10,00 °<br>50,000 Hz  |
| I 2   | 12,00 A<br>-130,00 °<br>50,000 Hz | 0,000 A<br>-130,00 °<br>50,000 Hz |
| I 3   | 12,00 A<br>110,00 °<br>50,000 Hz  | 0,000 A<br>110,00 °<br>50,000 Hz  |

## Test Module

Name: OMICRON State Sequencer  
Test Start: 05-joulu-2014 16:30:44  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:40:41  
Manager:

## Test Results

### Time Assessment

| Name               | Ignore before | Start    | Stop           | Tnom    | Tdev-   | Tdev+   | Tact    | Tdev     | Assess |
|--------------------|---------------|----------|----------------|---------|---------|---------|---------|----------|--------|
| Start pick-up Grp1 | Pick-up       | Pick-up  | Start (A1) 0>1 | 21,54 s | 6,000 s | 6,000 s | 26,32 s | 4,782 s  | +      |
| Trip pick-up Grp1  | Pick-up       | Pick-up  | Trip (T1) 0>1  | 42,09 s | 6,000 s | 6,000 s | 46,81 s | 4,722 s  | +      |
| Trip drop-off Grp1 | Drop-off      | Drop-off | Trip (T1) 1>0  | 554,0 s | 24,93 s | 24,93 s | 554,9 s | 982,3 ms | +      |

Assess: + .. Passed x .. Failed o .. Not assessed

### State Assessment

|            | Pick-up | Drop-off |
|------------|---------|----------|
| Assess     | +       | +        |
| Tolerance  | 48,09 s | 578,9 s  |
| Start (A1) | 1       | X        |
| Trip (T1)  | 1       | 0        |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**  
**Test passed**

----- Group end:CT 5A-----

----- Group end:Motor mode-----

----- Group end:Thermal overload stage T> (49)-----

----- Group:Unbalance stage I2> (46)-----

---

Group:Motor mode

---

Group:CT 5A

---

## Test Object - Device Settings

### Substation/Bay:

Substation:  
Bay:

Substation address:  
Bay address:

### Device:

Name/description: CT=5A Mot.Nom.=4A  
Device type:  
Serial/model number:  
Additional info 1:  
Additional info 2:

Manufacturer:  
Device address:

## Vampset: Disable stages

### Test State:

Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:41:16  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:41:32  
Manager:

## Vampset: 46

### Test State:

Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:42:06  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:43:46  
Manager:

## Test Settings

### General

No. of ramp states: 6  
Total steps per test: 182  
Total time per test: 20,000  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

### Ramped Quantities

I 1 / Magnitude

## Ramp States

| Ramp              | Ramp 1                           | Ramp 2                           | Ramp 3                           | Ramp 4                            | Ramp 5                            | Ramp 6                            |
|-------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I 1               | 4,000 A<br>30,00 °<br>50,000 Hz  | 4,000 A<br>30,00 °<br>50,000 Hz  | 3,600 A<br>30,00 °<br>50,000 Hz  | 8,800 A<br>30,00 °<br>50,000 Hz   | 8,800 A<br>30,00 °<br>50,000 Hz   | 10,00 A<br>30,00 °<br>50,000 Hz   |
| I 2               | 4,000 A<br>-90,00 °<br>50,000 Hz | 4,000 A<br>-90,00 °<br>50,000 Hz | 4,000 A<br>-90,00 °<br>50,000 Hz | 1,600 A<br>-90,00 °<br>50,000 Hz  | 1,600 A<br>-90,00 °<br>50,000 Hz  | 1,600 A<br>-90,00 °<br>50,000 Hz  |
| I 3               | 4,000 A<br>150,00 °<br>50,000 Hz | 4,000 A<br>150,00 °<br>50,000 Hz | 4,000 A<br>150,00 °<br>50,000 Hz | 800,0 mA<br>150,00 °<br>50,000 Hz | 800,0 mA<br>150,00 °<br>50,000 Hz | 800,0 mA<br>150,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                              | No                               | No                               | No                                | No                                | No                                |
| Sig 1 From        | 4,000 A                          | 4,000 A                          | 3,600 A                          | 8,800 A                           | 8,800 A                           | 10,00 A                           |
| Sig 1 To          | 4,000 A                          | 3,600 A                          | 4,000 A                          | 8,800 A                           | 8,800 A                           | 8,800 A                           |
| Sig 1 Delta       | 0,000 A                          | -10,00 mA                        | 10,00 mA                         | 0,000 A                           | 25,00 mA                          | -25,00 mA                         |
| Sig 1 d/dt        | 0,000 A/s                        | -100,0 mA/s                      | 100,0 mA/s                       | 0,000 A/s                         | 250,0 mA/s                        | -250,0 mA/s                       |
| DI1               | 0                                | 0                                | 0                                | 1                                 | 1                                 | 1                                 |
| dt per Step       | 1,000 s                          | 100,0 ms                         | 100,0 ms                         | 1,000 s                           | 100,0 ms                          | 100,0 ms                          |
| Ramp Steps        | 1                                | 41                               | 41                               | 1                                 | 49                                | 49                                |
| Ramp Time         | 1,000s                           | 4,100s                           | 4,100s                           | 1,000s                            | 4,900s                            | 4,900s                            |
| Trigger           | None                             | Bin                              | Bin                              | None                              | Bin                               | Bin                               |
| Trigger Logic     |                                  | OR                               | OR                               |                                   | OR                                | OR                                |
| Start (A1)        |                                  | 1                                | 0                                |                                   | 1                                 | 0                                 |
| Step back         | No                               | No                               | No                               | No                                | No                                | No                                |
| Delay Time        | 0,000 s                          | 0,000 s                          | 0,000 s                          | 0,000 s                           | 0,000 s                           | 0,000 s                           |

## Test Module

Name: OMICRON Ramping  
Test Start: 05-joulu-2014 16:44:22  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:44:30  
Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.    | Act.    | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|---------|---------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 1 | 3,760 A | 3,740 A | 120,0 mA | 120,0 mA | -20,00 mA | +      | 89,60 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 1 | 3,772 A | 3,810 A | 120,0 mA | 120,0 mA | 38,00 mA  | +      | 35,90 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I 1 | 9,572 A | 9,600 A | 120,0 mA | 120,0 mA | 28,00 mA  | +      | 34,80 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I 1 | 9,152 A | 9,075 A | 120,0 mA | 120,0 mA | -77,00 mA | +      | 97,90 |

Assess: + .. Passed x .. Failed o .. Not assessed

### Test State:

Test passed

## Test Settings

### General

No. of ramp states: 6  
Total steps per test: 182  
Total time per test: 20,000  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

### Ramped Quantities

I 2 / Magnitude



## Ramp States

| Ramp              | Ramp 1                                  | Ramp 2                                  | Ramp 3                                  | Ramp 4                                  | Ramp 5                                  | Ramp 6                                  |
|-------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| I 1               | 4,000 A<br>30,00 °<br>50,000 Hz         | 4,000 A<br>30,00 °<br>50,000 Hz         | 4,000 A<br>30,00 °<br>50,000 Hz         | 1,600 A<br>30,00 °<br>50,000 Hz         | 1,600 A<br>30,00 °<br>50,000 Hz         | 1,600 A<br>30,00 °<br>50,000 Hz         |
| I 2               | <u>4,000 A</u><br>-90,00 °<br>50,000 Hz | <u>4,000 A</u><br>-90,00 °<br>50,000 Hz | <u>3,600 A</u><br>-90,00 °<br>50,000 Hz | <u>8,800 A</u><br>-90,00 °<br>50,000 Hz | <u>8,800 A</u><br>-90,00 °<br>50,000 Hz | <u>10,00 A</u><br>-90,00 °<br>50,000 Hz |
| I 3               | 4,000 A<br>150,00 °<br>50,000 Hz        | 4,000 A<br>150,00 °<br>50,000 Hz        | 4,000 A<br>150,00 °<br>50,000 Hz        | 800,0 mA<br>150,00 °<br>50,000 Hz       | 800,0 mA<br>150,00 °<br>50,000 Hz       | 800,0 mA<br>150,00 °<br>50,000 Hz       |
| Force abs. Phases | Yes                                     | No                                      | No                                      | No                                      | No                                      | No                                      |
| Sig 1 From        | 4,000 A                                 | 4,000 A                                 | 3,600 A                                 | 8,800 A                                 | 8,800 A                                 | 10,00 A                                 |
| Sig 1 To          | 4,000 A                                 | 3,600 A                                 | 4,000 A                                 | 8,800 A                                 | 8,800 A                                 | 8,800 A                                 |
| Sig 1 Delta       | 0,000 A                                 | -10,00 mA                               | 10,00 mA                                | 0,000 A                                 | 25,00 mA                                | -25,00 mA                               |
| Sig 1 d/dt        | 0,000 A/s                               | -100,0 mA/s                             | 100,0 mA/s                              | 0,000 A/s                               | 250,0 mA/s                              | -250,0 mA/s                             |
| DI1               | 0                                       | 0                                       | 0                                       | 1                                       | 1                                       | 1                                       |
| dt per Step       | 1,000 s                                 | 100,0 ms                                | 100,0 ms                                | 1,000 s                                 | 100,0 ms                                | 100,0 ms                                |
| Ramp Steps        | 1                                       | 41                                      | 41                                      | 1                                       | 49                                      | 49                                      |
| Ramp Time         | 1,000s                                  | 4,100s                                  | 4,100s                                  | 1,000s                                  | 4,900s                                  | 4,900s                                  |
| Trigger           | None                                    | Bin                                     | Bin                                     | None                                    | Bin                                     | Bin                                     |
| Trigger Logic     |                                         | OR                                      | OR                                      |                                         | OR                                      | OR                                      |
| Start (A1)        |                                         | 1                                       | 0                                       |                                         | 1                                       | 0                                       |
| Step back         | No                                      | No                                      | No                                      | No                                      | No                                      | No                                      |
| Delay Time        | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 |

## Test Module

Name: OMICRON Ramping  
Test Start: 05-joulu-2014 16:45:07  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:45:15  
Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.    | Act.    | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|---------|---------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 2 | 3,760 A | 3,750 A | 120,0 mA | 120,0 mA | -10,00 mA | +      | 65,50 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 2 | 3,772 A | 3,810 A | 120,0 mA | 120,0 mA | 38,00 mA  | +      | 61,80 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I 2 | 9,572 A | 9,600 A | 120,0 mA | 120,0 mA | 28,00 mA  | +      | 82,90 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I 2 | 9,152 A | 9,050 A | 120,0 mA | 120,0 mA | -102,0 mA | +      | 28,60 |

Assess: + .. Passed x .. Failed o .. Not assessed

### Test State:

Test passed

## Test Settings

### General

No. of ramp states: 6  
Total steps per test: 182  
Total time per test: 20,000  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

### Ramped Quantities

I 3 / Magnitude

## Ramp States

| Ramp              | Ramp 1                                  | Ramp 2                                  | Ramp 3                                  | Ramp 4                                  | Ramp 5                                  | Ramp 6                                  |
|-------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| I 1               | 4,000 A<br>30,00 °<br>50,000 Hz         | 4,000 A<br>30,00 °<br>50,000 Hz         | 4,000 A<br>30,00 °<br>50,000 Hz         | 800,0 mA<br>30,00 °<br>50,000 Hz        | 800,0 mA<br>30,00 °<br>50,000 Hz        | 800,0 mA<br>30,00 °<br>50,000 Hz        |
| I 2               | 4,000 A<br>-90,00 °<br>50,000 Hz        | 4,000 A<br>-90,00 °<br>50,000 Hz        | 4,000 A<br>-90,00 °<br>50,000 Hz        | 1,600 A<br>-90,00 °<br>50,000 Hz        | 1,600 A<br>-90,00 °<br>50,000 Hz        | 1,600 A<br>-90,00 °<br>50,000 Hz        |
| I 3               | <u>4,000 A</u><br>150,00 °<br>50,000 Hz | <u>4,000 A</u><br>150,00 °<br>50,000 Hz | <u>3,600 A</u><br>150,00 °<br>50,000 Hz | <u>8,800 A</u><br>150,00 °<br>50,000 Hz | <u>8,800 A</u><br>150,00 °<br>50,000 Hz | <u>10,00 A</u><br>150,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                                     | No                                      | No                                      | No                                      | No                                      | No                                      |
| Sig 1 From        | 4,000 A                                 | 4,000 A                                 | 3,600 A                                 | 8,800 A                                 | 8,800 A                                 | 10,00 A                                 |
| Sig 1 To          | 4,000 A                                 | 3,600 A                                 | 4,000 A                                 | 8,800 A                                 | 8,800 A                                 | 8,800 A                                 |
| Sig 1 Delta       | 0,000 A                                 | -10,00 mA                               | 10,00 mA                                | 0,000 A                                 | 25,00 mA                                | -25,00 mA                               |
| Sig 1 d/dt        | 0,000 A/s                               | -100,0 mA/s                             | 100,0 mA/s                              | 0,000 A/s                               | 250,0 mA/s                              | -250,0 mA/s                             |
| DI1               | 0                                       | 0                                       | 0                                       | 1                                       | 1                                       | 1                                       |
| dt per Step       | 1,000 s                                 | 100,0 ms                                | 100,0 ms                                | 1,000 s                                 | 100,0 ms                                | 100,0 ms                                |
| Ramp Steps        | 1                                       | 41                                      | 41                                      | 1                                       | 49                                      | 49                                      |
| Ramp Time         | 1,000s                                  | 4,100s                                  | 4,100s                                  | 1,000s                                  | 4,900s                                  | 4,900s                                  |
| Trigger           | None                                    | Bin                                     | Bin                                     | None                                    | Bin                                     | Bin                                     |
| Trigger Logic     |                                         | OR                                      | OR                                      |                                         | OR                                      | OR                                      |
| Start (A1)        |                                         | 1                                       | 0                                       |                                         | 1                                       | 0                                       |
| Step back         | No                                      | No                                      | No                                      | No                                      | No                                      | No                                      |
| Delay Time        | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 |

## Test Module

Name: OMICRON Ramping  
Test Start: 05-joulu-2014 16:45:52  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:46:01  
Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.    | Act.    | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|---------|---------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 3 | 3,760 A | 3,740 A | 120,0 mA | 120,0 mA | -20,00 mA | +      | 18,00 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 3 | 3,772 A | 3,810 A | 120,0 mA | 120,0 mA | 38,00 mA  | +      | 48,10 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I 3 | 9,572 A | 9,625 A | 120,0 mA | 120,0 mA | 53,00 mA  | +      | 32,50 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I 3 | 9,152 A | 9,050 A | 120,0 mA | 120,0 mA | -102,0 mA | +      | 1,100 |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**  
**Test passed**

## Test Settings

## General

No. of ramp states: 6  
Total steps per test: 366  
Total time per test: 28,300  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

## Ramped Quantities

I 1 / Phase

## Ramp States

| Ramp              | Ramp 1                            | Ramp 2                            | Ramp 3                            | Ramp 4                            | Ramp 5                            | Ramp 6                            |
|-------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I 1               | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>170,00 °<br>50,000 Hz  |
| I 2               | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz |
| I 3               | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  |
| Force abs. Phases | Yes                               | No                                | No                                | No                                | No                                | No                                |
| Sig 1 From        | 0,00 °                            | 0,00 °                            | -10,00 °                          | 130,00 °                          | 130,00 °                          | 170,00 °                          |
| Sig 1 To          | 0,00 °                            | -10,00 °                          | 0,00 °                            | 130,00 °                          | 170,00 °                          | 130,00 °                          |
| Sig 1 Delta       | 0,00 °                            | -0,10 °                           | 0,10 °                            | 0,00 °                            | 0,50 °                            | -0,50 °                           |
| Sig 1 d/dt        | 0 %/s                             | -2 %/s                            | 2 %/s                             | 0 %/s                             | 5 %/s                             | -5 %/s                            |
| DI1               | 0                                 | 0                                 | 0                                 | 1                                 | 1                                 | 1                                 |
| dt per Step       | 1,000 s                           | 50,00 ms                          | 50,00 ms                          | 1,000 s                           | 100,0 ms                          | 100,0 ms                          |
| Ramp Steps        | 1                                 | 101                               | 101                               | 1                                 | 81                                | 81                                |
| Ramp Time         | 1,000s                            | 5,050s                            | 5,050s                            | 1,000s                            | 8,100s                            | 8,100s                            |
| Trigger           | None                              | Bin                               | Bin                               | None                              | Bin                               | Bin                               |
| Trigger Logic     |                                   | OR                                | OR                                |                                   | OR                                | OR                                |
| Start (A1)        |                                   | 1                                 | 0                                 |                                   | 1                                 | 0                                 |
| Step back         | No                                | No                                | No                                | No                                | No                                | No                                |
| Delay Time        | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           |

## Test Module

Name: OMICRON Ramping  
Test Start: 05-joulu-2014 16:46:37  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:46:51  
Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-  | Tol.+  | Dev.    | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|--------|--------|---------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 1 | -3,44 °  | -3,80 °  | 1,72 ° | 1,72 ° | -0,36 ° | +      | 48,70 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 1 | -3,27 °  | -2,50 °  | 1,72 ° | 1,72 ° | 0,77 °  | +      | 4,900 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I 1 | 161,00 ° | 162,50 ° | 6,80 ° | 9,50 ° | 1,50 °  | +      | 79,50 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I 1 | 141,50 ° | 140,00 ° | 4,20 ° | 4,60 ° | -1,50 ° | +      | 39,40 |

Assess: + .. Passed x .. Failed o .. Not assessed

Test State:

Test passed

## Test Settings

## General

No. of ramp states: 6  
Total steps per test: 366  
Total time per test: 28,300  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

## Ramped Quantities

I 2 / Phase

## Ramp States

| Ramp              | Ramp 1                            | Ramp 2                            | Ramp 3                            | Ramp 4                            | Ramp 5                            | Ramp 6                            |
|-------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I 1               | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  |
| I 2               | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>170,00 °<br>50,000 Hz  |
| I 3               | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                               | No                                | No                                | No                                | No                                | No                                |
| Sig 1 From        | 0,00 °                            | 0,00 °                            | -10,00 °                          | 130,00 °                          | 130,00 °                          | 170,00 °                          |
| Sig 1 To          | 0,00 °                            | -10,00 °                          | 0,00 °                            | 130,00 °                          | 170,00 °                          | 130,00 °                          |
| Sig 1 Delta       | 0,00 °                            | -0,10 °                           | 0,10 °                            | 0,00 °                            | 0,50 °                            | -0,50 °                           |
| Sig 1 d/dt        | 0 %/s                             | -2 %/s                            | 2 %/s                             | 0 %/s                             | 5 %/s                             | -5 %/s                            |
| DI1               | 0                                 | 0                                 | 0                                 | 1                                 | 1                                 | 1                                 |
| dt per Step       | 1,000 s                           | 50,00 ms                          | 50,00 ms                          | 1,000 s                           | 100,0 ms                          | 100,0 ms                          |
| Ramp Steps        | 1                                 | 101                               | 101                               | 1                                 | 81                                | 81                                |
| Ramp Time         | 1,000s                            | 5,050s                            | 5,050s                            | 1,000s                            | 8,100s                            | 8,100s                            |
| Trigger           | None                              | Bin                               | Bin                               | None                              | Bin                               | Bin                               |
| Trigger Logic     |                                   | OR                                | OR                                |                                   | OR                                | OR                                |
| Start (A1)        |                                   | 1                                 | 0                                 |                                   | 1                                 | 0                                 |
| Step back         | No                                | No                                | No                                | No                                | No                                | No                                |
| Delay Time        | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           |

## Test Module

Name: OMICRON Ramping  
Test Start: 05-joulu-2014 16:47:27  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:47:40  
Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-  | Tol.+  | Dev.    | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|--------|--------|---------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 2 | -3,44 °  | -3,80 °  | 1,72 ° | 1,72 ° | -0,36 ° | +      | 19,30 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 2 | -3,27 °  | -2,40 °  | 1,72 ° | 1,72 ° | 0,87 °  | +      | 31,60 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I 2 | 161,00 ° | 162,00 ° | 6,80 ° | 9,50 ° | 1,00 °  | +      | 83,30 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I 2 | 141,50 ° | 140,00 ° | 4,20 ° | 4,60 ° | -1,50 ° | +      | 26,60 |

Assess: + .. Passed x .. Failed o .. Not assessed

Test State:

Test passed

## Test Settings

## General

No. of ramp states: 6  
Total steps per test: 366  
Total time per test: 28,300  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

## Ramped Quantities

I 3 / Phase

## Ramp States

| Ramp              | Ramp 1                            | Ramp 2                            | Ramp 3                            | Ramp 4                            | Ramp 5                            | Ramp 6                            |
|-------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I 1               | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz |
| I 2               | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  |
| I 3               | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>170,00 °<br>50,000 Hz  |
| Force abs. Phases | Yes                               | No                                | No                                | No                                | No                                | No                                |
| Sig 1 From        | 0,00 °                            | 0,00 °                            | -10,00 °                          | 130,00 °                          | 130,00 °                          | 170,00 °                          |
| Sig 1 To          | 0,00 °                            | -10,00 °                          | 0,00 °                            | 130,00 °                          | 170,00 °                          | 130,00 °                          |
| Sig 1 Delta       | 0,00 °                            | -0,10 °                           | 0,10 °                            | 0,00 °                            | 0,50 °                            | -0,50 °                           |
| Sig 1 d/dt        | 0 %/s                             | -2 %/s                            | 2 %/s                             | 0 %/s                             | 5 %/s                             | -5 %/s                            |
| DI1               | 0                                 | 0                                 | 0                                 | 1                                 | 1                                 | 1                                 |
| dt per Step       | 1,000 s                           | 50,00 ms                          | 50,00 ms                          | 1,000 s                           | 100,0 ms                          | 100,0 ms                          |
| Ramp Steps        | 1                                 | 101                               | 101                               | 1                                 | 81                                | 81                                |
| Ramp Time         | 1,000s                            | 5,050s                            | 5,050s                            | 1,000s                            | 8,100s                            | 8,100s                            |
| Trigger           | None                              | Bin                               | Bin                               | None                              | Bin                               | Bin                               |
| Trigger Logic     |                                   | OR                                | OR                                |                                   | OR                                | OR                                |
| Start (A1)        |                                   | 1                                 | 0                                 |                                   | 1                                 | 0                                 |
| Step back         | No                                | No                                | No                                | No                                | No                                | No                                |
| Delay Time        | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           |

## Test Module

Name: OMICRON Ramping  
Test Start: 05-joulu-2014 16:48:17  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:48:30  
Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-  | Tol.+  | Dev.    | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|--------|--------|---------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I 3 | -3,44 °  | -3,90 °  | 1,72 ° | 1,72 ° | -0,46 ° | +      | 20,50 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I 3 | -3,27 °  | -2,50 °  | 1,72 ° | 1,72 ° | 0,77 °  | +      | 30,00 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I 3 | 161,00 ° | 162,00 ° | 6,80 ° | 9,50 ° | 1,00 °  | +      | 59,70 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I 3 | 141,50 ° | 139,50 ° | 4,20 ° | 4,60 ° | -2,00 ° | +      | 29,40 |

Assess: + .. Passed x .. Failed o .. Not assessed

### Test State:

Test passed

Operation time (DT) min. 1s and 5s:

## Test Settings

| State | Normal situation                   | Pick-up Grp1                      | Drop-off Grp1                     | Normal situation grp2             | Pick-up Grp2                      | Drop-off Grp2                     | Cold boot #1                      | No trip after boot (Grp1)          |
|-------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| I 1   | 2,000 A<br>-10,00 °<br>50,000 Hz   | 2,000 A<br>-10,00 °<br>50,000 Hz  | 2,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>-10,00 °<br>50,000 Hz  | 10,00 A<br>-10,00 °<br>50,000 Hz  | 7,920 A<br>-10,00 °<br>50,000 Hz  | 7,920 A<br>-10,00 °<br>50,000 Hz  | 200,0 mA<br>-10,00 °<br>50,000 Hz  |
| I 2   | 2,000 A<br>-130,00 °<br>50,000 Hz  | 2,400 A<br>-130,00 °<br>50,000 Hz | 2,100 A<br>-130,00 °<br>50,000 Hz | 4,000 A<br>-130,00 °<br>50,000 Hz | 1,600 A<br>-130,00 °<br>50,000 Hz | 1,600 A<br>-130,00 °<br>50,000 Hz | 1,600 A<br>-130,00 °<br>50,000 Hz | 200,0 mA<br>-130,00 °<br>50,000 Hz |
| I 3   | 2,000 A<br>110,00 °<br>50,000 Hz   | 2,000 A<br>110,00 °<br>50,000 Hz  | 2,000 A<br>110,00 °<br>50,000 Hz  | 4,000 A<br>110,00 °<br>50,000 Hz  | 800,0 mA<br>110,00 °<br>50,000 Hz | 800,0 mA<br>110,00 °<br>50,000 Hz | 800,0 mA<br>110,00 °<br>50,000 Hz | 205,0 mA<br>110,00 °<br>50,000 Hz  |
| State | Cold boot #2                       | No trip after boot (Grp2)         |                                   |                                   |                                   |                                   |                                   |                                    |
| I 1   | 200,0 mA<br>-10,00 °<br>50,000 Hz  | 7,920 A<br>-10,00 °<br>50,000 Hz  |                                   |                                   |                                   |                                   |                                   |                                    |
| I 2   | 200,0 mA<br>-130,00 °<br>50,000 Hz | 1,600 A<br>-130,00 °<br>50,000 Hz |                                   |                                   |                                   |                                   |                                   |                                    |
| I 3   | 205,0 mA<br>110,00 °<br>50,000 Hz  | 800,0 mA<br>110,00 °<br>50,000 Hz |                                   |                                   |                                   |                                   |                                   |                                    |

## Test Module

|             |                           |           |                        |
|-------------|---------------------------|-----------|------------------------|
| Name:       | OMICRON State Sequencer   | Version:  | 3.00 SR 2              |
| Test Start: | 05-joulu-2014 16:49:08    | Test End: | 05-joulu-2014 16:49:34 |
| User Name:  | Jesse Saastamoinen        | Manager:  |                        |
| Company:    | Schneider Electric - Vamp |           |                        |

## Test Results

### Time Assessment

| Name                | Ignore before | Start         | Stop           | Tnom     | Tdev-    | Tdev+    | Tact     | Tdev      | Assess |
|---------------------|---------------|---------------|----------------|----------|----------|----------|----------|-----------|--------|
| Start pick-up Grp1  | Pick-up Grp1  | Pick-up Grp1  | Start (A1) 0>1 | 200,0 ms | 200,0 ms | 100,0 ms | 126,2 ms | -73,80 ms | +      |
| Trip pick-up Grp1   | Pick-up Grp1  | Pick-up Grp1  | Trip (T1) 0>1  | 1,000 s  | 175,0 ms | 175,0 ms | 929,6 ms | -70,40 ms | +      |
| Start drop-off Grp1 | Drop-off Grp1 | Drop-off Grp1 | Start (A1) 1>0 | 450,0 ms | 450,0 ms | 0,000 s  | 407,3 ms | -42,70 ms | +      |
| Trip drop-off Grp1  | Drop-off Grp1 | Drop-off Grp1 | Trip (T1) 1>0  | 450,0 ms | 450,0 ms | 0,000 s  | 406,3 ms | -43,70 ms | +      |
| Start pick-up Grp2  | Pick-up Grp2  | Pick-up Grp2  | Start (A1) 0>1 | 200,0 ms | 200,0 ms | 100,0 ms | 189,0 ms | -11,00 ms | +      |
| Trip pick-up Grp2   | Pick-up Grp2  | Pick-up Grp2  | Trip (T1) 0>1  | 5,000 s  | 225,0 ms | 225,0 ms | 4,992 s  | -7,800 ms | +      |
| Start drop-off Grp2 | Drop-off Grp2 | Drop-off Grp2 | Start (A1) 1>0 | 450,0 ms | 450,0 ms | 0,000 s  | 407,2 ms | -42,80 ms | +      |
| Trip drop-off Grp2  | Drop-off Grp2 | Drop-off Grp2 | Trip (T1) 1>0  | 450,0 ms | 450,0 ms | 0,000 s  | 406,3 ms | -43,70 ms | +      |

Assess: + .. Passed x .. Failed o .. Not assessed

## State Assessment

|            | Normal<br>situation | Pick-up<br>Grp1                    | Drop-off<br>Grp1 | Normal<br>situation<br>grp2 | Pick-up<br>Grp2 | Drop-off<br>Grp2 | Cold<br>boot #1 | No trip<br>after<br>boot<br>(Grp1) |
|------------|---------------------|------------------------------------|------------------|-----------------------------|-----------------|------------------|-----------------|------------------------------------|
| Assess     | +                   | +                                  | +                | +                           | +               | +                | +               | +                                  |
| Tolerance  | 0,000 s             | 1,175 s                            | 450,0 ms         | 0,000 s                     | 5,175 s         | 450,0 ms         | 0,000 s         | 0,000 s                            |
| Start (A1) | 0                   | 1                                  | 0                | 0                           | 1               | 0                | 0               | 0                                  |
| Trip (T1)  | 0                   | 1                                  | 0                | 0                           | 1               | 0                | 0               | 0                                  |
|            | Cold<br>boot #2     | No trip<br>after<br>boot<br>(Grp2) |                  |                             |                 |                  |                 |                                    |
| Assess     | +                   | +                                  |                  |                             |                 |                  |                 |                                    |
| Tolerance  | 0,000 s             | 0,000 s                            |                  |                             |                 |                  |                 |                                    |
| Start (A1) | 0                   | 0                                  |                  |                             |                 |                  |                 |                                    |
| Trip (T1)  | 0                   | 0                                  |                  |                             |                 |                  |                 |                                    |

Assess: + .. Passed x .. Failed o .. Not assessed

Test State:

Test passed

## Vampset: Disable stages

Test State:

Command executed

Test passed

## Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:50:08  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:50:28  
Manager:

## Vampset: 46

Test State:

Command executed

Test passed

## Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:51:02  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:52:42  
Manager:

## Operation time (INV) min. K=1 and (max.) K=50:

## Test Settings

| State | Normal<br>situation               | Pick-up<br>Grp1<br>(I2=2.1%)      | Drop-off<br>Grp1                  | Normal<br>situation<br>grp2       | Pick-up<br>Grp2                   | Drop-off<br>Grp2                  |
|-------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I 1   | 4,000 A<br>-10,00 °<br>50,000 Hz  | 8,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>-10,00 °<br>50,000 Hz  |
| I 2   | 4,000 A<br>-130,00 °<br>50,000 Hz | 4,000 A<br>-130,00 °<br>50,000 Hz | 4,000 A<br>-130,00 °<br>50,000 Hz | 4,000 A<br>-130,00 °<br>50,000 Hz | 12,00 A<br>-130,00 °<br>50,000 Hz | 4,000 A<br>-130,00 °<br>50,000 Hz |

|    |           |           |           |           |           |           |
|----|-----------|-----------|-----------|-----------|-----------|-----------|
| I3 | 4,000 A   | 4,000 A   | 4,000 A   | 4,000 A   | 4,000 A   | 4,000 A   |
|    | 110,00 °  | 110,00 °  | 110,00 °  | 110,00 °  | 110,00 °  | 110,00 °  |
|    | 50,000 Hz | 50,000 Hz | 50,000 Hz | 50,000 Hz | 50,000 Hz | 50,000 Hz |

## Test Module

|             |                           |           |                        |
|-------------|---------------------------|-----------|------------------------|
| Name:       | OMICRON State Sequencer   | Version:  | 3.00 SR 2              |
| Test Start: | 05-joulu-2014 16:53:19    | Test End: | 05-joulu-2014 16:55:21 |
| User Name:  | Jesse Saastamoinen        | Manager:  |                        |
| Company:    | Schneider Electric - Vamp |           |                        |

## Test Results

### Time Assessment

| Name                | Ignore before          | Start                  | Stop           | Tnom     | Tdev-    | Tdev+    | Tact     | Tdev      | Assess |
|---------------------|------------------------|------------------------|----------------|----------|----------|----------|----------|-----------|--------|
| Start pick-up Grp1  | Pick-up Grp1 (I2=2.1%) | Pick-up Grp1 (I2=2.1%) | Start (A1) 0>1 | 200,0 ms | 200,0 ms | 100,0 ms | 113,8 ms | -86,20 ms | +      |
| Trip pick-up Grp1   | Pick-up Grp1 (I2=2.1%) | Pick-up Grp1 (I2=2.1%) | Trip (T1) 0>1  | 9,032 s  | 406,0 ms | 406,0 ms | 8,917 s  | -115,3 ms | +      |
| Start drop-off Grp1 | Drop-off Grp1          | Drop-off Grp1          | Start (A1) 1>0 | 450,0 ms | 450,0 ms | 0,000 s  | 407,4 ms | -42,60 ms | +      |
| Trip drop-off Grp1  | Drop-off Grp1          | Drop-off Grp1          | Trip (T1) 1>0  | 450,0 ms | 450,0 ms | 0,000 s  | 406,6 ms | -43,40 ms | +      |
| Start pick-up Grp2  | Pick-up Grp2           | Pick-up Grp2           | Start (A1) 0>1 | 200,0 ms | 200,0 ms | 100,0 ms | 189,0 ms | -11,00 ms | +      |
| Trip pick-up Grp2   | Pick-up Grp2           | Pick-up Grp2           | Trip (T1) 0>1  | 115,1 s  | 5,175 s  | 5,175 s  | 115,0 s  | -107,6 ms | +      |
| Start drop-off Grp2 | Drop-off Grp2          | Drop-off Grp2          | Start (A1) 1>0 | 450,0 ms | 450,0 ms | 0,000 s  | 407,2 ms | -42,80 ms | +      |
| Trip drop-off Grp2  | Drop-off Grp2          | Drop-off Grp2          | Trip (T1) 1>0  | 450,0 ms | 450,0 ms | 0,000 s  | 406,6 ms | -43,40 ms | +      |

Assess: + .. Passed x .. Failed o .. Not assessed

### State Assessment

|            | Normal situation | Pick-up Grp1 (I2=2.1%) | Drop-off Grp1 | Normal situation grp2 | Pick-up Grp2 | Drop-off Grp2 |
|------------|------------------|------------------------|---------------|-----------------------|--------------|---------------|
| Assess     | +                | +                      | +             | +                     | +            | +             |
| Tolerance  | 0,000 s          | 9,438 s                | 450,0 ms      | 0,000 s               | 120,3 s      | 450,0 ms      |
| Start (A1) | 0                | 1                      | 0             | 0                     | 1            | 0             |
| Trip (T1)  | 0                | 1                      | 0             | 0                     | 1            | 0             |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**  
**Test passed**

----- Group end:CT 5A-----

----- Group end:Motor mode-----



## Test Object - Device Settings

### Substation/Bay:

Substation:  
Bay:

Substation address:  
Bay address:

### Device:

Name/description: CT=5A Mot.Nom.=4A  
Device type:  
Serial/model number:  
Additional info 1:  
Additional info 2:

Manufacturer:  
Device address:

## Vampset: Disable stages

### Test State:

Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:55:55  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:56:11  
Manager:

## Vampset: 46

### Test State:

Command executed  
Test passed

### Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 16:56:45  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:56:58  
Manager:

## Test Settings

### General

No. of ramp states: 6  
Total steps per test: 1340  
Total time per test: 135,800  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

### Ramped Quantities

I'1 / Magnitude

### Ramp States

| Ramp | Ramp 1                           | Ramp 2                           | Ramp 3                           | Ramp 4                           | Ramp 5                           | Ramp 6                           |
|------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| I'1  | 4,000 A<br>30,00 °<br>50,000 Hz  | 4,000 A<br>30,00 °<br>50,000 Hz  | 3,600 A<br>30,00 °<br>50,000 Hz  | 8,800 A<br>30,00 °<br>50,000 Hz  | 8,800 A<br>30,00 °<br>50,000 Hz  | 10,00 A<br>30,00 °<br>50,000 Hz  |
| I'2  | 4,000 A<br>-90,00 °<br>50,000 Hz | 4,000 A<br>-90,00 °<br>50,000 Hz | 4,000 A<br>-90,00 °<br>50,000 Hz | 1,600 A<br>-90,00 °<br>50,000 Hz | 1,600 A<br>-90,00 °<br>50,000 Hz | 1,600 A<br>-90,00 °<br>50,000 Hz |

|                   |                                  |                                  |                                  |                                   |                                   |                                   |
|-------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I'3               | 4,000 A<br>150,00 °<br>50,000 Hz | 4,000 A<br>150,00 °<br>50,000 Hz | 4,000 A<br>150,00 °<br>50,000 Hz | 800,0 mA<br>150,00 °<br>50,000 Hz | 800,0 mA<br>150,00 °<br>50,000 Hz | 800,0 mA<br>150,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                              | No                               | No                               | No                                | No                                | No                                |
| Sig 1 From        | 4,000 A                          | 4,000 A                          | 3,600 A                          | 8,800 A                           | 8,800 A                           | 10,00 A                           |
| Sig 1 To          | 4,000 A                          | 3,600 A                          | 4,000 A                          | 8,800 A                           | 10,00 A                           | 8,800 A                           |
| Sig 1 Delta       | 0,000 A                          | -2,400 mA                        | 2,400 mA                         | 0,000 A                           | 2,400 mA                          | -2,400 mA                         |
| Sig 1 d/dt        | 0,000 A/s                        | -24,00 mA/s                      | 24,00 mA/s                       | 0,000 A/s                         | 24,00 mA/s                        | -24,00 mA/s                       |
| DI1               | 0                                | 0                                | 0                                | 1                                 | 1                                 | 1                                 |
| dt per Step       | 1,000 s                          | 100,0 ms                         | 100,0 ms                         | 1,000 s                           | 100,0 ms                          | 100,0 ms                          |
| Ramp Steps        | 1                                | 168                              | 168                              | 1                                 | 501                               | 501                               |
| Ramp Time         | 1,000s                           | 16,800s                          | 16,800s                          | 1,000s                            | 50,100s                           | 50,100s                           |
| Trigger           | None                             | Bin                              | Bin                              | None                              | Bin                               | Bin                               |
| Trigger Logic     |                                  | OR                               | OR                               |                                   | OR                                | OR                                |
| Start (A1)        |                                  | 1                                | 0                                |                                   | 1                                 | 0                                 |
| Step back         | No                               | No                               | No                               | No                                | No                                | No                                |
| Delay Time        | 0,000 s                          | 0,000 s                          | 0,000 s                          | 0,000 s                           | 0,000 s                           | 0,000 s                           |

## Test Module

Name: OMICRON Ramping  
Test Start: 05-joulu-2014 16:57:34  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 16:58:36  
Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.    | Act.    | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|---------|---------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I'1 | 3,760 A | 3,755 A | 120,0 mA | 120,0 mA | -4,800 mA | +      | 200,0 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I'1 | 3,772 A | 3,785 A | 120,0 mA | 120,0 mA | 12,80 mA  | +      | 20,30 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I'1 | 9,572 A | 9,580 A | 120,0 mA | 120,0 mA | 8,000 mA  | +      | 53,10 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I'1 | 9,152 A | 9,146 A | 120,0 mA | 120,0 mA | -6,400 mA | +      | 18,40 |

Assess: + .. Passed x .. Failed o .. Not assessed

Test State:  
Test passed

## Test Settings

### General

No. of ramp states: 6  
Total steps per test: 1340  
Total time per test: 135,800  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

### Ramped Quantities

I'2 / Magnitude

### Ramp States

| Ramp | Ramp 1                           | Ramp 2                           | Ramp 3                           | Ramp 4                           | Ramp 5                           | Ramp 6                           |
|------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| I'1  | 4,000 A<br>30,00 °<br>50,000 Hz  | 4,000 A<br>30,00 °<br>50,000 Hz  | 4,000 A<br>30,00 °<br>50,000 Hz  | 1,600 A<br>30,00 °<br>50,000 Hz  | 1,600 A<br>30,00 °<br>50,000 Hz  | 1,600 A<br>30,00 °<br>50,000 Hz  |
| I'2  | 4,000 A<br>-90,00 °<br>50,000 Hz | 4,000 A<br>-90,00 °<br>50,000 Hz | 3,600 A<br>-90,00 °<br>50,000 Hz | 8,800 A<br>-90,00 °<br>50,000 Hz | 8,800 A<br>-90,00 °<br>50,000 Hz | 10,00 A<br>-90,00 °<br>50,000 Hz |

|                   |                                  |                                  |                                  |                                   |                                   |                                   |
|-------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I'3               | 4,000 A<br>150,00 °<br>50,000 Hz | 4,000 A<br>150,00 °<br>50,000 Hz | 4,000 A<br>150,00 °<br>50,000 Hz | 800,0 mA<br>150,00 °<br>50,000 Hz | 800,0 mA<br>150,00 °<br>50,000 Hz | 800,0 mA<br>150,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                              | No                               | No                               | No                                | No                                | No                                |
| Sig 1 From        | 4,000 A                          | 4,000 A                          | 3,600 A                          | 8,800 A                           | 8,800 A                           | 10,00 A                           |
| Sig 1 To          | 4,000 A                          | 3,600 A                          | 4,000 A                          | 8,800 A                           | 10,00 A                           | 8,800 A                           |
| Sig 1 Delta       | 0,000 A                          | -2,400 mA                        | 2,400 mA                         | 0,000 A                           | 2,400 mA                          | -2,400 mA                         |
| Sig 1 d/dt        | 0,000 A/s                        | -24,00 mA/s                      | 24,00 mA/s                       | 0,000 A/s                         | 24,00 mA/s                        | -24,00 mA/s                       |
| DI1               | 0                                | 0                                | 0                                | 1                                 | 1                                 | 1                                 |
| dt per Step       | 1,000 s                          | 100,0 ms                         | 100,0 ms                         | 1,000 s                           | 100,0 ms                          | 100,0 ms                          |
| Ramp Steps        | 1                                | 168                              | 168                              | 1                                 | 501                               | 501                               |
| Ramp Time         | 1,000s                           | 16,800s                          | 16,800s                          | 1,000s                            | 50,100s                           | 50,100s                           |
| Trigger           | None                             | Bin                              | Bin                              | None                              | Bin                               | Bin                               |
| Trigger Logic     |                                  | OR                               | OR                               |                                   | OR                                | OR                                |
| Start (A1)        |                                  | 1                                | 0                                |                                   | 1                                 | 0                                 |
| Step back         | No                               | No                               | No                               | No                                | No                                | No                                |
| Delay Time        | 0,000 s                          | 0,000 s                          | 0,000 s                          | 0,000 s                           | 0,000 s                           | 0,000 s                           |

## Test Module

Name: OMICRON Ramping  
Test Start: 05-joulu-2014 16:59:13  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 17:00:14  
Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.    | Act.    | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|---------|---------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I'2 | 3,760 A | 3,755 A | 120,0 mA | 120,0 mA | -4,800 mA | +      | 30,50 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I'2 | 3,772 A | 3,775 A | 120,0 mA | 120,0 mA | 3,200 mA  | +      | 43,00 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I'2 | 9,572 A | 9,575 A | 120,0 mA | 120,0 mA | 3,200 mA  | +      | 36,40 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I'2 | 9,152 A | 9,136 A | 120,0 mA | 120,0 mA | -16,00 mA | +      | 17,60 |

Assess: + .. Passed x .. Failed o .. Not assessed

Test State:  
Test passed

## Test Settings

### General

No. of ramp states: 6  
Total steps per test: 1340  
Total time per test: 135,800  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

### Ramped Quantities

I'3 / Magnitude

### Ramp States

| Ramp | Ramp 1                           | Ramp 2                           | Ramp 3                           | Ramp 4                           | Ramp 5                           | Ramp 6                           |
|------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| I'1  | 4,000 A<br>30,00 °<br>50,000 Hz  | 4,000 A<br>30,00 °<br>50,000 Hz  | 4,000 A<br>30,00 °<br>50,000 Hz  | 800,0 mA<br>30,00 °<br>50,000 Hz | 800,0 mA<br>30,00 °<br>50,000 Hz | 800,0 mA<br>30,00 °<br>50,000 Hz |
| I'2  | 4,000 A<br>-90,00 °<br>50,000 Hz | 4,000 A<br>-90,00 °<br>50,000 Hz | 4,000 A<br>-90,00 °<br>50,000 Hz | 1,600 A<br>-90,00 °<br>50,000 Hz | 1,600 A<br>-90,00 °<br>50,000 Hz | 1,600 A<br>-90,00 °<br>50,000 Hz |

|                   |                                         |                                         |                                         |                                         |                                         |                                         |
|-------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| I'3               | <u>4,000 A</u><br>150,00 °<br>50,000 Hz | <u>4,000 A</u><br>150,00 °<br>50,000 Hz | <u>3,600 A</u><br>150,00 °<br>50,000 Hz | <u>8,800 A</u><br>150,00 °<br>50,000 Hz | <u>8,800 A</u><br>150,00 °<br>50,000 Hz | <u>10,00 A</u><br>150,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                                     | No                                      | No                                      | No                                      | No                                      | No                                      |
| Sig 1 From        | 4,000 A                                 | 4,000 A                                 | 3,600 A                                 | 8,800 A                                 | 8,800 A                                 | 10,00 A                                 |
| Sig 1 To          | 4,000 A                                 | 3,600 A                                 | 4,000 A                                 | 8,800 A                                 | 10,00 A                                 | 8,800 A                                 |
| Sig 1 Delta       | 0,000 A                                 | -2,400 mA                               | 2,400 mA                                | 0,000 A                                 | 2,400 mA                                | -2,400 mA                               |
| Sig 1 d/dt        | 0,000 A/s                               | -24,00 mA/s                             | 24,00 mA/s                              | 0,000 A/s                               | 24,00 mA/s                              | -24,00 mA/s                             |
| DI1               | 0                                       | 0                                       | 0                                       | 1                                       | 1                                       | 1                                       |
| dt per Step       | 1,000 s                                 | 100,0 ms                                | 100,0 ms                                | 1,000 s                                 | 100,0 ms                                | 100,0 ms                                |
| Ramp Steps        | 1                                       | 168                                     | 168                                     | 1                                       | 501                                     | 501                                     |
| Ramp Time         | 1,000s                                  | 16,800s                                 | 16,800s                                 | 1,000s                                  | 50,100s                                 | 50,100s                                 |
| Trigger           | None                                    | Bin                                     | Bin                                     | None                                    | Bin                                     | Bin                                     |
| Trigger Logic     |                                         | OR                                      | OR                                      |                                         | OR                                      | OR                                      |
| Start (A1)        |                                         | 1                                       | 0                                       |                                         | 1                                       | 0                                       |
| Step back         | No                                      | No                                      | No                                      | No                                      | No                                      | No                                      |
| Delay Time        | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 | 0,000 s                                 |

## Test Module

|             |                           |           |                        |
|-------------|---------------------------|-----------|------------------------|
| Name:       | OMICRON Ramping           | Version:  | 3.00 SR 2              |
| Test Start: | 05-joulu-2014 17:00:51    | Test End: | 05-joulu-2014 17:01:52 |
| User Name:  | Jesse Saastamoinen        | Manager:  |                        |
| Company:    | Schneider Electric - Vamp |           |                        |

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.    | Act.    | Tol.-    | Tol.+    | Dev.      | Assess | Tact  |
|-----------------|--------|--------------------|-----|---------|---------|----------|----------|-----------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I'3 | 3,760 A | 3,753 A | 120,0 mA | 120,0 mA | -7,200 mA | +      | 7,200 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I'3 | 3,772 A | 3,780 A | 120,0 mA | 120,0 mA | 8,000 mA  | +      | 24,90 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I'3 | 9,572 A | 9,568 A | 120,0 mA | 120,0 mA | -4,000 mA | +      | 44,30 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I'3 | 9,152 A | 9,136 A | 120,0 mA | 120,0 mA | -16,00 mA | +      | 30,40 |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**  
**Test passed**

## Test Settings

### General

No. of ramp states: 6  
Total steps per test: 366  
Total time per test: 28,300  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

### Ramped Quantities

I'1 / Phase

## Ramp States

| Ramp              | Ramp 1                            | Ramp 2                            | Ramp 3                            | Ramp 4                            | Ramp 5                            | Ramp 6                            |
|-------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I 1               | 4,000 A<br>30,00 °<br>50,000 Hz   | 4,000 A<br>30,00 °<br>50,000 Hz   | 4,000 A<br>30,00 °<br>50,000 Hz   | 4,000 A<br>30,00 °<br>50,000 Hz   | 4,000 A<br>30,00 °<br>50,000 Hz   | 4,000 A<br>30,00 °<br>50,000 Hz   |
| I 2               | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz |
| I 3               | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  |
| I'1               | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>170,00 °<br>50,000 Hz  |
| I'2               | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz |
| I'3               | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  |
| Force abs. Phases | Yes                               | No                                | No                                | No                                | No                                | No                                |
| Sig 1 From        | 0,00 °                            | 0,00 °                            | -10,00 °                          | 130,00 °                          | 130,00 °                          | 170,00 °                          |
| Sig 1 To          | 0,00 °                            | -10,00 °                          | 0,00 °                            | 130,00 °                          | 170,00 °                          | 130,00 °                          |
| Sig 1 Delta       | 0,00 °                            | -0,10 °                           | 0,10 °                            | 0,00 °                            | 0,50 °                            | -0,50 °                           |
| Sig 1 d/dt        | 0 %/s                             | -2 %/s                            | 2 %/s                             | 0 %/s                             | 5 %/s                             | -5 %/s                            |
| DI1               | 0                                 | 0                                 | 0                                 | 1                                 | 1                                 | 1                                 |
| dt per Step       | 1,000 s                           | 50,00 ms                          | 50,00 ms                          | 1,000 s                           | 100,0 ms                          | 100,0 ms                          |
| Ramp Steps        | 1                                 | 101                               | 101                               | 1                                 | 81                                | 81                                |
| Ramp Time         | 1,000s                            | 5,050s                            | 5,050s                            | 1,000s                            | 8,100s                            | 8,100s                            |
| Trigger           | None                              | Bin                               | Bin                               | None                              | Bin                               | Bin                               |
| Trigger Logic     |                                   | OR                                | OR                                |                                   | OR                                | OR                                |
| Start (A1)        |                                   | 1                                 | 0                                 |                                   | 1                                 | 0                                 |
| Step back         | No                                | No                                | No                                | No                                | No                                | No                                |
| Delay Time        | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           |

## Test Module

|             |                           |           |                        |
|-------------|---------------------------|-----------|------------------------|
| Name:       | OMICRON Ramping           | Version:  | 3.00 SR 2              |
| Test Start: | 05-joulu-2014 17:02:28    | Test End: | 05-joulu-2014 17:02:42 |
| User Name:  | Jesse Saastamoinen        | Manager:  |                        |
| Company:    | Schneider Electric - Vamp |           |                        |

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-  | Tol.+  | Dev.    | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|--------|--------|---------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I'1 | -3,44 °  | -3,80 °  | 1,72 ° | 1,72 ° | -0,36 ° | +      | 22,10 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I'1 | -3,27 °  | -2,60 °  | 1,72 ° | 1,72 ° | 0,67 °  | +      | 1,600 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I'1 | 161,00 ° | 161,50 ° | 6,80 ° | 9,50 ° | 0,50 °  | +      | 55,70 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I'1 | 141,50 ° | 140,00 ° | 4,20 ° | 4,60 ° | -1,50 ° | +      | 93,90 |

Assess: + .. Passed x .. Failed o .. Not assessed

### Test State:

Test passed

## Test Settings

## General

No. of ramp states: 6  
 Total steps per test: 366  
 Total time per test: 28,300  
 No. of test executions: 1

Input Mode: Direct  
 Fault Type:

## Ramped Quantities

I'2 / Phase

## Ramp States

| Ramp              | Ramp 1                            | Ramp 2                            | Ramp 3                            | Ramp 4                            | Ramp 5                            | Ramp 6                            |
|-------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I'1               | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  |
| I'2               | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>170,00 °<br>50,000 Hz  |
| I'3               | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz |
| Force abs. Phases | Yes                               | No                                | No                                | No                                | No                                | No                                |
| Sig 1 From        | 0,00 °                            | 0,00 °                            | -10,00 °                          | 130,00 °                          | 130,00 °                          | 170,00 °                          |
| Sig 1 To          | 0,00 °                            | -10,00 °                          | 0,00 °                            | 130,00 °                          | 170,00 °                          | 130,00 °                          |
| Sig 1 Delta       | 0,00 °                            | -0,10 °                           | 0,10 °                            | 0,00 °                            | 0,50 °                            | -0,50 °                           |
| Sig 1 d/dt        | 0 %/s                             | -2 %/s                            | 2 %/s                             | 0 %/s                             | 5 %/s                             | -5 %/s                            |
| DI1               | 0                                 | 0                                 | 0                                 | 1                                 | 1                                 | 1                                 |
| dt per Step       | 1,000 s                           | 50,00 ms                          | 50,00 ms                          | 1,000 s                           | 100,0 ms                          | 100,0 ms                          |
| Ramp Steps        | 1                                 | 101                               | 101                               | 1                                 | 81                                | 81                                |
| Ramp Time         | 1,000s                            | 5,050s                            | 5,050s                            | 1,000s                            | 8,100s                            | 8,100s                            |
| Trigger           | None                              | Bin                               | Bin                               | None                              | Bin                               | Bin                               |
| Trigger Logic     |                                   | OR                                | OR                                |                                   | OR                                | OR                                |
| Start (A1)        |                                   | 1                                 | 0                                 |                                   | 1                                 | 0                                 |
| Step back         | No                                | No                                | No                                | No                                | No                                | No                                |
| Delay Time        | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           |

## Test Module

Name: OMICRON Ramping  
 Test Start: 05-joulu-2014 17:03:18  
 User Name: Jesse Saastamoinen  
 Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
 Test End: 05-joulu-2014 17:03:32  
 Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-  | Tol.+  | Dev.    | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|--------|--------|---------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I'2 | -3,44 °  | -3,80 °  | 1,72 ° | 1,72 ° | -0,36 ° | +      | 34,60 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I'2 | -3,27 °  | -2,60 °  | 1,72 ° | 1,72 ° | 0,67 °  | +      | 37,80 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I'2 | 161,00 ° | 162,00 ° | 6,80 ° | 9,50 ° | 1,00 °  | +      | 69,70 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I'2 | 141,50 ° | 139,50 ° | 4,20 ° | 4,60 ° | -2,00 ° | +      | 3,100 |

Assess: + .. Passed x .. Failed o .. Not assessed

Test State:

Test passed

## Test Settings

## General

No. of ramp states: 6  
Total steps per test: 366  
Total time per test: 28,300  
No. of test executions: 1

Input Mode: Direct  
Fault Type:

## Ramped Quantities

I'3 / Phase

## Ramp States

| Ramp              | Ramp 1                            | Ramp 2                            | Ramp 3                            | Ramp 4                            | Ramp 5                            | Ramp 6                            |
|-------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I'1               | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-120,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz | 4,000 A<br>-110,00 °<br>50,000 Hz |
| I'2               | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  | 4,000 A<br>120,00 °<br>50,000 Hz  |
| I'3               | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>0,00 °<br>50,000 Hz    | 4,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>130,00 °<br>50,000 Hz  | 4,000 A<br>170,00 °<br>50,000 Hz  |
| Force abs. Phases | Yes                               | No                                | No                                | No                                | No                                | No                                |
| Sig 1 From        | 0,00 °                            | 0,00 °                            | -10,00 °                          | 130,00 °                          | 130,00 °                          | 170,00 °                          |
| Sig 1 To          | 0,00 °                            | -10,00 °                          | 0,00 °                            | 130,00 °                          | 170,00 °                          | 130,00 °                          |
| Sig 1 Delta       | 0,00 °                            | -0,10 °                           | 0,10 °                            | 0,00 °                            | 0,50 °                            | -0,50 °                           |
| Sig 1 d/dt        | 0 %/s                             | -2 %/s                            | 2 %/s                             | 0 %/s                             | 5 %/s                             | -5 %/s                            |
| DI1               | 0                                 | 0                                 | 0                                 | 1                                 | 1                                 | 1                                 |
| dt per Step       | 1,000 s                           | 50,00 ms                          | 50,00 ms                          | 1,000 s                           | 100,0 ms                          | 100,0 ms                          |
| Ramp Steps        | 1                                 | 101                               | 101                               | 1                                 | 81                                | 81                                |
| Ramp Time         | 1,000s                            | 5,050s                            | 5,050s                            | 1,000s                            | 8,100s                            | 8,100s                            |
| Trigger           | None                              | Bin                               | Bin                               | None                              | Bin                               | Bin                               |
| Trigger Logic     |                                   | OR                                | OR                                |                                   | OR                                | OR                                |
| Start (A1)        |                                   | 1                                 | 0                                 |                                   | 1                                 | 0                                 |
| Step back         | No                                | No                                | No                                | No                                | No                                | No                                |
| Delay Time        | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           | 0,000 s                           |

## Test Module

Name: OMICRON Ramping  
Test Start: 05-joulu-2014 17:04:08  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 17:04:21  
Manager:

## Test Results

### Assessment Results

| Name/ Exec.     | Ramp   | Condition          | Sig | Nom.     | Act.     | Tol.-  | Tol.+  | Dev.    | Assess | Tact  |
|-----------------|--------|--------------------|-----|----------|----------|--------|--------|---------|--------|-------|
| Pick-up (Grp1)  | Ramp 2 | Start (A1)<br>0->1 | I'3 | -3,44 °  | -3,70 °  | 1,72 ° | 1,72 ° | -0,26 ° | +      | 33,70 |
| Drop-off (Grp1) | Ramp 3 | Start (A1)<br>1->0 | I'3 | -3,27 °  | -2,40 °  | 1,72 ° | 1,72 ° | 0,87 °  | +      | 300,0 |
| Pick-up (Grp2)  | Ramp 5 | Start (A1)<br>0->1 | I'3 | 161,00 ° | 161,50 ° | 6,80 ° | 9,50 ° | 0,50 °  | +      | 68,60 |
| Drop-off (Grp2) | Ramp 6 | Start (A1)<br>1->0 | I'3 | 141,50 ° | 139,50 ° | 4,20 ° | 4,60 ° | -2,00 ° | +      | 23,00 |

Assess: + .. Passed x .. Failed o .. Not assessed

### Test State:

Test passed

Operation time (DT) min. 1s and 5s:

## Test Settings

| State | Normal situation                  | Pick-up Grp1                      | Drop-off Grp1                     | Normal situation grp2             | Pick-up Grp2                      | Drop-off Grp2                     | Cold boot #1                      | No trip after boot (Grp1)         |
|-------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| I'1   | 2,000 A<br>-10,00 °<br>50,000 Hz  | 2,000 A<br>-10,00 °<br>50,000 Hz  | 2,000 A<br>-10,00 °<br>50,000 Hz  | 4,000 A<br>-10,00 °<br>50,000 Hz  | 10,00 A<br>-10,00 °<br>50,000 Hz  | 7,920 A<br>-10,00 °<br>50,000 Hz  | 7,920 A<br>-10,00 °<br>50,000 Hz  | 2,000 A<br>-10,00 °<br>50,000 Hz  |
| I'2   | 2,000 A<br>-130,00 °<br>50,000 Hz | 2,400 A<br>-130,00 °<br>50,000 Hz | 2,100 A<br>-130,00 °<br>50,000 Hz | 4,000 A<br>-130,00 °<br>50,000 Hz | 1,600 A<br>-130,00 °<br>50,000 Hz | 1,600 A<br>-130,00 °<br>50,000 Hz | 1,600 A<br>-130,00 °<br>50,000 Hz | 2,000 A<br>-130,00 °<br>50,000 Hz |
| I'3   | 2,000 A<br>110,00 °<br>50,000 Hz  | 2,000 A<br>110,00 °<br>50,000 Hz  | 2,000 A<br>110,00 °<br>50,000 Hz  | 4,000 A<br>110,00 °<br>50,000 Hz  | 800,0 mA<br>110,00 °<br>50,000 Hz | 800,0 mA<br>110,00 °<br>50,000 Hz | 800,0 mA<br>110,00 °<br>50,000 Hz | 2,100 A<br>110,00 °<br>50,000 Hz  |
| State | Cold boot #2                      | No trip after boot (Grp2)         |                                   |                                   |                                   |                                   |                                   |                                   |
| I'1   | 2,000 A<br>-10,00 °<br>50,000 Hz  | 7,920 A<br>-10,00 °<br>50,000 Hz  |                                   |                                   |                                   |                                   |                                   |                                   |
| I'2   | 2,000 A<br>-130,00 °<br>50,000 Hz | 1,600 A<br>-130,00 °<br>50,000 Hz |                                   |                                   |                                   |                                   |                                   |                                   |
| I'3   | 2,100 A<br>110,00 °<br>50,000 Hz  | 800,0 mA<br>110,00 °<br>50,000 Hz |                                   |                                   |                                   |                                   |                                   |                                   |

## Test Module

|             |                           |           |                        |
|-------------|---------------------------|-----------|------------------------|
| Name:       | OMICRON State Sequencer   | Version:  | 3.00 SR 2              |
| Test Start: | 05-joulu-2014 17:04:58    | Test End: | 05-joulu-2014 17:05:24 |
| User Name:  | Jesse Saastamoinen        | Manager:  |                        |
| Company:    | Schneider Electric - Vamp |           |                        |

## Test Results

### Time Assessment

| Name                | Ignore before | Start         | Stop           | Tnom     | Tdev-    | Tdev+    | Tact     | Tdev      | Assess |
|---------------------|---------------|---------------|----------------|----------|----------|----------|----------|-----------|--------|
| Start pick-up Grp1  | Pick-up Grp1  | Pick-up Grp1  | Start (A1) 0>1 | 200,0 ms | 200,0 ms | 100,0 ms | 164,6 ms | -35,40 ms | +      |
| Trip pick-up Grp1   | Pick-up Grp1  | Pick-up Grp1  | Trip (T1) 0>1  | 1,000 s  | 175,0 ms | 175,0 ms | 968,0 ms | -32,00 ms | +      |
| Start drop-off Grp1 | Drop-off Grp1 | Drop-off Grp1 | Start (A1) 1>0 | 450,0 ms | 450,0 ms | 0,000 s  | 407,3 ms | -42,70 ms | +      |
| Trip drop-off Grp1  | Drop-off Grp1 | Drop-off Grp1 | Trip (T1) 1>0  | 450,0 ms | 450,0 ms | 0,000 s  | 406,5 ms | -43,50 ms | +      |
| Start pick-up Grp2  | Pick-up Grp2  | Pick-up Grp2  | Start (A1) 0>1 | 200,0 ms | 200,0 ms | 100,0 ms | 189,0 ms | -11,00 ms | +      |
| Trip pick-up Grp2   | Pick-up Grp2  | Pick-up Grp2  | Trip (T1) 0>1  | 5,000 s  | 225,0 ms | 225,0 ms | 4,992 s  | -7,900 ms | +      |
| Start drop-off Grp2 | Drop-off Grp2 | Drop-off Grp2 | Start (A1) 1>0 | 450,0 ms | 450,0 ms | 0,000 s  | 407,3 ms | -42,70 ms | +      |
| Trip drop-off Grp2  | Drop-off Grp2 | Drop-off Grp2 | Trip (T1) 1>0  | 450,0 ms | 450,0 ms | 0,000 s  | 406,5 ms | -43,50 ms | +      |

Assess: + .. Passed x .. Failed o .. Not assessed



## State Assessment

|            | Normal situation | Pick-up Grp1              | Drop-off Grp1 | Normal situation grp2 | Pick-up Grp2 | Drop-off Grp2 | Cold boot #1 | No trip after boot (Grp1) |
|------------|------------------|---------------------------|---------------|-----------------------|--------------|---------------|--------------|---------------------------|
| Assess     | +                | +                         | +             | +                     | +            | +             | +            | +                         |
| Tolerance  | 0,000 s          | 1,175 s                   | 450,0 ms      | 0,000 s               | 5,175 s      | 450,0 ms      | 0,000 s      | 0,000 s                   |
| Start (A1) | 0                | 1                         | 0             | 0                     | 1            | 0             | 0            | 0                         |
| Trip (T1)  | 0                | 1                         | 0             | 0                     | 1            | 0             | 0            | 0                         |
|            | Cold boot #2     | No trip after boot (Grp2) |               |                       |              |               |              |                           |
| Assess     | +                | +                         |               |                       |              |               |              |                           |
| Tolerance  | 0,000 s          | 0,000 s                   |               |                       |              |               |              |                           |
| Start (A1) | 0                | 0                         |               |                       |              |               |              |                           |
| Trip (T1)  | 0                | 0                         |               |                       |              |               |              |                           |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**

**Test passed**

## Vampset: Disable stages

### Test State:

**Command executed**

Test passed

## Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 17:05:58  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 17:06:19  
Manager:

**Vampset: 46**

**Test State:**

**Command executed**

**Test passed**

## Test Module

Name: OMICRON ExeCute  
Test Start: 05-joulu-2014 17:06:52  
User Name: Jesse Saastamoinen  
Company: Schneider Electric - Vamp

Version: 3.00 SR 2  
Test End: 05-joulu-2014 17:07:05  
Manager:

**Operation time (INV) min. K=1 and (max.) K=50:**

## Test Settings

[illegible]

## Test Module

|             |                           |           |                        |
|-------------|---------------------------|-----------|------------------------|
| Name:       | OMICRON State Sequencer   | Version:  | 3.00 SR 2              |
| Test Start: | 05-joulu-2014 17:07:42    | Test End: | 05-joulu-2014 17:09:44 |
| User Name:  | Jesse Saastamoinen        | Manager:  |                        |
| Company:    | Schneider Electric - Vamp |           |                        |

## Test Results

### Time Assessment

| Name                | Ignore before          | Start                  | Stop           | Tnom     | Tdev-    | Tdev+    | Tact     | Tdev      | Assess |
|---------------------|------------------------|------------------------|----------------|----------|----------|----------|----------|-----------|--------|
| Start pick-up Grp1  | Pick-up Grp1 (I2=2.1%) | Pick-up Grp1 (I2=2.1%) | Start (A1) 0>1 | 200,0 ms | 200,0 ms | 100,0 ms | 177,0 ms | -23,00 ms | +      |
| Trip pick-up Grp1   | Pick-up Grp1 (I2=2.1%) | Pick-up Grp1 (I2=2.1%) | Trip (T1) 0>1  | 9,032 s  | 406,0 ms | 406,0 ms | 8,980 s  | -52,40 ms | +      |
| Start drop-off Grp1 | Drop-off Grp1          | Drop-off Grp1          | Start (A1) 1>0 | 450,0 ms | 450,0 ms | 0,000 s  | 407,4 ms | -42,60 ms | +      |
| Trip drop-off Grp1  | Drop-off Grp1          | Drop-off Grp1          | Trip (T1) 1>0  | 450,0 ms | 450,0 ms | 0,000 s  | 406,6 ms | -43,40 ms | +      |
| Start pick-up Grp2  | Pick-up Grp2           | Pick-up Grp2           | Start (A1) 0>1 | 200,0 ms | 200,0 ms | 100,0 ms | 189,2 ms | -10,80 ms | +      |
| Trip pick-up Grp2   | Pick-up Grp2           | Pick-up Grp2           | Trip (T1) 0>1  | 115,1 s  | 5,175 s  | 5,175 s  | 114,8 s  | -307,6 ms | +      |
| Start drop-off Grp2 | Drop-off Grp2          | Drop-off Grp2          | Start (A1) 1>0 | 450,0 ms | 450,0 ms | 0,000 s  | 407,2 ms | -42,80 ms | +      |
| Trip drop-off Grp2  | Drop-off Grp2          | Drop-off Grp2          | Trip (T1) 1>0  | 450,0 ms | 450,0 ms | 0,000 s  | 406,6 ms | -43,40 ms | +      |

Assess: + .. Passed x .. Failed o .. Not assessed

### State Assessment

|            | Normal situation | Pick-up Grp1 (I2=2.1%) | Drop-off Grp1 | Normal situation grp2 | Pick-up Grp2 | Drop-off Grp2 |
|------------|------------------|------------------------|---------------|-----------------------|--------------|---------------|
| Assess     | +                | +                      | +             | +                     | +            | +             |
| Tolerance  | 0,000 s          | 9,438 s                | 450,0 ms      | 0,000 s               | 120,3 s      | 450,0 ms      |
| Start (A1) | 0                | 1                      | 0             | 0                     | 1            | 0             |
| Trip (T1)  | 0                | 1                      | 0             | 0                     | 1            | 0             |

Assess: + .. Passed x .. Failed o .. Not assessed

**Test State:**  
**Test passed**

----- Group end:CT 5A-----

----- Group end:Motor mode-----

----- Group end:Unbalance stage I'2> (46)-----