

EMONA

INSTRUMENTS PTY LTD

Charge Station -Camperdown

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Instrument data:

Model: InstalTestXD MI 3155

Serial Number: 17430913

Calibration date: 29/03/2018

User:

EVSE_Examples_AUS/Etrcl (SLO), 3-ph a.c., A Type RCD 30 mA/EVSE 3p NoVent trip Fail

Functional EVSE Pass

Parameters

DateTime 15/04/2019 09:21:28

Results

CP states	Pass
A-EVSE in idle state	Pass
B-EV detected, EVSE does not charge	Pass
C-EV is charged	Pass
E-pilot error, charging interrupted	Pass
PP (Imax)	Pass

Voltage Nothing

Results

UIn	227 V	
Uipe	227 V	
Unpe	1 V	
Freq	50.0 Hz	

Parameters

DateTime	15.04.2019 09:21:38	
System	-	
Earthing system	TN/TT	

Z auto Pass

Results

UIn	227 V	
ΔU	0.0 %	Pass
Z (LPE)	1.10 Ω	Pass
Z (LN)	0.90 Ω	Pass
Ipsc (LN)	254 A	
Ipsc (LPE)	210 A	
Uc	0.0 V	Pass
Zref	0.89 Ω	

Limits

Signature:

Created date: 31/05/2019

Limit (ΔU)	3.5 %	
Zlim (Z (LPE), Z (LN))	3.07 Ω	
Limit Uc (Uc)	50 V	

Parameters

DateTime	15.04.2019 09:21:50	
Protection	TN rcd	
Fuse Type	C	
Fuse I	10 A	
Fuse t	0.4 s	
Z factor	1	
RCD type	A	
I ΔN	30 mA	
Selectivity	G	
Phase	L1	
I test	Low	

Voltage		Nothing
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Results

Uln	227 V	
Uipe	227 V	
Unpe	0 V	
Freq	50.0 Hz	

Parameters

DateTime	15.04.2019 09:22:02	
System	-	
Earthing system	TN/TT	

Z auto		Pass
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Results

Uln	227 V	
ΔU	0.0 %	Pass
Z (LPE)	1.10 Ω	Pass
Z (LN)	0.90 Ω	Pass
Ipsc (LN)	255 A	
Ipsc (LPE)	208 A	
Uc	0.1 V	Pass
Zref	0.89 Ω	

Limits

Limit (ΔU)	3.5 %	
Zlim (Z (LPE), Z (LN))	3.07 Ω	
Limit Uc (Uc)	50 V	

Parameters

DateTime	15.04.2019 09:22:12	
Protection	TN rcd	
Fuse Type	C	
Fuse I	10 A	
Fuse t	0.4 s	
Z factor	1	
RCD type	A	
I ΔN	30 mA	

Selectivity	G	
Phase	L2	
I test	Low	

Voltage Nothing

Results

UIn	228 V	
U _{lpe}	229 V	
U _{npe}	0 V	
Freq	50.0 Hz	

Parameters

DateTime	15.04.2019 09:23:22	
System	-	
Earthing system	TN/TT	

Z auto Pass

Results

UIn	228 V	
ΔU	0.1 %	Pass
Z (LPE)	1.28 Ω	Pass
Z (LN)	0.93 Ω	Pass
I _{psc} (LN)	248 A	
I _{psc} (LPE)	180 A	
U _c	0.1 V	Pass
Z _{ref}	0.89 Ω	

Limits

Limit (ΔU)	3.5 %	
Z _{lim} (Z (LPE), Z (LN))	3.07 Ω	
Limit U _c (U _c)	50 V	

Parameters

DateTime	15.04.2019 09:23:33	
Protection	TN rcd	
Fuse Type	C	
Fuse I	10 A	
Fuse t	0.4 s	
Z factor	1	
RCD type	A	
I ΔN	30 mA	
Selectivity	G	
Phase	L3	
I test	Low	

RCD Auto Pass

Results

t IΔN x1, (+)	51.2 ms	
t IΔN x1, (-)	41.8 ms	
t IΔN x2, (+)	11.5 ms	
t IΔN x2, (-)	13.1 ms	
t IΔN x5, (+)	11.3 ms	
t IΔN x5, (-)	21.1 ms	
t IΔN x0.5, (+)	>999 ms	

t IΔN x0.5, (-)	>999 ms	
IΔ, (+)	33.0 mA	
IΔ, (-)	28.5 mA	
Uc	0.7 V	

Limits

Limit Uc (Uc)	50 V	
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Parameters

DateTime	15.04.2019 09:32:48	
Use	fixed	
RCD type	A	
I ΔN	30 mA	
Random phase	No	
Test	L3/PE	
RCD Standard	AS/NZS 3017	
Earthing system	TN/TT	
Selectivity	G	

R iso Fail

Results

Riso	0.32 MΩ	Fail
Um	434 V	

Limits

Limit (Riso)	1 MΩ	
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Parameters

DateTime	15.04.2019 09:34:59	
Uiso	500 V	
Type Riso	L3/PE	

R iso Fail

Results

Riso	0.34 MΩ	Fail
Um	448 V	

Limits

Limit (Riso)	1 MΩ	
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Parameters

DateTime	15.04.2019 09:35:18	
Uiso	500 V	
Type Riso	L2/PE	

R iso Fail

Results

Riso	0.33 MΩ	Fail
Um	443 V	

Limits

Limit (Riso)	1 MΩ	
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Parameters

DateTime	15.04.2019 09:35:28	
Uiso	500 V	
Type Riso	L1/PE	

R iso Nothing

Results

Riso	32.9 MΩ	
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Um	525 V		
Limits			
Limit (Riso)	Off		
Parameters			
DateTime	15.04.2019 09:35:40		
Uiso	500 V		
Type Riso	N/PE		
EVSE_Examples_AUS/Wallbe (DEU), 3-ph a.c., no RCD/EVSE 3p NoVent lock			Pass
Functional EVSE			Pass
Parameters			
DateTime		15/04/2019 09:38:32	
Results			
CP states			Pass
A-EVSE in idle state			Pass
B-EV detected, EVSE does not charge			Pass
C-EV is charged			Pass
E-pilot error, charging interrupted			Pass
PP (Imax)			Pass
Voltage			Nothing
Results			
Uln	228 V		
Ulpe	228 V		
Unpe	0 V		
Freq	50.0 Hz		
Parameters			
DateTime	15.04.2019 09:38:57		
System	-		
Earthing system	TN/TT		
Z auto			Pass
Results			
Uln	227 V		
ΔU	0.0 %		Pass
Z (LPE)	0.89 Ω		Pass
Z (LN)	0.86 Ω		Pass
Ipsc (LN)	267 A		
Ipsc (LPE)	259 A		
Uc	0.0 V		Pass
Zref	0.89 Ω		
Limits			
Limit (ΔU)	3.5 %		
Zlim (Z (LPE), Z (LN))	3.07 Ω		
Limit Uc (Uc)	50 V		
Parameters			
DateTime	15.04.2019 09:39:08		
Protection	TN rcd		
Fuse Type	C		
Fuse I	10 A		
Fuse t	0.4 s		

Z factor	1	
RCD type	A	
I ΔN	30 mA	
Selectivity	G	
Phase	L1	
I test	Low	

Voltage Nothing

Results

UIn	228 V	
Ulpe	228 V	
Unpe	1 V	
Freq	50.0 Hz	

Parameters

DateTime	15.04.2019 09:39:18	
System	-	
Earthing system	TN/TT	

Z auto Pass

Results

UIn	228 V	
ΔU	0.0 %	Pass
Z (LPE)	0.90 Ω	Pass
Z (LN)	0.85 Ω	Pass
Ipsc (LN)	271 A	
Ipsc (LPE)	256 A	
Uc	0.0 V	Pass
Zref	0.89 Ω	

Limits

Limit (ΔU)	3.5 %	
Zlim (Z (LPE), Z (LN))	3.07 Ω	
Limit Uc (Uc)	50 V	

Parameters

DateTime	15.04.2019 09:39:29	
Protection	TN rcd	
Fuse Type	C	
Fuse I	10 A	
Fuse t	0.4 s	
Z factor	1	
RCD type	A	
I ΔN	30 mA	
Selectivity	G	
Phase	L2	
I test	Low	

Voltage Nothing

Results

UIn	228 V	
Ulpe	228 V	
Unpe	0 V	
Freq	50.0 Hz	

Parameters		
DateTime	15.04.2019 09:39:41	
System	-	
Earthing system	TN/TT	

Z auto Pass

Results		
U _{ln}	229 V	
ΔU	0.0 %	Pass
Z (LPE)	0.88 Ω	Pass
Z (LN)	0.87 Ω	Pass
I _{psc} (LN)	264 A	
I _{psc} (LPE)	261 A	
U _c	0.0 V	Pass
Z _{ref}	0.89 Ω	

Limits		
Limit (ΔU)	3.5 %	
Z _{lim} (Z (LPE), Z (LN))	3.07 Ω	
Limit U _c (U _c)	50 V	

Parameters		
DateTime	15.04.2019 09:39:53	
Protection	TN rcd	
Fuse Type	C	
Fuse I	10 A	
Fuse t	0.4 s	
Z factor	1	
RCD type	A	
I ΔN	30 mA	
Selectivity	G	
Phase	L3	
I test	Low	

R iso Pass

Results		
R _{iso}	32.9 MΩ	Pass
U _m	525 V	

Limits		
Limit (R _{iso})	1 MΩ	

Parameters		
DateTime	15.04.2019 09:40:17	
U _{iso}	500 V	
Type R _{iso}	L3/PE	

R iso Pass

Results		
R _{iso}	33.0 MΩ	Pass
U _m	525 V	

Limits		
Limit (R _{iso})	1 MΩ	

Parameters		
DateTime	15.04.2019 09:41:14	

Uiso	500 V		
Type Riso	L2/PE		
R iso			Pass
Results			
Riso	16.69 MΩ		Pass
Um	525 V		
Limits			
Limit (Riso)	1 MΩ		
Parameters			
DateTime	15.04.2019 09:41:27		
Uiso	500 V		
Type Riso	L1/PE		
R iso			Nothing
Results			
Riso	16.65 MΩ		
Um	525 V		
Limits			
Limit (Riso)	Off		
Parameters			
DateTime	15.04.2019 09:41:37		
Uiso	500 V		
Type Riso	N/PE		
EVSE_Examples_AUS/Rolec (UK), 1.ph a.c., 30mA A Type RCD + 6 mA d./EVSE 1p NoVent trip			Pass
Functional EVSE			Pass
Parameters			
DateTime		15/04/2019 09:43:57	
Results			
CP states			Pass
A-EVSE in idle state			Pass
B-EV detected, EVSE does not charge			Pass
C-EV is charged			Pass
E-pilot error, charging interrupted			Pass
PP (Imax)			Pass
Voltage			Nothing
Results			
Uln	229 V		
Ulpe	228 V		
Unpe	1 V		
Freq	50.0 Hz		
Parameters			
DateTime	15.04.2019 09:44:17		
System	-		
Earthing system	TN/TT		
Z auto			Pass
Results			
Uln	228 V		
ΔU	0.6 %		Pass
Z (LPE)	1.25 Ω		Pass

Z (LN)	1.04 Ω	Pass
Ipsc (LN)	221 A	
Ipsc (LPE)	183 A	
Uc	0.1 V	Pass
Zref	0.89 Ω	

Limits

Limit (ΔU)	3.5 %	
Zlim (Z (LPE), Z (LN))	3.07 Ω	
Limit Uc (Uc)	25 V	

Parameters

DateTime	15.04.2019 09:44:28	
Protection	TN rcd	
Fuse Type	C	
Fuse I	10 A	
Fuse t	0.4 s	
Z factor	1	
RCD type	A	
I ΔN	30 mA	
Selectivity	G	
Phase	-	
I test	Low	

RCD Auto

Pass

Results

t I ΔN x1, (+)	15.1 ms	
t I ΔN x1, (-)	9.8 ms	
t I ΔN x2, (+)	14.0 ms	
t I ΔN x2, (-)	7.3 ms	
t I ΔN x5, (+)	12.6 ms	
t I ΔN x5, (-)	6.0 ms	
t I ΔN x0.5, (+)	>300 ms	
t I ΔN x0.5, (-)	>300 ms	
I Δ , (+)	19.5 mA	
I Δ , (-)	18.0 mA	
I Δ d.c., (+)	5.4 mA	
I Δ d.c., (-)	5.4 mA	
t I ΔN d.c. x1, (+)	431.0 ms	
t I ΔN d.c. x1, (-)	413.2 ms	
Uc	0.0 V	

Limits

Limit Uc (Uc)	25 V	
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Parameters

DateTime	15.04.2019 09:47:55	
Use	other	
I ΔN / I ΔN d.c.	30 mA / 6 mA d.c.	
Random phase	No	
Test	L/PE	
EV RCD/RCM Standard	IEC 62752	
Earthing system	TN/TT	

Type	EV RCD		
R iso			Pass
Results			
Riso	32.6 MΩ	Pass	
Um	525 V		
Limits			
Limit (Riso)	1 MΩ		
Parameters			
DateTime	15.04.2019 09:48:04		
Uiso	500 V		
Type Riso	L/PE		
R iso			Nothing
Results			
Riso	32.0 MΩ		
Um	525 V		
Limits			
Limit (Riso)	Off		
Parameters			
DateTime	15.04.2019 09:48:14		
Uiso	500 V		
Type Riso	N/PE		
EVSE_Examples_AUS/Mode 2 EV cable (DEU), 1-ph, IC-CPD protection/EVSE 1p NoVent trip			Pass
Functional EVSE			Pass
Parameters			
DateTime		12/04/2019 16:09:12	
Results			
CP states			Pass
A-EVSE in idle state			Pass
B-EV detected, EVSE does not charge			Pass
C-EV is charged			Pass
E-pilot error, charging interrupted			Pass
PP (Imax)			Pass
Voltage			Nothing
Results			
UIn	231 V		
Ulpe	231 V		
Unpe	0 V		
Freq	50.0 Hz		
Parameters			
DateTime	12.04.2019 16:09:22		
System	-		
Earthing system	TN/TT		
Z auto			Pass
Results			
UIn	231 V		
ΔU	0.0 %	Pass	
Z (LPE)	1.79 Ω	Pass	
Z (LN)	1.29 Ω	Pass	

Ipsc (LN)	178 A	
Ipsc (LPE)	129 A	
Uc	0.1 V	Pass
Zref	1.31 Ω	

Limits

Limit (ΔU)	3.5 %	
Zlim (Z (LPE), Z (LN))	3.07 Ω	
Limit Uc (Uc)	50 V	

Parameters

DateTime	12.04.2019 16:09:34	
Protection	TN rcd	
Fuse Type	C	
Fuse I	10 A	
Fuse t	0.4 s	
Z factor	1	
RCD type	A	
I ΔN	30 mA	
Selectivity	G	
Phase	-	
I test	Low	

RCD Auto

Pass

Results

t I ΔN x1, (+)	34.1 ms	
t I ΔN x1, (-)	44.3 ms	
t I ΔN x2, (+)	32.7 ms	
t I ΔN x2, (-)	23.0 ms	
t I ΔN x5, (+)	31.8 ms	
t I ΔN x5, (-)	22.6 ms	
t I ΔN x0.5, (+)	>999 ms	
t I ΔN x0.5, (-)	>999 ms	
I Δ , (+)	24.0 mA	
I Δ , (-)	24.0 mA	
Uc	1.0 V	

Limits

Limit Uc (Uc)	50 V	
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Parameters

DateTime	12.04.2019 16:19:21	
Use	PRCD-S+	
RCD type	AC	
I ΔN	30 mA	
Random phase	No	
Test	L/PE	
RCD Standard	AS/NZS 3017	
Earthing system	TN/TT	
Sensitivity	Ipe monitoring	

R iso

Pass

Results

Riso	16.23 M Ω	Pass
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Signature:

Created date: 31/05/2019

11/12

Um	262 V	
Limits		
Limit (Riso)	1 MΩ	
Parameters		
DateTime	12.04.2019 16:19:37	
Uiso	250 V	
Type Riso	L/PE	
R iso		Nothing
Results		
Riso	16.23 MΩ	
Um	262 V	
Limits		
Limit (Riso)	Off	
Parameters		
DateTime	12.04.2019 16:19:42	
Uiso	250 V	
Type Riso	N/PE	