

ROUTINE TEST REPORT

EvoPacT lateral version

Schneider
Electric

Reference : AVX-FM-08601-81

Rev. 01



2011439021-10-25473P0007

GENERAL DATA

Reference No.: ETL24C1BTLX1D Order No: 2011439021-10
Serial No.: 25473P0007 Test date: 2025-11-19

Rated voltage: 24kV Continuous current: 630A
Short-time withstand current: 20kA Phase distance: 250mm
VI No.: A: 9425199314 B: 9425143314 C: 9425144314

Temperature °C: 27.5 Humidity %: 26.8 Atmosphere pressure kPa: 101

MECHANICAL CHARACTERISTIC TEST

Test Item	Technical Spec.	Test Result		
		Phase A	Phase B	Phase C
Average closing speed (m/s)	1.0~2.0	1.40	1.46	1.45
Average opening speed (m/s)	0.9~1.7	1.18	1.24	1.22
Opening rebound (mm)	≤1	0.04	0.16	0.11
Synchronization at closing (ms)	≤2	0.10		
Synchronization at opening (ms)	≤2	0.20		

POWER FREQUENCY WITHSTAND VOLTAGE TEST

Main circuit between phases and phases to earth: 50 kV/50Hz/60s ☒Pass ☐Failed
Main circuit across open contact gaps: 50 kV/50Hz/60s ☒Pass ☐Failed

RESISTANCE TEST ON MAIN CIRCUIT (DC 100A)

Data
matrix



Test Item	Technical Spec.	Phase A	Phase B	Phase C
Resistance of main circuit ($\mu\Omega$)	≤29	20	19	20

COMPLETENESS INSPECTION

Secondary wiring, auxiliary, label comply to requirements.
According to the inspection of the order specification with requirements.

Tested by: Gaoqiu YE
Date: 2025-11-19

Approved by: Weida CHEN
Date: 2025-11-19

Schneider Electric (Xiamen) Switchgear Equipment Co.,Ltd.



Customer / Cliente.
SCHNEIDER ELECTRIC S.p.A.
Customer order /Ordine Cliente:
4502408558/000001
of / del: 10/11/2025
Schneider order / Ordine Schneider:
120004247
item / pos: 10
Schneider trasfer order /Trasf. Ordine Schneider:
item / pos:
Apparatus / Apparecchio:
20
M.V.. Circuit Breaker / Interruttori M.T.
Q.ty / Q.tà: 1 / 1
Serial numbers / Numeri di serie
NM2026W1330075
RATED CHARACTERISTICS
CARATTERISTICHE NOMINALI

Rated voltage <i>Tensione nominale</i>	Ur	24 kV
Rated lightning impulse withstand voltage <i>Tensione nominale di tenuta ad impulso atmosferico</i>	Up	125 kV
Rated Power-frequency withstand voltage <i>Tensione nominale di tenuta a frequenza industriale</i>	Ud	50 kV
Rated normal current <i>Corrente termica nominale</i>	Ir	630 A
Rated short-circuit breaking current <i>Corrente di breve durata nominale ammissibile</i>	Isc	16 kA
Rated duration of short circuit <i>Durata nominale di corto circuito</i>	tk	1 s
Rated frequency <i>Frequenza nominale</i>	fr	50/60 Hz
Rated operating sequence <i>Sequenza di operazioni nominali</i>	O-3mn-CO-3mn-CO	

RATED SUPPLY VOLTAGE and DOCUMENT
TENSIONI AUSILIARIE E DOCUMENTI

1st opening devices <i>Primo dispositivo di apertura</i>	Uop	220 V 50 Hz
2nd/double opening devices <i>Secondo/doppio dispositivo di apertura</i>	Uop	NO
Closing devices <i>Dispositivo di chiusura</i>	Uop	NO
Undervoltage devices <i>Dispositivo di minima tensione</i>	Uop	NO
Spring charging motor devices <i>Dispositivo motore carica molle</i>	Ua	NO
Mitop <i>Mitop</i>	Ua	NO
Schematic dwg. <i>Schema funzionale</i>	PKR56072	
Quality control sheet <i>Scheda di controllo Qualità</i>	M-CS&Q-035.01	

ROUTINE TESTS
PROVE INDIVIDUALI

	STANDARD NORME	TEST RESULTS ESITO	MEASUREMENT INSTRUMENTS STRUMENTI DI MISURA
Design and visual checks <i>Controlli di progetto e visivi</i>	IEC 62271-100 par. 7.5	Satisfactory <i>Conforme</i>	/
Dielectric test on the main circuit <i>Prova d'isolamento sul circuito principale</i>	IEC 62271-100 par. 7.1	Satisfactory <i>Conforme</i>	Rif. Verb. ETL24C1BTLX1D-25473P0007-A20B19C20
Dielectric tests on auxiliary and control circuits <i>Prova d'isolamento dei circuiti ausiliari e di comando</i>	IEC 62271-100 par. 7.2	Satisfactory <i>Conforme</i>	PR47
Measurement of the resistance of the main circuit <i>Misura della resistenza del circuito principale</i>	IEC 62271-100 par. 7.3	Satisfactory <i>Conforme</i>	Rif. Verb. ETL24C1BTLX1D-25473P0007-A20B19C20

Current test / Corrente di prova
Value max. / Valore max.

100 A dc
29 mV

L1	/ mV	L2	/ mV	L3	/ mV
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Mechanical operating tests
Prove di funzionamento meccanico

IEC 62271-100
par. 7.101

Satisfactory
Conforme

PR47

				First Coil Prima bobina				Second Coil Seconda bobina			
Closing time Tempi di chiusura		Value max.		Measure		Value max.		Measure		Value max.	
		Umax.	60 ms	0 ms		Umax.	50 ms	33 ms		50 ms	0 ms
		Un	60 ms	0 ms		Un	50 ms	34 ms		50 ms	0 ms
		Umin.	60 ms	0 ms		Umin.	50 ms	37 ms		50 ms	0 ms

Tightness test
Prova di ermeticità

IEC 62271-100
par. 7.4

Satisfactory
Conforme

Rif. Verb.
TLX1D-25473P0007-/

Quality Assurance
Garanzia della Qualità

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Iscritta al R.I. di Bergamo, n. di REA 288118
Codice Fiscale n° 00509110011
Partita IVA n° 02424870166
Società con un unico socio
Diretta e coordinata da Schneider Electric S.A.

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narayan

powertech pvt. ltd.

Unit-1: Padra-Vadodara Road, Padra, District: Vadodara-391440



LOW POWER CURRENT TRANSFORMER TEST REPORT IEC61869-10

PO No.- 4010087530

W.O. NO: EO/25-26/2939 Ratio : 100A/22.5 mV

Class : 0.5/5P Burden : >20 kohms

Date:- 06/01/2026

Freq:-50/60hz

STC Rating:25KA/1sec

Test Report Number NP/TR/ 31

Drawing number: ICTE01748-0000

Sr.No.	% of Primary Current	Limits		Rated Burden >20 kohms		Verification of terminal marking and polarity	Power Frequency voltage withstand test on Secondary winding @ 0.82kV for 1 Min	Power Frequency voltage withstand test on Primary winding @ 3kV for 1 Min
		Ratio Error in %	Phase Angle Error (Min.)	Ratio Error in %	Phase Angle Error (Min.)			
E2227054	5%	±1.5%	90	1.09	23.80	OK	OK	OK
	20%	±0.75%	45	0.21	21.01			
	100%	±0.5%	30	0.13	2.63			
	1250%	±0.5%	30	0.06	-2.13			

Tested by :- Parth shah

WI/4.10/F65 Rev. A

Checked By : Narendra Rana

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powertech pvt. ltd.

Unit-1: Padra-Vadodara Road, Padra, District:Vadodara-391440



LOW POWER CURRENT TRANSFORMER TEST REPORT IEC61869-10

PO No.- 4010087530

W.O. NO: EO/25-26/2939

Freq:-50/60hz

Drawing number: LCTE01748-0000

Ratio : 100A/22.5 mV

Class : 0.5/5P

Burden : >20 kohms

STC Rating:25KA/1sec

Date:- 06/01/2026

Test Report Number NP/TR/ 31

Sr.No.	% of Primary Current	Limits		Rated Burden >20 kohms		Verification of terminal marking and polarity	Power Frequency voltage withstand test on Secondary winding @ 0.82kV for 1 Min	Power Frequency voltage withstand test on Primary winding @ 3kV for 1 Min
		Ratio Error in %	Phase Angle Error (Min.)	Ratio Error in %	Phase Angle Error (Min.)			
E2227055	5%	±1.5%	90	1.28	19.19	OK	OK	OK
	20%	±0.75%	45	0.32	18.09			
	100%	±0.5%	30	-0.22	6.67			
	1250%	±0.5%	30	-0.15	-1.75			

Tested by :- Parth shah

WI/4.10/F65 Rev. A

Checked By : Narendra Rana

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powertech pvt. ltd.

Unit-1: Padra-Vadodara Road, Padra, District:Vadodara-391440



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		Ratio Error in %	Phase Angle Error (Min.)	Ratio Error in %	Phase Angle Error (Min.)			
E2227056	5%	±1.5%	90	1.25	22.72	OK	OK	OK
	20%	±0.75%	45	0.20	19.85			
	100%	±0.5%	30	-0.01	0.13			
	1250%	±0.5%	30	-0.04	4.88			

Tested by :- Parth shah

WI/4.10/F65 Rev. A

Checked By : Narendra Rana

Device: Protection relay (P3U30)
S/N: SM2609512600589 **VID:** P3U30-200166177

Program version: V30.209
HW version: 1.2
Order code: 7AAA1CCAA REL52074
Auxiliary power: 48 - 240 Vac/dc
Nominal inputs current: 22.5mV / $\sqrt{3}$ In: 1/5A Io1n: 1/5A
Nominal inputs voltage: 3.25V / $\sqrt{3}$
Frequency: 50/60 Hz

Auxiliary power:		Voltage	Current	Power (< 15W)	
		111 Vdc	49.08 mA	5.45 W	
Communication:	Local (front)	☒	OK		
	Remote	☒	OK	2 x RJ-45-Interface Ethernet (MAC 001AD342A451)	
Digital inputs:		☒	OK	(Connectors: X3:3-6,X4:1-14)	
Output relays:		☒	OK	(Connectors: X3:7-20,X5:9-14)	
Insulation Test:		☒	OK	(IEC 60255-27 2kV, 50Hz)	

Meas. Accuracy: LPCT = Prim: 1000 A
 CTo = 500 A / 5 A (In = 5 A) or 100 A / 1 A (In = 1 A)
 LPVT = Prim: 1000V f=50Hz

Current channels:

	Channel	Supply value	Measured	Error	Tolerance	
0,1 x In	IL1	22.50 mV	100 A	0.00 %	±2,5%	Pass
	IL2	22.50 mV	100 A	0.00 %		Pass
	IL3	22.50 mV	100 A	0.00 %		Pass
1,0 x In	IL1	225.00 mV	1001 A	0.10 %	±0,4%	Pass
	IL2	225.00 mV	1001 A	0.10 %		Pass
	IL3	225.00 mV	1001 A	0.10 %		Pass
4,0 x In	IL1	900.00 mV	4003 A	0.08 %	±2,5%	Pass
	IL2	900.00 mV	4003 A	0.08 %		Pass
	IL3	900.00 mV	4003 A	0.08 %		Pass

Residual current:

	Channel	Supply value	Measured	Error	Tolerance	
0,01 x In	In = 1A	0.0100 A	0.99 A	-1.03 %	±20%	Pass
	In = 1A	0.0999 A	9.99 A	0.02 %		Pass
	In = 1A	1.0001 A	100 A	0.03 %		Pass
0,10 x In	In = 5A	0.0500 A	4.97 A	-0.60 %	±20%	Pass
	In = 5A	0.5000 A	49.96 A	-0.08 %		Pass
	In = 5A	5.0040 A	500 A	-0.06 %		Pass

Voltage channels:
Mode: 3LN/Lny/z

	Channel	Supply value	Measured	Error	Tolerance	
0,02 x Un	UL1	0.065 V	20.0 V	0.00 %	±25%	Pass
	UL2	0.065 V	20.0 V	0.00 %		Pass
	UL3	0.065 V	20.0 V	0.00 %		Pass
	UL1y	0.065 V	20.0 V	0.00 %		Pass
	UL1z	0.065 V	20.0 V	0.00 %		Pass
0,1 x Un	UL1	0.325 V	100.0 V	0.00 %	±2,5%	Pass
	UL2	0.325 V	100.0 V	0.00 %		Pass
	UL3	0.325 V	100.0 V	0.00 %		Pass
	UL1Y	0.325 V	100.0 V	0.00 %		Pass
	UL1z	0.325 V	100.0 V	0.00 %		Pass
1,00 x Un	UL1	3.250 V	1001.0 V	0.10 %	±0,4%	Pass
	UL2	3.250 V	1001.0 V	0.10 %		Pass
	UL3	3.250 V	1001.0 V	0.10 %		Pass
	UL1Y	3.250 V	1001.0 V	0.10 %		Pass
	UL1z	3.250 V	1001.0 V	0.10 %		Pass

COMPLIANCE REPORT

Manufactory order: 2604339

CURRENT TRANSFORMER type CSH160

Serial Number: **26006962**

Type, Rated insulation level (Kv), rated frequency.....:

! CSH160_____0.72/3/0_kv50Hz !

Rated short time thermal current x t, rated dynamic current

0
0
0
0
0
0
0
0
0
0
0
0
0
0
0



TEST PERFORMED ACCORDING TO IEC 61869 SERIES STANDARDS

- 1) Power-frequency voltage withstand tests on primary terminals (if applicable)
- 2) Partial discharge measurement (if applicable)
- 3) Power-frequency voltage withstand tests between sections (if applicable)
- 4) Power-frequency voltage withstand tests on secondary terminals
- 5) Inter-turn overvoltage test (if applicable)
- 6) Test for accuracy
- 7) Verification of markings

TEST RESULTS: SATISFACTORY

DATE: 03/03/2026

SEMAR ELECTRIC QUALITY CONTROL

SEMAR ELECTRIC SRL UNIPERSONALE
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Frazione Bragno
17014 Cairo Montenotte
(SV) ITALY

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info@semar-electric.com
www.semar-electric.com
P.IVA 01851630093
R.E.A. (SV) N.228903
Cap. Soc. € 200.000.00 i.v.

Soggetta a direzione
e coordinamento da parte
di Palmieri Holding S.R.L.

SDI P43TKPP

CALIBRATION AND TEST REPORT

Page 2 (2)

Device: Protection relay (P3U30)
S/N SM2609512600589 VID: P3U30-200166177

Functional Test

Stage	Delay type	I>	Tp	Input	Measured	Error	Tolerance	
I >	NI	0.5 pu	0.10	0.620 pu	3.333 s	0.086 s	±5%	Pass

Stage	Delay type	I>	t>	Input		Error	Tolerance	
IDir >	DT	1.0 pu	0.30 s	1.1 pu	0.313 s	0.013 s	±25ms	Pass
I >>	DT	2.0 pu	0.05 s	2.1 pu	0.047 s	-0.003 s		Pass
Io >	DT	0.05 pu	1.00 s	0.06 pu	1.010 s	0.010 s		Pass

Accepted

Date: 2026-02-27

Name:

OPE