EuroMax Compact Substation

"Completed with your requirement"

Unit Substation 12-36 kV, 150-1600 kVA
IEC 62271-202 Regulation

Engineering ideas into reality

SATS Certification

DAkkS Deutsche Akkreditierungsstelle

PILLER THAILAND

Features

- Produced acc. to latest VDE/IEC regulation
- Arc-fault tested for safety acc. to PEHLA No.4
- IEC 62271-202
- Quality management acc. to DIN EN ISO 9001,14001
- Minimum size and safety for “sidewalk-useful”
- Compartments hot dip galvanized and powder coated
- with heavy metal free and not toxic
- Connecting material out of non corrosive steel
- All components are fully tested and approved
- Base pan steel, oil-tight, welded,hot dip galvanized and
- powder coated, or concrete B45 or LB25 oil - tight
- Environmental friendly

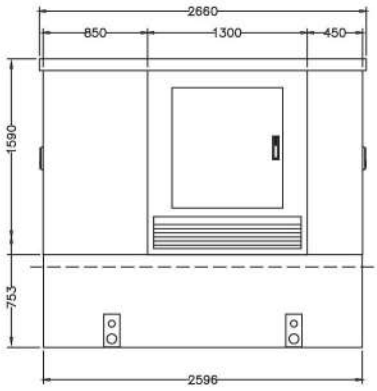
Power Supply System - More Than Just Power
Compact Substation - MV + TR + LV
For underground system distribution

Benefits

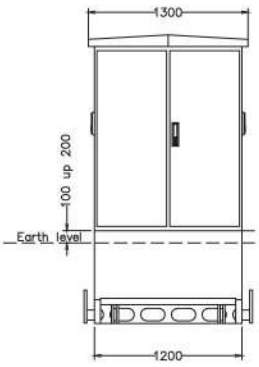
- Safety-harmless to people surrounding
- Small,light and compact
- Last long - no corrosion in any part
- Easily transportation and installation

" EMP 500 For TR. 150-500kVA "

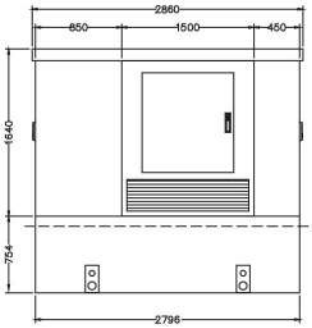
" EMP 1000-1600 For TR. 500-1600kVA "



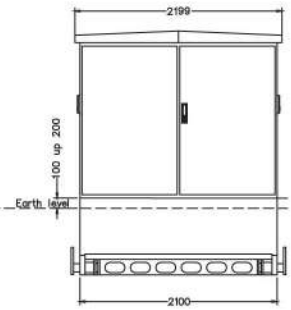
EMP 500 FRONT VIEW



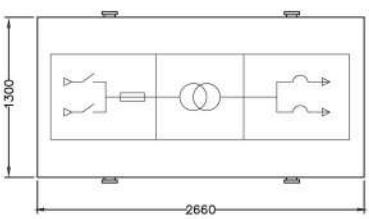
EMP 500 SIDE VIEW



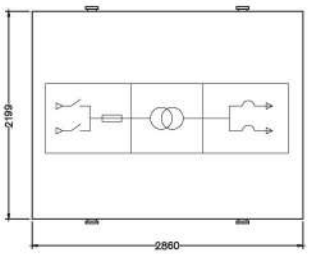
EMP 1000-1600 FRONT VIEW



EMP 1000-1600 SIDE VIEW



EMP 500 TOP VIEW



EMP 1000-1600 TOP VIEW

Certified By SATS

SATS Certification — Scandinavian Association for Testing of Electric Power Equipment

RoP No. 12-B33
Page No. 1 of 28

REPORT OF PERFORMANCE No. 12-B33

Client	Piller (Thailand) Co., Ltd., 75 Moo 3, Petchkasem Road, T. Banmai, A. Samparn, NakornPathom 73110, Thailand.
Test object	Two identical high-voltage / low-voltage prefabricated substations, each with a high-voltage metal-enclosed switchgear and controlgear type SafeRing / SafePlus CCF. The serial no. of the first substation was 1000501, including SafeRing / SafePlus CCF with serial no. 201211105020002. The serial no. of the second substation was 1000502, including SafeRing / SafePlus CCF with serial no. 201211105020001.
Designation	EuroMax EMP-500.
Manufacturer	Piller (Thailand) Co., Ltd., 75 Moo 3, Petchkasem Road, T. Banmai, A. Samparn, NakornPathom 73110, Thailand.
Ratings assigned by the manufacturer	Rated voltage: 24 kV Rated normal current: 630 A Rated frequency: 50 Hz
Tests performed	2 three-phase internal arcing tests were performed. Test no. 1 was according to accessibility type A and test no. 2 was according to accessibility type B. Both tests were performed with a test current of 20 kA for 1 s, and with arc initiation inside the high-voltage switchgear with air replacing SF_6.
Standards	International Standard IEC 62271-202, First edition 2006-06, subclause 6.8. Internal arcing test.
Testing station	NEFI High Power Laboratory, Stulenvegen 71, N-3721 Skien, Norway. The laboratory is accredited according to NS-EN ISO/IEC 17025 by the Norwegian Accreditation, TEST040.
Date of tests	2012-12-12 and 2012-12-13.
Test results	The test object fulfilled the criteria of the standard. These internal arcing tests are applicable for a classification of the test object according to IAC-AB – 20 kA – 1 s.
The documents forming this report	Title page and 28 numbered pages.

Skien, 2013-02-01
Place and Date

Laboratory Manager: Mr. Tor Bratsberg

SATS Inspector: Mr. Leif B. Kaalstad

" EMP 1000-1600 PEHLA No.4 IEC 62271-202 "
Before Test

" EMP 1000-1600 PEHLA No.4 IEC 62271-202 "
After Test

DAkkS Deutsche Akkreditierungsstelle

Internal arcing tests in accordance with IEC 62271-202 on high-voltage / low-voltage prefabricated substations

SATS Certification

EuroMax Compact Substation

Technical features	EMP 500	EMP 1000-1600
Main features		
Dimension WxDxH (mm.)	2596x1200x2343	2796x2100x2394
Weight (Kg.)	1200	1500
Protection degree	IP54	IP54
Cooling system	K20	K20
Operating temperature (°C)	- 30 up to + 50	- 30 up to + 50
Relative humidity (%)	up to 98	up to 98
Installation	up to 1000 m.	up to 1000 m.
Medium voltage switchgear part		
Max.Rated Voltage	24 kV	
Dielectric Withstand Voltage to earth and between phases 50/60 Hz 1 minute	50kV	
Impulse Withstand Voltage to earth and between phases	125kV	
Rated Current	630A	
Bus-bar Rated Current	630A	
Short time current 1 sec.	20kA	
Making capacity	50kA	
Internal Arc withstand current 1 sec.	20kA	
Transformer part		
Rated power	150-500kVA	500-1600kVA
Primary voltage	22/24kV	22/24kV
Secondary voltage	416/230V.	416/230V.
Frequency	50Hz.	50Hz.
Low voltage part		
Rated current	800A	2500A
Bus-bar Rated Current	800A	2500A
Main switch rated current	800A	2500A
Short time current 1 sec.	50kA max.	50kA max.

" EMP 1000-1600 For TR. 500-1600kVA "

PILLER THAILAND

Certificate No : AJAT02/5936

Certificate No : AJAT02/Q2097

75 Moo 3, Petchkasem Road, Banmai, Sampran, Nakornpathom 73110, Thailand
T +66 (0) 2805 8168-9 +66 (034) 979 334-7 F +66 (0) 2813 9861 +66 (034) 979 333
E-mail : sales@piller.co.th, www.piller.co.th