

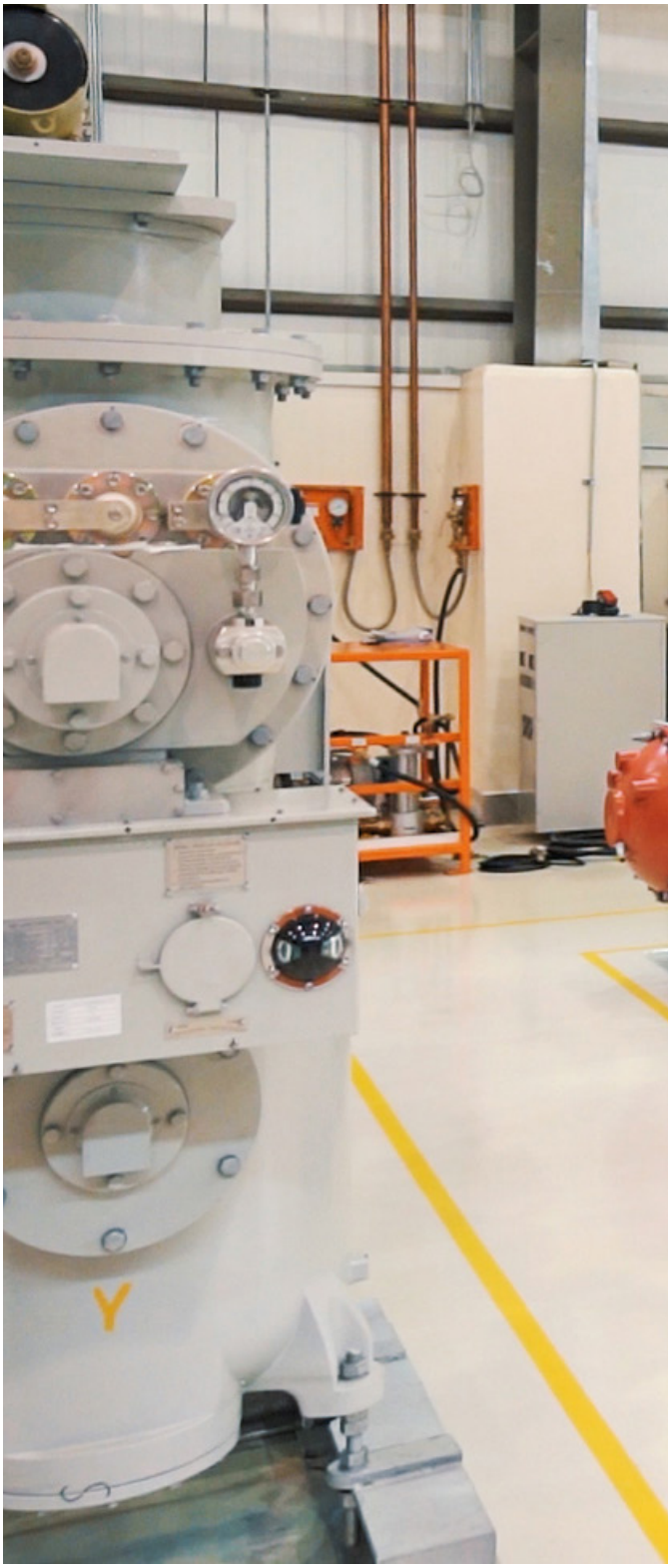
Pars Sanat Parand PSP

General Catalogue

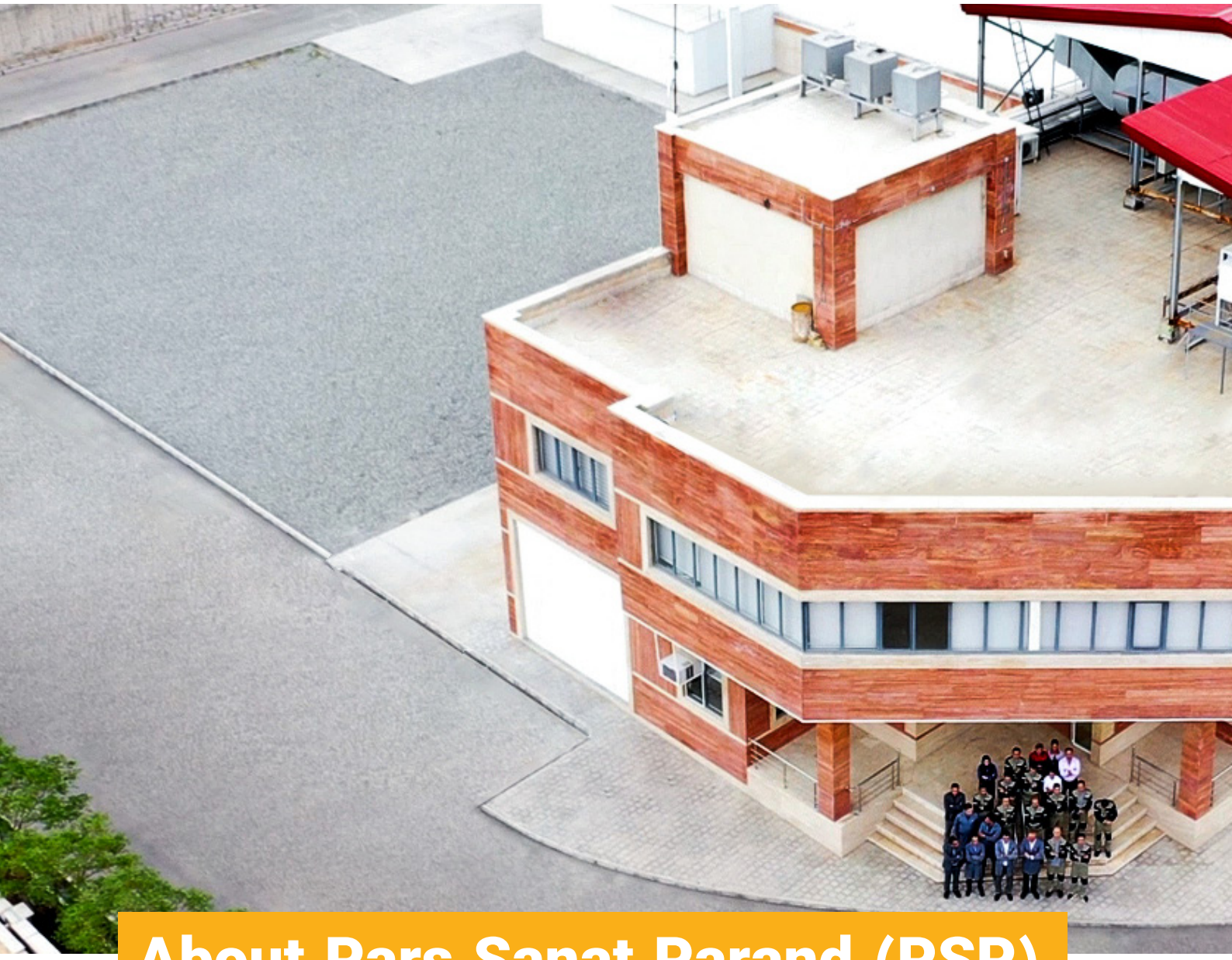
PARS
Sanat Parand
Know-How Based Co.

Table of Contents

About Pars Sanat Parand (PSP)	4
Gas Insulated Switchgear (GIS)	9
UniGear PZ1	11
VPS1	14
UniPars	18
UniSafe	23
UniGear PZ2	25
SIVAPARS	31
Other Products	35
Certificates	39




P1
P2



About Pars Sanat Parand (PSP)

Pars Sanat Parand (PSP) was established in 2006 as an integrator of Gas Insulated Switchgear (GIS) and manufacturer and integrator of Medium Voltage Switchgears under license of ABB Italy and full scope of Low Voltage Switchgears.

PSP has been the only GIS domestic manufacturer holding License and approval from Ministry of Energy, TAVANIR and Planning & Budget Organization since 2019 as a manufacturer of HV Gas Insulated switchgear up to 252kV. The next milestone was achieved in 2021 and PSP entered the league of Know-How based corporations and received the certificate from the Iranian vice-president in Research and Technology. PSP has two factories (GIS manufacturing and Panel manufacturing) in Parand Industrial Park covering 72,000 m^2. Total number of employees and subcontractors sum up to more than 200.

Mission

- Leading GIS manufacturer and integrator in Iran, Middle East, Africa and CIS regions
- Manufacturing HV GIS on "A Bay-A Day" basis by



extending domestic demand and exporting top quality GIS to Middle East, Africa and CIS regions

- Achieving 100% domestic manufacturing for all GIS components
- Intimate and efficient cooperation with well-established universities as a member of Know-How-based companies league

Introduction

PSP teams of experts have 22 years of edge-of-technology experience in design, supply, HV test, supervision and energizing HV GIS substations up to 400kV in Iran and abroad with a full cooperation of AREVA, ALSTOM and GE since 1999. PSP-CHINT strategic cooperation commenced in 2016 leading to the manufacturing license for GIS up to 252kV.

At the end of 2013, PSP manufactured its new MV Switchgear named UniPars which



was promoted along with PSP MV Vacuum Circuit Breaker; VPS1.

Pars Sanat Parand Co. developed its Low voltage distribution panel by trade name SIVAPARS, which type tested in IPH Berlin laboratory and medium voltage switchgear by trade name UNIPARS which type tested in EU IEC-accredited laboratories.

Product Range

- HV Gas Insulated Switchgear (GIS) up to 252kV
- Local Control Cubicle (LCC) for all voltage levels up to 400kV GIS
- MV AIS Switchgears UniGear PZ1, UniGear PZ2
- MV AIS Switchgears UNISAFE , UNIPARS up to 24KV
- Vacuum Circuit Breaker (VCB) VPS1 up to 36kV
- LV Switchgear MLVAC / MLVDC, MCC, ACFB and DCFB
- DC Switchgear (under development)



- Full range of Control, Protection, Marshalling, Common, Server, DS/ES box, DS box, RTU/HVI, Interface, SCADA, AVR, Follower, Measuring and Capacitor bank control panels

Sales References

Worldwide presence in five countries and two continents provides PSP a unique techno-commercial experience among domestic corporations. Reliable and high-qualified products and solutions to clients is one of the important results of such approach. PSP provides high quality products, services and solutions by presence in over 150 domestic and overseas projects in a wide range of industries and clients such as Ministry of Energy (power, water and wastewater sectors), TAVANIR and all Regional Electric Companies, Oil and Gas Refineries, Power Plants, Petrochemical Plants, Steel, Aluminum and Copper Industries, Water Desalination Plants, Cement Factories, Automobile Industry and many other urban sectors.



Supply, Commissioning and Test

- DEWA, MUSHRIF, DUBAI
- BPDB, MORADPUR, BANGLADESH
- BPDB, RAMPUR
- BANGLADESH
- PEDEEE, SYRIA
- NIGELEC, NIGER
- POGC
- NIGC
- OEID
- NIOC
- PGSEZ
- IPDC
- TAVANIR
- MAPNA
- TANA ENERGY
- NEYR PERSE
- DAMAVAND PETROCHEMICAL
- MOBIN PETROCHEMICAL
- FREC, FARS
- EREC, ISFAHAN
- TREC, TEHRAN
- MREC, MAZANDARAN
- AREC, AZARBAYEJAN
- KREC, KERMAN
- WREC, KERMANSHAH
- HREC, HORMOZGAN
- SURO, FARS
- TURO, TEHRAN
- KUSRO, KARAJ
- SAIPA CO
- SSCO
- MOND-DASHTI CEMENT
- IGDC
- IWPCO
- KHUZESTAN STEEL CO
- ARVAND JAHANARA STEEL CO
- BARDSIR STEEL CO
- SIRJAN STEEL CO
- ZARAND STEEL CO
- GHAENAT STEEL CO
- CHARMAHAL STEEL CO
- AL-MAHDI ALUMINIUM PLANT
- HORMOZAL ALUMINIUM PLANT
- BANDARABBAS WATER DESALINATION PLANT

Section 1



Gas Insulated Switchgear (GIS)

Standard: IEC 62271-203

Typical Feature

Great Breaking Character of Circuit Breaker

The circuit breaker adopts the self-extinguishing principle; it can achieve three-pole or one-pole operation by only adopting a spring mechanism with small operating power.

Compact Design

- Adopt the advanced three-position switch, less parts, simple structure, small space and high reliability.
- Adopt the advanced PLC intelligent control system, reduce the secondary elements, shrink the volume of cabinet greatly.

High Reliability of Mechanism

The circuit breaker adopts a spring mechanism with small operate power, and the three-position switch adopts electric operating mechanism.

Convenient Transportation and Installation

It can be transported as bigger unit and it is easy to install.

High Reliability and Maintenance

No maintenance under normal condition.

General

Reference standard		IEC 62271-203	
Rated voltage	kV	145	252
Rated current/main bus rated current	A	Up to 3150	Up to 4000
Rated frequency	Hz	50	50
Rated short-time withstand current	kAp	40	50
Duration of short-circuit	S	3	3
Rated peak withstand current	kAp	100	125
Rated lightening impulse withstands voltage	kAp	550	1050
Rated short time power frequency withstands voltage, 1min	kV	275	650
SF6 annual leakage rate	%	< 0.5	< 0.5
Ambient temperature range	(°C)	Down to -40 / up to +55	

Circuit Breaker

First-pole-to-clear factor		1.5	1.5
Short circuit breaking current	kA	40	50
Short circuit making current	kAp	100	125
Rated frequency	Hz	50	50
Rated short-time withstand current	kA	40	50
Operating sequence		O - 0.3 s - CO- 3 min - CO	
Mechanical endurance	Class	M2	
Capacitive switching	Class	C2	

3-position Disconnector Switch

Bus-transfer current	A	1600
Mechanical endurance	Class	M2

Make-Proof Earthing Switch

Making current capability	kAp	100	125
Short-circuit making performance of earthing switches	Class	E1	



Section 2

UniGear PZ1

Air-insulated switchgear for power application
up to 24kV , 4000 A , 40 kA



UniGear PZ1 is the PSP switchgear for primary distribution up to 24 kV, 4000 A,40 kA

UniGear PZ1 is used to distribute electric power in a variety of demanding applications such as on off- shore platforms, in container or cruise ships, in mines as well as in utility substations, power plants or chemical plants. UniGear PZ1 is available in the single busbar, double busbar, back to back or double level solution.

Features

- Standards: IEC
- Design: LSC-2B, PM
- Accessibility type: A
- Internal arc class: FLR
- Highly customized versions available
- Switchgear can be back to wall installed

Safety

- Fully type tested according to IEC 62271-200
- Fitted with safety interlocks
- Circuit breaker racking with closed doors

Switching devices

- VPS1 vacuum circuit breaker with spring actuator
- NAL/F switch disconnector

Current and voltage measurement

- Conventional current and voltage instrument transformers

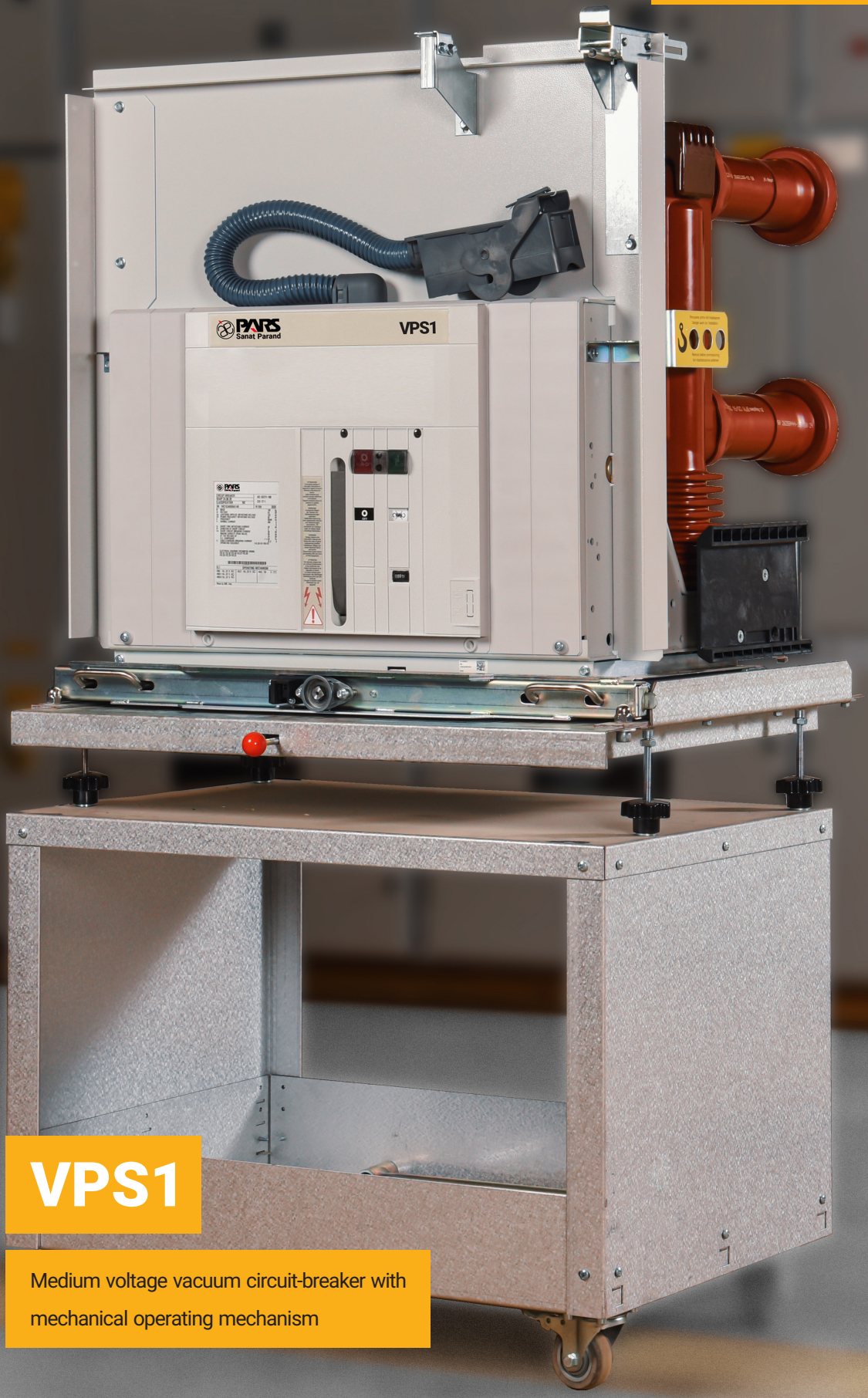


Electrical Characteristics of the Switchgear

The electrical characteristics of the switchgear can vary depending on environmental conditions other than those described and for degrees of protection higher than the standard values.

Switchgear		12 kV	24 kV
Internal Arc Classification (IAC)		AFLR	AFLR
Rated voltage	KV	12	24
Insulation levels / power frequency / lightning impulse	KV	12 / 28 / 75	24 / 50 / 125
Rated frequency	Hz	50 / 60	50 / 60
Rated main busbar current (40°C)	A	...4000	...3150
Rated feeder current (40°C)	A	...4000	...3150
Rated short-time current	KA x 3s	...40	...31.5
Arc proof withstand current (IEC 62271-200)	KA x 1s	...40	...31.5
Height	mm	2250 ... 2820	2250 ... 2820
Width	mm	650 / 800 / 1000	800 / 1000
Depth	mm	1400	1680

Section 3



VPS1

Medium voltage vacuum circuit-breaker with mechanical operating mechanism



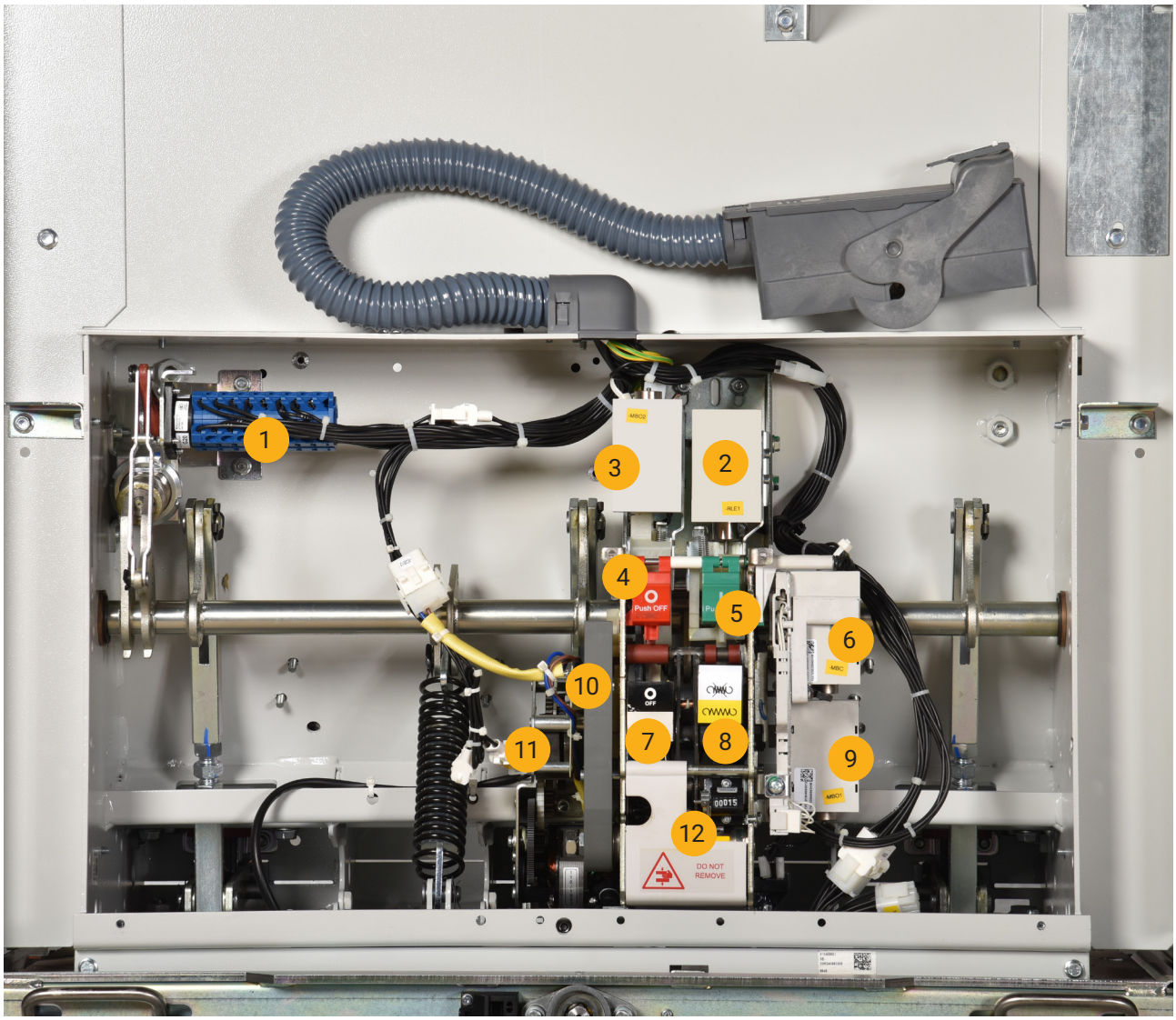
VPS1 is the PSP vacuum circuit-breaker up to 36 kV 4000 A,40 kA

- Vacuum interruption technique
- Vacuum interrupters embedded and sealed for life
- Fixed and withdrawable version
- Circuit-breaker racking-out and racking-in with the door closed
- Possibility of use in all types of installation
- Incorrect and hazardous operations prevented thanks to special locks in the operating mechanism and in the truck
- Highly reliable controls since characterized by a low number of components and Manufactured using production systems for large quantities
- Extremely reduced and simple maintenance
- Mechanical anti-pumping device provided as standard
- Incorporated closing spring charging lever
- Key lock with circuit-breaker open
- Protection over opening and closing pushbuttons for operation using a Special tool
- Padlock on the operating pushbuttons

Circuit-breaker	VPS1-12					VPS1-24				VPS1-36			
Rated and insulation voltage kV	12					24				36			
Withstand voltage (1 min)v(50 Hz)	28					50				70			
Impulse withstand voltage kV	75					125				170			
Rated frequency Hz	50					50				50			
Rated normal current A(40 °C)	1250	2000	2500	3150	4000(1)	1250	2000	2500(1)	3150(1)	1250	2000	2500(1)	3150(1)
Rated breaking capacity and rated short-time kA withstand current (3s)	25	25	25	25	25	25	25	25	25	25	25	25	25
	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
	40	40	40	40	40	-	-	-	-	40	40	40	-
Making Capacity kA	63	63	63	63	63	50	50	50	50	50	50	50	50
	80	80	80	80	80	63	63	63	63	63	63	63	63
	100	100	100	100	100	-	-	-	-	80	80	80	80
	125	125	125	125	125	-	-	-	-	-	-	-	-
Operation sequence	[O-0.3s-CO-180s-CO]					[O-0.3s-CO-180s-CO]				[O-0.3s-CO-180s-CO]			
Opening time ms	33 ... 60					33 ... 60				33 ... 60			
Arc time ms	10 ... 15					10 ... 15				10 ... 15			
Total interruption time ms	43 ... 75					43 ... 75				45 ... 75			
Closing time ms	30 ... 60					30 ... 60				50 ... 60			

(1) with forced ventilation





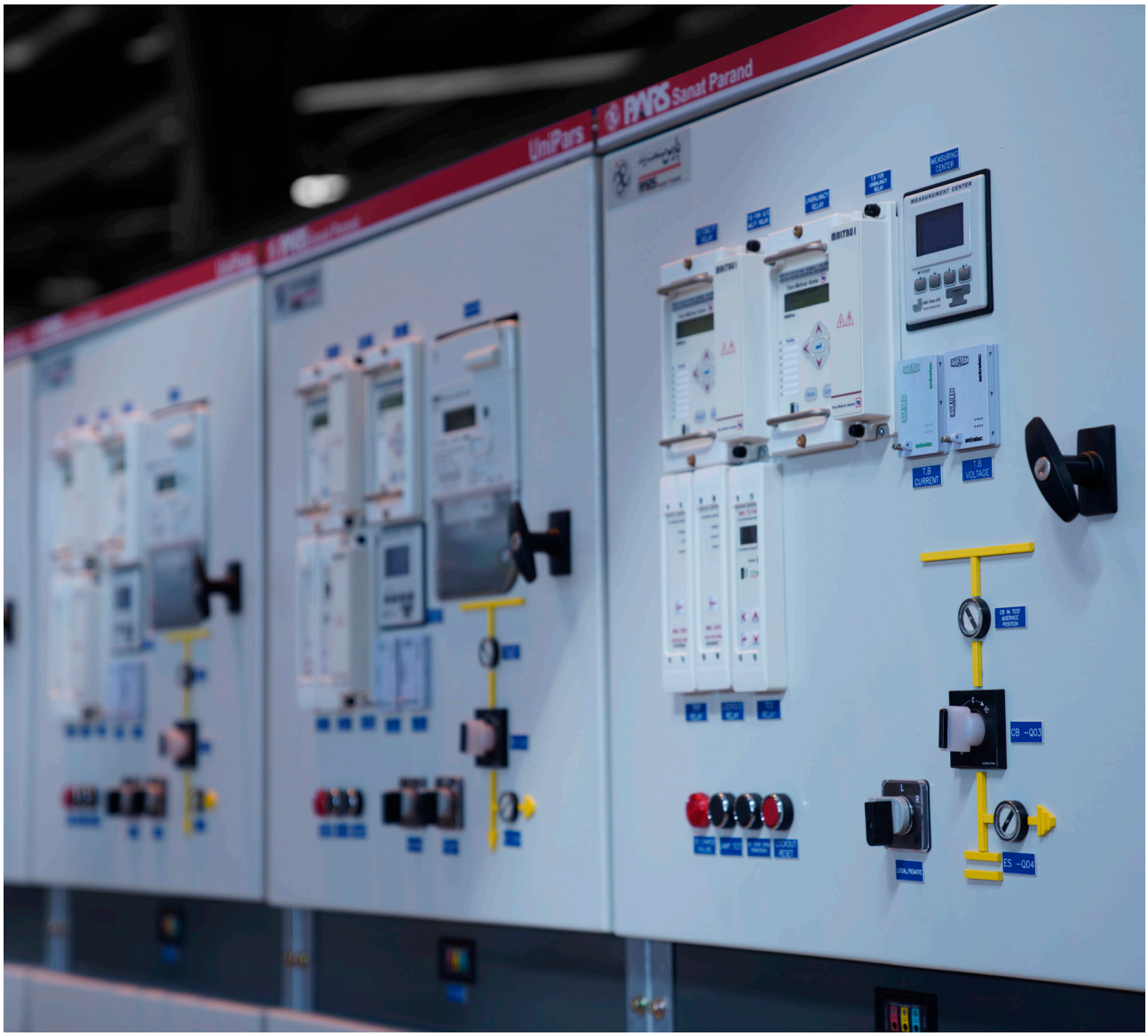
1) Auxiliary contacts open/closed
2) Shunt closing permission release
3) Additional shunt opening release
4) Opening pushbutton
5) Closing pushbutton
6) Shunt closing release
7) Mechanical signalling device for circuit-breaker open/closed
8) Signalling device for closing springs charged/ discharged
9) Shunt opening release
10) Incorporated closing spring charging lever
11) Geared motor for closing spring charging
12) Mechanical operation counter

Section 4



UniPars

Air insulated Medium voltage Switchgear for primary distribution 24kV, 2500A, 25 kA



UniPars have been type tested in compliance with international standards in ICMET Lab. and hold a wide range of certifications.

The switchgear construction is modular and made up by placing standardised units side by side in a coordinated way. Safety and reliability are key design criteria, so the units are fully arc-proof.

Installation requires very simple civil works.

UniPars switchgear features

- Air insulation of all live part
- LSC-2B/PM classification
- Complete set of appartatus:
- Vacuum circuit breaker
- SF6 circuit breaker
- Vacuum contactors
- Apparatus racking in/out with closed door
- Internal arc classification IAC AFLR
- Fitted with safety interlocks
- Wall and free-standing solution
- Putting into service, maintenance and service operation can be carried out from the front
- High customization versions
- Construction with pregalvanized sheet without welding points
- Wide range of functional units for any all installation solutions
- Equipped with traditional CT, VT

(fixed and or withdrawable)



- Easy-to assemble modular structure

Normal service condition

- Minimum ambient temperature - 5°C
- Maximum ambient temperature + 40°C
- Maximum relative humidity 95%
- Maximum altitude 1000 m s.l.m.
- In presence of unpolluted and non- corrosive atmosphere

Degrees of protection

- External enclosure IP 4X
- Inside the compartment IP 2X

Optional for external enclosure

- IP 41
- IP 42

Standards

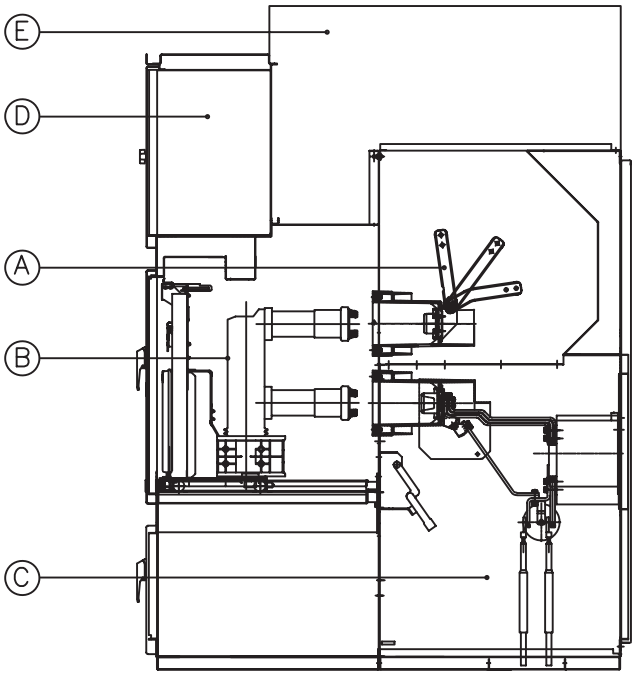
- IEC 62271-1 general application
- IEC 62271-200 for switchgear
- IEC 62271-100 for circuit breaker
- IEC 60259 for protection degrees



Switchgear		UniPars	UniPars
Type of construction Internal Arc Classification		IAC AFLR	IAC AFLR
Rated voltage	kV	12	24
Insulation levels/power frequency/lightining impulse	kV	12/28/75	24/50/125
Rated frequency	Hz	50/60	50/60
Rated main busbars current (40°)	A	... 4000	... 2500
Rated feeder current (40°C)	A	... 4000 (1)	... 2500 (1)
Rated short-time current	kAx3S	... 31.5/40	... 25
Arc proof withstand current (IEC 62271-200)	kAx1S	... 31.5/40	25
Tested in according to		IEC 62271-200	IEC 62271-200
Overall dimensions Of the basic cubicle	H [mm]	2160...2600	2160...2600
	W [mm]	600/750/1000	750/1000
	D [mm]	1550/2000	1900/2300

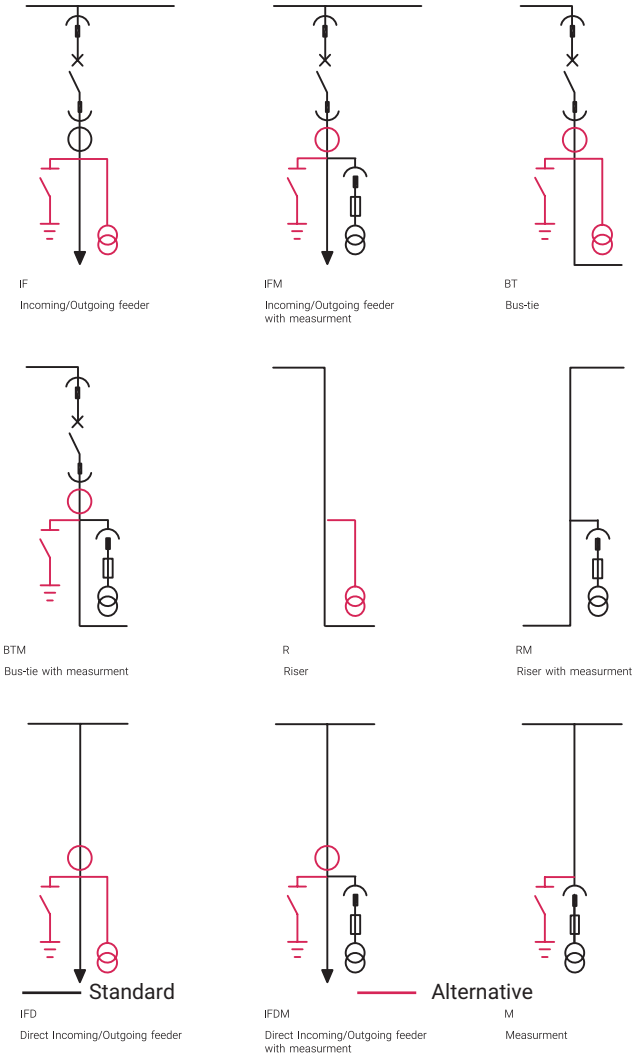
(1) with forced ventilation

UniPars main components



A: Busbars compartment
B: Apparatus compartment
C: Cable compartment
D: instrument compartment
E: Gas duct channel

Single-line diagram of typical units



Applications

Transport

- Airports
- Port installations
- Underground railways

Service sector

- Supermarkets
- Shopping malls
- Hospitals
- Large infrastructures

Industry

- Pulp and paper
- Textile
- Chemical
- Food and beverage
- Automotive
- Petrochemical

Utilities and Power Plants

- Power generation stations
- Transformer stations
- Switching stations
- Main and auxiliary switchgear

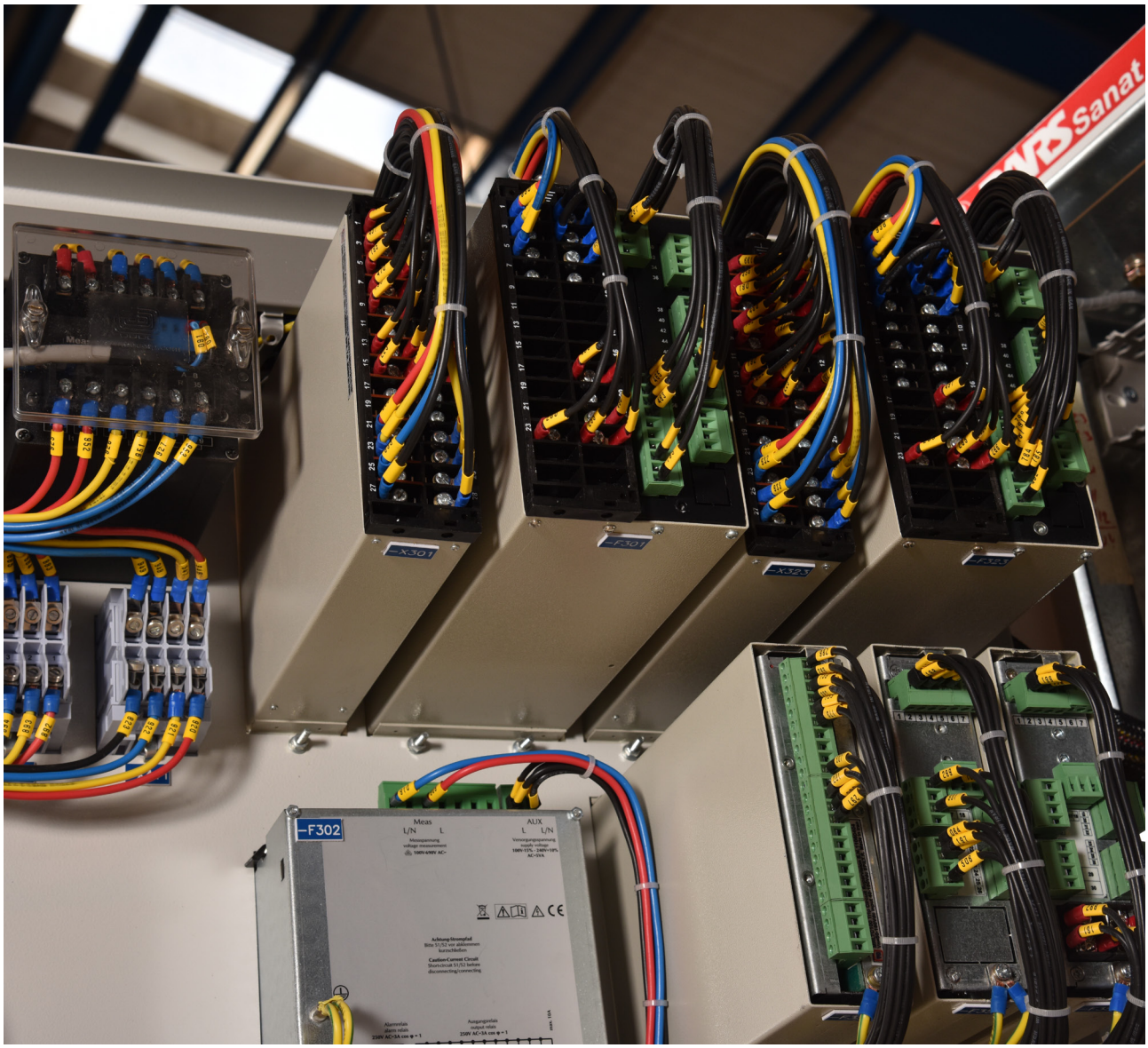


Section 5

UniSafe

Air insulated Medium voltage Switchgear for primary distribution under license ABB

Up to 24 kV, 4000 A, 40 kA



UniSafe have been type tested in compliance with international standards and hold a wide range of certifications.

The switchgear construction is modular and made up by placing standardised units side by side in a coordinated way. Safety and reliability are key design criteria, so the units are fully arc-proof.

Installation requires very simple civil works.

UniSafe switchgear features

- Air insulation of all live part
- LSC-2B/PM classification
- Complete set of appartatus:
- Vacuum circuit breaker
- SF6 circuit breaker
- Vacuum contactors
- Apparatus racking in/out with closed door
- Internal arc classification IAC AFLR
- Fitted with safety interlocks
- Wall and free-standing solution
- Putting into service, maintenance and service operation can be carried out from the front
- High customization versions
- Construction with pregalvanized sheet without welding points
- Wide range of functional units for any all installation solutions
- Equipped with traditional CT, VT (fixed and or withdrawable) and sensors.
- Easy-to assemble modular structure



Normal service condition

- Minimum ambient temperature - 5°C
- Maximum ambient temperature + 40°C
- Maximum relative humidity 95%
- Maximum altitude 1000 m s.l.m.
- In presence of unpolluted and non- corrosive atmosphere

Degrees of protection

- External enclosure IP 4X
- Inside the compartment IP 2X

Optional for external enclosure

- IP 41
- IP 42
- IP 43

Standards

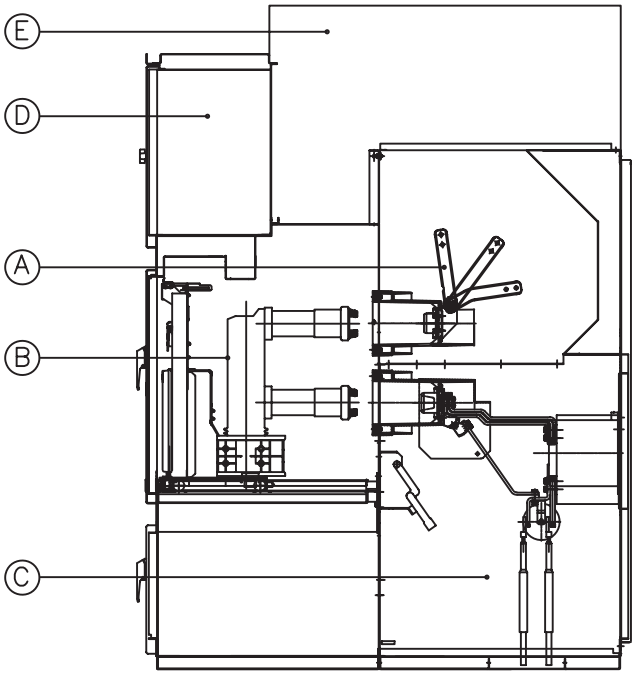
- IEC 62271-1 general application
- IEC 62271-200 for switchgear
- IEC 62271-100 for circuit breaker
- IEC 60259 for protection degrees



Switchgear		UniSafe	UniSafe
Type of construction Internal Arc Classification		IAC AFLR	IAC AFLR
Rated voltage	kV	12	24
Insulation levels/power frequency/lightining impulse	kV	12/28/75	24/50/125
Rated frequency	Hz	50/60	50/60
Rated main busbars current (40°)	A	... 4000	... 2500
Rated feeder current (40°C)	A	... 4000 (1)	... 2500 (1)
Rated short-time current	kAx3S	... 31.5/40	... 25
Arc proof withstand current (IEC 62271-200)	kAx1S	... 31.5/40	25
Tested in according to		IEC 62271-200	IEC 62271-200
Overall dimensions Of the basic cubicle	H [mm]	2160...2600	2160...2600
	W [mm]	600/750/1000	750/1000
	D [mm]	1550/2000	1900/2300

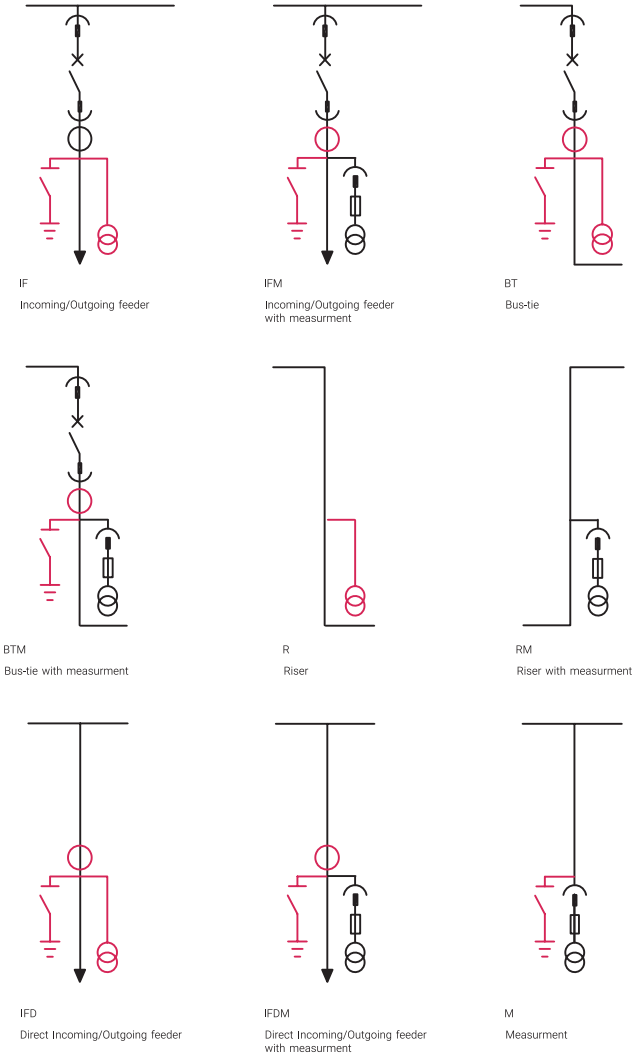
(1) with forced ventilation

Unisafe main components



A: Busbars compartment
B: Apparatus compartment
C: Cable compartment
D: instrument compartment
E: Gas duct channel

Single-line diagram of typical units



Applications

Transport

- Airports
- Port installations
- Underground railways

Service sector

- Supermarkets
- Shopping malls
- Hospitals
- Large infrastructures

Industry

- Pulp and paper
- Textile
- Chemical
- Food and beverage
- Automotive
- Petrochemical

Utilities and Power Plants

- Power generation stations
- Transformer stations
- Switching stations
- Main and auxiliary switchgear

Section 6



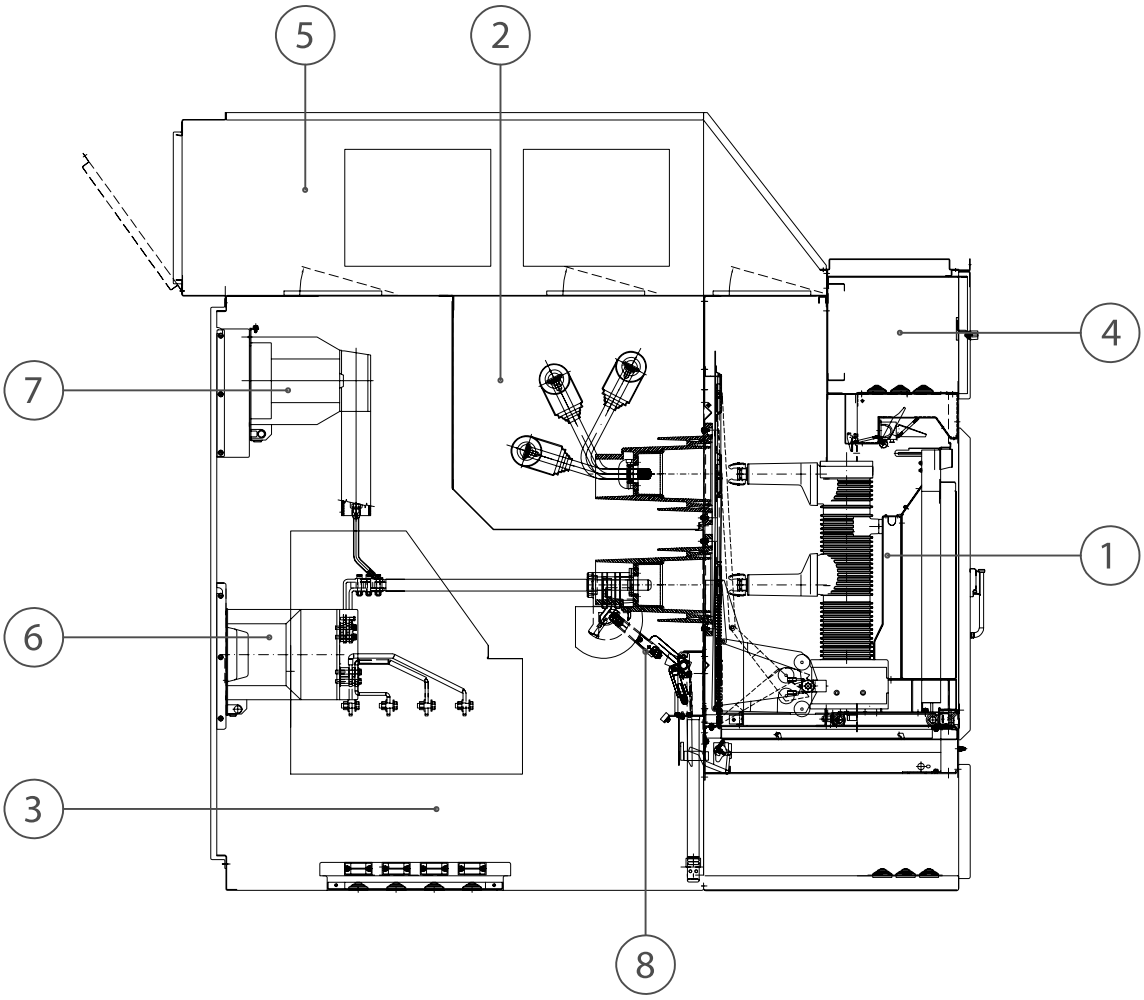
UniGear PZ2

Air insulated Medium voltage Switchgear for primary distribution 36kV, 2500A, 31.5 kA



- Air insulated switchgear
- LSC2B-PM type according to IEC 62271-200
- Interchangeable Vacuum and SF6 Gas Circuit breaker
- Compact dimensions
- Construction with ALUZINK sheet without welding points
- Space saving by wall standing solution
- Cable compartment accessible from the front
- Double busbar system
- Earthing switch with making capacity
- Earthing switch fitted with interlocks with the circuit-breaker
- Operational safety, circuit-breaker racking in / out with door closed

UniGear PZ2 main components



1 Circuit-breaker compartment
2 Busbar compartment
3 Cable compartment
4 Low voltage compartment
5 Optional arc channel
6 Current transformers
7 Voltage transformers
8 Earthing switch

Switchgear		Unigear - PZ2
Type of construction		IAC AFLR
Rated voltage	kV	36
Insulation Levels	kV	36/70/170
Rated frequency	Hz	50-60
Rated main busbar current (40 °C)	A	3150
Rated branch connection current (40 °C)	A	2500
Arc proof withstand current	kA x 1 s	31.5
Rated short-time withstand current (3 s)	kA x 3 s	... 31.5
Overall dimensions of basic cubicle	H [mm]	2600
	W [mm]	1000/1200
	D [mm]	2400/2600



Section 7

SIVAPARS

Low-voltage switchboard



The SIVAPARS low-voltage switchboard is the standard solution for building and industrial technology. As a power distribution board, SIVAPARS is available throughout the world and can be used at all power levels up to 4000 A, as withdrawable as well as plug-in and fixed mounted units.

Type testing

The Sivapars switchgear has successfully passed all the tests specified by relevant IEC standards in IPH Berlin laboratory.

Typical applications:

Chemicals and mineral oil industry	power center and main distribution boards
Power industry	power station and auxiliaries systems
Public/private contractors	building systems
Capital goods industry	production-oriented systems

SIVAPARS offers advantages that set new standards:

Type-tested acc. IEC 61439

Standardized busbar position at the top of the cubicle

Deep switchgear compartment for universal installation

Modular structure of device compartments

Single-front and back-to-back installation

Cable supply from above or below

The SIVAPARS framework and cladding system:

Frame and enclosure are manufactured from sheet steel in the following thicknesses:

Frame 2.5 mm
Enclosure 2.0 mm
Door 2.0 mm
IP 41 standard

Function		
Circuit-breaker design	FCB1 BC FCB2/3, FCB2BC	1 ACB/cubicle 1 BC (1 ACB/cubicle) 2/3 ACB/cubicle
Fixed-mounted design	OFF1 OFF2 OFF3 OFF4 OFFD1/2	- - - - -
Reactive power compensation	PFC	-
Plug-in design	OFPD OFPM	- -
Withdrawable unit design	OFW	-
Cubicle for customized solution	CCS	-

Cubicle type	Abbreviation
feeder Circuit-Breaker	
for 1 circuit-breaker (fixed-mounted or withdrawable)FCB1	FCB1
for 2 circuit-breaker (fixed-mounted or withdrawable)FCB2	FCB2
for 3 circuit-breaker (fixed-mounted or withdrawable)FCB3	FCB3
feeder Circuit-Breaker and Bus Couplers for 2 circuit-breaker FCB2BC	FCB2BC
Bus Couplers for circuit-breaker (fixed-mounted or withdrawable)	BC
Outgoing feeder FesteinbauFixed-Mounted	
with internal separation type 2	OFF1
with internal separation type 4	OFF2
with internal separation type 3/4	OFF3
cable connection at rear, BS with internal separation type 3/4	OFF4
in-line disconnectors 3NJ4 up to 160 AO	OFFD1
in-line disconnectors 3NJ4 up to 630 AO	OFFD2
Plug-in - in-line disconnectors	OFPD
Power Factor Correction Cubicles Fixed-Mounted	PFC
Cubicle for Customized Solutions	CCS
Outgoing Feeder Plu-in Plug-in modules	OFPM
Withdrawable	OFW
Corner Cubicle	CC

Low Voltage Switchgear SIVAPARS

Technical information

Reference standards	type-tested switchgear and controlgear assembley	IEC-61439-1 IEC 61439-2 IEC 60529

Electrical

Rated voltages	rated impulse withstand voltage	Uimp = 8 kV
	Rated insulation voltage	Ui = 1000 V
	Rated operational voltage	Ue = up to 690 V
	Max. test voltage	2200 V, 5 sec
Rated current	main horizontal busbars	
	Rated current	In = 4000A
	Rated peak withstand current	Ipk = 250 kA
	Rated short-time withstand current	Icw = 100 kA, 1s
	Vertical busbars fixed system	
	Rated current	In = 4000A
	Rated peak withstand current	Ipk = 250 kA
	Rated short-time withstand current	Icw = 100 kA, 1s
	Vertical busbars	
	Removable & withdrawable system	
	Rated current	In = 1200A
	Rated peak withstand current	Ipk = 163 kA
	Rated short-time withstand current	Icw = 65 kA, 1s

Mechanical

internal separation	IEC 61439-2 (2009-01)	Sub clause 8.101 Annex AA
Degree of protection	IEC 60529	IP 2X up to IP 41
Materials	Doors	Painted steel 2mm
	Framework	Galvanized sheet 2.5mm
	Mounting plates	Galvanize sheet 2 or 2.5mm
	Rear plates	Galvanized sheet 2mm
	Top plates	Galvanized sheet 1 and 2.5mm
Colour	doors	RAL 7032 RAL 7035
Dimensions (mm)	Height	2200
	Width	400, 600, 800, 1000
	Depth	600, 800, 1000, 1200
Service conditions	installation	Internal(Indoor)
	Ambient temperature	+5 to +40 C
	Relative humidity	10% to 98% at 50 C
	Altitude	2200m with load reductin factor 0.88



Section 8

Other Products



Name of Panel	Outdoor Box (DS, ES/DS, ACFB, OPL, MARSHALING)
Type of panel	Outdoor, Support Mounted
Dimensions	1000×500×1400, 1200×300×700, 600×300×700, 700×400×900,700×800×1200 and other dimentions
degree of protection	IP54



Name of Panel	Indoor Box(DCFB,INDOOR LIGHTING)
Type of panel	Indoor,Wall Mounted
Dimensions	400×200×400, 600×250×800, 600×350×800 ,800×250×1000, 800×350×1000 and other dimentions
degree of protection	IP42



Name of Panel	Control Panel
Type of panel	Fixed Standing (NON- Swing)
Dimensions	800×800×2200, 1000×800×2200
degree of protection	IP42



Name of Panel	Dist. Panel(LVAC , LVDC)
Type of panel	Fixed Standing (NON-Swing)
Dimensions	800×800×2200 , 600×800×2200 , 1000x800x2200
degree of protection	IP42



Name of Panel	Follower Panel
Type of panel	Fixed Standing (NON-Swing)
Dimensions	800×800×2200
degree of protection	IP42



Name of Panel	LCC
Type of panel	NON-Swing Standing - Swing Standing
Dimensions	800×800×2200 , 1200x800x2200
degree of protection	IP42



Name of Panel	Protection Panel
Type of panel	Swing Standing
Dimensions	800×800×2200
degree of protection	IP42



Name of Panel	Scada & Interface
Type of panel	NON-Swing Standing
Dimensions	800×800×2200
degree of protection	IP42



Name of Panel	LV Capacitor Bank
Type of panel	Fixed Standing (NON-Swing)
Dimensions	800×800×2200, 1000×800×2200
degree of protection	IP42



Name of Panel	AVR
Type of panel	Swing Standing
Dimensions	800×800×2200
degree of protection	IP42



Name of Panel	Metering Panel
Type of panel	Swing Standing
Dimensions	800×800×2200
degree of protection	IP42

Certificates





Panel Factory
Noavaran St., Parand Industrial Park,
Tehran-Saveh Highway, Tehran, Iran
Postal Code: 3761913546
Tel. : +98(21) 56418311-20
Fax : +98(21) 56418310

GIS Factory
No.5, Rash St., Farkhondeh St., Sanat Blvd.,
Parand Industrial Park, Tehran, Iran
Postal Code: 3761417873
Tel. : +98(21) 56780244
Fax : +98(21) 89780816

email: info@pars-sanat.com

PSP100 GC 01 Rev.B2021 EN