



ELECTRIFICATION

2023 Life Cycle Management

ABB Italy products

Life Cycle process

Product status plan

ABB's products are designed for continuous evolution. It is ABB's goal to protect our customers' investment beyond the life-cycles of the underlying platform products. Life Cycle Management process is split into four steps in order to allow both ABB and the customers to properly manage the transition from Active to Obsolete in a long term way and avoid a too short swap which may generate critical situations.

Scope of this brochure is to provide life cycle status of all products under responsibility of Service Center: **ABB S.p.A.**

Via Friuli, 4
24044 Dalmine - Italy

Our Service Center is responsible for:

- All designed and manufactured medium voltage product with SACE logo
- Replacement of all MV apparatus produced by ABB Italy Dalmine factory
- Replacement of LV switchgears produced by ABB Italy factories
- Retrofit apparatus for replacing ABB HPA gas insulated circuit breakers and contactors designed and manufactured by ABB Sweden for fitting SafeSix switchgear.

The document is updated once per year according to the latest announced shifts. Special care of the obsolete products is taken in order to support the customers either with spare parts or retrofit solutions with active equipment.

Status	Name	Product	Type	Current status start date	Next shift	
Active	ADVAC	Circuit breaker	Vacuum	-	-	
	AMVAC	Circuit breaker	Vacuum	-	-	
	ConVac	Contactator	Vacuum	-	-	
	DCBreak	Circuit breaker	Magnetic-air	-	-	
	DS1	Capacitor switch	Dry-air	-	-	
	FSK II+	Circuit breaker	Vacuum	-	-	
	GERapid	Circuit breaker	Air	-	-	
	GSec	Switch	SF6	-	-	
	GSH	Circuit breaker	Vacuum	-	-	
	GSR	Circuit breaker	Vacuum	-	-	
	HD4 ⁽¹⁾	Circuit breaker	SF6	-	-	
	Equipment: available	HD4-HXA	Circuit breaker	SF6	-	-
		HySec	Multifunction apparatus	SF6-Vacuum	-	-
	Spare parts: available	MNS 3.0	Switchgear	AIS	-	-
		MNS R 2 nd version	Switchgear	AIS	-	-
		PowerCube/PowerBloc 36/40.5kV ⁽²⁾	Enclosures	AIS	-	-
		PowerCube PB/N-PB/NG	Enclosures	AIS	-	01/07/2023
		Swicom	SWG diagnostic unit	-	-	-
		UniGear R 36/40.5kV	Switchgear	AIS	-	-
		UniSec	Switchgear	AIS	-	-
		VD4 ⁽¹⁾	Circuit breaker	Vacuum	-	-
		VD4G	Circuit breaker	Vacuum	-	-
		VM1 ⁽¹⁾	Circuit breaker	Vacuum	-	-
		VM1/Z8	Circuit breaker	Vacuum	-	-
		Vmax ⁽¹⁾	Circuit breaker	Vacuum	-	-
		VSC	Contactator	Vacuum	-	-
Classic		HD4/C	Circuit breaker	SF6	01/09/2011	-
	HD4-HXB	Circuit breaker	SF6	01/01/2021	-	
	HD4/S	Circuit breaker	SF6	01/01/2021	-	
	HD4/UniAir	Circuit breaker	SF6	01/01/2017	-	
	HD4/UniMix	Circuit breaker	SF6	01/01/2016	-	
	MNS R 1 st version	Switchgear	AIS	-	-	
	Equipment: available	V-Contact V	Contactator	Vacuum	01/09/2011	-
		VD4/C	Circuit breaker	Vacuum	01/09/2011	-
	Spare parts: available	VD4/S	Circuit breaker	Vacuum	01/01/2021	-
		VD4/UniAir-VD4/US	Circuit breaker	Vacuum	01/01/2017	-
		VD4/UniMix	Circuit breaker	Vacuum	01/01/2016	-
		VM1/Z	Circuit breaker	Vacuum	01/01/2021	-
		Vmax fixed P133 IEC	Circuit breaker	Vacuum	01/01/2021	-
		Vmax/Sec	Circuit breaker	Vacuum	01/01/2021	-
		Vmax/W IEC	Circuit breaker	Vacuum	01/01/2021	-

Notes:

⁽¹⁾ With exception of some variants which are in Classic phase

⁽²⁾ Some variants mentioned below will move in Classic phase from 01/07/2023

Status	Name	Product	Type	Current status start date	Next shift
Limited	CBE	Enclosures	AIS	01/02/2010	-
	HD4/SEV-HD4/ESB	Circuit breaker	-	01/01/2021	-
	HD4 Synchro	Circuit breaker	SF6	01/07/2022	-
	HD4/US	Circuit breaker	SF6	01/07/2022	-
	MNS 2.0	Switchgear	AIS	-	-
	Normal Center	Switchgear	AIS	-	-
	PC3.0	Switchgear	AIS	-	-
	S-HD4, EM-L-HD4, EM-U-HD4	Service trucks	SF6	01/01/2019	01/01/2028
	UniMotor enclosure (1)	Enclosures	AIS	01/09/2011	-
	UniSafe	Switchgear	AIS	01/01/2006	-
	UniSwitch version for Belgium	Switchgear	AIS	-	-
	UniSwitch version for France	Switchgear	AIS	01/01/2023	-
	VM1/ZT8	Circuit breaker	Vacuum	01/01/2019	-
	Vmax/RU	Circuit breaker	Vacuum	01/01/2016	-
Obsolete	BEU2	Switchgear	GIS	-	-
	BEU21	Switchgear	GIS	01/01/2018	-
	BEU3	Switchgear	GIS	01/07/2015	-
	CBF	Enclosures	AIS	01/07/2016	-
	CSF1	Switchgear	RMU	-	-
	CSF2	Switchgear	RMU	-	-
	CSFU	Switchgear	RMU	-	-
	DIARC (2)	Circuit breaker	Magnetic-air	-	-
	eVD4	Circuit breaker	Vacuum	01/01/2019	-
	eVM1	Circuit breaker	Vacuum	01/01/2013	-
	HA/BEU for BEU2 and BEU3	Circuit breaker	SF6	01/07/2015	-
	HA1-2-3	Circuit breaker	SF6	31/03/1999	-
	HAD	Circuit breaker	SF6	-	-
	HAR	Circuit breaker	SF6	-	-
	H-Breaking	Circuit breaker	SF6	-	-
	HD4/BE, HX for BEU21	Circuit breaker	SF6	01/01/2019	-
	HM1	Circuit breaker	SF6	01/01/2013	-
	Normal AT	Switchgear	AIS	-	-
	Normal Power	Switchgear	AIS	-	-
	Power Center	Switchgear	AIS	-	-
	PR511	Relay	Digital	-	-
	PR512	Relay	Digital	01/01/2013	-
	PR521	Relay	Digital	01/07/2019	-
	PR521DK	Relay	Digital	-	-
	REF542	Relay	Digital	01/01/2010	-
	REF542plus 1.x	Relay	Digital	-	-
	RG	Circuit breaker	Minimum oil	-	-
	RGE	Circuit breaker	Minimum oil	-	-
	RM	Circuit breaker	Minimum oil	-	-
	S5	Relay	Digital	-	-
	SCU	Relay	Digital	01/01/2010	-
	SFA	Circuit breaker	SF6	-	-
	SFE	Circuit breaker	SF6	-	-
	SHS2	Switch	SF6	01/07/2022	-
SRC	Contacto	SF6	01/04/2012	-	
UniAir	Switchgear	AIS	01/07/2018	-	
UniArc	Switchgear	AIS	01/07/2015	-	
UniMix	Switchgear	AIS	01/07/2022	-	
UniMotor (1)	Switchgear	AIS	01/07/2022	-	
UniSwitch 36	Switchgear	AIS	-	-	
UniSwitch up to 24kV	Switchgear	AIS	01/07/2022	-	
Univer C	Switchgear	AIS	01/07/2022	-	
Univer G12	Switchgear	AIS	01/07/2022	-	
Univer G36	Switchgear	AIS	01/07/2015	-	
VRB	Circuit breaker	Vacuum	-	-	
VRC	Contacto	Vacuum	31/03/1999	-	
ZS1 (3)	Switchgear	AIS	01/07/2015	-	

Notes:

(1) Replacement of enclosure manufactured after 1985 is available

(2) Circuit breakers manufactured before 1984 include asbestos components inside the arc-chutes

(3) ZS1 switchgear is different from UniGear ZS1 which is active

Spare parts and retrofit solution availability

Products details

Spare parts have been categorized into groups as per the following:

- Poles: assembly parts in which main interruptive components are installed in
- Mechanism: operating mechanism which drives the interruptive parts
- Auxiliary equipment: LV equipment onboard the operating mechanism (spring charging motor, coils, magnets, contacts, etc.)
- Tulip contacts: moving contacts onboard the apparatus arms
- Complete device: for those products which cannot be split into sub-assemblies
- Monoblocs: spouts, shutters and branches
- Earthing switch: earthing switch and relevant accessories

- Line disconnecter: line disconnecter and relevant accessories
- LV compartment devices: protection relay, auxiliary relays, MCB and terminal board

The following charts give an overview of the currently available spare parts in our stock and retrofit solutions for replacing phased-out equipment with active products. Spare parts in "Not ensured" status could become "Not available" during the year depending on requests. Please contact ABB for checking availability. See relevant 2023 Life Cycle Management for marine application.

Obsolete apparatus and relay				Active products		Spare parts		
Name	Product	Type	Retrofit solution	Poles (*)	Mechanism	Auxiliary equipment	Tulip contacts	Complete device
DIARC ⁽¹⁾ ⁽²⁾ ⁽⁴⁾	Circuit breaker	Magnetic-air	HD4, VD4					
eVD4	Circuit breaker	Vacuum	VD4 Digitup					
eVM1	Circuit breaker	Vacuum	VM1+met.&prot.					
HA/BEU	Circuit breaker	SF6	HD4/BEU available only for HA3/BEU 24/36kV 1250A 25/32kA					
HA1-2-3	Circuit breaker	SF6	HD4, VD4					
HAD	Circuit breaker	SF6	HD4, VD4					
HAR	Circuit breaker	SF6	HD4, VD4					
H-Breaking	Circuit breaker	SF6	HD4, VD4					
HD4/BE, HX per BEU21	Circuit breaker	SF6	n.o.					
HM1	Circuit breaker	SF6	n.o.					
PR511 ⁽²⁾	Relay	Digital	REF601					
PR512 ⁽²⁾	Relay	Digital	REF601, REJ603					
PR521	Relay	Digital	REF601, REJ603					
PR521DK	Relay	Digital	REF601 CEI 0-16 version					
REF542 ⁽²⁾	Relay	Digital	REF542plus release 3.0, Relion® family					
REF542plus release 1.x ⁽²⁾	Relay	Digital	REF542plus release 3,0, Relion® family					

Notes:

⁽¹⁾ Arc chambers are not available

⁽²⁾ Replacement with site adaptations

⁽³⁾ AE mechanism and its components are not available

⁽⁴⁾ ER mechanism and its components are not available

^(*) These parts must be replaced by sending the equipment/unit to our Service unit in Dalmine

	Not available
	Not ensured
	Available
	Not applicable

Obsolete apparatus and relay			Active products	Spare parts				
Name	Product	Type	Retrofit solution	Poles	Mechanism	Auxiliary equipment	Tulip contacts	Complete device
RG ⁽¹⁾ ⁽⁵⁾ ⁽⁶⁾	Circuit breaker	Minimum oil	HD4, VD4					
RGE ⁽²⁾ ⁽⁵⁾ ⁽⁶⁾	Circuit breaker	Minimum oil	OVB-VBF					
RM ⁽³⁾ ⁽⁶⁾	Circuit breaker	Minimum oil	HD4, VD4					
S5 ⁽²⁾	Relay	Digital	REF601					
SCU ⁽²⁾	Relay	Digital	REF542plus release 3.0, Relion® family					
SFA ⁽⁵⁾	Circuit breaker	SF6	HD4, VD4					
SFE ⁽²⁾	Circuit breaker	SF6	OVB-VBF					
SHS2	Switch	SF6	UniSec					
SRC ⁽⁴⁾	Contacteur	SF6	V-Contact VSC					
VRB ⁽⁴⁾	Circuit breaker	Vacuum	HD4, VD4					
VRC ⁽²⁾ ⁽⁴⁾	Contacteur	Vacuum	V-Contact family					

Notes:

- ⁽¹⁾ Arc chambers are not available
- ⁽²⁾ Replacement with site adaptations
- ⁽³⁾ AE mechanism and its components are not available, no more maintenance activity on it
- ⁽⁴⁾ Vacuum interrupters are not available
- ⁽⁵⁾ ER mechanism and its components are not available, no more maintenance activity on it
- ⁽⁶⁾ No more maintenance activity on this apparatus type

	Not available
	Not ensured
	Available
	Not applicable

Obsolete medium voltage switchgears				Active products	Spare parts				
Name	Product	Type	Replacement solution	Monoblocs	Earthing switch	Line disconnector	LV compartment devices	Circuit breaker or retrofit solution (*)	
BEU2 ⁽¹⁾	Switchgear	GIS	ZX family						
BEU21 ⁽¹⁾	Switchgear	GIS	ZX family						
BEU3 ⁽¹⁾ ⁽⁶⁾	Switchgear	GIS	ZX2 family						
CSF1 ⁽¹⁾ ⁽⁶⁾	Switchgear	RMU	SafeRing, SafePlus						
CSF2 ⁽¹⁾ ⁽⁶⁾	Switchgear	RMU	SafeRing, SafePlus						
CSFU ⁽¹⁾ ⁽⁶⁾	Switchgear	RMU	SafeRing, SafePlus						
Normal AT ⁽¹⁾	Switchgear	AIS	UniSec						
UniAir ⁽¹⁾	Switchgear	AIS	UniSec						
UniArc ⁽¹⁾	Switchgear	AIS	UniGear ZS1						
UniMix ⁽¹⁾	Switchgear	AIS	UniSec						
UniMotor ⁽¹⁾	Switchgear	AIS	UniGear MCC, UniSec						
UniSwitch ⁽¹⁾	Switchgear	AIS	UniSec						
UniSwitch 36 ⁽¹⁾	Switchgear	AIS	UniGear						
UniVer C ⁽¹⁾	Switchgear	AIS	UniGear ZS1, UniSec						
UniVer G12 ⁽¹⁾	Switchgear	AIS	UniGear ZS1, UniSec						
UniVer G36 ⁽¹⁾	Switchgear	AIS	UniGear ZS3.2						
ZS1 ⁽¹⁾	Switchgear	AIS	UniGear ZS1						

Notes:

- ⁽¹⁾ Replacement with site adaptations
- ⁽⁶⁾ Line disconnector and earthing switch are included in the inox compartment
- ^(*) Please refer to previous tables for checking availability of circuit breakers and relevant spare parts or retrofit solutions

	Not available
	Not ensured
	Available
	Not applicable

Spare parts and retrofit solution availability

Products details

Obsolete low voltage switchgears			Active products	Spares		
Name	Product	Type	Replacement solution	Drawers	Fixed cubicle	Circuit breaker replacement kit
Normal Power	Switchgear	AIS	MNS R	Not available	Not available	Not ensured
Power Center	Switchgear	AIS	MNS R	Not available	Not available	Not ensured

Not available
Not ensured

Life cycle services

Tailor-made services for every life cycle stage

The whole world of ABB services hereby represented is at your disposal for making the best use of ABB medium voltage assets at every life cycle stage:

Active

- Long-term support thanks to Power Care customer support agreements
- Extended warranty application
- Worldwide Service competence, ready for prompt actuation
- Certified ABB spare parts ready in stock to guarantee their availability throughout the product life time

Classic

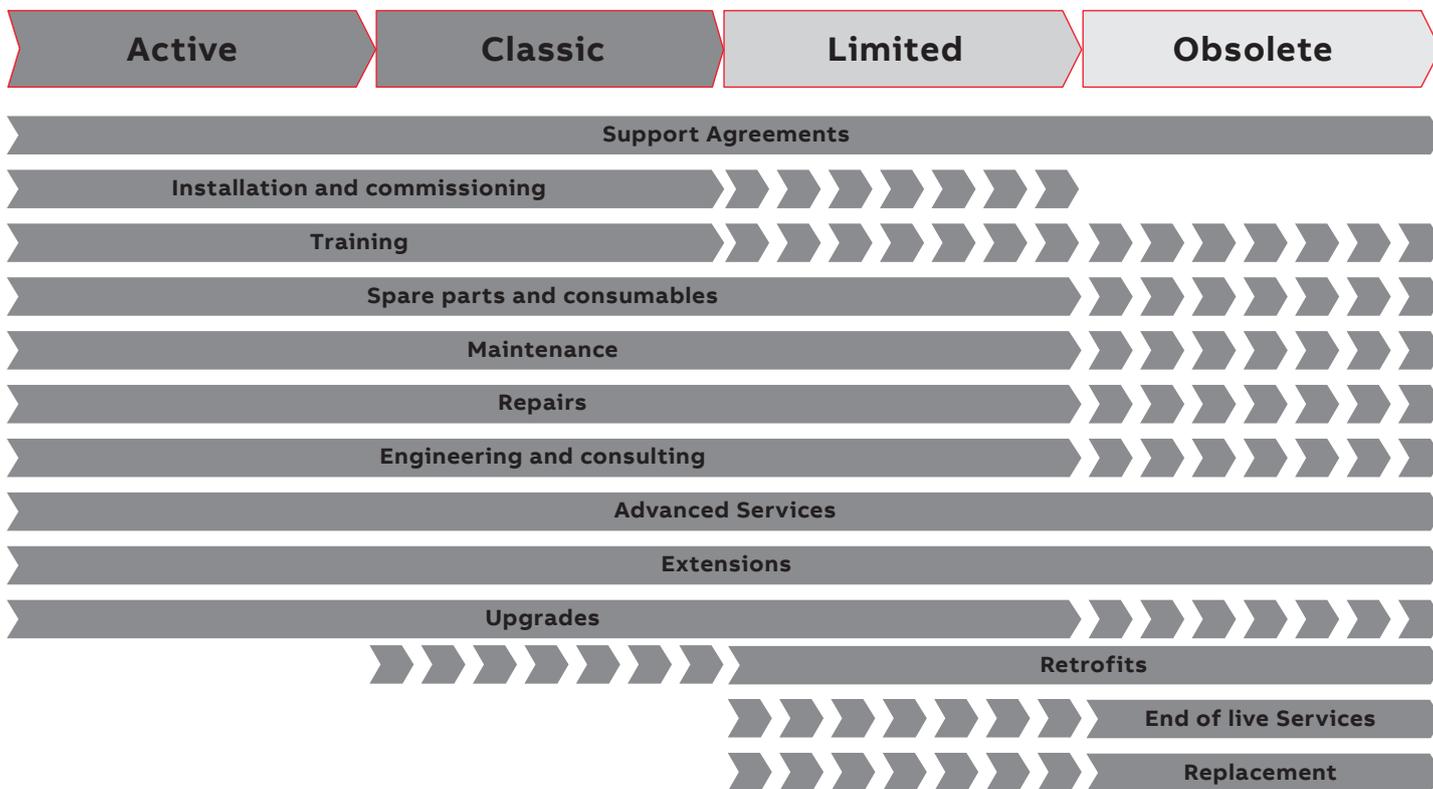
- “Last Buy” opportunity of complete equipment
- Spare parts availability as per active product conditions
- Time to keep equipment healthy via Power Care customer support agreements
- Call for training with wide coverage thanks to worldwide footprint still available.

Limited

- Spare parts fully available
- Retrofit solutions can already be applied
- Power Care customer support agreements designed to keep the service experience as per active products

Obsolete

- Spare parts could be still accessible on request.
- Retrofit solutions are usually available. The use of active products allows a new life to be given to the plants.
- Our consultancy services are always available for supporting cost-effective and optimized investments. Special care is given to obtain a soft shift to new applications and solutions.





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More product information:
abb.com/mediumvoltage
Your contact center:
abb.com/contactcenters
More service information:
abb.com/service



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