

ELECTRIFICATION - DISTRIBUTION SOLUTION

2022 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 of ELDS Products: **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
- 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	Contactors	Vacuum	-	-
	DCBreak	Circuit breaker	Magnetic-air	-	-
	DS1	Capacitor switch	Dry-air	-	-
	GSec	Switch	SF6	-	-
	HD4 ⁽¹⁾	Circuit breaker	SF6	-	-
	HD4 Synchro ⁽²⁾	Circuit breaker	SF6	-	01/07/2022
	HD4-HXA	Circuit breaker	SF6	-	01/01/2023
	HySec	Multifunction apparatus	SF6-Vacuum	-	-
Equipment: available	MySiteCare	CB diagnostic unit	-	-	-
	MNS 3.0	Switchgear	AIS	-	-
Spare parts: available	MNS R 2 nd version	Switchgear	AIS	-	-
	PowerCube/PowerBloc 36/40.5kV	Enclosures	AIS	-	-
	Swicom	SWG diagnostic unit	-	-	-
	UniGear ZS1	Switchgear	AIS	-	-
	UniSec	Switchgear	AIS	-	-
	VD4 ⁽¹⁾	Circuit breaker	Vacuum	-	-
	VD4G	Circuit breaker	Vacuum	-	-
	VM1 ⁽¹⁾	Circuit breaker	Vacuum	-	-
	VM1/Z8	Circuit breaker	Vacuum	-	01/01/2023
	Vmax ⁽¹⁾	Circuit breaker	Vacuum	-	-
	VSC	Contactors	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	-
	HD4/US	Circuit breaker	SF6	01/01/2021	01/07/2022
	MNS R 1 st version	Switchgear	AIS	-	-
	UniSwitch version for France	Switchgear	AIS	01/01/2022	01/01/2023
	V-Contact V	Contactors	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) It will be moved in Limited status

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	-	
	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	
	SHS2	Switch	SF6	01/01/2018	01/07/2022	
	UniMix	Switchgear	AIS	01/01/2018	01/07/2022	
Equipment: not insured	UniMotor (¹)	Switchgear	AIS	-	01/07/2022	
	UniMotor enclosure (¹)	Enclosures	AIS	01/09/2011	-	
	UniSafe	Switchgear	AIS	01/01/2006	-	
	UniSwitch up to 24kV	Switchgear	AIS	01/07/2018	01/07/2022	
Spare parts: available	UniSwitch version for Belgium	Switchgear	AIS	01/07/2018	-	
	Univer C	Switchgear	AIS	-	01/07/2022	
	Univer G12	Switchgear	AIS	-	01/07/2022	
	VM1/ZT8	Circuit breaker	Vacuum	01/01/2018	-	
	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	-	-	
	Equipment: not available	Power Center	Switchgear	AIS	-	-
PR511		Relay	Digital	-	-	
PR512		Relay	Digital	01/01/2013	-	
Spare parts: not insured		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	-	-	
SRC		Contactactor	SF6	01/04/2012	-	
UniAir		Switchgear	AIS	01/07/2018	-	
UniArc		Switchgear	AIS	01/07/2015	-	
UniSwitch 36		Switchgear	AIS	-	-	
Univer G36		Switchgear	AIS	01/07/2015	-	
VRB		Circuit breaker	Vacuum	-	-	
VRC	Contactactor	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 2018 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) (³) (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 ⁽³⁾ ⁽⁶⁾	Circuit breaker	Minimum oil	HD4, VD4					
RGE ⁽³⁾ ⁽⁶⁾	Circuit breaker	Minimum oil	OV8-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 ⁽²⁾	Circuit breaker	SF6	HD4, VD4					
SFE ⁽²⁾	Circuit breaker	SF6	OV8-VBF					
SRC ⁽²⁾	Contacteur	SF6	V-Contact VSC					
VRB ⁽⁴⁾	Circuit breaker	Vacuum	HD4, VD4					
VRC ⁽³⁾ ⁽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					
UniSwitch 36 ⁽¹⁾	Switchgear	AIS	UniGear					
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

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				
Power Center	Switchgear	AIS	MNS R				

	Not available
	Not ensured

Lyfe 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

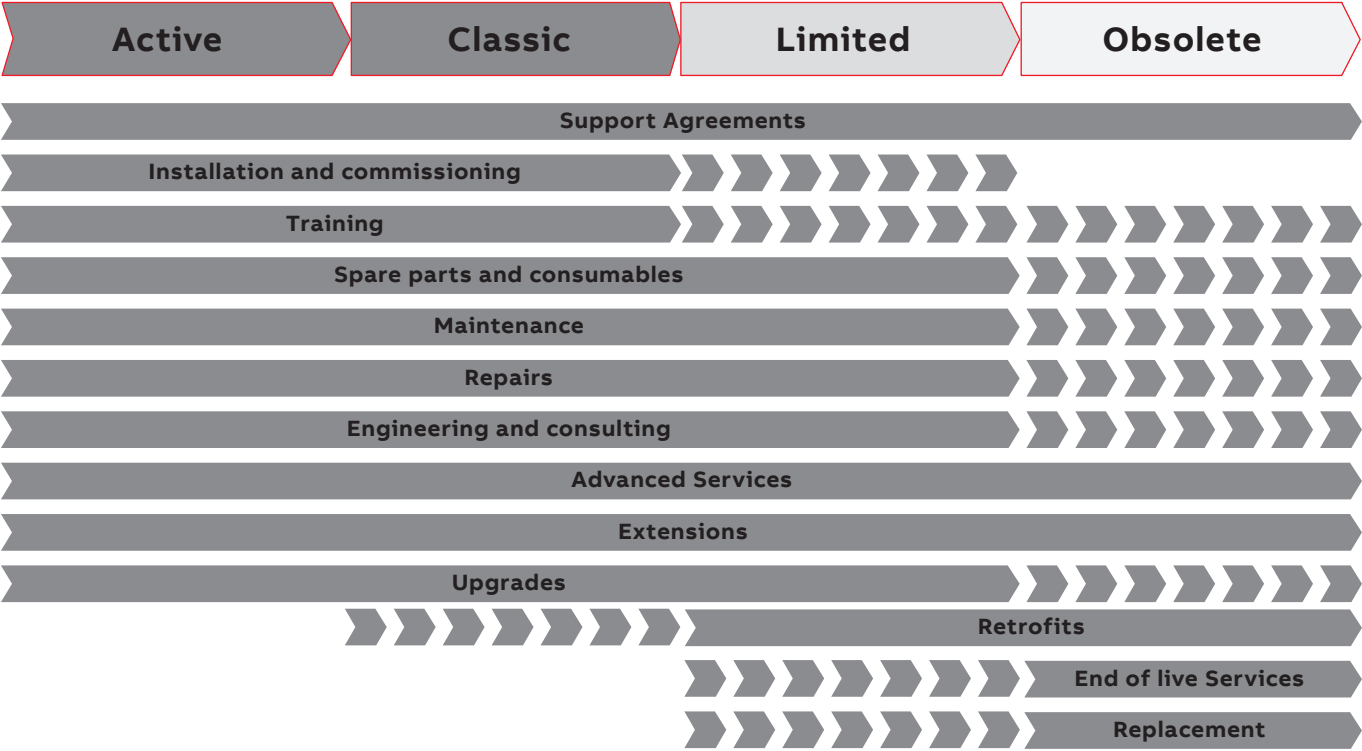
- “Last Buy” opportunity of complete equipment
- Spare parts availability as per active product conditions
- Time to keep equipment healthy via Power Care customer support agreements
- Call for training with wide coverage thanks to worldwide footprint still available.

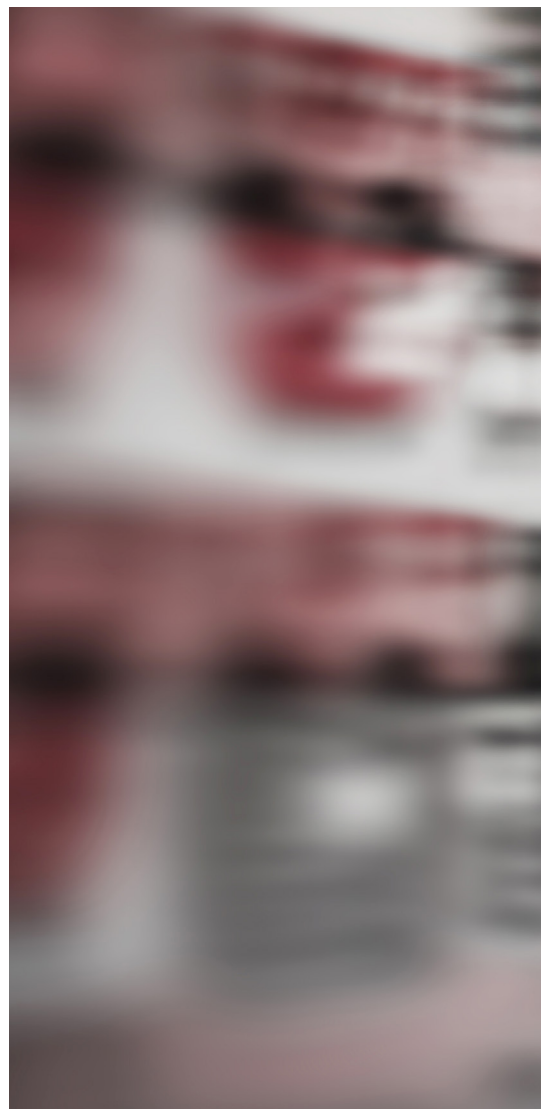
Limited

- 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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