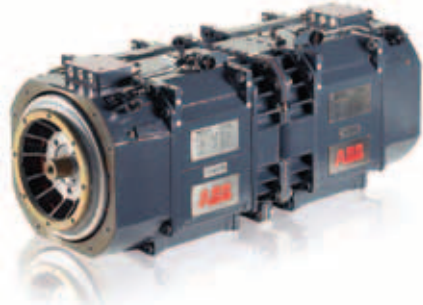


# ABB traction motors Reference list

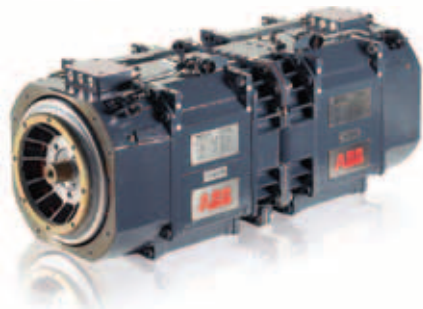
# ABB designed and produced motors

## Monorails, light rail vehicles and tramways



### Project name: Tram Vitoria

Application	Country	No of motors
Tram	ES	100
Power (kW)	Catenary voltage (V)	Cooling method
60	750V DC	CSV
Delivery 1st	Motor type	
2007	4DDA3030	



### Project name: Edinburgh Tram

Application	Country	No of motors
Tram	GB	320
Power (kW)	Catenary voltage (V)	Cooling method
60	1,5kV DC	CSV
Delivery 1st	Motor type	
2009	4DDA3030	



### Project name: Cadiz

Application	Country	No of motors
Trentram	ES	48
Power (kW)	Catenary voltage (V)	Cooling method
172	750V DC	OSV
Delivery 1st	Motor type	
2010	AMX280OSV	



### Project name: Bologna and Nigeria

Application	Country	No of motors
Monorail	IT / NG	40
Power (kW)	Catenary voltage (V)	Cooling method
65	750V DC	OSV
Delivery 1st	Motor type	
2011	AMXM180OSV	

# Metros



## Project name: Caracas

Application	Country	No of motors
Metro	VE	1156
Power (kW)	Catenary voltage (V)	Cooling method
200	750V DC	OSV
Delivery 1st	Motor type	
2010	AMX280OSV	



## Project name: Shenzhen

Application	Country	No of motors
Metro	CN	198
Power (kW)	Catenary voltage (V)	Cooling method
200	1,5kV DC	OSV
Delivery 1st	Motor type	
2010	AMX280OSV	



## Project name: Istanbul

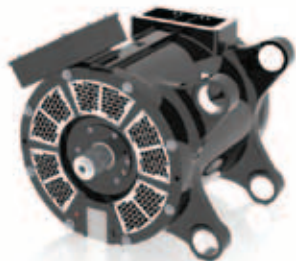
Application	Country	No of motors
Metro	TR	364
Power (kW)	Catenary voltage (V)	Cooling method
152	1,5kV DC	OSV
Delivery 1st	Motor type	
2010	AMX280OSV	



## Project name: Medellin

Application	Country	No of motors
Metro	CO	104
Power (kW)	Catenary voltage (V)	Cooling method
200	1,5kV DC	OSV
Delivery 1st	Motor type	
2011	AMX280OSV	

# Electrical multiple units, very high speed trains and locomotives



## Project name: Regional Train

Application	Country	No of motors
EMU	IT	36
Power (kW)	Catenary voltage (V)	Cooling method
430	3kV DC	OFV
Delivery 1st	Motor type	
2011	AMX315OFV	



## Project name: E464

Application	Country	No of motors
LOC	IT	1870
Power (kW)	Catenary voltage (V)	Cooling method
765	3kV DC	OFV
Delivery 1st	Motor type	
1996	4FIA5267	



## Project name: Vossloh Eurolight

Application	Country	No of motors
LOC	ES	8
Power (kW)	Catenary voltage (V)	Cooling method
600	Diesel electric	OFV
Delivery 1st	Motor type	
2010	4FRA6063	



## Project name: Talgo 350

Application	Country	No of motors
VHST	ES	8
Power (kW)	Catenary voltage (V)	Cooling method
1122	25kV AC	OFV
Delivery 1st	Motor type	
2011	4FBA6050	

# ABB history and total manufacturing record

ABB has been delivering traction motors since 1909. These motors include modular traction motors and frameless traction motors and are used in installations ranging from light tramways to heavy locomotives for intercity expresses and freight.

ABB has manufactured both its own designs and manufactured more than 30.000 traction motors on a subcontracting basis. The work has always been in close interaction with traction converter manufacturers and train manufacturers in order to meet stringent traction requirements.

ABB has also supplied a comprehensive range of products and services to the railway industry and has a long and consistent record of investments in research and development.

## More ABB designed and produced motors

Application	Project name	Country	No of motors	Power (kW)	Catenary voltage (V)	Cooling method	Delivery 1st	Motor type
Shunting Loc	DE145	IT	264	163	DE	OFV	1980	6FRA5271
Metro	MI-Metro 3	IT	96	232	1,5kV DC	OSV	1987	4ELA4035
VHST	ETRY500	IT	16	1100	3kV DC	OFV	1988	4FHA7558
Tram	Tram Strasbourg	FR	1000	38,5	750 VDC	WC	1991	4WXA2522
VHST	ETR500 3 kV	IT	108	1130	3kV DC	OFV	1992	4FHA7558
EMU	Y530	IT	28	455	3kV DC	OFV	1993	4ELA5248
LOC	E412	IT	93	1530	3kV DC	OFV	1993	4FIA7065
VHST	ETR500 B.I.	IT	143	1130	3kV DC	OFV	1994	4FHA6057
EMU	T.A.F.	IT	358	640	3kV DC	OFV	1994	4FBA5257
Tram	Tram Milano	IT	250	45	750 VDC	WC	1996	4WIA2521
Tram	Tram Strasbourg	FR	418	45	750 VDC	WC	1996	4WXA2521
LOC	E412	IT	32	1530	25kV AC	OFV	1997	4FIA7065
VHST	ETRY500	IT	10	1100	25kV AC	OFV	1998	4FHA7558
Tram	Tram Porto	PT	900	27,5	750 VDC	WC	2000	4WIA2522
Tram	MI-Metro	IT	72	45	750 VDC	WC	2001	4WIA2521
EMU	S3500	ES	50	150	1,5kV DC	OSV	2008	4ERA3738
LOC	Bitrac 3600	ES	50	700	3kV DC	OFV	2008	4FHA5267

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