

It is often the case with electrical drives that energy costs make up almost 90% of the overall life-cycle costs. With this in mind, regenerative systems help to reduce the total cost of ownership.



Baumüller's tried-and-tested b maXX automation and drive solution is being expanded with the addition of the new b maXX 4100 series rectifier and regenerative feedback units. These units supplement the b maXX 4400 series, supplying one or more power modules and performing sinusoidal brake energy feedback into the system.

As far as energy costs are concerned, this offers the user the opportunity to make considerable savings over the machine's service life. Regenerative systems also help to lower energy consumption (and do their bit for the environment) by feeding the available brake energy back into the system, rather than converting it into heat via a regenerative resistor.

The b maXX 4100 units are fully integrated into Baumüller's b maXX automation and drive solution. The benefits which the b maXX series offers to its users, i.e., modularity and flexibility, are also provided by the b maXX 4100, thanks to the availability of three different frame sizes covering a DC link power range of 35 kW to 150 kW, the opportunity to select from various cooling methods, such as air or water cooling, and the fact that the b maXX 4100 can be integrated in the Baumüller automation environment by means of various optional fieldbuses. System continuity is ensured by using existing housing technology and connection data, as well as by parameterizing the b maXX 4100 by means of the [ProDrive b maXX operating software](#) that is already used.

- sinusoidal feedback of the brake energy into the system
- three frame sizes from 35 kW to 150 kW
- air or water cooling
- 60 second overload capability
- current-controlled charging connection
- integrated control of charging and main contactors
- integrated regenerative transistor
- monitoring of system, charging connection, main contactor, DC link voltage, and heat sink temperature
- optional fieldbus modules



frame

size 3 4 6



Frame size	Type	DC link power 1)		peak DC link power		overload factor 2)	Dimensions WxHxD 3) [mm]
		[kW]	[hp]	[kW]	[hp]		
3	4135	35	47	52	70	1,5	155 x 510 x 340
4	4145	80	107	104	139	1,3	190 x 624 x 374
6	4163	150	201	195	255	1,3	437 x 815 x 378

Supply voltage:	360 V - 528 V +/- 0% AC	Regenerative transistor:	Integrated
Supply frequency:	45-65 Hz	Electronics supply:	External 19,3 - 30 V DC (diagnostic capability)
Supply rated voltage:	400 V AC	Fan connection	Frame size 3: 24 V DC electronic supply Frame size 4-6: 230 V AC +/- 10%
DC link rated voltage:	640 V DC	Certification	CE, CSA*, UL *
Clock frequency:	8 kHz		

1) For 640 V DC DC link rated voltage 2) For 60 seconds

3) Height and depth without mounting brackets; depth including required bending radius of connecting cables