Manufacturer	Feature Weight	RoboteQ	Featu	Weigl	Dimension	Featu	Weigl	Dimension	Featu	Weigl	Dimension	Featu	Weighted	Featur	Featu	Weigl	RoboteQ	Featu	Weigl	RoboteQ	Featu	Weigl	RoboteQ	Featu	Weighted	Feature Score
Model		ax1500			Sabertooth 2x60			Sabertooth 2x25			SyRen 25			Scorpion XXL V2			SDC2130			SDC1130			MDC2250			
Go/No-Go		Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			
Cost	4	275+ (7)	2	8	190	3	12	125	5	20	75	4	16	160	4	16	175	4	16	125	3	12	395	2	8	
Operating Voltage		12 - 40			6 - 30			6 - 24			6 - 24			6 - 28			7 - 30			10 - 30			10 - 50			
Number of Channels		2			2			2			1			2			2			1			2			
Command Interface	3		4	12		5	15		5	15		5	15		2	6		5	15		5	15		5	15	
uC		?			Yes			Yes			Yes			No			Yes			Yes			Yes			
USB		No			No			No			No			No			Yes, Type B			No			Yes, Type B			
RS-232, Simple		Yes			Yes			Yes			Yes			No			Yes			Yes			Yes			
RS-232, Packet		No			Yes			Yes			Yes			No			Yes			Yes			Yes			
RC		Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			
0 - 5 V Analog		Yes			Yes			Yes			Yes			No			Yes			Yes			Yes			
Control Modes	3		4	12		3	9		3	9		3	9		3	9		4	12		4	12		4	12	
Indep Ch		Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			
O-L		Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			
C-L Position		Yes			No			No			No			No			Yes			Yes			Yes			
C-L Speed		Yes			No			No			No			No			Yes			Yes			Yes			
Current, Max Cont.	4	20	3	12	60	4	16	25	4	16	25	4	16	20	3	12	10	2	8	20	3	12	50	4	16	
Current, Max Trans.	4	30	3	12	120	4	16	50	4	16	45	4	16	45	3	12	20 (5)	3	12	40	4	16	60	4	16	
Current, Surge		150			?			?			?			?			50			100			100			
Current Limiter	4	Yes	5	20	Yes (6)	1	4	Yes (6)	1	4	Yes	4	16	Yes	3	12	Yes	5	20	Yes	5	20	Yes	5	20	
Current Limiter Adjustment	2	Yes	3	6	No	0	0	No	0	0	No	0	0	No	0	0	Yes	3	6	Yes	3	6	Yes	3	6	
Encoder Inputs	3	2 Quad, 25	3	9	No	3	9	No	0	0	No	0	0	No	0	0	2 Quad, 30	3	9	1 Quad, 1 I	3	9	2 Quad, 25	3	9	
Emergency Stop Input	4	Yes	3	12	Yes	3	12	Yes	3	12	Yes	3	12	Yes	3	12	Yes	3	12	Yes	3	12	Yes	3	12	
Digital Inputs	2	2	3	6	0	0	0	0	0	0	0	0	0	0	0	0	6	4	8	6	4	8	6	4	8	
PWM Outputs	4	16 kHz	3	12	24 kHz	3	12	32 kHz	3	12	32 kHz	3	12	? kHz	3	12	32 kHz	3	12	32 kHz	3	12	32 kHz	3	12	
Four Quadrant Operation		Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			
BEC		5 V, 100 mA			5 V, 1 A			5 V, 100 mA			5 V, 100 mA			5 V, ? mA			5 V, 50 mA			5 V, 100 mA			5 V, 200 mA			
Housing/Mounting		No			No			No			No			No			No			No			No			
Notes					(2)									(4)			(5)									
Seller		http://www.robotmarl			http://www.robotmarl			http://www.robotmarketplace.com/products,						http://www.robotmarl			http://www.robotmarl			http://www.roboteq.c			http://www.roboteq.com/brushed-dc-motor-controllers/sdc1130-4			
Alt Seller								http://www.robotgear.com.au/Product.aspx/Details/479																		
Manufacturer		http://www.roboteq.c			http://www.dimensior			http://www.dimensionengineering.com/Sabertooth2X25.htm									http://www.roboteq.c			http://www.roboteq.c			http://www.roboteq.com			
Product Score				121			105			104			112			91			130			134			134

Notes

(1) Since max continuous and max transient current capabilities are well below the NPC-2212 stall current, and no active current limiting, motor controller may be unsuitable.
Presumably, if the motor controller output current is above the max continuous limit for an extended period of time, then the motor controller may enter thermal shutdown, rather than current limiting.

(2) Could handle NPC-2212 operating envelope without current limiting.
For closed-loop speed control (or closed-loop position control), would require uC to process encoder feedback signals and implement closed-loop control laws.

(3) Poor documentation.

(4) No manual?

(5) 20 A for up to 30 s, which far exceeds the time required to execute the worst case/abrupt stopping maneuver.

(6) Sabertooth 2x25 and 2x60 will shut the outputs off if they are thermally above a threshold or if it senses current above the rated maximum. The outputs will stay off until the error condition has lifted.
SyRens are a bit more intelligent in this manner. They measure cycle by cycle and will reduce PWM and output current to compensate if measured current is above the threshold.

(7) Requires Encoder Module Kit, $125

l0a-brushed-dc-motor-controller