Manufacturer	Feature Weight	RoboteQ	Featu	Weigl	Robo Claw	Dimension	Featu	Weigl	Vortex	IFI Robotic	Dimension	Featu	Weigl	Dimension	Featu	Weighted Featur	Featu	Weigl	RoboteQ	Featu	Weigl	RoboteQ	Featu	Weighted Feature Score
Model		ax1500			B0098	Sabertooth 2x60			4QD-VTX-4	Victor 884	Sabertooth 2x25			SyRen 25			Scorpion XXL V2			SDC2130			SDC1130		
Go/No-Go		Yes			No	Yes			No	No	Yes			Yes			Yes			Yes			Yes		
Cost	4	275	2	8	125	190	3	12	124	90	125	5	20	75	4	16	160	4	16	175	4	16	125	3	12
Operating Voltage		12 - 40			6 - 30	6 - 30			12	6 - 15	6 - 24			6 - 24			6 - 28			7 - 30			10 - 30		
Number of Channels		2			2	2			1	1	2			1			2			2			1		
Command Interface	3		4	12			5	15				5	15		5	15		2	6		5	15		5	15
uC		?			Yes	Yes			No	No	Yes			Yes			No			Yes			Yes		
RS-232, Simple		Yes			Yes	Yes			No	No	Yes			Yes			No			Yes			Yes		
RS-232, Packet		No			Yes	Yes			No	No	Yes			Yes			No			Yes			Yes		
RC		Yes			Yes	Yes			No	Yes	Yes			Yes			Yes			Yes			Yes		
0 - 5 V Analog		Yes			Yes	Yes			Yes	No	Yes			Yes			No			Yes			Yes		
Control Modes	3		4	12			3	9				3	9		3	9		3	9		4	12		4	12
Indep Ch		Yes			Yes	Yes			N/A	N/A	Yes			Yes			Yes			Yes			Yes		
O-L		Yes			Yes	Yes			Yes	Yes	Yes			Yes			Yes			Yes			Yes		
C-L Position		Yes			Yes	No			No	No	No			No			No			Yes			Yes		
C-L Speed		Yes			Yes	No			No	No	No			No			No			Yes			Yes		
Current, Max Cont.	**4**	**20**	**3**	**12**	**25**	**60**	**4**	**16**	**20**	**40**	**25**	**4**	**16**	**25**	**4**	**16**	**20**	**3**	**12**	15 (5)	**2**	**8**	**20**	**3**	**12**
Current, Max Trans.	4	30	3	12	30	120	4	16	35 ?	?	50	4	16	45	4	16	45	3	12	20 (5)	3	12	40	4	16
Current, Surge		150			?	?			?	?	?			?			?			50 (5)			100		
Current Limiter	4	Yes	5	20	No	Yes (6)	1	4	No	No	Yes (6)	1	4	Yes	4	16	Yes	3	12	Yes	5	20	Yes	5	20
Current Limiter Adjustment	2	Yes	3	6	No	No	0	0	No	No	No	0	0	No	0	0	No	0	0	Yes	3	6	Yes	3	6
Encoder Inputs	3	2 Quad, 25	3	9	2 Quad, 15	No	3	9	No	No	No	0	0	No	0	0	No	0	0	2 Quad, 30	3	9	1 Quad, 1 I	3	9
Emergency Stop Input	4	Yes	3	12	No/Ext. Re	Yes	3	12	Yes	No/Ext. Re	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	0	0	0	6	4	8	6	4	8
PWM Outputs	4	16 kHz	3	12	? kHz	24 kHz	3	12	20 kHz	? kHz	32 kHz	3	12	32 kHz	3	12	? kHz	3	12	32 kHz	3	12	32 kHz	3	12
Four Quadrant Operation		**Yes**			**Yes**	**Yes**			**Yes**	**Yes**	**Yes**			**Yes**			**Yes**			**Yes**			**Yes**		
BEC		5 V, 100 mA			5 V, 100 m	5 V, 1 A			No	No	5 V, 100 mA			5 V, 100 mA			5 V, ? mA			5 V, 50 mA			5 V, 100 mA		
Housing/Mounting		No			No	No			No	Yes	No			No			No			No			No		
Notes					(1)	(2)			(3)								(4)			(5)			(5)		
Seller		http://www.robotmar			http://ww	http://www.robotmar			http://ww	http://ww	http://www.robotmarketplace.com/products						http://www.robotmar			http://www.robotmar			http://www.roboteq.com/brushed-dc-motor-controller		
Alt Seller											http://www.robotgear.com.au/Product.aspx/Details/479														
Manufacturer		http://www.roboteq.com				http://www.dimensionengineering.com/Sab					http://www.dimensionengineering.com/Sabertooth2X25.htm									http://www.roboteq.c			http://www.roboteq.com		
Product Score				121				105					104			112			91			130		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.

s/sdc1130-40a-brushed-dc-motor-controller