

MOTOR CONTROLLERS & POWER ELECTRONICS

Product offering



On-board Charger

AC <-> DC Converter

AC Motor Controller

Integrated Motor Controller

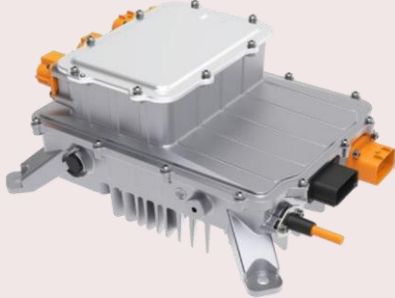
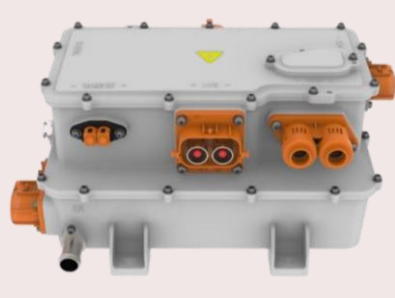
DC Brushed & Brushless Motor Controller



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3-in-1 On board Charger

Application: EV and machinery; converts High voltage battery power to Low voltage power, supplies LV systems, and charges LV batteries

Model	3.3OBC3-1	11DCDC2-1
Function	OBC+DCDC+PDU 3in1	OBC+DCDC 2in1
Inverter DC to AC power	3.3KW	11KW
DCDC Power	1.0-2.0kw	3.0-6.0kw
Input Voltage	220-450v 440v/800v	220-450v 440v/800v
Cooling	Air/Liquid	Liquid
		

PROYAKA CHARGER

Compact, light, high efficiency



3 in 1 combo

- On Board Charger (OBC)
- DCDC Converter (DC-DC)
- Power Distribution Unit (PDU) - Optional

High power off-highway HV-LV converter platform for 220-800 V machines, delivering robust 24 V / 12 V auxiliary power with lower integration effort, higher uptime.
3 series available, classified by the peak power output:

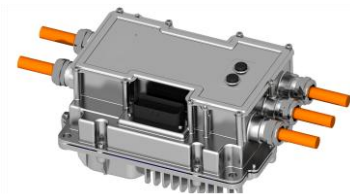
2.2/3.3KW

6.6KW

11KW

FLAC80600 Generator controller

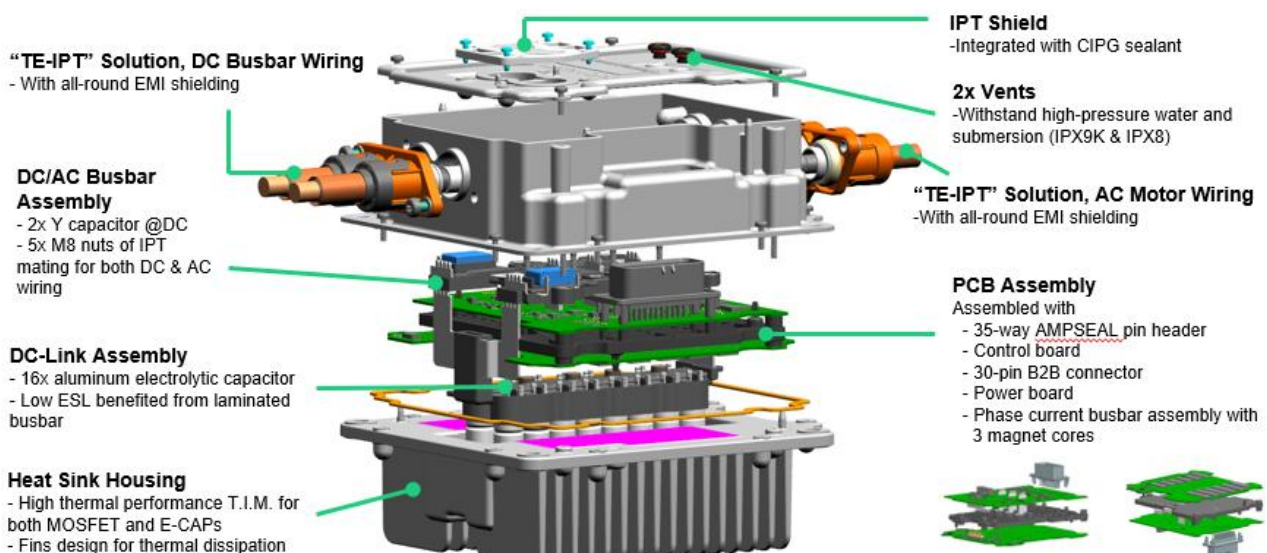
48/72/96/115V



FLAC80600	Unit	Parameters
Operation Voltage	Vdc	48V (36-60V) ;80V (60-90V) 96V (80-110V);115V (90-135V)
Peak Current of Phase/L-L(30s)	Arms	800
Peak Current of Phase/L-L(2min)	Arms	600
Peak DC Current(30s)	A	500
Conts. Current of Phase/L-L(60min)	Arms	190
Conts. DC Current(60min)	A	180
Electrical Frequency	Hz	800
Motor control Method	/	SVPWM
Switch Frequency	kHz	10 (configurable)
Ambient Temperature	°C	-40~65°C
Max. Efficiency	%	98%
Cooling	/	Passive cooling
IP Level	/	IP67
Weight	Kg	5
Dimension W x L x H	mm	248mm x 210mm x 124mm
Case Construction	/	Cast Aluminum Alloy
Position Sensor Supported	/	1. Resolver; 2. Encoder sin/cos; 3. Eddy Current Sensor
Motor Phases	/	3
Platform	/	Infineon AURIX™ MCU
IoT device	/	BLT+APP
I/O Connector	/	35pin,DI/AI/PWM/ HB/HSD+LSD/5V-OUT/ 12V-OUT supported by MCU TC367
Communication	/	Customer Specific
Functionality	/	Torque control/Speed control/ Regen mode /Anti -Rolling Control/Hill Descent Control
Logic Voltage supply	Vdc	INT/EXT. 9-16V
Dielectric Withstand	/	1000 Vdc, 1min, leakage current<20mA
Discharge	/	Discharged to 60Vdc in 5mins
Vibration	/	Max.5g, refer to GB/T 18488:2024(IEC60068-2:2019)
Safety	/	Designed to the requirements of EN ISO13849-1:2015;EN 1175:2020
EMC	/	Designed to the requirements of EN12895:2015+A1:2019
Design Life	/	8000h,Continuous operation w/o any fault

PROYAKA CONTROLLER

FLAC80 Series Controller Design



AC Motor Controller

CANBUS

24~72V

IP65

A8/ A5 / A2

The A series AC motor controller using FOC vector algorithm, automatically identify parameter from AC motors, generates the maximum possible torque and efficiency across the entire speed range, provides excellent drive experience, improved speed regulation, increased grade-ability, extended life of build-in relays and MOSFET units. A series offers fault detect function, supports over-voltage, under-voltage, over current, overheated and Reverse polarity protection.



P/N	Size DxWxH(mm)	Nominal Battery Voltage (V)	2MinuteRMS Current Rating(A)	60MinuteRMS Current Rating(A)
A8-550xIM	275*205*91.5	48~72	500	225
A8-565xIM	275*205*91.5	48~72	650	275

P/N	Size DxWxH(mm)	Nominal Battery Voltage (V)	2MinuteRMS Current Rating(A)	60MinuteRMS Current Rating(A)
A5-435xIM	193*175*78	36~48	350	150
A5-440xIM	193*175*78	36~48	400	175
A5-535xIM	193*175*78	48~72	350	150
A5-540xIM	193*175*78	48~72	400	175

P/N	Size DxWxH(mm)	Nominal Battery Voltage (V)	2MinuteRMS Current Rating(A)	60MinuteRMS Current Rating(A)
A2-222xIM	142*192*70	24	225	100
A2-230xIM	142*192*70	24	300	125
A2-422xIM	142*192*70	36~48	225	100
A2-430xIM	142*192*70	36~48	300	125
A2-522xIM	142*192*70	48~72	225	100
A2-530xIM	142*192*70	48~72	300	125

PROYAKA CONTROLLER

Other Specs

Sensor	Incremental encoder
Communication	CAN
Working / Storage Temperature	-30°C~55°C/-40°C~85°C
IP Rating	IP65
Efficiency	97%
Control Method	IFO Vector

Application



Personnel Carriers



Golf Cars



Lift Truck



Light On-road

Integrated/Sweeper-Scrubber Motor Controller

CANBUS

24~36V

IP65

DN28 - XD515 / XD510 / XD350 / XD250 / XD240

The DN28 series motor controllers are for floor care machines like sweeper and scrubber.

Superior hardware and algorithm design prevent damages from short circuit, over voltage, over current, wiring error etc. Testings of aging, thermal shock, vibration, which ensured high reliability.

The controllers supports CAN bus control, programmable and customizable, and compatible with panel, IoT, BMS equipments.

	P/N	SIZE D*W*H(mm)	Nominal Battery Voltage (V)	Motor	30s RMS Current (A)	60min RMS Current(A)
	DN28-XD515	274.3*169.3*55	24~36	Traction	150	50
				Brush	100	50
				Brush lift	20	10
				Squeegee lift	20	10
	DN28-XD510	196*130*48	24~36	Traction	100	50
				Brush	100	50
				Vacuum	50	30
				Brush lift	20	10
				Squeegee lift	20	10
	DN28-XD350	128*75*43	24	Traction	100	40
	DN28-XD350A			Traction	70	35
	P/N	SIZE D*W*H(mm)	Nominal Battery Voltage (V)	Motor	2 min RMS Current (A)	60min RMS Current(A)
	DN28-XD250	128*75*43	24	Brush	80	35
	DN28-XD240	131*72*38.2	24	Vacuum	80	25
				Brush	45	30
				Vacuum	30	20

PROYAKA CONTROLLER

Other Specs

Communication	CAN (DN28-XD240 is Serial)
Working / Storage Temperature	-25°C~50°C/-40°C~60°C
IP Rating	IP65

Application



Automatic Floor Scrubber



Ride-on Scrubber



Walk-behind Scrubber



Ride-on Sweeper

DC Brushed Motor Controller

CANBUS

24/48V

IP65

D Series (Brushed) & B Series (Brushless)

Proyaka DC brushed and brushless motor controllers are cost-effective but well produced reliable devices. Supports CAN Bus, serial and programmed easy to install and maintenance. It can be used with peace of mind.



D Series(Brushed)						
P/N	SIZE(mm) D*W*H	Nominal Battery Voltage (V)	10s RMS Current(A)	2min RMS Current(A)	60min RMS Current(A)	Comm- unication
D2-3101	131*72*38.2	24	90	50	20	Serial
D2C-3102	131*72*38.2	24	90	50	20	CAN
D2S-3101	131*72*38.2	24	90	50	25	Serial
D2SC-3102	131*72*38.2	24	90	50	25	CAN
D3-2111	128*75*43	24	150	110	50	Serial
D3-2151	128*75*43	24	150	150	60	Serial
D3C-2112	128*75*43	24	150	110	50	CAN
D3C-2152	128*75*43	24	150	150	60	CAN
B Series (Brushless)						
P/N	SIZE(mm) D*W*H	Nominal Battery Voltage (V)	2min RMS Current(A)		60min RMS Current(A)	Comm- unication
B2-4091	150*95*52.5	48	90		50	Serial
B2-4121	150*95*52.5	48	120		50	Serial
B2C-4092	150*95*52.5	48	90		50	CAN
B2C-4122	150*95*52.5	48	120		50	CAN

PROYAKA CONTROLLER

Other Specs

Series	D Series(Brushed)/B Series(Brushless)
Communication	CAN/Serial
Working / Storage Temperature	-25°C~50°C/-40°C~60°C
IP Rating	IP65

Application



Forklifts



Narrow-aisle Forklift



AGV



Mobility Products

Energy Storage Inverter

CANBUS

360V



NBQ360 Single phase 240V series

	Model	Input Vdc	Output Vac	Working environment	Dimensions mm	Output Power Kw	Net Weight Kg	Cooling	Communication	Protection
	NBQ360-2KW	360 V (200-460V)	240V/60Hz	-40°C to 55°C	365 × 230 × 104	2	10	Fan cooling	CAN	IP65
	NBQ360-2.5KW	360 V (200-460V)	240V/60Hz	-40°C to 55°C	473 × 291 × 166	2.5	12	Fan cooling	CAN	IP65
	NBQ360-3KW	360 V (200-460V)	240V/60Hz	-40°C to 55°C	365 × 230 × 104	3	10	Fan cooling	CAN	IP65
	NBQ360-6KW	360 V (200-460V)	240V/60Hz	-40°C to 55°C	473 × 291 × 166	6	20	Fan cooling	CAN	IP65
	NBQ360-12KW	360 V (200-460V)	240V/60Hz	-40°C to 55°C	580 × 373 × 185	12	30	Fan cooling	CAN	IP65

NBQ360 3-phase 380V series

	Model	Input Vdc	Output Vac	Working environment	Dimensions mm	Output Power Kw	Net Weight Kg	Cooling	Communication	Protection
	NBQ380-380-20KW	360 V (200-460V)	380V/60Hz	-40°C to 55°C	480× 420 × 144	20	35	Fan cooling	CAN	IP54 (shock-resistant)
	NBQ380-380-40KW	360 V (200-460V)	380V/60Hz	-40°C to 55°C	560× 390 × 181	40	44	Fan cooling	CAN	IP54 (shock-resistant)
	NBQ380-380-60KW	360 V (200-460V)	380V/60Hz	-40°C to 55°C	580× 530 × 317	60	66	Fan cooling	CAN	IP54 (shock-resistant)
	NBQ380-380-80KW	360 V (200-460V)	380V/60Hz	-40°C to 55°C	580× 530 × 407	80	90	Fan cooling	CAN	IP54 (shock-resistant)
	NBQ380-380-100KW	360 V (200-460V)	380V/60Hz	-40°C to 55°C	580× 530 × 497	100	110	Fan cooling	CAN	IP54 (shock-resistant)
	NBQ380-380-120KW	360 V (200-460V)	380V/60Hz	-40°C to 55°C	580× 530 × 587	120	135	Fan cooling	CAN	IP54 (shock-resistant)
	NBQ380-380-140KW	360 V (200-460V)	380V/60Hz	-40°C to 55°C	580× 530 × 677	140	170	Fan cooling	CAN	IP54 (shock-resistant)
	NBQ380-380-160KW	360 V (200-460V)	380V/60Hz	360 V (200-460V)	580× 530 × 767	160	200	Fan cooling	CAN	IP54 (shock-resistant)

PROYAKA CONVERTER

Energy Storage Inverter

CANBUS

540V



NBQ540 Single phase 240V series

	Model	Input Vdc	Output Vac	Working environment	Dimensions mm	Output Power Kw	Net Weight Kg	Cooling	Communication	Protection
	NBQ540-240-3KW	540 V (300-760V)	240V/60Hz	-40°C to 55°C	310 × 230 × 104	3	10	Fan cooling	CAN	IP65
	NBQ540-240-6.5KW	540 V (300-760V)	240V/60Hz	-40°C to 55°C	341 × 281 × 140	6.5	10	Fan cooling	CAN	IP65
	NBQ540-240-12KW	540 V (300-760V)	240V/60Hz	-40°C to 55°C	362 × 308 × 207	12	18	Fan cooling	CAN	IP65
	NBQ540-240-15KW	540 V (300-760V)	240V/60Hz	-40°C to 55°C	362 × 308 × 207	15	18	Fan cooling	CAN	IP65

NBQ540 3-phase 380V series

	Model	Input Vdc	Output Vac	Working environment	Dimensions mm	Output Power Kw	Net Weight Kg	Cooling	Communication	Protection
	NBQ540-240-20KW	540 V (300-760V)	380V/60Hz	-40°C to 55°C	480 × 420 × 144	20	35	Fan cooling	CAN	IP54 (shock-resistant)
	NBQ540-240-40KW	540 V (300-760V)	380V/60Hz	-40°C to 55°C	560 × 390 × 181	40	44	Fan cooling	CAN	IP54 (shock-resistant)
	NBQ540-240-60KW	540 V (300-760V)	380V/60Hz	-40°C to 55°C	580 × 530 × 317	60	66	Fan cooling	CAN	IP54 (shock-resistant)
	NBQ540-240-80KW	540 V (300-760V)	380V/60Hz	-40°C to 55°C	580 × 530 × 407	80	90	Fan cooling	CAN	IP54 (shock-resistant)

PROYAKA CONVERTER

DCDC converter

KS540 - 27.5V series

	Model	Input Vdc	Output Vdc	Working environment	Dimensions mm	Output Power Kw	Net Weight Kg	Cooling	Communication	Protection
	KS540-27.5-3KW	540 V (300-760V)	13.8V/27.5V	-40°C to 55°C	178 × 201 × 111	3	1.2	Fan cooling	CAN	IP65
	NBQ540-27.5-6KW	540 V (300-760V)	13.8V/27.5V/48V	-40°C to 55°C	380 × 243 × 134	6	1.5	Fan cooling	CAN	IP65