

All dimensions are in mm; Drawing not to scale.

Motor – sensor configurations					
Sensor	Motor				
	PMSM	BLDC	DC BRUSH	STEP (2-ph)	STEP ² (3-ph)
Incr. Encoder	Ⓢ		Ⓢ	Ⓢ	Ⓢ
Incr. Encoder + Hall	Ⓢ	Ⓢ			
Analog Sin/Cos encoder	Ⓢ	Ⓢ	Ⓢ	Ⓢ	Ⓢ
SSI	Ⓢ	Ⓢ	Ⓢ	Ⓢ	Ⓢ
BiSS-C	Ⓢ	Ⓢ	Ⓢ	Ⓢ	Ⓢ
EnDAT ¹	Ⓢ	Ⓢ	Ⓢ	Ⓢ	Ⓢ
Linear Halls ³	Ⓢ				
Tacho			Ⓢ		
Open-loop (no sensor)				Ⓢ	Ⓢ

¹ Available starting with F514K firmware version

² Sensor used only for step loss detection

³ For more details please contact Technosoft

- Features**
 - Motion controller and drive in a single compact unit based on MotionChip™ technology
 - Universal solution for control of rotary and linear brushless, brushed and 2 or 3-phase step motors
 - Advanced motion control capabilities (PVT, S-curve, electronic cam)
 - Motor supply: 11-50V. Logic supply: 9-36V
 - Output current: 8A cont. (BLDC mode); 20A_{PEAK}, up to 100KHz PWM
 - Separate ENABLE circuit: connect both ENA1 and ENA2 inputs to +24V, to allow motor PWM output operation

- Feedback Devices (dual-loop support)
 - 1st feedback devices supported:
 - Incremental encoder interface (single ended or differential)
 - pulse & direction interface (single ended) for external (master) digital reference
 - Analogue sin/cos encoder interface (differential 1V_{pp})
 - Digital Hall sensor interface (single-ended and open collector)
 - 2nd feedback devices supported:
 - Incremental encoder interface (differential)
 - pulse & direction interface (differential) for external (master) digital reference
 - SSI/BISS-C/EnDAT¹ encoder interface
- 6 digital inputs, 12-36V, PNP/NPN programmable: 2 for limit switches, 4 general-purpose
- 5 digital outputs, 5-36V, 0.5A, NPN open-collector: Ready, Error, 3 general-purpose
- 2 analogue inputs: 12-bit, 0-5V: Reference, Feedback or general purpose
- RS-232 serial & CAN-bus 2.0B interfaces
- 16 h/w addresses selectable by h/w rotative hex switch
- TMLCAN and CANopen (CiA 301v4.2 and 402v3.0) protocols selectable by h/w switch
- 16k x 16 SRAM memory for data acquisition
- 16k x 16 E²ROM to store setup data, TML motion programs, cam tables and other user data
- Operating ambient temperature: 0-40°C (over 40°C with derating)
- NTC/PTC analogue Motor Temperature sensor input

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Mating Connectors

Producer	Part No.	Connector	Description	Wire Gauge
MOLEX	39-03-9042	J1	MINIFIT JR. receptacle housing, 2x2 way	AWG 18...20
MOLEX	39-03-9102	J2	MINIFIT JR. receptacle housing, 2x5 way	AWG 18...20
MOLEX	45750-1111	J1, J2	CRIMP PIN, MINIFIT JR., 13A	AWG 18...20
MOLEX	90142-0010	J3, J4	C-Grid III™ Crimp Housing Dual Row, 10 Circuits, with retention	AWG 22...24
	90143-0010		C-Grid III™ Crimp Housing Dual Row, 10 Circuits, without retention	
MOLEX	90119-0109	J3, J4	C-Grid III™ Crimp Terminal	AWG 22...24
MOLEX	43025-1800	J7	MICROFIT RECEPTACLE HOUSING, 2x9 WAY	AWG 20...24
MOLEX	43025-0400	J5, J6, J8, J9	MICROFIT RECEPTACLE HOUSING, 2x2 WAY	AWG 20...24
MOLEX	43030-0007	J5, J6, J7, J8, J9	CRIMP PIN, MICROFIT, 5A	AWG 20...24

Pin	Name	Type	Description
1	Z2-	I	Incr. encoder2 Z- diff. input; has 120Ω resistor between pins 1 and 2
2	Z2+	I	Incr. encoder2 Z+ diff. input; has 120Ω resistor between pins 1 and 2
3	B2-/Dir-/CLK-/MA-	I/O	Incr. encoder2 B- diff. input, or Dir-, or Clock- for SSI & EnDAT, or Master- for BiSS; has 120Ω resistor between pins 3 and 4
4	B2+/Dir+/CLK+/MA+	I/O	Incr. encoder2 B+ diff. input, or Dir+, or Clock+ for SSI & EnDAT, or Master+ for BiSS; has 120Ω resistor between pins 3 and 4
5	A2-/Pulse-/Data-/SL-	I	Incr. encoder2 A- diff. input, or Pulse-, or Data- for SSI & EnDAT, or Slave- for BiSS; has 120Ω resistor between pins 5 and 6
6	A2+/Pulse+/Data+/SL+	I	Incr. encoder2 A+ diff. input, or Pulse+, or Data+ for SSI & EnDAT, or Slave+ for BiSS; has 120Ω resistor between pins 5 and 6
7	GND	-	Return ground for sensors supply
8	FDBK	I	Analogue input, 12-bit, 0-5V. Used to read an analogue position or speed feedback (as tacho), or used as general-purpose analogue input; Also connected to J7 pin12.
9	GND	-	Return ground for sensors supply
10	+5V _{OUT}	O	5V output supply for sensors usage

Pin	Name	Type	Description
1	n.c.	-	J5 pin1 is internally connected only to J6 pin1.
2	GND	-	Return ground for RS-232 pins
3	CAN Hi	I/O	CAN-Bus positive line (dominant high)
4	CAN Lo	I/O	CAN-Bus negative line (dominant low)


Pin	Name	Type	Description
1	IN5	I	12-36V general-purpose digital PNP/NPN input
2	+5V _{OUT}	O	5V output supply for I/O usage
3	REF	I	Analogue input, 12-bit, 0-5V. Used to read an analog position, speed or torque reference, or used as general-purpose analogue input
4	IN0	I	12-36V general-purpose digital PNP/NPN input
5	n.c.	-	not connected
6	IN3/LSN	I	12-36V digital PNP/NPN input. Negative limit switch input
7	OUT2/Error	O	12-36V 0.5A, drive Error output, active low, NPN open-collector/TTL pull-up. Also drives the red Error LED.
8	+V _{Log}	I	Positive terminal of the logic supply: 9 to 36V _{DC} . Also internally connected to J1 pin 3.
9	n.c.	-	not connected
10	IN6	I	12-36V general-purpose digital PNP/NPN input
11	GND	-	Return ground for I/O pins
12	FDBK	I	Analogue input, 12-bit, 0-5V. Used to read an analogue position or speed feedback (as tacho), or used as general-purpose analogue input; Connected also to J4 pin 8.
13	IN1	I	12-36V general-purpose digital PNP/NPN input
14	IN2/LSP	I	12-36V digital PNP/NPN input. Positive limit switch input
15	OUT0	O	5-36V 0.5A, general-purpose digital output, NPN open-collector/TTL pull-up
16	OUT3/Ready	O	5-36V 0.5A, drive Ready output, active low, NPN open-collector/TTL pull-up. Also drives the green Ready LED.
17	OUT1	O	5-36V 0.5A, general-purpose digital output, NPN open-collector/TTL pull-up
18	OUT4	O	5-36V 0.5A, general-purpose digital output, NPN open-collector/TTL pull-up

Connectors Description

Pin	Name	Type	Description
1	GND	-	Negative return (ground) of the power supply
2	GND	-	Negative return (ground) of the power supply
3	+V _{Log}	I	Positive terminal of the logic supply input: 9 to 36V _{DC}
4	+V _{MOT}	I	Positive terminal of the motor supply: 11 to 50V _{DC} .

Pin	Name	Type	Description
1	A/A+	O	Phase A for 3-ph motors, A+ for 2-ph steppers, Motor+ for DC brush motors
2	C/B+	O	Phase C for 3-ph motors, B+ for 2-ph steppers
3	Hall 1	I	Digital input Hall 1 sensor
4	Hall 2	I	Digital input Hall 2 sensor
5	Hall 3	I	Digital input Hall 3 sensor
6	B/A-	O	Phase B for 3-ph motors, A- for 2-ph steppers, Motor- for DC brush motors
7	BR/B-	O	Brake resistor / Phase B- for step motors
8	GND	-	Negative return (ground) of the motor supply
9	+5V _{OUT}	O	5V output supply - internally generated
10	GND	-	Negative return (ground) of the motor supply

Pin	Name	Type	Description
1	Z1-	I	Incr. encoder1 Z- diff. input
2	Z1+	I	Incr. encoder1 Z single-ended, or Z+ diff. input
3	B1-/Cos-	I	Incr. encoder1 B- diff. input, or analogue encoder Cos- diff. input
4	B1+/Cos+/Dir	I	Incr. encoder1 B single-ended, or B+ diff. input, or Dir, or analogue encoder Cos+ diff. input
5	A1-/Sin-	I	Incr. encoder1 A- diff. input, or analogue encoder Sin- diff. input
6	A1+/Sin+/Pulse	I	Incr. encoder1 A single-ended, or A+ diff. input, or Pulse, or analogue encoder Sin+ diff. input
7	GND	-	Return ground for sensors supply
8	Temp Mot	I	NTC/PTC input. Used to read an analog temperature value
9	GND	-	Return ground for sensors supply
10	+5V _{OUT}	O	5V output supply for I/O usage

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Pin	Name	Type	Description
1	232TX	O	RS-232 Data Transmission
2	GND	-	Return ground for RS-232 pins
3	232RX	I	RS-232 Data Reception
4	GND	-	Return ground for RS-232 pins

Pin	Name	Type	Description
1	ENA2	I	Enable circuit input2; connect ENA1&ENA2 to +24V to activate motor operation
2	ENA1	I	Enable circuit input1; connect ENA1&ENA2 to +24V to activate motor operation
3	GND	-	Return ground
4	GND	-	Return ground

Switch	Position	Description
SW1	0..F	H/W Axis ID = 1 to 15 when switch is 1 to F Exception: SW1 = 0 -->Axis ID = 255.

Pin	Position	Description
1	down(ON)	Disable ENA1 functionality. Connects internally +V _{LOG} to ENA1
2	down(ON)	Disable ENA2 functionality. Connects internally +V _{LOG} to ENA2
3	down(ON)	Connect an 120Ω resistor between Z1+ and Z1- feedback pins
4	down(ON)	Connect an 120Ω resistor between B1+ and B1- feedback pins
5	down(ON)	Connect an 120Ω resistor between A1+ and A1- feedback pins
6	down(ON)	Select CANopen communication protocol
	up(OFF)	Select TMLCAN communication protocol
7	down(ON)	Reserved. Must be left on down(ON) position.
8	down(ON)	

Electrical characteristics

All parameters measured under the following conditions (unless otherwise specified):

- V_{LOG} = 24 VDC; V_{MOT} = 48VDC
- Supplies start-up / shutdown sequence: -any-
- Load current (sinusoidal amplitude / continuous BLDC, DC, stepper) = 8A

Operating Conditions		Min.	Typ.	Max.	Units
Ambient temperature		0		40 ^{1,3}	°C
Ambient humidity	Non-condensing	0		90	%Rh
Altitude / pressure ²	Altitude (vs. sea level)	-0.1	0 ÷ 2.5		Km
	Ambient Pressure	0 ²	0.75 ÷ 1	10.0	atm
Storage Conditions		Min.	Typ.	Max.	Units
Ambient temperature		-40		105	°C
Ambient humidity	Non-condensing	0		100	%Rh
Ambient Pressure		0		10.0	atm
ESD capability (Human body model)	Not powered; applies to any accessible part			±0.5	kV
	Original packaging			±15	kV
Mechanical Mounting		Min.	Typ.	Max.	Units
Airflow		natural convection ³ , closed box			
Environmental Characteristics		Min.	Typ.	Max.	Units
Size (Length x Width x Height)	Without mating connectors	88.5 x 77 x 16.4			mm
	With recommended mating connectors.	~3.48 x 3.03 x 0.65			inch
		98 x 85 x 19.5			mm
Weight	Without mating connectors	107			g
	With recommended mating connectors.	~3.86 x 3.35 x 0.77			inch
Power dissipation	Idle (no load)	1.7			W
	Operating	4.3			W
Efficiency		98			%
Cleaning agents	Dry cleaning is recommended	Only Water- or Alcohol- based			
Protection degree	According to IEC60529, UL508	IP20			-

¹ Operating temperature at higher temperatures is possible with reduced current and power ratings

² iPOS4808 can be operated in vacuum (no altitude restriction), but at altitudes over 2,500m, current and power rating are reduced due to thermal dissipation efficiency.

³ In case of forced cooling (conduction or ventilation) the maximum ambient temperature can be increased substantially.

Logic Supply Input (+V _{LOG})		Min.	Typ.	Max.	Units
Supply voltage	Nominal values	9		36	V _{DC}
	Absolute maximum values, drive operating but outside guaranteed parameters	8		40	V _{DC}
	Absolute maximum values, continuous	-0.6		42	V _{DC}
	Absolute maximum values, surge (duration ≤ 10ms) †	-1		+45	V
Supply current	+V _{LOG} = 12V		130		mA
	+V _{LOG} = 24V		90	280	mA
	+V _{LOG} = 40V		85		mA
Motor Supply Input (+V _{MOT})		Min.	Typ.	Max.	Units
Supply voltage	Nominal values	11		50	V _{DC}
	Absolute maximum values, drive operating but outside guaranteed parameters	9		52	V _{DC}
	Absolute maximum values, continuous	-0.6		54	V _{DC}
	Absolute maximum values, surge (duration ≤ 10ms) †	-1		57	V
Supply current	Idle		1	5	mA
	Operating	-20	±8	+20	A
	Absolute maximum value short-circuit condition (duration ≤ 10ms) †			26	A
Motor Outputs (A/A+, B/A-, C/B+, BR/B-)		Min.	Typ.	Max.	Units
Nominal output current, continuous ⁴	for DC brushed, steppers and BLDC motors with Hall-based trapezoidal control			8	A
	for PMSM motors with FOC sinusoidal control (sinusoidal amplitude value)			8	A
	for PMSM motors with FOC sinusoidal control (sinusoidal effective value)			5.66	A
Motor output current, peak	maximum 2.5s	-20		+20	A
Short-circuit protection threshold		±22	±26	±30	A
Short-circuit protection delay		5	10		µs
On-state voltage drop	Nominal output current; including typical mating connector contact resistance		±0.3	±0.5	V
Off-state leakage current			±0.5	±1	mA
Motor inductance (phase-to-phase)	Recommended value, for current ripple max. ±5% of full range; +V _{MOT} = 36 V	F _{PWM}			µH
		20 kHz	330		
		40 kHz	150		
	Minimum value, limited by short-circuit protection; +V _{MOT} = 36 V	20 kHz	120		µH
		60 kHz	40		
		80 kHz	30		
Motor electrical time-constant (L/R)	Recommended value for ±5% current measurement error	20 kHz	250		µs
		40 kHz	125		
		60 kHz	100		
		80 kHz	63		
Current measurement	FS = Full Scale accuracy		±4	±8	%FS

⁴ @20KHz F_{PWM}

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Digital Inputs (IN0, IN1, IN2/LSP, IN3/LSN, IN5, IN6) ¹		Min.	Typ.	Max.	Units		
Mode compliance		PNP					
Default state		Logic LOW					
Input voltage	Logic "LOW"	-36	0	2.4	V		
	Logic "HIGH"	7.5	24	36			
	Hysteresis	1.2	2.4	2.8			
	Floating voltage (not connected)		0				
	Absolute maximum, continuous	-36		+39			
Absolute maximum, surge (duration ≤ 1S) [†]		-50		+50			
Input current	Logic "LOW"; pulled to GND		0		mA		
	Logic "HIGH"; pulled to +24V		8	10			
Mode compliance		NPN					
Default state		Logic HIGH					
Input voltage	Logic "LOW"		0	1.6	V		
	Logic "HIGH"	1.8	24	39			
	Hysteresis	1.2	2.4	2.8			
	Floating voltage (not connected)		15				
	Absolute maximum, continuous	-10		+39			
Absolute maximum, surge (duration ≤ 1S) [†]		-20		+40			
Input current	Logic "LOW"; Pulled to GND		8	10	mA		
	Logic "HIGH"; Internal 12KΩ pull-up to +Vlog	0	0	0			
Input frequency		0		10	kHz		
Minimum pulse		6			μs		
ESD protection	Human body model	±5			kV		
Digital Outputs (OUT0, OUT1, OUT2/Error, OUT3/Ready, OUT4)		Min.	Typ.	Max.	Units		
Mode compliance		TTL / open-collector / NPN 24V					
Default state	Not supplied (+V _{LOG} floating or to GND)	High-Z (floating)					
	Immediately after power-up	OUT0, OUT1, OUT4		Logic "HIGH"			
	Normal operation	OUT2/Error, OUT3/Ready		Logic "LOW"			
		OUT0, OUT1, OUT2/Error		Logic "HIGH"			
OUT3/Ready		Logic "LOW"					
Output voltage	Logic "LOW"; output current = 0.5A			0.8	V		
	Logic "HIGH"; output current = 0, no load	OUT2/Error, OUT3/Ready		2.9		3	3.3
		OUT0, OUT1, OUT4		4		4.5	5
	Logic "HIGH", external load to +V _{LOG}		V _{LOG}				
	Absolute maximum, continuous	-0.5		V _{LOG} +0.5			
Absolute maximum, surge (duration ≤ 1S) [†]		-1		V _{LOG} +1			
Output current	Logic "LOW", sink current			0.5	A		
	Logic "LOW", sink current, pulse ≤ 5 sec.			1	A		
	Logic "HIGH", source current; external load to GND; V _{OUT} ≥ 2.0V	OUT2/Error, OUT3/Ready			2	mA	
		OUT0, OUT1, OUT4			4	mA	
	Logic "HIGH", leakage current; external load to +V _{LOG} ; V _{OUT} = V _{LOG} max = 40V			0.1	0.2	mA	
Minimum pulse width		2			μs		
ESD protection	Human body model	±15			kV		
Digital Hall Inputs (Hall1, Hall2, Hall3)		Min.	Typ.	Max.	Units		
Mode compliance		TTL / CMOS / Open-collector					
Default state		Logic HIGH					
Input voltage	Logic "LOW"		0	0.8	V		
	Logic "HIGH"	2	5				
	Floating voltage (Not connected)		4.4				
	Absolute maximum, surge (duration ≤ 1S) [†]	-10		+15			
Input current	Logic "LOW"; Pull to GND			5	mA		
	Logic "HIGH"; Internal 1KΩ pull-up to +5V	0	0	0			
Minimum pulse width		2			μs		
ESD protection	Human body model	±5			kV		

Encoder1 Inputs (A1/A1+, A1-, B1/B1+, B1-, Z1/Z1+, Z1-)		Min.	Typ.	Max.	Units
Single-ended mode compliance		Leave negative inputs disconnected			
Input voltage, single-ended mode A/A+, B/B+, Z/Z+		TTL / CMOS / Open-collector			
Input voltage, single-ended mode A/A+, B/B+, Z/Z+	Logic "LOW"			1.6	V
	Logic "HIGH"	1.8			
Input voltage, single-ended mode Z/Z+	Floating voltage (not connected)		3.3		V
	Logic "LOW"			1.2	
Input voltage, single-ended mode Z/Z+	Logic "HIGH"	1.4			V
	Floating voltage (not connected)		4.7		
Input current, single-ended mode A/A+, B/B+, Z/Z+	Logic "LOW"; Pull to GND		5.5	6	mA
	Logic "HIGH"; Internal 2.2KΩ pull-up to +5	0	0	0	
Differential mode compliance	For full RS422 compliance, see ²		TIA/EIA-422-A		
Input voltage, differential mode	Hysteresis	±0.06	±0.1	±0.2	V
	Common-mode range (A+ to GND, etc.)	-7		+7	
Input impedance, differential	A1+ to A1-, B1+ to B1-		1		kΩ
	Z1+ to Z1-		1		
Input frequency	Single-ended mode, Open-collector / NPN	0		5	MHz
	Differential mode, or Single-ended driven by push-pull (TTL / CMOS)	0		10	
Minimum pulse width	Single-ended mode, Open-collector / NPN	1			μs
	Differential mode, or Single-ended driven by push-pull (TTL / CMOS)	50			
Input voltage, any pin to GND	Absolute maximum values, continuous	-7		+7	V
	Absolute maximum, surge (duration ≤ 1S) [†]	-11		+14	
ESD protection	Human body model	±1			kV
Encoder2 Inputs (A2+/Data+, A2-/Data-, B2+/Clk+, B2-/Clk-, Z2+, Z2-)³		Min.	Typ.	Max.	Units
Differential mode compliance		TIA/EIA-422-A			
Input voltage	Hysteresis	±0.06	±0.1	±0.2	V
	Differential mode	-14		+14	
Input voltage, any pin to GND	Common-mode range (A+ to GND, etc.)	-11		+14	V
	Absolute maximum values, continuous	-7		+7	
Input voltage, any pin to GND	Absolute maximum, surge (duration ≤ 1S) [†]	-11		+14	V
	Differential, Sin+ to Sin-, Cos+ to Cos-	4.2	4.7		
Input impedance	Common-mode, to GND		2.2		kΩ
	Resolution with interpolation	2		10	bits
Frequency	Sin-Cos interpolation	0		450	kHz
	Quadrature, no interpolation	0		10	
ESD protection	Human body model	±1			kV
Analog 0...5V Inputs (REF, FDBK)		Min.	Typ.	Max.	Units
Input voltage	Operational range	0		5	V
	Absolute maximum values, continuous	-12		+18	
	Absolute maximum, surge (duration ≤ 1S) [†]			±36	
Input impedance	To GND		27		kΩ
Resolution			12		bits
Integral linearity				±2	bits
Offset error				±2	±10 bits
Gain error				±1%	±3% % FS ⁵
Bandwidth(-3db)	Software selectable	0		1.1	kHz
ESD protection	Human body model	±5			kV

² For full RS-422 compliance, 120Ω termination resistors must be connected across the differential pairs, set SW2 pins 3, 4 and 5 to ON.

³ Encoder2 differential input pins have internal 120Ω termination resistors connected across

⁴ For many applications, a 120Ω termination resistor should be connected across SIN+ to SIN-, and across COS+ to COS- (set SW2 switches 3 and 4 to ON). Please consult the feedback device datasheet for confirmation.

⁵ "FS" stands for "Full Scale"

¹ The digital inputs are software selectable as PNP or NPN

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RS-232		Min.	Typ.	Max.	Units
Compliance		TIA/EIA-232-C			
Bit rate	Software selectable	9600		115200	Baud
Short-circuit	232TX short to GND	Guaranteed			
ESD protection	Human body model	±2			kV
Enable circuit (ENA1, ENA2)		Min.	Typ.	Max.	Units
Enable function	Disables motor power when either ENA1 or ENA2 is disconnected from the power source				
Mode compliance		PNP			
Default state	Input floating (wiring disconnected)	Logic LOW			
Input voltage	Logic "LOW"	-36	0	8	V
	Logic "HIGH"	18	24	36	
	Absolute maximum, continuous	-50		+50	
Input current	Logic "LOW"; pulled to GND		0		mA
	Logic "HIGH", pulled to +24V		2	2.5	
Pulse duration	Ignored low-high-low			TBD	ms
	Ignored high-low-high			TBD	
	Accepted pulse	TBD			
ESD protection	Human body model	±2			kV
CAN-Bus		Min.	Typ.	Max.	Units
Compliance		ISO11898, CiA-301v4.2 & 402v3.0			
Bit rate	Software selectable	125		1000	Kbps
Bus length	1Mbps			25	m
	500Kbps			100	
	≤ 250Kbps			250	
Resistor	Between CAN-Hi, CAN-Lo	none on-board			
Node addressing	by hardware through SW1	1 ÷ 15 ; 255 (all bits 0)			
	by software using EasySetUp	1-255			
ESD protection	Human body model	±15			kV
Supply Output (+5V)		Min.	Typ.	Max.	Units
Output voltage	Current sourced = 250mA	4.8	5	5.2	V
Output current		600	650		mA
Short-circuit		NOT protected			
Over-voltage		NOT protected			
ESD protection	Human body model	±1			kV

† Stresses beyond values listed under "absolute maximum ratings" may cause permanent damage to the device. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

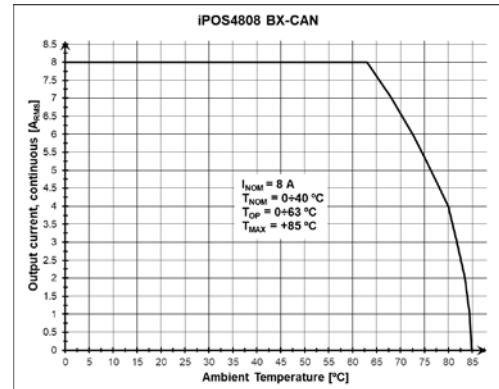


Figure 1. iPOS4808 BX-CAN De-rating with ambient temperature¹

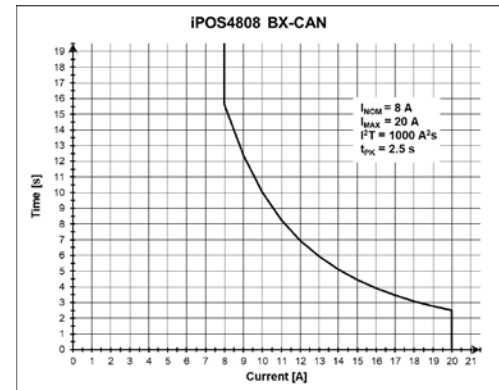


Figure 2. iPOS4808 BX-CAN Over-current diagram¹

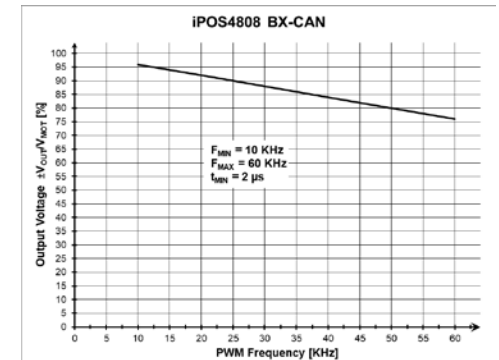


Figure 3. iPOS4808 BX-CAN Output Voltage De-rating with PWM frequency¹

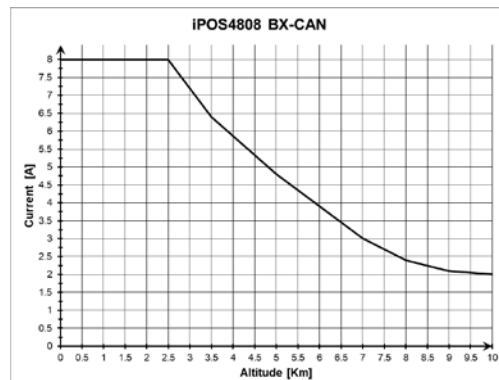


Figure 4. iPOS4808 BX-CAN De-rating with altitude¹

¹ Measured under the following conditions: BLDC; Vmot=48V, Vlog=24V, PWM=20kHz

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