PACMotion™ Servos

IMPORTANT PRODUCT INFORMATION

EMERSON

⚠ WARNING

Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury exist in this equipment or may be associated with its use.

In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.

⚠ CAUTION

Caution notices are used where equipment might be damaged if care is not taken.

Note: Notes merely call attention to information that is especially significant to understanding and operating the equipment.

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PSD Drives

Introductions

The PACMotion™ Servo Drives (PSD) is an EtherCAT®-based servo drive that is a member of the PACMotion family. Thus, it is designed to work with the PACMotion PMM345 motion controller.

Standard features

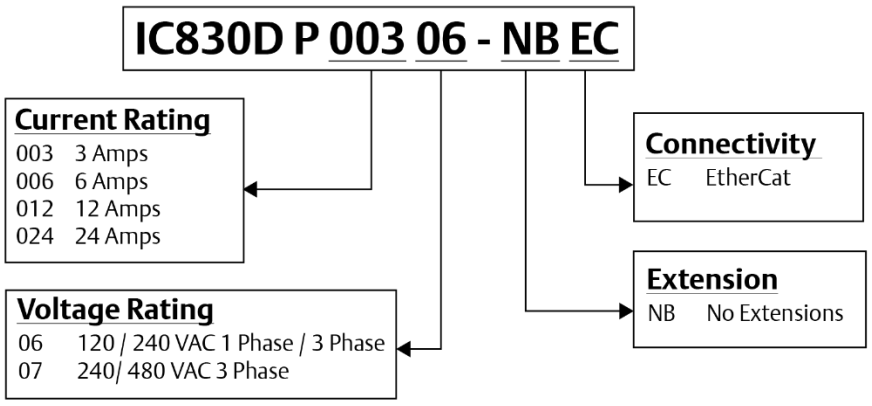
- Supply voltage range 120 V to 480 V ±10%. Several housing dimensions, depending on current and hardware options.
- EtherCAT Motion bus
- Ethernet-Based Service Port
- Support for SFD, BiSS, or HIPERFACE DSL® protocols. Encoder emulation and support for the second feedback
- Safe Torque Off (STO) according to IEC 62061 SIL 2.
- Use with PACMotion Servo Motors (PSR)

Power Features

- Single or three-phase supply, voltage range 120 to 480 V ±10%, 50 to 400 Hz ±5% or DC. Connection to higher voltage mains only via isolating transformer. Single-phase supply possible with output power derating.
- B6 bridge rectifier, integral soft-start circuit. Fusing to be provided by the user.
- DC bus link voltage range 170 to 680 VDC, can be connected in parallel. Output stage IGBT module with floating current measurement.
- Regeneration circuit with the dynamic distribution of the generated power between several drives on the same DC bus link circuit.
- Internal regeneration resistor for all PSD models (except IC830DP00306 and IC830DP00606), external regen resistors if required.

Part Number Explanation

Figure 1: Part Number Scheme



Specifications

For additional ambient, electrical, and mounting specifications, refer to the PACMotion PSD Installation and User Manual, GFK-3168.

Mechanical Specifications	Units	IC830DP00306 IC830DP00606	IC830DP01206	IC830DP02406
Weight (standard width)	kg	1.1	2	3.7
Weight (extended width)	kg	1.3	2.2	4
Height, without connectors	mm	168	196	248
Height, with connectors	mm	200	225	280
Standard Width front/back	mm	54/59	72/78.4	96/100
Extended Width front/back	mm	84/89	91/96	96/100
Depth, without connectors	mm	156	187	228
Depth, with connectors	mm	185	< 215	<265
Weight (standard width)	kg	2.7	5.3	11.5
Weight (extended width)	kg	2.9	5.5	11.7
Height, without connectors	mm	256	306	385
Height, with connectors	mm	290	340	526
Standard Width front/back	mm	65/70	99/105	185/185
Extended Width front/back	mm	95/100	99/105	-
Depth, without connectors	mm	185	228	225
Depth, with connectors	mm	<225	<265	<265

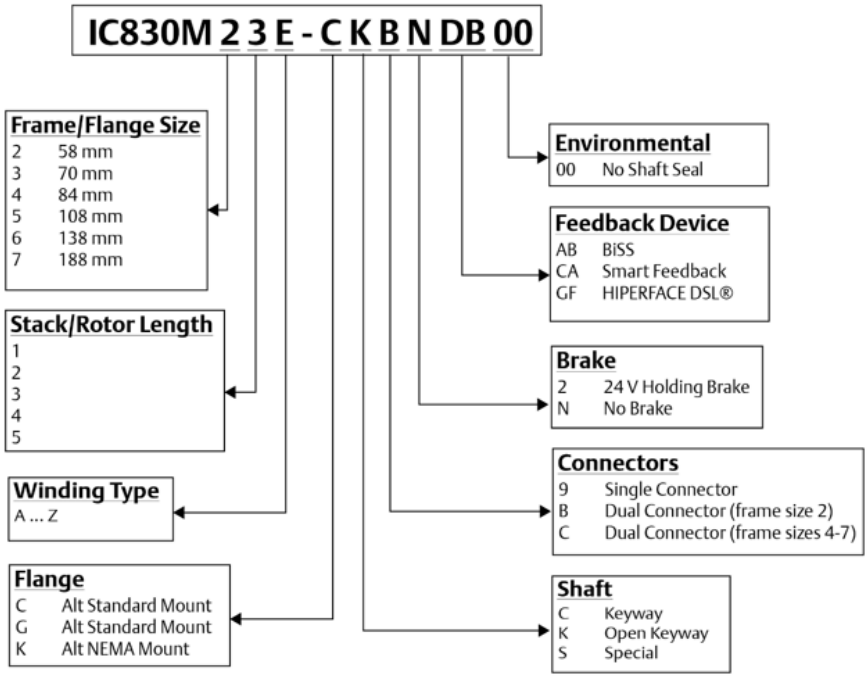
PSR Motors

Introductions

The PACMotion Rotary Servo Motors (PSR) is a Servomotor family that works seamlessly with the PACMotion Servo Drives (PSD).

Part Number Explanation

Figure 2: Model Number Description



Specifications

For PSR servomotors specifications, please consult Section 7 of the PACMotion PSR Installation and User Manual (GFK-3169).

Related Information

Description of Manual	GFK Number
PACMotion Servo Drives Installation and User Manual	GFK-3168
PACMotion Rotary Servo Drives Installation and User Manual	GFK-3169
PACMotion Servo Drives Accessories Guide	GFK-3173
PACMotion Servos Secure Deployment Guide	GFK-3177

In addition to these manuals, product update documents describe individual product revisions. The most recent PACSystems documentation is available on the Support website: https://www.emerson.com/Industrial-Automation-Controls/support.

Ordering Information

For accessory ordering information, please see the PACMotion PSD Accessories Manual (GFK-3173).

Product	Catalogue Number	Description
PACMotion PSD Drive	IC830DPXXXXX-NBEC	Servo Drive
PACMotion PSR Servomotors	IC830MXXXXXXXXX00	Rotary Servo Drives

Important Product Information for this Release

Release History

Catalog Number	Firmware Version	Date	Description
IC830DP00306-NBEC-CA IC830DP00307-NBEC-BA IC830DP00606-NBEC-CA IC830DP00607-NBEC-BA IC830DP01206-NBEC-BA IC830DP01207-NBEC-BA IC830DP02406-NBEC-BA IC830DP02407-NBEC-BA	1.0 N/A	Jan 2024	The appearance of the drive has been updated with the addition of ports X11 and X12. These ports are unused and make no change to the functionality of the drives.
IC830DP IC830M	1.0 N/A	Oct 2020	Documentation Updates. No change to fit, form, or function.
IC830DP IC830M	1.0 N/A	Sep 2020	Initial Release

Functional Compatibility

Subject	Description
PMM345	PACSystems RX3i PMM345 initial FW release 1.00 or higher is required for use with the Servo Motors & Drives.

Restrictions and Open Issues for Release 1.0

Subject	ID code	Description
Servo Motors	M-1	Shaft loading charts to be updated for: IC830M2x-KK IC830M4x-DC IC830M62-EK IC830M62-BK IC830M63-BK

Operational Notes

None

General Contact Information

Home link: http://www.emerson.com/industrial-automation-controls
Knowledge Base: https://www.emerson.com/iac-support

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Any escalation request should be sent to mas.sfdcescalation@emerson.com

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