

APPLICATION FOR OSHPD PREAPPROVAL	OFFICE USE ONLY					
OF MANUFACTURER'S CERTIFICATION (OPM)						
	APPLICATION #. OPIM-0007-13					
OSHPD Preapproval of Manufacturer's Certification (OPM)						
Type: New Renewal Update to Pre-CBC 2013 O	PA Number:					
Manufacturer Information						
Manufacturer: Franklin Control Systems (Formerly Cerus Industrial)						
Manufacturer's Technical Representative: Mike Zocchi						
Mailing Address: 22985 NW Evergreen Parkway Hillsboro, OR 97124						
Telephone:	chi@fele.com					
Product Information	OMB					
Product Name: Variable Frequency Drive Bypass Packages and Start	ers					
Product Type: Electrical Components OPM-0087-13	Z					
Product Model Number: BYP/EMB FRM1-FRM5, Smart Starters: BAS, IS	S,IMS,MSAC,MSSC,EMS,MCS					
General Description: Enclosed Nema 1 Variable Frequency Drive Bypa	ass and Energy management bypass packages. 5					
Frame sizes covering 0-125 HP and 208-600 VACASmart Starters covering	g complete BAS, ISS, SAS, MSAC, and MSAC lines					
in Type 1 and Type 3R packaging. Nema 1 EMS Smart Starter up to 28 A	mps.					
Applicant Information						
Applicant Company Name: Franklin Control Systems	CODY					
Contact Person: Mike Zocchi						
Mailing Address: 22985 NW Evergreen Parkway Hillsboro, OR 97124						
Telephone: <u>1-800-962-3787 or 503-403-0448</u> Email: <u>MZoc</u>	chi@fele.com					
I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.						
Signature of Applicant: Date: 3/20/14						
Title: Product Development Engineer Company Name: Frank	lin Control Systems					
"Access to Safe. Quality Healthcare Environments that Meet California's Diverse and Dvnamic Needs" STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY OSH-FD-700 (REV 5/30/13)	Page 1 of 2					



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Registered Desi	gn Professional Preparing Engineering Recommendations
Company Name:	Rice Engineering Inc.
Name: Brad Kue	hl California License Number: 66394
Mailing Address:	105 School Creek Trail, Luxemburg, WI; 54217
Telephone: 920	-845-1042 Email: bradkuehl@rice-inc.com
OSHPD Special	Seismic Certification Preapproval (OSP)
 Special Seisr (Separate ap) Special Seisr 	nic Certification is preapproved under OSP- plication for OSP is required) nic Certification is not preapproved
Certification Me	thod(s)
 Testing in acc Other* (Ple 	cordance with: ICC-ES AC156 FM 1950-10 ase Specify):
	OSL JOC
supports and attac bracings, test criter Analysis Experience D Combination	hments are not permitted. For distribution system, interior partition wall, and suspended ceiling seismic ria other than those adopted in the CBSC 2013 may be used when approved by OSHPD prior to testing. BY : William Staehlin DATE : 06/22/2015 of Testing, Analysis, and/or Experience Data (Please Specify):
List of Attachme	ents Supporting the Manufacturer's Certification
Test ReportOther(s) (Pl	Drawings Calculations Manufacturer's Catalog lease Specify):
OFFICE USE ONL	Y – OSHPD APPROVAL VALID FOR CBC 2013 ONLY
Signature:	L Jak: Date: 06/22/2015
Print Name: Willi	am Staehlin
Title: <u>SSE</u>	
Condition of Appro	val (if applicable):
"Access to Safe, Quality He STATE OF CALIFORN	althcare Environments that Meet California's Diverse and Dynamic Needs"

STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY OSH-FD-700 (REV 5/30/13)

OSPHD Pre-approval of Manufacturer's Certification Drawings For **Bypass Panels and Smart Starters OPM-0087-13**

BY:William Staehlin

Franklin Control Systems - Hillsboro, OR **REI Project # R12-10-231** Date: 12/19/2014

ENGINEERING

105 School Creek Trail | Luxemburg, WI 54217 (P) 920.845.1042 | (F) 920.845.1048

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Design Criteria:

- 1. This OSHPD Pre-approval of Manufacturer's Certification (OPM) is based on the CBC 2013. The demand (design forces) for use with this OPM shall be based on the 2013 California Building Code.
- 2 Seismic forces per ASCE 7-10 section 13.3.1, Equations 13.3-1, 13.3-2 and 13.3-3 where Sds = 2.5, Ip = 1.5, ap = 2.5, Rp = 6.0, $z/h \le 1$. Overstrength factor for concrete $\Omega_0 = 2.5$. Amplification, response and overstrength factors (ap, Rp & Ω_0) were taken from Table 13.6-1 for motor control centers. It is the seventh line down from the top.
- **3** The details in this Pre-Approval may be used at any height on a building and at any location in the State of California, where Sd is not greater than 2.5.
- The demand forces shown on the drawings are both Factored Loads (LRFD) and Allowable Stress Design Loads (ASD) 0087
- This Pre-approval only covers the supports and attachments of the equipment to the structure.
- 6 Cabinet material including the back panel consists of ASTM A1008 Cold Rolled Steel with individual unit thickness's as shown in drawings. Minimum yield strength of Fy=30 ksi.
- 7. Lag Screws shall shall have minimum bending yield strength Fby=36 ksi with $\frac{1}{4}$ " diameter and locations as shown on drawings. Wood is assumed to be stud grade Spruce-Pine-Fir, SG=0.42 minimum, with moisture content less than 19%.
- 8. Sheet Metal Screws shall be 1/4" diameter, Fy=44 ksi, and comply with performance requirements of ASTM C 1513-12a, Screw threads per ASME B18.6.4-98 and satisfy ICC-ES AC118 acceptance criteria for self tapping screw fasteners with locations as shown on drawings. Steel Studs shall be Fy=33 ksi; 16 GA (54mil) or better.
- 9 Concrete is normal weight with strength assumed to be fc = 3000 psi minimum. Concrete anchors shall be $\frac{1}{4}$ " Diameter Hilti Kwik HUS EZ (ICC ESR-3027) with the size, embed depth and spacing as per the drawings. Anchors shall be installed per the manufacturer's specifications and tested per CBC Section 1913A.7 with special inspection requirements per CBC 2013 section 1704A.. Testing shall be done in the presence of the special inspector and a report of the test results shall be submitted to OSHPD. After a minimum of (24) hours have elapsed since installation, tension test 50% of the fasteners. An acceptable test will result in no observable movement or loose conditions. If any anchor fails this criteria, all anchors of the same type shall be tested, which are installed by the same trade, not previously tested until (20) consecutive anchors pass, then resume the initial test frequency.
 - a. Concrete fastener test tension = 635*1.25 = 779 lbs

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Responsibilities of the Structural Engineer of Record :

- in addition to all other loads and forces.
- 2. of the unit where attachments are made agree with the information shown in this Pre-Approval.

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Page: 📣	Description:
	Design Criteria
2-5	FRM1 Drawings
6-9	FRM2 Drawings
10-13	FRM3 Drawings
14-17	FRM4 Drawings
18-21	FRM5 Drawings
22-25	BAS 3R Drawings
26-29	BAS Type 1 Drawings
30-33	EMS Type 1 Drawings
34-37	CER3R Drawings



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES / ANGLES ± 0.5° / 2PL ± 0.03 / 3PL ± 0.01

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Design any supplementary members and their attachments which the unit is attached to. Verify the adequacy of any existing members and their attachments which the unit is attached to for the forces exerted on them by the unit

Verify that the installation is in conformance with the 2013 CBC and with the details shown in this Pre-Approval. Verify that the equipment's actual weight, cg location, anchor locations, anchor details and the material and gage

	Engineers Desig	PROFESSIO AVE L. SC 6131 (xp. 9-30-20) C. AUE OF CALIF	al Stamp:	11/19/201	4
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	DRAWN BY: M. ZOCCH	11	CHECKEE	BY: M. ZOC	СНІ
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s Cov	vered:					
2	EMS1-9/J-G2.5-9/1C	MSEM1-3	32/J-G22-3	82 PAS1-18/	/J-G1.6-18	В
/1C	EMS1-9/J-G4-9	MSEM1-3	32/J-32	PAS1-18/	/J-G2.5-18	
	EMS1-9/J-G4-9/1C	MSEM1-9	9/J-G1.6-9	PAS1-18/	/J-G6-18	
С	EMS1-9/J-G4-9/2C	MSEM1-9	9/J-G6-9	PAS1-18/	′J-G8-18	
-32	EMS1-9/J-G6-9	MSEM1-9	9/J-9	PAS1-18/	/J-18 /LG12-22	
-32	EMS1-9/J-G6-9/1C	TAS1-18/	J-G13-18	PAS1-32/	/J-G17-32	
6-32	EMS1-9/J-G6-9/2C	TAS1-18/	J-G17-18	PAS1-32/	/J-G1.6-32	
-32	EMS1-9/J-G8-9	TAS1-18/	J-18	PAS1-32/	/J-G22-32	
5-32 5-32	EMS1-9/J-G8-9/1C	TAS1-32/	J-G26-32	PAS1-32/	J-G2.5-32	-
-32	EMS1-9/J-G8-9/2C	TAS1-32/	J-G32-32	PAS1-32/	/J-G32-32	
32	EMS1-9/J-9	TAS1-32/	J-32	PAS1-32/	/J-G4-32	
32	EMS1-9/6J-G1.6-9	TAS1-30/	-G1.6-9	PAS1-32/ PAS1-32/	/J-G8-32	
	EMS1-9/6J-G2.5-9	TAS1-9/J-	-G2.5-9	PAS1-32/	/J-32	
	EMS1-9/6J-G4-9	TAS1-9/J	-G4-9	PAS1-50/	/J-50 -G1 6-9	
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way		EN	IS			
	PROJECT: EMS					
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PD Preapproval of Manufacturer's Certification (OPM)
on CBC 2013. The demand (design forces) for use with
shall be based on the CBC 2013.
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OPM-0087-13: Reviewed for Code Compliance by William Staehlin

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1	s//	Make	e: Franklin	Control Syst	ems	
Š)	/		Models	Covered:		A
		MCS3R-2S-50/J-G40				
		MCS3R-2S-	50/J-G50			
		MCS3R-2S-	85/J-G63			
		MCS3R-2S-	85/J-G75			
		MCS3R-2S-	85/J-G90			
ay	CER3R SMART STARTER					
	PROJECT: MCS	OJECT: MCS				
	DRAWN BY: M. ZOCO	CHI CHECKED BY: M. ZOCCHI			CHI	
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This OSHPD Preapproval of Manufacturer's Certification (OPM) is based on CBC 2013. The demand (design forces) for use with this OPM shall be based on the CBC 2013. 1. Strength Design Forces are determined per 2013 California Building Code and ASCE 7-10 2. Center of gravity and weight controls the design. This approval encompasses all weight up to 3. Structural Engineer of Record for the building shall provide support structure designed to support weights and forces shown, in combination with all other loads that may be present. 4. All holes thru steel for attachments shall be standard size holes per AISC 14th Edition Refer to Sheet 34 of 37 for panel dimensions and attachment locations Engineers Design Approval Stamp: 11/19/2014 CER3R SMART STARTER PROJECT: MCS

DRAWN BY: M. ZOCCHI CHECKED BY: M. ZOCCHI SHEET: 37 OF 37 REV: R1 DATE: 6/6/2014 SIZE: B 1