

# **Certificate of Compliance**

**Certificate:** 2049843 (LR 12730-263)

**Project:** 2460955

**Issued to:** Siemens AG

> I IA CE CP PRM SR Werner-von-Siemens-Strasse 48 Amberg, 92220 Germany **Attention: Mr. Michael Schröck**

**Master Contract:** 165071

**Date Issued:** 

September 26, 2011

### The products listed below are eligible to bear the CSA Mark shown



J.-C. Chow

**Issued by:** J.-C. Chow

#### **PRODUCTS**

CLASS 3211 04 - INDUSTRIAL CONTROL EQUIPMENT - Motor Controllers - Magnetic • AC Contactors, open type, with the following ratings:

Voltage	Type 3TW128		Types 3TB40, 3TF40		Types 3TB41, 3TF41	
	1 <b>-</b> ph	3-ph	1-ph	3-ph	1-ph	3-ph
115 V	1/2 hp		1 hp		1 hp	
200 V	2 hp	3 hp	2 hp	3 hp	2 hp	3 hp
230 V	2 hp	3 hp	2 hp	3 hp	2 hp	3 hp
460 V		5 hp		5 hp		7-1/2 hp
575 V		7-1/2 hp		7-1/2 hp		10 hp

For use in 2-phase of a 3-phase circuit:

	Types 3TB4002, 3TF4082	Types 3TF4102, 3TF4082	Types 3TB4104, 3TF4184
Voltage	2-ph	2-ph	2-ph
115 V	1 hp	2 hp	2 hp
230 V	2-1/2 hp	3 hp	5 hp

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Certificate: 2049843 (LR		2730-263)	Master Contract:	165071	
Project:	2460955		Date Issued:	September 26, 2011	
460 V	5 hp	5 hp			
575 V	5 hp	5 hp			
General U	Jse Ratings (Main Con	tacts):			
	20 A, 600 Vac	For Types 3TW128, 3TB40, 1	3TF40, 3TB41, 3TF41		
Max Oper	rating Coil Voltage:	Suffixes:			
	600 Vac	0A, 1A, 2A or 4M			
	250 Vac	0B, 2B or 5M			
	250 Vac/dc	3B or 6M			
	250 Vdc	3M or 0L			
	30 Vdc	4B, 6B, 1M or 2M			
Auxiliary	Contacts:	For Types:			
	B600, Q600	3TB40, 3TB41, 3TF40 and 3	TF41, with suffix 1M through	n 6M	
	B600	3TW1285			
	A600, P600	All other Types			
	5 A, 600 Vac	General purpose			

• Reversing Contactors, Types 3TD40 and 3TD41: identical rating to 3TF40 and 3TF41 respectively.

#### Notes:

1. The type designations are completed with letters and numbers indicating whether open or enclosed, with or without thermal overload relay, number and design of auxiliary contacts, operating coil voltage, etc. The letters "CAN" may be added to the type designation.

2. Certified for use in other equipment where the acceptability of the combination is to be determined by CSA International.

3. Supplied with or without thermal overload relays.

4. The auxiliary contact terminals and coil terminals of contactors with suffix "M" consist of double quickconnect male termninals.

5. For voltages above 300 V used same polarity.



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#### **APPLICABLE REQUIREMENTS**

CSA-C22.2 No. 14-10 - Industrial Control Equipment



## Descriptive Report and Test Results

MASTER CONTRACT: 165071 REPORT: 2049843 PROJECT: 2460955

Edition 1:	September 28 Issued by R.M	8, 1990; Application No. LR 12730-263 (KEMA Job. 9.5835) M.M.A. Geuijen; Reviewed by P.C.J.M. Broekhof			
Edition 2:	October 25, 1 Issued by R.M	.991; Application No. LR 12730-292 (KEMA Job No. 91.6259) M.M.A. Geuijen; Reviewed by N. Manoli			
Edition 3:	September 15 Issued by R.M	5, 1992; Application No. LR 12730-304 (KEMA Job No. 92.7784) M.M.A. Geuijen; Reviewed by J. Elgee			
Edition 4:	October 13, 1 Issued by R.M	.992; Application No. LR 12730-306 (KEMA Job No. 92.7782) M.M.A. Geuijen; Reviewed by J. Pankowski			
Edition 5:	December 15 Issued by R.M	, 1992; Application No. LR 12730-310 (KEMA Job No. 92.8977) M.M.A. Geuijen; Reviewed by J. Pankowski			
Edition 9:	January 18, 1995; Application No. LR 12730-342 (KEMA Job No. 94.6952) Issued by R.M.M.A. Geuijen; Reviewed by J. Pankowski				
Edition 10:	May 17, 1993 Issued by R.M	5; Application No. LR 12730-344 (KEMA Job No. 95.9061) M.M.A. Geuijen; Reviewed by J. Pankowski			
Edition 11:	April 22, 1998; Application No. LR 12730-394 (KEMA Job No. 98.0922) Issued by R.M.M.A. Geuijen; Reviewed by J. Pankowski				
Edition 12:	July 17, 2008; Project 2049843 - Montreal Issued by JC. Chow, Eng.				
Edition 13:	September 26, 2011; Project 2460955 - Montréal Issued by JC. Chow, Eng.				
	Report pages reissued				
	Contents:	Certificate of Compliance - Pages 1 to 3 Supplement to Certificate of Compliance - Page 1 Description and Tests - Pages 1 to 7 Att1 Figures - Fig. Nos. 1 to 7, 9, 10 (labeled LR 12730-263)			

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Att2 Illustrations - Ill. Nos. 1 to 6 (labeled LR 12730-263) Att3 Test Sheets - Nos. T2 to T16 (labeled LR 12730-263)

#### **PRODUCTS**

CLASS 3211 04 - INDUSTRIAL CONTROL EQUIPMENT - Motor Controllers - Magnetic

AC Contactors, open type, with the following ratings:

Type 3TW128		W128	Types 3TE	340, 3TF40	Types 3TB41, 3TF41	
Voltage	1-ph	3-ph	1-ph	3-ph	1-ph	3-ph
115 V	1/2 hp		1 hp		1 hp	
200 V	2 hp	3 hp	2 hp	3 hp	2 hp	3 hp
230 V	2 hp	3 hp	2 hp	3 hp	2 hp	3 hp
460 V		5 hp		5 hp		7-1/2 hp
575 V		7-1/2 hp		7-1/2 hp		10 hp

For use in 2-phase of a 3-phase circuit:

	Types 3TB4002, 3TF4082	Types 3TF4102, 3TF4082	Types 3TB4104, 3TF4184
Voltage	2-ph	2-ph	2-ph
115 V	1 hp	2 hp	3 hp
230 V	2-1/2 hp	3 hp	5 hp
460 V	5 hp	5 hp	
575 V	5 hp	5 hp	

General Use Ratings (Main Contacts):

20 A, 600 Vac For Types 3TW128, 3TB40, 3TF40, 3TB41, 3TF41

Max Operating Coil Voltage: Suffixes:

600 Vac	0A, 1A, 2A or 4M
250 Vac	0B, 2B or 5M
250 Vac/dc	3B or 6M
250 Vdc	3M or 0L
30 Vdc	4B, 6B, 1M or 2M

Auxiliary Contacts:	For Types:
B600, Q600	3TB40, 3TB41, 3TF40 and 3TF41, with suffix 1M through 6M
B600	3TW1285
A600, P600	All other Types
5 A, 600 Vac	General purpose

Reversing Contactors, Types 3TD40 and 3TD41: identical to 3TF40 and 3TF41 respectively.

#### Notes:

- 1. The type designations are completed with letters and numbers indicating whether open or enclosed, with or without thermal overload relay, number and design of auxiliary contacts, operating coil voltage, etc. The letters "CAN" may be added to the type designation.
- 2. Certified for use in other equipment where the acceptability of the combination is to be determined by CSA International.
- 3. Supplied with or without thermal overload relays.
- 4. The auxiliary contact terminals and coil terminals of contactors with suffix "M" consist of double quickconnect male terminals.
- 5. For voltages above 300 V used same polarity.

#### **APPLICABLE REQUIREMENTS**

CAN/CSA-C22.2 No. 0-M91	-	General Requirements - Canadian Electrical Code, Part II
CSA-C22.2 No. 14-10	-	Industrial Control Equipment

#### MARKINGS

Submittor's name or tradename "SIEMENS" and/or CSA File number "LR 12730" and/or CSA Master Contract "165071", type designation, electrical ratings and CSA Monogram appear on an adhesive paper label in a permanent legible manner.

The following statement is marked on the device:

"WIRING 75°C COPPER ONLY" for Types 3TB/TF41 and 3TD40/41

The single contactors of the reversing contactors have their certified markings. An additional adhesive paper label is provided on the mounting plate of these reversing contactors or printing on the cover plate is provided.

#### **ALTERATIONS**

The markings are in accordance with the "MARKINGS" paragraph above.

#### FACTORY TESTS

The equipment, at the conclusion of manufacture and before shipment, shall withstand for one minute, without breakdown, the application of twice the max rated voltage plus 1000V between live parts and exposed non-current-carrying metal parts. The factory test may be made at existing room temperature.

As an alternative, a potential 20 per cent higher may be applied for one second.

As an alternative, method based on IEC 410 and in accordance with submittor's ISO 9001 Quality program.

<u>Warning</u>: These tests may present a hazard of injury to personnel and/or property and should only be performed by persons knowledgeable of such hazards and under conditions designed to minimize the possibility of injury.

#### SPECIAL INSTRUCTIONS FOR FIELD SERVICES

- 1. Component Substitution
  - a) Critical components (those identified by mfr name, cat no) are not eligible for substitution without evaluation and report updating.
  - b) Component descriptions marked with the identifier "(INT)" are the only components that are eligible for substitution at the factory.
  - c) Substitution of a CSA Certified component with a component "Certified" or "Listed" by another organization may result in annual sample pickup and Conformity Testing.
  - d) Substitution of a "Certified" or "Listed" component with a component that is "Recognized" or "Accepted" is not permitted without evaluation and report updating.

#### **COMPONENT SPECIAL PICKUP**

None.

#### **DESCRIPTION**

Notes:

- 1. The term "(INT)", following the component name, denotes a certified component that can be replaced by another CSA Certified component or one certified by another certification organization (accredited by OSHA/SCC), for the same application, provided that it has an equivalent rating, configuration (size, orientation, mounting) and that applicable minimum creepage and clearance distances are maintained from live parts to bonded metal parts and secondary parts.
- 2. The term "(CT)", following the component name, denotes a component that is subject to periodic retesting unless evidence of re-testing equivalent to the CSA program is available.

<u>General</u>: These devices are open type across-the-line motor controllers for use in industrial applications. Type 3TB/TF40 and -41 are identical except that -41 is equipped with heavier main contacts. Type 3TW12 is similar to Type 3TB40 and is for use in starters. Type 3TW42 is similar to Type 3TF40 and is for use in starters.

Nomenclature Breakdown

- $\frac{3TB}{I} \qquad \frac{40}{II} \qquad \frac{10}{III} \qquad \frac{0A}{IV}$
- I Basic Model No

3TB or 3TF Contactor 3TW Starter

#### II Size

- 12 Size 00 Special Type for Starter
- 42 Size 00 Special Type for Starter
- 40 Size 00
- 41 Size 0
- III Auxiliary contact arrangement for devices with 3 main contacts normally open

3TB40/41:

- 10 1 normally open, 4 pole single deck
- 11 1 normally closed, 4 pole single deck
- 12 1 normally open and one normally closed, 5 pole double deck
- 17 2 normally open en two normally closed, 7 pole double deck
- 18 3 normally open and one normally closed, 7 pole double deck
- 16 3 normally open en two normally closed, 8 pole double deck

3TF40/41:

- 10 1 normally open, 4 pole single deck
- 01 1 normally closed, 4 pole single deck
- 11 1 normally open and 1 normally closed
- 22 2 normally open and 2 normally closed
- 31 3 normally open and 1 normally closed
- 32 3 normally open and 2 normally closed

Auxiliary contact arrangement for devices with 4 main contacts normally open

3TB40/41:

14 1 normally open and one normally closed

#### 3TF40/41:

80 1 normally open and one normally closed

Contact arrangement for devices "For use in 2 phases of a 3-phase circuit" (without auxiliary contacts)

3TB40/41:

- 02 2 main contact open and 2 main contact closed
- 04 2 main contact (2 single contact parallel) open and 2 main contact (2 single contact parallel) closed

#### 3TF40/41:

- 82 2 main contact open and 2 main contact closed
- 84 2 main contact (2 single contact parallel) open and 2 main contact (2 single contact parallel) closed

Auxiliary contact arrangement for Type 3TW12/3TW42:

- 80 1 normally open
- 82 1 normally open and 1 normally closed
- 85 1 normally open, special arrangement for 3TW1285 only
- 87 2 normally open and 2 normally closed

#### IV Operating System

- 0A ac coil assembly
- 0B dc coil assembly
- 4B varistor connected to the 24 Vdc coil assembly, rated power = 4.9 W
- 6B varistor connected to the 24 Vdc coil assembly, rated power = 5.5 W
- 1A indicates Listing with ac coil assembly for starters
- 4M ac coil assembly and 2.8 mm quick-disconnect control terminals
- 5M dc coil assembly and 2.8 mm quick-disconnect control terminals
- 6M indicates a control voltage with integrated bridge rectifier and dc coil, 2.8 mm quick-disconnect control terminal
- 8M varistor connected to the dc coil and 2.8 mm quick-disconnect control terminals
- 3B dc coil assembly with integrated bridge connected rectifier
- 1M varistor connected to the 24 Vdc coil assembly rated power = 5.5 W and 2.8 mm quickdisconnect control terminals
- 2M varistor connected to the 24 V dc coil assembly rated power = 4.9 W and 2.8 mm quickdisconnect control terminals
- 3M universal overvoltage limiter integrated to the ac coil assembly 275 Vac max and 2.8 mm quickdisconnect terminals
- 5K dc coil integrated varistor Type S10V or S07K manufactured by Siemens
- 0L dc coil with integrated varistor Type S14K or S07K manufactured by Siemens

<u>3TD4</u>	<u>0</u>	<u>02</u>	-	<u>0A</u>
Ι	II	III		IV

- I Basic Type
  - 3TD4 Reversing contactor
- II Size
  - Size 0 Consists of two 3TF40
  - Size 1 Consists of two 3TF41

- III Auxiliary contact
  - 02 2 NO and 2 NC
  - 01 1 NO and 1 NC
  - 00 1 NC

#### IV Operating System

- 0A AC coil assembly, without interconnections
- 2A same as OA, with interconnections
- 0B DC coil assembly, without interconnections
- 2B same as OB, with interconnections
- OL same as OB, with interconnections, manufacturer's identification