

# SIRIUS HP Rated Magnetic Starters

Industrial Controls Product Catalog 2019

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### Siemens SIRIUS IEC Starters

The SIRIUS IEC Starter is the new generation of IEC HP rated magnetic starters, designed to meet and exceed today's market requirements for HP rated starters.

The new SIRIUS Starters take advantage of the reliability of the SIRIUS line of contactors and overload relays in addition to the new line of SIRIUS ACT 3SU 22mm pilot devices as the standard control device.

As evident in the design and size, all efforts were put in place to offer a new line of starters that exceeds the performance of the previous generation.

The SIRIUS IEC Starters line also offers more price flexibility in the very competitive starters market.

### SIRIUS Starters Features:

- CSA approved
- 100HP, 600V max
- Auxiliary contacts available
- Ambient 60°C on contactors
- Fast and simple 3-prong overload contactor connection: no coil extension required
- Standard primary and secondary fusing on control transformers
- Standard 22mm SIRIUS ACT Control Devices



Selection

Catalogue Number Selection Guide						
Starter Series	Disconnect Type	Starter Type	Enclosure Type	Contactor Ref. Number	Coil Voltage	Overload Relay Setting Range
			page 10/5 - 10/18			
V SIRIUS IEC HP rated Starter	1 Non-combination	A FVNR	B CSA type 1 EEMAC type 1 general purpose	15 3RT2015	C 24V/60Hz 24V/50Hz	0A to 4M Standard Class 10 bimetal overload relay
N SIRIUS IEC NEMA rated Starter	2 Circuit breaker combination	B FVR	C CSA type 5 EEMAC type 12 dust tight industrial use	16 3RT2016	K 120V/60 Hz 110V/50Hz	2R to 2U Optional Class 20 electronic overload relay (for 3ph only)
	3 Non-fusible type	N 2S1W constant or variable torque		17 3RT2017	M 208V/60Hz	
	4 Fusible combination	R 2S1W constant horse- power	D CSA type 4 EEMAC type 4 watertight	18 3RT2018	P 240V/60Hz 220V/50Hz	
		U 2S2W constant horse- power	F CSA type 4x EEMAC type 4x watertight corrosion resistant	25 3RT2025	V 460V/60Hz 380V/50Hz	00 Provision for field mounting of overload relay
		W 2S2W constant or variable torque		26 3RT2026	T 600V/60Hz	
				27 3RT2027	Z Others Specify	
				35 3RT2035		
				36 3RT2036		
				37 3RT2037		
				38 3RT2038		
				45 3RT2045		
				46 3RT2046		
				47 3RT2047		



Selection

Catalogue Number Selection Guide							
Power Line Voltage	Control Circuit	Additional Auxiliary Contacts	Pilot Devices				
			Operators		Indicators		
			Operators Type	Legend Plate(s)	Indicator type	Functions	Colour Choice
page 10/20	page 10/21	pages 10/21 - 10/22		page 10/22	page 10/23		
6 600V Max. Distributor Stock	0 Separate control circuit, unfused	0 None	0 none	0 none	0 none	0 none	0 none
1 120V/1Ph/60Hz	N Separate control circuit, fused max 250V	E 4 N.O.	1 or 2 1 push button extended head red	A EMERGENCY STOP	5 or 6 Full Voltage 120V LED c/w legend plate(s)	1 to 5 1 indicator for 1 function	C to F Colour choice for 1 indicator
2 208V/3PH/60Hz	P Common control with one control fuse (for 120V 1ph only)	F 1 N.O. + 1 N.C.	3 or 4 1 twist lock mushroom red	B STOP	7 or 8 Full Voltage 24V LED c/w legend plate(s)	6 to E 2 indicators for 2 functions	1 to 6 Colour choice for 2 indicators
3 230V/3PH/60Hz	R Standard control transformer c/w 2 prim. & 1 sec. 120V fuse	J 3 N.O. + 1 N.C.	5 or 6 2 push buttons 1-red, 1-green	C START STOP		F to R 3 indicators for 3 functions	K to P Colour choice for 3 indicators
4 460V/3Ph/60Hz	U Extra 50VA capacity Control Transformer	K 2 N.C.	7 or 8 3 push buttons 1-red, 2-black	D ON OFF	E to J 3 legend plates for 3 push button		
5 575V/3Ph/60Hz	W Extra 100VA capacity Control Transformer	L 2 N.O.	A or B 2 pos. selector switch	K to T 1 legend plate for 2 pos. selector switch			
7 230V/1Ph/60Hz	9 Other Specify	M 2 N.O. + 2 N.C.	C or D 2 pos. selector switch spring return	1 to 8 1 legend plate for 3 pos. selector switch			
9 Other Specify	9 Other Specify	9 Other Specify	E or F 2 pos. selector switch key operated	X 3 legend plates for 3 pos. selector switch and START STOP push button			
			G or H 3 pos. selector switch	9 Other Specify			
			J or K 3 pos. selector switch spring return				
			L or M 3 pos. selector switch key operated				
			N or P 3 pos. selector switch spring return key operated				
			T or U 3 pos. selector switch and 2 push buttons START STOP for hand operation				
			9 Other Specify				

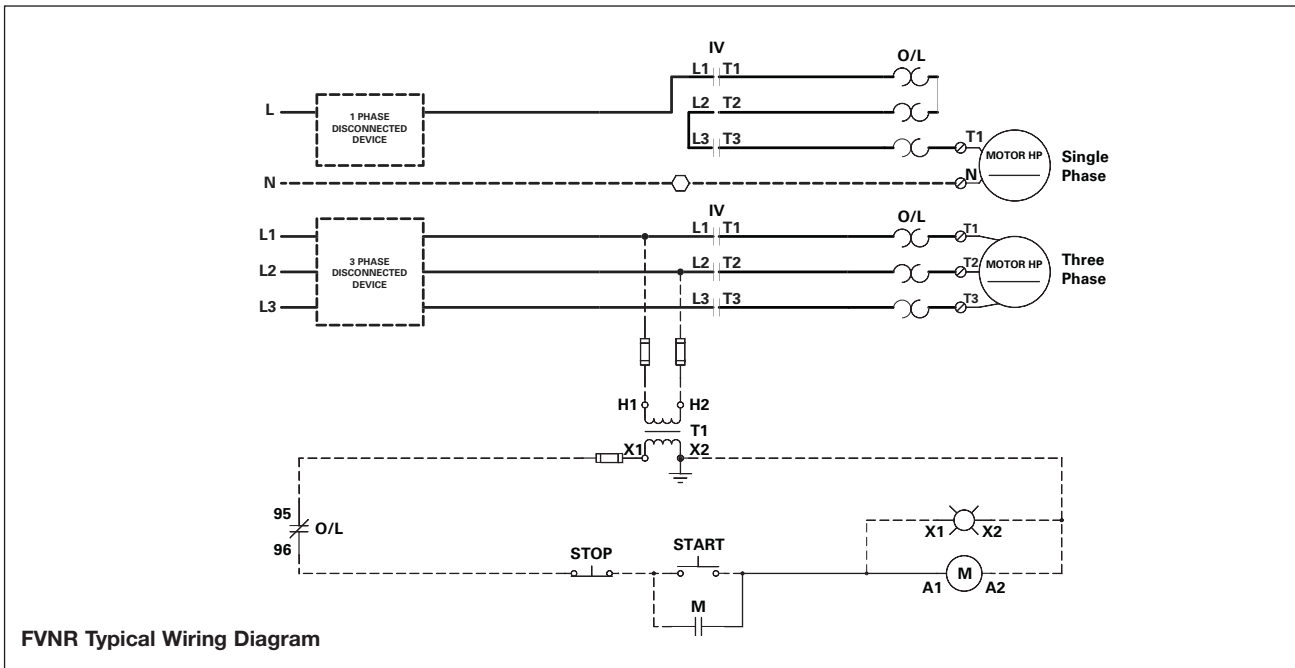
General

### Description

Siemens full voltage non-reversing type starters are designed for full voltage across-the-line starting of single or 3-phase squirrel cage motors. They also can be used as the primary control of wound rotor motors. Combined with short circuit protection, FVNR starters are also offered as combination starters.

- Fusible disconnect type complete with Form I, Class J fuse clips.
- Circuit breaker type or as Non-Fusible Controller.

FVNR starters are available up to 100HP, 600V AC, EEMAC type 1, 12, 4 or 4X sheet metal enclosed. They are an assembly of the proven 3RT contactors and the exclusive 3RU bimetal overload relays.



Catalogue Number:

V 1 A B 15 K . . . . . Z . . .

HP Rated Starter \_\_\_\_\_

- Disconnect Type \_\_\_\_\_
  - Starter Type \_\_\_\_\_
  - Enclosure Type \_\_\_\_\_
  - Contactors Ref. \_\_\_\_\_
  - Coil Voltage \_\_\_\_\_
  - Overload Relay \_\_\_\_\_
  - Power Line Volt. and Control Circuit \_\_\_\_\_
  - Additional Aux. Contacts \_\_\_\_\_
  - Pilot Devices Operators \_\_\_\_\_
  - Pilot Devices Indicators \_\_\_\_\_
  - Other options \_\_\_\_\_
- (fuse clips, control & timing relays, metering & protective devices, etc)

Selection

Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>1 NO auxiliary contact on all 20A enclosed, with options to add extra contacts</li> <li>3 NO + 3 NC auxiliary contacts on all other sizes</li> <li>Class 10 bimetal overload relays including:                             <ul style="list-style-type: none"> <li>- Manual or Automatic reset</li> <li>- Phase Loss Protection</li> <li>- Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below.</li> <li>Add suffix for overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
other voltages and frequencies are available upon request				

The type numbers in the selection table specify a 120V 60 Hz coil. If a different coil voltage is required, change the "K" (7 digit) as per Coil Suffix Table above.

Non-Combination HP Rated															
Enclosed Amps	CSA MAXIMUM HP RATING						Contactor reference number	Aux <sup>®</sup> , Contacts supplied as standard per contactor		Enclosure Sheet Metal					
	1 phase		3 phase					NO		NC		CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use	
	115V	230V	208V	230V	460V	575V		Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.				
20	1/4	3/4	1 1/2	2	3	5	15	1	-	V1AB15K..		V1AC15K..			
	1/3	1	2	3	5	7 1/2	16	1	-	V1AB16K..	V0	V1AC16K..	S		
	1/2	2	3	3	7 1/2	10	17	1	-	V1AB17K..		V1AC17K..			
	1	2	3	5	10	10	18	1	-	V1AB18K..		V1AC18K..			
35	1	3	5	5	10	15	25	3	3	V1AB25K..	V1	V1AC25K..	S		
	2	3	5	7 1/2	15	20	26	3	3	V1AB26K..		V1AC26K..			
42	2	5	10	10	20	25	27	3	3	V1AB27K..		V1AC27K..			
	3	5	10	10	25	25	28	3	3	V1AB28K..	V1	V1AC28K..	S		
55	3	7 1/2	10	15	30	40	35	3	3	V1AB35K..	V2	V1AC35K..	H2		
60	3	10	15	15	40	50	36	3	3	V1AB36K..	V2	V1AC36K..	H2		
80	5	10	20	20	50	50	37	3	3	V1AB37K..	V2	V1AC37K..	H2		
90	5	15	20	25	50	60	38	3	3	V1AB38K..	V2	V1AC38K..	H2		
105	7 1/2	15	25	30	60	60	45	3	3	V1AB45K..	V2	V1AC45K..	H2		
115	10	-	30	30	75	75	46	3	3	V1AB46K..	V2	V1AC46K..	H2		
125	10	-	30	40	75	100	47	3	3	V1AB47K..	V2	V1AC47K..	H2		

NEMA rated available - contact your Siemens representative



Ⓞ Some Aux contacts may be used for control options, where necessary

Selection

**Selection**

Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>1 NO auxiliary contact on all 20A enclosed, with options to add extra contacts</li> <li>3 NO + 3NC auxiliary contacts on all other sizes</li> <li>Class 10 bimetal overload relays including:                             <ul style="list-style-type: none"> <li>- Manual or Automatic reset</li> <li>- Phase Loss Protection</li> <li>- Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below</li> <li>Add suffix for overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
		other voltages and frequencies are available upon request		

The type numbers in the selection table specify a 120V 60 Hz coil. If a different coil voltage is required, change the “K” (7 digit) as per Coil Suffix Table above.

Circuit Breaker Combination® HP Rated													
Enclosed Amps	CSA MAXIMUM HP RATING						Contactor reference number	Aux, Contacts <sup>®</sup> supplied as standard per contactor		Enclosure Sheet Metal			
	1 phase		3 phase					NO		CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use	
	115V	230V	208V	230V	460V	575V				Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.
20	1/4	3/4	1 1/2	2	3	5	15	1	-	V2AB15K..		V2AC15K..	
	1/3	1	2	3	5	7 1/2	16	1	-	V2AB16K..	V2	V2AC16K..	H2
	1/2	2	3	3	7 1/2	10	17	1	-	V2AB17K..		V2AC17K..	
35	1	2	3	5	10	10	18	1	-	V2AB18K..		V2AC18K..	
	1	3	5	5	10	15	25	3	3	V2AB25K..	V2	V2AC25K..	H2
	2	3	5	7 1/2	15	20	26	3	3	V2AB26K..		V2AC26K..	
42	2	5	10	10	20	25	27	3	3	V2AB27K..		V2AC27K..	
	3	5	10	10	25	25	28	3	3	V2AB28K..	V2	V2AC28K..	H2
55	3	7 1/2	10	15	30	40	35	3	3	V2AB35K..	V2	V2AC35K..	H2
60	3	10	15	15	40	50	36	3	3	V2AB36K..	V2	V2AC36K..	H2
80	5	10	20	20	50	50	37	3	3	V2AB37K..	V2	V2AC37K..	H2
90	5	15	20	25	50	60	38	3	3	V2AB38K..	V2	V2AC38K..	H2
105	7 1/2	15	25	30	60	60	45	3	3	V2AB45K..	V4	V2AC45K..	H5
115	10	-	30	30	75	75	46	3	3	V2AB46K..	V4	V2AC46K..	H5
125	10	-	30	40	75	100	47	3	3	V2AB47K..	V4	V2AC47K..	H5

NEMA rated available - contact your Siemens representative

① Factory will automatically select the circuit breaker based on standard or given motor full-load current and the following:  
 - Continuous-current rating of a minimum 115% of motor full-load current.  
 - Trip-setting position is 11 times motor full load current.

② Some aux contacts may be used for control options, where necessary.

# Fusible Switch Combination and Non-Fusible Starter

## Selection

Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>1 NO auxiliary contact on all 20A enclosed, with options to add extra contacts</li> <li>3 NO + 3NC auxiliary contacts on all other sizes</li> <li>Class 10 bimetal overload relays including:                             <ul style="list-style-type: none"> <li>- Manual or Automatic reset</li> <li>- Phase Loss Protection</li> <li>- Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below</li> <li>Add suffix for overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
other voltages and frequencies are available upon request				

The type numbers in the selection table specify a 120V 60 Hz coil. If a different coil voltage is required, change the "K" (7 digit) as per Coil Suffix Table above.

Fusible Switch Combinations and Non-Fusible Starters HP Rated														
Enclosed Amps	CSA MAXIMUM HP RATING						FUSE CLIPS Type IJ Amps	Contactor reference number	Aux, Contacts <sup>Ⓞ</sup> supplied as standard per contactor		Enclosure Sheet Metal			
	1 phase		3 phase						CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use			
	115V	230V	208V	230V	460V	575V			Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.		
20	1/4	3/4	1 1/2	2	3	5	NONE 30	15	1	-	V3AB15K.. V4AB15K..	V2	V3AC15K.. V4AC15K..	H2
	1/3	1	2	3	5	7 1/2	NONE 30	16	1	-	V3AB16K.. V4AB16K..	V2	V3AC16K.. V4AC16K..	
	1/2	2	3	3	7 1/2	10	NONE 30	17	1	-	V3AB17K.. V4AB17K..	V2	V3AC17K.. V4AC17K..	
	1	2	3	5	10	10	NONE 30	18	1	-	V3AB18K.. V4AB18K..	V2	V3AC18K.. V4AC18K..	
35	1	3	5	5	10	15	NONE 30 60	25	3	3	V3AB25K.. V4AB25K.. V4AB25K..	V2	V3AC25K.. V4AC25K.. V4AC25K..	H2
	2	3	5	7 1/2	15	20	NONE 30 60	26	3	3	V3AB26K.. V4AB26K.. V4AB26K..	V2	V3AC26K.. V4AC26K.. V4AC26K..	
42	2	5	10	10	20	25	NONE 30 60	27	3	3	V3AB27K.. V4AB27K.. V4AB27K..	V2	V3AC27K.. V4AC27K.. V4AC27K..	H2
	3	5	10	10	25	25	NONE 30 60	28	3	3	V3AB28K.. V4AB28K.. V4AB28K..	V2	V3AC28K.. V4AC28K.. V4AC28K..	
55	3	7 1/2	10	15	30	40	NONE 30 60	35	3	3	V3AB35K.. V4AB35K.. V4AB35K..	V2	V3AC35K.. V4AC35K.. V4AC35K..	H2
60	3	10	15	15	40	50	NONE 30 60 100	36	3	3	V3AB36K.. V4AB36K.. V4AB36K.. V4AB36K..	V2	V3AC36K.. V4AC36K.. V4AC36K.. V4AC36K..	H2
80	5	10	20	20	50	50	NONE 30 60 100	37	3	3	V3AB37K.. V4AB37K.. V4AB37K.. V4AB37K..	V2	V3AC37K.. V4AC37K.. V4AC37K.. V4AC37K..	H2
90	5	15	20	25	50	60	NONE 30 60 100	38	3	3	V3AB38K.. V4AB38K.. V4AB38K.. V4AB38K..	V2	V3AC38K.. V4AC38K.. V4AC38K.. V4AC38K..	H2
105	-	-	-	-	-	60	NONE 60 100	45	3	3	V3AB45K.. V4AB45K.. V4AB45K..	V4	V3AC45K.. V4AC45K.. V4AC45K..	H5

NEMA rated available - contact your Siemens representative

Ⓞ Some aux contacts may be used for control options, where necessary.

Selection

General

Description

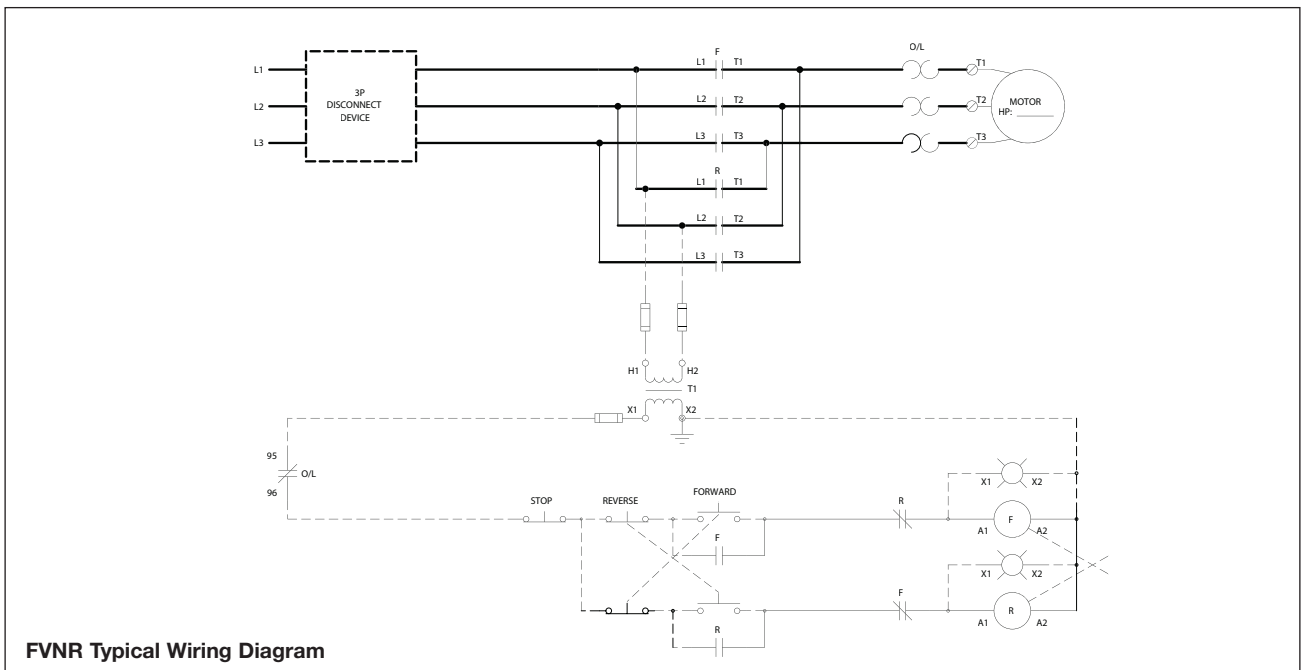
Siemens full voltage reversing type starters are designed for full voltage across-the-line starting and reversing of single or 3-phase squirrel cage motors. They also can be used as the primary control of wound rotor motors.

Combined with short circuit protection, FVR starters are also offered as combination starters:

- Fusible disconnect type complete with Form I, Class J fuse clips.
- Circuit breaker type or as Non-Fusible Controller.

FVR - starters are available up to 100HP, 600V AC in EEMAC Type 1, 12, 4 or 4X sheet metal enclosures.

FVR - starters are an assembly of the 3RA Reversing Contactor including electrical and mechanical interlock and a 3RU bimetallic overload relay.



Catalogue No.:

HP Rated Starter

V1 B B 15K .. .. .

- Disconnect Type
- Starter Type
- Enclosure Type
- Contactor Ref.
- Coil Voltage
- Overload Relay
- Power Line Volt. and Control Circuit
- Additional Aux. Contacts
- Pilot Devices Operators
- Pilot Devices Indicators
- Other options (fuse clips, control & timing relays, metering & protective devices, etc)



Selection

Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>Mechanical and electrical interlock</li> <li>2 NO + 2 NC contact block supplied per contactor</li> <li>Class 10 bimetal overload relays including:                             <ul style="list-style-type: none"> <li>- Manual or Automatic reset</li> <li>- Phase Loss Protection</li> <li>- Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below</li> <li>Add suffix for overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
		other voltages and frequencies are available upon request		

The type numbers in the selection table specify a 120V 60 Hz coil. If a different coil voltage is required, change the "K" (7 digit) as per Coil Suffix Table above.

Non-Combination HP Rated														
Enclosed Amps	CSA MAXIMUM HP RATING						Contactor reference number	Aux, Contacts <sup>®</sup> supplied as standard per contactor			Enclosure Sheet Metal			
	1 phase		3 phase					NO	NC	CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use		
	115V	230V	208V	230V	460V	575V				Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.	
20	1/4	3/4	1 1/2	2	3	5	15	2	3	V1BB15K..		V1BC15K..		
	1/3	1	2	3	5	7 1/2	16	2	3	V1BB16K..	V1	V1BC16K..	S	
	1/2	2	3	3	7 1/2	10	17	2	3	V1BB17K..		V1BC17K..		
35	1	2	3	5	10	10	18	2	3	V1BB18K..		V1BC18K..		
	1	3	5	5	10	15	25	3	3	V1BB25K..	V1	V1BC25K..	S	
	2	3	5	7 1/2	15	20	26	3	3	V1BB26K..		V1BC26K..		
42	2	5	10	10	20	25	27	3	3	V1BB27K..		V1BC27K..		
	3	5	10	10	25	25	28	3	3	V1BB28K..	V1	V1BC28K..	S	
	3	7 1/2	10	15	30	40	35	3	3	V1BB35K..	V2	V1BC35K..	H2	
60	3	10	15	15	40	50	36	3	3	V1BB36K..	V2	V1BC36K..	H2	
80	5	10	20	20	50	50	37	3	3	V1BB37K..	V2	V1BC37K..	H2	
90	5	15	20	25	50	60	38	3	3	V1BB38K..	V2	V1BC38K..	H2	
105	7 1/2	15	25	30	60	60	45	3	3	V1BB45K..	V3	V1BC45K..	H3	
115	10	-	30	30	75	75	46	3	3	V1BB46K..	V3	V1BC46K..	H3	
125	10	-	30	40	75	100	47	3	3	V1BB47K..	V3	V1BC47K..	H3	

NEMA rated available - contact your Siemens representative

© Some aux contacts may be used for control options and electrical interlock, where necessary.

## Selection

Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>Mechanical and electrical interlock</li> <li>2 NO + 2 NC contact block supplied per contactor</li> <li>Class 10 bimetal overload relays including:                             <ul style="list-style-type: none"> <li>- Manual or Automatic reset</li> <li>- Phase Loss Protection</li> <li>- Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below</li> <li>Add suffix for overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
		other voltages and frequencies are available upon request		

The type numbers in the selection table specify a 120V 60 Hz coil. If a different coil voltage is required, change the "K" (7 digit) as per Coil Suffix Table above.

Circuit Breaker Combination HP Rated													
Enclosed Amps	CSA MAXIMUM HP RATING						Contactor reference number	Aux, Contacts <sup>®</sup> supplied as standard per contactor		Enclosure Sheet Metal			
	1 phase		3 phase					NO		CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use	
	115V	230V	208V	230V	460V	575V		Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.		
20	1/4	3/4	1 1/2	2	3	5	15	2	3	V2BB15K..		V2BC15K..	
	1/3	1	2	3	5	7 1/2	16	2	3	V2BB16K..	V3	V2BC16K..	H3
	1/2	2	3	3	7 1/2	10	17	2	3	V2BB17K..		V2BC17K..	
35	1	2	3	5	10	10	18	2	3	V2BB18K..		V2BC18K..	
	1	3	5	5	10	15	25	3	3	V2BB25K..	V3	V2BC25K..	H3
	2	3	5	7 1/2	15	20	26	3	3	V2BB26K..		V2BC26K..	
42	2	5	10	10	20	25	27	3	3	V2BB27K..		V2BC27K..	
	3	5	10	10	25	25	28	3	3	V2BB28K..	V3	V2BC28K..	H3
55	3	7 1/2	10	15	30	40	35	3	3	V2BB35K..	V3	V2BC35K..	H3
60	3	10	15	15	40	50	36	3	3	V2BB36K..	V3	V2BC36K..	H3
80	5	10	20	20	50	50	37	3	3	V2BB37K..	V3	V2BC37K..	H3
90	5	15	20	25	50	60	38	3	3	V2BB38K..	V3	V2BC38K..	H3
105	7 1/2	15	25	30	60	60	45	3	3	V2BB45K..	V4	V2BC45K..	H5
115	10	-	30	30	75	75	46	3	3	V2BB46K..	V4	V2BC46K..	H5
125	10	-	30	40	75	100	47	3	3	V2BB47K..	V4	V2BC47K..	H5

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® Some aux contacts may be used for control options and electrical interlock, where necessary.

# Fusible Switch Combination and Non-Fusible Starter

## Selection

Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>Mechanical and electrical interlock</li> <li>2 NO + 2 NC contact block supplied per contactor</li> <li>Class 10 bimetallic overload relays including:                             <ul style="list-style-type: none"> <li>Manual or Automatic reset</li> <li>Phase Loss Protection</li> <li>Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below</li> <li>Add suffix for overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
		other voltages and frequencies are available upon request		

The type numbers in the selection table specify a 120V 60 Hz coil. If a different coil voltage is required, change the "K" (7 digit) as per Coil Suffix Table above.

Fusible Switch Combinations and Non-Fusible Starters HP Rated																
Enclosed Amps	CSA MAXIMUM HP RATING						FUSE CLIPS Type IJ Amps	Contactor reference number	Aux, Contacts <sup>o</sup> supplied as standard per contactor		Enclosure Sheet Metal					
	1 phase		3 phase						NO		NC		CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use	
	115V	230V	208V	230V	460V	575V			Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.				
20	1/4	3/4	1 1/2	2	3	5	NONE 30	15	2	3	V3BB15K.. V4BB15K..	V3BC15K.. V4BC15K..				
	1/3	1	2	3	5	7 1/2	NONE 30	16	2	3	V3BB16K.. V4BB16K..	V3BC16K.. V4BC16K..	H2			
	1/2	2	3	3	7 1/2	10	NONE 30	17	2	3	V3BB17K.. V4BB17K..	V3BC17K.. V4BC17K..				
35	1	2	3	5	10	10	NONE 30	18	2	3	V3BB18K.. V4BB18K..	V3BC18K.. V4BC18K..				
	1	3	5	5	10	15	NONE 30 60	25	3	3	V3BB25K.. V4BB25K.. V4BB25K..	V3BC25K.. V4BC25K.. V4BC25K..	H2			
	2	3	5	7 1/2	15	20	NONE 30 60	26	3	3	V3BB26K.. V4BB26K.. V4BB26K..	V3BC26K.. V4BC26K.. V4BC26K..				
42	2	5	10	10	20	25	NONE 30 60	27	3	3	V3BB27K.. V4BB27K.. V4BB27K..	V3BC27K.. V4BC27K.. V4BC27K..	H2			
	3	5	10	10	25	25	NONE 30 60	28	3	3	V3BB28K.. V4BB28K.. V4BB28K..	V3BC28K.. V4BC28K.. V4BC28K..	H2			
55	3	7 1/2	10	15	30	40	NONE 30 60	35	3	3	V3BB35K.. V4BB35K.. V4BB35K..	V3BC35K.. V4BC35K.. V4BC35K..	H2			
60	3	10	15	15	40	50	NONE 30 60 100	36	3	3	V3BB36K.. V4BB36K.. V4BB36K.. V4BB36K..	V3BC36K.. V4BC36K.. V4BC36K.. V4BC36K..	H2			
80	5	10	20	20	50	50	NONE 30 60 100	37	3	3	V3BB37K.. V4BB37K.. V4BB37K.. V4BB37K..	V3BC37K.. V4BC37K.. V4BC37K.. V4BC37K..	H2			
90	5	15	20	25	50	60	NONE 30 60 100	38	3	3	V3BB38K.. V4BB38K.. V4BB38K.. V4BB38K..	V3BC38K.. V4BC38K.. V4BC38K.. V4BC38K..	H2			
105	-	-	-	-	-	60	NONE 60 100	45	3	3	V3BB45K.. V4BB45K.. V4BB45K..	V3BC45K.. V4BC45K.. V4BC45K..	H5			

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<sup>o</sup> Some aux contacts may be used for control options and electrical interlock, where necessary.

# Two Speed Starters

## Selection

### General

#### Description

Full-voltage ac magnetic two speed controllers are designed to control reconnectable squirrel-cage induction motors for operation at two different constant speeds depending on the construction of the motor. These controllers are available in combination and non-combination types. The speed of an induction motor is a function of the supply frequency and the number of poles of the motor winding. To obtain different speeds with a fixed supply frequency, the number of magnetic poles of the motor must be changed.

Characteristics at any speed are similar to those of a single-speed motor. There are two basic methods of providing multiple-pole combinations:

**Separate-Winding Motors** have a separate winding for each speed. This motor construction is slightly more expensive, but the controller is relatively simple, and a wide variety of speeds can be selected. Separate winding motors with delta connected motor windings require one corner to be opened on each unused winding.

**Consequent-Pole Motors** have a single winding for two speeds. Extra winding taps are brought out for reconnection for different number of stator poles. While the motor costs less, the controller is more complicated, and speed range is limited to a 2-to-1 ratio.

#### Torque Characteristics

Multi-speed motors are divided into three application groups: **Constant Torque** - HP output varies directly with speed, while torque remains constant. A constant-torque motor rated 100 HP at 1200 rpm delivers 50 HP at 600 rpm. This type is applicable to conveyors, mills, dough mixers, reciprocating pumps, and other similar loads.

**Variable Torque** - HP varies as a square of speed, while torque varies directly with speed. A variable-torque motor rated 100 HP at 1200 rpm delivers 25 HP at 600 rpm. This type is applicable to systems having fan or centrifugal pump characteristics.

**Constant Horsepower** - Motor delivers rated HP at all full-load speeds, while torque varies inversely to speed. This type is applicable to cutting tools, lathes, spindles, etc.

#### Selection and Ordering

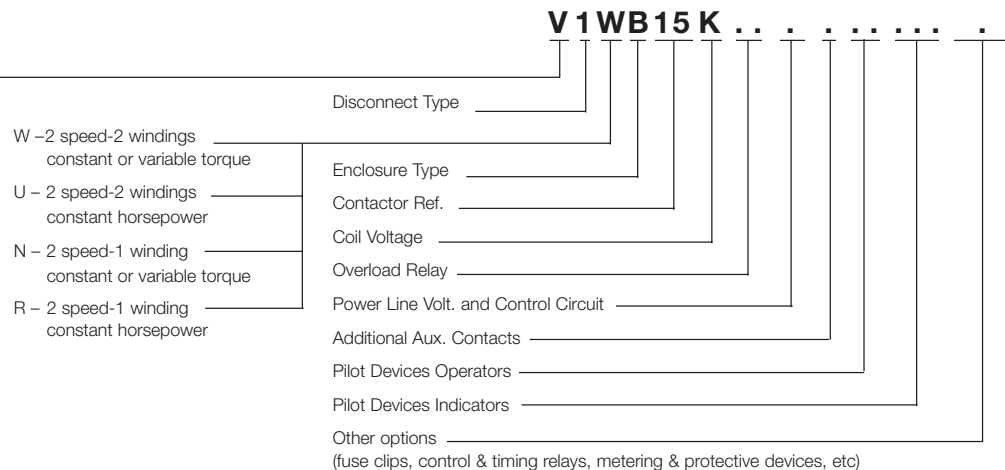
Starter ratings are based on the maximum HP at the highest speed. Electrical interlocking is furnished on all multi-speed starters to preclude connecting more than one speed winding at the same time. Both mechanical and electrical interlocking is provided wherever there is a possibility of short circuiting of the line.

Standard wiring permits starting the motor on any speed. To change a running motor to a higher speed, operator presses the desired speed button. To change to a lower speed, operator must press "stop" button before selecting the lower speed; allowing time for the motor to slow down, this reduces shock on driven machinery and surges on the power system.

When control at various speeds is by means of two-wire control devices, such as limit, pressure or float switches, deceleration relays should be used, unless both the motor manufacturer and the machine manufacturer have been consulted.

#### Catalogue No.:

HP Rated Starter \_\_\_\_\_

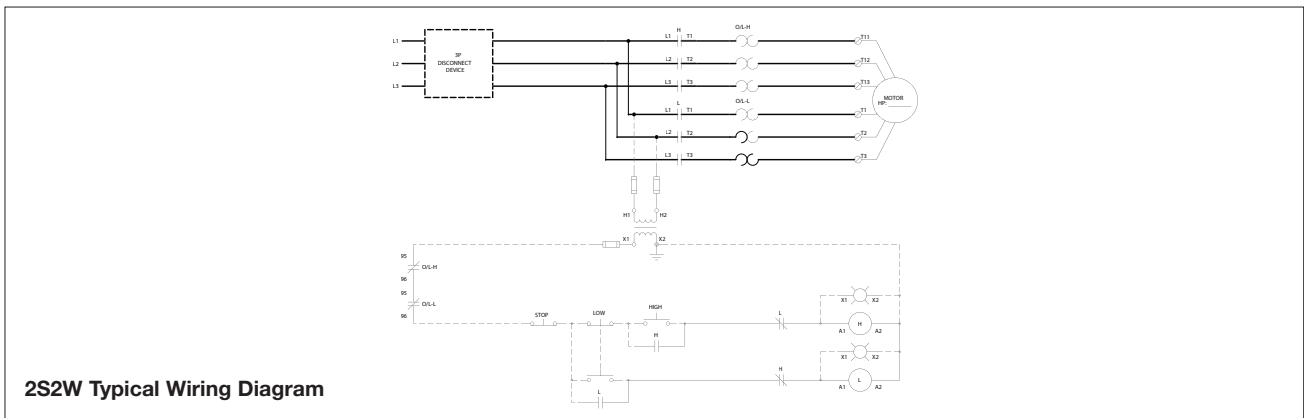


Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>2 NO + 2 NC contact block supplied per contactor</li> <li>Class 10 bimetallic overload relays including:                             <ul style="list-style-type: none"> <li>- Manual or Automatic reset</li> <li>- Phase Loss Protection</li> <li>- Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below</li> <li>Add suffix for both overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
			other voltages and frequencies are available upon request	

The type numbers in the selection table below specify 120V 60 Hz coils. If a different coil voltage is required, change the "K" (7 digit) as per Coil Suffix Table above.

Non-Combination HP Rated										For Constant Horsepower, 'W' is replaced with 'U'			
Enclosed Amps	CSA MAXIMUM HP RATING						Contactor reference number	Aux, Contacts <sup>①</sup> supplied as standard per contactor		Enclosure Sheet Metal			
	1 phase		3 phase					NO	NC	CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use	
	115V	230V	208V	230V	460V	575V				Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.
20	1/4	3/4	1 1/2	2	3	5	15	3	2	V1WB15K..		V1WC15K..	
	1/3	1	2	3	5	7 1/2	16	3	2	V1WB16K..	V1	V1WC16K..	S
	1/2	2	3	3	7 1/2	10	17	3	2	V1WB17K..		V1WC17K..	
35	1	2	3	5	10	10	18	3	3	V1WB18K..	V1	V1WC18K..	S
	1	3	5	5	10	15	25	3	3	V1WB25K..		V1WC25K..	
	2	3	5	7 1/2	15	20	26	3	3	V1WB26K..	V2	V1WC26K..	H2
42	2	5	10	10	20	25	27	3	3	V1WB27K..		V1WC27K..	
	3	5	10	10	25	25	28	3	3	V1WB28K..	V2	V1WC28K..	H2
55	3	7 1/2	10	15	30	40	35	3	3	V1WB35K..	V2	V1WC35K..	H2
60	3	10	15	15	40	50	36	3	3	V1WB36K..	V2	V1WC36K..	H2
80	5	10	20	20	50	50	37	3	3	V1WB37K..	V2	V1WC37K..	H2
90	5	15	20	25	50	60	38	3	3	V1WB38K..	V2	V1WC38K..	H2
105	7 1/2	15	25	30	60	60	45	3	3	V1WB45K..	V3	V1WC45K..	H3
115	10	-	30	30	75	75	46	3	3	V1WB46K..	V3	V1WC46K..	H3
125	10	-	30	40	75	100	47	3	3	V1WB47K..	V3	V1WC47K..	H3

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① Some aux contacts may be used for control options and electrical interlock, where necessary.

# Circuit Breaker Combination, Constant or Variable Torque

## Selection

Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>2 NO + 2 NC contact block supplied per contactor</li> <li>Class 10 bimetallic overload relays including:                             <ul style="list-style-type: none"> <li>- Manual or Automatic reset</li> <li>- Phase Loss Protection</li> <li>- Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below</li> <li>Add suffix for both overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
		other voltages and frequencies are available upon request		

The type numbers in the selection table below specify 120V 60 Hz coils. If a different coil voltage is required, change the "K" (7 digit) as per Coil Suffix Table above.

Circuit Breaker Combination <sup>®</sup> HP Rated										For Constant Horsepower, 'W' is replaced with 'U'			
Enclosed Amps	CSA MAXIMUM HP RATING						Contactor reference number	Aux, Contacts <sup>®</sup> supplied as standard per contactor		Enclosure Sheet Metal			
	1 phase		3 phase					NO	NC	CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use	
	115V	230V	208V	230V	460V	575V				Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.
20	1/4	3/4	1 1/2	2	3	5	15	3	2	V2WB15K..	V3	V2WC15K..	
	1/3	1	2	3	5	7 1/2	16	3	2	V2WB16K..	V3	V2WC16K..	H3
	1/2	2	3	3	7 1/2	10	17	3	2	V2WB17K..		V2WC17K..	
35	1	2	3	5	10	10	18	3	3	V2WB18K..		V2WC18K..	
	1	3	5	5	10	15	25	3	3	V2WB25K..	V3	V2WC25K..	H3
	2	3	5	7 1/2	15	20	26	3	3	V2WB26K..		V2WC26K..	
42	2	5	10	10	20	25	27	3	3	V2WB27K..		V2WC27K..	
	3	5	10	10	25	25	28	3	3	V2WB28K..	V3	V2WC28K..	H3
55	3	7 1/2	10	15	30	40	35	3	3	V2WB35K..	V3	V2WC35K..	H3
60	3	10	15	15	40	50	36	3	3	V2WB36K..	V3	V2WC36K..	H3
80	5	10	20	20	50	50	37	3	3	V2WB37K..	V3	V2WC37K..	H3
90	5	15	20	25	50	60	38	3	3	V2WB38K..	V3	V2WC38K..	H3
105	7 1/2	15	25	30	60	60	45	3	3	V2WB45K..	V4	V2WC45K..	H5
115	10	-	30	30	75	75	46	3	3	V2WB46K..	V4	V2WC46K..	H5
125	10	-	30	40	75	100	47	3	3	V2WB47K..	V4	V2WC47K..	H5

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Ⓞ Factory will automatically select the circuit breaker based on standard or given motor full-load current and the following:  
 - Continuous-current rating of a minimum 115% of motor full-load current.  
 - Trip-setting position is 11 times motor full load current.

Ⓞ Some aux contacts may be used for control options and electrical interlock, where necessary.

# Fusible Switch Combination & Non-Fusible Starter, Constant or Variable Torque

## Selection

Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>2 NO + 2 NC contact block supplied per contactor.</li> <li>Class 10 bimetallic overload relays including:                             <ul style="list-style-type: none"> <li>- Manual or Automatic reset</li> <li>- Phase Loss Protection</li> <li>- Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below</li> <li>Add suffix for both overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
other voltages and frequencies are available upon request				

The type numbers in the selection table below specify 120V 60 Hz coils. If a different coil voltage is required, change the "K" (7 digit) as per Coil Suffix Table above.

Fusible Switch Combinations and Non-Fusible Starters HP Rated											For Constant Horsepower, 'W' is replaced with 'U'			
Enclosed Amps	CSA MAXIMUM HP RATING						FUSE CLIPS Type IJ Amps	Contactor reference number	Aux, Contacts <sup>®</sup> supplied as standard per contactor		Enclosure Sheet Metal			
	1 phase		3 phase						NO	NC	CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use	
	115V	230V	208V	230V	460V	575V					Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.
20	1/4	3/4	1 1/2	2	3	5	NONE 30	15	3	2	V3WB15K.. V4WB15K..	V3	V3WC15K.. V4WC15K..	
	1/3	1	2	3	5	7 1/2	NONE 30	16	3	2	V3WB16K.. V4WB16K..	V3	V3WC16K.. V4WC16K..	H3
	1/2	2	3	3	7 1/2	10	NONE 30	17	3	2	V3WB17K.. V4WB17K..		V3WC17K.. V4WC17K..	
35	1	2	3	5	10	10	NONE 30	18	2	2	V3WB18K.. V4WB18K..		V3WC18K.. V4WC18K..	
	1	3	5	5	10	15	NONE 30 60	25	2	2	V3WB25K.. V4WB25K.. V4WB25K..	V3	V3WC25K.. V4WC25K.. V4WC25K..	H3
	2	3	5	7 1/2	15	20	NONE 30 60	26	2	2	V3WB26K.. V4WB26K.. V4WB26K..		V3WC26K.. V4WC26K.. V4WC26K..	
42	2	5	10	10	20	25	NONE 30 60	27	2	2	V3WB27K.. V4WB27K.. V4WB27K..	V3	V3WC27K.. V4WC27K.. V4WC27K..	H3
	3	5	10	10	25	25	NONE 30 60	28	2	2	V3WB28K.. V4WB28K.. V4WB28K..		V3WC28K.. V4WC28K.. V4WC28K..	
55	3	7 1/2	10	15	30	40	NONE 30 60	35	2	2	V3WB35K.. V4WB35K.. V4WB35K..	V3	V3WC35K.. V4WC35K.. V4WC35K..	H3
60	3	10	15	15	40	50	NONE 30 60 100	36	2	2	V3WB36K.. V4WB36K.. V4WB36K.. V4WB36K..	V3	V3WC36K.. V4WC36K.. V4WC36K.. V4WC36K..	H3
80	5	10	20	20	50	50	NONE 30 60 100	37	2	2	V3WB37K.. V4WB37K.. V4WB37K.. V4WB37K..	V3	V3WC37K.. V4WC37K.. V4WC37K.. V4WC37K..	H3
90	5	15	20	25	50	60	NONE 30 60 100	38	2	2	V3WB38K.. V4WB38K.. V4WB38K.. V4WB38K..	V3	V3WC38K.. V4WC38K.. V4WC38K.. V4WC38K..	H3
105	-	-	-	-	-	60	NONE 60 100	45	2	2	V3AB45K.. V4AB45K.. V4AB45K..	V4	V3AC45K.. V4AC45K.. V4AC45K..	H5

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© Some aux contacts may be used for control options and electrical interlock, where necessary.

# Non-Combination, Constant or Variable Torque

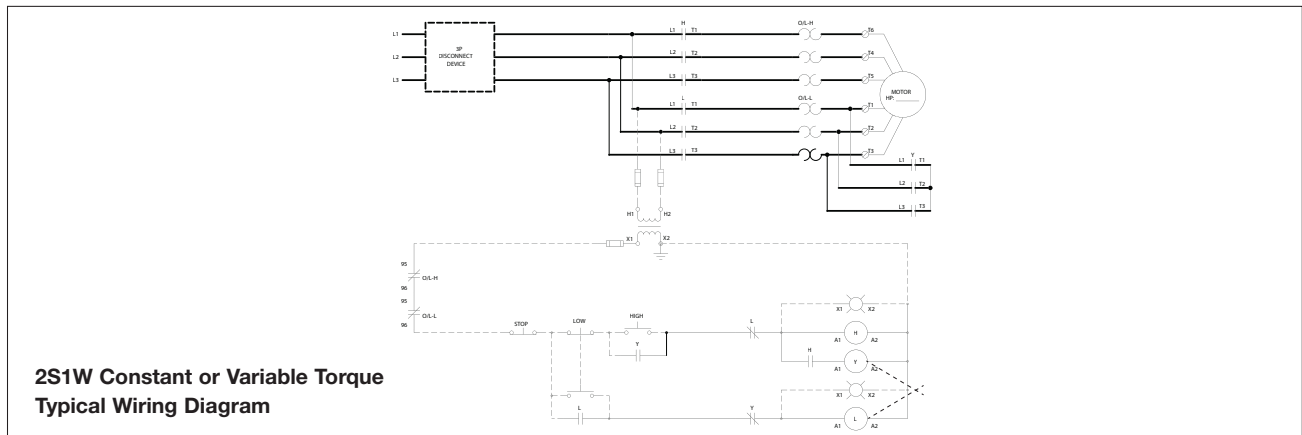
## Selection

Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>Mechanical and electrical interlock</li> <li>2 NO + 2 NC contact block supplied per contactor</li> <li>Class 10 bimetal overload relays including:                             <ul style="list-style-type: none"> <li>Manual or Automatic reset</li> <li>Phase Loss Protection</li> <li>Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below</li> <li>Add suffix for both overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
other voltages and frequencies are available upon request				

The type numbers in the selection table below specify 120V 60 Hz coils. If a different coil voltage is required, change the "K" (7 digit) as per Coil Suffix Table above.

Non-Combination HP Rated						For Constant Horsepower, 'N' is replaced with 'R'					
Enclosed Amps	3 phase				Contactor reference number	Aux. Contacts <sup>Ⓣ</sup> supplied as standard per contactor		Enclosure Sheet Metal			
	208V	230V	460V	575V		NO	NC	CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use	
								Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.
	1 1/2	2	3	5	15	2	3	V1NB15K..		V1NC15K..	
20	2	3	5	7 1/2	16	2	3	V1NB16K..	V2	V1NC16K..	H2
	3	3	7 1/2	10	17	2	3	V1NB17K..		V1NC17K..	
35	3	5	10	10	18	2	3	V1NB18K..		V1NC18K..	
	5	5	10	15	25	3	3	V1NB25K..	V2	V1NC25K..	H2
42	5	7 1/2	15	20	26	3	3	V1NB26K..		V1NC26K..	
	10	10	20	25	27	3	3	V1NB27K..		V1NC27K..	
55	10	10	25	25	28	3	3	V1NB28K..	V2	V1NC28K..	H2
	10	15	30	40	35	3	3	V1NB35K..	V3	V1NC35K..	H3
60	15	15	40	50	36	3	3	V1NB36K..	V3	V1NC36K..	H3
80	20	20	50	50	37	3	3	V1NB37K..	V3	V1NC37K..	H3
90	20	25	50	60	38	3	3	V1NB38K..	V3	V1NC38K..	H3
105	25	30	60	60	45	3	3	V1NB45K..	V4	V1NC45K..	H5
115	30	30	75	75	46	3	3	V1NB46K..	V4	V1NC46K..	H5
125	30	-	75	100	47	3	3	V1NB47K..	V4	V1NC47K..	H5

NEMA rated available - contact your Siemens representative



Ⓣ Some aux contacts may be used for control options and electrical interlock, where necessary.



# Circuit Breaker Combination, Constant or Variable Torque

## Selection

Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>Mechanical and electrical interlock</li> <li>2 NO + 2 NC contact block supplied per contactor</li> <li>Class 10 bimetallic overload relays including:                             <ul style="list-style-type: none"> <li>- Manual or Automatic reset</li> <li>- Phase Loss Protection</li> <li>- Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below</li> <li>Add suffix for both overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
other voltages and frequencies are available upon request				

The type numbers in the selection table below specify 120V 60 Hz coils. If a different coil voltage is required, change the "K" (7 digit) as per Coil Suffix Table above.

Circuit Breaker Combination® HP Rated											
Enclosed Amps	3 phase				Contactor reference number	Aux, Contacts <sup>®</sup> supplied as standard per contactor		Enclosure Sheet Metal			
	208V	230V	460V	575V		NO	NC	CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use	
								Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.
20	1 1/2	2	3	5	15	2	3	V2NB15K..		V2NC15K..	
	2	3	5	7 1/2	16	2	3	V2NB16K..	V3	V2NC16K..	H3
	3	3	7 1/2	10	17	2	3	V2NB17K..		V2NC17K..	
	3	5	10	10	18	2	3	V2NB18K..		V2NC18K..	
35	5	5	10	15	25	3	3	V2NB25K..	V3	V2NC25K..	H3
	5	7 1/2	15	20	26	3	3	V2NB26K..		V2NC26K..	
42	10	10	20	25	27	3	3	V2NB27K..		V2NC27K..	
	10	10	25	25	28	3	3	V2NB28K..	V3	V2NC28K..	H3
55	10	15	30	40	35	3	3	V2NB35K..	V3	V2NC35K..	H3
60	15	15	40	50	36	3	3	V2NB36K..	V3	V2NC36K..	H3
80	20	20	50	50	37	3	3	V2NB37K..	V3	V2NC37K..	H3
90	20	25	50	60	38	3	3	V2NB38K..	V3	V2NC38K..	H3
105	25	30	60	60	45	3	3	V2NB45K..	V4	V2NC45K..	H5
115	30	30	75	75	46	3	3	V2NB46K..	V4	V2NC46K..	H5
125	30	-	75	100	47	3	3	V2NB47K..	V4	V2NC47K..	H5

NEMA rated available - contact your Siemens representative

® Factory will automatically select the circuit breaker based on standard or given motor full-load current and the following:  
 - Continuous-current rating of a minimum 115% of motor full-load current.  
 - Trip-setting position is 11 times motor full load current.

® Some aux contacts may be used for control options and electrical interlock, where necessary.

# Fusible Switch Combination & Non-Fusible Starters, Constant or Variable Torque

## Selection

Standard Features	Ordering Information Required	Coil Voltage Codes		
		ACV 60 Hz	ACV 50 Hz	Coil Suffix
<ul style="list-style-type: none"> <li>Mechanical and electrical interlock</li> <li>2 NO + 2 NC contact block supplied per contactor</li> <li>Class 10 bimetallic overload relays including:                             <ul style="list-style-type: none"> <li>- Manual or Automatic reset</li> <li>- Phase Loss Protection</li> <li>- Separate Trip and Alarm contact</li> </ul> </li> <li>All enclosures are designed to accept a standard sized control transformer</li> <li>All enclosures have provisions for up to 4 pilot devices</li> </ul>	<ul style="list-style-type: none"> <li>Select basic type nr. from table below</li> <li>Add suffix for both overload relay setting range from page 10/19</li> <li>Add suffix for factory modification from page 10/20 - 10/24</li> </ul>	24	20	C
		120	110	K
		208	-	M
		240	220	P
		460	380	V
		600	-	T
other voltages and frequencies are available upon request				

The type numbers in the selection table below specify 120V 60 Hz coils. If a different coil voltage is required, change the "K" (7 digit) as per Coil Suffix Table above.

Fusible Switch Combinations and Non-Fusible Starters HP Rated													
Enclosed Amps	3 phase				FUSE CLIPS Type IJ Amps	Contactor reference number	Aux. Contacts <sup>①</sup> supplied as standard per contactor		Enclosure Sheet Metal				
	200V	230V	460V	575V			NO	NC	CSA / EEMAC Type 1 General Purpose Enclosure		CSA Type 5 / EEMAC Type 12 Industrial Use		
									Catalogue Number	Encl. Fig.	Catalogue Number	Encl. Fig.	
20	1 1/2	2	3	5	NONE 30	15	2	3	V3NB15K.. V4NB15K..	V3	V3NC15K.. V4NC15K..		
	2	3	5	7 1/2	NONE 30	16	2	3	V3NB16K.. V4NB16K..	V3	V3NC16K.. V4NC16K..	H3	
	3	3	7 1/2	10	NONE 30	17	2	3	V3NB17K.. V4NB17K..		V3NC17K.. V4NC17K..		
35	3	5	10	10	NONE 30	18	2	3	V3NB18K.. V4NB18K..		V3NC18K.. V4NC18K..		
	5	5	10	15	NONE 30 60	25	2	2	V3NB25K.. V4NB25K.. V4NB25K..	V3	V3NC25K.. V4NC25K.. V4NC25K..	H3	
	5	7 1/2	15	20	NONE 30 60	26	2	2	V3NB26K.. V4NB26K.. V4NB26K..		V3NC26K.. V4NC26K.. V4NC26K..		
42	10	10	20	25	NONE 30 60	27	2	2	V3NB27K.. V4NB27K.. V4NB27K..	V3	V3NC27K.. V4NC27K.. V4NC27K..	H3	
	10	10	25	25	NONE 30 60	28	2	2	V3NB28K.. V4NB28K.. V4NB28K..		V3NC28K.. V4NC28K.. V4NC28K..		
	10	15	30	40	NONE 30 60	35	2	2	V3NB35K.. V4NB35K.. V4NB35K..	V3	V3NC35K.. V4NC35K.. V4NC35K..	H3	
60	15	15	40	50	NONE 30 60 100	36	2	2	V3NB36K.. V4NB36K.. V4NB36K.. V4NB36K..	V3	V3NC36K.. V4NC36K.. V4NC36K.. V4NC36K..	H3	
	20	20	50	50	NONE 30 60 100	37	2	2	V3NB37K.. V4NB37K.. V4NB37K.. V4NB37K..	V3	V3NC37K.. V4NC37K.. V4NC37K.. V4NC37K..	H3	
	20	25	50	60	NONE 30 60 100	38	2	2	V3NB38K.. V4NB38K.. V4NB38K.. V4NB38K..	V3	V3NC38K.. V4NC38K.. V4NC38K.. V4NC38K..	H3	

NEMA rated available - contact your Siemens representative

① Some aux contacts may be used for control options and electrical interlock, where necessary

Selection

Append to Catalogue Number V4AB15K _ _			The overload relay calibration is based on a motor service factor (S.F.) of 1.15. If the service factor is 1.0, multiply motor F.L.C. by 0.92 before making selection.					
Adjustment Range Amps	Contactor Reference in Type No. (5. and 6. digit)							
	15 / 16 / 17/ 18		25 / 26 / 27		35 / 36 / 37 / 38		45 / 46 / 47	
	Overload Type	Overload Suffix	Overload Type	Overload Suffix	Overload Type	Overload Suffix	Overload Type	Overload Suffix
0.11 - 0.16	3RU2116	0A						
0.14 - 0.2	3RU2116	0B						
0.18 - 0.25	3RU2116	0C						
0.22 - 0.32	3RU2116	0D						
0.28 - 0.4	3RU2116	0E						
0.35 - 0.5	3RU2116	0F						
0.45 - 0.63	3RU2116	0G						
0.55 - 0.8	3RU2116	0H						
0.7 - 1.0	3RU2116	0J						
0.9 - 1.25	3RU2116	0K						
1.1 - 1.6	3RU2116	1A						
1.4 - 2	3RU2116	1B						
1.8 - 2.5	3RU2116	1C	3RU2126	1C				
2.2 - 3.2	3RU2116	1D	3RU2126	1D				
2.8 - 4	3RU2116	1E	3RU2126	1E				
3.5 - 5	3RU2116	1F	3RU2126	1F				
4.5 - 6.3	3RU2116	1G	3RU2126	1G				
5.5 - 8	3RU2116	1H	3RU2126	1H	3RU2136	1H		
7 - 10	3RU2116	1J	3RU2126	1J	3RU2136	1J		
9 - 12.5	3RU2116	1K	3RU2126	1K	3RU2136	1K		
11 - 16	3RU2116	4A	3RU2126	4A	3RU2136	4A		
14 - 20			3RU2126	4B	3RU2136	4B		
17 - 22			3RU2126	4C	3RU2136	—		
18 - 25			3RU2126	—	3RU2136	4D		
20 - 25			3RU2126	4D	3RU2136	—		
23 - 28			3RU2126	4N	3RU2136	—		
22 - 32			3RU2126	—	3RU2136	4E		
27 - 32			3RU2126	4E	3RU2136	—	3RU2146	—
28 - 40			3RU2126	—	3RU2136	4F	3RU2146	4F
30 - 36			3RU2126	4P	3RU2136	—	3RU2146	—
34 - 40			3RU2126	4F	3RU2136	—	3RU2146	—
36 - 45					3RU2136	4G	3RU2146	—
36 - 50					3RU2136	—	3RU2146	4H
40 - 50					3RU2136	4H	3RU2146	—
47 - 57					3RU2136	4Q	3RU2146	—
45 - 63					3RU2136	—	3RU2146	4J
54 - 65					3RU2136	4J	3RU2146	—
57 - 75					3RU2136	—	3RU2146	4K
62 - 73					3RU2136	4K	3RU2146	—
70 - 80					3RU2136	4R	3RU2146	—
70 - 90							3RU2146	4L
80 - 100							3RU2146	4M

Other Options	Suffix
Provision only for field amounting of overload relay	00
Substitute bimetal overload relay with solid state type 3RB2, Class 20	□□ <sup>①</sup>

① Contact your Siemens representative for quote. Designators will be added based on requested configuration.

# Power Line Voltage and Control Circuit Options

## Selection

Power Line Voltage Selection	Append to Catalogue Number i.e.: V4AB15K1E_ _						
	120V	208V	230V	460V	575V	600V Max.	Other
Single Phase, 60Hz (L1, N)	1	-	-	-	-	-	-
Single Phase, 60Hz (L1, L2)	-	-	7	-	-	-	-
Three Phases, 60Hz (L1, L2, L3)	-	2	3	4	5	-	-
Three Phases, 600V Max, 60Hz(L1, L2, L3)	-	-	-	-	-	6	-
Specify voltage, frequency, No. of phase & neutral if required	-	-	-	-	-	-	3

**Note:** Power line voltage is an important data to be known in order to provide a starter properly connected for single phase or three phase load.

### Control Circuit Selection

Power Line Voltage Selection	Append to Catalogue Number i.e.: V4AB15K1E_ _	
	Contacting Reference No.	Suffix
Separate Control Circuit, Unfused		0
Separate Control Circuit, Fused, 1 fuse max. 250V		N
Common Control with 1 Control Fuse, max. 250V (for 120V control only)		P
Control Circuit Transformer: Standard Capacity		R
Control Circuit Transformer: Extra Capacity		
May require larger enclosure	additional 50VA	U
Consult Siemens	100VA	W
Special transformer voltages Specify		9

# Circuit Breaker Combination, Constant or Variable Torque

## Selection

### Additional Auxiliary Contacts

Append to Catalogue Number ie: V4AB15K1E5R_		
		Suffix
Std. auxiliary contacts as per starter selection table		0
Addition of: 2 N.O.		L
2 N.C.		F
4 N.O.		K
3 N.O. + 1 N.C.		E
2 N.O. + 2 N.C.		J
		M

Options available for FVNR type starters with contactor ref numbers:  
15 / 16 / 17 / 18

Other configurations will come with additional 2 N.O. + 2 N.C. aux block as standard

### Pilot Devices – Operators

Legend Plates are supplied as standard with Operators

Append to Catalogue Number i.e.: V4AB30K1E5R0_ _					
Operator Description	First Suffix <sup>①</sup>	EEMAC Enclosure Type	English Legend	Second Suffix	French Legend
None	0	1/12 4	-	-	-

### Pushbutton

1 pushbutton momentary	extended head red 1 N.C.	1 (2)	1/12 4	STOP	B	ARRET
twist lock maintained	mushroom red 1 N.C.	3 (4)	1/12 4	EMERGENCY STOP	A	ARRET D'URGENCE
2 pushbuttons momentary	1 - red 1 - green	5 (6)	1/12 4	START STOP ON OFF	C D	MARCHE ARRET EN HORS
3 pushbuttons momentary	1 - red 2 - black each	7 (8)	1/12 4	FORWARD REVERSE STOP HIGH LOW STOP UP DOWN STOP FAST SLOW STOP OPEN CLOSE STOP	E F G H J	AVANT ARRIERE ARRET HAUTE BASSE ARRET EN HAUT EN BAS ARRET VITE LENTEMENT ARRET OUVRIR FERMER ARRET

①When ordering French legend plates use the "first suffix" in brackets.

# Power Line Voltage and Control Circuit Options

## Selection

### Pilot Devices – Operators (continued)

Legend Plates are supplied as standard with Operators

Append to Catalogue Number i.e.: V4AB30K1E5R0 _ _						
Operator Description		First Suffix <sup>①</sup>	EEMAC Enclosure Type	English Legend	Second Suffix	French Legend
<b>2-position selector switch</b>						
2 position selector switch maintained	1 N.O.	A (B)	1/12 4	STOP START OFF ON HAND AUTO	K L M	ARRET MARCHE HORS EN MAN AUTO
2 position selector switch spring return	1 N.O.	C (D)	1/12 4	FOR REV HIGH LOW UP DOWN	N P Q	AVANT ARRIERE HAUTE BASSE HAUT BAS
2 position selector switch key operated maintained	1 N.O.	E (F)	1/12 4	FAST SLOW OPEN CLOSE LOCAL REMOTE	R S T	VITE LENT OUVRIR FERMER LOCAL A DIST.

### 3-position selector switch

3 position selector switch maintained	2 x 1 N.O.	G (H)	1/12 4			
3 position selector switch 1 spring return from both sides	2 x 1 N.O.	J (K)	1/12 4	HAND OFF AUTO FOR OFF REV HIGH OFF LOW UP OFF DOWN	1 2 3 4	MAN ARRET AUTO AVANT ARRET ARRIERE HAUTE ARRET BASSE HAUT ARRET BAS
3 position selector switch key operated maintained	2 x 1 N.O.	L (M)	1/12 4	FAST OFF SLOW OPEN OFF CLOSE LOCAL OFF REMOTE	5 6 7	VITE ARRET LENT OUVRIR ARRET FERMER LOCAL HORS A DIST.
3 position selector switch key operated spring return from both sides	2 x 1 N.O.	N (P)	1/12 4	TEST OFF AUTO	8	ESSAI ARRET AUTO

### 2 pushbuttons & 3-position selector switch

3 position selector switch maintained c/w START STOP pushbuttons momentary green	2 x 1 N.O. 1 N.C. 1 N.O.	T (U)	1/12 4	HAND OFF AUTO for selector switch and START STOP for pushbutton	X	MAN ARRET AUTO for selector switch and MARCHE ARRET for push-buttons
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### Pilot Devices – Indicators

Append to Catalogue Number i.e.: V4AB15K1E5R05C _ _ _		
Pilot Lights Description	First Suffix <sup>①</sup>	Enclosure Type
No Pilot Lights	0	1/4/12
LED c/w legend plate(s) 120V extended life	5 (6)	1/12 4
LED c/w legend plate(s) 24V extended life	7 (8)	1/12 4
LED without legend plate(s) 120V extended life	C	1/12 4
LED without legend plate(s) 24V extended life	D	1/12 4

① When ordering French legend plates use the "first suffix" in brackets.

## Selection

### Pilot Lights

Legend Plates and Lens Colours

Table A - One Pilot Light									
LEGEND PLATES			LEGEND COLOURS						
English	French		Red	Yellow	Green	Blue			Other Specify
RUN	MARCHE	Suffix	1C	1D	1E	-			19
ON	EN CIRCUIT		2C	2D	2E	-			29
OFF	ARRÊT		3C	3D	3E	-			39
O/L TRIPPED	SURCHARGE		4C	4D	-	-			49
READY	PRÊT		5C	5D	5E	5F			59
Other Legend Plates Specify			9C	9D	9E	9F			99

Table B - Two Pilot Lights									
LEGEND PLATES			LEGEND COLOURS						
English	French		Red Red	Green Green	Red Yellow	Red Green	Green Red	Green Yellow	Other Specify
RUN ▪ OFF	MARCHE ▪ ARRÊT	Suffix	-	-	-	64	65	-	69
ON ▪ OFF	EN CIRCUIT ▪ ARRÊT		-	-	-	74	75	-	79
RUN ▪ O/L TRIPPED	MARCHE ▪ SURCHARGE		-	-	83	-	85	86	89
ON ▪ O/L TRIPPED	EN CIRCUIT ▪ SURCHARGE		-	-	A3	-	A5	A6	A9
FORWARD ▪ REVERSE	AVANT ▪ ARRIERE		B1	B2	-	B4	B5	-	B9
FAST ▪ SLOW	VITE ▪ LENTEMENT		C1	C2	-	C4	C5	-	C9
UP ▪ DOWN	EN HAUT ▪ EN BAS		D1	D2	-	D4	D5	-	D9
HIGH ▪ LOW	HAUT ▪ BAS		E1	E2	-	E4	E5	-	E9
Other Legend Plates Specify			91	92	93	94	95	96	99

Table B - Three Pilot Lights									
LEGEND PLATES			LEGEND COLOURS						
English	French		Red Red Green	Green Green Red	Red Red Yellow	Green Green Yellow	Red Green Yellow	Green Red Yellow	Other Specify
RUN ▪ OFF ▪ O/L TRIPPED	MARCHE ▪ ARRÊT ▪ SURCHARGE	Suffix	-	-	-	-	FN	FP	F9
ON ▪ OFF ▪ O/L TRIPPED	EN CIRCUIT ▪ ARRÊT ▪ SURCHARGE		-	-	-	-	GN	GP	G9
FORWARD ▪ REVERSE ▪ OFF	AVANT ▪ ARRIERE ▪ ARRÊT		HK	HJ	-	-	-	-	H9
FAST ▪ SLOW ▪ OFF	VITE ▪ LENTEMENT ▪ ARRÊT		JK	JJ	-	-	-	-	J9
UP ▪ DOWN ▪ OFF	EN HAUT ▪ EN BAS ▪ ARRÊT		KK	KJ	-	-	-	-	K9
HIGH ▪ LOW ▪ OFF	HAUT ▪ BAS ▪ ARRÊT		LK	LJ	-	-	-	-	L9
FORWARD ▪ REVERSE ▪ O/L TRIPPED	AVANT ▪ ARRIERE ▪ SURCHARGE		-	MJ	ML	MM	MN	MP	M9
FAST ▪ SLOW ▪ O/L TRIPPED	VITE ▪ LENTEMENT ▪ SURCHARGE		-	NJ	NL	NM	NN	NP	N9
UP ▪ DOWN ▪ O/L TRIPPED	EN HAUT ▪ EN BAS ▪ SURCHARGE		-	PJ	PL	PM	PN	PP	P9
HIGH ▪ LOW ▪ O/L TRIPPED	HAUT ▪ BAS ▪ SURCHARGE		-	RJ	RL	RM	RN	RP	R9
Other Legend Plates Specify			9K	9J	9L	9M	9N	9P	99

# Power Line Voltage and Control Circuit Options

## Selection

### Miscellaneous Options:

Specify by suffix and description as required.

Append to Catalogue No i.e.: V4AB15K1E5R05C165-Z \_ \_ \_ \_ \_

Description	Suffix
Disconnect Devices	
Auxiliary Contacts, not wired	
Fusible or Non-Fusible	1 N.O. & 1 N.C. AX
Disconnect Switch	2 N.O. & 2 N.C. AY
Circuit Breaker	1 SPDT AW
	2 SPDT AX
	1 SPDT & 1 Alarm SPDT AY
Metering <sup>ⓐ</sup>	
Installed & wired, EEMAC Type 1 & 12	
Ammeter, 3-1/2" Panel Type <sup>ⓑ</sup>	
c/w one 5A sec. CT	
One extra CT	MA
Two extra CT's	M0
	MT
Voltmeter, 3-1/2" Panel Type <sup>ⓑ</sup>	
c/w One 0-750V Pt fused	MV
3-Phase Selector Switch	MS
Elapsed Time Meter	ME
Phase Failure and Phase Sequence Monitoring Relay	MD
Control Relays and Timers <sup>ⓐ</sup>	
4 Pole Relay, A600	
2 N.O. & 2 N.C.	not wired K2
	wired K5
3 N.O. & 1 N.C.	not wired K3
	wired K6
4 N.O.	not wired K4
	wired K7
Time Delay Relays <sup>ⓐ</sup>	
1-SPDT, B300, max 240V AC coil	
ON-Delay adj. up to 100s	not wired S1
	wired S2
OFF - Delay adj. up to 100s	not wired S3
	wired S4
Thermistor Tripping Unit <sup>ⓐ</sup>	
max. 240V AC coil,	Auto Reset HA
installed and wired	Manual Reset HM
Surge Suppressors for Contactors and Control Relays	SX
Wire Markers	WM

Description	Suffix
Drip Shield available for hinged cover enclosures only (V2, V3, V4)	DS
Identification Name Plate	
Lamacoid	1-25 characters N1
	25-50 characters N2

### Fuse Clips:

All Fusible Disconnect Combination Starters are supplied with Form I, Class J fuse clips as standard.

Fuse Clip Size	Form IJ
	Suffix
30A	PD (time-delay)
60A	PJ (fast-acting)
100A	

### Terminal Blocks

Description	Suffix
Wired 1 point terminal	T1
Wired 2 point terminal	T2
Wired 3 point terminal	T3
Wired 4 point terminal	T4
Wired 5 point terminal	T5
Wired 6 point terminal	T6
Wired 7 point terminal	T7
Wired 8 point terminal	T8
Wired 9 point terminal	T9
Wired 10 point terminal	T0
Unwired 1 point terminal	A
Unwired 2 point terminal	B
Unwired 3 point terminal	C
Unwired 4 point terminal	D
Unwired 5 point terminal	E
Unwired 6 point terminal	F
Unwired 7 point terminal	G
Unwired 8 point terminal	H
Unwired 9 point terminal	J
Unwired 10 point terminal	K

<sup>ⓐ</sup> Option may require larger enclosure. Consult Siemens.

<sup>ⓑ</sup> All requests must be accompanied by complete meter specifications. Availability may be limited.



# Contactors and Contactor Assemblies (Gold, Silver and Bronze)

## Selection

### Siemens SIRIUS

Pre-assembled starter packages are the simple way to order starters:

- 15HP, 600V max, non-combination
- Standard 1 NO contact on models with 15, 16 and 17 contact reference numbers and 1 NO + 1 NC on models with 25 contact reference number
- Ambient 60°C on contactors
- Fast and simple 3-prong overload/contactor connection: no coil extension required
- Standard primary and secondary fusing on control transformers
- Standard Plastic 22mm SIRIUS ACT control and pilot devices<sup>®</sup>

### SIRIUS GOLD, SILVER AND BRONZE

Starter Packages offer these standard features:

#### GOLD

- 50 VA 600/120V control transformer
- 3 pos. selector switch H.O.A.
- Pilot light 120V red

#### SILVER

- 50 VA 600/120V control transformer
- Start/Stop pushbuttons
- Pilot light 120V red

#### BRONZE

- No control transformer
- No pilot devices

Siemens modular line of quality Motor Control Products meets and exceeds international standards and are built to serve global markets. Here's why choosing a package is the smarter way to select a starter:

#### Saves Time

No more lengthy navigating through product catalogues! GOLD, SILVER and BRONZE starters offer an easy 2 step approach to selecting your starter.

1. Select the starter based on Horsepower (HP) and Line Voltage.
2. Select the appropriate overload relay.

Then it's ready to install. All this convenience is now available off your distributor's shelves.



#### Saves Money

This unique solution for the industry's most popular full voltage non-reversing starters is competitively priced compared to other custom-engineered starters.

#### Saves Hassle

Ease of selection. Off the shelf availability. Competitive pricing. It's easy to see why GOLD, SILVER and BRONZE packages are the ideal solution. For serious performance and serious convenience, take a SIRIUS approach to starters.

<sup>®</sup>Field installation kits for BRONZE models will include Metal 22mm SIGNUM control devices

# Contactors and Contactor Assemblies (Gold, Silver and Bronze)

## Selection

### Non-Combination Starter Package Selection EEMAC Type 1 Enclosed

Catalogue Number	Pilot Devices	Control Transformer w/ Primary and Secondary fuses	CSA Maximum HP Rating				Contactor Reference Number	Enclosure Reference Number
			3 phase					
			208V	240V	480V	600V		
GOLD3R-5-600 GOLD3R-3-480 GOLD3R-2-240 GOLD3R-1.5-208	3 Position Selector Switch & Pilot Light	Included 120V sec.	1 <sup>1/2</sup>	2	3	5	15	V0
GOLD3R-7.5-600 GOLD3R-5-480 GOLD3R-3-240 GOLD3R-2-208	3 Position Selector Switch & Pilot Light	Included 120V sec.	2	3	5	7 <sup>1/2</sup>	16	V0
GOLD3R-10-600 GOLD3R-7.5-480 GOLD3R-3-240 GOLD3R-3-208	3 Position Selector Switch & Pilot Light	Included 120V sec.	3	3	7 <sup>1/2</sup>	10	17	V0
GOLD3R-15-600 GOLD3R-10-480 GOLD3R-5-240 GOLD3R-5-208	3 Position Selector Switch & Pilot Light	Included 120V sec.	5	5	10	15	25	V1
SILVER3R-5-600 SILVER3R-3-480 SILVER3R-2-240 SILVER3R-1.5-208	Start/Stop Pushbuttons & Pilot Light	Included 120V sec.	1 <sup>1/2</sup>	2	3	5	15	V0
SILVER3R-7.5-600 SILVER3R-5-480 SILVER3R-3-240 SILVER3R-2-208	Start/Stop Pushbuttons & Pilot Light	Included 120V sec.	2	3	5	7 <sup>1/2</sup>	16	V0
SILVER3R-10-600 SILVER3R-7.5-480 SILVER3R-3-240 SILVER3R-3-208	Start/Stop Pushbuttons & Pilot Light	Included 120V sec.	3	3	7 <sup>1/2</sup>	10	17	V0
SILVER3R-15-600 SILVER3R-10-480 SILVER3R-5-240 SILVER3R-5-208	Start/Stop Pushbuttons & Pilot Light	Included 120V sec.	5	5	10	15	25	V1
BRONZE3R-5-600 BRONZE3R-7.5-600 BRONZE3R-10-600 BRONZE3R-15-600	None	None	1 <sup>1/2</sup> 2 3 5	2 3 3 5	3 5 7 <sup>1/2</sup> 10	5 7 <sup>1/2</sup> 10 15	15 16 17 25	V0 V0 V0 V1

# Contactors and Contactor Assemblies (Gold, Silver and Bronze)

## Selection

### Overload Relay Selection Chart

FLA Adjustment Range Amps	Catalogue Number	
	15/16/17	25
0.11-0.16	3RU2116-0AB0	-
0.14-0.2	3RU2116-0BB0	-
0.18-0.25	3RU2116-0CB0	-
0.22-0.32	3RU2116-0DB0	-
0.28-0.4	3RU2116-0EB0	-
0.35-0.5	3RU2116-0FB0	-
0.45-0.63	3RU2116-0GB0	-
0.55-0.8	3RU2116-0HB0	-
0.7-1	3RU2116-0JB0	-
0.9-1.25	3RU2116-0KB0	-
1.1-1.6	3RU2116-1AB0	-
1.4-2	3RU2116-1BB0	-
1.8-2.5	3RU2116-1CB0	3RU2126-1CB0
2.2-3.2	3RU2116-1DB0	3RU2126-1DB0
2.8-4	3RU2116-1EB0	3RU2126-1EB0
3.5-5	3RU2116-1FB0	3RU2126-1FB0
4.5-6.3	3RU2116-1GB0	3RU2126-1GB0
5.5-8	3RU2116-1HB0	3RU2126-1HB0
7-10	3RU2116-1JB0	3RU2126-1JB0
9-12.5	3RU2116-1KB0	3RU2126-1KB0
11-16	-	3RU2126-4AB0

Selection

*Pilot Devices - Suitable for Installation on BRONZE models*

Pushbuttons			LEGEND PLATES		Catalogue Number
			English	French	
2 - pushbuttons momentary	1 - red, ext. 1 - green, flush	1 NC 1 NO	STOP START	ARRÊT MARCHE	VFMK50
<b>Selector Switches</b>					
2 - position maintained	black lever 1 NO	ON OFF	EN CIRCUIT ARRÊT		VFMKCO
3 - position maintained	black lever 2 x 1 NO	HAND OFF AUTO	MAN ARRÊT AUTO		VFMKG0
<b>Pilot Lights</b>					
Full Voltage 120 V incandescent	c/w 2 lenses red & green	None			VFMK01

*Control Circuit Transformers c/w 2 - Primary and 1 Secondary Fuse*

Rating at 60 Hz VA	Catalogue Number			
	Primary/Secondary Voltage			
	208/120	240/120	480/120	600/120
50	VFMKT2050	VFMKT4050	VFMKT4050	VFMKT6050
100 <sup>①</sup>	VFMKT2100	VFMKT4100	VFMKT4100	VFMKT6100

① Minimum V1 size enclosure required.

Dimensions

Non-Combination Starter EEMAC Type 1 (Lift-Off Cover)										
Figure 1		Width	Height	Depth	Mfg.-Holes					No. of Holes
		A	B	C	D	E	F	G	H	
V0	MM	161.70	244.7	146	110.3	174	-	25.7	-	3
	INCH	6.37	9.64	5.75	4.34	6.85	-	1.01	-	
V1	MM	241.5	320.9	178.3	187.3	268.1	-	24	-	3
	INCH	9.51	12.64	7.02	7.38	10.55	-	0.95	-	

Figure 1

Non-Combination/Combination Starter EEMAC Type 1										
V2	MM	264	610	210	140	548	127	28	57	3
	INCH	10.39	24	8.25	5.5	21.58	5	1.1	2.25	
V3	MM	410	640	209.6	280	578	-	28	60	4
	INCH	16.14	25.2	8.25	11	22.76	-	1.1	2.36	
V4	MM	510	900	279.6	380	838	-	28	60	4
	INCH	20.08	35.43	11.01	14.96	32.99	-	1.1	2.36	

Figure 2

Non-Combination Starter EEMAC Type 12										
S	MM	254	304.8	203.2	203.2	323.85	-	93.53	25.46	4
	INCH	10	12	8	8	12.75	-	0.38	1	

Figure 3

Non-Combination/Combination Starter EEMAC Type 12										
H2	MM	254	610	209.6	165	648	127	12	44.5	3
	INCH	10	24	8.25	6.5	25.51	5	0.47	1.75	
H3	MM	400	640	209.6	311	678	200	12	44.5	3
	INCH	15.75	25.2	8.25	12.24	26.69	7.87	0.47	1.75	
H5	MM	500	900	280	411	955.35	-	25	44.5	4
	INCH	19.69	35.43	11.02	16.18	37.61	-	0.98	1.75	

Figure 4

Note: All dimensions shown for reference purpose only.  
Not to be used for construction purposes.

