

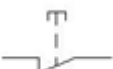
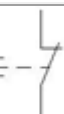


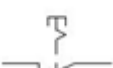


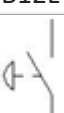







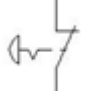









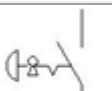
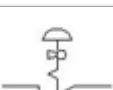

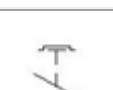
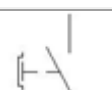

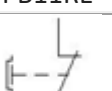


IEC Symbols Guide



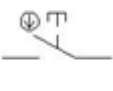

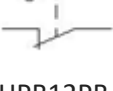
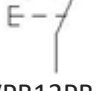
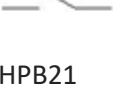
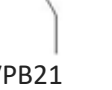

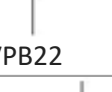

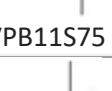
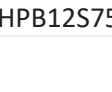
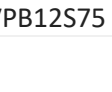
AutoCAD Electrical 2017

The following document shows the default symbols that are included within the IEC2 library in accordance with IEC60167. The purpose of this white paper is to provide new users with a quick reference guide without having to view each individual web page on the Autodesk website. The following does not include the parametric and/or dynamic symbols such as cables, PLC's nor the dynamic source and destinations and only shows single phase representations of devices. Additional symbols may have been subsequently added by Autodesk and therefore this document is not guaranteed to be complete either.

PUSH BUTTONS

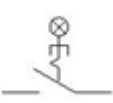

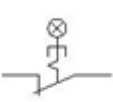

Horizontal Symbol	Vertical Symbol	Description
 HPB11	 VPB11	Push Button Normally Open
 HPB12	 VPB12	Push Button Normally Closed
 HPB11L	 VPB11L	Push Button Normally Open Latching
 HPB12L	 VPB12L	Push Button Normally Closed Latching
 HPB11M	 VPB11M	Mushroom Head Normally Open
 HPB12M	 VPB12M	Mushroom Head Normally Closed
 HPB11M	 VPB11M	Mushroom Head Normally Open Latching

HPB11ML	VPB11ML	
		Mushroom Head Normally Closed Latching
HPB12ML	VPB12ML	
		Mushroom Head Normally Open Twist Latch
HPB11MTL	VPB11MTL	
		Mushroom Head Normally Closed Twist Latch
HPB12MTL	VPB12MTL	
		Mushroom Head Normally Open Latching, Pull to Disengage
HPB11S80	VPB11S80	
		Mushroom Head Normally Closed Latching, Pull to Disengage
HPB12S80	VPB12S80	
		Mushroom Head Normally Open Latching, Key Operated
HPB11S82	VPB11S82	
		Mushroom Head Normally Closed Latching, Key Operated
HPB12S82	VPB12S82	
		Normally Open Push Button Recessed
HPB11RE	VPB11RE	
		Normally Closed Push Button Recessed
HPB12RE	VPB12RE	
		Normally Open Push Button Recessed Latched
HPB11REL	VPB11REL	

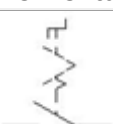


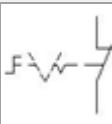


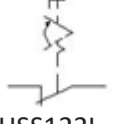
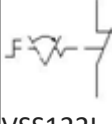




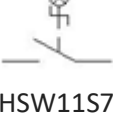

		Normally Closed Push Button Recessed Latched
HPB12REL	VPB12REL	
		Normally Open Push Button Positive Make
HPB11PM	VPB11PM	
		Normally Closed Push Button Positive Break
HPB12PB	VPB12PB	
		2nd+ Normally Open Contact
HPB21	VPB21	
		2nd+ Normally Closed Contact
HPB22	VPB22	
		Illuminated Push Button Normally Open
HPB11S75	VPB11S75	
		Illuminated Push Button Normally Closed
HPB12S75	VPB12S75	


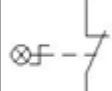
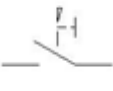

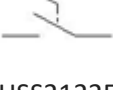
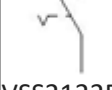



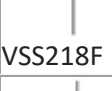

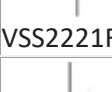
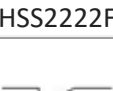
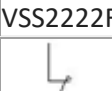



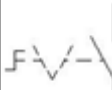


ILLUMINATED PUSH BUTTONS


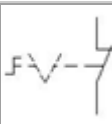


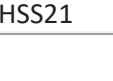
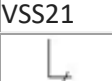
Horizontal Symbol	Vertical Symbol	Description
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		Non-Auto Return Illuminated Push Button Normally Open
HPB11S76	VPB11S76	
		Non-Auto return Illuminated Push Button Normally Closed
HPB12S76	VPB12S76	



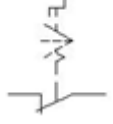
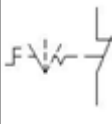
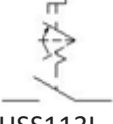






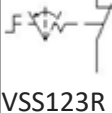
SELECTOR SWITCHES




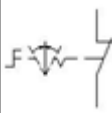


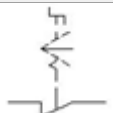
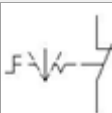
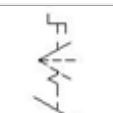
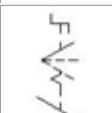

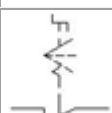
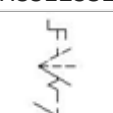
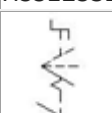

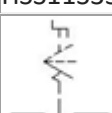
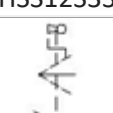
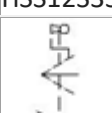
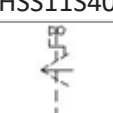

Horizontal Symbol	Vertical Symbol	Description
		2 Position Maintain, Normally Open
HSS112	VSS112	
		2 Position Maintain, Normally Closed
HSS122	VSS122	
		2 Position Normally Open Return From Left
HSS112L	VSS112L	
		2 Position Normally Closed Return From Left
HSS122L	VSS122L	
		2 Position Normally Open Return From Right
HSS112R	VSS112R	
		2 Position Normally Closed Return From Right
HSS122R	VSS122R	
		2 Position Normally Open with Lamp
HSW11S77	VSW11S77	



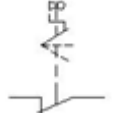



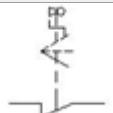
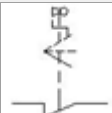
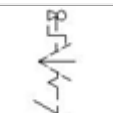
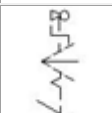
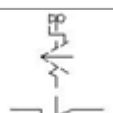
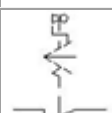
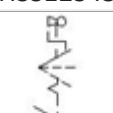
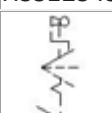
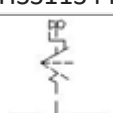
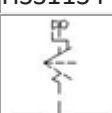
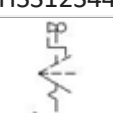
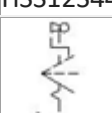
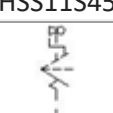

 HSW12S77	 VSW12S77	2 Position Normally Closed with Lamp
 HSS2121F	 VSS2121F	Normally Open Contact with Manual Unlatching
 HSS2122F	 VSS2122F	Normally Open Contact with Maintained Position
 HSS217F	 VSS217F	Normally Open Anticipated Contact
 HSS218F	 VSS218F	Normally Open Delayed Contact
 HSS2221F	 VSS2221F	Normally Closed Contact with Manual Unlatching
 HSS2222F	 VSS2222F	Normally Closed Contact with Maintained Position
 HSS227F	 VSS227F	Normally Closed Anticipated Contact
 HSS228F	 VSS228F	Normally Closed Delayed Contact
 HSS11NL	 VSS11NL	Non-Latched, Normally Open

 HSS12NL	 VSS12NL	Non-Latched, Normally Closed
 HSS21	 VSS21	2nd+ Normally Open Contact
 HSS22	 VSS22	2nd+ Normally Closed Contact








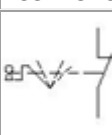
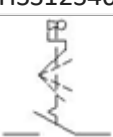

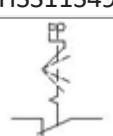

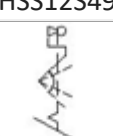
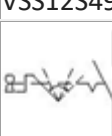
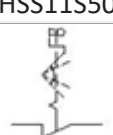

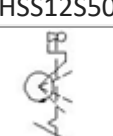
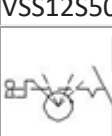
3 POSITION SELECTOR SWITCHES

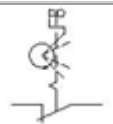

Horizontal Symbol	Vertical Symbol	Description
 HSS113	 VSS113	3 Position Maintain, Normally Open
 HSS123	 VSS123	3 Position Maintain, Normally Closed
 HSS113L	 VSS113L	3 Position Normally Open Return From Left
 HSS123L	 VSS123L	3 Position Normally Closed Return From Left
 HSS113R	 VSS113R	3 Position Normally Open Return From Right
 HSS123R	 VSS123R	3 Position Normally Closed Return From Right

 HSS113B	 VSS113B	3 Position Normally Open Return From Both
 HSS123B	 VSS123B	3 Position Normally Closed Return From Both
 HSS11S31	 VSS11S31	3 Position Normally Open Neutral 0
 HSS12S31	 VSS12S31	3 Position Normally Closed Neutral 0
 HSS11S32	 HSS11S32	3 Position Normally Open Neutral 1
 HSS12S32	 HSS12S32	3 Position Normally Closed Neutral 1
 HSS11S33	 HSS11S33	3 Position Normally Open Neutral 2
 HSS12S33	 HSS12S33	3 Position Normally Closed Neutral 2
 HSS11S40	 HSS11S40	3 Position Normally Open Key Operated Neutral 0
 HSS12S40	 HSS12S40	3 Position Normally Closed Key Operated Neutral 0



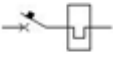

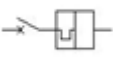

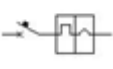

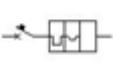

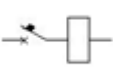





 HSS11S41	 HSS11S41	3 Position Normally Open Key Operated Neutral 1
 HSS12S41	 HSS12S41	3 Position Normally Closed Key Operated Neutral 1
 HSS11S42	 HSS11S42	3 Position Normally Open Key Operated Neutral 2
 HSS12S42	 HSS12S42	3 Position Normally Closed Key Operated Neutral 2
 HSS11S43	 HSS11S43	3 Stable Position Normally Open Key Operated Neutral 0
 HSS12S43	 HSS12S43	3 Stable Position Normally Closed Key Operated Neutral 0
 HSS11S44	 HSS11S44	3 Stable Position Normally Open Key Operated Neutral 1
 HSS12S44	 HSS12S44	3 Stable Position Normally Closed Key Operated Neutral 1
 HSS11S45	 HSS11S45	3 Stable Position Normally Open Key Operated Neutral 2
 HSS12S45	 HSS12S45	3 Stable Position Normally Closed Key Operated Neutral 2

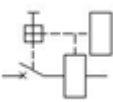

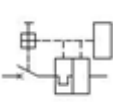
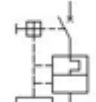
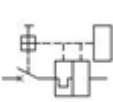
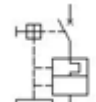
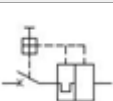
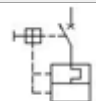
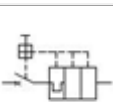
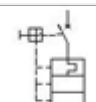
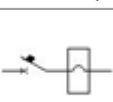
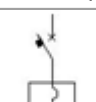
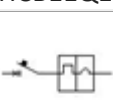
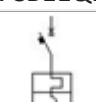

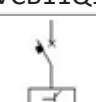
4 POSITION SELECTOR SWITCHES

Horizontal Symbol	Vertical Symbol	Description
 HSS114	 VSS114	4 Position Maintain, Normally Open
 HSS124	 VSS124	4 Position Maintain, Normally Closed
 HSS11S46	 VSS11S46	4 Position Key Selector Normally Open
 HSS12S46	 VSS12S46	4 Position Key Selector Normally Closed
 HSS11S49	 VSS11S49	4 Stable Positions Key Selector Normally Open
 HSS12S49	 VSS12S49	4 Stable Positions Key Selector Normally Closed
 HSS11S50	 VSS11S50	4 Stable Positions Key Selector Normally Open-Rotating in 2 Ways
 HSS12S50	 VSS12S50	4 Stable Positions Key Selector Normally Closed-Rotating in 2 Ways
 HSS11S51	 VSS11S51	4 Stable Positions Key Selector Normally Open-Rotating CW

		4 Stable Positions Key Selector Normally Closed-Rotating CW
HSS12S51	VSS12S51	



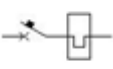

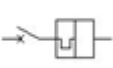





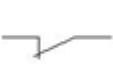



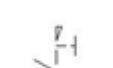





1 POLE CIRCUIT BREAKERS

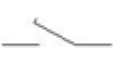



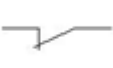



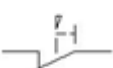

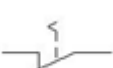



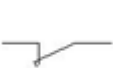



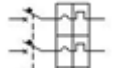
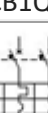
Horizontal Symbol	Vertical Symbol	Description
		Circuit Breaker 1 Pole
HCB1	VCB1	
		Thermal Circuit Breaker
HCB11TH	VCB11TH	
		Current Limit/Thermal
HCB11THI	VCB11THI	
		Magneto/Thermal
HCB11Q9	VCB11Q9	
		Magneto/Thermal with Differential
HCB11Q13	VCB11Q13	
		Differential
HCB11Q17	VCB11Q17	
		With Current Protection
HCB11Q29	VCB11Q29	
		With Current Protection and Lack of Voltage Protection
HCB11Q33	VCB11Q33	

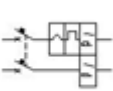
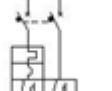
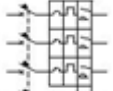
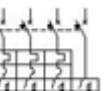

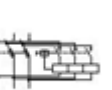
 HCB11Q37	 VCB11Q37	With Max. Current and Min. Voltage Protection
 HCB11Q41	 VCB11Q41	With Max. Thermal/Current and Min. Voltage Protection
 HCB11Q45	 VCB11Q45	With Max. Thermal and Min. Voltage Protection
 HCB11Q21	 VCB11Q21	With Max. Thermal and Current Protection
 HCB11Q25	 VCB11Q25	With Max. Thermal Protection and Differential
 HCB11Q146	 VCB11Q146	1 Pole Auto Switch with Magneto
 HCB11Q134	 VCB11Q134	1 Pole Auto Magneto-Thermal Switch/Disconnect
 HCB11Q138	 VCB11Q138	1 Pole Auto Disconnect Switch with Electronic Relay

2ND+ POLE CIRCUIT BREAKERS

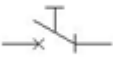
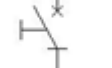
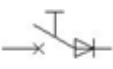
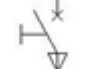
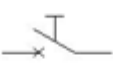
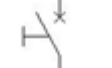
Horizontal Symbol	Vertical Symbol	Description
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		Circuit Breaker 2nd+ Pole
HCB2	VCB2	
		Thermal 2nd+ Pole
HCB21TH	VCB21TH	
		Current Limit/Thermal 2nd+ Pole
HCB21THI	VCB21THI	
		Disconnect 2nd+ Pole
HDS21	VDS21	
		Disconnect Normally Open Auxiliary Contact
HDS21AUX	VDS21AUX	
		Disconnect Normally Closed Auxiliary Contact
HDS22AUX	VDS22AUX	
		Auto Return
HCB2120F	VCB2120F	
		With Mechanical Block and Manual Unlatching
HCB2121F	VCB2121F	
		With Maintained Position
HCB2122F	VCB2122F	
		Anticipated Contact
HCB217F	VCB217F	

		Delayed Contact
HCB218F	VCB218F	
		Circuit Breaker Normally Open Auxiliary Contact
HCB21	VCB21	
		Circuit Breaker Normally Closed Auxiliary Contact
HCB22	VCB22	
		Auto Return
HCB2220F	VCB2220F	
		With Mechanical Block and Manual Unlatching
HCB2221F	VCB2221F	
		With Maintained Position
HCB2222F	VCB2222F	
		Anticipated Contact
HCB227F	VCB227F	
		Delayed Contact
HCB228F	VCB228F	
		2 P Magneto-Thermal Switch, 1P Protected
HCB1Q142	VCB1Q142	
		4 P Magneto-Thermal Switch, 3P Protected
HCB1Q143	VCB1Q143	

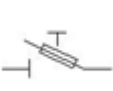

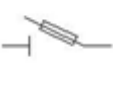

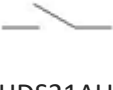






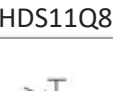


		2 P Magneto-Thermal Switch with Differential, 1P Protected
HCB1Q144	VCB1Q144	
		4 P Magneto-Thermal Switch with Differential, 3P Protected
HCB1Q145	VCB1Q145	
		3 P 2 Way Disconnect Switch with Fuses
HDS1Q93	VDS1Q93	

POWER SWITCHES

Horizontal Symbol	Vertical Symbol	Description
		1P with Semiconductors
HCB11Q53	VCB11Q53	
		1P with Semiconductors - unidirectional
HCB11Q57	VCB11Q57	
		2P Power Switch
HCB11Q50	VCB11Q50	

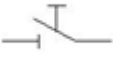

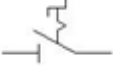

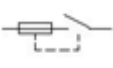

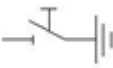



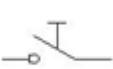







FUSIBLE DISCONNECTS

Horizontal Symbol	Vertical Symbol	Description
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		Fused switch
HDS11F	VDS11F	
		2nd+ Pole Fused Switch
HDS21F	VDS21F	
		Auxiliary Contact, Normally Open
HDS21AUX	VDS21AUX	
		Auxiliary Contact, Normally Closed
HDS22AUX	VDS22AUX	
		1 Pole on load
HDS10L	VDS10L	
		2nd+ Pole on load
HDS20L	VDS20L	
		1 Phase Disconnect with Fuse
HDS11Q81	VDS11Q81	
		1 Phase maneuver Switch/Disconnect with Fuse
HDS11Q85	VDS11Q85	

DISCONNECT 1 POLE







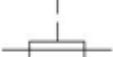









Horizontal Symbol	Vertical Symbol	Description
 HDS11Q65	 VDS11Q65	Disconnect 1 Pole
 HDS11	 VDS11	Disconnect 1 Pole Non-Fused
 HDS11Q119	 VDS11Q119	Maneuver Switch with Fuse
 HDS11Q123	 VDS11Q123	PE Earthing Switch
 HDS11Q5	 VDS11Q5	Power Auto Switch/Disconnect
 HDS11Q69	 VDS11Q69	Maneuver Switch/Disconnect
 HDS11Q73	 VDS11Q73	Disconnect with Lock Device
 HDS11Q77	 VDS11Q77	Switch/Disconnect with Lock Device
 HDS11Q89	 VDS11Q89	Two Way Disconnect with 3 Positions

REACTORS





Horizontal Symbol	Vertical Symbol	Description
 HRT1	 VRT1	Reactors - General
 HRT1IC	 VRT1IC	Reactors - Iron cored
 HRT1L3	 VRT1L3	Inductor With Magnetic Core Air Gap
 HRT1L4	 VRT1L4	Inductor With Magnetic Core Continuously Variable

FUSES

Horizontal Symbol	Vertical Symbol	Description
 HFU1	 VFU1	Fuse
 HFU21	 VFU21	Fuse Auxiliary Contact, Normally Open
 HFU22	 VFU22	Fuse Auxiliary Contact, Normally Closed
 HFU1ST	 VFU1ST	Stiker
 HFU1ST	 VFU1ST	With alarm contact

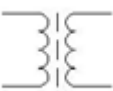

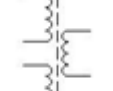

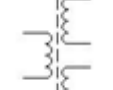







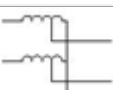







HFU1AC	VFU1AC	With separate alarm contact
		
HFU1LS	VFU1LS	1 Pole - Live Side
		
HFU2LS	VFU2LS	




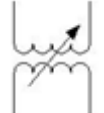


FUSE SWITCHES

Horizontal Symbol	Vertical Symbol	Description
		1 Pole
HFU1FS	VFU1FS	
		1 Pole Child
HFU2FS	VFU2FS	













TRANSFORMERS





Horizontal Symbol	Vertical Symbol	Description
 HXF1	 VXF1	Transformer
 HXF1D	 VXF1D	Transformer Dual
 HXF1DR	 VXF1DR	Transformer Dual (flipped)
 HXF1PT	 VXF1PT	Potential Transformer
 HXF1P1AUTO	 VXF1P1AUTO	Single phase auto
 HXF1T18	 VXF1T18	1 Phase Autotransformer
 HXF1T19	 VXF1T19	3 Phase Autotransformer Star Connected
 HXF1T2	 VXF1T2	Power Transformer 1 with 2 Windings
 HXF1T4	 VXF1T4	Power Transformer 2 with 2 Windings
 HXF1T3	 VXF1T3	Power Transformer with 2 Windings and Screen

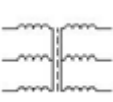
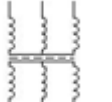
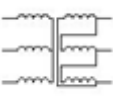
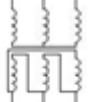

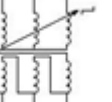
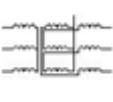

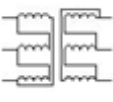


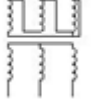
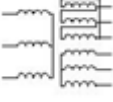
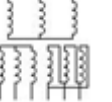


 HXF1T6	 VXF1T6	Power Transformer with 3 Windings
 HXF1T5	 VXF1T5	Adjustable Power Transformer with 2 Windings
 HXF1T34	 VXF1T34	Voltage Transformer











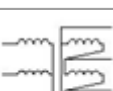



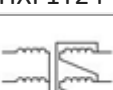

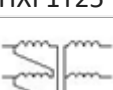



CURRENT TRANSFORMERS







Horizontal Symbol	Vertical Symbol	Description
 HXF1CT	 VXF1CT	CT Current Transformer
 HXF1CTR	 VXF1CTR	CT (Flipped)
 HXF1T1	 VXF1T1	Current Transformer 2
 HXF1T30	 VXF1T30	With 2 Secondaries - Independent Magnetic Circuits
 HXF1T31	 VXF1T31	With 2 Secondaries - Common Magnetic Circuit
 HXF1T32	 VXF1T32	With Tapped Secondary Winding

		With Conductor Indication
HXF1T33	VXF1T33	







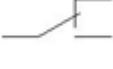

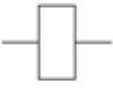

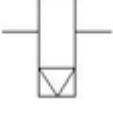
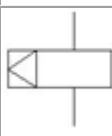
3 PHASE TRANSFORMERS


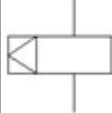
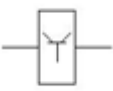
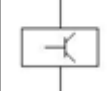
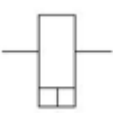
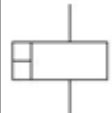


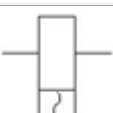
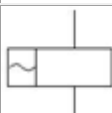
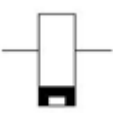
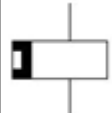


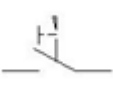

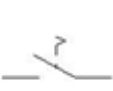



Horizontal Symbol	Vertical Symbol	Description
		3 Phase
HXF1P3	VXF1P3	
		3 Phase Star/Delta
HXF1P3SD	VXF1P3SD	
		3 Phase Star/Delta Primary with Sockets
HXF1T11	VXF1T11	
		3 Phase Star/Zigzag
HXF1T12	VXF1T12	
		3 Phase Delta/Delta
HXF1T13	VXF1T13	
		3 Phase Delta/Star
HXF1T14	VXF1T14	
		3 Phase Star/Star/Delta with 3 Windings
HXF1T15	VXF1T15	
		3 Phase Delta/Delta
HXF1T20	VXF1T20	

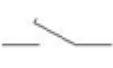



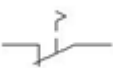

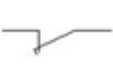




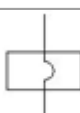
		3 Phase Star/Star
HXF1T7	VXF1T7	
		3 Phase Star/Star Secondary with Neutral
HXF1T8	VXF1T8	
		3 Phase Star/Star Primary with Plugs
HXF1T9	VXF1T9	
		3 Phase Dy5
HXF1T21	VXF1T21	
		3 Phase Dd6
HXF1T22	VXF1T22	
		3 Phase Yd5
HXF1T23	VXF1T23	
		3 Phase Yy6
HXF1T24	VXF1T24	
		3 Phase Yd11
HXF1T25	VXF1T25	
		3 Phase Dy11
HXF1T26	VXF1T26	
		3 Phase Dz0
HXF1T27	VXF1T27	

		3 Phase Yz5
HXF1T28	VXF1T28	
		3 Phase Dz6
HXF1T29	VXF1T29	
		3 Phase Yz11
HXF1T30	VXF1T30	

RELAYS AND CONTACTS



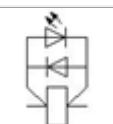
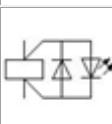
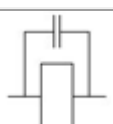
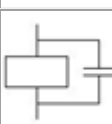
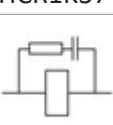
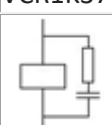
Horizontal Symbol	Vertical Symbol	Description
		Relay Normally Open Contact
HCR21	VCR21	
		Relay Normally Closed Contact
HCR22	VCR22	
		Relay Form C
HCR23R	VCR23R	
		Relay Form C Flipped
HCR23	VCR23	
		Relay Coil
HCR1	VCR1	
		Latch Relay Coil
HLR1	VLR1	

		Latch relay (child coil)
HLR2	VLR2	
		Solid State
HCR1SSD	VCR1SSD	
		High Speed
HCR1HSP	VCR1HSP	
		AC Unaffected
HCR1ACU	VCR1ACU	
		AC
HCR1AC	VCR1AC	
		Polarized
HCR1POL	VCR1POL	
		Measuring
HCR1MSR	VCR1MSR	
		With Mechanical Block and Manual Unlatching
HCR2121F	VCR2121F	
		With Maintained Position
HCR2122F	VCR2122F	
		Anticipated Contact
HCR217F	VCR217F	

 HCR218F	 VCR218F	Delayed Contact
 HCR2221F	 VCR2221F	With Mechanical Block and Manual Unlatching
 HCR2222F	 VCR2222F	With Maintained Position
 HCR227F	 VCR227F	Anticipated Contact
 HCR228F	 VCR228F	Delayed Contact
 HCR1F34	 VCR1F34	Magnetic Protection

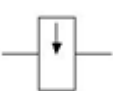

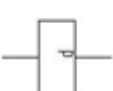















RELAYS WITH SUPPRESSION

Horizontal Symbol	Vertical Symbol	Description
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 HCR1K33	 VCR1K33	Relay with Integrated Block Diode
 HCR1K35	 VCR1K35	Relay with Integrated Block Diode and Integrated LED
 HCR1K37	 VCR1K37	Relay with Capacitor
 HCR1K39	 VCR1K39	Relay with RC Circuit


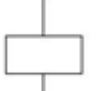



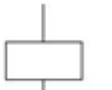

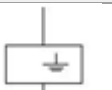

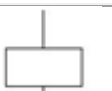
CURRENT PROTECTION RELAYS

Horizontal Symbol	Vertical Symbol	Description
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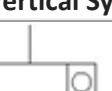



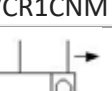
		Come Back Current Protection
HCR1F28	VCR1F28	
		Differential Current Protection
HCR1F29	VCR1F29	
		Differential Current Protection - Relative Value
HCR1F30	VCR1F30	
		Maximum Current Protection
HCR1F25	VCR1F25	
		Minimum Current Protection
HCR1F26	VCR1F26	
		Minimum and Maximum Current Protection
HCR1F27	VCR1F27	
		In Neutral
HCR1F32	VCR1F32	
		In Neutral between 2 Multi-Phase Systems
HCR1F33	VCR1F33	
		Ground Failure Current Protection
HCR1F37	VCR1F37	

VOLTAGE PROTECTION RELAYS

Horizontal Symbol	Vertical Symbol	Description
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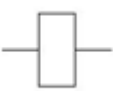
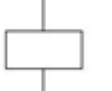

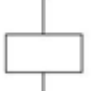

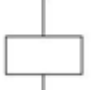



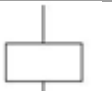
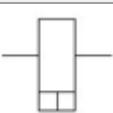
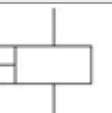
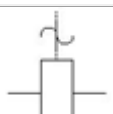
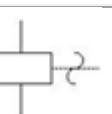
		Minimum Voltage Protection
HCR1F35	VCR1F35	
		Maximum Voltage Protection
HCR1F36	VCR1F36	
		Residual Voltage Protection
HCR1F38	VCR1F38	
		Ground Failure Voltage Protection
HCR1F31	VCR1F31	
		Lack of Voltage Protection
HCR1F39	VCR1F39	

COUNTER RELAYS

Horizontal Symbol	Vertical Symbol	Description
		Counter No Reset
HCR1CNN	VCR1CNN	
		Counter Manual Reset
HCR1CNM	VCR1CNM	
		Counter Electronic Reset
HCR1CNE	VCR1CNE	

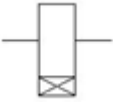
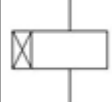
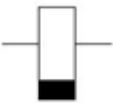
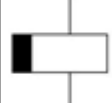
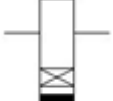

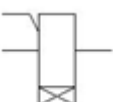
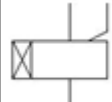

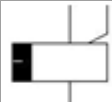
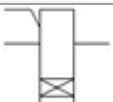

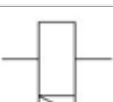
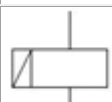






MISCELLANEOUS RELAYS











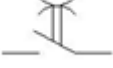





Horizontal Symbol	Vertical Symbol	Description
 HCR1F40	 VCR1F40	Frequency Relay
 HCR1F41	 VCR1F41	Minimum Impedance Relay
 HCR1F42	 VCR1F42	Relay Sensing Lack of Phase in Three Phase System
 HCR1F43	 VCR1F43	Minimum Active Power Relay
 HCR1F44	 VCR1F44	Insulating Relay
 HCR1K1	 VCR1K1	Quick Relay Coil
 HCR1K11	 VCR1K11	Mechanical Resonance Relay

TIME DELAY RELAYS

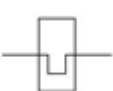

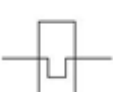

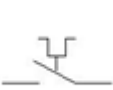

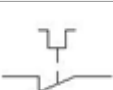
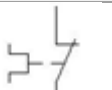

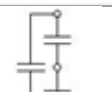


Horizontal Symbol	Vertical Symbol	Description
 HTD1N	 VTD1N	ON Delay Coil
 HTD1F	 VTD1F	OFF Delay Coil
 HCR1OOD	 VCR1OOD	ON/OFF Delay
 HTD1K25	 VTD1K25	3 Clamp Delay Relay - Energized
 HTD1K27	 VTD1K27	3 Clamp Delay Relay - De-energized
 HTD1K29	 VTD1K29	3 Clamp Delay Relay - Energized/De-energized
 HTD1K5	 VTD1K5	Latency Relay
 HTD21N	 VTD21N	ON Delay Normally Open (Delay Close)
 HTD22N	 VTD22N	ON Delay Normally Closed (Delay Open)
 HTD21F	 VTD21F	OFF Delay Normally Open (Instant Close/Delay Open)

		OFF Delay Normally Closed (Instant Open/Delay Close)
HTD22F	VTD22F	
		Normally Open Contact (Instant)
HTD21I	VTD21I	
		Normally Closed Contact (Instant)
HTD22I	VTD22I	
		Normally Open Contact (Instant-for Delay Close)
HTD21IF	VTD21IF	
		Normally Closed Contact (Instant-for Delay Close)
HTD22IF	VTD22IF	
		Normally Open Delay ON/OFF
HTD21DOO	VTD21DOO	
		Normally Closed Delay ON/OFF
HTD22DOO	VTD22DOO	

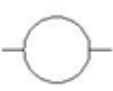

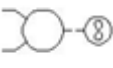







MOTOR CONTROL

Horizontal Symbol	Vertical Symbol	Description
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		Overload, 1 Pole
HOL1	VOL1	
		2nd+ Overload Pole
HOL2	VOL2	
		2nd+ Overload, Normally Open Contact
HOL21	VOL21	
		2nd+ Overload, Normally Closed Contact
HOL22	VOL22	
		3 Phase KVAR Capacitor
HCA113	VCA113	


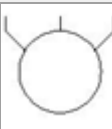

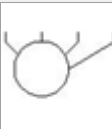
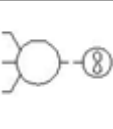
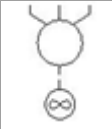
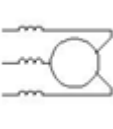


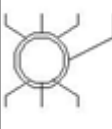
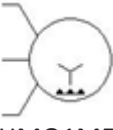
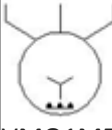
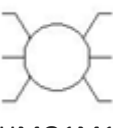
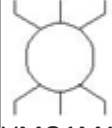


1 PHASE MOTORS



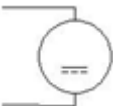


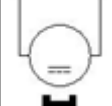






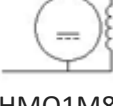



Horizontal Symbol	Vertical Symbol	Description
 HMO12	 VMO12	1 Phase Motor
 HMO1M3M	 VMO1M3M	1 Phase Motor with Fan
 HMO1M9	 VMO1M9	1 Phase AC Motor
 HMO1M10	 VMO1M10	1 Phase AC Motor in Series Connection
 HMO1M16	 VMO1M16	1 Phase Synchronous AC Motor

3 PHASE MOTORS



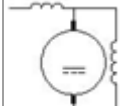
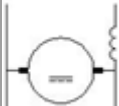
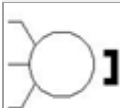

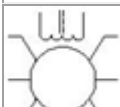

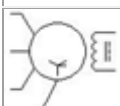
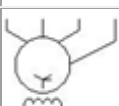


Horizontal Symbol	Vertical Symbol	Description
 HMO13	 VMO13	3 Phase Motor
 HMO14	 VMO14	3 Phase Motor (4 Connections)
 HMO1M2	 VMO1M2	3 Phase Motor with Fan
 HMO1M3	 VMO1M3	3 Phase Asynchro Motor with Series Excitation
 HMO1M4	 VMO1M4	3 Phase Asynchro Wound-Rotor Motor
 HMO1M5	 VMO1M5	3 Phase Asynchro Star Connected Stator Auto Starter on Rotor
 HMO1M11	 VMO1M11	3 Phase Asynchro Motor - 6 Pole
 HMO1M17	 VMO1M17	3 Phase Synchronous AC Motor


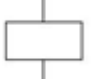








DC MOTORS

Horizontal Symbol	Vertical Symbol	Description
 HMO1M6	 VMO1M6	DC Motor
 HMO1M13	 VMO1M13	DC Motor with Permanent Magnets
 HMO1M14	 VMO1M14	DC Motor - Linear with Permanent Magnets
 HMO1M15	 VMO1M15	DC Motor - Stepping with Permanent Magnets
 HMO1M7	 VMO1M7	DC Motor - Series Excitation
 HMO1M8	 VMO1M8	DC Motor - Derived Excitation
 HMO1M12	 VMO1M12	DC Motor - Independent Excitation

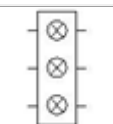
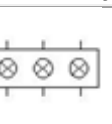
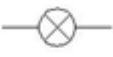



GENERATORS

Horizontal Symbol	Vertical Symbol	Description
 HPW1G9	 VPW1G9	DC Generator
 HPW1G10	 VPW1G10	DC Generator with Compound Excitation
 HPW1G6	 VPW1G6	3 Phase Synchro Generator with Permanent Magnets
 HPW1G7	 VPW1G7	3 Phase Synchro Generator 1
 HPW1G8	 VPW1G8	3 Phase Synchro Generator 2















MOTOR STARTERS

Horizontal Symbol	Vertical Symbol	Description
 HMS1	 VMS1	Motor Starter Coil
 HMS21P	 VMS21P	Motor Starter 1 Pole Normally Open (Power)
 HMS22P	 VMS22P	Motor Starter 1 Pole Normally Closed (Power)
 HMS21	 VMS21	2nd+ Motor Starter Normally Open
 HMS22	 VMS22	2nd+ Motor Starter Normally Closed

PILOT LIGHTS



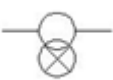

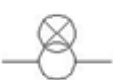

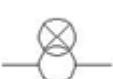











Horizontal Symbol	Vertical Symbol	Description
 HLT1H21	 VLT1H21	Blinking Device
 HLT1H22	 VLT1H22	Neon Lamp
 HLT1H24	 VLT1H24	Incandescent Lamp

STANDARD LIGHTS

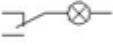

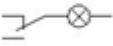

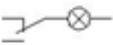

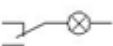
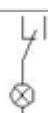
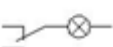
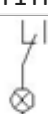
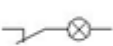
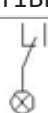
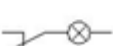
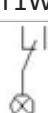
Horizontal Symbol	Vertical Symbol	Description
 HLT1R	 VLT1R	Red Standard
 HLT1G	 VLT1G	Green Standard
 HLT1A	 VLT1A	Orange Standard
 HLT1Y	 VLT1Y	Yellow Standard
 HLT1B	 VLT1B	Blue Standard
 HLT1W	 VLT1W	White Standard
 HLT1C	 VLT1C	Clear Standard



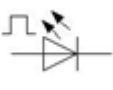
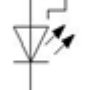


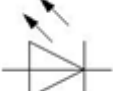
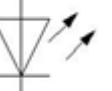
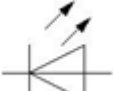

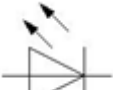
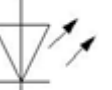
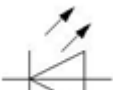
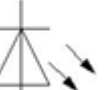
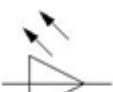
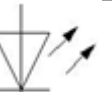
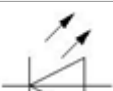
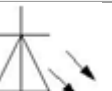
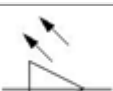
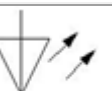
TRANSFORMER LIGHTS


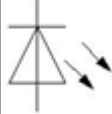

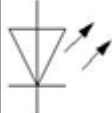
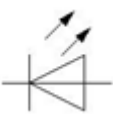
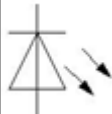
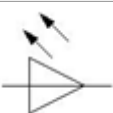
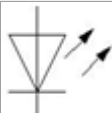
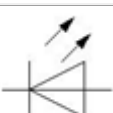
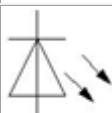
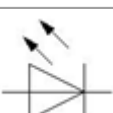
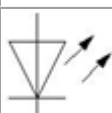
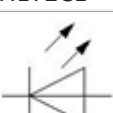
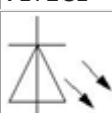
Horizontal Symbol	Vertical Symbol	Description
		Blinking Light - Bulb with Transformer
HLT1H10	VLT1H10	
		Indicator Lamp Energized by Built-in Transformer
HLT1H23A	VLT1H23A	
		Red
HLT1RT	VLT1RT	
		Green
HLT1GT	VLT1GT	
		Orange
HLT1AT	VLT1AT	
		Yellow
HLT1YT	VLT1YT	
		Blue
HLT1BT	VLT1BT	
		White
HLT1WT	VLT1WT	
		Clear
HLT1CT	VLT1CT	

PUSH TO TEST LIGHTS




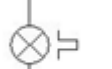
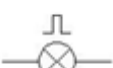




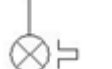




Horizontal Symbol	Vertical Symbol	Description
 HLT1RP	 VLT1RP	Red Press To Test
 HLT1GP	 VLT1GP	Green Press To Test
 HLT1AP	 VLT1AP	Orange Press To Test
 HLT1YP	 VLT1YP	Yellow Press To Test
 HLT1BP	 VLT1BP	Blue Press To Test
 HLT1WP	 VLT1WP	White Press To Test
 HLT1CP	 VLT1CP	Clear Press To Test

LEDS

Horizontal Symbol	Vertical Symbol	Description
 HLT1H13	 VLT1H13	Blinking LED
 HLT1H25	 VLT1H25	LED Indicator Lamp
 HLT1RL	 VLT1RL	Red
 HLT1RLR	 VLT1RLR	Red 180
 HLT1GL	 VLT1GL	Green
 HLT1GLR	 VLT1GLR	Green 180
 HLT1AL	 VLT1AL	Orange
 HLT1ALR	 VLT1ALR	Orange 180
 HLT1YL	 VLT1YL	Yellow















 HLT1YLR	 VLT1YLR	Yellow 180
 HLT1BL	 VLT1BL	Blue
 HLT1BLR	 VLT1BLR	Blue 180
 HLT1WL	 VLT1WL	White
 HLT1WLR	 VLT1WLR	White 180
 HLT1CL	 VLT1CL	Clear
 HLT1CLR	 VLT1CLR	Clear 180

BEACONS - FLASHING

















Horizontal Symbol	Vertical Symbol	Description
 HBE1RFL	 VBE1RFL	Red
 HBE1GFL	 VBE1GFL	Green
 HBE1AFL	 VBE1AFL	Orange
 HBE1YFL	 VBE1YFL	Yellow
 HBE1BFL	 VBE1BFL	Blue
 HBE1WFL	 VBE1WFL	White
 HBE1CFL	 VBE1CFL	Clear



BEACONS - ROTATING









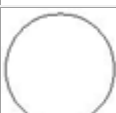
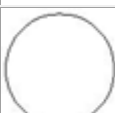
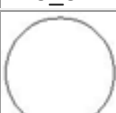
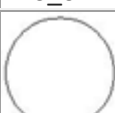





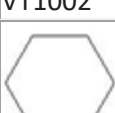
Horizontal Symbol	Vertical Symbol	Description
 HBE1RRT	 VBE1RRT	Red
 HBE1GRT	 VBE1GRT	Green
 HBE1ART	 VBE1ART	Orange
 HBE1YRT	 VBE1YRT	Yellow
 HBE1BRT	 VBE1BRT	Blue
 HBE1WRT	 VBE1WRT	White
 HBE1CRT	 VBE1CRT	Clear

PLC I/O



















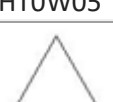

Horizontal Symbol	Vertical Symbol	Description
 PLCIO1T	 PLCIO1TV	IN, 1st Point, 1 Wire
 PLCIO2T	 PLCIO2TV	IN, 1st Point, 2 Wires
 PLCIOO1T	 PLCIOO1TV	OUT, 1st Point, 1 Wire
 PLCIOO2T	 PLCIOO2TV	OUT, 1st Point, 2 Wires
 PLCIO1	 PLCIO1V	IN, 2nd+ Child, 1 Wire
 PLCIO2	 PLCIO2V	IN, 2nd+ Child, 2 Wires
 PLCIOO1	 PLCIOO1V	OUT, 2nd+ Child, 1 Wire
 PLCIOO2	 PLCIOO2V	OUT, 2nd+ Child, 2 Wires





TERMINALS





Horizontal Symbol	Vertical Symbol	Description
 HT0_01	 VT0_01	Square
 HT0W01	 VT0W01	Square with Wire Number
 HT0001	 VT0001	Square with Terminal Number
 HT1001	 VT1001	Square with Wire Number Change
 HT0_02	 VT0_02	Round
 HT0W02	 VT0W02	Round with Wire Number
 HT0002	 VT0002	Round with Terminal Number
 HT1002	 VT1002	Round with Wire Number Change
 HT0_03	 VT0_03	Hexagon



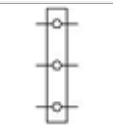
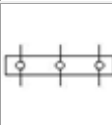
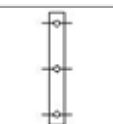
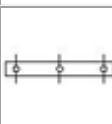
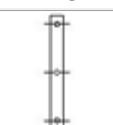
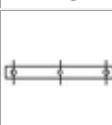
 HT0W03	 VT0W03	Hexagon with Wire Number
 HT0003	 VT0003	Hexagon with Terminal Number
 HT1003	 VT1003	Hexagon with Wire Number Change
 HT0_04	 VT0_04	Diamond
 HT0W04	 VT0W04	Diamond with Wire Number
 HT0004	 VT0004	Diamond with Terminal Number
 HT1004	 VT1004	Diamond with Wire Number Change
 HT0_05	 VT0_05	Triangle
 HT0W05	 VT0W05	Triangle with Wire Number
 HT0005	 VT0005	Triangle with Terminal Number

		Triangle with Wire Number Change
HT1005	VT1005	



















IN-LINE WIRE LABELS




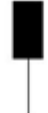
















Horizontal Symbol	Vertical Symbol	Description
		In-Line Wire Label
HT0_LGENERIC	VT0_LGENERIC	
		Wire Number Copy
HT0_WGENERIC	VT0_WGENERIC	











POWER DISTRIBUTION BLOCKS

Horizontal Symbol	Vertical Symbol	Description
		3 Terminal, 10 Unit Spacing
HDB1308	VDB1308	
		3 Terminal, 15 Unit Spacing
HDB1312	VDB1312	
		3 Terminal, 20 Unit Spacing
HDB1316	VDB1316	









NO WIRENUMBER CHANGES





















Horizontal Symbol	Vertical Symbol	Description
 HC01PJ	 VC01PJ	Plug/Jack
 HC01PJ1	 VC01PJ1	Plug/Jack (common pin number)
 HC01P_	 VC01P_	Plug Up or Left
 HC01_J	 VC01_J	Jack Down or Right
 HC02PJ	 VC02PJ	2nd+ Plug/Jack
 HC02PJ1	 VC02PJ1	2nd+ Plug/Jack (common pin number)
 HC02P_	 VC02P_	2nd+ Plug Up or Left
 HC02_J	 VC02_J	2nd+ Jack Down or Right
 HC01JP	 VC01JP	Jack/Plug





		Jack/Plug (common pin number)
HC01JP1	VC01JP1	
		Plug Down or Right
HC01_P	VC01_P	
		Jack Up or Left
HC01J_	VC01J_	
		2nd+ Jack/Plug
HC02JP	VC02JP	
		2nd+ Jack/Plug (common pin number)
HC02JP1	VC02JP1	
		2nd+ Plug Down or Right
HC02_P	VC02_P	
		2nd+ Jack Up or Left
HC02J_	VC02J_	
		Plug/Jack
HCN1PJ	VCN1PJ	
		Plug/Jack (common pin number)
HCN1PJ1	VCN1PJ1	
		Plug Up or Left
HC01P_	VC01P_	

		Jack Down or Right
HC01_J	VC01_J	
		2nd+ Plug/Jack
HCN2PJ	VCN2PJ	
		2nd+ Plug/Jack (common pin number)
HCN2PJ1	VCN2PJ1	
		2nd+ Plug Up or Left
HC02P_	VC02P_	
		2nd+ Jack Down or Right
HC02_J	VC02_J	



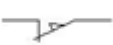


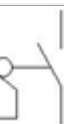








CONNECTORS - WIRENUMBER CHANGES






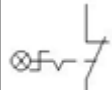
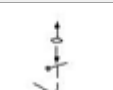
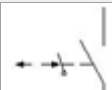
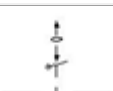
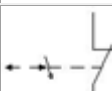
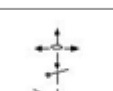
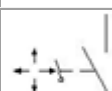

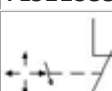
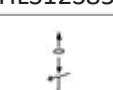
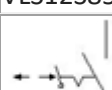
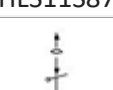
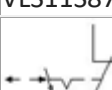

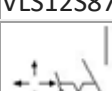
Horizontal Symbol	Vertical Symbol	Description
		Plug/Jack
HCN1PJ	VCN1PJ	
		Plug/Jack (common pin number)
HCN1PJ1	VCN1PJ1	
		Plug Up or Left
HC01P_	VC01P_	
		Jack Down or Right
HC01_J	VC01_J	

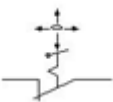
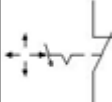




		2nd+ Plug/Jack
HCN2PJ	VCN2PJ	
		2nd+ Plug/Jack (common pin number)
HCN2PJ1	VCN2PJ1	
		2nd+ Plug Up or Left
HC02P_	VC02P_	
		2nd+ Jack Down or Right
HC02_J	VC02_J	
		Jack/Plug
HCN1JP	VCN1JP	
		Jack/Plug (common pin number)
HCN1JP1	VCN1JP1	
		Plug Down or Right
HC01_P	VC01_P	
		Jack Up or Left
HC01J_	VC01J_	
		2nd+ Jack/Plug
HCN2JP	VCN2JP	
		2nd+ Jack/Plug (common pin number)
HCN2JP1	VCN2JP1	

		2nd+ Plug Down or Right
HC02_P	VC02_P	
		2nd+ Jack Up or Left
HC02J_	VC02J_	

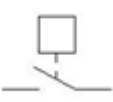

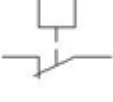

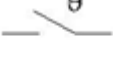

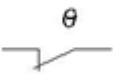
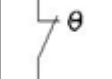
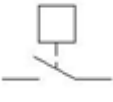



LIMIT SWITCHES

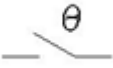
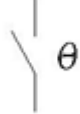
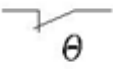
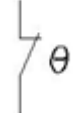




Horizontal Symbol	Vertical Symbol	Description
		Limit Switch Normally Open
HLS11	VLS11	
		Limit Switch Normally Closed
HLS12	VLS12	
		Limit Switch, Roller Normally Open
HLS11C	VLS11C	
		Limit Switch, Roller Normally Closed
HLS12C	VLS12C	
		Limit Switch Normally Open - Cam Driven
HLS11S13	VLS11S13	
		Limit Switch Normally Closed - Cam Driven
HLS12S13	VLS12S13	
		Limit Switch Normally Open - Events Driven
HLS11S16	VLS11S16	

		Limit Switch Normally Closed - Events Driven
HLS12S16	VLS12S16	
		2 Position Switch Normally Open with Detents and Lamp
HLS11S78	VLS11S78	
		2 Position Switch Normally Closed with Detents and Lamp
HLS12S78	VLS12S78	
		Bi-directional Lever Actuated - Normally Open
HLS11S84	VLS11S84	
		Bi-directional Lever Actuated - Normally Closed
HLS12S84	VLS12S84	
		Four-directional Lever Actuated - Normally Open
HLS11S85	VLS11S85	
		Four-directional Lever Actuated - Normally Closed
HLS12S85	VLS12S85	
		Bi-directional Lever Actuated - Normally Open with Detent
HLS11S87	VLS11S87	
		Bi-directional Lever Actuated - Normally Closed with Detent
HLS12S87	VLS12S87	
		Four-directional Lever Actuated - Normally Open with Detent
HLS11S88	VLS11S88	


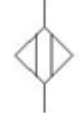




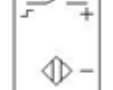
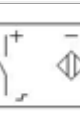


		Four-directional Lever Actuated - Normally Closed with Detent
HLS12S88	VLS12S88	
		2nd+ Normally Open Contact
HLS21	VLS21	
		2nd+ Normally Closed Contact
HLS22	VLS22	


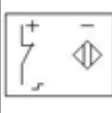
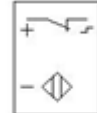
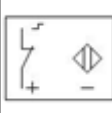
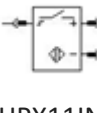
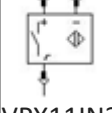
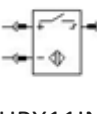
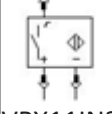
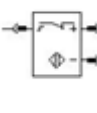
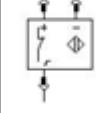
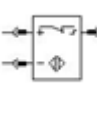
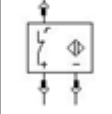
PRESSURE AND TEMPERATURE SWITCHES

Horizontal Symbol	Vertical Symbol	Description
		Pressure Switch, Normally Open
HPS11	VPS11	
		Pressure Switch, Normally Closed
HPS12	VPS12	
		Temperature Switch 1, Normally Open
HTS11	VTS11	
		Temperature Switch 1, Normally Closed
HTS12	VTS12	
		Temperature Switch 2, Normally Open
HTS11S18	VTS11S18	
		Temperature Switch 2, Normally Closed
HTS12S18	VTS12S18	



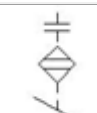

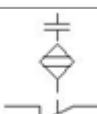
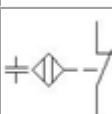
		Temperature Switch 3, Normally Open
HTS11S74	VTS11S74	
		Temperature Switch 3, Normally Closed
HTS12S74	VTS12S74	
		2nd+ Normally Open Contact
HSW21	VSW21	
		2nd+ Normally Closed Contact
HSW22	VSW22	


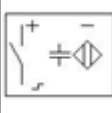

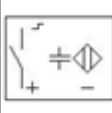

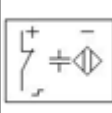

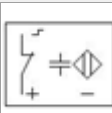
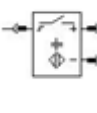
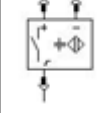
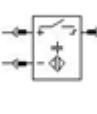
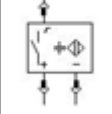
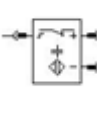
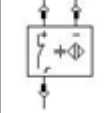
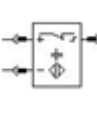
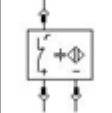
INDUCTIVE SWITCHES

Horizontal Symbol	Vertical Symbol	Description
		Ferrous
HPX1I	VPX1I	
		Ferrous Proximity Switch, Normally Open
HPX11I	VPX11I	
		Ferrous Proximity Switch, Normally Closed
HPX12I	VPX12I	
		Normally Open 3 Wire
HPX11IN3	VPX11IN3	
		Normally Open 3 Wire 180
HPX11IN3R	VPX11IN3R	



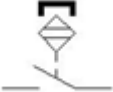



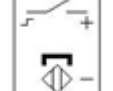
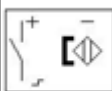



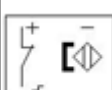

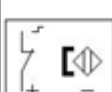
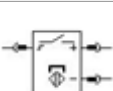
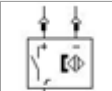
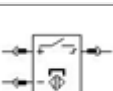
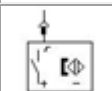
		Normally Closed 3 Wire
HPX12IN3	VPX12IN3	
		Normally Closed 3 Wire 180
HPX12IN3R	VPX12IN3R	
		Normally Open 3 Wire with connector
HPX11IN3C	VPX11IN3C	
		Normally Open 3 Wire 180 with connector
HPX11IN3RC	VPX11IN3RC	
		Normally Closed 3 Wire with connector
HPX12IN3C	VPX12IN3C	
		Normally Closed 3 Wire 180 with connector
HPX12IN3RC	VPX12IN3RC	


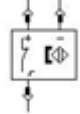

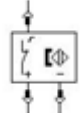
CAPACITIVE SWITCHES

Horizontal Symbol	Vertical Symbol	Description
		Capacitive
HPX1C	VPX1C	
		Capacitive Switch, Normally Open
HPX11C	VPX11C	
		Capacitive Switch, Normally Closed
HPX12C	VPX12C	

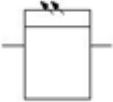
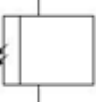
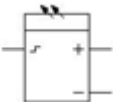
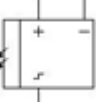
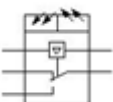
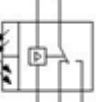
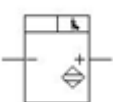
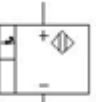



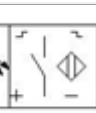
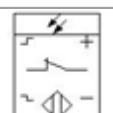
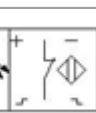
		Normally Open 3 Wire
HPX11C3	VPX11C3	
		Normally Open 3 Wire 180
HPX11C3R	VPX11C3R	
		Normally Closed 3 Wire
HPX12C3	VPX12C3	
		Normally Closed 3 Wire 180
HPX12C3R	VPX12C3R	
		Normally Open 3 Wire with connector
HPX11C3C	VPX11C3C	
		Normally Open 3 Wire 180 with connector
HPX11C3RC	VPX11C3RC	
		Normally Closed 3 Wire with connector
HPX12C3C	VPX12C3C	
		Normally Closed 3 Wire 180 with connector
HPX12C3RC	VPX12C3RC	


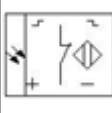
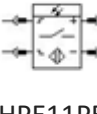
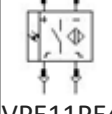

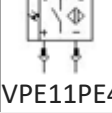

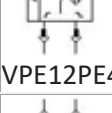

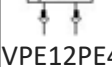
MAGNETIC SWITCHES

Horizontal Symbol	Vertical Symbol	Description
 HPX1M	 VPX1M	Magnetic
 HPX11M	 VPX11M	Magnetic Proximity Switch, Normally Open
 HPX12M	 VPX12M	Magnetic Proximity Switch, Normally Closed
 HPX11M3	 VPX11M3	Normally Open 3 Wire
 HPX11M3R	 VPX11M3R	Normally Open 3 Wire 180
 HPX12M3	 VPX12M3	Normally Closed 3 Wire
 HPX12M3R	 VPX12M3R	Normally Closed 3 Wire 180
 HPX11M3C	 VPX11M3C	Normally Open 3 Wire with connector
 HPX11M3RC	 VPX11M3RC	Normally Open 3 Wire 180 with connector


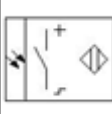






		Normally Closed 3 Wire with connector
HPX12M3C	VPX12M3C	
		Normally Closed 3 Wire 180 with connector
HPX12M3RC	VPX12M3RC	


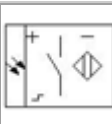
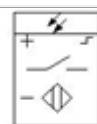
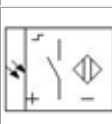

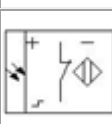

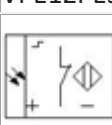
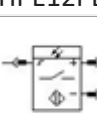
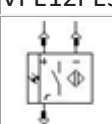
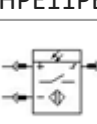
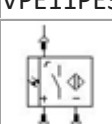
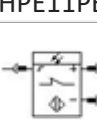
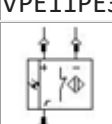
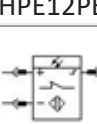
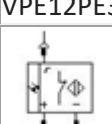
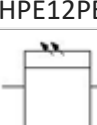
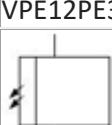
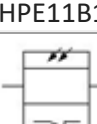
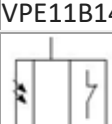
PHOTOELECTRIC EMITTER SWITCHES


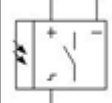

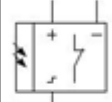
Horizontal Symbol	Vertical Symbol	Description
		Emitter - AC Driven
HPE1B14	VPE1B14	
		Emitter - DC Driven
HPE1B15	VPE1B15	
		Emitter - Receiver with Form C
HPE13B16SC	VPE13B16SC	
		Emitter - DC Driven
HPE1B20	VPE1B20	
		Normally Open 4 wire
HPE11PE4	VPE11PE4	
		Normally Open 4 wire 180
HPE11PE4R	VPE11PE4R	
		Normally Closed 4 wire
HPE12PE4	VPE12PE4	

		Normally Closed 4 wire 180
HPE12PE4R	VPE12PE4R	
		Normally Open 4 wire with connector
HPE11PE4C	VPE11PE4C	
		Normally Open 4 wire 180 with connector
HPE11PE4RC	VPE11PE4RC	
		Normally Closed 4 wire with connector
HPE12PE4C	VPE12PE4C	
		Normally Closed 4 wire 180 with connector
HPE12PE4RC	VPE12PE4RC	


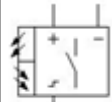

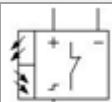

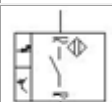

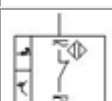

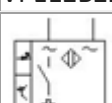


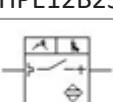

PHOTOELECTRIC RECEIVER SWITCHES

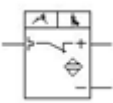
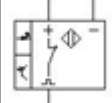
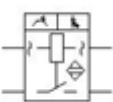
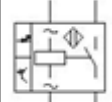

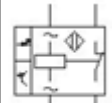
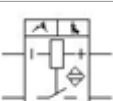
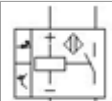
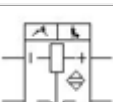
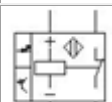
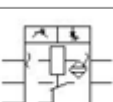
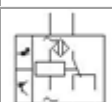
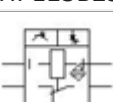
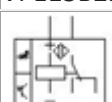
Horizontal Symbol	Vertical Symbol	Description
		Normally Open Receiver 2 wire
HPE11PE2	VPE11PE2	
		Normally Closed Receiver 2 wire
HPE12PE2	VPE12PE2	
		Normally Open Receiver 2 wire with connector
HPE11PE2C	VPE11PE2C	
		Normally Closed Receiver 2 wire with connector
HPE12PE2C	VPE12PE2C	

		Normally Open Receiver 3 wire
HPE11PE3	VPE11PE3	
		Normally Open Receiver 3 wire 180
HPE11PE3R	VPE11PE3R	
		Normally Closed Receiver 3 wire
HPE12PE3	VPE12PE3	
		Normally Closed Receiver 3 wire 180
HPE12PE3R	VPE12PE3R	
		Normally Open Receiver 3 wire with connector
HPE11PE3C	VPE11PE3C	
		Normally Open Receiver 3 wire 180 with connector
HPE11PE3RC	VPE11PE3RC	
		Normally Closed Receiver 3 wire with connector
HPE12PE3C	VPE12PE3C	
		Normally Closed Receiver 3 wire 180 with connector
HPE12PE3RC	VPE12PE3RC	
		Normally Open Receiver - AC Driven
HPE11B14	VPE11B14	
		Normally Closed Receiver - AC Driven
HPE12B14	VPE12B14	

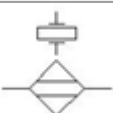
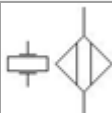
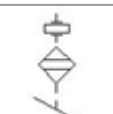

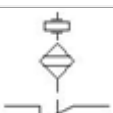

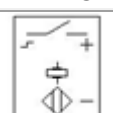
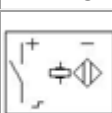
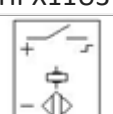



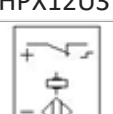
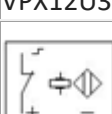
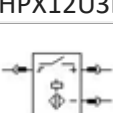
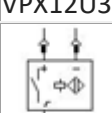
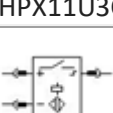
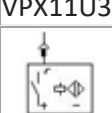
		Normally Open Receiver - DC Driven
HPE11B15	VPE11B15	
		Normally Closed Receiver - DC Driven
HPE12B15	VPE12B15	

PHOTOELECTRIC EMITTER/RECEIVER SWITCHES

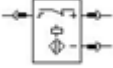
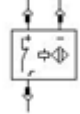
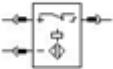
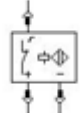
Horizontal Symbol	Vertical Symbol	Description
		Normally Open Emitter-Receiver - DC Driven
HPE11B16	VPE11B16	
		Normally Closed Emitter-Receiver - DC Driven
HPE12B16	VPE12B16	
		Normally Open Emitter-Receiver AC/DC Driven 2 PIN
HPE11B22	VPE11B22	
		Normally Closed Emitter-Receiver AC/DC Driven 2 PIN
HPE12B22	VPE12B22	
		Normally Open Emitter-Receiver AC Driven 3 PIN
HPE11B23	VPE11B23	
		Normally Closed Emitter-Receiver AC Driven 3 PIN
HPE12B23	VPE12B23	
		Normally Open Emitter-Receiver DC Driven 3 PIN
HPE11B24	VPE11B24	

		Normally Closed Emitter-Receiver DC Driven 3 PIN
HPE12B24	VPE12B24	
		Normally Open Emitter-Receiver AC Driven 4 PIN
HPE11B25	VPE11B25	
		Normally Closed Emitter-Receiver AC Driven 4 PIN
HPE12B25	VPE12B25	
		Normally Open Emitter-Receiver DC Driven 4 PIN
HPE11B26	VPE11B26	
		Normally Closed Emitter-Receiver DC Driven 4 PIN
HPE12B26	VPE12B26	
		FORM C Emitter-Receiver AC Driven 5 PIN
HPE13B25SC	VPE13B25SC	
		FORM C Emitter-Receiver DC Driven 5 PIN
HPE13B26SC	VPE13B26SC	








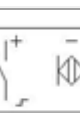
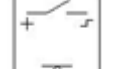
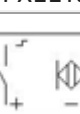
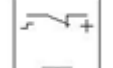
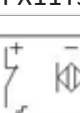
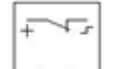
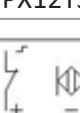
ULTRASONIC SWITCHES


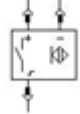
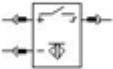
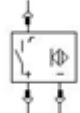

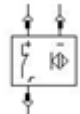
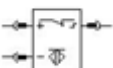
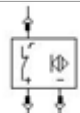
Horizontal Symbol	Vertical Symbol	Description
 HPX1U	 VPX1U	Ultrasonic
 HPX11U	 VPX11U	Ultrasonic Switch, Normally Open
 HPX12U	 VPX12U	Ultrasonic Switch, Normally Closed
 HPX11U3	 VPX11U3	Normally Open 3 Wire
 HPX11U3R	 VPX11U3R	Normally Open 3 Wire 180
 HPX12U3	 VPX12U3	Normally Closed 3 Wire
 HPX12U3R	 VPX12U3R	Normally Closed 3 Wire 180
 HPX11U3C	 VPX11U3C	Normally Open 3 Wire with connector
 HPX11U3RC	 VPX11U3RC	Normally Open 3 Wire 180 with connector










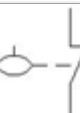

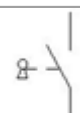
		Normally Closed 3 Wire with connector
HPX12U3C	VPX12U3C	
		Normally Closed 3 Wire 180 with connector
HPX12U3RC	VPX12U3RC	

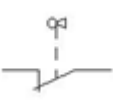
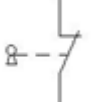
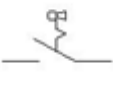

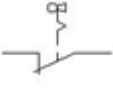

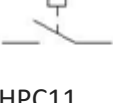
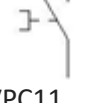
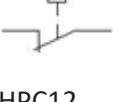
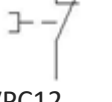
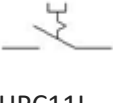

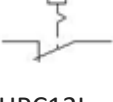

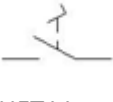
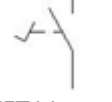
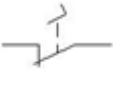

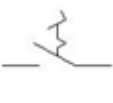
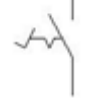
TOUCH SWITCHES



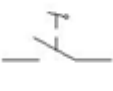

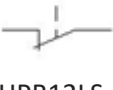
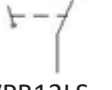
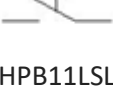
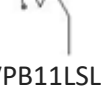

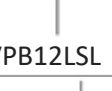

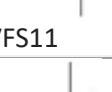

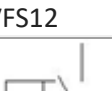

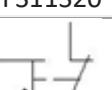
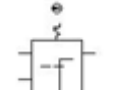
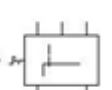


Horizontal Symbol	Vertical Symbol	Description
		Touch
HPX1TS	VPX1TS	
		Touch Sense Proximity Switch, Normally Open
HPX11TS	VPX11TS	
		Touch Sense Proximity Switch, Normally Closed
HPX12TS	VPX12TS	
		Normally Open 3 Wire
HPX11TS3	VPX11TS3	
		Normally Open 3 Wire 180
HPX11TS3R	VPX11TS3R	
		Normally Closed 3 Wire
HPX12TS3	VPX12TS3	
		Normally Closed 3 Wire 180
HPX12TS3R	VPX12TS3R	


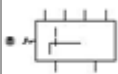

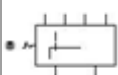

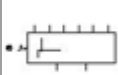
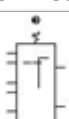
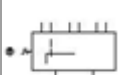
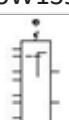
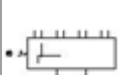
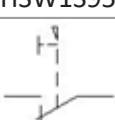
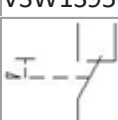
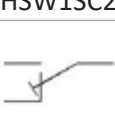
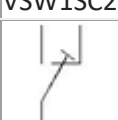

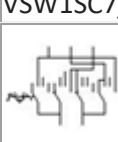



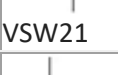
		Normally Open 3 Wire with Connector
HPX11TS3C	VPX11TS3C	
		Normally Open 3 Wire 180 with Connector
HPX11TS3RC	VPX11TS3RC	
		Normally Closed 3 Wire with Connector
HPX12TS3C	VPX12TS3C	
		Normally Closed 3 Wire 180 with connector
HPX12TS3RC	VPX12TS3RC	

MISCELLANEOUS SWITCHES

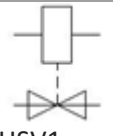
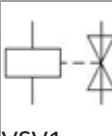
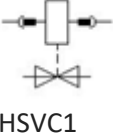
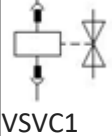
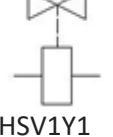



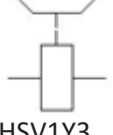







Horizontal Symbol	Vertical Symbol	Description
		Generic Switch, Normally Open
HSW11	VSW11	
		Generic Switch, Normally Closed
HSW12	VSW12	
		Float/Level Switch, Normally Open
HFL11	VFL11	
		Float/Level Switch, Normally Closed
HFL12	VFL12	
		Key Switch, Normally Open
HPB11KS	VPB11KS	

		Key Switch, Normally Closed
HPB12KS	VPB12KS	
		Key Switch Latched, Normally Open
HPB11KSL	VPB11KSL	
		Key Switch Latched, Normally Closed
HPB12KSL	VPB12KSL	
		Pull Cord Switch, Normally Open
HPC11	VPC11	
		Pull Cord Switch, Normally Closed
HPC12	VPC12	
		Pull Cord Switch Latched, Normally Open
HPC11L	VPC11L	
		Pull Cord Switch Latched, Normally Closed
HPC12L	VPC12L	
		Foot Switch, Normally Open
HFT11	VFT11	
		Foot Switch, Normally Closed
HFT12	VFT12	
		Foot Switch Latched, Normally Open
HFT11L	VFT11L	

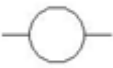





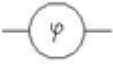

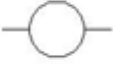

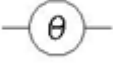



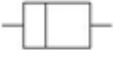

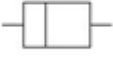

		Foot Switch Latched, Normally Closed
HFT12L	VFT12L	
		Lever Switch, Normally Open
HPB11LS	VPB11LS	
		Lever Switch, Normally Closed
HPB12LS	VPB12LS	
		Lever Switch Latched, Normally Open
HPB11LSL	VPB11LSL	
		Lever Switch Latched, Normally Closed
HPB12LSL	VPB12LSL	
		Flow Switch Normally Open
HFS11	VFS11	
		Flow Switch Normally Closed
HFS12	VFS12	
		Flow Switch Normally Open - Gas
HFS11S20	VFS11S20	
		Flow Switch Normally Closed - Gas
HFS12S20	VFS12S20	
		3 Voltage Phase Switch
HSW1S90	VSW1S90	

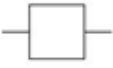
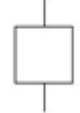

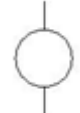



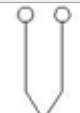



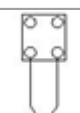



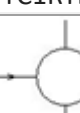
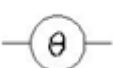
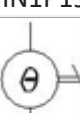


		3 Voltage Phase-to-Neutral Switch
HSW1S91	VSW1S91	
		3 Voltage Phase-to-Phase and Phase-to-Neutral Switch
HSW1S92	VSW1S92	
		3 Voltage, 2-Network Phase-to-Phase Switch
HSW1S93	VSW1S93	
		Current Switch For 3 Measurement Points
HSW1S94	VSW1S94	
		Current Switch For 4 Measurement Points
HSW1S95	VSW1S95	
		Change-Over Contact with Mechanical Block and Manual Unlatching
HSW1SC21_F	VSW1SC21_F	
		Transfer Make Before Break Contact
HSW1SC7_F	VSW1SC7_F	
		Voltmetric Commutator
HSW1S53	VSW1S53	
		2nd+ Normally Open Contact
HSW21	VSW21	
		2nd+ Normally Closed Contact
HSW22	VSW22	

















SOLENOIDS

Horizontal Symbol	Vertical Symbol	Description
 HSV1	 VSV1	Standard Solenoid Valve
 HSVC1	 VSVC1	Standard Solenoid Valve with Connection
 HSV1Y1	 VSV1Y1	Open Solenoid Valve - Closing
 HSV1Y1A	 VSV1Y1A	Open Solenoid Valve - Closing According to Solenoid
 HSV1Y3	 VSV1Y3	Magnetic Brake
 HSV1Y4	 VSV1Y4	Electromagnetic Brake
 HSV21	 VSV21	Solenoid Valve Auxiliary Normally Open Contact
 HSV22	 VSV22	Solenoid Valve Auxiliary Normally Closed Contact

INSTRUMENTATION AND SENSORS


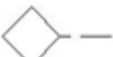
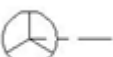




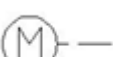
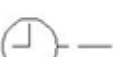

Horizontal Symbol	Vertical Symbol	Description
 HVM1	 VVM1	Voltage Meter
 HAM1	 VAM1	Amperage Meter
 HIN1PFM	 VIN1PFM	Power Factor Meter
 HIN1PHM	 VIN1PHM	Phase Meter
 HIN1FRM	 VIN1FRM	Frequency Meter
 HIN1THM	 VIN1THM	Thermometer
 HIN1TAC	 VIN1TAC	Tachometer
 HIN1HRM	 VIN1HRM	Hour Meter
 HIN1AHM	 VIN1AHM	Ampere-Hour meter

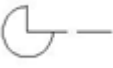




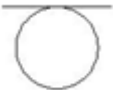




		Recording Wattmeter
HIN1P17	VIN1P17	
		Varmeter
HIN1P21	VIN1P21	
		Synchronoscope
HIN1P11	VIN1P11	
		Thermocouple
HTC1L	VTC1L	
		Thermocouple
HTC1R	VTC1R	
		Thermocouple with Terminal Board
HTC1LTB	VTC1LTB	
		Thermocouple with Terminal Board
HTC1RTB	VTC1RTB	
		Active Power Indicator
HIN1P19	VIN1P19	
		Thermometer/Pyrometer
HIN1P25	VIN1P25	
		Clock
HIN1P29	VIN1P29	

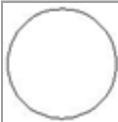
		Normally Open Clock Closing Every Minute
HIN1P33	VIN1P33	
		Differential Voltmeter
HVM1P7	VVM1P7	
		Accumulator Battery
HPW1G4	VPW1G4	
		Pressure/Current Converter
HIN1B10	VIN1B10	
		AC-DC Current Converter Single Phase
HIN1G1	VIN1G1	
		Tachometric Dynamo
HIN1B11	VIN1B11	
		Tachometric Dynamo - Impulse
HIN1B12	VIN1B12	
		Tachometric Dynamo - Optical Type
HIN1B13	VIN1B13	

OPERATING DEVICES



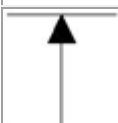
Symbol	Description
 Q070109	Positive Operation Direction
 Q021301	Manual Command General Sign
 Q021302	Manual Command with Protected Access
 Q021305	Push Button Command
 Q021308	Emergency Command
 Q021304	Rotary Command
 Q021313	Command with Key
 Q021310	Foot Actuated Command
 Q021311	Lever Command

 Q021214	Crank Command
 Q021312	Fixed Manual Command
 Q021309	Manual Command with Wheel
 Q021401	Actuated by the Level of a Fluid
 Q021402	Actuated by the Number of Events
 Q021403	Actuated by a Flow of Fluid
 Q021404	Actuated by a Gas Flow
 Q021326	Motorized Command
 Q021327	Timing Command
 Q021315	Command with Roll




 Q021316	Command with Cam
 Q021317	Cam Profile
 Q070106	Switch Position Function
 Q070106R	Switch Position (Flipped)
 Q070103	Disconnecter Isolator
 Q070104	Switch Disconnecter Isolator
 Q070102	Circuit Breaker Function
 Q070101	Power Contactor Function
 Q070105	Auto Trip Function
 Q070107	Auto Return (Spring Return)

 Q070108	Non Auto Return (Stay)
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LINEAR DIRECTION OF FORCE OR MOTION

Symbol	Description
 Q020401	One Way Force Or Movement
 Q020402	Two Way Force Or Movement
 Q101101	Transition




ROTATIVE DIRECTION OF FORCE OR MOTION

Symbol	Description
 Q020403	One Way Force Or Movement
 Q020404	Two Way Force Or Movement
 Q020405	Limited Two Way Force Or Movement





PROPAGATION FLOW OR SIGNAL

Symbol	Description
 Q020501	One Way Propagation
 Q020502	Two Way Simultaneous Transmission Propagation
 Q020503	Two Way Alternate Transmission Propagation
 Q020504	Signal Transmission
 Q020505	Signal Reception




ENERGY FLOW

Symbol	Description
 Q020506	Outbound Energy Flux
 Q020507	Inbound Energy Flux
 Q020508	Inbound and Outbound Energy Flux



EFFECT

Symbol	Description
 Q020801	Thermal Effect
 Q020802	Magnetic Effect
 Q020803	Magnetostriction Effect
 Q020804	Magnetic Field Effect

RADIATION



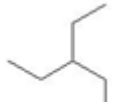
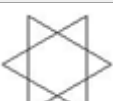
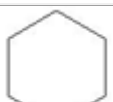
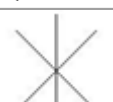
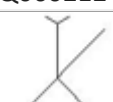
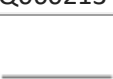
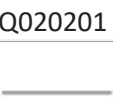

Symbol	Description
 Q020901	Non Ionizing Coherent Electromagnetic Radiation
 Q020902	Non Ionizing Coherent Radiation
 Q020903	Ionizing Radiation


FAULT

Symbol	Description
 Q021701	Indication Of Presumed Location Of Failure
 Q021702	Failure For Lack Of Insulation

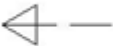




WINDING

Symbol	Description
 Q060201	2 Phase Winding
 Q060202	3 Phase Partial V Winding
 Q060203	4 Phase Winding with Accessible Ground
 Q060204	3 Phase T Winding
 Q060205	3 Phase Delta Winding
 Q060206	3 Phase Open Delta Winding




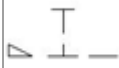
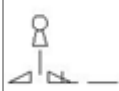
 Q060207	3 Phase Star Winding
 Q060208	3 Phase Star Winding with Accessible Ground
 Q060209	3 Phase Zigzag Winding
 Q060210	Esaphase Winding with Double Delta
 Q060211	Esaphase Polygonal Winding
 Q060212	Esaphase Star Winding
 Q060213	Esaphase Double Zigzag Winding with Accessible Ground
 Q020201	DC Direct Current Indication
 Q020203	DC Direct Current Indication
 Q020212	Indication of Rectified Current with an Alternate Component

 Q020204	AC Alternate Current Indication
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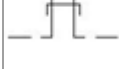
MECHANICAL CONTROLS

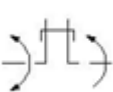

Symbol	Description
 Q021207	Auto Return
 Q021208	Auto Non Return Stop Latch
 Q021209	Stop Latch in Neutral Position
 Q021210	Stop Latch Engaged
 Q021211	Interlock Between Two Devices

MECHANICAL CONTROLS, LATCHING DEVICE

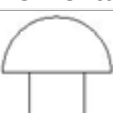



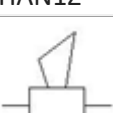
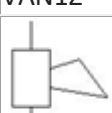



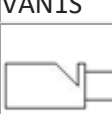

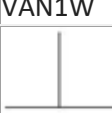


Symbol	Description
 Q021212	Latch Device Engaged
 Q021213	Latch Device in Neutral Position
 Q1020603	Two Ways Latch Device
 Q1020604	Latch Device with Manual Unlatching
 Q1029603	Two Ways Latch Device with Key




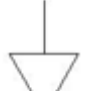



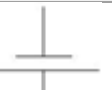




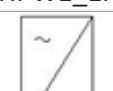

MECHANICAL CONTROLS, COUPLING

Symbol	Description
 Q021216	Clutch Joint
 Q021217	Disconnected Joint
 Q021218	Engaged Joint





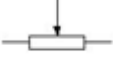











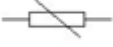

 Q021219	Engaged Joint
 Q021223	Gear Joint

MISCELLANEOUS

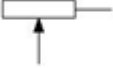

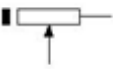

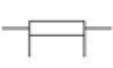







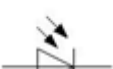







Horizontal Symbol	Vertical Symbol	Description
 HAN1B	 VAN1B	Bell
 HAN1Z	 VAN1Z	Buzzer
 HAN1H	 VAN1H	Horn
 HAN1S	 VAN1S	Siren
 HAN1W	 VAN1W	Whistle
 HGND2	 VGND2	Earth/Ground
 HGND3	 VGND3	Functional Earth



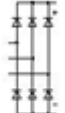
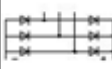

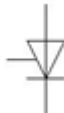



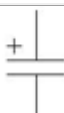






		Protective Earth
HGND4	VGND4	
		Protective equipotential bond
HGND5	VGND5	
		Functional Equipotential Bond
HGND1	VGND1	
		Battery
HBA1	VBA1	
		Battery (Flipped)
HBA1R	VBA1R	
		Power Source 1 Phase
HPW1_1PH	VPW1_1PH	
		Power Source 3 Phase
HPW1_3PH	VPW1_3PH	

ELECTRONICS









Horizontal Symbol	Vertical Symbol	Description
 HRE1B	 VRE1B	Fixed Resistor
 HVR1B	 VVR1B	Variable Resistor
 HVR1BR	 VVR1BR	Variable Resistor
 HVR1R2	 VVR1R2	Variable Resistor 2
 HRE1LDR	 VRE1LDR	Light dependent
 HRE1HT	 VRE1HT	Heater Element
 HRE2HT	 VRE2HT	2nd+ Element
 HRE1RCN	 VRE1RCN	RC Network
 HVR1R3	 VVR1R3	Varistor




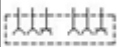


		Resistor with Mobile Contact
HVR1R4	VVR1R4	
		Resistor with Mobile Contact and Disconnecting Position
HVR1R5	VVR1R5	
		Shunt
HVR1R7	VVR1R7	
		Variable Resistor with Carbon Disks
HVR1R8	VVR1R8	
		Diode
HDI1	VDI1	
		Diode 180
HDI1R	VDI1R	
		Diode Photosensitive
HDI1B4	VDI1B4	
		Diode Photosensitive 2
HDI1B5	VDI1B5	
		Zener Diode - One Way
HDI1V2	VDI1V2	
		Diac Diode - Two Way
HDI1V3	VDI1V3	

		Bridge rectifier
HDI1BR	VDI1BR	
		3 Phase Bridge Rectifier
HDI1V5	VDI1V5	
		SCR
HDI1V4	VDI1V4	
		Capacitor
HCA1	VCA1	
		Electrolytic
HCA1EL	VCA1EL	
		Electrolytic 180
HCA1ELR	VCA1ELR	
		Feedthrough Capacitor
HCA1C2	VCA1C2	
		Photosensitive PNP Transistor
HDV1B6	VDV1B6	















CABLE MARKERS

Horizontal Symbol	Vertical Symbol	Description
 HW01	 VW01	Cable Marker
 HW02	 VW02	2nd+ Child Marker
 HT0_CABLE	 VT0_CABLE	Extra Marker
 HT0_TW	 VT0_TW	Twisted Pair

POWER RECEPTACLES

Horizontal Symbol	Vertical Symbol	Description
 HCN1RDUP	 VCN1RDUP	Duplex Receptacle
 HCN1RSGL	 VCN1RSGL	Single Receptacle

GENERIC DEVICE BOXES

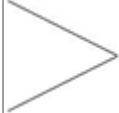


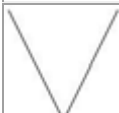
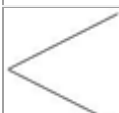
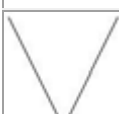


Horizontal Symbol	Vertical Symbol	Description
 HDV1TFL	 VDV1TFL	4 Terminals
 HDV1TC	 VDV1TC	3 Terminals
 HDV1TB	 VDV1TB	3 Terminals
 HDV1T6	 VDV1T6	2 Terminals
 HDV1TF	 VDV1TF	4 Terminals
 HDV1TE	 VDV1TE	3 Terminals
 HDV1T7	 VDV1T7	3 Terminals



STAND-ALONE CROSS-REFERENCE SYMBOLS

Symbol	Description	
 HA2S1_REF	Source Rectangle	
 HA3S1_REF	Source Hexagon	
 HA5S1_REF	Source Ellipse	
 HA2D1_REF	Destination Rectangle	
 HA3D1_REF	Destination Hexagon	
 HA5D1_REF	Destination Ellipse	

WIRE ARROWS - REFERENCE ONLY



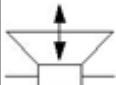



Symbol	Description	
 HA1X1	Generic Arrow - Left	
 HA1X2	Generic Arrow - Up	
 HA1X3	Generic Arrow - Right	
 HA1X4	Generic Arrow - Down	
 HA1X1Y	Arrow Tail - Left	
 HA1X2Y	Arrow Tail - Up	
 HA1X3Y	Arrow Tail - Right	
 HA1X4Y	Arrow Tail - Down	



SPLICE SYMBOLS



Horizontal Symbol	Vertical Symbol	Description
		Splice
HSP1001	VSP1001	

ANNUNCIATIONS















Horizontal Symbol	Vertical Symbol	Description
		Loudspeaker
HAN1B7	VAN1B7	
		Loudspeaker - Microphone
HAN1B8	VAN1B8	
		Microphone
HAN1B9	VAN1B9	









ONE-LINE CONNECTOR





Horizontal Symbol	Vertical Symbol	Description
		Jack/Plug
HC01PJ_1-	VC01PJ_1-	

ONE-LINE MOTOR CONTROL





Horizontal Symbol	Vertical Symbol	Description
		Circuit breaker
HCB11_1-	VCB11_1-	
		Motor circuit protector
HCB11_1M-	VCB11_1M-	
		Thermal circuit breaker
HCB11TH_1-	VCB11TH_1-	
		Disconnect
HDS11_1-	VDS11_1-	
		Fused disconnect
HDS11F_1-	VDS11F_1-	
		Fuse
HFU1_1-	VFU1_1-	
		Motor
HMO13_1-	VMO13_1-	

		Motor starter
HMS11_1-	VMS11_1-	
		Overload
HOL1_1-	VOL1_1-	
		Capacitor
HCA113_1-	VCA113_1-	



ONE-LINE TRANSFORMER

Horizontal Symbol	Vertical Symbol	Description
		Transformer 1
HXF1_1-	VXF1_1-	
		Transformer 2
HXF2_1-	VXF2_1-	







ONE-LINE TERMINAL

Horizontal Symbol	Vertical Symbol	Description
		Square terminal
HT0001_1-	VT0001_1-	
		Round terminal
HT0002_1-	VT0002_1-	



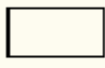
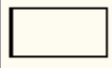
ONE-LINE CABLE MARKER

Horizontal Symbol	Vertical Symbol	Description
		Cable marker
HW01_1-	VW01_1-	

ONE-LINE BUS-TAP

Horizontal Symbol	Vertical Symbol	Description
		Bus-tap - main/dot
H0V1_BT_1-	V0V1_BT_1-	
		Bus-tap - dual/tee
H0V1_BTT_1-	V0V1_BTT_1-	
		Bus-tap - dual/corner
H0V1_BTL_1-	V0V1_BTL_1-	

ONE-LINE MISCELLANEOUS

Horizontal Symbol	Vertical Symbol	Description
		Power receptacle
H001WR_1-	V001WR_1-	
		Generic load
H0V1_1-	V0V1_1-	