

Series CCP-38S Low PIM Multi-Throw DC-3 GHz Normally Open Coaxial Switch

PART NUMBER DESCRIPTION

CCP-38S Commercial Normally Open Multi-throw, DC-3GHz, Low PIM

These switches have extremely low passive intermodulation for use in narrow bandwidth communications applications.

The CCP38S is a broadband, multi-throw, electromechanical coaxial switch designed to switch a microwave signal from a common input to any of 3, 4, 5, or 6 outputs. The characteristic impedance is 50 Ohms. The switches are small using the popular connector spacing on a 1.062" dia. circle. Each position has an individual actuator mechanism allowing random position selection. This also gives the minimum switching time.

With the normally open actuator, all paths are open when the switch is de-energized.



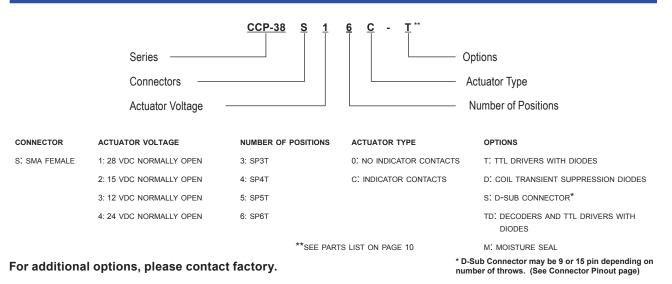
ENVIRONMENTAL AND PHYSICA	L CHARACTERISTICS
Operating Temperature	–25°C to 65°C
Vibration (MIL-STD-202 Method 214, Condition D, non-operating)	10 g's RMS
Shock (MIL-STD-202 Method 213, Condition D, non-operating)	500 g's
Standard Actuator Life	1,000,000 cycles
Connector Type	SMA
Humidity (Moisture Seal)	Available
Weight	9 oz. (255.2g) (max.)

ELECTRICAL CHARACTERISTICS											
Form Factor	Multi- break		'	Э							
Frequency Range	DC-3	GHz									
Characteristic Impedance	50 Oh	ms									
Switching Time	15 ms	(max.	.)								
Actuation Voltage Available	12	15	24	28	٧						
Actuation Current, max. @ ambient	400	205	170	140	mA						

PERFORMANCE CHARAC	TERISTICS
Frequency	DC-3 GHz
Insertion Loss, dB, max.	0.2
Isolation, dB, min.	70
VSWR , max.	1.25:1
RF Power (cw), W, max.	100

PASSIVE INTERMODULATION CHARACTERISTICS											
Tone 1 Frequency (MHz)	Tone 2 Frequency (MHz)	IM3 Frequency (MHz)	PIM Threshold (dBc)								
1945	1990	1900	-140.0								
P1 P2 (dBm)	PIM (dBc)	PEAK PIM (dBc)									
43	-153.9	-144.1									

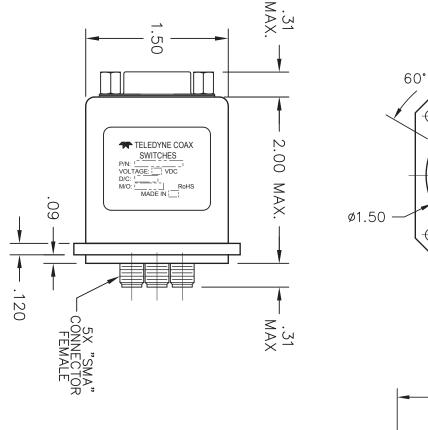
PART NUMBERING SYSTEM

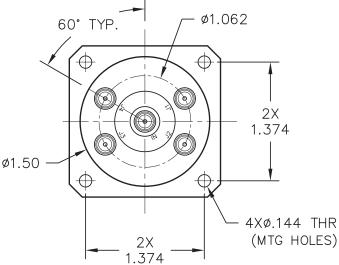


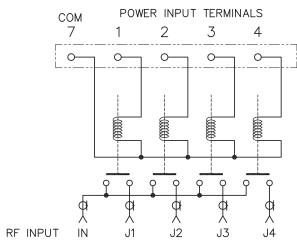
Low PIM Multi-Throw DC-3 GHz **Normally Open Coaxial Switch**

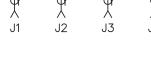


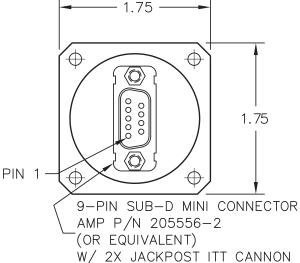












D110551 (OR EQUIVALENT)

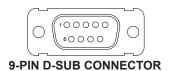
SCHEMATIC

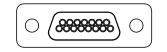
SHOWN IN NORMALLY OPEN POSITION



CONNECTOR	PINOUT FOR NO	RMALLY OPEN S	P3T MULTI-THRC	OW SWITCHES		
Example	CCP-38S130-S	CCP-38S13C-S	CCP-38S130-TS	CCP-38S13C-TS	CCP-38S130-TDS	CCP-38S13C-TDS
INDICATOR		Yes		Yes		Yes
TTL			Yes	Yes		
DECODERS & TTL					Yes	Yes
PIN NO.	9-Pin	9-Pin	9-Pin	9-Pin	9-Pin	9-Pin
1	Port 1	Port 1	Port 1	Port 1	Logic 1	Logic 1
2	Port 2	Port 2	Port 2	Port 2	Logic 2	Logic 2
3	Port 3	Port 3	Port 3	Port 3		
4		E INDICATOR		E INDICATOR		E INDICATOR
5		F INDICATOR		F INDICATOR		F INDICATOR
6		G INDICATOR		G INDICATOR		G INDICATOR
7	Соммон	Соммон	Соммон	Соммон	Соммон	Соммон
8			Vsw	Vsw	Vsw	Vsw
9		D INDICATOR (COM)		D INDICATOR (COM)		D INDICATOR (COM)

CONNECTOR	PINOUT FOR NO	RMALLY OPEN S	P4T MULTI-THRC	W SWITCHES		
Example	CCP-38S140-S	CCP-38S14C-S	CCP-38S140-TS	CCP-38S14C-TS	CCP-38S140-TDS	CCP-38S14C-TDS
INDICATOR		Yes		Yes		Yes
TTL			Yes	Yes		
DECODERS & TTL					Yes	Yes
PIN NO.	9-Pin	15-Pin	9-Pin	15-Pin	9-Pin	15-Pin
1	Port 1	Port 1	TTL 1	TTL 1	Logic 1	Logic 1
2	Port 2	Port 2	TTL 2	TTL 2	Logic 2	Logic 2
3	Port 3	Port 3	TTL 3	TTL 3	Logic 3	Logic 3
4	Port 4	Port 4	TTL 4	TTL 4		
5						
6						
7	Соммон	Соммон	Соммон	Соммон	Соммон	Соммон
8			Vsw	Vsw	Vsw	Vsw
9		D INDICATOR (COM)		D INDICATOR (COM)		D INDICATOR (COM)
10		E INDICATOR		E INDICATOR		E INDICATOR
11		F INDICATOR		F INDICATOR		F INDICATOR
12	N/A	G INDICATOR	N/A	G INDICATOR	N/A	G INDICATOR
13	N/A	H Indicator	N/A	H Indicator	N/A	H Indicator
14						
15						





15-PIN D-MICRO CONNECTOR

Low PIM Multi-Throw DC-3 GHz Normally Open Coaxial Switch



CONNECTOR	R PINOUT FOR	NORMALLY OPE	EN SP5T MULTI-T	HROW SWITCHE	S	
Example	CCP-38S150-S	CCP-38S15C-S	CCP-38S150-TS	CCP-38S15C-TS	CCP-38S150-TDS	CCP-38S15C-TDS
INDICATOR		YES		YES		Yes
TTL			Yes	Yes		
DECODERS & TTL					YES	Yes
PIN NO.	9-Pin	15-PiN	9-PIN	15-Pin	9-Pin	15-Pin
1	Port 1	Port 1	TTL 1	TTL 1	Logic 1	Logic 1
2	Port 2	Port 2	TTL 2	TTL 2	Logic 2	Logic 2
3	Port 3	Port 3	TTL 3	TTL 3	Logic 3	Logic 3
4	Port 4	Port 4	TTL 4	TTL 4		
5	Port 5	Port 5	TTL 5	TTL 5		
6						
7	Соммон	COMMON	Соммон	COMMON	COMMON	Соммон
8			Vsw	Vsw	Vsw	Vsw
9		D INDICATOR (COM)		D INDICATOR (COM)		D INDICATOR (COM)
10		E INDICATOR		E INDICATOR		E INDICATOR
11		F INDICATOR		F INDICATOR		F INDICATOR
12		G INDICATOR	N/A	G INDICATOR		G INDICATOR
13	N/A	H Indicator	N/A	H Indicator	N/A	H Indicator
14		K INDICATOR		K INDICATOR		K INDICATOR
15						

CONNECTOR	R PINOUT FOR	NORMALLY OPE	EN SP6T MULTI-T	HROW SWITCH	ES	
Example	CCP-38S160-S	CCP-38S16C-S	CCP-38S160-TS	CCP-38S16C-TS	CCP-38S160-TDS	CCP-38S16C-TDS
INDICATOR		YES		Yes		Yes
TTL			Yes	Yes		
DECODERS & TTL					YES	Yes
PIN NO.	9-Pin	15-Pin	9-Pin	15-Pin	9-Pin	15-Pin
1	Port 1	Port 1	TTL 1	TTL 1	Logic 1	Logic 1
2	Port 2	Port 2	TTL 2	TTL 2	Logic 2	Logic 2
3	Port 3	Port 3	TTL 3	TTL 3	Logic 3	Logic 3
4	Port 4	Port 4	TTL 4	TTL 4		
5	Port 5	Port 5	TTL 5	TTL 5		
6	Port 6	Port 6	TTL 6	TTL 6		
7	Соммон	COMMON	Соммон	Соммон	COMMON	Соммон
8			Vsw	Vsw	Vsw	Vsw
9		D INDICATOR (COM)		D INDICATOR (COM)		D INDICATOR (COM)
10		E INDICATOR		E INDICATOR		E INDICATOR
11		F INDICATOR		F INDICATOR		F INDICATOR
12	N/A	G INDICATOR	N/A	G INDICATOR	N/A	G INDICATOR
13	N/A	H Indicator	N/A	H Indicator	N/A	H INDICATOR
14		K INDICATOR		K INDICATOR		K INDICATOR
15		L INDICATOR		L INDICATOR		L Indicator



	TRUTH TABLE Normally Open CCP-38SX3C-T												
	gic out		RF Path Indicator Switches										
1	2	3	J1	J2	J3		Е	F	G				
1	0	0	On	Off	Off		С	0	0				
0	1	0	Off	On	Off		0	С	0				
0	0	1	Off	Off	On		0	0	С				

	TRUTH TABLE Normally Open CCP-38SX3C-TD Logic RE Path Indicator												
Lo: Inp				ndicato witche									
1	2	J1	J2	J3		Е	F	G					
0	0	On	Off	Off		С	0	0					
1	0	Off	On	Off		0	С	0					
0	1	Off	Off	On		0	0	С					
1	1	Off	Off	Off		0	0	0					

	TRUTH TABLE Normally Open CCP-38SX4C-T													
Logic Input					RF Path					Indicator Switches				
1	2	3	4		J1	J2	J3	J4		Е	F	G	Н	
1	0	0	0		On	Off	Off	Off		С	0	0	0	
0	1	0	0		Off	On	Off	Off		0	С	0	0	
0	0	1	0		Off	Off	On	Off		0	0	С	0	
0	0	0	1		Off	Off	Off	On		0	0	0	С	

	TRUTH TABLE Normally Open CCP-38SX4C-TD												
Lo		RF Path					Indicator Switches						
1	2	3	J	1	J2	J3	J4		Е	F	G	Н	
0	0	0	0	n	Off	Off	Off		С	0	0	0	
1	0	0	0	ff	On	Off	Off		0	С	0	0	
0	1	0	0	ff	Off	On	Off		0	0	С	0	
1	1	0	0	ff	Off	Off	On		0	0	0	С	
1	1	1	0	ff	Off	Off	Off		0	0	0	0	

Low PIM Multi-Throw DC-3 GHz Normally Open Coaxial Switch



TRUTH TABLE Normally Open CCP-38SX5C-T

001-	000/	1-00												
Lo	gic Inp	out				R	F Pat	h		In	dicat	or Sv	vitch	es
1	2	3	4	5	J1	J2	J3	J4	J5	Е	F	G	Н	К
1	0	0	0	0	On	Off	Off	Off	Off	С	0	0	0	0
0	1	0	0	0	Off	On	Off	Off	Off	0	С	0	0	0
0	0	1	0	0	Off	Off	On	Off	Off	0	0	С	0	0
0	0	0	1	0	Off	Off	Off	On	Off	0	0	0	С	0
0	0	0	0	1	Off	Off	Off	Off	On	0	0	0	0	С

TRUTH TABLE Normally Open CCP-38SX5C-TD

Lo	gic Inp	out		F	RF Pat	th	Indicator Switches						
 1	2	3	J1	J2	J3	J4	J5		Е	F	G	Н	Κ
0	0	0	On	Off	Off	Off	Off		С	0	0	0	0
1	0	0	Off	On	Off	Off	Off		0	С	0	0	0
0	1	0	Off	Off	On	Off	Off		0	0	С	0	0
1	1	0	Off	Off	Off	On	Off		0	0	0	С	0
0	0	1	Off	Off	Off	Off	On		0	0	0	0	С
1	1	1	Off	Off	Off	Off	Off		0	0	0	0	0

TRUTH TABLE Normally Open CCP-38SX6C-T

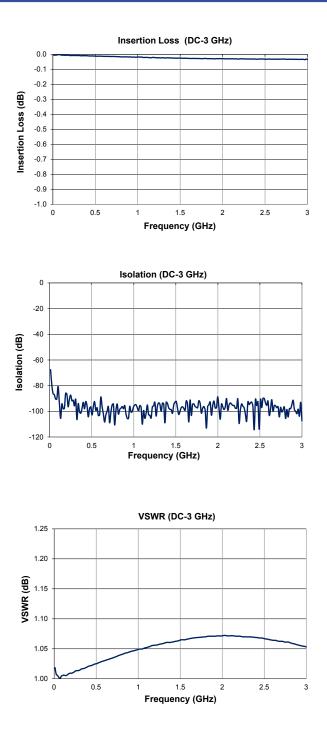
001	-0007	00-1																
L	ogic In	put							RF	Path				Indic	ator	Swit	ches	;
1	2	3	4	5	6		J1	J2	J3	J4	J5	J6	Е	F	G	Н	Κ	L
1	0	0	0	0	0		On	Off	Off	Off	Off	Off	С	0	0	0	0	0
0	1	0	0	0	0	-	Off	On	Off	Off	Off	Off	0	С	0	0	0	0
0	0	1	0	0	0		Off	Off	On	Off	Off	Off	0	0	С	0	0	0
0	0	0	1	0	0	-	Off	Off	Off	On	Off	Off	0	0	0	С	0	0
0	0	0	0	1	0		Off	Off	Off	Off	On	Off	0	0	0	0	С	0
0	0	0	0	0	1		Off	Off	Off	Off	Off	On	0	0	0	0	0	С

TRUTH TABLE Normally Open CCP-38SX6C-TD

CCP-	38276	5C-ID												
Lo	gic Inp	out			RFI	Path				Indic	ator	Swit	ches	;
1	2	3	J1	J2	J3	J4	J5	J6	Е	F	G	Н	Κ	L
0	0	0	On	Off	Off	Off	Off	Off	С	0	0	0	0	0
1	0	0	Off	On	Off	Off	Off	Off	0	С	0	0	0	0
0	1	0	Off	Off	On	Off	Off	Off	0	0	С	0	0	0
1	1	0	Off	Off	Off	On	Off	Off	0	0	0	С	0	0
0	0	1	Off	Off	Off	Off	On	Off	0	0	0	0	С	0
1	0	1	Off	Off	Off	Off	Off	On	0	0	0	0	0	С
1	1	1	Off	Off	Off	Off	Off	Off	0	0	0	0	0	0



TYPICAL BROADBAND RF PERFORMANCE CURVES

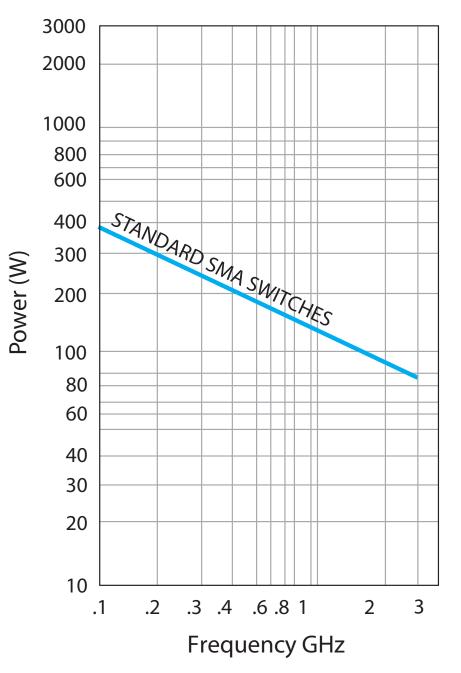


RF NOTES

TYPICAL POWER PERFORMANCE CURVE



Power Handling vs. Frequency



Estimates based on the following reference conditions:

- Ambient temperature of 40°C or less
- Sea level operation
- · Load VSWR of 1.20:1 maximum

• No high-power (hot) switching

Please contact Teledyne Coax Switches for derating factors when applications do not meet the foregoing reference conditions.



GLOSSARY

Actuator

An actuator is the electromechanical mechanism that transfers the RF contacts from one position to another upon DC command.

Arc Suppression Diode

A diode is connected in parallel with the coil. This diode limits the "reverse EMF spike" generated when the coil deenergizes to 0.7 volts. The diode cathode is connected to the positive side of the coil and the anode is connected to the negative side.

Date Code

All switches are marked with either a unique serial number or a date code. Date codes are in accordance with MIL-STD-1285 Paragraph 5.2.5 and consist of four digits. The first two digits define the year and the last two digits define the week of the year (YYWW). Thus, 1032 identifies switches that passed through final inspection during the 32nd week of 2010.

Indicator

Indicators tell the system which position the switch is in. Other names for indicators are telemetry contacts or tellback circuit. Indicators are usually a set of internally mounted DC contacts linked to the actuator. They can be wired to digital input lines, status lights, or interlocks. Unless otherwise specified, the maximum indicator contact rating is 30 Vdc, 50 mA, or 1.5 Watts into a resistive load.

Isolation

Isolation is the measure of the power level at the output connector of an unconnected RF channel as referenced to the power at the input connector. It is specified in dB below the input power level.

Multi-Throw Switch

A multi-throw switch is a switch with one input and three or more output ports. The CCR-38 can switch a microwave signal to any of 2,3,4,5 or 6 output from a single common input.

Switching Time

Switching time is the total interval beginning with the arrival of the leading edge of the command pulse at the switch DC input and ending with the completion of the switch transfer, including contact bounce. It consists of three parts: (1) inductive delay in the coil, (2) transfer time of the physical movement of the contacts, and (3) the bounce time of the RF contacts.

TTL Switch Driver Option

As a special option, switch drivers can be provided for both failsafe and latching switches, which are compatible with industry-standard low-power Schottky TTL circuits.

TD-Option

This option includes a decoder. The 3-bit parallel command is decoded to internally select the appropriate position. See the logic tables. The TD-Option increases the Vsw supply current demand by 50mA max at 28Vdc and $+20^{\circ}$ C.

Performance Parameters vs Frequency

Generally speaking, the RF performance of coaxial switches is frequency dependent. With increasing frequency, VSWR and insertion loss increase while isolation decreases. All data sheets specify these three parameters as "worst case" at the highest operating frequency. If the switch is to be used over a narrow frequency band, better performance can be achieved.

Actuator Current vs Temperature

The resistance of the actuator coil varies as a function of temperature. There is an inverse relationship between the operating temperature of the switch and the actuator drive current. For switches operating at 28 VDC, the approximate actuator drive current at temperature, T, can be calculated using the equation:

$$I_{\rm T} = \frac{I_{\rm A}}{[1 + .00385 \, ({\rm T}-20)]}$$

Where:

 I_{τ} = Actuator current at temperature, T

I_A = Room temperature actuator current – see data sheet

T = Temperature of interest in °C

Magnetic Sensitivity

An electro-mechanical switch can be sensitive to ferrous materials and external magnetic fields. Neighboring ferrous materials should be permitted no closer than 0.5 inches and adjacent external magnetic fields should be limited to a flux density of less than 5 Gauss.

Low PIM Multi-Throw DC-3 GHz

Normally Open Coaxial Switch



NORMALLY OPEN CCP-38S PART NUMBER LIST

Part No. Part No. Part No. Part No. 1 CCP-38SX3C 43 CCP-38SX40-D 85 CCP-38SX6C-D 2 CCP-38SX3C-D 44 CCP-38SX40-DM 87 CCP-38SX6C-DM 4 CCP-38SX3C-M 46 CCP-38SX40-M 88 CCP-38SX6C-M 5 CCP-38SX3C-MS 47 CCP-38SX40-M 89 CCP-38SX6C-TM 6 CCP-38SX3C-TD 49 CCP-38SX40-T 91 CCP-38SX6C-TD 7 CCP-38SX3C-TDM 51 CCP-38SX40-TD 92 CCP-38SX6C-TM 10 CCP-38SX3C-TDM 52 CCP-38SX40-TDM 93 CCP-38SX6C-TM 11 CCP-38SX3C-TDM 52 CCP-38SX40-TM 96 CCP-38SX6C-TM 12 CCP-38SX3C-TMS 55 CCP-38SX40-TM 96 CCP-38SX6C-TM 13 CCP-38SX3C-TMS 56 CCP-38SX40-TM 96 CCP-38SX6C-TM 14 CCP-38SX3C-TM 56 CCP-38SX6C-M 100 CCP-38SX60-TM 14 <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th></td<>						
2 CCP-38SX3C-D 44 CCP-38SX40-D 86 CCP-38SX6C-D 3 CCP-38SX3C-DM 45 CCP-38SX40-DM 87 CCP-38SX6C-DM 4 CCP-38SX3C-M 46 CCP-38SX40-DM 88 CCP-38SX6C-MS 5 CCP-38SX3C-M 46 CCP-38SX40-TM 89 CCP-38SX6C-S 7 CCP-38SX3C-TD 50 CCP-38SX40-TD 91 CCP-38SX6C-TD 8 CCP-38SX3C-TDM 51 CCP-38SX40-TD 92 CCP-38SX6C-TDM 9 CCP-38SX3C-TDM 51 CCP-38SX40-TDM 93 CCP-38SX6C-TDMS 10 CCP-38SX3C-TDM 52 CCP-38SX40-TDM 94 CCP-38SX6C-TDMS 11 CCP-38SX3C-TMS 55 CCP-38SX40-TM 96 CCP-38SX6C-TM 12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TM 12 CCP-38SX30-T 56 CCP-38SX40-TM 96 CCP-38SX6C-TM 14 CCP-38SX30-D 58 CCP-38SX6C-D 100 CCP-38SX6C-TM		Part No.		Part No.		Part No.
3 CCP-38SX3C-DM 45 CCP-38SX40-DM 87 CCP-38SX6C-DM 4 CCP-38SX3C-M 46 CCP-38SX40-M 88 CCP-38SX6C-M 5 CCP-38SX3C-M 47 CCP-38SX40-M 89 CCP-38SX6C-M 6 CCP-38SX3C-T 49 CCP-38SX40-T 91 CCP-38SX6C-T 8 CCP-38SX3C-TDM 50 CCP-38SX40-TD 92 CCP-38SX6C-TDM 9 CCP-38SX3C-TDM 51 CCP-38SX40-TDM 93 CCP-38SX6C-TDM 10 CCP-38SX3C-TDM 52 CCP-38SX40-TDM 94 CCP-38SX6C-TM 11 CCP-38SX3C-TM 54 CCP-38SX40-TDM 95 CCP-38SX6C-TM 12 CCP-38SX3C-TM 55 CCP-38SX40-TS 98 CCP-38SX6C-TM 12 CCP-38SX30-D 58 CCP-38SX6C-TM 90 CCP-38SX6C-TM 13 CCP-38SX30-D 58 CCP-38SX6C-TM 91 CCP-38SX6C-TM 14 CCP-38SX30-D 58 CCP-38SX6C-TM 100 CCP-38SX60-D	1	CCP-38SX3C	43	CCP-38SX40	85	CCP-38SX6C
4 CCP-38SX3C-M 46 CCP-38SX40-M 88 CCP-38SX6C-M 5 CCP-38SX3C-MS 47 CCP-38SX40-MS 89 CCP-38SX6C-MS 6 CCP-38SX3C-T 48 CCP-38SX40-T 90 CCP-38SX6C-T 7 CCP-38SX3C-TD 50 CCP-38SX40-TD 92 CCP-38SX6C-TD 9 CCP-38SX3C-TDM 51 CCP-38SX40-TDM 93 CCP-38SX6C-TDMS 10 CCP-38SX3C-TMS 52 CCP-38SX40-TDM 94 CCP-38SX6C-TMS 11 CCP-38SX3C-TMS 55 CCP-38SX40-TDM 95 CCP-38SX6C-TMS 12 CCP-38SX3C-TMS 55 CCP-38SX40-TMS 97 CCP-38SX6C-TMS 14 CCP-38SX30-TMS 56 CCP-38SX60-DM 90 CCP-38SX6C-TMS 14 CCP-38SX30-D 58 CCP-38SX6C-DM 101 CCP-38SX60-TMS 15 CCP-38SX30-D 58 CCP-38SX6C-DM 101 CCP-38SX60-DM 16 CCP-38SX30-M 60 CCP-38SX6C-TM 102 CCP-	2	CCP-38SX3C-D	44	CCP-38SX40-D	86	CCP-38SX6C-D
5 CCP-38SX3C-MS 47 CCP-38SX40-MS 89 CCP-38SX6C-MS 6 CCP-38SX3C-T 49 CCP-38SX40-T 91 CCP-38SX6C-T 7 CCP-38SX3C-TD 50 CCP-38SX40-T 91 CCP-38SX6C-TD 8 CCP-38SX3C-TD 50 CCP-38SX40-TD 92 CCP-38SX6C-TD 9 CCP-38SX3C-TDM 51 CCP-38SX40-TD 93 CCP-38SX6C-TDM 10 CCP-38SX3C-TDS 53 CCP-38SX40-TD 95 CCP-38SX6C-TDM 11 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TM 12 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX6C-TS 15 CCP-38SX30-D 58 CCP-38SX6C-D 100 CCP-38SX60-D 17 CCP-38SX30-M 69 CCP-38SX6C-M 102 CCP-38SX60-D 18 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-TD 20 CCP-38SX0-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD	3	CCP-38SX3C-DM	45	CCP-38SX40-DM	87	CCP-38SX6C-DM
6 CCP-38SX3C-S 48 CCP-38SX40-S 90 CCP-38SX6C-S 7 CCP-38SX3C-TD 50 CCP-38SX40-TD 91 CCP-38SX6C-TD 9 CCP-38SX3C-TDM 51 CCP-38SX40-TDM 93 CCP-38SX6C-TDM 9 CCP-38SX3C-TDMS 52 CCP-38SX40-TDMS 94 CCP-38SX6C-TDM 10 CCP-38SX3C-TDM 54 CCP-38SX40-TDM 96 CCP-38SX6C-TDM 11 CCP-38SX3C-TS 56 CCP-38SX40-TM 96 CCP-38SX6C-TM 12 CCP-38SX3C-TS 56 CCP-38SX40-TM 97 CCP-38SX6C-TM 13 CCP-38SX30-TS 56 CCP-38SX40-TS 98 CCP-38SX60-TM 14 CCP-38SX30-D 58 CCP-38SX6C-D 100 CCP-38SX60-DM 16 CCP-38SX30-D 58 CCP-38SX6C-TS 102 CCP-38SX60-DM 17 CCP-38SX30-D 59 CCP-38SX6C-M 102 CCP-38SX60-DM 18 CCP-38SX30-TB 61 CCP-38SX6C-TM 104 CCP-38	4	CCP-38SX3C-M	46	CCP-38SX40-M	88	CCP-38SX6C-M
1 1	5	CCP-38SX3C-MS	47	CCP-38SX40-MS	89	CCP-38SX6C-MS
8 CCP-38SX3C-TD 50 CCP-38SX40-TD 92 CCP-38SX6C-TD 9 CCP-38SX3C-TDM 51 CCP-38SX40-TDM 93 CCP-38SX6C-TDM 10 CCP-38SX3C-TDM 52 CCP-38SX40-TDM 94 CCP-38SX6C-TDM 11 CCP-38SX3C-TDS 53 CCP-38SX40-TD 96 CCP-38SX6C-TM 12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TM 13 CCP-38SX3C-TM 54 CCP-38SX40-TM 97 CCP-38SX6C-TM 14 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX6C-TM 14 CCP-38SX30-D 57 CCP-38SX5C-D 100 CCP-38SX60-D 16 CCP-38SX30-D 59 CCP-38SX5C-M 102 CCP-38SX60-D 18 CCP-38SX30-M 61 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 21 CCP-38SX0-TDM 65 CCP-38SX5C-TDM 107 CCP-38S	6	CCP-38SX3C-S	48	CCP-38SX40-S	90	CCP-38SX6C-S
9 CCP-38SX3C-TDM 51 CCP-38SX40-TDM 93 CCP-38SX6C-TDM 10 CCP-38SX3C-TDMS 52 CCP-38SX40-TDMS 94 CCP-38SX6C-TDM 11 CCP-38SX3C-TDS 53 CCP-38SX40-TDS 95 CCP-38SX6C-TDS 12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TM 13 CCP-38SX3C-TM 54 CCP-38SX40-TM 97 CCP-38SX6C-TM 14 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX6C-TS 15 CCP-38SX30 57 CCP-38SX5C-D 100 CCP-38SX60-DM 16 CCP-38SX30-DM 59 CCP-38SX5C-DM 101 CCP-38SX60-DM 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-TD 20 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 21 CCP-38SX30-TD 64 CCP-38SX5C-TD 107 CCP-38SX60-TD 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 <th< th=""><th>7</th><th>CCP-38SX3C-T</th><th>49</th><th>CCP-38SX40-T</th><th>91</th><th>CCP-38SX6C-T</th></th<>	7	CCP-38SX3C-T	49	CCP-38SX40-T	91	CCP-38SX6C-T
10 CCP-38SX3C-TDMS 52 CCP-38SX40-TDMS 94 CCP-38SX6C-TDMS 11 CCP-38SX3C-TDS 53 CCP-38SX40-TDS 95 CCP-38SX6C-TDS 12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TMS 13 CCP-38SX3C-TM 55 CCP-38SX40-TM 97 CCP-38SX6C-TMS 14 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX60-TS 15 CCP-38SX30 57 CCP-38SX5C-D 100 CCP-38SX60-D 17 CCP-38SX30-D 58 CCP-38SX5C-M 102 CCP-38SX60-D 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-T 63 CCP-38SX5C-T 106 CCP-38SX60-TD 21 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TD 64 CCP-38SX5C-TD 107 CCP-	8	CCP-38SX3C-TD	50	CCP-38SX40-TD	92	CCP-38SX6C-TD
11 CCP-38SX3C-TDS 53 CCP-38SX40-TDS 95 CCP-38SX6C-TDS 12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TMS 13 CCP-38SX3C-TMS 55 CCP-38SX40-TMS 97 CCP-38SX6C-TMS 14 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX60-TS 15 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 17 CCP-38SX30-D 58 CCP-38SX5C-M 102 CCP-38SX60-D 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-M 61 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 20 CCP-38SX30-TD 64 CCP-38SX5C-T 106 CCP-38SX60-TD 23 CCP-38SX30-TD 64 CCP-38SX5C-TD 107 CCP-38SX60-TD 24 CCP-38SX30-TD 67 CCP-38SX5C-TD 108 CCP-38SX60	9	CCP-38SX3C-TDM	51	CCP-38SX40-TDM	93	CCP-38SX6C-TDM
12 CCP-38SX3C-TM 54 CCP-38SX40-TM 96 CCP-38SX6C-TM 13 CCP-38SX3C-TMS 55 CCP-38SX40-TMS 97 CCP-38SX6C-TMS 14 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX6C-TS 15 CCP-38SX30 57 CCP-38SX5C-D 100 CCP-38SX60-D 16 CCP-38SX30-D 58 CCP-38SX5C-D 101 CCP-38SX60-D 17 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-DM 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 20 CCP-38SX30-T 63 CCP-38SX5C-T 106 CCP-38SX60-TD 21 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX0-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX0-TDM 66 CCP-38SX5C-TDM 108 CCP-38SX60-T	10	CCP-38SX3C-TDMS	52	CCP-38SX40-TDMS	94	CCP-38SX6C-TDMS
13 CCP-385X3C-TMS 55 CCP-385X40-TMS 97 CCP-385X6C-TMS 14 CCP-385X3C-TS 56 CCP-385X40-TS 98 CCP-385X6C-TS 15 CCP-385X30 57 CCP-385X5C-D 99 CCP-385X60-D 16 CCP-385X30-D 58 CCP-385X5C-D 100 CCP-385X60-D 17 CCP-385X30-DM 59 CCP-385X5C-DM 101 CCP-385X60-DM 18 CCP-385X30-M 60 CCP-385X5C-M 102 CCP-385X60-MS 20 CCP-385X30-T 63 CCP-385X5C-T 105 CCP-385X60-T 21 CCP-385X30-TD 64 CCP-385X5C-TD 106 CCP-385X60-TD 23 CCP-385X30-TDM 65 CCP-385X5C-TDM 107 CCP-385X60-TDM 24 CCP-385X30-TDM 66 CCP-385X5C-TDM 108 CCP-385X60-TDM 25 CCP-385X30-TM 68 CCP-385X5C-TM 110 CCP-385X60-TM 26 CCP-385X4C-D 72 CCP-385X5C-TM 111 CCP-3	11	CCP-38SX3C-TDS	53	CCP-38SX40-TDS	95	CCP-38SX6C-TDS
14 CCP-38SX3C-TS 56 CCP-38SX40-TS 98 CCP-38SX6C-TS 15 CCP-38SX30 57 CCP-38SX5C-D 100 CCP-38SX60-D 16 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 17 CCP-38SX30-DM 59 CCP-38SX5C-DM 101 CCP-38SX60-DM 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-MS 20 CCP-38SX30-M 61 CCP-38SX5C-S 104 CCP-38SX60-T 21 CCP-38SX30-TD 64 CCP-38SX5C-T 105 CCP-38SX60-TD 22 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 108 CCP-38SX60-TDM 24 CCP-38SX30-TDM 66 CCP-38SX5C-TM 110 CCP-38SX60-TDM 25 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TM 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 111 CCP-3	12	CCP-38SX3C-TM	54	CCP-38SX40-TM	96	CCP-38SX6C-TM
15 CCP-38SX30 57 CCP-38SX5C 99 CCP-38SX60 16 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 17 CCP-38SX30-DM 59 CCP-38SX5C-D 101 CCP-38SX60-DM 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-MS 61 CCP-38SX5C-MS 103 CCP-38SX60-MS 20 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 21 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDM 66 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 25 CCP-38SX30-TDM 66 CCP-38SX5C-TDM 108 CCP-38SX60-TDM 26 CCP-38SX30-TDM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 111 CCP-38	13	CCP-38SX3C-TMS	55	CCP-38SX40-TMS	97	CCP-38SX6C-TMS
16 CCP-38SX30-D 58 CCP-38SX5C-D 100 CCP-38SX60-D 17 CCP-38SX30-DM 59 CCP-38SX5C-DM 101 CCP-38SX60-DM 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-MS 61 CCP-38SX5C-M 103 CCP-38SX60-MS 20 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 21 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDMS 24 CCP-38SX30-TDM 66 CCP-38SX5C-TDM 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDM 67 CCP-38SX5C-TMS 110 CCP-38SX60-TMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TMS 110 CCP-38SX60-TMS 27 CCP-38SX30-TMS 69 CCP-38SX5C-TS 112 CCP-38SX60-TMS 28 CCP-38SX4C-D 72 CCP-38SX50-D 111	14	CCP-38SX3C-TS	56	CCP-38SX40-TS	98	CCP-38SX6C-TS
17 CCP-38SX30-DM 59 CCP-38SX5C-DM 101 CCP-38SX60-DM 18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-MS 61 CCP-38SX5C-MS 103 CCP-38SX60-MS 20 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 21 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 22 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 106 CCP-38SX60-TDM 24 CCP-38SX30-TDM 66 CCP-38SX5C-TDS 109 CCP-38SX60-TDMS 25 CCP-38SX30-TDM 68 CCP-38SX5C-TM 110 CCP-38SX60-TM 27 CCP-38SX30-TM 68 CCP-38SX5C-TS 112 CCP-38SX60-TM 28 CCP-38SX4C 71 CCP-38SX50-TS 112 CCP-38SX60-TS 30 CCP-38SX4C-M 74 CCP-38SX50-DM 133	15	CCP-38SX30	57	CCP-38SX5C	99	CCP-38SX60
18 CCP-38SX30-M 60 CCP-38SX5C-M 102 CCP-38SX60-M 19 CCP-38SX30-MS 61 CCP-38SX5C-MS 103 CCP-38SX60-MS 20 CCP-38SX30-S 62 CCP-38SX5C-S 104 CCP-38SX60-S 21 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDM 66 CCP-38SX5C-TDMS 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDM 67 CCP-38SX5C-TM 110 CCP-38SX60-TDS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 28 CCP-38SX30-TM 69 CCP-38SX5C-TS 112 CCP-38SX60-TS 30 CCP-38SX4C-D 72 CCP-38SX50-D 111 CCP-38SX60-TS 34 CCP-38SX4C-M 74 CCP-38SX50-TD 112 <t< th=""><th>16</th><th>CCP-38SX30-D</th><th>58</th><th>CCP-38SX5C-D</th><th>100</th><th>CCP-38SX60-D</th></t<>	16	CCP-38SX30-D	58	CCP-38SX5C-D	100	CCP-38SX60-D
19 CCP-38SX30-MS 61 CCP-38SX5C-MS 103 CCP-38SX60-MS 20 CCP-38SX30-S 62 CCP-38SX5C-S 104 CCP-38SX60-S 21 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TDM 109 CCP-38SX60-TDMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TM 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX4C-D 72 CCP-38SX50-TS 112 CCP-38SX60-TS 29 CCP-38SX4C-DM 73 CCP-38SX50-D 112 CCP-38SX60-TS 31 CCP-38SX4C-MS 75 CCP-38SX50-TD 112	17	CCP-38SX30-DM	59	CCP-38SX5C-DM	101	CCP-38SX60-DM
20 CCP-38SX30-S 62 CCP-38SX5C-S 104 CCP-38SX60-S 21 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDM 66 CCP-38SX5C-TDM 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TDM 109 CCP-38SX60-TDMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TM 68 CCP-38SX5C-TM 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 112 CCP-38SX60-TS 29 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-D 73 CCP-38SX50-DM 33 CCP-38SX4C-M 74 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-TD 34 CCP-38SX4C-TD 78	18	CCP-38SX30-M	60	CCP-38SX5C-M	102	CCP-38SX60-M
21 CCP-38SX30-T 63 CCP-38SX5C-T 105 CCP-38SX60-T 22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDMS 66 CCP-38SX5C-TDMS 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TD 109 CCP-38SX60-TDS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TM 69 CCP-38SX5C-TS 111 CCP-38SX60-TMS 28 CCP-38SX4C-T 70 CCP-38SX5C-TS 112 CCP-38SX60-TS 29 CCP-38SX4C-D 72 CCP-38SX50-D 112 CCP-38SX60-TS 31 CCP-38SX4C-M 74 CCP-38SX50-M 133 CCP-38SX4C-M 74 CCP-38SX50-TD 34 CCP-38SX4C-T 77 CCP-38SX50-TD 136 CCP-38SX4C-TD 78 CCP-38SX50-TD 36	19	CCP-38SX30-MS	61	CCP-38SX5C-MS	103	CCP-38SX60-MS
22 CCP-38SX30-TD 64 CCP-38SX5C-TD 106 CCP-38SX60-TD 23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDMS 66 CCP-38SX5C-TDM 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TDS 109 CCP-38SX60-TDS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TMS 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX4C 71 CCP-38SX5C-TS 112 CCP-38SX60-TS 29 CCP-38SX4C-D 72 CCP-38SX50-D 111 CCP-38SX60-TS 30 CCP-38SX4C-DM 73 CCP-38SX50-D 112 CCP-38SX60-TS 31 CCP-38SX4C-MS 75 CCP-38SX50-M 133 CCP-38SX4C-MS 75 CCP-38SX50-T 34 CCP-38SX4C-TD 78 CCP-38SX50-TD 136 CCP-38SX4C-TD 78 CCP-38SX50-TDM 138 CCP-38SX	20	CCP-38SX30-S	62	CCP-38SX5C-S	104	CCP-38SX60-S
23 CCP-38SX30-TDM 65 CCP-38SX5C-TDM 107 CCP-38SX60-TDM 24 CCP-38SX30-TDMS 66 CCP-38SX5C-TDMS 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TDS 109 CCP-38SX60-TDMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TMS 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 111 CCP-38SX60-TMS 29 CCP-38SX4C 71 CCP-38SX50-D 30 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-M 74 CCP-38SX50-DM 33 CCP-38SX4C-MS 75 CCP-38SX50-S 34 CCP-38SX4C-TD 78 CCP-38SX50-TD 38 CCP-38SX4C-TD 79 CCP-38SX50-TDM 36 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDM 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDM 39 CCP-38SX4C-TDS	21	CCP-38SX30-T	63	CCP-38SX5C-T	105	CCP-38SX60-T
24 CCP-38SX30-TDMS 66 CCP-38SX5C-TDMS 108 CCP-38SX60-TDMS 25 CCP-38SX30-TDS 67 CCP-38SX5C-TDS 109 CCP-38SX60-TDMS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TMS 26 CCP-38SX30-TMS 69 CCP-38SX5C-TM 110 CCP-38SX60-TMS 27 CCP-38SX30-TMS 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 111 CCP-38SX60-TMS 28 CCP-38SX4C 71 CCP-38SX50-TS 112 CCP-38SX60-TS 29 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-M 74 CCP-38SX50-DM 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-T 77 CCP-38SX50-TD 33 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TD 78 CCP-38SX50-TDM 38 CCP-38SX4C-TDS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDMS 33	22	CCP-38SX30-TD	64	CCP-38SX5C-TD	106	CCP-38SX60-TD
25 CCP-38SX30-TDS 67 CCP-38SX5C-TDS 109 CCP-38SX60-TDS 26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TM 27 CCP-38SX30-TMS 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 111 CCP-38SX60-TMS 28 CCP-38SX4C 71 CCP-38SX5C-TS 112 CCP-38SX60-TMS 29 CCP-38SX4C-D 72 CCP-38SX50-D 30 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-M 74 CCP-38SX50-DM 32 CCP-38SX4C-M 74 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-TD 33 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TD 78 CCP-38SX50-TDM 38 CCP-38SX4C-TDM 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDM 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDM 82 CCP-38SX50-TDMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS 41 C	23	CCP-38SX30-TDM	65	CCP-38SX5C-TDM	107	CCP-38SX60-TDM
26 CCP-38SX30-TM 68 CCP-38SX5C-TM 110 CCP-38SX60-TM 27 CCP-38SX30-TMS 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 112 CCP-38SX60-TMS 29 CCP-38SX4C 71 CCP-38SX50-D 30 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-DM 73 CCP-38SX50-DM 33 CCP-38SX4C-M 74 CCP-38SX50-M 32 CCP-38SX4C-MS 75 CCP-38SX50-M 34 CCP-38SX4C-S 76 CCP-38SX50-S 34 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TD 78 CCP-38SX50-TD 36 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 30 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDMS 40 CCP-38SX4C-TM 82 CCP-38SX50-TMS 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS A CCP-38SX4C-TMS	24	CCP-38SX30-TDMS	66	CCP-38SX5C-TDMS	108	CCP-38SX60-TDMS
27 CCP-38SX30-TMS 69 CCP-38SX5C-TMS 111 CCP-38SX60-TMS 28 CCP-38SX30-TS 70 CCP-38SX5C-TS 112 CCP-38SX60-TS 29 CCP-38SX4C 71 CCP-38SX50-D 111 CCP-38SX60-TS 30 CCP-38SX4C-D 72 CCP-38SX50-D 111 CCP-38SX60-TS 31 CCP-38SX4C-DM 73 CCP-38SX50-DM 111 CCP-38SX4C-M 32 CCP-38SX4C-M 74 CCP-38SX50-DM 111 CCP-38SX4C-M 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 111 CCP-38SX4C-S 34 CCP-38SX4C-T 77 CCP-38SX50-TD 111 CCP-38SX4C-TD 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 111 CCP-38SX4C-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 111 111 111 111 38 CCP-38SX4C-TDS 81 CCP-38SX50-TDM 111 111 111 111 111 1111 1111 1111	25	CCP-38SX30-TDS	67	CCP-38SX5C-TDS	109	CCP-38SX60-TDS
28 CCP-38SX30-TS 70 CCP-38SX5C-TS 112 CCP-38SX60-TS 29 CCP-38SX4C 71 CCP-38SX50 30 CCP-38SX4C-D 72 CCP-38SX50-D 30 CCP-38SX4C-DM 73 CCP-38SX50-DM 32 CCP-38SX4C-M 74 CCP-38SX50-M 31 CCP-38SX4C-M 74 CCP-38SX50-DM 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-T 76 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 36 CCP-38SX4C-TD 78 CCP-38SX50-TDM 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDM 80 CCP-38SX50-TDM 39 CCP-38SX4C-TDS 81 CCP-38SX50-TM 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS 33 CCP-38SX50-TMS	26	CCP-38SX30-TM	68	CCP-38SX5C-TM	110	CCP-38SX60-TM
29 CCP-38SX4C 71 CCP-38SX50 30 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-DM 73 CCP-38SX50-DM 32 CCP-38SX4C-M 74 CCP-38SX50-M 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDM 79 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	27	CCP-38SX30-TMS	69	CCP-38SX5C-TMS	111	CCP-38SX60-TMS
30 CCP-38SX4C-D 72 CCP-38SX50-D 31 CCP-38SX4C-DM 73 CCP-38SX50-DM 32 CCP-38SX4C-M 74 CCP-38SX50-M 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDS 81 CCP-38SX50-TDMS 39 CCP-38SX4C-TM 82 CCP-38SX50-TDM 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	28	CCP-38SX30-TS	70	CCP-38SX5C-TS	112	CCP-38SX60-TS
31 CCP-38SX4C-DM 73 CCP-38SX50-DM 32 CCP-38SX4C-M 74 CCP-38SX50-M 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDM 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	29	CCP-38SX4C	71	CCP-38SX50		
32 CCP-38SX4C-M 74 CCP-38SX50-M 33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	30	CCP-38SX4C-D	72	CCP-38SX50-D		
33 CCP-38SX4C-MS 75 CCP-38SX50-MS 34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	31	CCP-38SX4C-DM	73	CCP-38SX50-DM		
34 CCP-38SX4C-S 76 CCP-38SX50-S 35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	32	CCP-38SX4C-M	74	CCP-38SX50-M		
35 CCP-38SX4C-T 77 CCP-38SX50-T 36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	33	CCP-38SX4C-MS	75	CCP-38SX50-MS		
36 CCP-38SX4C-TD 78 CCP-38SX50-TD 37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	34	CCP-38SX4C-S	76	CCP-38SX50-S		
37 CCP-38SX4C-TDM 79 CCP-38SX50-TDM 38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	35	CCP-38SX4C-T	77	CCP-38SX50-T		
38 CCP-38SX4C-TDMS 80 CCP-38SX50-TDMS 39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	36	CCP-38SX4C-TD	78	CCP-38SX50-TD		
39 CCP-38SX4C-TDS 81 CCP-38SX50-TDS 40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	37	CCP-38SX4C-TDM	79	CCP-38SX50-TDM		
40 CCP-38SX4C-TM 82 CCP-38SX50-TM 41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	38	CCP-38SX4C-TDMS	80	CCP-38SX50-TDMS		
41 CCP-38SX4C-TMS 83 CCP-38SX50-TMS	39	CCP-38SX4C-TDS	81	CCP-38SX50-TDS		
	40	CCP-38SX4C-TM	82	CCP-38SX50-TM		
42 CCP-38SX4C-TS 84 CCP-38SX50-TS	41	CCP-38SX4C-TMS	83	CCP-38SX50-TMS		
	42	CCP-38SX4C-TS	84	CCP-38SX50-TS		

* X = 1 (28Vdc), 2 (15Vdc), 3 (12Vdc) and 4 (24Vdc)