

CATERPILLAR 3516

25Z / SEBP1258

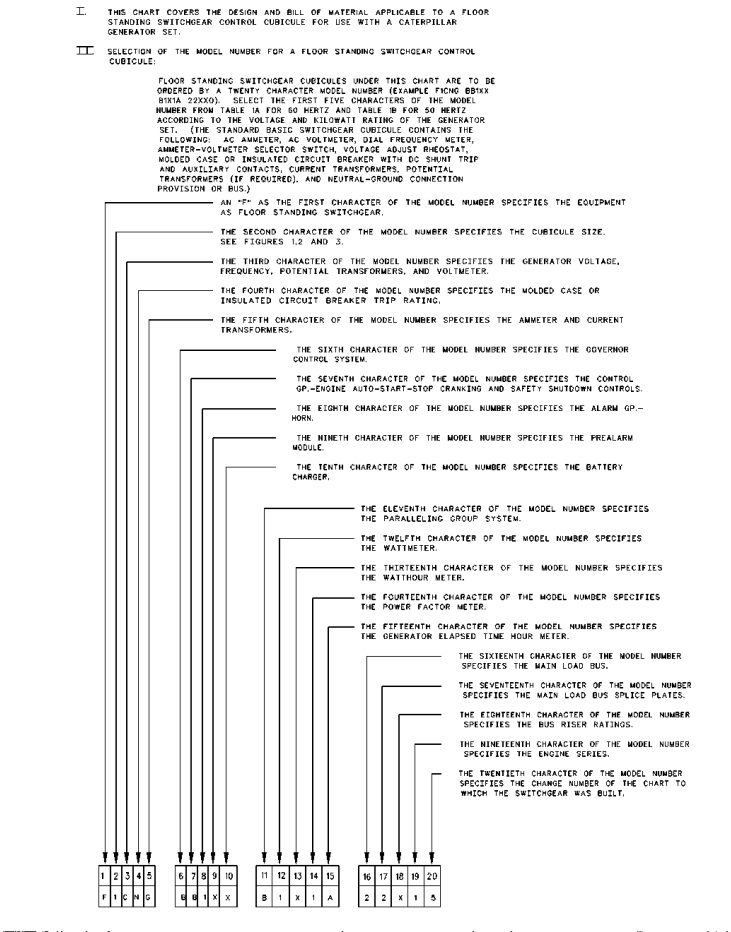
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5N-5300 CHART-SWITCHGEAR

5N5300 CHART-SWITCHGEAR-PART 1 OF 11

Drawing 1 of 1



Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP1258/SEBP12580001 yet.					

5N-5300 CHART-SWITCHGEAR

5N5300 CHART-SWITCHGEAR-PART 2 OF 11

Drawing 1 of 1

TABLE 1A - 60 HERTZ

PART NUMBER	MODEL NUMBER	KW RANGE
5N9760	F1BKD	211 - 240
5N9761	F1BLE	241 - 360
5N9762	F1BMF	361 - 480
5N9754	F1CPH	214 - 360
5N9764	F1BPH	481 - 720
5N9773	F1APH	599 - 897
5N9766	F3BRJ	721 - 900
5N9767	F3BRK	901 - 960
5N9757	F3CSK	481 - 600
5N9768	F3BSK	961 - 1200
5N9911	F3BTL	1201 - 1500
5N9912	F3BUM	1501 - 1800

TABLE 1B - 50 HERTZ

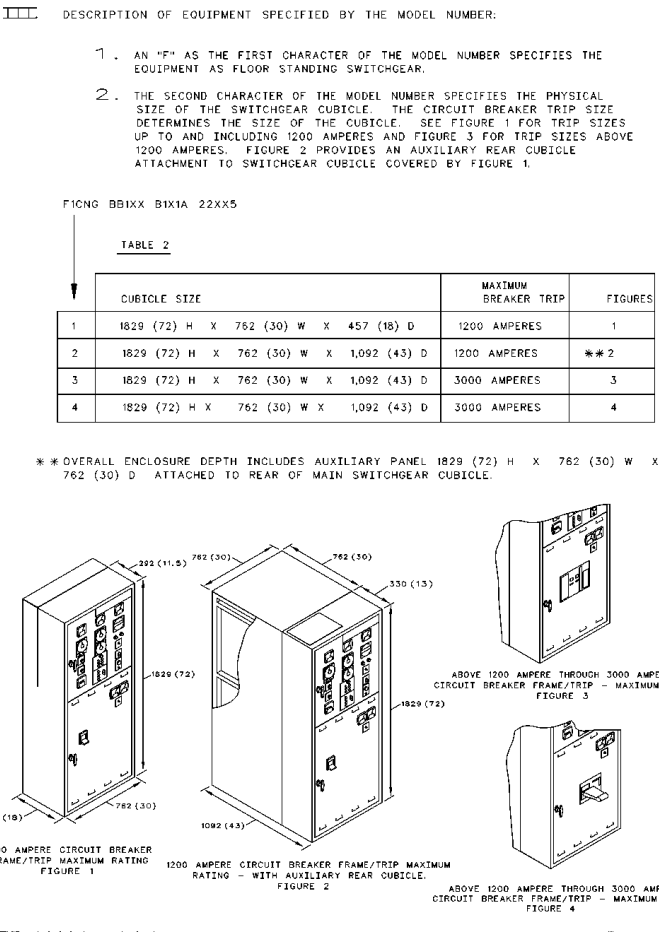
PART NUMBER	MODEL NUMBER	KW RANGE
5N9729	F1FKD	200
5N9730	F1FLE	201 - 300
-	-	-
5N9731	F1FMF	301 - 400
5N9739	F1EMF	361 - 480
5N9733	F1FPH	401 - 600
5N9734	F3FRJ	601 - 800
5N9735	F3FSK	801 - 1000
5N9736	F3FTL	1001 - 1250
5N9913	F3FUM	1251 - 1600
-	-	-
-	-	-

Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP1258/SEBP12580002 yet.					

5N-5300 CHART-SWITCHGEAR

5N5300 CHART-SWITCHGEAR-PART 3 OF 11

Drawing 1 of 1



5N-5300 CHART-SWITCHGEAR

5N5300 CHART-SWITCHGEAR-PART 4 OF 11

Drawing 1 of 1

3 .THE THIRD CHARACTER OF THE MODEL NUMBER SPECIFIES THE GENERATOR CONNECTED VOLTAGE,* FREQUENCY, POTENTIAL TRANSFORMERS, AND VOLTAGE ADJUST RHEOSTAT.

F1CNG 8B1XX B1X1A 22XX5

TABLE 3

	VOLTAGE	FREQUENCY	POTENTIAL TRANSFORMER			VOLTMETER		
			Ratio	Qty	Part Number	Scale	Qty	Part Number
	600	60 HZ	5:1	2	5N5401	0 - 750	1	7W2244
	480	60 HZ	4:1	2	5N5402	0 - 600	1	7W2245
	240	60 HZ	2:1	2	5N5403	0 - 300	1	7W2246
	208	60 HZ	-	-	-	0 - 300	1	4W5644
E	480	50 HZ	4:1	2	5N5402	0 - 600	1	7W2245
F	400	50 HZ	3.3:1	2	5N5404	0 - 500	1	7W2247
G	240	50 HZ	2:1	2	5N5403	0 - 300	1	7W2246
H	200	50 HZ	-	-	-	0 - 300	1	4W5644

* FREQUENCY METER (50 OR 60 HZ) PART NO. 4W6647
VOLTAGE ADJUST RHEOSTAT: PART NO. 3N5981 - SR4 GENERATORS (SMALL BRUSHLESS)
VOLTAGE ADJUST RHEOSTAT: PART NO. 4W5731 - SR4 GENERATORS (LARGE BRUSHLESS)

4 .THE FOURTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE CIRCUIT BREAKER TRIP SIZE.

F1CNG 8B1XX B1X1A 22XX5

TABLE 4

	Qty	BREAKER TRIP RATING	BREAKER PART NUMBER (MANUAL PARALLELING)	BREAKER PART NUMBER (MAN. PERM. PAR.)	BREAKER PART NUMBER (SEMI-AUTO PAR.)
* K	1	400 AMP	112-3506	112-3514	112-3522
* L	1	600 AMP	112-3507	112-3515	112-3523
* M	1	800 AMP	112-3508	112-3516	112-3524
* P	1	1200 AMP	112-3509	112-3517	112-3525
* R	1	1600 AMP	112-3510	112-3518(FIXED MOUNT)	112-3526(FIXED MOUNT)
* S	1	2000 AMP	112-3511	112-3519(FIXED MOUNT)	112-3527(FIXED MOUNT)
* T	1	2500 AMP	112-3512	112-3520(FIXED MOUNT)	112-3528(FIXED MOUNT)
* U	1	3000 AMP	-	112-3521(FIXED MOUNT)	112-3529(FIXED MOUNT)
* V	1	3200 AMP	112-3513	-	-

NOTE: ALL CIRCUIT BREAKERS ARE SUPPLIED WITH AUXILIARY CONTACTS.
A SHUNT TRIP WILL BE SUPPLIED UNLESS PERMISSIVE PARALLELING OPTION IS PROVIDED. THIS OPTION REQUIRES AN UNDER VOLTAGE DEVICE IN PLACE OF THE SHUNT TRIP (SEE CHARACTER 11). SEMI-AUTOMATIC PARALLELING OPTION REQUIRES A MOTOR OR ELECTRIC OPERATOR IN ADDITION TO THE CIRCUIT BREAKER WITH SHUNT TRIP.
* CIRCUIT BREAKER TRIP ELEMENTS ARE ADJUSTABLE. PROPER TRIP RATINGS WILL BE CALIBRATED & SET TO COORDINATE WITH THE GENERATOR FULL LOAD CURRENT.

Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP1258/SEBP12580004 yet.					

5N-5300 CHART-SWITCHGEAR

5N5300 CHART-SWITCHGEAR-PART 5 OF 11

Drawing 1 of 1

5. THE FIFTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE AMMETER AND CURRENT TRANSFORMERS.

FICNG BB1XX B1X1A 22XX5

TABLE 5

	AMMETER			CURRENT TRANSFORMER		
	QTY	SCALE	PART NUMBER	QTY	RATIO	PART NUMBER
A	1	0 - 100 AMP	4W8632	3	100:5	5N5429
B	1	0 - 200 AMP	4W8634	3	200:5	5N5430
C	1	0 - 300 AMP	4W8635	3	300:5	5N5431
D	1	0 - 400 AMP	4W8636	3	400:5	5N5432
E	1	0 - 600 AMP	4W8637	3	600:5	5N5433
F	1	0 - 800 AMP	4W8638	3	800:5	5N5434
G	1	0 - 1.0K AMP	4W8639	3	1000:5	7W8839
H	1	0 - 1.2K AMP	4W8640	3	1200:5	7W8838
J	1	0 - 1.5K AMP	4W8641	3	1500:5	7W8837
K	1	0 - 2.0K AMP	4W8642	3	2000:5	7W8836
L	1	0 - 2.5K AMP	4W8643	3	2500:5	5N5439
M	1	0 - 3.0K AMP	7W2218	3	3000:5	5N5440

6. THE SIXTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE TYPE OF ENGINE GOVERNOR GROUP AND THE RESULTING SWITCHGEAR ELECTRICAL CONTROL PROVISIONS.

FICNG BB1XX B1X1A 22XX5

TABLE 6

	TYPE OF GOVERNOR CONTROL	PART NUMBER	INSTALLATION PART NUMBER
A	HYDRA-MECHANICAL (NOT FOR 3500)	NONE	-
B	PSG (24 VDC)	-	5N-9776
C	-	-	-
D	-	-	-
E	-	-	-
F	-	-	-
G	2301A LOAD SHARING	101-8923	5N-9604
H	2301A SPEED SENSE	101-8922	5N-9778
I	2301A LOAD SHARE GAS	4P-5518	5N-9580

- * THE 2301A CONTROL ASSEMBLY IS PART OF THE GOVERNOR CONTROL GROUP. THE CONTROL ASSEMBLY WILL BE MOUNTED AND WIRED IN THE SWITCHGEAR CUBICLE WHEN ORDERED AS PART OF THE GENERATOR SET. THE SPEED SETTING POTENTIOMETER WILL BE INSTALLED ON THE DOOR OF THE SWITCHGEAR CUBICLE. NECESSARY COMPONENTS MOUNTED AND WIRED TO TERMINAL STRIPS, EXCEPT FOR SHIELD CABLE REQUIREMENTS, WILL BE PROVIDED TO OBTAIN PARALLELING LINE COMMONALITY AND INTERRUPTION OF ACTUATOR CIRCUIT ON ENGINE SHUTDOWN. SHIELD CABLE REQUIREMENTS TO THE 2301A CONTROL ASSEMBLY FROM DEVICES EXTERNAL TO THE SWITCHGEAR CUBICLE ARE TO BE FIELD INSTALLED AND RUN DIRECT WITHOUT INTERRUPTION OF THE SHIELD AROUND THE CABLE.
- * THE 2301A GOVERNOR CONTROL ASSEMBLY INCLUDES A DOOR MOUNTED 10 TURN ADJUST RHEOSTAT PART NO. 4W5971.

Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP1258/SEBP12580005 yet.					

5N-5300 CHART-SWITCHGEAR

5N5300 CHART-SWITCHGEAR-PART 6 OF 11

Drawing 1 of 1

7. THE SEVENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE ENGINE BATTERY VOLTAGE AND THE CONTROL GP - ENGINE AUTO-START-STOP AND SAFETY SHUTDOWN CONTROLS.

FIGING BB1XK B1X1A 22XK5

TABLE 7		
ENGINE BATTERY VOLTAGE	PART NUMBER	CONTROL GP-START-STOP (ENGINE)
X		NONE
A	5N5443	START - STOP AUTOMATIC
B	5N5444	START - STOP AUTOMATIC W/ENG. COOLDOWN TIMER MODULE
C	5N5445	START - STOP AUTOMATIC W/ENG. CYCLE CRANK TIMER MODULE
D	5N5446	START - STOP AUTOMATIC W/ENG. COOLDOWN & CYCLE CRANK-TIMER

*ENGINE AUTO-START-STOP CONTROLS CONSISTS OF SINGLE CRANK TYPE, OFF/RESET MANUAL-AUTOMATIC-STOP SELECTOR SWITCH PLUS NECESSARY RELAYS AND CONTROL DEVICES FOR PROPER OPERATION WITH THE ENGINE. RELAYS AND CONTROLS INCLUDE FOUR FAULT SHUTDOWN CIRCUITS WITH INDIVIDUAL INDICATORS FOR ENGINE LOW LUBE PRESSURE, ENGINE HIGH WATER TEMPERATURE, ENGINE OVERSPEED AND FAULT-TO-START (OVERCRANK). A FAULT RESET CIRCUIT AND COMMON NORMALLY OPEN-NORMALLY CLOSED CONTACTS FROM EACH FAULT CIRCUIT ARE WIRED TO TERMINAL BOARD POINTS.

8. THE EIGHTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE ALARM HORN FOR ANNUNCIATION OF ABNORMAL CONDITIONS (ONLY DC VOLTAGE OPERATION AVAILABLE).

FIGING BB1XK B1X1A 22XK5

TABLE 8	
* ALARM GP - BASIC (HORN)	
VOLTS	PART NUMBER
X	NONE
I	5N6451

ALARM HORN OPTION IS FOR DC OPERATION ONLY. MANUAL PUSHBUTTON OPERATION *ALLOWS SILENCING HORN WITH FAULT INDICATOR LIGHT REMAINING ENERGIZED. AUTOMATIC RESETTING OF ALARM HORN CIRCUITRY OCCURS WHEN FAULT CONDITION IS CLEARED.

9. THE NINTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE PREALARM MODULE.

FIGING BB1XK B1X1A 22XK5

TABLE 9	
* MODULE GP - PREALARM	
POWER	PART NUMBER
X	NONE
A	5N6453
B	5N6454

*PREALARM MODULE OPTION IS FOR DC OPERATION ONLY. INDIVIDUAL ALARM INDICATORS (NOT ENGINE SHUTDOWN SAFETIES) ARE:

STANDBY - LOW OIL PRESSURE, HIGH WATER TEMPERATURE, LOW WATER TEMPERATURE, AND LOW FUEL LEVEL.

PRIME - LOW OIL PRESSURE, HIGH WATER TEMPERATURE, LOW OIL LEVEL, AND LOW COOLANT LEVEL.

Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP1258/SEBP12580006 yet.					

5N-5300 CHART-SWITCHGEAR

5N5300 CHART-SWITCHGEAR-PART 7 OF 11

Drawing 1 of 1

10. THE TENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE BATTERY CHARGER.

FICNG BB1XX B1X1A 22XX5

TABLE 10

* BATTERY CHARGER		
DC VOLTAGE	AC VOLTAGE	PART NUMBER
X A	24	NONE 7W0818

* THE BATTERY CHARGER OPTION INCLUDES A DOOR MOUNTED PANEL AMMETER, ON-OFF TOGGLE SWITCH, AND ENGINE CRANKING DISCONNECT CIRCUIT.

11. THE ELEVENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE PARALLELING GROUP.

FICNG BB1XX B1X1A 22XX5

TABLE 11

* PARALLELING GROUP	
DESCRIPTION	PART NUMBER
X A	NONE 5N5457
B	5N5458
C	5N5459
D	5N5461

* X. IF UNIT IS NOT FOR PARALLELING OPERATION SPECIFY "X". IF UNIT IS FOR PARALLEL OPERATION, THE TYPE OF PARALLEL OPERATION MUST BE SPECIFIED BY ONE OF THE CHARACTERS "A" THROUGH "D".

A. MANUAL PARALLELING GROUP:

CONSISTS OF GOVERNOR MOTOR CONTROL AS SPECIFIED IN CHARACTER SIX SYNCHRONIZING LIGHTS, SWITCH & RESISTORS, ADJUSTABLE TIME DELAY REVERSE POWER RELAY WITH FAULT LIGHT & RESET CIRCUIT. (REVERSE POWER RELAY OPERATION OPENS THE CIRCUIT BREAKER BY ENERGIZING THE SHUNT TRIP COIL).

B. MANUAL PARALLELING GROUP WITH SYNCHROSCOPE:

SAME AS "A" ABOVE BUT WITH THE ADDITION OF A SYNCHROSCOPE.

C. PERMISSIVE PARALLELING GROUP (FACTORY INSTALLED ONLY):

SAME AS "A" ABOVE EXCEPT THE 1200 AMP AND BELOW CIRCUIT BREAKER IS EQUIPPED WITH AN UNDER VOLTAGE DEVICE AND THE 1500 AMP AND ABOVE CIRCUIT BREAKER IS EQUIPPED WITH A CLOSING SOLENOID RATHER THAN A SHUNT TRIP COIL. A READY-TO-CLOSE LIGHT AND A SYNCHRONIZING CHECK RELAY ARE PROVIDED ALSO.

D. SEMI-AUTOMATIC PARALLELING GROUP (FACTORY INSTALLED ONLY):

SAME AS "A" ABOVE BUT WITH THE ADDITION OF A CIRCUIT BREAKER ELECTRIC MOTOR OPERATOR, CIRCUIT BREAKER OPEN AND CLOSE POSITION LIGHTS AND A OPEN-CLOSE CIRCUIT BREAKER SWITCH PLUS A SYNCHRONIZING CHECK RELAY.

Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP1258/SEBP12580007 yet.					

5N-5300 CHART-SWITCHGEAR

5N5300 CHART-SWITCHGEAR-PART 8 OF 11

Drawing 1 of 1

12. THE TWELFTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE WATTMETER.

FICNG BB1XX B1X1A 22XX5

TABLE 12

WATTMETER - PART NUMBER	
X	NONE
1	5N5463

* THE INFORMATION NECESSARY TO OBTAIN THE PROPER MANUFACTURER'S PART NUMBER MUST INCLUDE THE GENERATOR KILOWATT RATING, THE POTENTIAL TRANSFORMER RATIO (IF PROVIDED), AND THE CURRENT TRANSFORMER RATIO. THIS INFORMATION IS CONTAINED IN THE FIRST FIVE CHARACTERS OF THE TWENTY CHARACTER MODEL NUMBER.

13. THE THIRTEENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE WATTHOUR METER.

FICNG BB1XX B1X1A 22XX5

TABLE 13

WATTHOUR METER - PART NUMBER		
X		NONE
1	60 HZ	5N5464
2	50 HZ	5N5465

* THE INFORMATION NECESSARY TO OBTAIN THE PROPER MANUFACTURER'S PART NUMBER MUST INCLUDE THE GENERATOR KILOWATT RATING, THE POTENTIAL TRANSFORMER RATIO (IF PROVIDED), AND THE CURRENT TRANSFORMER RATIO. THIS INFORMATION IS CONTAINED IN THE FIRST FIVE CHARACTERS OF THE TWENTY CHARACTER MODEL NUMBER.

14. THE FOURTEENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE POWER FACTOR METER.

FICNG BB1XX B1X1A 22XX5

TABLE 14

POWER FACTOR METER PART NUMBER	
X	NONE
1	5N5466

15. THE FIFTEENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE GENERATOR SET ELAPSED TIME HOUR METER.

FICNG BB1XX B1X1A 22XX5

TABLE 15

ELAPSED TIME HOUR METER	
FREQ	PART NUMBER
X	NONE
A	60
B	50

Ref.	Part number	Description	Qty	Code	Group page
Parts list rows are not synced on this VPS for SEBP1258/SEBP12580008 yet.					

5N-5300 CHART-SWITCHGEAR

5N5300 CHART-SWITCHGEAR-PART 9 OF 11

Drawing 1 of 1

16. THE SIXTEENTH CHARACTER OF THE MODEL NUMBER SPECIFIES THE MAIN LOAD BUS.

F1CNG BB1XX B1X1A 22XX5

TABLE 16

MAIN LOAD BUS		
	CURRENT RATING	
X		NONE
1	600 AMP	
2	1200 AMP	
3	1700 AMP	
4	2000 AMP	
5	2800 AMP	
6	3200 AMP	
7	4000 AMP	

* REQUIRED MAIN LOAD BUS TO BE DETERMINED FROM THE GENERATOR KILOWATT RATING AND THE NUMBER OF GENERATOR SETS TO BE PARALLELED. THE MAIN LOAD BUS INCLUDES A FULL RATED NEUTROL BUS BAR ON ALL LOAD BUS.

IF THE SECOND CHARACTER OF THE TWENTY CHARACTER MODEL NUMBER IS A "1", THE SWITCHGEAR CUBICLE SIZE IS CHANGE D TO A 1829 (72) H X 762 (30) W X 457 (18) D ENCLOSURE TO ACCOMMODATE THE BUS, BUS BRACING, AND NECESSARY HARDWARE. THE SECOND CHARACTER OF THE MODEL NUMBER MUST BE CHANGED FROM A "1" TO A "2". IF THE SECOND CHARACTER OF THE TWENTY CHARACTER MODEL NUMBER IS A "3", THE BUS, BUS BRACING, AND NECESSARY HARDWARE WILL BE CONTAINED WITHIN THE 1829 (72) H X 762 (30) W X 1092 (43) D SWITCHGEAR CUBICLE.

17. THE SEVENTEETH CHARACTER OF THE MODEL NUMBER SPECIFIES THE MAIN LOAD BUS SPLICE PLATES.

F1CNG BB1XX B1X1A 22XX5

TABLE 17

SPLICE PLATES MAIN LOAD BUS		
	CURRENT RATING	PART NUMBER
X		NONE
1	600 AMP	5N5475
2	1200 AMP	5N5476
3	1700 AMP	5N5477
4	2000 AMP	5N5478
5	2800 AMP	5N5479
6	3200 AMP	5N5480
7	4000 AMP	5N5481
* 8	CONTINUOUS	NONE

THE SEVENTEENTH CHARACTER MUST BE IDENTICAL TO THE SIXTEENTH CHARACTER WHEN THIS OPTION IS ORDERED, EXCEPT IF BUS IS CONTINUOUS.

BUS SPLICE PLATES ARE INSTALLED ON THE RIGHT END OF MAIN BUS WHEN VIEWED FROM THE FRONT OF THE SWITCHGEAR CUBICLE. BUS SPLICE PLATES CAN BE FIELD CHANGED TO CONNECT TO THE LEFT SIDE OF THE MAIN BUS.

* CONTINUOUS BUS RUN SIZED AT THE SAME RATING AS THE MAIN LOAD BUS (CHARACTER 16)

Ref.	Part number	Description	Qty	Code	Group page
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