HCS-50
PRODUCT OVERVIEW

Call ClipperCreek Today!
877-594-4194
www.clippercreek.com

HOLSTER INCLUDED!

ELECTRICAL SPECIFICATIONS

- **Service** - 208V to 240V - 50A, dedicated circuit
- **Charge current output power** - 208V to 240V - 40A max
- **Service ground monitor** - Constantly checks for presence of proper safety ground
- **Automatic circuit reclosure after minor power faults**
- **Charge Circuit Interruption Device** - Ground fault protection with fully automated self-test, eliminates manual user testing

MATERIAL SPECIFICATIONS

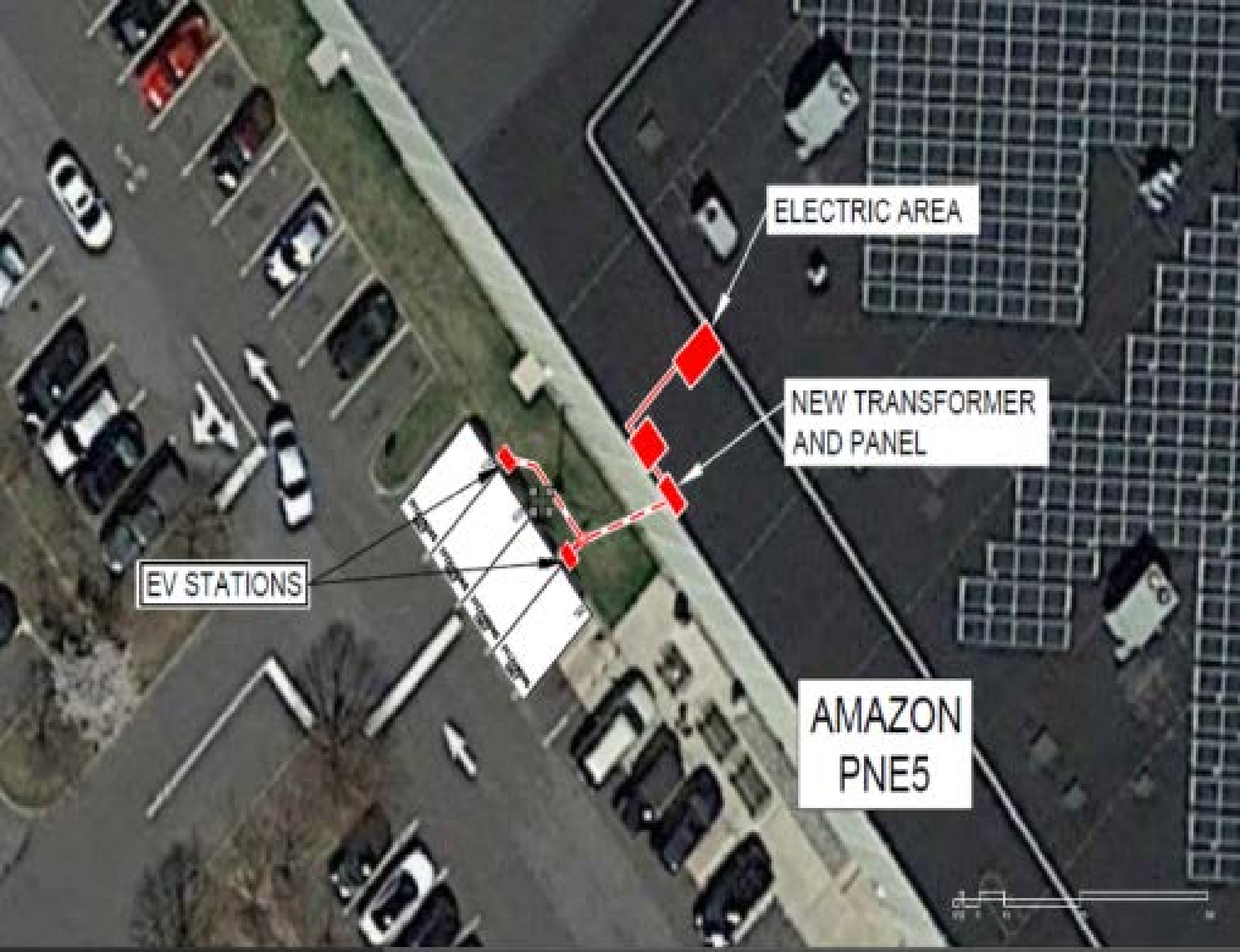
- Indoor/outdoor rated fully sealed (NEMA 4) enclosure
- Operating Temperatures: -22°F to 122°F (-30°C to 50°C)
- 19.7" L x 9" W x 5.3"D (493mm L x 229mm W x 135mm D)
- Installation: Hardwired, 3' of installation conduit, pigtail supplied for hardwired (plug-in version available with NEMA 6-50 plug)
- 25 foot charging cable - standard
- Optional pedestal
- ETL Listed

POWERFUL
40 AMPS

flubber cable with over-molded connector for enhanced durability and cold weather performance!

- Impact and crush resistant for survivability after vehicle roll-overs
- Type 4X Watertight & Corrosion Resistant J1772 enclosure
- 40 AMP UL 2251 Listed J1772 Connector
- Automotive Grade compounds for oil and fluid resistance
- Featuring Carolgrene Ultraflex® EV Cable
- Patented technologies offering low contact resistance resulting in minimal heat rise over extended charge cycles
- Excellent electrical and physical performance after 10k insertion/removal lifecycle test
- Backed by 3 year warranty

NOTE:
STATIONS 3 & 4 ARE CONNECTED AS LOAD-SHARING ON ONE CIRCUIT


ELECTRIC AREA
NEW TRANSFORMER AND PANEL
EV STATIONS
AMAZON PNE5

PANEL SCHEDULE - EV-1

PANEL EV-1

VOLTAGE: 120/ 208 | AMPS: 125 MCB | MOUNTING: SURFACE
3 PHASE, 4 WIRE | TOTAL LOAD: 36.9 KVA | FEEDER SIZE: 2/0 CU

No.	CIRCUIT DESCRIPTION	LOAD (KVA) CONT	RCPT	MTR.	A/C	KITCH	MISC	BREAKER TRIP	POLE	PHASE A	PHASE B	PHASE C	BREAKER POLE	BREAKER TRIP	LOAD (KVA) MISC	KITCH	A/C	MTR.	RCPT	CONT	CIRCUIT DESCRIPTION	No.
1	EV CHARGING STATION #1	4.20						50	2	8.40										4.20		2
3	X	4.20						X	X		8.40		50	2						4.20	EV CHARGING STATION # 2	4
5	EV CHARGING STATIONS 3 & 4	4.20						50	2			8.40	X	X						4.20		6
7	X	4.20						X	X	4.20												8
9											0.00											10
11												0.00										12
	LOADS W/ NEC 220 DEMAND FACTORS (KVA)							**TOTAL**		12.60	8.40	8.40			0.00	0.00	0.00	0.00	0.00	29.40	**CONNECTED KVA 29.4**	
		CONT	RCPT	MTR.	A/C	KITCH	MISC															
	A PHASE	15.75	0.00	0.00	0.00	0.00	0.00	**15.75**														
	B PHASE	10.50	0.00	0.00	0.00	0.00	0.00	**10.50**														
	C PHASE	10.50	0.00	0.00	0.00	0.00	0.00	**10.50**														
	DEMAND PER LOAD TYPE (KVA)	36.75	0.00	0.00	0.00	0.00	0.00	**36.75**														
	CONNECTED LOAD LARGEST PHASE (KVA)							**15.75**														
	CONNECTED LOAD LARGEST PHASE (AMP)							**44**														
	TOTAL DEMAND LOAD FOR PANEL (KVA)							**36.75**														
v2 8/13/2021	**TOTAL DEMAND LOAD FOR PANEL (AMP)**							**102**														

NEC 220 DEMAND FACTORS

CONTINUOUS : 125% LOAD
RECEPTACLES : 100% 1ST 10 KW + 50% REMAINING
MOTORS : 125% LARGEST MOTOR + 100% REMAINING
A/C or HEAT 100% LOAD
KITCHEN: 65% LOAD
MISC: 100% LOAD
PER FEEDER AMPACITY SELECTION (AMP): 102

PANEL NOTES

1. BREAKER FRAME SHALL BE AS REQUIRED PER PANEL AIC RATING.
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.
4. ALL INCOMING PANEL & BRKR LUGS SHALL MATCH FEEDERS.
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.
6. PROVIDE METAL DIRECTORY FRAME.
7.

NOTE:
STATIONS 3 & 4 ARE CONNECTED AS
LOAD-SHARING ON ONE CIRCUIT

CONDUIT FILL CALCULATIONS

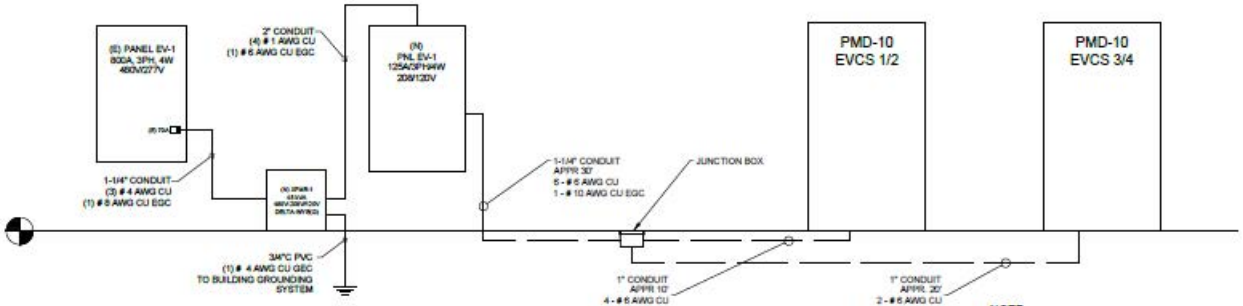
(1) Select Wire Type: THWN | (2) Select Conduit: PVC

Wire Size	(3) Enter number of conductors for each size	Total Area sq inch	Conduit Trade Size	Trough and Conduit ID Sizes	Total area in square inches	20% Fill of Trough 40% Fill of Conduit	Current total Area sq inches	Current Fill percent
12		0.0000	0.50	0.526	0.217	0.087	0.3259	
10	5	0.0211	0.75	0.752	0.431	0.166	0.3259	
8		0.0000	1.00	0.999	0.498	0.275	0.3259	
6	9	0.3242	1.25	1.255	1.237	0.489	0.3259	26.30%
4		0.0000	1.50	1.476	1.711	0.683	0.3259	19.31%
3		0.0000	2.00	1.964	2.819	1.130	0.3259	11.32%
2		0.0000	2.50	2.290	4.119	1.647	0.3259	7.90%
1		0.0000	3.00	2.864	6.442	2.577	0.3259	5.05%
1/0		0.0000	3.50	3.326	8.688	3.475	0.3259	3.74%
2/0		0.0000	4.00	3.786	11.258	4.503	0.3259	2.88%
3/0		0.0000						
4/0		0.0000						
250		0.0000						
300		0.0000						
350		0.0000						

NOTES:
1) All dimensions are from manufacturers specifications.
2) Dimensions are based on 2020 NEC.
3) ID area based on NEC 2020 Table 4 Chapter 9

VOLTAGE DROP CALCULATIONS (WORST CASE)

Station	Length	Voltage	Current	Cond. Size	Voltage Drop %	Voltage Drop Volts
1 & 2	100 FT. MAX	208	40	6	0.90%	1.87
3 & 4	100 FT. MAX	208	40	6	0.90%	1.87



NOTE:
STATIONS 3 & 4 ARE CONNECTED AS
LOAD-SHARING ON ONE CIRCUIT