



P.O. Box 314, Carp, ON K0A 1L0
Tel: (613) 839-7500 Fax: (613) 839-2268

ECRA/ESA Licence # 7003195

UTILITIES & SITE SERVICES LTD.

Enterprise Rent –A-Car Ottawa, Ont.

ELECTRICAL SHOP DRAWINGS

General Contractor:	Tal-Co
Electrical Contractor:	JWK Utilities & Site Services Ltd.
Supplier / Distributor:	Guillevin

Distribution

Fuse
Meter
Transformer
Panels

Manufacturer & Catalogue Number

JDL125 – Fuse Time Delay CL J 600V 125A (qty 3)
PL27INTCV – Mtr Skt O’Head U’Grd Insu (qty 1)
SG3A0030PB0C: 3ph 30kVA 600V-208Y/120V 60Hz CU
Panel DP1, Panel DP 2

Reviewed ()
Reviewed as noted ()
Revise and resubmit ()
Not reviewed ()

Date: **Feb. 14 2020**

Reviewed by: **MH**

This review by J.C.F.A.Inc. is for the sole purpose of ascertaining conformance with the general design concept for architectural features only, and does not in any way constitute review of the design of engineering elements which form part of the contract documents prepared by others. This review shall not mean that J.C.F.A.Inc.

approves the detailed design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of the responsibility for errors or omissions in the shop drawings or of the responsibility for meeting all requirements of the contract documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation, and for coordination of the work of all trades.

Jason C. Flynn Architect Inc. (J.C.F.A.Inc.)

REVIEWED

By Pat Newton at 3:58 pm, Feb 13, 2020

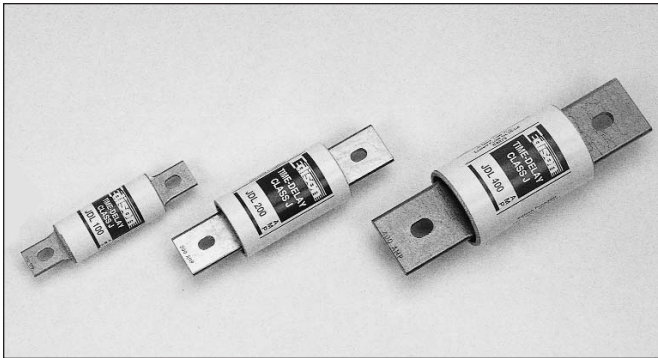
REVIEWED

By Sandra at 9:42 am, Feb 13, 2020

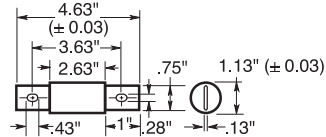
JDL

Class J 600 Volt, 70 to 600A

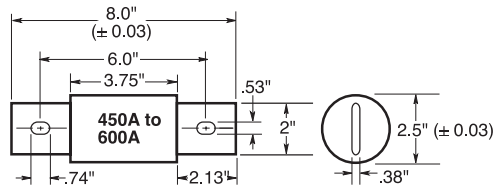
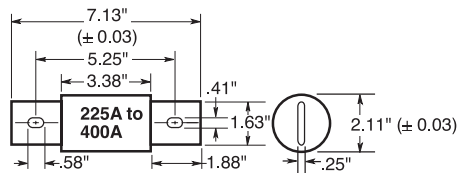
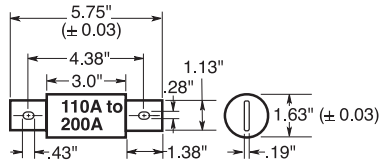
Dual-Element, Time-Delay Fuses



Dimensions (inches)



70A to 100A



Catalog Symbol: JDL

Dual-Element, Time-Delay – 10 seconds (minimum) at 500% rated current

Current-Limiting

Volts: 600Vac (or less)

Amps: 70 to 600A

IR: 200kA RMS Sym

300kA RMS Sym. (self certified)

Agency Information: CE, UL. Listed – Class J, Guide JDDZ, File E162363, CSA Certified, HRCI-J Class J per CSA C22.2 No. 248.8, Class 1422-02, File 53787

Features

- True dual-element fuses with a minimum 10 second time-delay at 500% overload.
- Long time-delay minimizes needless fuse openings due to temporary overloads and transient surges.
- Can often be sized for back-up protection against motor burnout from overload or single-phasing if other overload protective devices fail.
- High interrupting rating to safely interrupt overcurrents up to 300kA (self certified).
- High degree of current-limitation due to the fast speed-of-response to short-circuits.
- Faster response to damaging short-circuit currents than mechanical overcurrent protective devices.
- Reduces let-through thermal and magnetic forces in order to protect low withstand rated components.
- Proper sizing provides “No Damage” Type “2” coordinated protection for NEMA and IEC motor control in accordance with IEC Standard 947-4-1.
- Dual-element fuses have lower resistance than ordinary fuses, hence they run cooler.

- Lower watts loss reduces power consumption.
- Unique dimensions assure that another class of fuse with a lesser voltage rating, interrupting rating or current-limiting ability cannot be substituted.
- Space-saving package for equipment down sizing.

Catalog Numbers (amps)

JDL70	JDL125	JDL250	JDL500
JDL80	JDL150	JDL300	JDL600
JDL90	JDL175	JDL350	
JDL100	JDL200	JDL400	
JDL110	JDL225	JDL450	

Carton Quantity and Weight

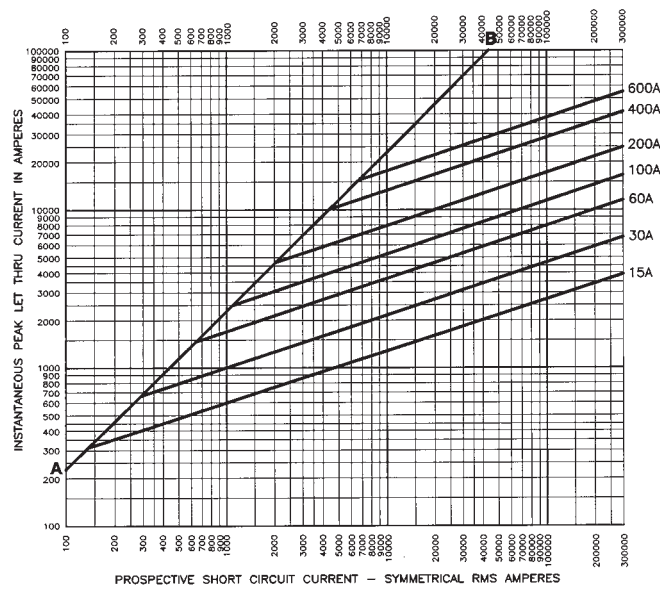
Amps	Carton Quantity	Weight per Carton	
		lbs	kg
70–100	5	1.69	0.77
110–200	5	4.21	1.91
225–400	1	1.67	0.76
450–600	1	2.80	1.27

JDL

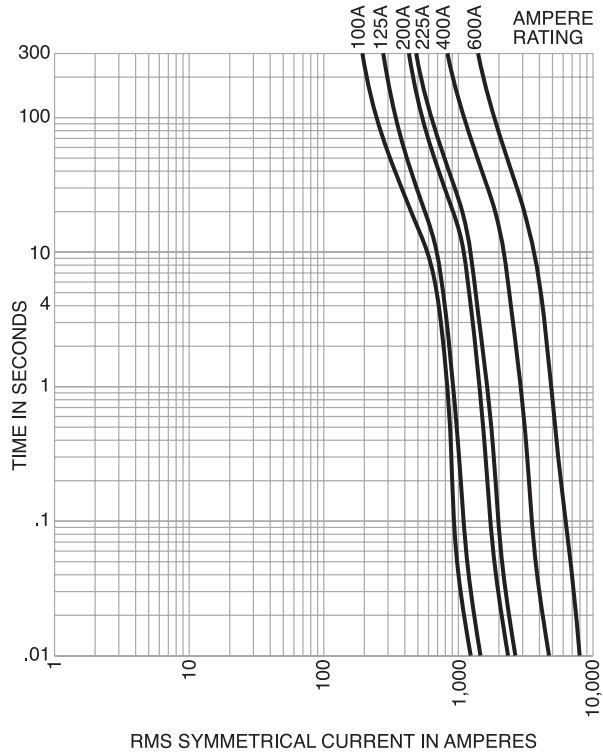
Class J 600 Volt, 70 to 600A

Dual-Element, Time-Delay Fuses

Current Limitation Curves



Time-Current Characteristic Curves- Average Melt



Class J Fuse Blocks (600V) Catalog Data

Amps	Poles	Box Lug w/ Retaining Clip	Maximum Wire Size
70-100	3	J60100-3CR	1/0 CU/AL
101-200	1	J60200-1CR	250MCM CU/AL
201-400	1	J60400-1CR	500MCM CU/AL
401-600	1	J60600-1CR	(2) 500MCM CU/AL

The only controlled copy of this document is the electronic read-only version maintained by Cooper Bussmann. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Cooper Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.



Hammond Power Solutions Inc.


TITLE: 3PH DISTRIBUTION TRANSFORMER
NAMEPLATE INFORMATION

1	17/04/03	JW	ADDED ENCL BOTTOM DRAWING	DES: JWEN
NO.	DATE	BY	REVISION	SCALE: NTS

SHEET 1 OF 3


EDBSC3A0030PBOC

1.2_jwen 2019/07/31 10:19



Hammond Power Solutions
Guelph, ONT Compton, CA

HPS Sentinel® G
Energy Efficient Distribution Transformer
Transformateur de Distribution à Bon Rendement Énergétique



LR 3902
DRY TYPE TRANSFORMER
E112313 ALSO VERIFIED IN ACCORDANCE TO ENERGY STANDARD C802.2-12

Part No. **SG3A0030PBOC**

Cust. Ref. _____

Phase **3**

Type **K**

Cooling Refroidissement **ANN**

kVA **30**

Temp. Rise Echauffement **150 °C**

Temp Class Classe Temp **220 °C**

Winding Enroulement **CU**

Frequency Fréquence Hz **60**

Impedance % @ 170 °C **3.7**

Encl. Type Type de Coffrage **3R**

Wt. LBS Poids en lbs **310**

Serial No. No. de Serie _____

HV/HT **600V**

BIL **10 kV**

Term Bornes **H1 H2 H3**

LV/BT **208Y/120V**

BIL **10 kV**

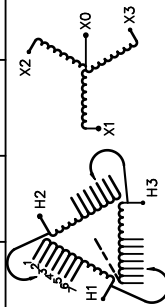
Term Bornes **X0 X1 X2 X3**

Energy Regulations Règlementations de l'Energétique **DOE 10 CFR PART 431:2016**

CEE ACT SOR/2018-201 _____

SPACINGS BETWEEN ANY VENTILATED ENCLOSURE PANEL AND ANY ADJACENT WALL SHALL BE A MINIMUM OF 3 INCHES

VOLTS	CURRENT COURANT	% RATED VOLTAGE % TENSION NOMINALE	CONNECTION EACH PHASE CONNECTION PAR PHASE
630	27.5	105	1
615	28.2	102.5	2
600	28.9	100	3
585	29.6	97.5	4
570	30.4	95	5
555	31.2	92.5	6
540	32.1	90	7



SEISMIC QUALIFICATIONS: OSP-0136-10
IBC 2015/ASCE 7-10
SDS<=2.0g Z/h=1 Ip=1.5

NO COMMENT
 COMMENT AS NOTED

REJECTED
 REVISE AND RESUBMIT

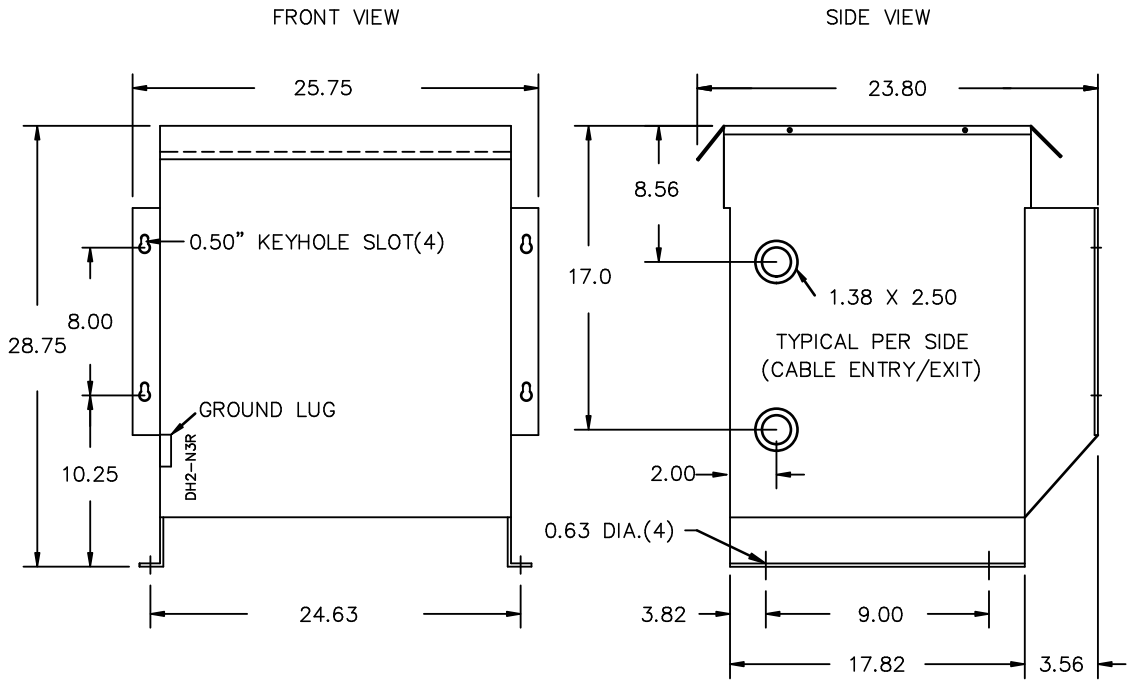
SUBMIT SPECIFIED PRODUCT

CORRECTIONS OR COMMENTS MADE ON SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH DRAWINGS AND SPECIFICATION REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES, CAPACITIES AND DIMENSIONS, SELECTING FABRICATION, CO-ORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

ANTARES ENGINEERING GROUP INC.

DATE 18-02-2020 PERS S.S.

d000186hb



All Dimensions in inches

ENCLOSURE COLOR : ANSI 61 GREY – OUTDOOR

H.V.1. TERMINAL DETAIL

L.V.1. TERMINAL DETAIL

MECHANICAL TYPE LUGS INCLUDED
SUITABLE FOR #14-2 CU/AL
CONDUCTORS
1 CONDUCTOR PER PHASE

MECHANICAL TYPE LUGS INCLUDED
SUITABLE FOR #2/0-14 CU/AL
CONDUCTORS
1 CONDUCTOR PER PHASE

CUSTOMER NOTES:

- HV1 TERMINATED AT TOP FRONT
- LV1 TERMINATED AT BOTTOM FRONT



TITLE: 3PH DISTRIBUTION TRANSFORMER

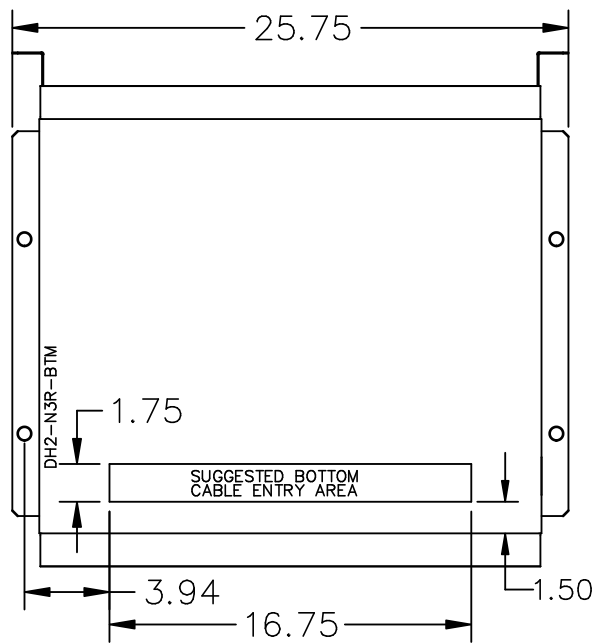
1	17/04/03	JW	ADDED ENCL BOTTOM DRAWING	DES: JWEN
				DATE: 15/11/09
NO.	DATE	BY	REVISION	SCALE: NTS

SHEET 2 OF 3

EDBSG3A0030PBOC

1.2_jwen 2019/07/31 10:19

ENCLOSURE BOTTOM VIEW



NOTE:
 WHEN BOTTOM CABLE ENTRY IS OPTED, THE SPACE USED FOR CONDUITS IN THE FRONT OF THE TRANSFORMER SHOULD NOT OBSTRUCT MORE THAN 50% OF THE FRONT AIR INTAKE AREA DEFINED BETWEEN THE BOTTOM PLATE AND THE SUPPORTING LEGS.
 SEE MANUAL FOR ADDITIONAL INFORMATION



TITLE: 3PH DISTRIBUTION TRANSFORMER
 ENCLOSURE BOTTOM VIEW

1	17/04/03	JW	ADDED ENCL BOTTOM DRAWING	DES: JWEN
NO.	DATE	BY	REVISION	SCALE: NTS

SHEET 3 OF 3

EDBSC3A0030PBOC

1.2_jwen 2019/07/31 10:19

PL27 Series

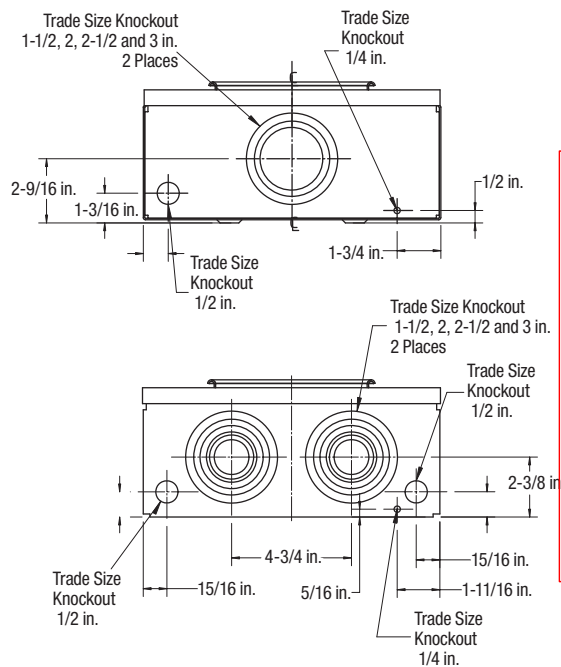
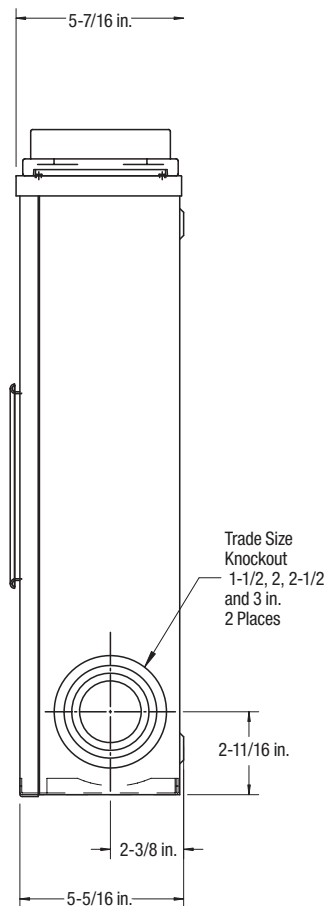
200 A 600 V; Polyphase

Product Specifications

- Conductor range: 6 AWG-250 kcmil
- Tunnel type connector for both load and line sides
- For overhead and combination overhead/underground service
- Larger hub opening requires use of 3 in., 3-1/2 in. or 4 in. hubs unless BS052 adapter plate is used
- Supplied with screw type ring
- Weatherproof Type 3R enclosure
- **Primarily used in: All provinces**



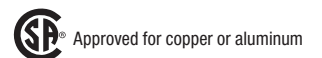
(PL27-V)



NO COMMENT COMMENT AS NOTED
 REJECTED REVISE AND RESUBMIT
 SUBMIT SPECIFIED PRODUCT

CORRECTIONS OR COMMENTS MADE ON SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH DRAWINGS AND SPECIFICATION REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES, CAPACITIES AND DIMENSIONS, SELECTING FABRICATION, CO-ORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

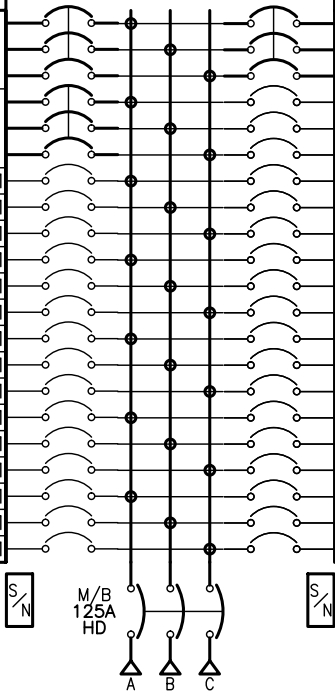
ANTARES ENGINEERING GROUP INC.
 DATE 18-02-2020 PERS S.S.



Cat. No.	Description	Dimensions (in.)			Weight Each	
		H	W	D	lb.	kg
7 JAW						
PL27-V	Overhead hub opening	20-1/8	12	5-7/16	18	8.1
PL27-TCV	Combination overhead-underground					
PL27-IN-V	Overhead hub opening, Insulated neutral					
PL27-IN-TCV	Combination overhead-underground, Insulated neutral					

REV	DESCRIPTION	BY	DATE				
-							

CKT NO	ACCESSORIES	TYPE	RATING AMP/P		RATING AMP/P	TYPE	ACCESSORIES	CKT NO
1								2
3		QOB	15/3		15/3	QOB		4
5								6
7					15/1	QOB		8
9		QOB	15/3		15/1	QOB		10
11					15/1	QOB		12
13		QOB	15/1		15/1	QOB		14
15		QOB	15/1		15/1	QOB		16
17		QOB	15/1		15/1	QOB		18
19		QOB	15/1		15/1	QOB		20
21		QOB	15/1		15/1	QOB		22
23		QOB	15/1		15/1	QOB		24
25		QOB	15/1		15/1	QOB		26
27		QOB	15/1		15/1	QOB		28
29		QOB	15/1		15/1	QOB		30
31		QOB	15/1		15/1	QOB		32
33		QOB	15/1		15/1	QOB		34
35		QOB	15/1		15/1	QOB		36
37		QOB	15/1		15/1	QOB		38
39		QOB-GFI	15/1		15/1	QOB-GFI		40
41		QOB-GFI	15/1		15/1	QOB-GFI		42



PHYSICAL DATA

ENCLOSURE Type 2

Surface with Door
FRONT CAT#: NC50S
BOX CAT#: MH50H

DIMENSIONS:

50''(1270mm)Hx20''(508mm)Wx5.75''(146mm)D

PBA: 707A

BUSSING: 225A RATED COPPER BUS
Silver/Tin Plated

OPTIONAL FEATURES:

DRIP HOOD
ALUMINUM SOLID NEUTRAL
ALUMINUM GROUND BAR

ELECTRICAL DATA

SYSTEM: 208Y/120V 3Ph 4W 60Hz

System Ampacity: 125A

22kA SYMS. SCCR

MAIN: MAIN BREAKER HD 125A

Feeders Series Rated w/ HD

Bottom FEED

25kA AIR

INCOMING CONDUCTORS(S) PER NEC, CEC, NOM:

Wire Bending Space:

Phase Lugs:1 - #14 - 3/0 AWG

-----BRANCH SUMMATION-----

3 - 15A/3P QOB

29 - 15A/1P QOB

4 - 15A/1P QOB-GFI

- NO COMMENT COMMENT AS NOTED
- REJECTED REVISE AND RESUBMIT
- SUBMIT SPECIFIED PRODUCT

CORRECTIONS OR COMMENTS MADE ON SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH DRAWINGS AND SPECIFICATION REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES, CAPACITIES AND DIMENSIONS, SELECTING FABRICATION, CO-ORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

ANTARES ENGINEERING GROUP INC.

DATE 18-02-2020 PERS S.S.

JOB NAME: Enterprise Rent A Car	EQUIPMENT DESIGNATION: Panel DP2
JOB LOCATION:	EQUIPMENT TYPE: NQ (Circuit Breaker Type) PANEL 1 OF 1
DRAWN BY: (Q2C)	DRAWING TYPE: ONE LINE DIAGRAM
ENGR:	SQUARE D by Schneider Electric
DATE: February 12 2020	
DRAWING STATUS: QUOTE	DWG# QO-1378474-36040015-01 PG 1 OF 1 REV -