



Address all Orders and Replies To :

ASCO Atlanta
 Bldg. 300; Suite 310
 Windward Chase
 Alpharetta, GA 30005
 Fax.No:886-5482

JOB NAME & QUOTATION NO : City Of Oak Ridge WWTP &
 E2-16-101511-1-1

#1	ATS	AMPS : 0800	QTY : 1
Bulletin Number	: Series 3ATS Transfer Switches	Catalog Number	: H03ATSB30800NGXH,11BE,44A
Service Voltage / Hz	: 480V/60Hz	Optional Accessories	: 11BE,44A
By-pass Isolation	: Not Applicable	Product Description	: Open Transition Series 3ATS
No. of Switched Poles	: 4	Neutral Configuration	: Switched [B]
Withstand Rating	: See WCR table below	No. of Cables & Lug Size	: 4, 1/0 AWG to 600 MCM
Frame = H, Switch Rating = 0800, Series = 300			
Enclosure	: 4X(H)-UL Type 4X - 304 Stainless Steel	Service	: Three Phase, 4-wire
Extended Warranty (Years - Cost)	: 0 Years Not Included	Markings	:

ACCESSORIES DESCRIPTION

#	Accessory Code	Description
1	11BE	Feature Bundle Includes Engine Exerciser/Event Log/RS 485 Enabled/Common Alarm Output Contact
2	44A	Strip heater w/ thermostat, external 120 volt power source required



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Notes :

Attached ASCO Terms and Conditions of Sale apply (form 3827 - Rev 05/01/12).

This quotation supersedes any other discussions on quotations you may have received from ASCO pertaining to subject City Of Oak Ridge WWTP.



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Disclaimers

1. This proposal is based on information supplied to ASCO which may or may not have been correct or complete. The customer is responsible for reviewing this proposal for compliance with the complete and final drawings and specifications.
2. Shipping & Handling charges are estimates only. Actual charges may vary based on final ship to address of item.

ASCO UL1008 Withstand and Closing Ratings ^{1,2,9}
(RMS Symmetrical Amps)

Frame	Switch Rating (Amps)		300, 400 & 7000 Series				4000 & 7000 Series				7000 Series								
			Current Limiting Fuses				Specific Breaker			Time Based				Short Time Ratings ³ (sec)					
	Transfer Switches	Bypass Switches	480V Max.	600V Max.	Max Size, A	Class	240V Max.	480V Max.	600V Max.	Time (sec)	240V Max.	480V Max.	600V Max.	480V Max.			600V Max.		
D			30	-	100kA	-	300	J	22kA	22kA	10kA	0.025	10kA	10kA	10kA	-			-
	200kA	35kA			200	J	-									-			
	35kA	35kA			200	RK1	-									-			
D	70, 100	-	35kA	35kA	200	RK1	42kA	25kA	10kA	0.025	10kA	10kA	10kA	-			-		
			200kA	35kA	200	J								-			-		
			200kA	35kA	200	J								-			-		
D	150	-	35kA	35kA	200	RK1	65kA	25kA	10kA	0.025	10kA	10kA	10kA	-			-		
			200kA	35kA	200	J								-			-		
D	200	-	200kA	-	200	J	65kA	25kA	-	0.025	10kA	10kA	-	-			-		
D	230	-	100kA	-	300	J	65kA	25kA	-	0.025	10kA	10kA	-	-			-		
E	260, 400	-	200kA	-	600	J	65kA	42kA	35kA	0.05	35kA	35kA	22kA	-			-		
J	150 ⁷ , 200 ⁷ , 260, 400	150 ⁷ , 200 ⁷ , 230 ⁷ , 260, 400	200kA	200kA	600	J	50kA	50kA	42kA	0.05	65kA	42kA ⁵	35kA	-			-		
			200kA	200kA	800	L	50kA	50kA	42kA	0.05	65kA	42kA ⁵	35kA	-			-		
H ^{10,11}	600	600	200kA	200kA	1600	L	65kA	65kA	65kA	0.05	50kA	50kA	50kA	36kA	-	36kA	-	-	
			200kA	200kA	1600	L	65kA	65kA	65kA	0.05	50kA	50kA	50kA	36kA	30kA	36kA	-	-	
P ¹⁰	800	800 - 1200	200kA	200kA	1600	L	65kA	65kA	65kA	0.05	50kA	50kA	50kA	36kA	30kA	36kA	-	-	
H ¹¹	800 - 1200	800 - 1200	200kA	200kA	1600	L	65kA	65kA	65kA	0.05	50kA	50kA	50kA	36kA	-	36kA	-	-	
Q ¹⁰	600-1600	600-1600	200kA	200kA	2000	L	65kA	65kA	65kA	0.05	65kA	65kA	65kA	50kA	-	50kA	-	-	
S ¹⁰	800 - 1200	800 - 1200	200kA	200kA	2500	L	100kA	100kA	65kA	0.05	100kA	100kA	65kA	65kA	-	65kA	-	-	
G ¹⁰	1000 - 1200	1000 - 1200	200kA	200kA	2000	L	85kA	85kA	85kA	0.05	85kA	85kA	85kA	-	-	-	-	-	
G	1600 - 2000 ⁴	-	200kA	200kA	2500	L	85kA ⁴	85kA ⁴	85kA ⁴	0.05	85kA ⁴	85kA ⁴	85kA ⁴	-	-	-	-	-	
G ¹⁰	1600 - 2000	1600 - 2000	200kA	200kA	3000	L	125kA ⁸	125kA ³	100kA	0.05	100kA	100kA	100kA	42kA	-	42kA	-	-	
S ¹⁰	1600 - 2000	1600 - 2000	200kA	200kA	2500	L	100kA	100kA	85kA	0.05	100kA	100kA	85kA	85kA	65kA	85kA	65kA	-	
G	2600 - 3000 ⁶	2600 - 3000 ⁶	200kA	200kA	4000	L	100kA	100kA	100kA	0.05	100kA	100kA	100kA	42kA	-	42kA	-	-	
G ¹⁰	3200	-	200kA	-	4000	L	100kA	100kA	-	0.05	100kA	100kA	-	-	-	-	-	-	
G	4000	4000	200kA	200kA	5000	L	100kA	100kA	100kA	0.05	100kA	100kA	100kA	85kA	65kA	65kA	-	-	
U ¹⁰	2600 - 4000	2600 - 4000	200kA	200kA	5000	L	125kA	125kA	125kA	0.06	125kA	125kA	125kA	100kA	-	100kA	-	-	

- Notes:
- 1) All WCR values indicated are tested in accordance with the requirements of UL 1008, 7th Edition. See ASCO Pub. 1128 for more WCR information
 - 2) Application requirements may permit higher WCR for certain switch sizes.
 - 3) Short Time ratings are provided for applications involving circuit breakers that utilize trip delay settings for system selective coordination
 - 4) Optional front connected service (Accy 40MY and 40NY) limits WCR on 1600 and 2000A G Frame switches
 - 5) Switches utilizing overlapping neutral (code "C") have 35kA, 0.050 Sec time based rating at 480V Max
 - 6) 3000A ratings are for Transfer Switch configurations only
 - 7) J150, 200, Amp available in 7ACTS, 7ADTS, 7ASLS, & All 7000 Bypass Switches including 230 Amp only
 - 8) Rating shown is for Bypass switches only, Transfer Switch rating is 100kA
 - 9) See ASCO for Service Entrance Switch ratings
 - 10) These frames are only available on the 7000 Series product
 - 11) Max fuse rating is 1200A on front connected H frame switches

ASCO Power Technologies, L.P. is herein referred to as the "Seller" and the customer or person or entity purchasing goods and/or services ("Goods") and/or licensing software and/or firmware, which are preloaded, or to be used with Goods ("Software") from Seller is referred to as the "Buyer." These Terms and Conditions, any price list or schedule, quotation, acknowledgment, Seller's scope of work, or invoice from Seller relevant to the sale of the Goods and licensing of Software and all documents incorporated by specific reference herein or therein, constitute the complete and exclusive statement of the terms of the agreement governing the sale of Goods and/or license of Software by Seller to Buyer. Seller's acceptance of Buyer's purchase order is expressly conditional on Buyer's assent to all of Seller's terms and conditions of sale, including terms and conditions that are different from or additional to the terms and conditions of Buyer's purchase order. Buyer's acceptance of the Goods and/or Software will manifest Buyer's assent to these Terms and Conditions. Seller reserves the right in its sole discretion to refuse orders.

1. **PRICES:** Unless otherwise specified in writing by Seller, the price quoted or specified by Seller for the Goods and/or Software shall remain in effect for thirty (30) days after the date of Seller's quotation provided an unconditional authorization from Buyer for the shipment of the Goods and/or Software is received and accepted by Seller within such time period. If such authorization is not received by Seller within thirty (30) day period, Seller shall have the right to change the price for the Goods and/or Software to Seller's price for the Goods and/or Software at the time of shipment. All prices and licensee fees are exclusive of taxes, transportation and insurance, which are to be borne by Buyer.

2. **TAXES:** Any current or future tax or governmental charge (or increase in same) affecting Seller's costs of production, sale, or delivery or shipment, or which Seller is otherwise required to pay or collect in connection with the sale, purchase, delivery, storage, processing, use or consumption of Goods and/or Software, shall be for Buyer's account and shall be added to the price or billed to Buyer separately, at Seller's election.

3. **TERMS OF PAYMENT:** Unless otherwise specified by Seller, terms are net thirty (30) days from date of Seller's invoice in U.S. currency. Seller shall have the right, among other remedies, either to terminate this agreement or to suspend further performance under this and/or other agreements with Buyer in the event Buyer fails to make any payment when due, which other agreements Buyer and Seller hereby amend accordingly. Buyer shall be liable for all expenses, including attorneys' fees, relating to the collection of past due amounts. If any payment owed to Seller is not paid when due, it shall bear interest at a rate to be determined by Seller, which shall not exceed the maximum rate permitted by law, from the date on which it is due until it is paid. Should Buyer's financial responsibility become unsatisfactory to Seller, cash payments or security satisfactory to Seller may be required by Seller for future deliveries of Goods and/or Software. If such cash payment or security is not provided, in addition to Seller's other rights and remedies, Seller may discontinue deliveries. Buyer hereby grants Seller a security interest in all Goods and/or Software sold to Buyer by Seller, which security interest shall continue until all such Goods and/or Software are fully paid for, and Buyer, upon Seller's demand, will execute and deliver to Seller such instruments as Seller requests to protect and perfect such security interest.

4. **SHIPMENT AND DELIVERY:** While Seller will use all reasonable commercial efforts to maintain the delivery date(s) and/or performance dates acknowledged or quoted by Seller, all shipping dates and/or performance dates are approximate and not guaranteed. Seller reserves the right to make partial shipments. Seller, at its option, shall not be bound to tender delivery of any Goods, Parts, and/or Software for which Buyer has not provided shipping instructions and other required information. If the shipment of the Goods, Parts, and/or Software is postponed or delayed by Buyer for any reason, Buyer agrees to reimburse Seller for any and all storage costs and other additional expenses resulting therefrom. For sales in which Buyer's ship to address for the Goods, Parts, and/or Software is outside of the United States, risk of loss and legal title to the Goods, Parts, and/or Software shall transfer to Buyer immediately after the Goods, Parts, and/or Software have passed beyond the territorial limits of the United States. In all other instances risk of loss and legal title to the Goods, Parts, and/or Software shall transfer from Seller to Buyer immediately upon shipment from the FCA Seller's Shipping Point. All shipments of Goods, Parts, and/or Software are made on a Free Carrier (FCA) Seller's Shipping Point basis, per Incoterms 2010, with Buyer responsible for all official export formalities, authorizations, risks and expenses as may be applicable for export from the country of shipment. Any claims for shortages or damages suffered in transit are the responsibility of Buyer and shall be submitted by Buyer directly to the carrier. Shortages or damages must be identified and signed for at the time of delivery.

5. **LIMITED WARRANTY:** Subject to the limitations of Section 6, Seller's standard warranty that is applicable to the Goods and/or Software at the time of purchase is the only warranty applicable to the sale of Seller's Goods and/or Software and its terms, conditions and limitations are incorporated by reference herein. **THE WARRANTY SET FORTH IN THIS SECTION 5 AND THE WARRANTY SET FORTH IN SECTION 7 ARE THE SOLE AND EXCLUSIVE WARRANTIES GIVEN BY SELLER WITH RESPECT TO THE GOODS AND/OR SOFTWARE AND ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHETHER OR NOT THE PURPOSE OR USE HAS BEEN DISCLOSED TO SELLER IN SPECIFICATIONS, DRAWINGS OR OTHERWISE, AND WHETHER OR NOT SELLER'S PRODUCTS ARE SPECIFICALLY DESIGNED AND/OR MANUFACTURED BY SELLER FOR BUYER'S USE OR PURPOSE.**

SELLER'S WARRANTY EXTENDS ONLY TO PURCHASERS WHO BUY FOR INDUSTRIAL OR COMMERCIAL USE. This warranty does not extend to any losses or damages due to misuse, accident, abuse, neglect, normal wear and tear, negligence (other than Seller's), unauthorized modification or alteration, use beyond rated capacity, unsuitable power sources or environmental conditions, improper installation, repair, handling, maintenance or application or any other cause not the fault of Seller. To the extent that Buyer or its agents have supplied specifications, information, representation of operating conditions or other data to Seller in the selection or design of the Goods and/or Software and the preparation of Seller's quotation, and in the event that actual operating conditions or other conditions differ from those represented by Buyer, any warranties or other provisions contained herein that are affected by such conditions shall be null and void.

Buyer assumes all other responsibility for any loss, damage, or injury to persons or property arising out of, connected with, or resulting from the use of Goods and/or Software, either alone or in combination with other products/components.

6. **LIMITATION OF REMEDY AND LIABILITY: THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY WARRANTY HEREUNDER (OTHER THAN THE WARRANTY PROVIDED UNDER SECTION 7) SHALL BE LIMITED TO REPAIR, CORRECTION OR REPLACEMENT, OR REFUND OF THE PURCHASE PRICE UNDER SECTION 5.**

SELLER SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE AND THE REMEDIES OF BUYER SET FORTH IN THIS AGREEMENT ARE EXCLUSIVE. IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), SHALL SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXCEED THE PRICE PAID BY BUYER FOR THE SPECIFIC GOODS AND/OR SOFTWARE PROVIDED BY SELLER GIVING RISE TO THE CLAIM OR CAUSE OF ACTION.

BUYER AGREES THAT SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS SHALL NOT EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES. The term "consequential damages" shall include, but not be limited to, loss of anticipated profits, business interruption, loss of use, revenue, reputation and data, costs incurred, including without limitation, for capital, fuel, power and loss or damage to property or equipment.

Buyer expressly acknowledges and agrees that Seller has set its prices and entered into this Agreement in reliance upon the limitations of liability, insurance and other terms and conditions specified herein, which allocate the risk between Seller and Buyer and form a basis of this bargain between the parties.

It is expressly understood that any technical advice furnished by Seller with respect to the use of the Goods and/or Software is given without charge, and Seller assumes no obligation or liability for the advice given, or results obtained, all such advice being given and accepted at Buyer's risk.

7. **PATENTS AND COPYRIGHTS:** Subject to the limitations of the second paragraph of Section 6, Seller warrants that the Goods and/or Software sold, except as are made specifically for Buyer according to Buyer's specifications, do not infringe any valid U.S. patent or copyright in existence as of the date of shipment. This warranty is given upon the condition that Buyer promptly notify Seller of any claim or suit involving Buyer in which such infringement is alleged and cooperate fully with Seller and permit Seller to control completely the defense, settlement or compromise of any such allegation of infringement. Seller's warranty as to utility patents only applies to infringement arising solely out of the inherent operation according to Seller's specifications and instructions of such Goods and/or Software. In the event (i) such Goods and/or Software are held to infringe such a U.S. patent or copyright in such suit, and the use of such Goods and/or Software is enjoined, or (ii) a compromise or settlement is made by Seller, Seller shall have the right, at its option and expense, to procure for Buyer the right to continue using such Goods and/or Software, or replace them with non-infringing Goods and/or Software, or modify same to become non-infringing, or grant Buyer a credit for the depreciated value of such Goods and/or Software and accept return of them. In the event of the foregoing, Seller may also, at its option, cancel the agreement as to future deliveries of such Goods and/or Software, without liability.

8. **INSURANCE:** Seller shall maintain the following insurance or self-insurance coverage: **Worker's Compensation** in accordance with the statutory requirements of the state in which work is performed. **Employer's Liability** with a limit of liability of \$2,000,000 per occurrence for bodily injury by accident or bodily injury by disease. **Commercial General Liability (CGL)** for bodily injury and property damage with a limit of \$2,000,000 per occurrence and aggregate. CGL includes Contractual Liability. CGL does not include Products and Completed Operations coverage, which is self-insured. **Automobile Liability** insurance that covers usage of all owned, non-owned and leased vehicles and which is subject to a combined single limit per occurrence of \$2,000,000. Automobile Liability insurance includes Contractual Liability and Cross Liability, but no special endorsements. Additional information related to the insurance coverage provided by Seller can be found at <http://www.marsh.com/mo?client=0900>.

9. **EXCUSE OF PERFORMANCE:** Seller shall not be liable for delays in performance or for non-performance due to acts of God; acts of Buyer; war, epidemic, fire, flood, weather, sabotage, strikes or labor disputes; civil disturbances or riots; governmental requests, restrictions, allocations, laws, regulations, orders or actions; unavailability of or delays in transportation; default of suppliers; or unforeseen circumstances or any events or causes beyond Seller's reasonable control. Delivery and other performance may be suspended for an appropriate period of time or canceled by Seller upon notice to Buyer in the event of any of the foregoing, but the balance of the agreement shall otherwise remain unaffected as a result of the foregoing. If Seller determines that its ability to supply the total demand for the Goods and/or Software, or to obtain material used directly or indirectly in the manufacture of the Goods and/or Software, is hindered, limited or made impracticable due to causes set forth in the preceding paragraph, Seller may allocate its available supply of the Goods, Software, and/or such material (without obligation to acquire other supplies of any such Goods, Software, or material) among its purchasers on such basis as Seller determines to be equitable without liability for any failure of performance which may result therefrom.

10. **CANCELLATION/CHANGES:** Buyer may cancel orders only upon reasonable advance written notice and upon payment to Seller of Seller's cancellation charges which include, among other things, all costs and expenses incurred, and, to cover commitments made, by the Seller and a reasonable profit thereon. Seller's determination of such cancellation charges shall be conclusive. Buyer may request changes or additions to the Goods and/or Software consistent with Seller's specifications and criteria. In the event such changes or additions are accepted by Seller, Seller may revise the price, license fees, and dates of delivery and/or performance dates. Seller reserves the right to change designs and specifications for the Goods and/or Software without prior notice to Buyer, except with respect to Goods and/or Software being made-to-order for Buyer. Seller shall have no obligation to install or make such change in any Goods and/or Software manufactured prior to the date of such change.

11. **NUCLEAR/MEDICAL:** GOODS AND SOFTWARE SOLD HEREUNDER ARE NOT FOR USE IN THE CONTROL AREA OR ANY REACTOR CONNECTED OR SAFETY APPLICATIONS OR WITHIN THE CONTAINMENT AREA OF A NUCLEAR FACILITY OR FOR INTEGRATION INTO MEDICAL DEVICES. Buyer accepts Goods and Software with the foregoing understanding, agrees to communicate the same in writing to any subsequent purchasers or users and to defend, indemnify and hold harmless Seller from any claims, losses, suits, judgments and damages, including incidental and consequential damages, arising from such use, whether the cause of action be based in tort, contract or otherwise, including allegations that the Seller's liability is based on negligence or strict liability.

12. **SOFTWARE:** Notwithstanding any other provision herein to the contrary, Seller or applicable third party licensor to Seller shall retain all rights of ownership and title in its respective Software, including without limitation all rights of ownership and title in its respective copies of such Software. Except as otherwise provided herein, Buyer is hereby granted a nonexclusive, non-transferable royalty free license to use the Software incorporated into the Goods solely for purposes of Buyer properly utilizing such Goods purchased from Seller. All other Software shall be furnished to, and used by, Buyer subject to Seller's (or the licensor's) applicable standard license agreement, the terms of which are incorporated herein by reference.

13. **TOOLING:** Tool, die, and pattern charges, if any, are in addition to the price of the Goods and are due and payable upon completion of the tooling. All such tools, dies and patterns shall be and remain the property of Seller. Charges for tools, dies, and patterns do not convey to Buyer, title, ownership interest in, or rights to possession or removal, or prevent their use by Seller for other purchasers, except as otherwise expressly provided by Seller and Buyer in writing with reference to this provision.

14. **INSPECTION/TESTING/INSTALLATION:** Buyer, at its option and expense, may observe the inspection and testing by Seller of the Goods and/or Software for compliance with Seller's standard test procedures prior to shipment, which inspection and testing shall be conducted at Seller's plant at such reasonable time as is specified by Seller. Any rejection of the Goods and/or Software must be made promptly by Buyer before shipment. Tests shall be deemed to be satisfactorily completed and the test fully met when the Goods and/or Software meet Seller's criteria for such procedures. If Buyer does not inspect the Goods and/or Software at Seller's plant as provided herein, Buyer shall have ten (10) days from (i) the date of delivery of goods and/or Software and (ii) from the date of completion of each portion of the services to inspect the Goods and/or Software, and in the event of any non-conformity, Buyer must give written notice to Seller within said period stating why the Goods and/or Software are not conforming. Failure by Buyer to give such notice constitutes unqualified acceptance of the Goods and/or Software. Buyer's sole remedy for non-conforming services shall be correct performance of services incorrectly performed by Seller. Buyer shall be responsible for receiving, inspecting, testing, storing, installing, starting up (unless included in Seller's proposal) and maintaining all Goods.

15. **RETURNED GOODS:** Advance written permission to return Goods and/or Software must be obtained from Seller in accordance with Seller's then current Return Material Authorization (RMA) procedures and a return authorization number issued. Such Goods and/or Software must be (i) current, unused Goods and/or Software, (ii) free of all liens, encumbrances, or other claims, and (iii) shipped, transportation prepaid, to Seller's specified location. Returns made without proper written permission will not be accepted by Seller. Seller reserves the right to inspect Goods and/or Software prior to authorizing return.

16. **BILLABLE SERVICES:** Additional charges will be billed to Buyer at Seller's then prevailing labor rates for any of the following: (a) any services not specified in Seller's quotation, Seller's order acknowledgement, or other documents referenced herein and therein; (b) any services performed at times other than Seller's normal service hours; (c) if reasonable site and/or equipment access is denied the Seller service representative; and (d) if it is necessary, due to local circumstances, to use union labor or hire an outside contractor, Seller service personnel will provide supervision only and the cost of such union or contract labor will be charged to Buyer.

17. **DOCUMENTATION/BUYER SUPPLIED DATA:** Seller shall provide Buyer with that data/documentation which is specifically identified in Seller's quotation. If additional copies of data/documentation are to be provided by Seller, it shall be provided to Buyer at Seller's applicable prices then in effect. Seller's prints and drawings (including without limitation, the underlying technology) furnished by Seller to Buyer in connection with this agreement are the property of Seller and Seller retains all rights, including without limitation, exclusive rights of use, licensing and sale. Possession of such prints or drawings does not convey to Buyer any rights or license, and Buyer shall return all copies (in whatever medium) of such prints or drawings to Seller immediately upon request therefor. To the extent that Seller has been provided by, or on behalf of, Buyer any specifications, description of operating conditions or other data and information in connection with the selection or design of the Goods and/or Software, and/or the provision of Services, and the actual operating conditions or other circumstances differ from those provided by Buyer and relied upon by Seller, any warranties or other provisions contained herein which are affected by such conditions shall be null and void.

18. **EXPORT/IMPORT:** Buyer agrees that all applicable import and export control laws, regulations, orders and requirements, including without limitation those of the United States, and the jurisdictions in which the Seller and Buyer are established or from which Goods, Software, and Services may be supplied, will apply to their receipt and use. In no event shall Buyer use, transfer, release, import, export, Goods or Software in violation of such applicable laws, regulations, orders or requirements.

19. **GENERAL PROVISIONS:** These terms and conditions supersede all other communications, negotiations and prior oral or written statements regarding the subject matter of these terms and conditions. No change, modification, rescission, discharge, abandonment, or waiver of these terms and conditions shall be binding upon the Seller unless made in writing and signed on its behalf by a duly authorized representative of Seller. No conditions, usage of trade, course of dealing or performance, understanding or agreement purporting to modify, vary, explain, or supplement these terms and conditions shall be binding unless hereafter made in writing and signed by the party to be bound, and no modification or additional terms shall be applicable to this agreement by Seller's receipt, acknowledgment, or acceptance of purchase orders, shipping instruction forms, or other documentation containing terms at variance with or in addition to those set forth herein. Any such modifications or additional terms are specifically rejected and deemed a material alteration hereof. If the document shall be deemed an acceptance of a prior offer by Buyer, such acceptance is expressly conditional upon Buyer's assent to any additional or different terms set forth herein. No waiver by either party with respect to any breach or default or of any right or remedy, and no course of dealing, shall be deemed to constitute a continuing waiver of any other breach or default or of any other right or remedy, unless such waiver be expressed in writing and signed by the party to be bound. All typographical or clerical errors made by Seller in any quotation, acknowledgment or publication are subject to correction. Buyer shall not assign its rights or delegate its duties hereunder or any interest herein without the prior written consent of Seller, and any such assignment, without such consent, shall be void.

The validity, performance, and all other matters relating to the interpretation and effect of this agreement shall be governed by the law of the state of New Jersey without regard to its conflict of laws principles. Buyer and Seller agree that the proper venue for all actions arising in connection herewith shall be only in New Jersey and the parties agree to submit to such jurisdiction. No action, regardless of form, arising out of transactions relating to this contract, may be brought by either party more than two (2) years after the cause of action has accrued. The U.N. Convention on Contracts for the International Sales of Goods shall not apply to this agreement. Buyer shall not solicit, directly or indirectly, or employ any employee of Seller during the period any Goods are being provided to Buyer and for a period of one (1) year after the last provision of Goods.

20. **INDEMNITY:** Each party shall indemnify and hold the other party harmless from loss, damage, liability or expense resulting from damage to personal property of a third party, or injuries, including death, to third parties to the extent caused by a negligent act or omission of the party providing indemnification or a party's subcontractors, agents or employees during performance of services hereunder. Such indemnification shall be reduced to the extent damage or injuries are attributable to others. The indemnifying party shall defend the other party in accordance with and to the extent of the above indemnification, provided that the indemnifying party is: (i) promptly notified by the other party, in writing, of any claims, demands or suits for such damages or injuries; (ii) given all reasonable information and assistance by the other party; (iii) given full control over any resulting negotiation, arbitration or litigation, including the right to choose counsel and settle claims, or the indemnifying party's obligations herein shall be deemed waived.

THREE PHASE WIRING FOR ASCO® TRANSFER SWITCHES TYPES H3ATS & H3NTS RATED 600, 800, 1000 & 1200 AMPERES

GENERAL INFORMATION

THIS WIRING APPLIES TO 300 SERIES TRANSFER SWITCHES THAT UTILIZE THE "G" FRAME POWER TRANSFER SWITCH RATED 1000 - 3000 AMPERES.

THE GROUP G CONTROLLER PROVIDES EITHER AUTOMATIC (D3ATS) OR NON-AUTOMATIC [MANUAL] (D3NTS) OPERATION BASED ON ITS FACTORY SETTING ACCORDING TO THE CUSTOMER ORDER REQUIREMENTS.

THE TYPE OF TRANSFER SWITCH PROVIDED CAN BE DETERMINED FROM THE PRODUCT IDENTIFICATION MARKINGS LOCATED ON BOTH THE POWER TRANSFER SWITCH AND THE COVER OF THE GROUP G CONTROLLER.

ALL OPERATIONAL SETTINGS AND SEQUENCES OF THE GROUP G CONTROLLER AND ITS RELATED OPTIONAL ACCESSORIES (1UP, 18RX, 23G) ARE PROVIDED IN THE USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400.

INFORMATION FOR INSTALLATION AND TESTING OF THE TRANSFER SWITCH IS PROVIDED IN THE INSTALLATION MANUAL, ASCO 3ATS & 3NTS, D-DESIGN 1000-3000 A TRANSFER SWITCHES, PART NUMBER 381333-406.

ENGINE CONTROL CONTACTS

FEATURE 7 & FEATURE 8:
ONE SET OF FORM C CONTACTS "NR" (FEAT. 7 N/C, FEAT. 8 N/O) THAT CHANGE POSITION ON EXPIRATION OF THE FEATURE 1C, OVERRIDE MOMENTARY NORMAL SOURCE OUTAGES TIME DELAY, AND RESET ON EXPIRATION OF THE FEATURE 2E ENGINE COOLDOWN TIME DELAY.
AN AUXILIARY CONTACT THAT IS CLOSED WHEN THE TRANSFER SWITCH IS CONNECTED TO THE EMERGENCY SOURCE, IS CONNECTED ACROSS THE N/C CONTACT (FEATURE 7).

AN ADDITIONAL SET OF ENGINE STARTING CONTACTS ARE AVAILABLE ON THE GROUP G CONTROLLER WHEN THE FEATURE SETTING OF THE CONTROLLER OUTPUT CONTACTS "OP1" IS SET TO OPERATE AS "NR2".

ADDITIONAL OPTIONAL ENGINE STARTING CONTACTS "NR2" ARE AVAILABLE WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY. OUTPUT CONTACTS "OP2" AND/OR "OP3" PROVIDE THE ENGINE STARTING FUNCTION WHEN THE FEATURE SETTING OF EACH IS SET TO OPERATE AS "NR2".

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

LOAD DISCONNECT FEATURE

FEATURE 31: INCLUDES SUB-FEATURES 31F, 31G, 31M, 31N
A SET OF FORM C CONTACTS ARE PROVIDED ON THE GROUP G CONTROLLER AS "OP1". WHEN THE FEATURE SETTING OF "OP1" IS SET TO OPERATE THE CONTACTS AS "FEATURE 31", THE TIME DELAY SETTINGS OF THE SUB-FEATURES ARE AVAILABLE.

"OP1" CAN BE SET TO OPERATE TO PROVIDE THE FOLLOWING FUNCTIONS USING THE TIME DELAY SETTINGS ASSOCIATED WITH EACH SUB-FEATURE:

- 31F - NORMAL TO EMERGENCY PRE-TRANSFER SIGNAL
- 31G - EMERGENCY TO NORMAL PRE-TRANSFER SIGNAL
- 31M - NORMAL TO EMERGENCY POST-TRANSFER SIGNAL
- 31N - EMERGENCY TO NORMAL POST TRANSFER SIGNAL

THE "OP1" OUTPUT CONTACTS CHANGE POSITION FOLLOWING EACH OF THE ABOVE TIME DELAYS.

ADDITIONAL LOAD DISCONNECT CONTACTS, "FEATURE 31" ARE AVAILABLE WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY. OUTPUT CONTACTS "OP2" AND/OR "OP3" WILL PROVIDE LOAD DISCONNECT FUNCTIONS WHEN THE FEATURE SETTING OF EACH IS SET TO OPERATE AS "FEATURE 31".

ALL OUTPUT CONTACTS ("OP1", "OP2", "OP3") SET TO OPERATE AS "FEATURE 31", SHARE THE COMMON TIME DELAY SETTINGS OF SUB-FEATURES 31F, 31G, 31M, AND 31N.

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

INPHASE TRANSFER FEATURE FOR LOAD TRANSFER

INPHASE TRANSFER CONTROL INITIATES AN INPHASE TRANSFER OF LOADS BETWEEN LIVE SOURCES. THIS IS USED TO PREVENT NUISANCE TRIPPING OF DISTRIBUTION CIRCUIT BREAKERS AND POSSIBLE DAMAGE TO MECHANICAL LOADS ASSOCIATED WITH OUT OF PHASE TRANSFER.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

SOURCE AVAILABILITY SIGNALS

SIGNALS INDICATING THE AVAILABILITY OF THE NORMAL & EMERGENCY SOURCES IS PROVIDED WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY. OUTPUT CONTACTS "RL5" (EMERGENCY SOURCE AVAILABLE) AND "RL6" (NORMAL SOURCE AVAILABLE) CHANGE POSITION WHEN THE SOURCE IS ACCEPTABLE.

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

COMMON ALARM & NOT IN AUTO SIGNALING FEATURES

A SET OF FORM C CONTACTS IS PROVIDED ON THE GROUP G CONTROLLER AS "OP1". THE FEATURE SETTING OF "OP1" CAN BE SET TO OPERATE THE CONTACTS AS A "NOT IN AUTO" SIGNAL.

WHEN "OP1" IS SET FOR "NOT IN AUTO", THE OUTPUT CONTACTS CHANGE POSITION WHEN THE TRANSFER IS BEING INHIBITED FROM TRANSFERRING TO THE EMERGENCY SOURCE (FEATURE 34B) OR THE TRANSFER SWITCH HAS BEEN SET FOR NON-AUTOMATIC (MANUAL) OPERATION.

WHEN OPTIONAL ACCESSORY 11BE "SOFTWARE BUNDLE" IS PART OF THE TRANSFER SWITCH ASSEMBLY, "OP1" MAY ALTERNATIVELY SET FOR A "COMMON ALARM" SIGNAL. THE OUTPUT CONTACTS CHANGE POSITION WHEN A "COMMON ALARM" IS NOT PRESENT AND RESET WHEN A "COMMON ALARM" CONDITION IS PRESENT. THE "COMMON ALARM" SIGNAL CONDITIONS ARE SELECTABLE.

ADDITIONAL "COMMON ALARM" AND "NOT IN AUTO" CONTACTS ARE AVAILABLE WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY. OUTPUT CONTACTS "OP2 AND/OR "OP3" WILL PROVIDE SIGNAL FUNCTIONS WHEN THE FEATURE SETTING OF EACH IS SET TO OPERATE AS "COMMON ALARM" OR "NOT IN AUTO".

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

EXTERNAL POWER SUPPLY COMPATIBILITY

USE OF AN EXTERNAL POWER SUPPLY IS USEFUL WHEN REQUIRED TO EXTEND THE FOLLOWING CONTROLLER TIME DELAYS BEYOND 6 SECONDS:

- FEATURE 1C - OVERRIDE MOMENTARY NORMAL SOURCE OUTAGES
- FEATURE 1F - OVERRIDE MOMENTARY EMERGENCY SOURCE OUTAGES

AN EXTERNAL POWER SUPPLY IS ALSO USEFUL WHEN THE TRANSFER SWITCH IS USED WITH COMMUNICATIONS FEATURES BY ENABLING THE CONTROLLER TO CONTINUE COMMUNICATING.

AN EXTERNAL POWER SOURCE MAY BE PROVIDED TO THE CONTROLLER, UNTIL THE NORMAL SOURCE OR EMERGENCY SOURCE IS AVAILABLE, BY USE OF:

- AN EXTERNAL 24 VDC POWER SUPPLY WITH ACCESSORY 18RX (RELAY EXPANSION MODULE) OR
- OPTIONAL ACCESSORY 1UP (UNINTERRUPTIBLE POWER SUPPLY MODULE)

EXTERNAL 24 VDC POWER SUPPLY "1G":

AN EXTERNAL 24 VDC POWER SUPPLY MAY BE USED TO POWER THE CONTROLLER WHEN ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY. OUTPUT CONTACTS "OP2" WILL PROVIDE EXTERNAL 24 VDC POWER SUPPLY FUNCTIONALITY WHEN ITS FEATURE SETTING IS SET TO OPERATE AS "1G". ADDITIONALLY, JUMPERS MUST BE RECONFIGURED ON ACCESSORY 18RX (RELAY EXPANSION MODULE) TO ENABLE THIS FUNCTION AS FOLLOWS:

- REMOVE JUMPERS "J1" 1-2 & "J1" 3-4
- CONNECT JUMPERS "J1" 5-7 & "J1" 6-8

THE OUTPUT CONTACTS CHANGE POSITION WHEN EITHER THE NORMAL SOURCE OR EMERGENCY SOURCE IS AVAILABLE AND RESET WHEN NEITHER SOURCE IS AVAILABLE. THE "OP2" N/C CONTACT SWITCHES CUSTOMER PROVIDED +24 VDC FROM THE EXTERNAL POWER SUPPLY TO THE CONTROLLER.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

ACCESSORY 1UP (UNINTERRUPTIBLE POWER SUPPLY):

WHEN OPTIONAL ACCESSORY 1UP IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY, THE CONTROLLER IS PROVIDED WITH LIMITED RESERVE POWER (APPROXIMATELY 3 MINUTES).

LOAD CURRENT METERING

WHEN OPTIONAL ACCESSORY 23GB IS PART OF THE TRANSFER SWITCH ASSEMBLY, THREE PHASE CURRENT MEASUREMENTS ARE AVAILABLE FOR DISPLAY ON THE GROUP G CONTROLLER.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR INFORMATION ON USE.

FOUR-FUNCTION SOFTWARE BUNDLE

WHEN OPTIONAL ACCESSORY 11BE IS PART OF THE TRANSFER SWITCH ASSEMBLY, A FOUR-FUNCTION SOFTWARE BUNDLE IS AVAILABLE TO PERFORM THE FOLLOWING FUNCTIONS:

- SERIAL COMMUNICATIONS (RS-485)
- PROGRAMMABLE ENGINE EXERCISER
- EVENT LOG
- COMMON ALARM SIGNAL CAPABILITY ON GROUP G CONTROLLER "OP1" OUTPUT.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR INFORMATION ON THESE FUNCTIONS.

NON-AUTOMATIC (MANUAL) OPERATION

TRANSFER SWITCH ASSEMBLIES FACTORY SET FOR NON-AUTOMATIC OPERATION PROVIDE USER INITIATED, ELECTRICAL OPERATION OF THE TRANSFER SWITCH TO EITHER AVAILABLE SOURCE. THE TRANSFER SWITCH ASSEMBLY IS PHYSICALLY IDENTICAL TO THAT OF THE AUTOMATIC TYPE.

WHEN THE TRANSFER SWITCH IS SET FOR NON-AUTOMATIC OPERATION, A CUSTOMER PROVIDED SELECTOR SWITCH MAY BE USED TO OPERATE IT FROM A REMOTE LOCATION.

REMOTE CONTROL FEATURES

THE FOLLOWING CONTROL PANEL INPUTS PROVIDE REMOTE CONTROL FUNCTIONS FOR THE TRANSFER SWITCH. EACH FUNCTION CAN BE IMPLEMENTED BY THE CUSTOMER PROVIDING THE FORM OF CONTROL DESCRIBED. EACH CONTROL CONTACT MUST BE SUITABLE FOR A 5 VDC LOW ENERGY CIRCUIT.

EXTERNAL FEATURE 17: REMOTE TRANSFER TO EMERGENCY FEATURE (FOR AUTOMATIC TRANSFER TYPE ONLY) - REQUIRES A CUSTOMER SUPPLIED, NORMALLY CLOSED CONTACT. OPENING OF THE CONTACT CAUSES ENGINE START AND TRANSFER TO THE EMERGENCY SOURCE. RE-CLOSURE OF THE CONTACT ACTIVATES THE FEATURE 3A "RETRANSFER TO NORMAL (IF JUST TEST) TIME DELAY PRIOR TO RETRANSFER. IN THE EVENT THAT THE EMERGENCY SOURCE FAILS WHILE THE TRANSFER SWITCH IS CONNECTED TO EMERGENCY AND THE CUSTOMER SUPPLIED CONTACT IS OPEN, THE TRANSFER SWITCH WILL AUTOMATICALLY RETRANSFER TO THE NORMAL SOURCE.

EXTERNAL FEATURE 6B: REMOTE BYPASS OF RETRANSFER TO NORMAL TIME DELAY - REQUIRES A CUSTOMER SUPPLIED, NORMALLY CLOSED CONTACT. OPENING OF THE CONTACT BYPASSES FEATURE 3A RETRANSFER TO NORMAL DELAY IF ACTIVE.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

NOTES

1. SWITCH SHOWN DE-ENERGIZED CONNECTED TO NORMAL SOURCE.
2. DEVICE SYMBOLS AND DESIGNATIONS ARE IN ACCORDANCE WITH NEMA PUB. ICS 1, PART 1-101A.
3. ALL WIRING IS #16 AWG, TINNED, STRANDED COPPER UNLESS OTHERWISE INDICATED.
4. O INDICATES CUSTOMER CONNECTION POINTS.
4. ● INDICATES FACTORY CONNECTION POINTS.
5. CONNECTION POINTS THAT HAVE BOTH CUSTOMER CONNECTIONS AND FACTORY CONNECTIONS ARE SHOWN OPEN AS CUSTOMER CONNECTION POINTS.
6. THE TRANSFER UNIT IS MOUNTED ON THE BACK INSIDE SURFACE OF THE ENCLOSURE. THE CONTROL PANEL AND ANY OPTIONAL ACCESSORIES ARE MOUNTED ON THE INSIDE SURFACE OF THE DOOR.
7. AN OPERATOR'S MANUAL IS FURNISHED WITH EACH AUTOMATIC TRANSFER SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION OF THE SWITCH.
8. GROUND STRAP ON CONTROL PANEL IS AFFIXED TO CHASSIS (ENCLOSURE) AT LOWER LEFT CONTROL PANEL MOUNTING STUD.

BASE CATALOG NUMBER				CATALOG NUMBER SUFFIXES				EXPLANATION OF CATALOG NUMBER CODES														
TS FRAME	CATALOG TYPE	NEUTRAL TYPE	PHASE POLES	AMPS	VOLT CODE	CONTROLLER	OPTIONAL ACCESSORY	ENCLOSURE CODE	CATALOG TYPE		NEUTRAL TYPE		VOLTAGE CODES		ENCLOSURE CODES							
									CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	NOMINAL VOLTAGE	CODE	TYPE	DESCRIPTION					
				600	C												OPEN TYPE (NO ENCLOSURE)					
				800	D												GENERAL PURPOSE, INDOOR					
				1000	E												INDOOR, WATER & DUST RESISTANT					
				1200	F												INDOOR, RAINPROOF, SLEET & ICE RESISTANT					
					G												INDOOR/OUTDOOR, WATERTIGHT & DUSTTIGHT					
					H												TYPE 4 PLUS CORROSION RESISTANCE (STAINLESS STEEL)					
					J												TYPE 4 PLUS CORROSION RESISTANCE (FIBERGLASS)					
					K												EXPLOSION PROOF					
					L												INDOOR, INDUSTRIAL ENVIRONMENTS, OILTIGHT & DUSTTIGHT					
					M												(SECURE ENCLOSURES)					
					N												OUTDOOR, RAINPROOF, SLEET & ICE RESISTANT					
					O												INDOOR/OUTDOOR, WATERTIGHT & DUSTTIGHT					
					P												TYPE 4 PLUS CORROSION RESISTANCE (STAINLESS STEEL)					
					Q												INDOOR, INDUSTRIAL ENVIRONMENTS, OILTIGHT & DUSTTIGHT					
					R																	

CATALOG NUMBER _____

ASCO® CERTIFIED TO S.O. _____

BY _____

DATE _____

FORM REV - _____

PROJECT NAME: _____

WIRING _____ DIAGRAM _____

300 SERIES (H3ATS/H3NTS) 3PH 600-1200 AMPS

"H" FRAME, GROUP G CONTROLS

SCALE NONE SIZE DS

1001657

ASCO Power Technologies, L.P.
FLORHAM PARK, NEW JERSEY 07932 U.S.A.

REV. TO SHEET 245204 BK BK 11/07/13

REV. TO SHEET ECN NO. BY APP. DATE

COMPUTER GENERATED DRAWING

DRAWN BY DJB 11/07/13

CHECKED BK 11/07/13

PROJECT APPROVAL BK 11/07/13

FINAL APPROVAL

MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-005.

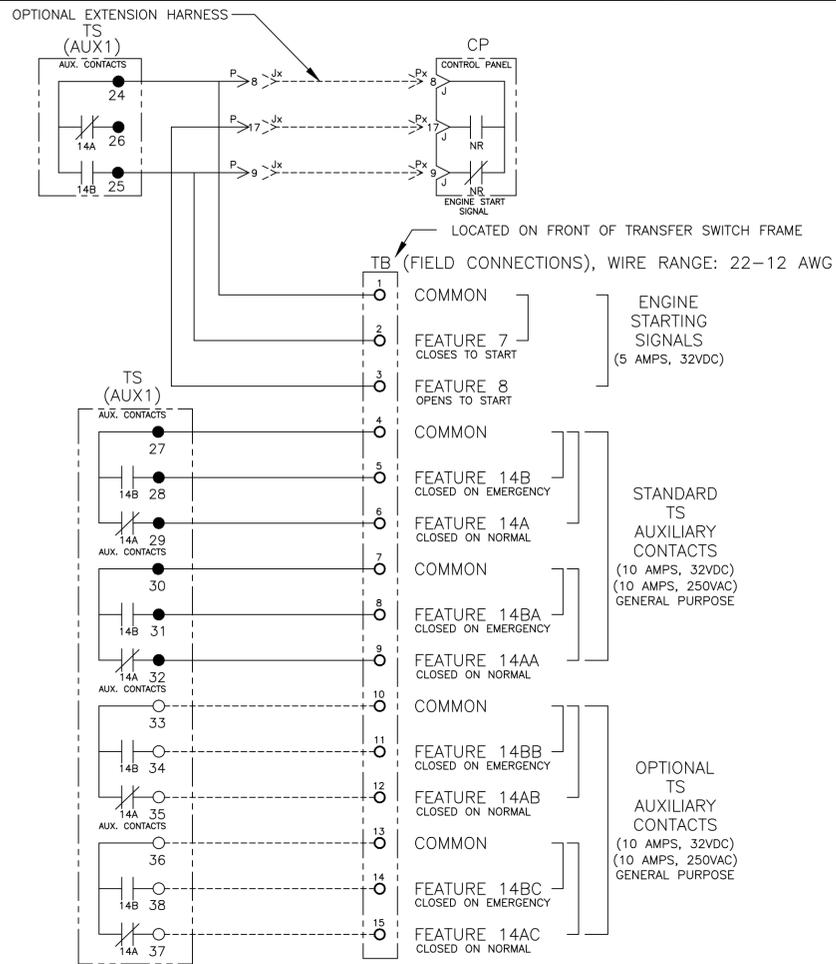
PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.

DWG. NO. 1001657

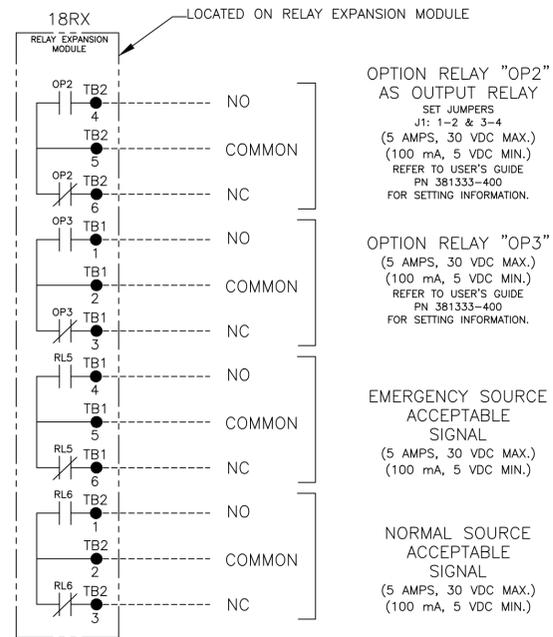
SCALE NONE SIZE DS

REV. TO SHEET ECN NO. 245204 SHEET 1 OF 6

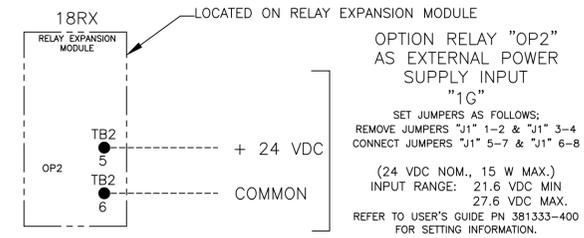
FIELD CONNECTIONS



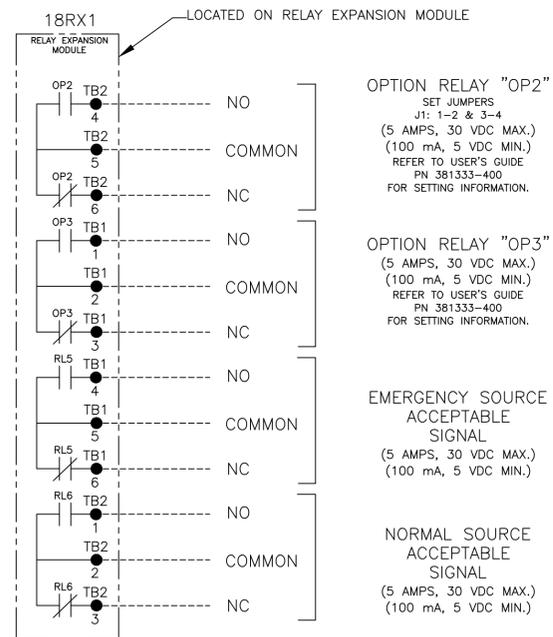
OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE)



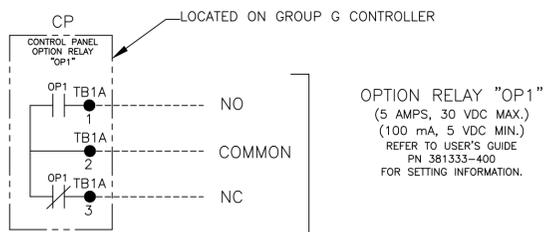
"OP2" OPTIONAL USES



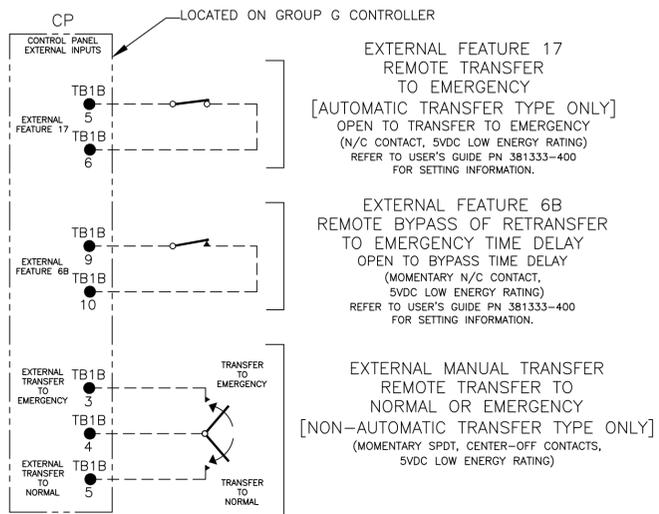
OPTIONAL ACCESSORY 18RX1 (SECOND RELAY EXPANSION MODULE)



CONTROLLER OPTION RELAY "OP1" (STANDARD)



CONTROLLER REMOTE CONTROL FEATURES



PROJECT NAME:		245204	BK	BK	11/07/13
REV. TO SHEET	ISSUE	ECN NO.	BY	APP.	DATE
WIRING DIAGRAM		COMPUTER GENERATED DRAWING			
300 SERIES (H3ATS/H3NTS) 3PH 600-1200 AMPS		SCALE NONE SIZE DS			
"H" FRAME, GROUP G CONTROLS		DRAWING NO. 1001657			
DRAWN BY DJB 11/07/13		CHECKED BY BK 11/07/13		PROJECT APPROVAL BY BK 11/07/13	
MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-005.		PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.		ASCO POWER TECHNOLOGIES, L.P. FLOHAM PARK, NEW JERSEY 07932 U.S.A.	
DRAWING REV. —		ECN NO. 245204		SHEET 2 OF 6	

MAIN POWER POLES

TS OPERATOR CIRCUIT

EMERGENCY

NORMAL

LOAD

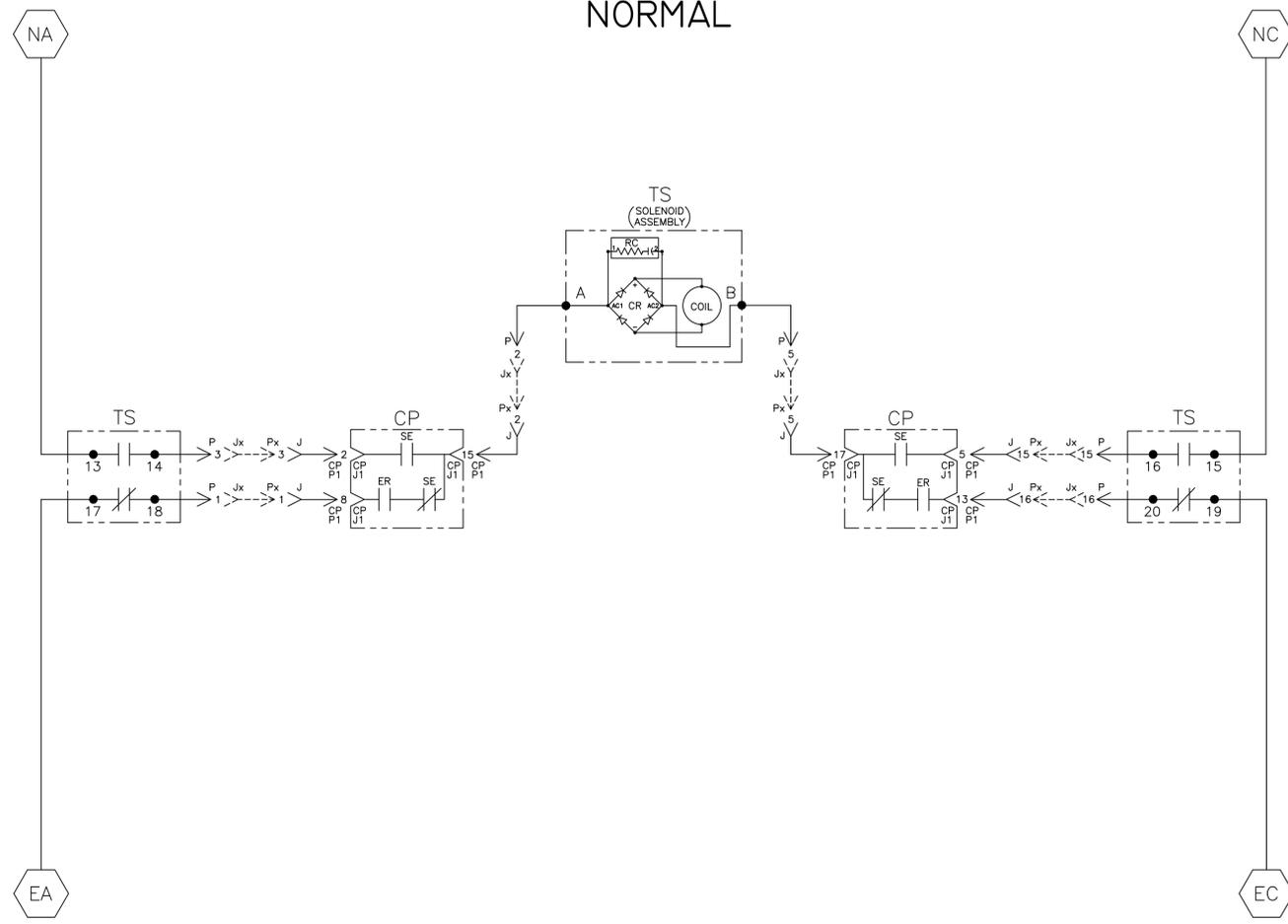
EMERGENCY

NORMAL

NOTE:
ATS/NTS SHOWN CLOSED ON NORMAL SOURCE.

OPTIONAL NEUTRAL TYPES
REFER TO "EXPLANATION OF CATALOG NUMBER CODES"
IN CATALOG NUMBER CHART ON SHEET 1.

- SWITCHING CONTACTS
- SOLID BUS PLATE



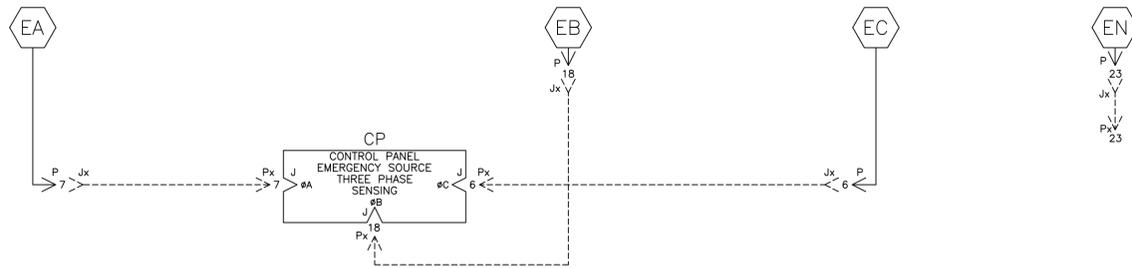
TS	SOLENOID POSITION			
	CLOSED BEFORE NORMAL	BEFORE TDC	TDC	BEFORE CLOSED EMERG
13-14				
15-16				
17-18				
19-20				

TDC (TOP DEAD CENTER)
TRANSFER SWITCH TEST & ADJUSTMENT PROCEDURE
SPECIFIES CONTROL CUT-OFF (CONTACT OPENING)
SETTING.

PROJECT NAME:		REV. TO SHEET	ISSUE	BY	APP.	DATE
WIRING		DIAGRAM				
300 SERIES (H3ATS/H3NTS) 3PH 600-1200 AMPS						
"H" FRAME, GROUP G CONTROLS						
DRAWN BY	DJB	DATE	11/07/13	ASSEMBLY REF. NO.	COMPUTER GENERATED DRAWING	
CHECKED	BK	DATE	11/07/13	SCALE	NONE	SIZE DS
PROJECT APPROVAL	BK	DATE	11/07/13	PROPERTY OF ASCO POWER TECHNOLOGIES, USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.		
FINAL APPROVAL		DATE		DWG. NO. 1001657		
ASCO POWER TECHNOLOGIES, L.P.				DRAWING REV. ECN 245204 SHEET 3 OF 6		

EMERGENCY SOURCE CIRCUITS

EMERGENCY



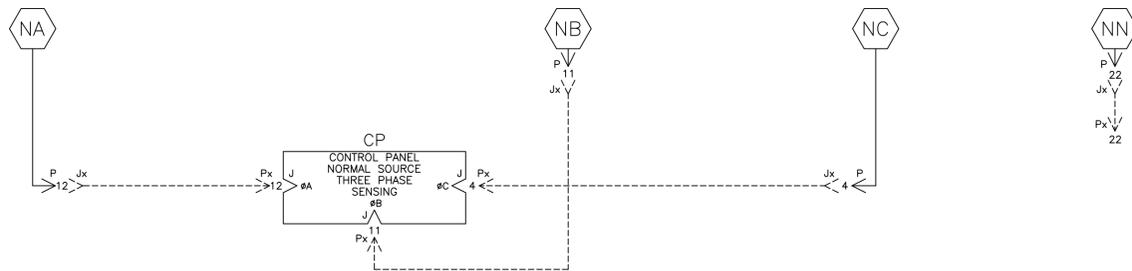
LOAD TERMINAL CIRCUITS

LOAD

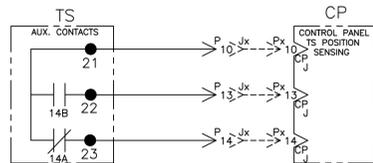


NORMAL SOURCE CIRCUITS

NORMAL



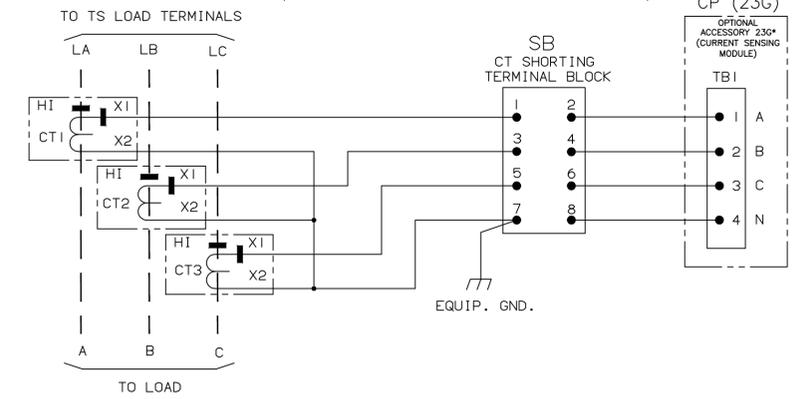
CONTROL CIRCUITS



ADDITIONAL CIRCUITS

OPTIONAL ACCESSORY 23GB (LOAD CURRENT METERING)

SWITCH RATING	CT RATIO
600A	600:5A
800A	800:5A
1000A	1200:5A
1200A	1200:5A

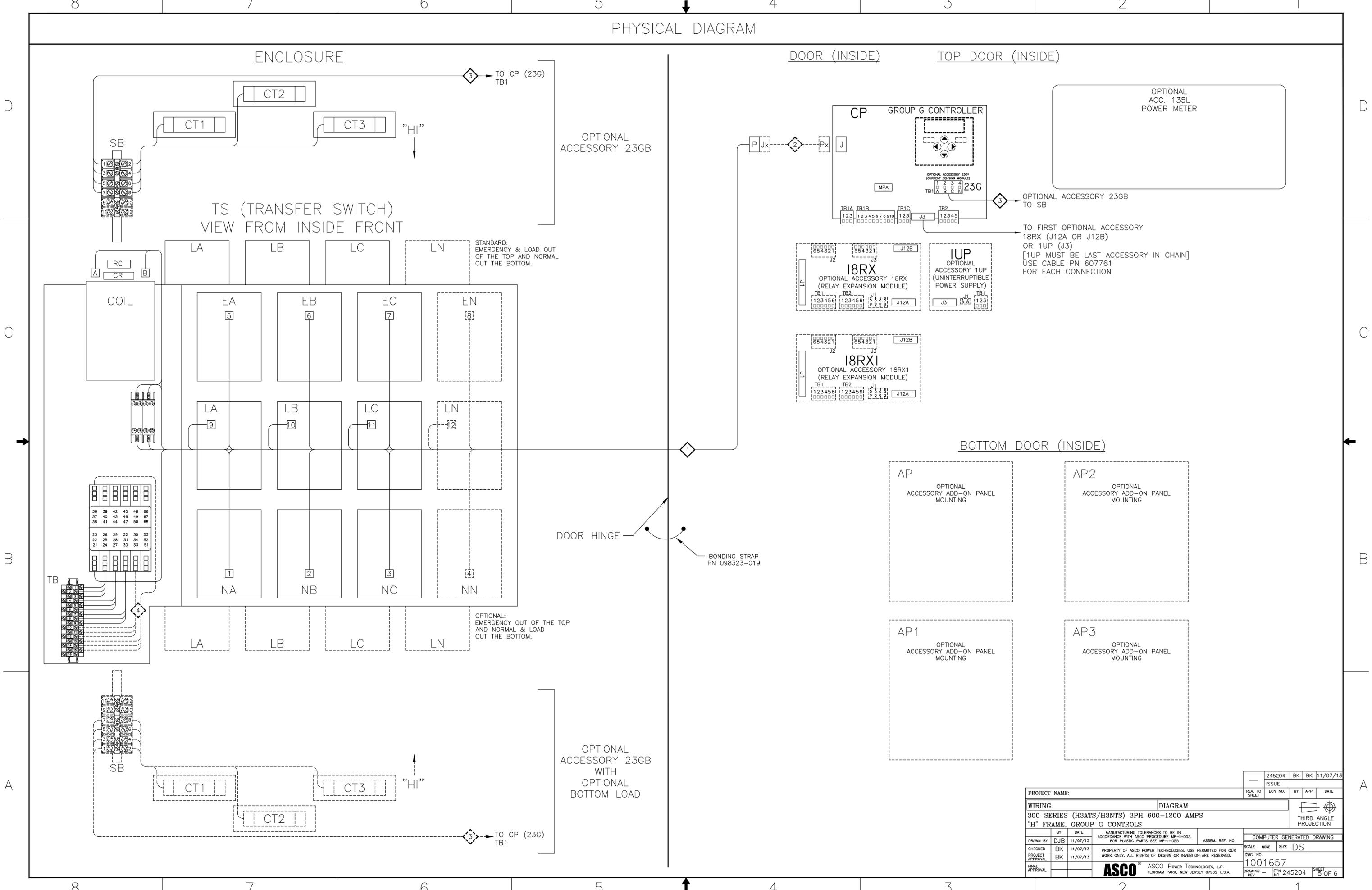


REV. TO SHEET	245204	BK	BK	11/07/13
ISSUE	ECN NO.	BY	APP.	DATE

PROJECT NAME:		DIAGRAM	
300 SERIES (H3ATS/H3NTS) 3PH 600-1200 AMPS			
"H" FRAME, GROUP G CONTROLS			
BY	DATE	MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-055.	ASSEM. REF. NO.
DRAWN BY	DJB	11/07/13	
CHECKED	BK	11/07/13	
PROJECT APPROVAL	BK	11/07/13	
FINAL APPROVAL			
SCALE		SIZE	
NONE		DS	
DWG. NO.		1001657	
DRAWING REV.		ECN NO. 245204	
SHEET		4 OF 6	

ASCO POWER TECHNOLOGIES, L.P.
FLORHAM PARK, NEW JERSEY 07932 U.S.A.

PHYSICAL DIAGRAM



PROJECT NAME:		245204	BK	BK	11/07/13
REV. TO SHEET	ISSUE	ECN NO.	BY	APP.	DATE
WIRING DIAGRAM					
300 SERIES (H3ATS/H3NTS) 3PH 600-1200 AMPS					
"H" FRAME, GROUP G CONTROLS					
DRAWN BY	DATE	MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-005.	ASSEM. REF. NO.	COMPUTER GENERATED DRAWING	
CHECKED	DATE	PROPERTY OF ASCO POWER TECHNOLOGIES, USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED.	SCALE	SIZE	DS
PROJECT APPROVAL	DATE				
FINAL APPROVAL	DATE				
DRAWING NO.		1001657		SHEET 5 OF 6	
REV.		ECN NO. 245204			

ASCO® ASCO Power Technologies, L.P.
FLORHAM PARK, NEW JERSEY 07932 U.S.A.

ASCO SERIES 300 Power Transfer Switches



ASCO®


EMERSON™
Network Power

ASCO[®] SERIES 300 Power Transfer Switches

Maximum Reliability & Excellent Value

With a SERIES 300 Transfer Switch, you get a product backed by ASCO Power Technologies, the industry leader responsible for virtually every major technological advance in the Transfer Switch industry.

The ASCO SERIES 300 was designed for one purpose—to automatically transfer critical loads in the event of a power outage. Each and every standard component was designed by ASCO engineers for this purpose.

The SERIES 300 incorporates the Group G controller with enhanced capabilities for dependable operation in any environment. A user friendly control interface with a 128x64 graphical LCD display and intuitive symbols allow for ease of operation while visual LED indicators verify transfer switch status. Operating parameters and feature settings can be adjusted without opening enclosure door.

The rugged construction and proven performance of the ASCO SERIES 300 assure the user of many years of complete reliability. The SERIES 300 is even designed to handle the extraordinary demands placed on the switch when switching stalled motors and high inrush loads.

ASCO's SERIES 300 modular, compact design makes it easy to install, inspect and maintain. All parts are accessible from the front so switch contacts can be easily inspected.

Features

- The SERIES 300 is listed to UL 1008 standard for total system loads and CSA standard C22.2 for automatic transfer switches.
- Meets NFPA 110 for Emergency and Standby Power Systems and the National Electrical Code (NEC) Articles 700, 701 and 702.
- Controller is RoHS compliant (Restriction of Hazardous Substances).

UL Listed Withstand & Close-On Ratings

Switch Ratings Amps	Available Symmetrical Amperes RMS			
	Current Limiting Fuses		Specific Breaker	
	480V Max.	600V Max.	480V Max.	600V Max.
30	100kA	-	10kA	10kA
70 - 150	200kA	35kA	22kA	10kA
200	200kA	-	22kA	-
230	100kA	-	22kA	-
260, 400	200kA	-	42kA	-
150,200,230,260,400 Series 3ADTS/3NDTS Only	200kA	200kA	50kA	42kA
600	200kA	200kA	50kA	42kA
800,1000,1200	200kA	200kA	65kA	65kA
1600, 2000	200kA	200kA	85kA	85kA
2600, 3000	200kA	200kA	100kA	100kA

- Notes:**
1. Current limiting fuse should be class J type through 400 amps: use Class L type above 400 - amp fuse rating
Current limiting fuse for 3ADTS only 150 - 400 amp should be Class L type
 2. Refer to publication 1128 for specific manufacturer's breakers



Fig. 1: ASCO Power Transfer Switch rated 200 amperes

- 30 through 3000 amps in a compact design.
- Available to 600 VAC, single or three phase.
- True double-throw operation: The single solenoid design is inherently inter-locked and prevents contacts from being in contact with both sources at the same time.
- There's no danger of the SERIES 300 ATS transferring loads to a dead source because the unique ASCO single-solenoid operator derives power to operate from the source to which the load is being transferred.
- Easy to navigate 128x64 graphical LCD display with keypad provides LED indicators for switch position, source availability, not in auto, and alert condition.
- Integrated multilingual user interface for configuration and monitoring.
- Delayed transition operation is now available (Dual Operator Configuration).
- Non-automatic operation can be selected using the key pad without opening enclosure door.
- Relay expansion module with extra relays for accessory outputs (Optional).
- Includes soft keys for test function and time delay bypass as standard features.
- Historical event log (Optional).
- Statistical ATS system monitoring information.
- Diagnostic Functions.
- Password protection to prevent unauthorized tampering of settings.
- Adjustable time-delay feature prevents switch from being activated due to momentary utility power outages and generator dips.
- Supplied with solid neutral termination.
- Optional switched neutral pole available.
- Field modification accessory kits available.
- Available for immediate delivery.

Designed to Fit Anywhere

The ASCO SERIES 300 product line represents the most compact design of automatic power transfer switches in the industry. With space in electrical closets being at a premium, the use of wall or floor-mounted ASCO Power Transfer Switches assures designers optimum utilization of space.

All transfer switches through 2000 amps are designed to be completely front accessible. This permits the enclosures to be installed flush to the wall and still allows installation of all power cabling and connections from the front of the switch. Cable entrance plates are also standard on the 1600 and 2000 amp units to install optional side-mounted pull boxes for additional cable bending space.



Fig. 2: ASCO Power Transfer Switch rated 200 amperes



Fig. 3: ASCO Power Transfer Switch rated 400 amperes



Fig. 4: ASCO Power Transfer Switch rated 600 Amperes



Fig. 5: ASCO Power Transfer Switch rated 1000 amperes



Fig. 6: ASCO Power Transfer Switch rated 2000 amperes shown in Type 3R enclosure



Fig. 7: ASCO Power Transfer Switch rated 3000 amperes



The SERIES 300 incorporates the group “G” controller with enhanced capabilities for dependable operation in any environment.

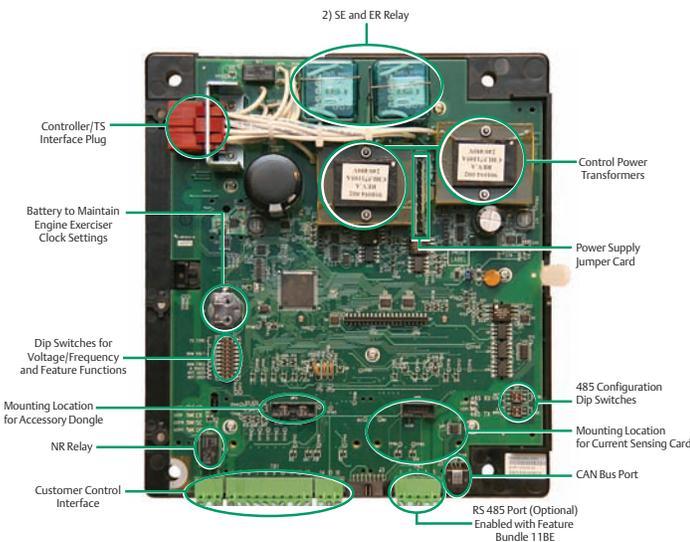


Fig. 8: ASCO SERIES 300 Microprocessor Controller

Control and Display Panel

- Easy to navigate 128x64 graphical LCD display with keypad provides LED indicators for switch position, source availability, not in auto, and alert condition. It also includes test and time delay bypass soft keys.

Voltage & Frequency Sensing

- 3 – Phase under and over voltage settings on normal and single phase sensing on emergency source.
- Under and over frequency settings on normal and emergency.
- True RMS Voltage Sensing with +/-1% accuracy
Frequency Sensing Accuracy is +/- 0.1Hz
- Voltage and Frequency parameters adjustable in 1% increments
- Selecting settings : single or three phase voltage sensing on normal, and single phase sensing on emergency; 50 or 60 Hz
- Load current sensing card (Optional)

Time Delays

- Engine start time delay – delays engine starting signal to override momentary normal source outages – adjustable to 0 to 6 seconds (Feature 1C)
- Transfer to emergency time delay – adjustable 0 to 60 minutes (Feature 2B)
- Emergency source stabilization time delay to ignore momentary transients during initial generator set loading – adjustable 0 to 4 seconds (Feature 1F)
- Re-transfer to normal time delay – adjustable 0 to 10 hours (Feature 3A)
- Unloaded running time delay for engine cooldown – adjustable 0 to 60 minutes (Feature 2E)
- Pre and post signal time delay for selective load disconnect with a programmable bypass on source failures – adjustable 0 to 5 minutes (specify ASCO Optional accessory 31Z)
- Optional fully programmable engine exerciser with seven independent routines to exercise the engine generator, with or without loads, on a daily, weekly, bi weekly or monthly basis (Specify ASCO optional accessory feature bundle 11BE)
- Delayed transition load disconnect time delay – adjustable 0 to 5 minutes.

Standard Selectable Features

- Inphase monitor to transfer motor loads, without any intentional off time, to prevent inrush currents from exceeding normal starting levels.
- Engine exerciser to automatically test backup generator each week—with or without load 20 minutes not adjustable.
- Commit to transfer.
- Selective load disconnect control contacts (two provided) which operate with time delay prior to and/or after load transfer and re-transfer.
- 60Hz or 50Hz selectable switch.
Three – phase/single - phase selectable switch.

Remote Control Features

External Inputs for connecting:

- Remote test switch.
- Remote contact for test or for peak shaving applications. If emergency source fails, switch will automatically transfer back to normal source if acceptable.
- Inhibit transfer to emergency
- Remote time delay bypass switch emergency to normal

ASCO® SERIES 300 Group G Offers Sophisticated Functionality

The new Group G controller offers an intuitive, easy to navigate 128*64 graphical LCD display with soft keypad and provides (6) LED indicators

- Switch Position (green for normal, red for emergency LED)

- Source Availability (green for normal, red for emergency LED)
- “Not In Auto” (amber LED)
- Common Alarm (amber LED)

The ASCO group “G” controller is self contained with an integrated display

(no other components are required for efficient operation).

The controller allows for open or delayed transition transfer operation (both automatic, and non automatic configurations).

Integrated multilingual user interface for configuration and monitoring (this design

approach allows greater application flexibility).

Multiple source sensing capabilities of voltage, frequency (under frequency sensing on normal and emergency sources), and optional current card, single and three phase (Does not require an external metering device).

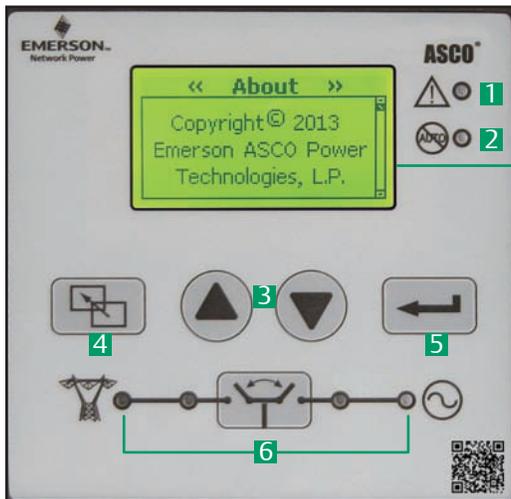


Fig. 9: Door-Mounted Control & Display Panel

- 1 Common Alarm
- 2 Not In Auto Indicator
- 3 Scroll, Up/Down Arrows
- 4 Escape Key
- 5 Enter Key
- 6 LED Source Availability and Switch Position Indicators Transfer / Time Delay Override control push-button

Status

Normal OK
Load on Normal
Press [Test] Test Transfer

Normal OK
Normal → Emergency
Timer: 00Min 02Sec
Press [Bypass] Bypass Timer

Data Logging

« Statistics »
TS Total Transfers: 82
TS Transfer Time: 5.0 Sec

« Event Log »
Event 1 of 248: Engine Stop
05/07/13 10:23:44.0

Gen Status

S/N: BER125200004
S/W: 894063-006
ASCO
Gen Room
Thu 05/23/13 09:07:16

Alarms

Alarm 1 of 1
Loss of E when on E
Press [Ack] To Acknowledge Alarms

Common Alarms

Loss E when on E
E Accept Fail

Communication

« Discrete Inputs »
CNN 1 F5 1 F30 1
CNE 0 F17 1 TST 1
CEN 0 F34 1
CEE 0 F6 1

RS485 Port

Baud Rate: 9600
Device Addr: 1
Protocol: AscoBusII
Emulate Grp1

Source

Normal		Emergency	
V _{ab} 207V	V _{bc} 206V	V _{ab} 207V	V _{bc} 207V
V _{ca} 207V	60.0Hz	V _{ca} 207V	60.0Hz

Normal	Load	Emerg.
V _{ab} 207V	I _a 200A	V _{ab} 207V
V _{bc} 204V	I _b 198A	
V _{ca} 205V	I _c 200A	V _{ca} 207V
60.0Hz		60.0Hz

Settings

Enter Password

Engine Exerciser

Engine Exerciser
Present Time 09:08:16
Program No: 1
Enable
With Load

ASCO® SERIES 300 ATS Optional Accessories

Accessory 1UP

UPS back up power to allow controller to run with LCD display for 30 seconds without AC power

Accessory 11BE Feature Bundle Consists of:

A fully programmable engine exerciser with seven independent routines to exercise the engine generator, with or without loads, on a daily, weekly, bi-weekly or monthly basis. Engine exerciser setting can be displayed and changed from the user interface keypad.

Event Log display shows the event number, time and date of event, event type, and event reason (if applicable). A maximum of 300 events can be stored.

RS 485 Communications Port Enabled
Common Alarm Output Contact

Accessory 18RX

Relay expansion module (REX) provides for some commonly used accessory relays, includes one form C contact for source availability of normal (18G), and one contact for availability of emergency (18B) (contact rating 5 amps @ 30Vdc or @125 Vac resistive). Additional output relay is provided, the default is to indicate a common alarm. (See operator's manual for configurable options).

Accessory 23GA¹ (Single Phase), and 23GB (Three Phase)

Load current metering card, measures either single or three phase load current

Note1: This feature is not available with a Power Meter Option (135L)

Accessory 14AA/14BA

Auxiliary contacts to indicate position of main contacts. Two (2) for normal and two (2) for emergency position (one set is standard).

Accessory 44A

Strip Heater with thermostat for extremely cold areas to prevent condensation and freezing of this condensation. External 120 volt power source required.

Accessory 44G

Strip Heater with thermostat, wired to load terminals: 208-240, 360-380, 460-480, 550-600 volts. Contains wiring harnesses for all transfer switch sizes.

Field Conversion Kits for SERIES 300 Transfer Switches

Kit No.	Description
935147	Feature Bundle Includes Engine Exerciser/Event Log/RS 485/ Common Alarm Output Contact (Acc. 11BE) Dongle
935148	REX Module with Source Availability Contacts (Acc. 18RX)
935149	UPS to allow controller to run for 3 minutes minimum without AC Power (Acc. 1UP)
935150	1/3 Phase load current sensing card only (Acc. 23GA/GB)
K613127-001	Strip Heater (125 watt) 120 volt (Acc.44A)
K613127-002	Strip Heater (125 watt) 208 - 480 volt (Acc.44G)
948551	Quad - Ethernet Module (Acc. 72EE)
K609027	Cable Pull Box (1600 - 2000 amp)

Accessory 72EE

Connectivity Module, enabling remote monitoring and control capabilities (Pages 12-14)

Accessory 31Z

Selective load disconnect circuit to provide a pre-transfer and/or post transfer signal when transferring from emergency to normal and/or normal to emergency.

Accessory 73

Surge Suppressor (TVSS) Rated 65kA

Accessory 62W

Audible alarm with silencing feature to signal each time switch transfers to emergency (City of Chicago requirement)

Accessory 37B

6' Extension harness for units shipped open type to accommodate customer mounting of controls and switch

Accessory 37C

9' Extension harness for units shipped open type to accommodate customer mounting of controls and switch

Accessory 135L²

Power Meter on load side (Includes shorting block and CT's)

Note2: This feature is not available with Load Current Metering Option (23GA, or 23GB)

Accessory 30AA³

Load-shedding circuit initiated by opening of a customer-supplied contact

Accessory 30BA³

Load-shedding circuit initiated by removal of customer-supplied voltage (* Specify voltage)

Note3: Accessory 30AA, and 30BA are only available for 3ADTS/3NDTS (Delayed Transition Transfer Switch)



Fig. 10: Strip Heater Kit (Accessory 44G)

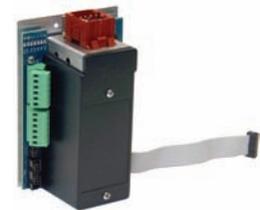


Fig. 11: Relay Expansion Module (Accessory 18RX)



Fig. 12: Load Current Card (Accessory 23GA/GB)

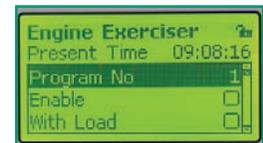


Fig. 13: Programmable Engine Exerciser



Fig. 14: Accessory 1UP UPS Backup Power



SERIES 300 Transfer Switch Ordering Information

To order an ASCO SERIES 300 Power Transfer Switch, complete the following catalog number:

3		A		TS		A		3		600		N		GX		C					
		Product		Neutral Code		Phase Poles		Amperes		Voltage Code		Controller Code		Enclosure							
A	Automatic	TS	Conventional 2 Position	A	Solid Neutral	2 Poles 1φ		Continuous rating	A ³ 115 B ³ 120 C 208 D 220 E 230 F 240 H 380 J 400 K 415 L 440 M 460 N 480 Q 575 R 600	G GX Optional Accessories	0 _(zero) Open Type	C Type 1 (Standard)	F Type 3R Non-Secure ²	G Type 4 ² Non-Secure	H Type 4X ² Non-Secure	L Type 12 ² Non-Secure	M Type 3R Secure	N Type 4 Secure	P Type 4X Secure Double Door 304 SS	Q Type 12 Secure Double Door	R Type 3RX ^{7,8} Secure Double Door 304 SS
	N		Non-Automatic	DTS	Delayed Transition	B ¹	Switched Neutral														

- Notes:**
- Specify neutral code "C" for 260 and 400 amperes only for 3ATS/3NTS
 - Available 30-600 ampere size switches available in non - secure type enclosures
 - 115-120 volt available 30-400 amps only. For other voltages contact ASCO.
 - 200 and 230 amp rated switches for use with copper cable only.
 - Switch sizes 800 - 3000 ampere, and 150 - 400 ampere 3ADTS/3NDTS provided in secure type outdoor enclosures when required.
 - Use 3R for 1200, 2000, 2600, and 3000
 - Type 304 stainless steel is standard. Suitable for indoor or outdoor use where there may be caustic or alkali chemicals in use.

- To provide an improved reduction in corrosion of salt and some chemicals, optional type 316 stainless steel is recommended. This is the preferred choice for marine environments.
- Available on switches rated 1200, 2000, 2600, and 3000 amps.
- When temperatures below 32°F can be experienced, special precautions should be taken, such as the inclusion of strip heaters, to prevent condensation and freezing of this condensation. This is particularly important when environmental (Type 3R,4) are ordered for installation outdoors.
- Extra shelter protection should be considered for wind blown rain and snow, since ventilated type 3R enclosures due not protect against these conditions.

SERIES 300 External Power Connections

Sizes UL-Listed Solderless Screw-Type Terminals

Switch Rating (Amps)	Ranges of AL-CU Wire Sizes (Unless Specified Copper Only)
30 - 230 ²	One #14 to 4/0 AWG
260, 400	Two 1/0 AWG to 250 MCM or One #4 AWG to 600 MCM
600	Two 2/0 AWG to 600 MCM
800, 1000, 1200	Four 1/0 to 600 MCM
1600, 2000	Six 1/0 to 600 MCM
2600, 3000	Twelve 3/0 to 600 MCM

Notes:

- All SERIES 300 switches are furnished with a solid neutral plate (unless switched neutral configuration is specified) and terminal lugs.
- 200 and 230 amp rated switches for use with copper cable only. Refer to paragraph 310.15 of the NEC for additional information.
- Use wire rated 75°C minimum for all power connections.

Extended Warranties for SERIES 300 Transfer Switches (3ATS/3NTS/3ADTS)

Catalog No.	Description
3EXW300	Three-Year Extended Warranty (Parts & Labor)
4EXW300	Four-Year Extended Warranty (Parts & Labor)
5EXW300	Five-Year Extended Warranty (Parts & Labor)

Notes:

- Standard Warranty is (24) months, 2 years from date of shipment. Extended warranty is in addition to the two years, for total of 3,4, or 5 years.



SERIES 300 Transfer Switch Dimensions and Shipping Weights

UL Type 1 Enclosure^{1,2,3,4,5}

Switch Rating Amps	Phase Poles	Neutral Code	Dimensions, In. (mm)			Approx. Shipping Weight Lb. (kg)
			Width	Height	Depth	
30 ⁴ , 70 ⁴ , 100 ^{4*} , 104 ⁴ 150 ⁴ , 200 ⁴ *SERIES 3NTS only	2	A	18(457)	31(787)	13(330)	69(32)
	2	B	18(457)	31(787)	13(330)	72(33)
	3	A	18(457)	31(787)	13(330)	72(33)
	3	B	18(457)	31(787)	13(330)	75(34)
230 ³ , 260, 400	2	A	18(457)	48(1219)	13(330)	117(53)
	2	B ³ or C	18(457)	48(1219)	13(330)	125(57)
	3	A	18(457)	48(1219)	13(330)	125(57)
	3	B ³ or C	18(457)	48(1219)	13(330)	133(61)
150, 200, 230, 260, 400 SERIES 3ADTS/3NTS only	2	A	24(610)	56(1422)	14(356)	196(89)
	2	B	24(610)	56(1422)	14(356)	202(92)
	3	A	24(610)	56(1422)	14(356)	202(92)
	3	B	24(610)	56(1422)	14(356)	208(94)
600	2	A	24(610)	63(1600)	17(432)	316(143)
	2	B	24(610)	63(1600)	17(432)	324(147)
	3	A	24(610)	63(1600)	17(432)	324(147)
	3	B	24(610)	63(1600)	17(432)	332(150)
800, 1000	2	A	34(864)	72(1829)	20(508)	431(196)
	2	B	34(864)	72(1829)	20(508)	460(209)
	3	A	34(864)	72(1829)	20(508)	460(209)
	3	B	34(864)	72(1829)	20(508)	489(222)
1200	2	A	38(965)	87(2210)	23(584)	581(264)
	2	B	38(965)	87(2210)	23(584)	611(277)
	3	A	38(965)	87(2210)	23(584)	611(277)
	3	B	38(965)	87(2210)	23(584)	639(290)
1600, 2000 ¹	3	A	38(965)	87(2210)	23(584)	1160(525)
	3	B	38(965)	87(2210)	23(584)	1160(525)
2600, 3000 ²	3	A	38(965)	91(2311)	60(1524)	1430(649)
	3	B	38(965)	91(2311)	60(1524)	1495(679)

Notes:

- Unit is designed for top cable entry of emergency & load and bottom entry of normal. A cable pull box is also available for all top or bottom cable access when required (optional accessory kit #K609027). Not required for type 3R, 4X & 12 enclosures where available.
- Enclosures for 2600, 3000 amps are free-standing with removable top, sides & back.
- Neutral Code "B" for 230 amperes only.
- Dimensions for 30-200 amperes when furnished with a power meter, 18"W - 41"H - 13"D
- Dimensional data is approximate and subject to change. Certified dimensions available upon request.

UL Type 3R, 4 or 12 Enclosure^{1,2,3,4,5}

Switch Rating Amps	Phase Poles	Neutral Code	Dimensions, In. (mm)			Approx. Shipping Weight Lb. (kg)
			Width	Height	Depth	
30 ³ , 70 ³ , 100 ^{3*} , 104 ³ 150 ³ , 200 ³ *SERIES 3NTS only (Non Secure Enclosure)	2	A	17 1/2 (445)	35 (886)	11 5/8 (295)	84 (38)
	2	B	17 1/2 (445)	35 (886)	11 5/8 (295)	87 (40)
	3	A	17 1/2 (445)	35 (886)	11 5/8 (295)	87 (40)
	3	B	17 1/2 (445)	35 (886)	11 5/8 (295)	90 (41)
230 ² , 260, 400 (Non Secure Enclosure)	2	A	18 (458)	50 1/2 (1284)	14 1/3 (364)	132 (60)
	2	B ³ or C	18 (458)	50 1/2 (1284)	14 1/3 (364)	140 (63)
	3	A	18 (458)	50 1/2 (1284)	14 1/3 (364)	140 (63)
	3	B ³ or C	18 (458)	50 1/2 (1284)	14 1/3 (364)	148 (67)
150, 200, 230, 260, 400 *SERIES 3ADTS/3NDTS only (Non Secure Enclosure)	2	A	24 (607)	63 (1593)	18 1/5 (468)	234 (106)
	2	B	24 (607)	63 (1593)	18 1/5 (468)	241 (109)
	3	A	24 (607)	63 (1593)	18 1/5 (468)	241 (109)
	3	B	24 (607)	63 (1593)	18 1/5 (468)	246 (112)
600 (Non Secure Enclosure)	2	A	24 (607)	63 (1593)	18 1/5 (468)	320 (145)
	2	B	24 (607)	63 (1593)	18 1/5 (468)	328 (148)
	3	A	24 (607)	63 (1593)	18 1/5 (468)	328 (148)
	3	B	24 (607)	63 (1593)	18 1/5 (468)	336 (152)
800, 1000 (Non Secure Enclosure)	2	A	34 (859)	72 (1821)	20 (506)	519 (236)
	2	B	34 (859)	72 (1821)	20 (506)	543 (246)
	3	A	34 (859)	72 (1821)	20 (506)	543 (246)
	3	B	34 (859)	72 (1821)	20 (506)	565 (257)
1200 ⁶ (Non Secure Enclosure)	2	A	41 (1037)	95 1/2 (2415)	33 1/2 (848)	1131 (513)
	2	B	41 (1037)	95 1/2 (2415)	33 1/2 (848)	1160 (526)
	3	A	41 (1037)	95 1/2 (2415)	33 1/2 (848)	1160 (526)
	3	B	41 (1037)	95 1/2 (2415)	33 1/2 (848)	1189 (539)
1600, 2000 ² (Non Secure Enclosure)	3	A	41 (1037)	95 1/2 (2415)	62 (1569)	1705 (775)
	3	B	41 (1037)	95 1/2 (2415)	62 (1569)	1830 (832)
2600, 3000 (Non Secure Enclosure)	3	A	41 (1037)	96 (2429)	74 (1872)	2150 (976)
	3	B	41 (1037)	96 (2429)	74 (1872)	2230 (1012)

Notes:

- When climate conditions at installation site present condensation risk, special precautions should be taken, such as the inclusion of space heaters, to prevent interior condensation and freezing of this condensation.
- Neutral code "B" for 230 amperes only.
- Dimensions for 30 - 200 ampere when furnished with a power meter 18"W - 48"H - 13"D
- 30-1000 ampere switches are available in secure type enclosures, contact ASCO for details
- Dimensional data is approximate and subject to change. Certified dimensions available upon request.