

# Type EA1

## Morpac Type EA1 Aluminum Vertical Break Switch Voltage ratings to 242 kV 1200 to 2000 Amps

The EA1 incorporates the best of the combined experience of Morpac Industries, Inc. and Memco Manufacturing, Inc. (acquired by Morpac in 1998). The EA1 has been tested to the latest ANSI standards and easily met and exceeded those requirements.

**Applications:** Ratings and dimensions are compatible with the type EA. EA1 live parts can replace EA live parts to upgrade older, existing switches. In fact EA1 live parts can be used to replace live parts on switches of other manufacture. Contact us for details.



*15 kV Type EA1, 2000A, 30° C rise Version*

The EA1 utilizes extrusions and all CNC (computer numerical control) precision machined parts. The result is a high quality, yet economical switch.

The maintenance free rotating insulator bearings are ball type with bronze spindles and stainless steel races.

Standards now allow higher temperature rises than 30 degrees. Because of the efficient design of the EA1 we can offer a 30 degree version as an option. See below for further details.

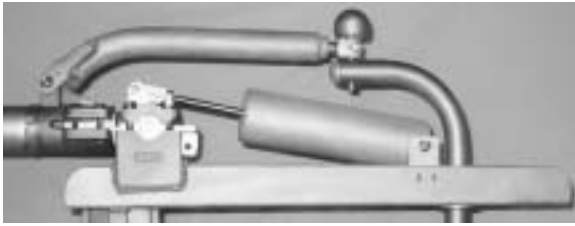


*Hinge Mechanism, 1200 and 2000 Amp, 138 kV and below. Both 1200 and 2000 Amp use the same hinge mechanism.*

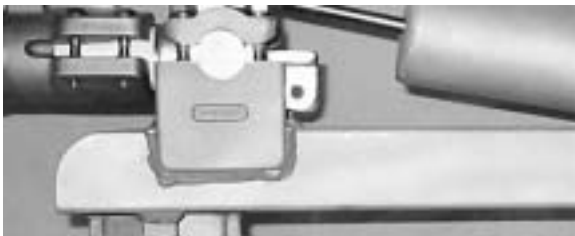
The hinge mechanism for the 1200 and 2000 amp switches is identical. The standard hinge mechanism current carrying parts are rated for 30 degree rise.

To make the EA1 a complete 30 degree rise switch an additional pair of jaw contacts and heavier wall blade are used.

# Type EA1



***Hinge mechanism for 161 to 230 kV EA1  
Note addition of corona ball to hinge.***



***Hinge extrusion is made of high conductivity 6063 T6 aluminum alloy for cooler and longer life operation.***



***Hinge crank***



***Jaw contact***

Current transfer on all EA1 hinge mechanisms is through heavy silver plated, threaded copper studs. The threaded studs also allow the rotational hinge movement for open and closing.

The threaded studs are sealed and lubricated for life. No maintenance is required.

In designing the EA1 Morpac reviewed every component to determine whether extrusions and fabricated parts would provide real improvements over the traditional use of castings. The final conclusion was that a combination of all three offered the best solution.

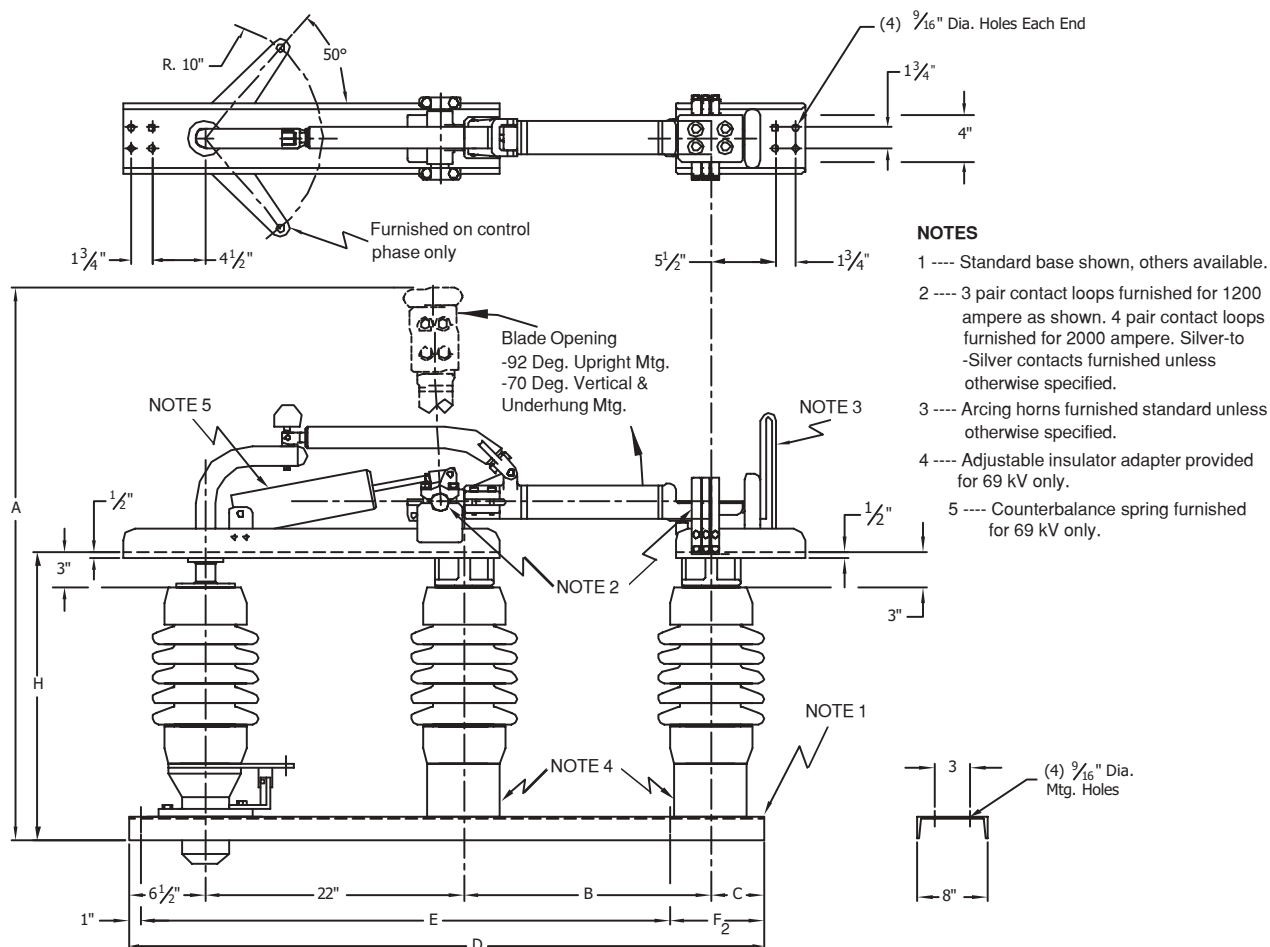
The result is a high quality switch that is actually less expensive to manufacture than one that relies primarily on castings.

The stainless steel hinge crank or "gooseneck" is precision formed and has a universal foot for either a 3 or 5 inch (75 or 125mm) bolt circle insulator.

Jaw contacts are traditional and time proven reverse loop design with stainless steel backup springs, isolated from the current path.

The jaw extrusion is also of 6063 T6 aluminum alloy.





Voltage Rating kV		CATALOG NUMBER (1) (2) (3)	Insul. Tech. Ref. No.	Approximate Dimensions (Refer to Factory for Certified Prints)						
Max.	BIL			A	B	C	D	E	F	H
8.2	95	7EA1-12HP5	222	48 3/8"	18"	4 1/2"	51"	40"	10"	19 3/4"
15.5	110	15EA1-12HP5	225	50 3/8"	18"	4 1/2"	51"	40"	10"	21 3/4"
25.8	150	23EA1-12HP5	227	56 3/8"	21"	4 1/2"	54"	43"	10"	24 3/4"
38	200	34EA1-12HP5	231	67 3/8"	27"	4 1/2"	60"	49"	10"	29 3/4"
48.3	250	46EA1-12HP5	267	77 3/8"	33"	4 1/2"	66"	55"	10"	33 3/4"
72.5	350	69EA1-12HP5	278	95 3/8"	45"	6"	79 1/2"	77"	1 1/2"	39 3/4"

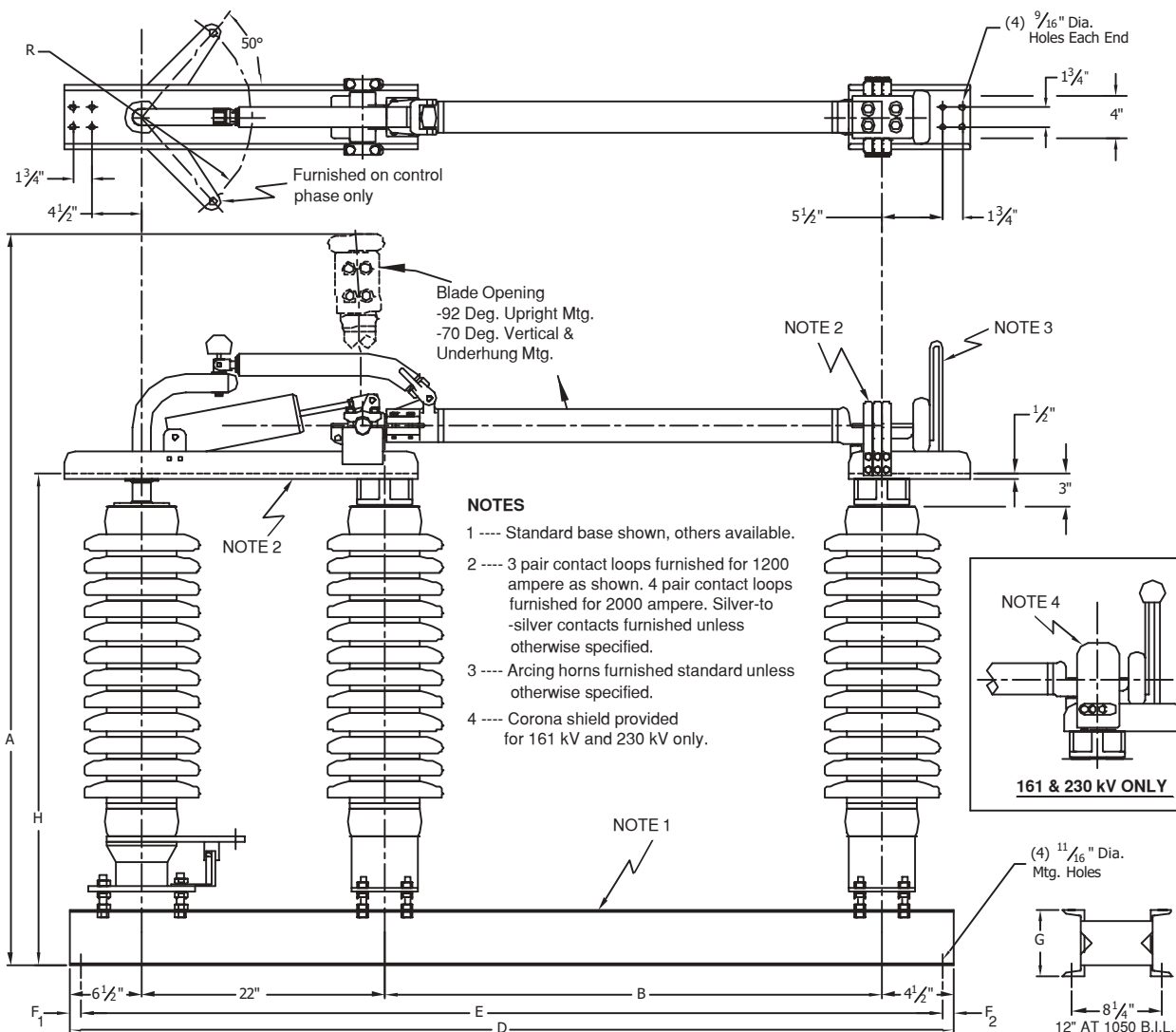
(1) Catalog numbers shown are with station post insulators.

(2) When 30° temperature rise unit is required, omit the H in the catalog number (eg.: 7EA1-12P5).

(3) Catalog numbers shown are for 1200 amps. For 2000 amps, change 12 to 20 in the catalog number as required (eg.: 8.2 kV-2000 A: Cat. No. 7EA1-20HP5).

Ampere Rating	Momentary Rating
1200A	61 KA
2000A	100 KA

**Type EA1     8.2 kV - 72.5 kV 1200 and 2000 Ampere  
with optional extra strength insulators**



Voltage Rating kV		CATALOG NUMBER	Insul. Tech. Ref. No.	Approximate Dimensions (Refer to Factory for Certified Prints)								
Max.	BIL			A	B	D	E	F <sub>1</sub>	F <sub>2</sub>	G	H	R
72.5	350	69EA1-12HP5	278	100 1/4"	45"	78"	69"	4 1/2"	4 1/2"	5"	44 5/8"	10"
121	550	115EA1-12HP5	286	130 1/4"	60"	93"	87"	3"	3"	5"	59 5/8"	10"
145	650	138EA1-12HP5	288	151 1/4"	72"	105"	99"	3"	3"	5"	68 5/8"	10"
169	750	161EA1-12HP5	291	172 1/4"	84"	117"	111"	3"	3"	6"	77 5/8"	12"
242	900	230EA1-12HP5	REFER TO FACTORY	202 1/4"	96"	129"	123"	3"	3"	6"	95 5/8"	12"
242	1050	230EA1-12HP5S	312	232 1/4"	114"	147"	123"	3"	21"	6"	107 5/8"	12"

- (1) Catalog numbers shown are with station post insulators.  
 (2) When 30° temperature rise unit is required, omit the H in the catalog number (eg.: 69EA1-12P5).  
 (3) Catalog numbers shown are for 1200 amps. For 2000 amps, change 12 to 20 in the catalog number as required (eg.: 72.5 kV-2000 A: Cat. No. 69EA1-20HP5).

Ampere Rating	Momentary Rating
1200A	61 KA
2000A	100 KA

**Type EA1 72.5 kV - 242 kV 1200 and 2000 Ampere**