



**alimar**<sup>®</sup>

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**AA SERIES ALTERNATOR GROUPS**  
AA SERİSİ ALTERNATÖR GRUPLARI

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## ALİMAR ALTERNATOR

Alimar alternators are specially designed for stand-by and prime applications, long strength and high efficiency industrial alternators. We are manufacturing the industry's top-line alternators with years of the experience

## ALİMAR ALTERNATÖR

Alimar alternatörler Stand-by ve Prime uygulamalarda ihtiyaca özel dizayn edilmiş uzun ömürlü ve yüksek verimli endüstriyel alternatörlerdir. Yılların verdiği deneyim ile sektörün öncü alternatörlerini üretmekteyiz.



## INTERNATIONAL STANDARDS

Alimar alternator produced according to IEC EN 60034 standard. Complies with standards like B55000, VDE0530, NEMA MG1-32, IEC34, CSA C22.2-100, AS1359

## ULUSLARARASI STANDARTLAR

Alimar alternatör IEC EN 60034 standartlarına uygun olarak üretilmiş olup, B55000, VDE0530, NEMA MG1-32, IEC34, CSA C22.2-100, AS1359 gibi uluslararası standartları karşılamaktadır.



## ELECTRICAL DESIGN

- Self excited, brushless
- "H" class insulation
- Low voltage winding
- Optimized performance
- Suitable for 50hz and 60 hz use
- Switchable voltage values
- Electronic AVR
- Interchangeable windings between star or delta connection
- High short circuit current resistance
- Power factor 0,8
- No de-rating up to 1000m and 40°C

## ELEKTRİKSEL DİZAYN

- Kendinden ikazlı, fırçasız
- "H" sınıfı izolasyon
- Düşük Gerilim Sargısı
- Optimize Performans
- 50 Hz ve 60 Hz kullanıma uygun
- Değiştirilebilir voltaj değerleri
- Elektronik AVR
- Yıldız veya üçgen bağlantı arasında değiştirilebilir sargılar
- Yüksek kısa devre akımı dayanımı
- Güç Faktörü 0,8
- 1000m ve 40°C ye kadar güç düşümsüz



## MECHANICAL DESIGN

- Compact desing resistance to vibration of the engine
- Steel frame
- Single bearing design
- Clockwise cycle
- Easy to access AVR and Terminal Box

## MEKANİK DİZAYN

- Motorun titreşimlerine dayanıklı kompakt tasarım
- Çelik kasa
- Tek yataklı tasarım
- Saat yönünde çevrim
- Ulaşımı kolay AVR ve Terminal kutusu



## AA Series / Serisi

THREE PHASE, BRUSHLESS, SYNCHRONOUS ALTERNATOR  
ÜÇ FAZLI, FIRÇASIZ, SENKRON ALTERNATÖR



### AA 454

TECHNICAL DATA SHEET / TEKNİK ÖZELLİKLER

#### 50 Hz, CLASS / SINIF "H"

RATINGS / DEĞERLER		POWER FACTOR / GÜÇ FAKTÖRÜ 0.8											
DUTY / ÇALIŞMA TİPİ		CONTINUOUS / SÜREKLİ						STANDBY					
AMBIENT TEMP. / ORTAM SICAKLIĞI		40°C						27°C					
TEMP RISE / SICAKLIK ARTIŞI		H (125°C)						H (163°C)					
PHASE / FAZ		3 PHASE / FAZ						3 PHASE / FAZ					
SERIES STAR YILDIZ BAĞLANTI	Y	380	400	415	380	400	415	380	400	415	380	400	415
PARALLEL STAR PARALEL YILDIZ BAĞLANTI	YY	190	200	208	190	200	208	190	200	208	190	200	208
SERIES DELTA ÜÇGEN BAĞLANTI	Δ	220	230	240	220	230	240	220	230	240	220	230	240
MODEL		kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW
AA454S		1125	900	1125	900	1125	900	1250	1000	1250	1000	1250	1000
AA454A		1300	1040	1300	1040	1300	1040	1430	1144	1430	1144	1430	1144
AA454B		1360	1088	1400	1120	1400	1120	1550	1240	1550	1240	1550	1240
AA454C		1505	1204	1550	1240	1550	1240	1700	1360	1700	1360	1700	1360
AA454D		1615	1292	1650	1320	1650	1320	1815	1452	1815	1452	1815	1452
AA454E		1845	1476	1900	1520	1900	1520	2100	1680	2100	1680	2100	1680
AA454F		2020	1616	2080	1664	2080	1664	2290	1832	2290	1832	2290	1832
AA454G		2135	1708	2200	1760	2200	1760	2400	1920	2400	1920	2400	1920

#### 60 Hz, CLASS / SINIF "H"

RATINGS / DEĞERLER		POWER FACTOR / GÜÇ FAKTÖRÜ 0.8											
DUTY / ÇALIŞMA TİPİ		CONTINUOUS / SÜREKLİ						STANDBY					
AMBIENT TEMP. / ORTAM SICAKLIĞI		40°C						27°C					
TEMP RISE / SICAKLIK ARTIŞI		H (125°C)						H (163°C)					
PHASE / FAZ		3 PHASE / FAZ						3 PHASE / FAZ					
SERIES STAR YILDIZ BAĞLANTI	Y	416	440	460	416	440	460	416	440	460	416	440	460
PARALLEL STAR PARALEL YILDIZ BAĞLANTI	YY	208	220	230	208	220	230	208	220	230	208	220	230
SERIES DELTA ÜÇGEN BAĞLANTI	Δ	240	254	266	240	254	266	240	254	266	240	254	266
MODEL		kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW	kVA	kW
AA454S		1340	1072	1340	1072	1340	1072	1475	1180	1475	1180	1475	1180
AA454A		1500	1200	1500	1200	1510	1208	1650	1320	1650	1320	1650	1320
AA454B		1570	1256	1625	1300	1655	1324	1730	1384	1800	1440	1800	1440
AA454C		1705	1364	1815	1452	1855	1484	1890	1512	1890	1512	1890	1512
AA454D		1815	1452	1935	1548	1975	1580	2050	1640	2050	1640	2050	1640
AA454E		2070	1656	2210	1768	2255	1804	2400	1920	2400	1920	2400	1920
AA454F		2340	1872	2500	2000	2550	2040	2750	2200	2750	2200	2750	2200
AA454G		2420	1936	2535	2028	2625	2100	2800	2240	2800	2240	2800	2240

## > Enerjide Çözüm Ortağınız

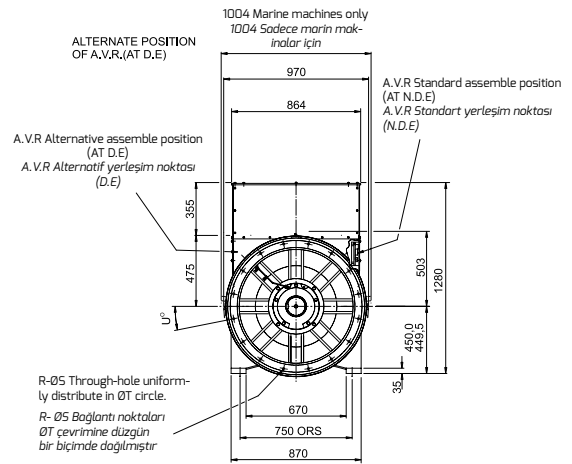
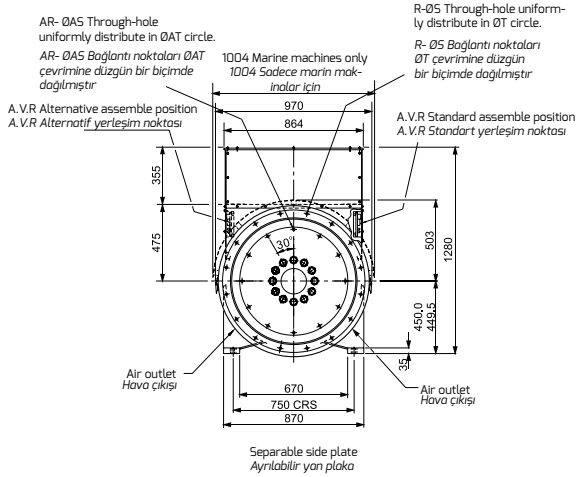
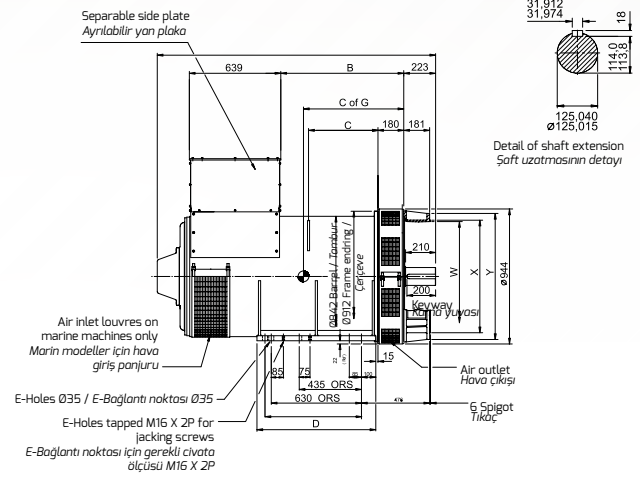
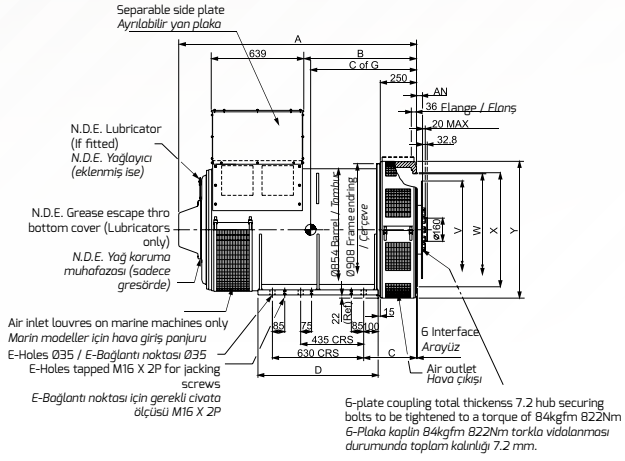
> Your Solution Partner in Energy

# AA 454

## OVERALL DIMENSIONS / ÖLÇÜLER

### SINGLE BEARING / TEK YATAKLI

### DOUBLE BEARING / ÇİFT YATAKLI



DIMENSIONS / BOYUTLAR (mm)							Net Weight Net Ağırlık (kg)
Model	C of G	A	B	C	D	E	
AA454S	710	1643	778.5	365	830	6	2380
AA454A	710	1643	778.5	365	830	6	2560
AA454B	710	1643	778.5	365	830	6	2760
AA454C	750	1643	778.5	365	830	6	3018
AA454D	710	1793	928.5	365	830	6	3318
AA454E	710	1793	928.5	365	830	6	3556
AA454F	825	1878	1013.5	365	1000	8	3840
AA454G	850	1940	1013.5	365	1000	8	4054

DIMENSIONS / BOYUTLAR (mm)							Net Weight Net Ağırlık (kg)
Model	C of G	A	B	C	D	E	
AA454S	625	1795	708.5	433	830	6	2560
AA454A	640	1795	708.5	433	830	6	2710
AA454B	640	1795	708.5	433	830	6	2800
AA454C	680	1795	708.5	433	830	6	2967
AA454D	710	1945	858.5	485	830	6	3267
AA454E	730	1945	858.5	485	830	6	3506
AA454F	735	2069	943.5	593	1000	8	3807
AA454G	780	2132	943.5	593	1000	8	4022

FLANGE / FLANŞ (mm)						
S.A.E.NO.	R	S	T	W	X	Y
00	16	14	851.0	772	787.3	944
0	16	14	679.5	632	647.6	944

FLANGE / FLANŞ (mm)						
S.A.E.NO.	R	S	T	W	X	Y
00	16	14	851.0	768	787.3	882
0	12	14	679.1	620	647.6	711

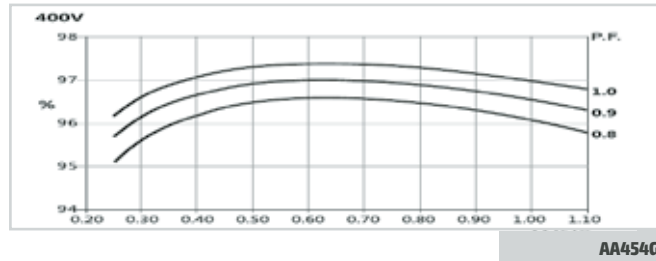
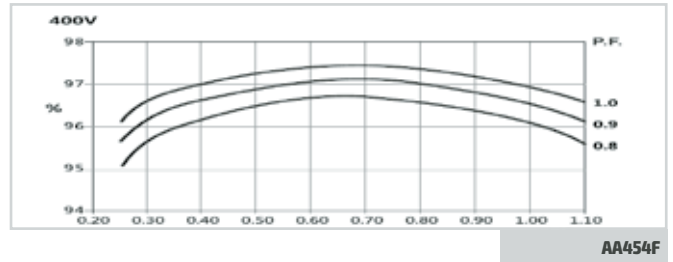
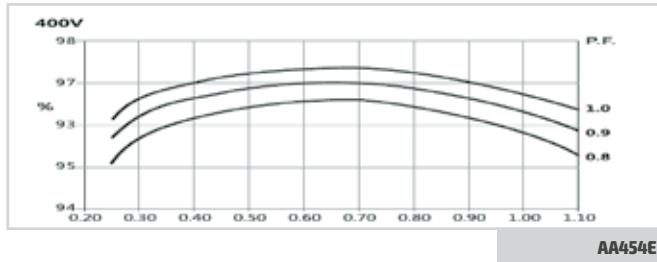
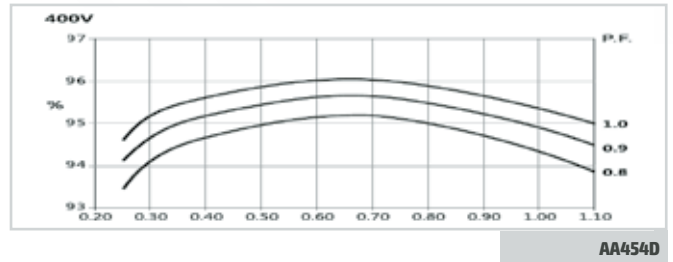
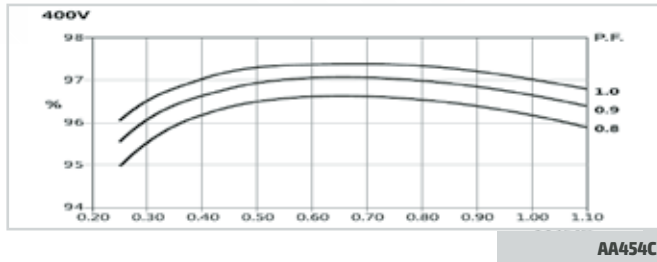
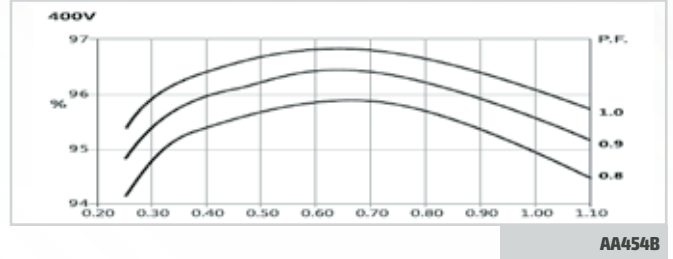
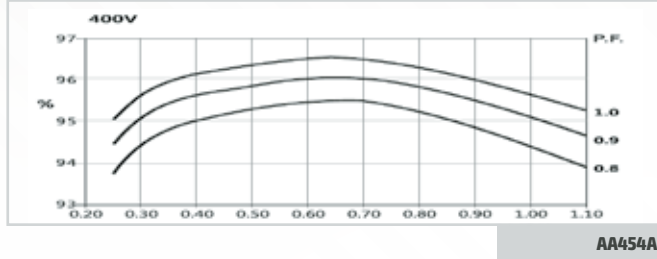
DISC COUPLING / DİSK KAPLIN (mm)					
S.A.E.NO.	AN	AR	AS	AT	V
18	15.87	6	16.7	543.0	571.4
21	0	16	16.7	641.3	673.0
24	0	16	20.7	692.0	733.3

SINGLE BEARING SAE NO SELECTOR / TEK YATAK SAE NO SEÇİMİ			
	SAE18	SAE21	SAE24
SAE 0	.	.	.
SAE 00	.	.	.

## AA 454

### EFFICIENCY CURVES / VERİM GRAFİKLERİ

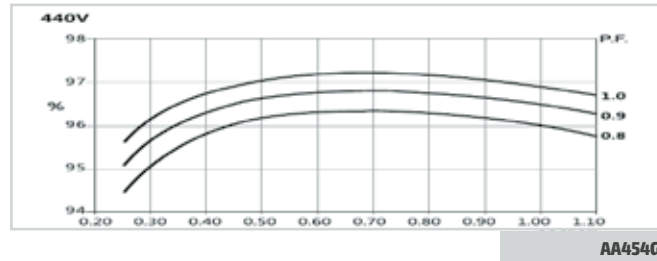
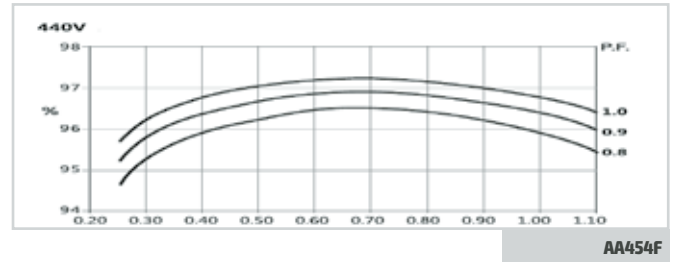
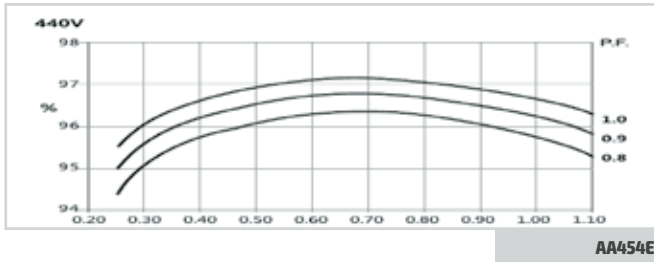
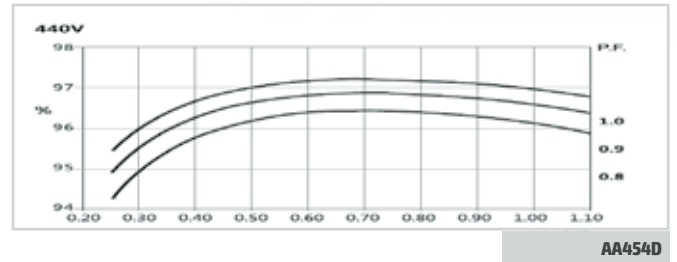
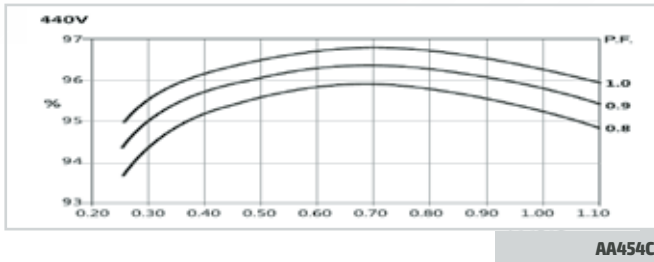
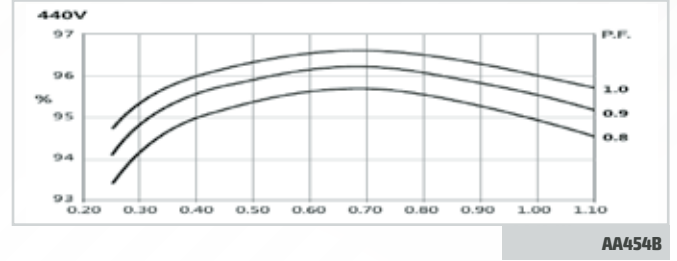
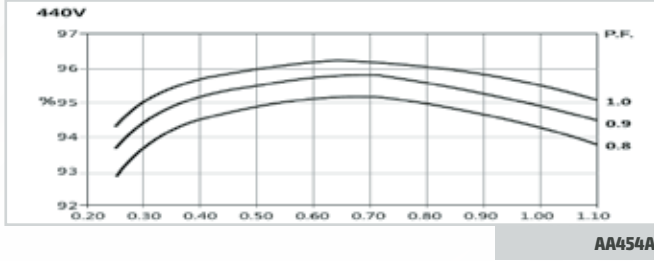
50 Hz



#### VOLTAGE SERIES STAR 400/230 50Hz

MODEL	AA454A	AA454B	AA454C	AA454D	AA454E	AA454F	AA454G
X <sub>d</sub> DIR. AXIS SYNCHRONOUS	3.26	3.26	2.96	2.88	2.96	2.73	3.45
X' <sub>d</sub> DIR. AXIS TRANSIENT	0.20	0.20	0.18	0.18	0.18	0.17	0.19
X'' <sub>d</sub> DIR. AXIS SUBTRANSIENT	0.15	0.15	0.13	0.13	0.13	0.12	0.14
X <sub>q</sub> QUAD. AXIS REACTANCE	2.10	2.10	1.91	1.85	1.90	1.75	2.22
X'' <sub>q</sub> QUAD. AXIS SUBTRANSIENT	0.29	0.29	0.27	0.26	0.27	0.25	0.26
X <sub>L</sub> LEAKAGE REACTANCE	0.04	0.04	0.03	0.03	0.03	0.03	0.03
X <sub>2</sub> NEGATIVE SEQUENCE	0.21	0.21	0.19	0.18	0.19	0.17	0.19
X <sub>0</sub> ZERO SEQUENCE	0.03	0.03	0.02	0.02	0.02	0.02	0.14
T' <sub>d</sub> TRANSIENT TIME CONST. (s)	0.13 s	0.13	0.135 s	0.137 s	0.149 s	0.154	0.16 s
T'' <sub>d</sub> SUB-TRANSTIME CONST. (s)	0.01 s	0.01	0.01 s	0.01 s	0.02 s	0.02	0.01 s
T'' <sub>do</sub> O.C. FIELD TIME CONST. (s)	2.14 s	2.14	2.23 s	2.25 s	2.46 s	2.54	2.89 s
T <sub>a</sub> ARMATURE TIME CONST. (s)	0.02 s	0.02	0.02 s	0.02 s	0.02 s	0.02	0.02 s
SHORT CIRCUIT RATIO	1/X <sub>d</sub>	1/X <sub>d</sub>	1/X <sub>d</sub>	1/X <sub>d</sub>	1/X <sub>d</sub>	1/X <sub>d</sub>	1/X <sub>d</sub>

60 Hz



VOLTAGE SERIES STAR 440/254 60

MODEL	AA454A	AA454B	AA454C	AA454D	AA454E	AA454F	AA454G
X <sub>d</sub> DIR. AXIS SYNCHRONOUS	4.14	4.04	3.67	3.57	3.67	3.38	4.10
X' <sub>d</sub> DIR. AXIS TRANSIENT	0.25	0.25	0.22	0.22	0.22	0.20	0.23
X'' <sub>d</sub> DIR. AXIS SUBTRANSIENT	0.19	0.18	0.16	0.16	0.16	0.15	0.16
X <sub>q</sub> QUAD. AXIS REACTANCE	2.67	2.61	2.37	2.30	2.36	2.18	2.64
X' <sub>q</sub> QUAD. AXIS SUBTRANSIENT	0.37	0.37	0.33	0.32	0.33	0.31	0.31
X <sub>L</sub> LEAKAGE REACTANCE	0.05	0.05	0.04	0.04	0.04	0.04	0.04
X <sub>2</sub> NEGATIVE SEQUENCE	0.26	0.26	0.23	0.23	0.23	0.22	0.22
X <sub>0</sub> ZERO SEQUENCE	0.03	0.03	0.03	0.03	0.03	0.03	0.04
T' <sub>d</sub> TRANSIENT TIME CONST. (s)	0.13 s	0.13 s	0.135 s	0.137 s	0.149 s	0.154 s	0.16 s
T'' <sub>d</sub> SUB-TRANSTIME CONST. (s)	0.01 s	0.01 s	0.01 s	0.01 s	0.02 s	0.02 s	0.01 s
T'' <sub>do</sub> O.C. FIELD TIME CONST. (s)	2.14 s	2.14 s	2.23 s	2.25 s	2.46 s	2.54 s	2.89 s
T <sub>a</sub> ARMATURE TIME CONST. (s)	0.02 s	0.04 s	0.02 s	0.02 s	0.02 s	0.02 s	0.02 s
SHORT CIRCUIT RATIO	1/X <sub>d</sub>	1/X <sub>d</sub>	1/X <sub>d</sub>	1/X <sub>d</sub>	1/X <sub>d</sub>	1/X <sub>d</sub>	1/X <sub>d</sub>