



ottomotores

CUMMINS SERIE QSK

Definiciones

Potencia Prime

Estos valores son aplicables para el suministro de energía eléctrica continua (a carga variable) en lugar de la red comercial + 10% sobrecarga

Potencia Stand by

Estos valores son aplicables para el suministro de energía eléctrica continua (con carga variable) en caso de falla de la red comercial. No se permite sobrecarga sobre estos valores.

Tabla de Potencias

Modelo	Voltaje	kVA Prime	kWe Prime	kVA Stand-by	kWe Stand-by
CNY750	220-440V	852	682	938	750
CNY800	220-440V	909	727	1000	800

0.8 Factor de potencia



Información Técnica

Datos Técnicos	CNY750	CNY800
Frecuencia:	60 Hz	60 Hz
Marca / Modelo	QSK23G2	QSK23G3
Generador Modelo:	Stamford HCI634G	Stamford HCI634G
Número de Cilindros:	6 en Linea	6 en Linea
Diametro por Carrera :in (mm)	6.69X6.69 (170X170)	6.69X6.69 (170X170)
Relación de Compresión:	16.0:1	16.0:1
Aspiración:	turbo y postenfriado	turbo y postenfriado
Velocidad:	1800 RPM	1800 RPM
Potencia: BHP(kWm)	847 (1135)	1200 (895)
Presion Efectiva: psi (kPa)	356 (2465)	377 (2600)
Velocidad de Piston: ft/min (m/s)	2010 (10.3)	2010 (10.3)
Consumo a plena carga: lt / hr - 100%	194,00	212,00
Calor Expulsado en el Sistema de Escape: BTU/min (kWm)	32725 (575)	37334 (656)
Calor Expulsado en el Sistema de Enfriamiento: BTU/min (kWm)	13859 (243)	15305 (269)
Temperatura de Escape: °F (°C)	900 (482)	957 (514)
Flujo de Enfriamiento en el Radiador m³/seg - FPM	llame a fabrica	llame a fabrica
Flujo de Escape: cfm (litros/s)	6308 (2977)	6475 (3056)



Nota: Imagen de carácter ilustrativa ya que los equipos en foto pudieran incluir accesorios opcionales

Como leer nuestro codigo: Ejem: CNY750

C=Motor Cummins
N=Generador Newage Stamford
Y=60Hz-1800 RPM
750= Potencia del Equipo.



Ottomotores, S.A de C.V.

Calz. San Lorenzo No.1150
Col. Cerro de la estrella, C.P. 09860
Delg. Iztapalapa México, D.F.
Tels:52-55-5624-5600

Fax: 52-55-5426-5521 / 52-55-5426-5581
email: ventas@ottomotores.com.mx

sitio web: www.ottomotores.com.mx

Dimensiones

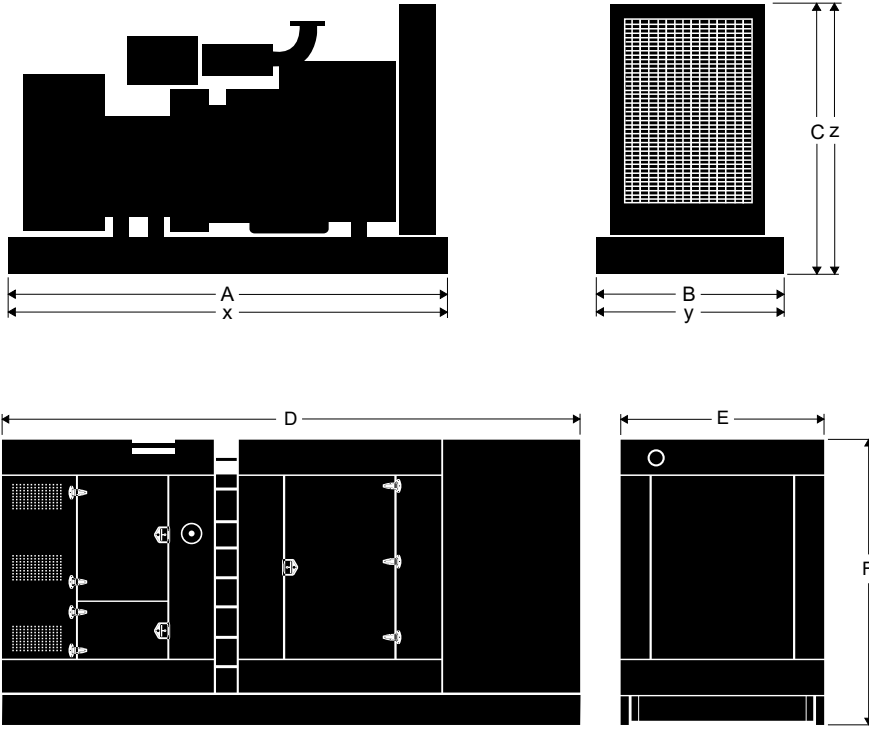


Tabla de Dimensiones

CNY750 CNY800	Equipo con Base Estructural			Equipo con Base Tanque			Equipo con Caseta Acústica*		
	A	B	C	x	y	z	D	E	F
	435,00	165,50	228,50				595,00	215,00	254,00
	Peso: 5530,00 kgs			<input type="checkbox"/>			Peso: 8000,00kgs		

En proceso. Llame a Fabrica

[*] Equipo opcional

Información Técnica

Nota: las condiciones de referencia estándar son de 25 °C (77 ° F) temperatura de entrada de aire. Todos los datos de desempeño de motores son basados en la potencia mencionada arriba.

Datos de consumo de combustible a plena carga con combustible diesel tienen una gravedad específica de 0,85.

Comercializado por:

Módulos de Control



Ottomotores tiene una posición única en la fabricación de grupos electrógenos utilizando en ellos módulos de control que cumplen con todos los niveles de requerimiento del mercado nacional y de exportación.



Las diferentes soluciones de controles que se tienen para nuestra gama de plantas generadoras, permite una operación simple en modo manual y automático, así mismo permiten desarrollar proyectos de sincronía entre plantas generadoras o con la red de energía eléctrica.



La familia de módulos de control en transición abierta (DALE 3200) permite tener control en forma automática de la unidad de transferencia, así como el monitoreo del grupo generador.



Nuestro módulos de control cuentan con puerto de comunicación RS485 para la comunicación remota con el grupo generador.



Los módulos pueden ser monitoreados a través de un excelente software para observar parámetros del equipo de manera fácil y rápida.



La familia de módulos de control para la sincronía (6100, 6050 y 6300), incorporan un amplio sistema de monitoreos además de conexión a Internet (LAN) o mensaje SMS vía celular, o usando los puertos de comunicación RS485 a través de ModBus



ottomotores

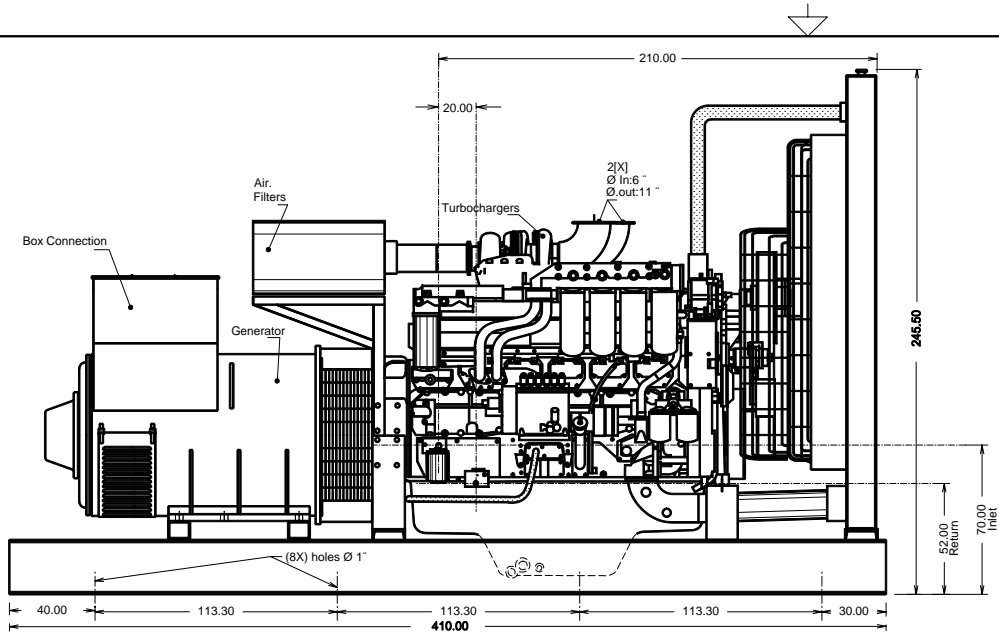
Energía que Mueve al Mundo

Calz. San Lorenzo No.1150
Col. Cerro de la Estrella, C.P.09860
Delegación Iztapalapa México D.F.
Tels: 52-55-5624-5600
Fax.52-55-5426-55-21 / 52-55-54265581

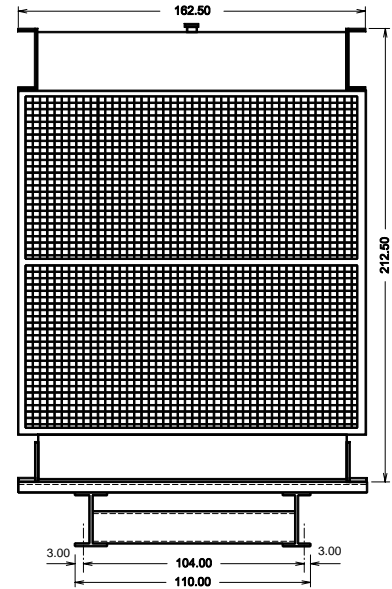
E-mail ventas1@ottomotores.com.mx
ventas2@ottomotores.com.mx

Web site. www.ottomotores.com.mx

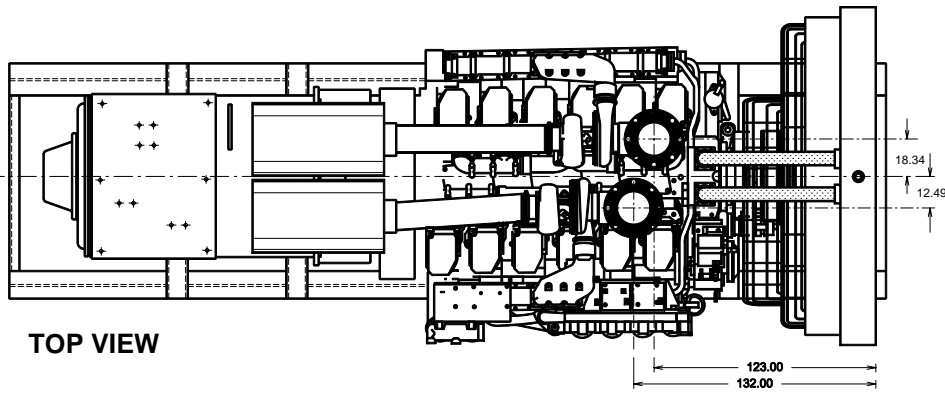
- MODELS**
- CNE740
 - CNE805
 - CNY750
 - CNE850
 - CNY800
 - CNE1040
 - CNY900



SIDE VIEW



FRONT VIEW





TOP VIEW

DESCRIPTION	
RADIATOR:	OV-25-4H
ENGINE:	QST30G1/G2/G3
AIR: FILTER:	AH1135
BASE FRAME:	BP-QSTG3-STF
# SPRING AVMS:	8 PZS

-THE GENSET DIMENSIONS ARE THE SAME BY FAMILY MODEL, THERE COULD BE ONLY DIFFERENCES ON THE ALTERNATOR LENGTH SEE SPECIFIC GENERAL ARRANGEMENT DRAWING OF CERTAIN MODEL
 -TOTAL WEIGHT COULD VARY CHECK RATING CHART FOR EACH MODEL

Customer: _____ S/O: _____

Title: CUMMINS ENGINE QST30G1/G2/G3 - STAMFORD ALTERNATOR			
Draw: R.G.C.	Revised: F.H.M.	Certificated: F.H.M.	Code: CNEY-13
Date: JAN 05th 2005	Date: JAN 05th 2005	Date: JAN 05th 2005	Dept.: Engineering
 			Marks: cms Scale: s/e Of: _____
Rev.	Description	Date	Certificated
Reviews			
Otomotors keeps the right to change the information with out prior notice			



CUMMINS ENGINE COMPANY, INC

Columbus, Indiana 47201

ENGINE PERFORMANCE CURVE

Basic Engine Model:
QST30 -G2 NON-ROAD 1

Engine Critical Parts List:
CPL: 2968

Curve Number:
FR-5200

Date:
27Jun00

**G-DRIVE
Q30
1**

Displacement : **30.48 litre (1860 in³)**

Bore : **140 mm (5.51 in.)** Stroke : **165 mm (6.50 in.)**

No. of Cylinders : **12**

Aspiration : **Turbocharged and Aftercooled**

•• DRAFT ••

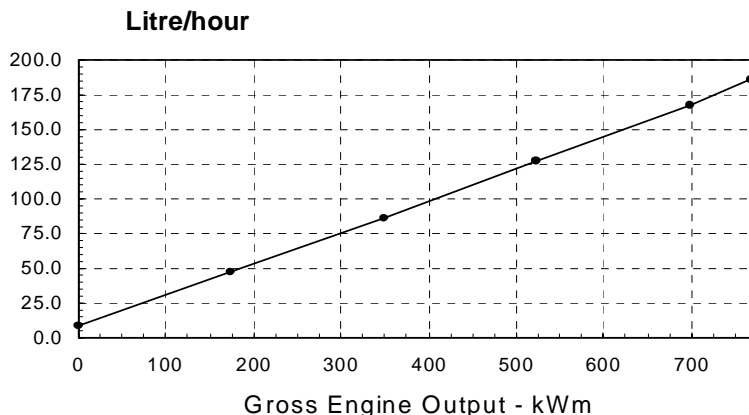
Engine Speed RPM	Standby Power		Prime Power		Continuous Power	
	kWm	BHP	kWm	BHP	kWm	BHP
1500	768	1030	698	935	537	720
1800	895	1200	809	1085	652	875

Emissions Certification

This engine is certified to certain emissions requirements established by US EPA/CARB.

Engine Performance Data @ 1500 RPM

OUTPUT POWER			FUEL CONSUMPTION			
%	kWm	BHP	kg/ kWm-h	lb/ BHP-h	litre/ hour	U.S. Gal/ hour
STANDBY POWER						
100	768	1030	0.207	0.339	186	49.2
PRIME POWER						
100	698	935	0.205	0.336	167	44.2
75	523	701	0.208	0.342	128	33.8
50	349	468	0.210	0.345	86	22.7
25	174	234	0.232	0.381	48	12.6
CONTINUOUS POWER						
100	537	720	0.208	0.342	131	34.7



CONVERSIONS: (litres = U.S. Gal x 3.785) (kWm = BHP x 0.746) (U.S. Gal = litres x 0.2642) (BHP = kWm x 1.34)

These guidelines have been formulated to ensure proper application of generator drive engines in A.C. generator set installations. Generator drive engines are not designed for and shall not be used in variable speed D.C. generator set applications.

STANDBY POWER RATING

Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. Under no condition is an engine allowed to operate in parallel with the public utility at the Standby Power rating. This rating should be applied where reliable utility power is available. A Standby rated engine should be sized for a maximum of an 80% average load factor and 200 hours of operation per year. This includes less than 25 hours per year at the Standby Power rating. Standby ratings should never be applied except in true emergency power outages. Negotiated power outages contracted with a utility company are not considered an emergency.

PRIME POWER RATING

Applicable for supplying electric power in lieu of commercially purchased power. Prime Power applications must be in the form of one of the following two categories:

UNLIMITED TIME RUNNING PRIME POWER

Prime Power is available for an unlimited number of hours per year in a variable load application. Variable load should not exceed a 70% average of the Prime Power rating during any operating period of 250 hours. The total operating time at 100% Prime Power shall not exceed 500 hours per year. A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation. Total operating time at the 10% overload power shall not exceed 25 hours per year.

LIMITED TIME RUNNING PRIME POWER

Limited Time Prime Power is available for a limited number of hours in a non-variable load application. It is intended for use in situations where power outages are contracted, such as in utility power curtailment. Engines may be operated in parallel to the public utility up to 750 hours per year at power levels never to exceed the Prime Power rating. The customer should be aware, however, that the life of any engine will be reduced by this constant high load operation. Any operation exceeding 750 hours per year at the Prime Power rating should use the Continuous Power rating.

CONTINUOUS POWER RATING

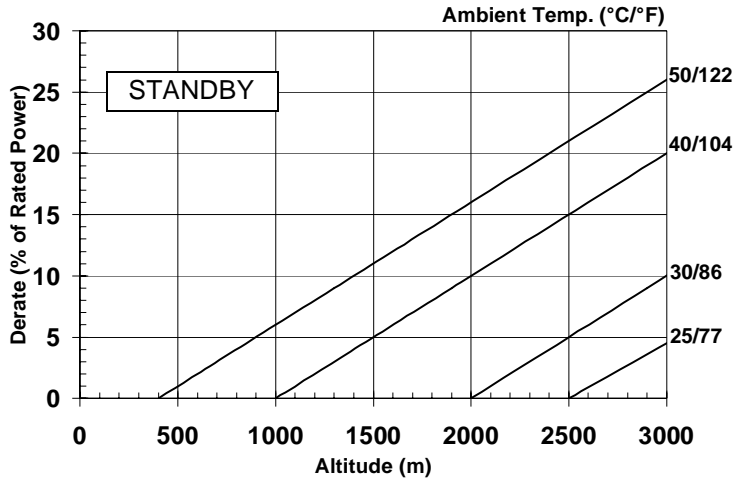
Applicable for supplying utility power at a constant 100% load for an unlimited number of hours per year. No overload capability is available for this rating.

Data shown above represent gross engine performance capabilities obtained and corrected in accordance with ISO-3046 conditions of 100 kPa (29.53 in Hg) barometric pressure [110 m (361 ft) altitude], 25 °C (77 °F) air inlet temperature, and relative humidity of 30% with No. 2 diesel or a fuel corresponding to ASTM D2. See reverse side for application rating guidelines.

The fuel consumption data is based on No. 2 diesel fuel weight at 0.85 kg/litre (7.1 lbs/U.S. gal).

Power output curves are based on the engine operating with fuel system, water pump and lubricating oil pump; not included are battery charging alternator, fan, optional equipment and driven components.

•• DRAFT ••

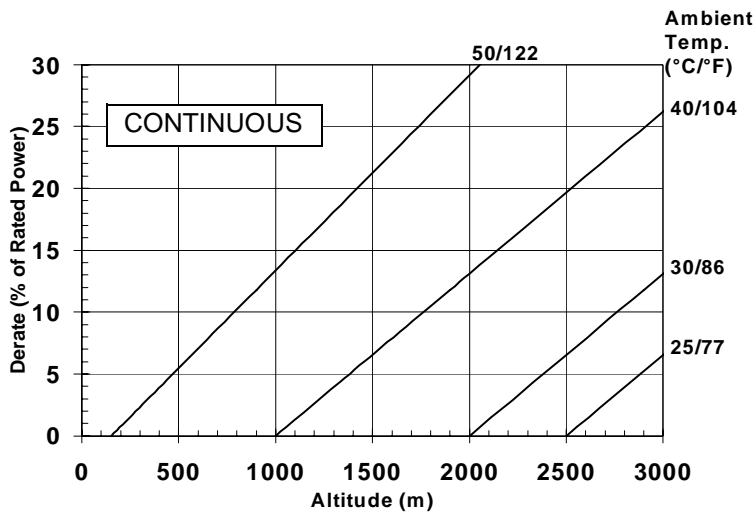
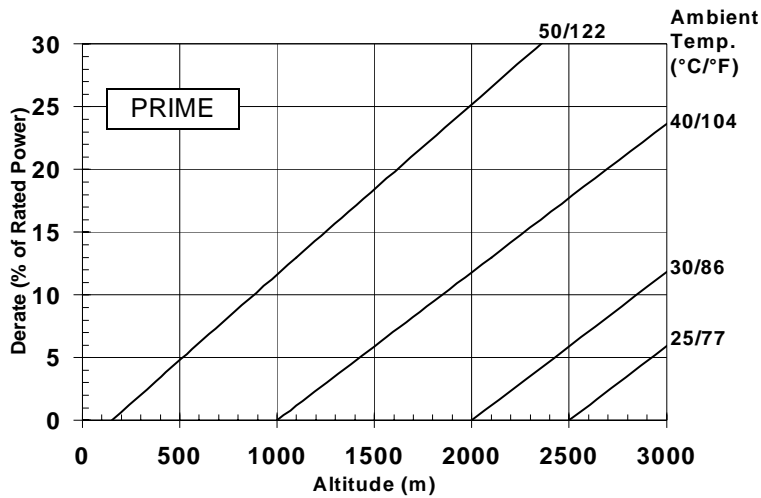


Reference Standards:

BS-5514 and DIN-6271 standards are based on ISO-3046.

Operation At Elevated Temperature And Altitude:

For sustained operation above these conditions, derate by an additional 10% per 500 m (1640 ft), and 15% per 10° C (18° F).



Note: Derates shown are based on 15 in H₂O air intake restriction and 2 in Hg exhaust back pressure.



CUMMINS ENGINE COMPANY, INC

Columbus, Indiana 47201

ENGINE PERFORMANCE CURVE

Basic Engine Model:
QST30 -G2 NON-ROAD 1

Engine Critical Parts List:
CPL: 2968

Curve Number:
FR-5200

Date:
27Jun00

G-DRIVE
Q30
3

Displacement : **30.48 litre (1860 in³)**

Bore : **140 mm (5.51 in.)** Stroke : **165 mm (6.50 in.)**

No. of Cylinders : **12**

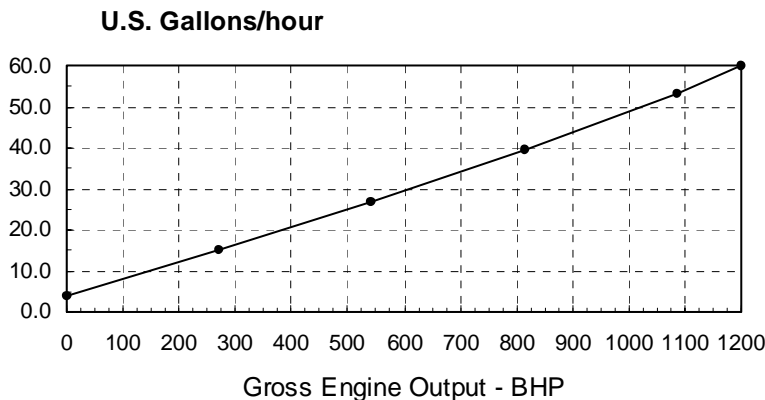
Aspiration : **Turbocharged and Aftercooled**

•• DRAFT ••

Engine Speed RPM	Standby Power		Prime Power		Continuous Power	
	kWm	BHP	kWm	BHP	kWm	BHP
1500	768	1030	698	935	537	720
1800	895	1200	809	1085	652	875

Engine Performance Data @ 1800 RPM

OUTPUT POWER			FUEL CONSUMPTION			
%	kWm	BHP	kg/ kWm-h	lb/ BHP-h	litre/ hour	U.S. Gal/ hour
STANDBY POWER						
100	895	1200	0.216	0.355	227	60.0
PRIME POWER						
100	809	1085	0.211	0.347	201	53.0
75	607	814	0.211	0.346	150	39.7
50	404	542	0.215	0.352	102	26.9
25	202	271	0.243	0.399	58	15.2
CONTINUOUS POWER						
100	652	875	0.209	0.343	160	42.3



CONVERSIONS: (litres = U.S. Gal x 3.785) (kWm = BHP x 0.746) (U.S. Gal = litres x 0.2642) (BHP = kWm x 1.34)

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CONTINUOUS POWER RATING

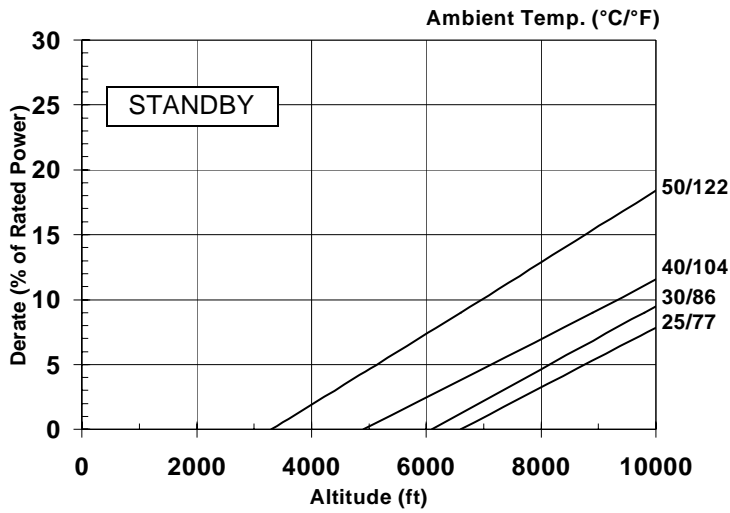
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The fuel consumption data is based on No. 2 diesel fuel weight at 0.85 kg/litre (7.1 lbs/U.S. gal).

Power output curves are based on the engine operating with fuel system, water pump and lubricating oil pump; not included are battery charging alternator, fan, optional equipment and driven components.

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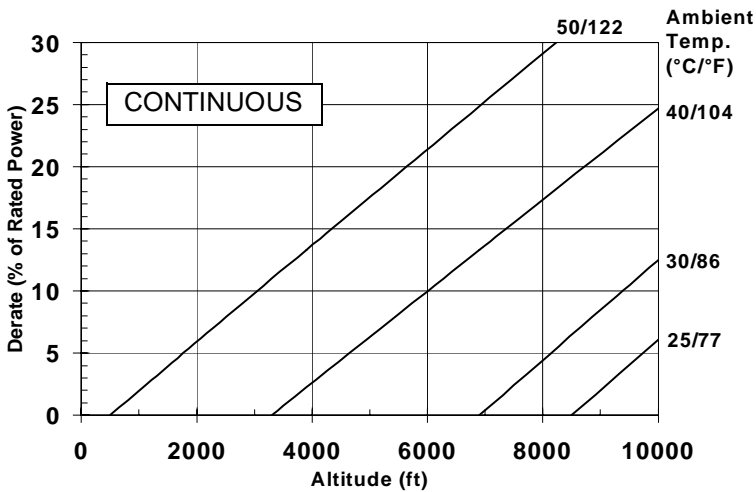
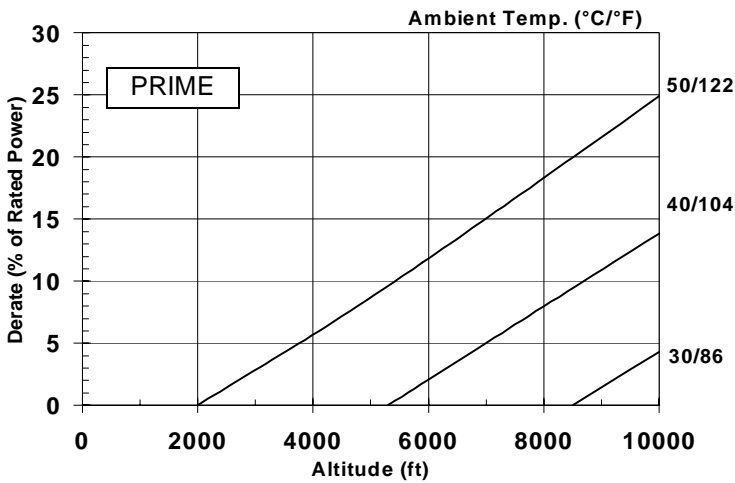


Reference Standards:

BS-5514 and DIN-6271 standards are based on ISO-3046.

Operation At Elevated Temperature And Altitude:

For sustained operation above these conditions, derate by an additional 8% per 500 m (1640 ft), and 15% per 10° C (18° F).



Note: Derates shown are based on 15 in H₂O air intake restriction and 2 in Hg exhaust back pressure.

ENGINE MODEL : QST30 -G2 NON-ROAD 1 CONFIGURATION NUMBER : D573001GX03

DATA SHEET : DS-5200

DATE : 27Jun00

PERFORMANCE CURVE : DS-5200

INSTALLATION DIAGRAM

• Fan to Flywheel : 3170342

CPL NUMBER

• Engine Critical Parts List : 2968

GENERAL ENGINE DATA

Type	4-Cycle; 50° Vee; 12-Cylinder Diesel
Aspiration	Turbocharged and Aftercooled
Bore x Stroke	140 x 165 (5.51 x 6.50)
Displacement	30.48 (1860)
Compression Ratio	14.0
Dry Weight	
Fan to Flywheel Engine.....	— kg (lb) 2967 (6540)
Wet Weight	
Fan to Flywheel Engine.....	— kg (lb) 3062 (6750)
Moment of Inertia of Rotating Components	
• with FW 5050 Flywheel	— kg • m ² (lb _m • ft ²) 8.7 (206)
Center of Gravity from Rear Face of Flywheel Housing (FH 5031)	— mm (in) 845 (33.3)
Center of Gravity above Crankshaft Centerline.....	— mm (in) 195 (7.7)
Maximum Static Loading at Rear Main Bearing.....	— kg (lb) 950 (2100)

ENGINE MOUNTING

Maximum Bending Moment at Rear Face of Block	— N • m (lb • ft) 3100 (2286)
----------------------------------------------------	-----------------------------------------------------------------

EXHAUST SYSTEM

Maximum Back Pressure.....	— mm Hg (in Hg) 76 (3.0)
----------------------------	------------------------------------------------------------

AIR INDUCTION SYSTEM

Maximum Intake Air Restriction	
• with Dirty Filter Element.....	— mm H ₂ O (in H ₂ O) 635 (25)
• with Normal Duty Air Cleaner and Clean Filter Element.....	— mm H ₂ O (in H ₂ O) 254 (10)
• with Heavy Duty Air Cleaner and Clean Filter Element.....	— mm H ₂ O (in H ₂ O) 381 (15)

COOLING SYSTEM

Coolant Capacity — Engine Only	— litre (US gal) 85 (22.4)
Maximum Coolant Friction Head External to Engine	
— 1800 rpm.....	— kPa (psi) 69.0 (10.0)
— 1500 rpm.....	— kPa (psi) 48.0 (7.0)
Maximum Static Head of Coolant Above Engine Crank Centerline.....	— m (ft) 14 (46)
Standard Thermostat (Modulating) Range	— °C (°F) 82 - 95 (180 - 203)
Minimum Pressure Cap	— kPa (psi) 69.0 (10)
Maximum Top Tank Temperature - Standby / Prime	— °C (°F) 104 / 100 (220 / 212)

LUBRICATION SYSTEM

Oil Pressure @ Idle Speed	— kPa (psi) 166 (24.0)
@ Governed Speed	— kPa (psi) 310 - 386 (45.0 - 56.0)
Maximum Oil Temperature	— °C (°F) 121 (250)
Oil Capacity with OP 5133 Oil Pan : High - Low	— litre (US gal) 133 - 114 (35 - 30)
Total System Capacity (Including Bypass Filter).....	— litre (US gal) 154 (40.7)
Angularity of OP 5133 Oil Pan	
— Front Down	17°
— Front Up	35°
— Side to Side.....	35°

FRAME HC634G

WINDING 311/312

RATINGS	REFER TO RATINGS BOOK
OVERLOAD	REFER TO RATINGS BOOK
ALTITUDE	REFER TO RATINGS BOOK
AMBIENT TEMP.	REFER TO RATINGS BOOK

CONTROL SYSTEM SER. 3	SEPARATELY EXCITED BY P.M.G. FRAME DESIGNATION HC634G	
A.V.R.	MX321	
VOLTAGE REGULATION	± 0.5%	WITH 4% ENGINE GOVERNING
SUSTAINED SHORT CIRCUIT	REFER TO SHORT CIRCUIT DECREMENT CURVES OF THIS SECTION	

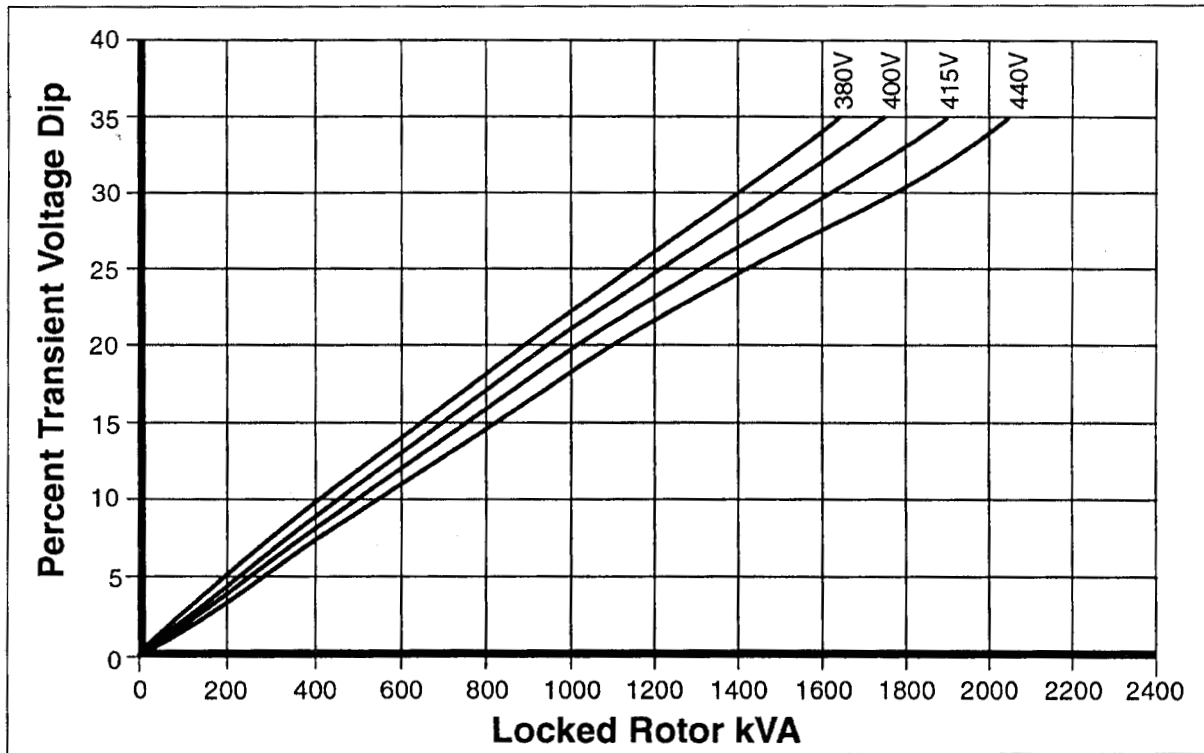
INSULATION SYSTEM	CLASS H	
PROTECTION	IP22 STANDARD - IP23 OPTIONAL (5% DERATE)	
RATED POWER FACTOR	0.8	
STATOR WINDING	DOUBLE LAYER LAP	
WINDING PITCH	TWO THIRDS	
WINDING LEADS	12 (311) 6 (312)	
STATOR WDG. RESISTANCE	0.0037 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED	
ROTOR WDG. RESISTANCE	1.44 Ohms at 22°C	
R.F.I. SUPPRESSION	BS EN 50081/2-1/2 VDE 0875G VDE 0875N For other standards apply to the factory	
WAVEFORM DISTORTION	NO LOAD < 1.5 % NON-DISTORTING BALANCED LINEAR LOAD < 5.0 %	
MAXIMUM OVERSPEED	2250 Rev/Min	
BEARING DRIVE END	BALL. 6224 (ISO)	
BEARING NON-DRIVE END	BALL. 6317 (ISO)	
EFFICIENCY	REFER TO EFFICIENCY CURVES OF THIS SECTION	
	1 BEARING	2 BEARING
WEIGHT COMP. GENERATOR	1963 kg	1969 kg
WEIGHT WOUND STATOR	934 kg	934 kg
WEIGHT WOUND ROTOR	812 kg	746.3 kg
WR ² INERTIA	15.41 kgm ²	14.65 kgm ²

	50 Hz				60 Hz			
TELEPHONE INTERFERENCE	THF < 2%				TIF < 50			
COOLING AIR	1.614 m ³ /sec 3420 cfm				1.961 m ³ /sec 4156 cfm			
WINDING 311								
VOLTAGE SERIES STAR (Y)	380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
VOLTAGE PARALLEL STAR (Y)	190/110	200/115	208/120	220/127	208/120	220/127	230/133	240/138
VOLTAGE EDISON DELTA (Δ)	220/110	230/115	240/120	250/125	240/120	254/127	266/133	277/138
WINDING 312								
VOLTAGE SERIES STAR (Y)	380/220	400/231	415/240	440/254	416/240	440/254	460/266	480/277
VOLTAGE DELTA (Δ)	220	230	240	250	240/120	254/127	266/133	277/138
KVA BASE RATING FOR REACTANCE VALUES	800	800	800	800	875	925	963	1000
X _d DIR. AXIS SYNCHRONOUS	3.14	2.91	2.63	2.34	3.53	3.34	3.18	3.03
X' _d DIR. AXIS TRANSIENT	0.25	0.23	0.21	0.19	0.28	0.26	0.25	0.24
X'' _d DIR. AXIS SUBTRANSIENT	0.18	0.17	0.15	0.13	0.21	0.20	0.19	0.18
X _q QUAD. AXIS REACTANCE	1.87	1.73	1.57	1.40	2.09	1.98	1.89	1.80
X'' _q QUAD. AXIS SUBTRANSIENT	0.22	0.20	0.18	0.16	0.24	0.23	0.22	0.21
X _L LEAKAGE REACTANCE	0.104	0.096	0.087	0.078	0.116	0.110	0.105	0.100
X ₂ NEGATIVE SEQUENCE	0.22	0.20	0.18	0.16	0.24	0.23	0.22	0.21
X ₀ ZERO SEQUENCE	0.028	0.026	0.023	0.021	0.031	0.030	0.028	0.027
REACTANCES ARE SATURATED				VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED				
T' _d TRANSIENT TIME CONST.	0.185 sec							
T'' _d SUB-TRANSTIME CONST.	0.025 sec							
T' _{do} O.C. FIELD TIME CONST.	2.35 sec							
T _a ARMATURE TIME CONST.	0.040 sec							
SHORT CIRCUIT RATIO	1/X _d							

ISSUE 9

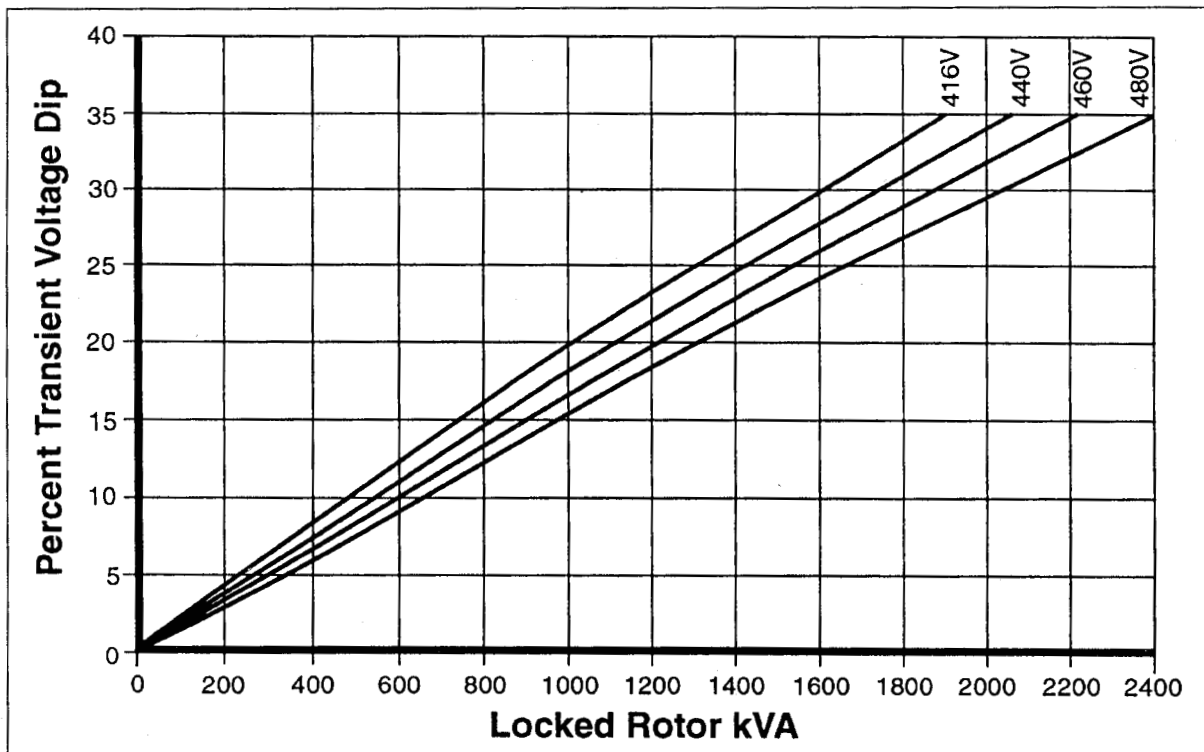
Continuous development of our products entitles us to change specification details without notice, therefore they must not be regarded as binding.

**SERIES 3 WINDING 311/312
 LOCKED ROTOR MOTOR STARTING CURVE**

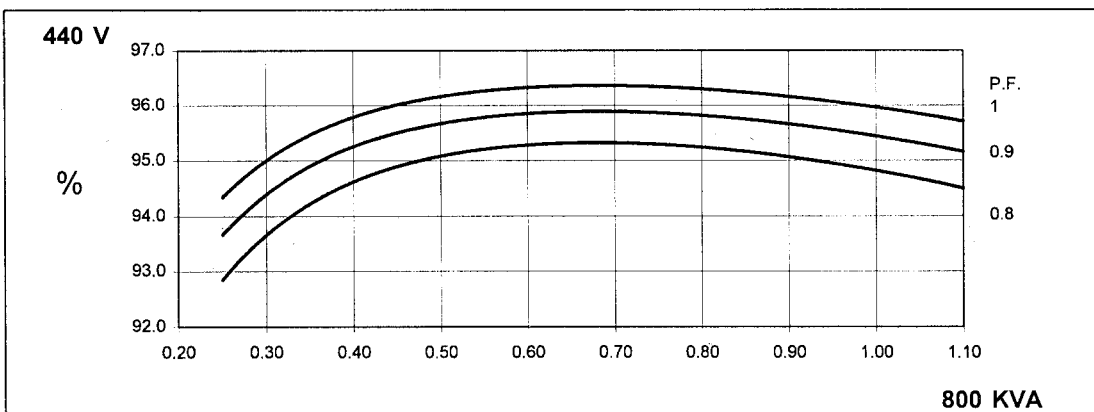
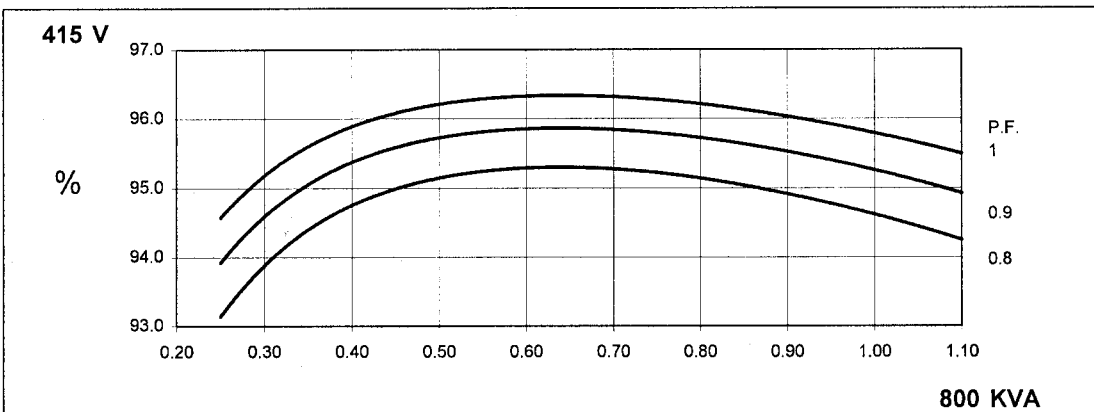
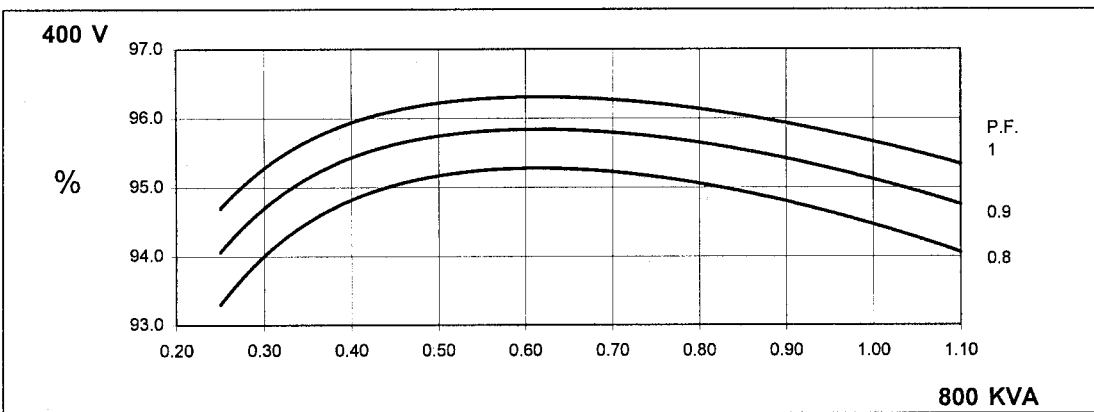
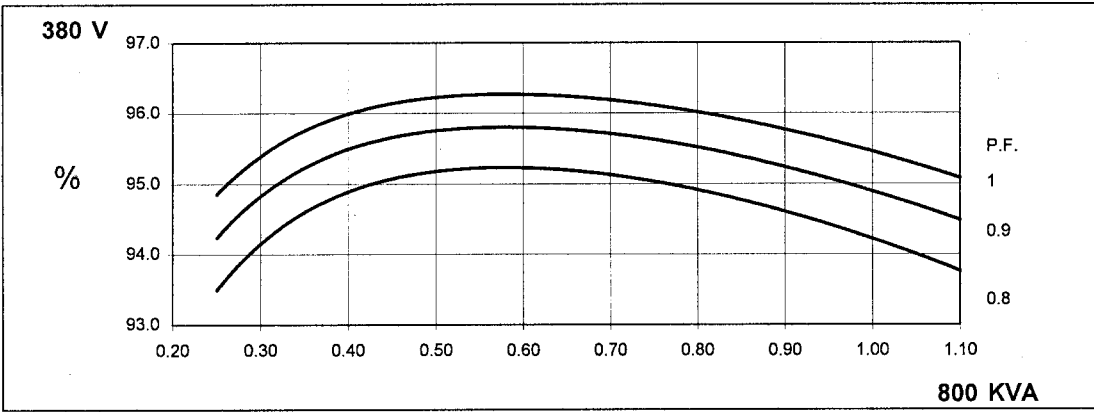


FRAME HC634G 60 Hz

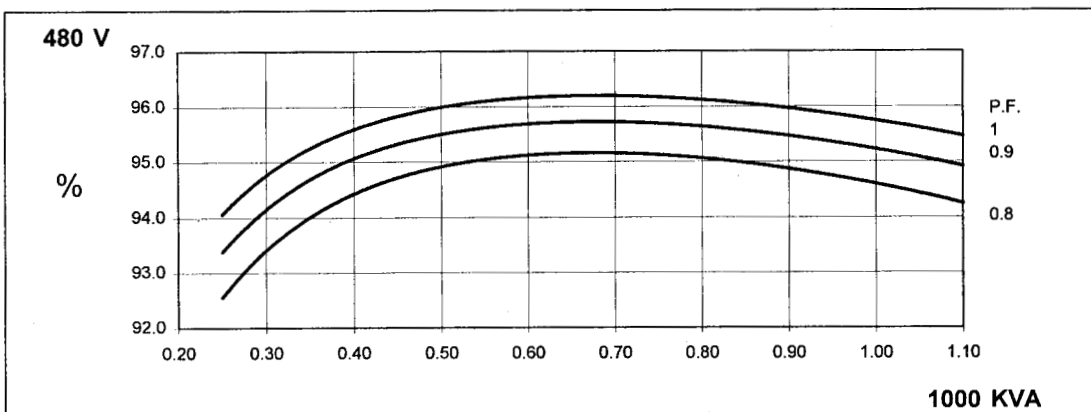
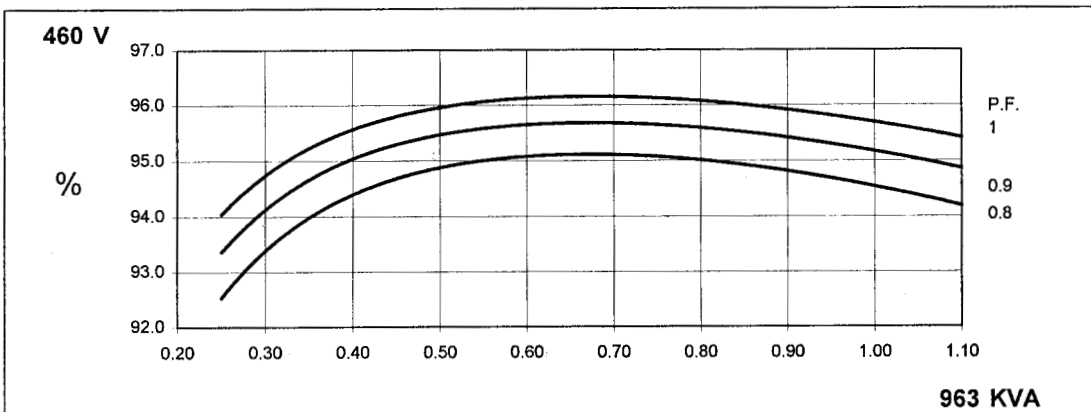
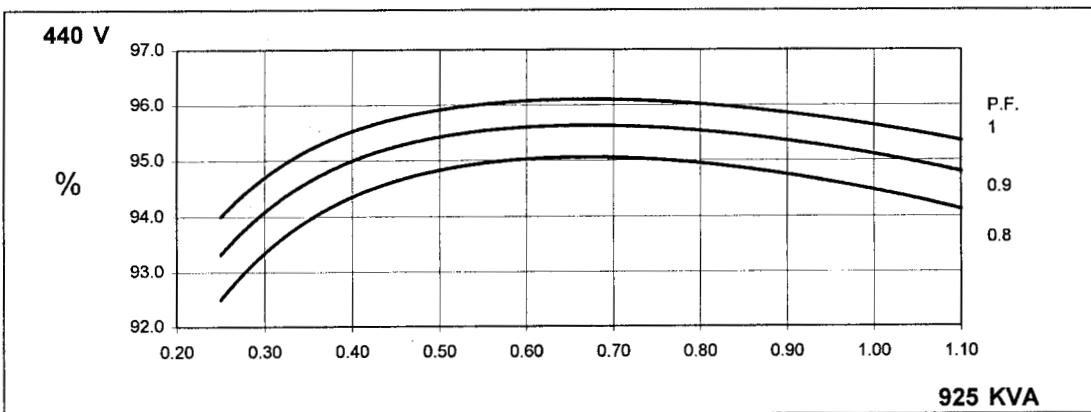
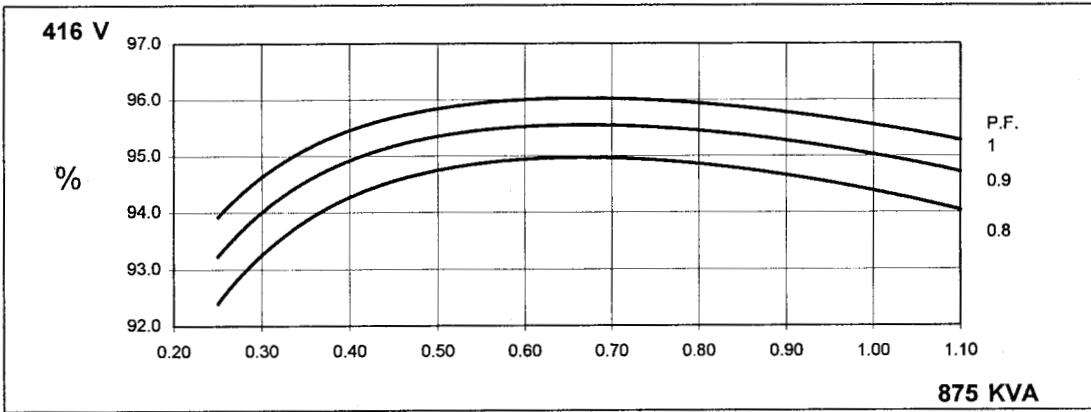
**SERIES 3 WINDING 311/312
 LOCKED ROTOR MOTOR STARTING CURVE**



THREE PHASE EFFICIENCY CURVES



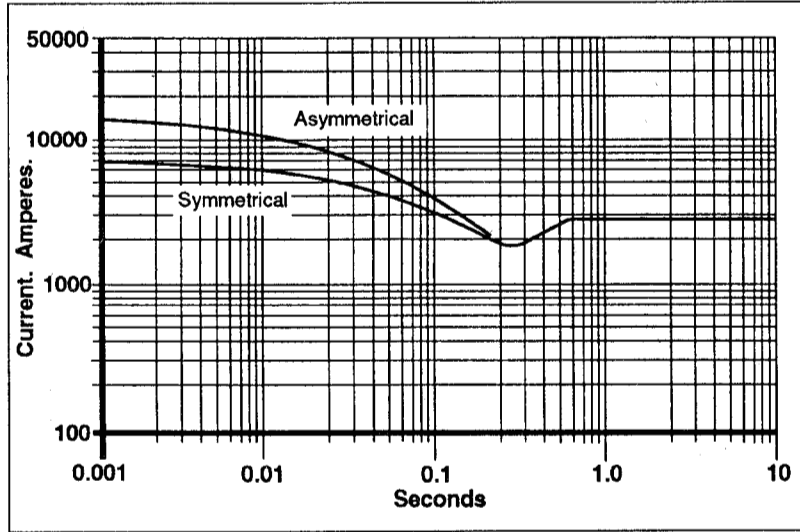
THREE PHASE EFFICIENCY CURVES



FRAME HC634G 50 Hz

SERIES THREE Three Phase Short Circuit Decrement Curve No-load Excitation at Rated Speed

Based on series star (wye) connection



Note 1

The following multiplication factors should be used to adjust the values from curve between time 0.001 seconds and the minimum current point in respect of nominal operating voltage :

VOLTAGE	FACTOR
380 V	X 1.0
400 V	X 1.07
415 V	X 1.12
440 V	X 1.18

The sustained current value is constant irrespective of voltage level.

Note 2

The following multiplication factors should be used to convert the values calculated in accordance with NOTE 1 to those applicable to the various types of short circuit :

	3 PHASE	2 PHASE L-L	1 PHASE L-N
Instantaneous	X 1.00	X 0.87	X 1.30
Minimum	X 1.00	X 1.80	X 3.20
Sustained	X 1.00	X 1.50	X 2.50
Max. sustained duration	10 sec.	5 sec.	2 sec.

All other times are unchanged.

Note 3 Winding 311 Only

Curves are drawn for Series Star (Wye) connected machines. For other connections the following multipliers should be applied to current values shown :

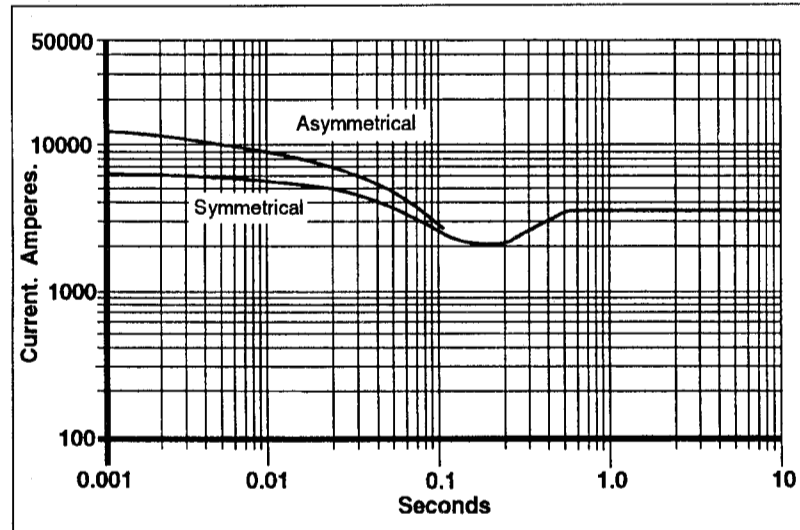
Parallel Star (Wye) Curve current value X 2
Series Delta (Δ) Curve current value X 1.732

Times are unchanged.

FRAME HC634G 60 Hz

SERIES THREE Three Phase Short Circuit Decrement Curve No-load Excitation at Rated Speed

Based on series star (wye) connection



Note 1

The following multiplication factors should be used to adjust the values from curve between time 0.001 seconds and the minimum current point in respect of nominal operating voltage :

VOLTAGE	FACTOR
416 V	X 1.0
440 V	X 1.06
460 V	X 1.12
480 V	X 1.17

The sustained current value is constant irrespective of voltage level.

Note 2

The following multiplication factors should be used to convert the values calculated in accordance with NOTE 1 to those applicable to the various types of short circuit :

	3 PHASE	2 PHASE L-L	1 PHASE L-N
Instantaneous	X 1.00	X 0.87	X 1.30
Minimum	X 1.00	X 1.80	X 3.20
Sustained	X 1.00	X 1.50	X 2.50
Max. sustained duration	10 sec.	5 sec.	2 sec.

All other times are unchanged.

Note 3 Winding 311 Only

Curves are drawn for Series Star (Wye) connected machines. For other connections the following multipliers should be applied to current values shown :

Parallel Star (Wye) Curve current value X 2
Series Delta (Δ) Curve current value X 1.732

Times are unchanged.

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