

TO : Lyncean Technologies , Inc.

## INSPECTION SHEET

TR000008 Canon Klystron E3730A Inspection Sheet SN 20F103

**HIGH POWER PULSE KLYSTRON**  
**E3730A S/N 20F103**

**CANON ELECTRON TUBES & DEVICES CO., LTD.**

TEST CLASSIFICATION	AQL	n1	d1	n1+n2	d1+d2	JUDGE	<h2 style="text-align: center;">INSPECTION SHEET</h2> <p>TYPE HIGH POWER PULSE KLYSTRON E3730A</p>	APPLIED SPECIFICATION	PRODUCT SPECIFICATION		
APPEARANCE								SUPPLY QUANTITY	1	DATE OF INSP.	24-Jun-2020
PRODUCTION								CHIEF OF INSPECTION SECTION	Y. Tanaka		
DESIGN											

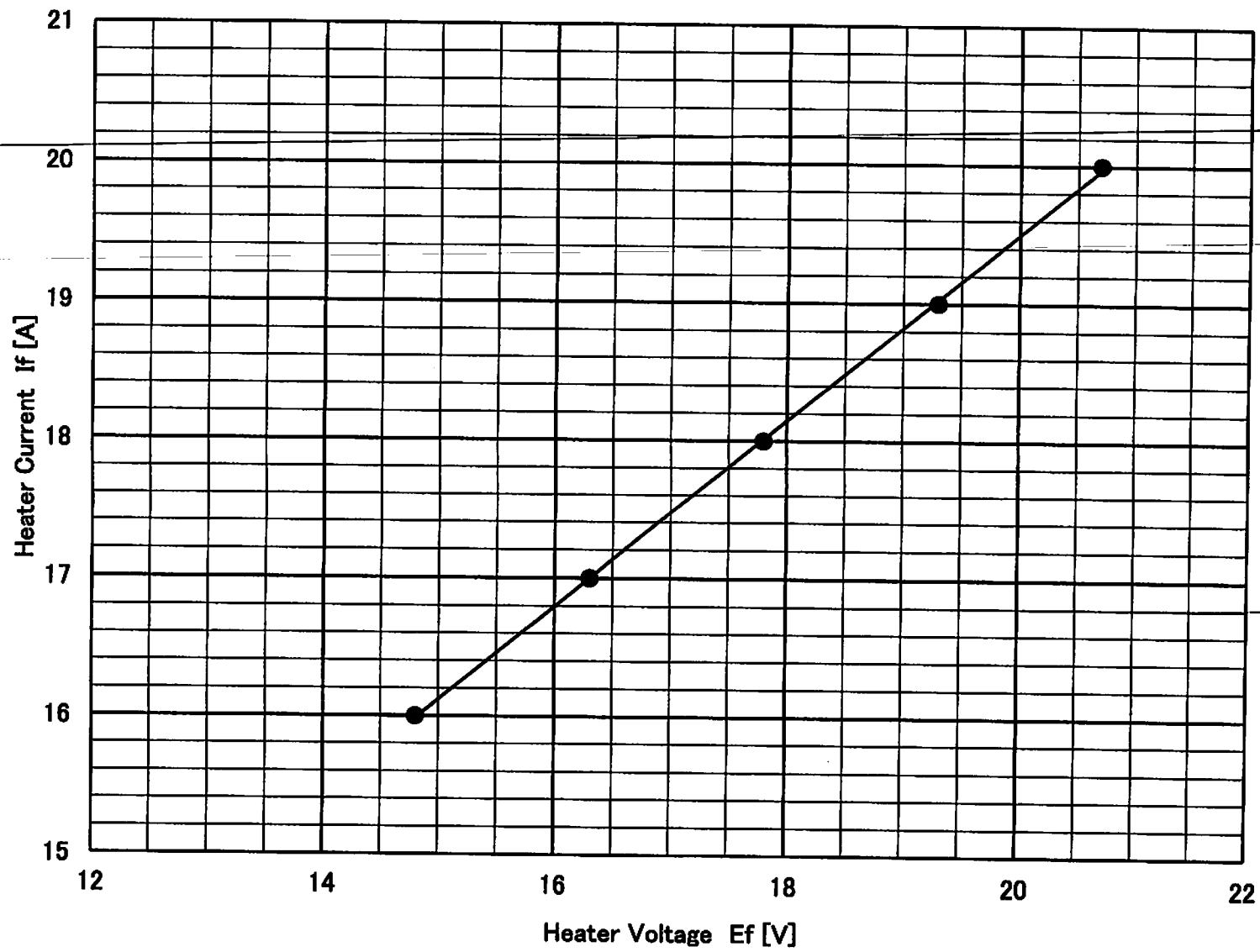
TEST CONDITION ELECTROMAGNET VT-68922													
ITEM	STATIC			DYNAMIC								JUDGE	
	VACUUM CHECK	HEATER CURRENT	BEAM CURRENT	OUTPUT POWER	BEAM VOLTAGE	BEAM CURRENT	DRIVE POWER	GAIN	EFFICIENCY	PERVEANCE	X-ray Leakage		
	lion [μA]	If [A]	ik [A]	po [MW]	epy [kV]	ik [A]	pd [W]	Gp [dB]	η [%]	G [μA/V <sup>1.5</sup> ]	[μSv/h]		
CONDITION	No operating voltage	Ef=18.9[V] (Ef ≤20[V])	Ef=18.9[V] epy=310[kV] tp(epy)=6.2[μs] fp=50[pps]	Ef=18.9[V]  fo = 2856 [MHz] , tp(rf) = 4.0 [μs] , tp(epy) = 6.2 [μs] , fp = 50 [pps] Isol = ( 18.8, 30.2, 14.6, 17.1, 12.6, 4.8 ) [A]									
No.													
20F103	0.01	18.5	347	50.7	320	364	360	51.5	43.6	2.01	8.2		
SPEC	MIN.	-	-	345.2	50	-	-	-	50	42	1.95	-	INSPECTOR
	PAR	-	-	-	-	-	-	-	-	-	2.1	-	
	MAX.	4.0	20	379.8	-	320	-	500	-	-	2.2	20	
TYPE 53720A series CANON ELECTRON TUBES & DEVICES CO. LTD													

TEST CLASSIFICATION							AQL	n1	d1	n1+n2	d1+d2	JUDGE	INSPECTION SHEET  TYPE HIGH POWER PULSE KLYSTRON E3730A						APPLIED SPECIFICATION		PRODUCT SPECIFICATION				
APPEARANCE																			SUPPLY QUANTITY		1	DATE OF INSP.		24-Jun-2020	
PRODUCTION																			CHIEF OF INSPECTION SECTION		<i>G. Tanaka</i>				
DESIGN																									
TEST CONDITION																									
ITEM		HYDROSTATIC PRESSURE					OUTLINE DIMENSION													JUDGE					
SYMBOL		-					-																		
UNIT		-					-																		
CONDITION		P = 0.98 [MPa] (10 [kgf/cm <sup>2</sup> ]) t = 15 min.					-																		
No.																									
20F103		OK					OK													OK					
SPEC.	MIN.	No visible leaks					No detectable													INSPECTOR <i>M. Shibasaki</i>					
	PAR	and no damages					change in the ion																		
	MAX.						pump indicator																		

**TYPE** E3730A series

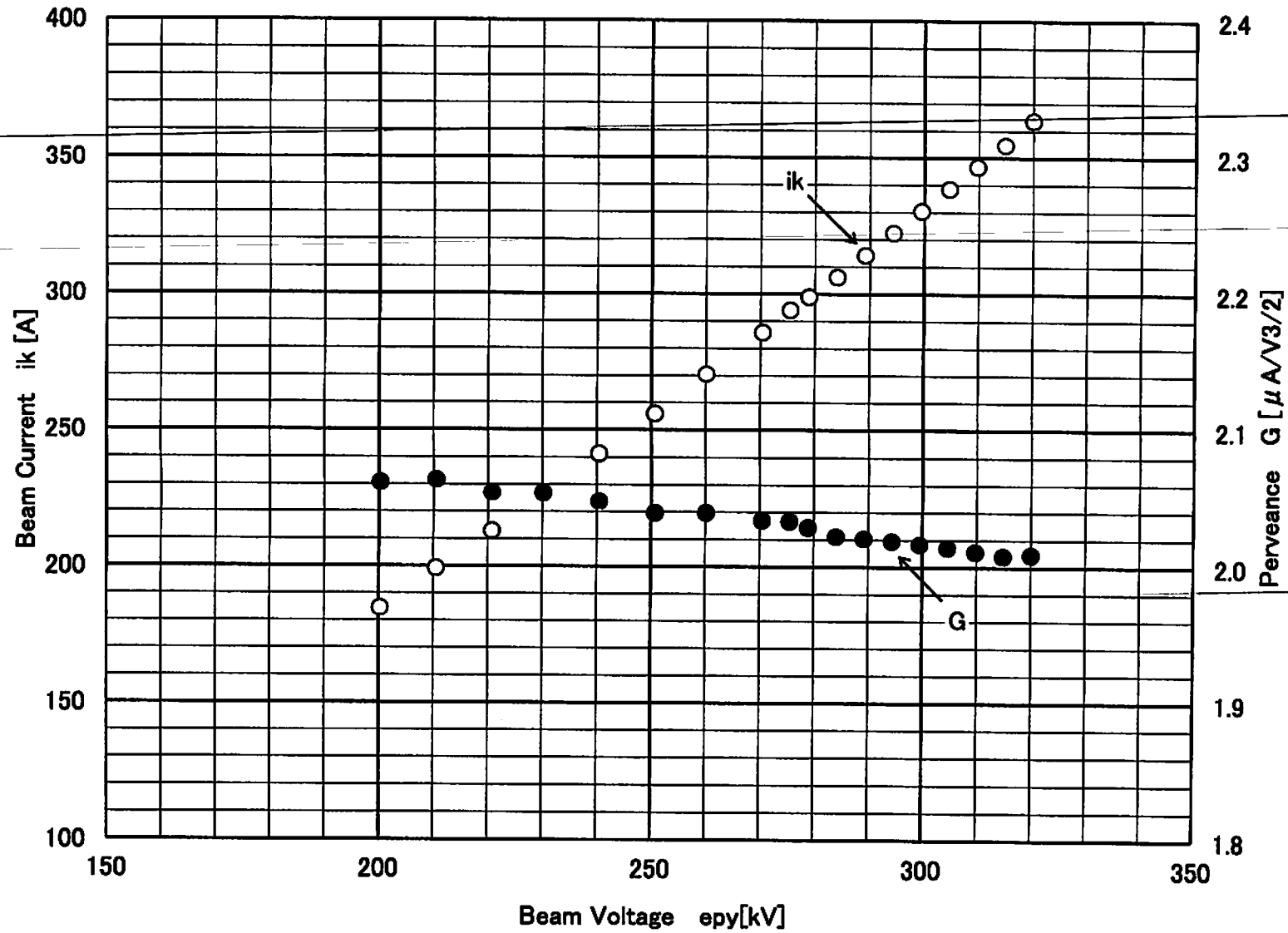
**CANON ELECTRON TUBES & DEVICES CO., LTD.**

E3730A S/N 20F103 HEATER CHARACTERISTICS



# E3730A S/N 20F103 epy-ik CHARACTERISTICS

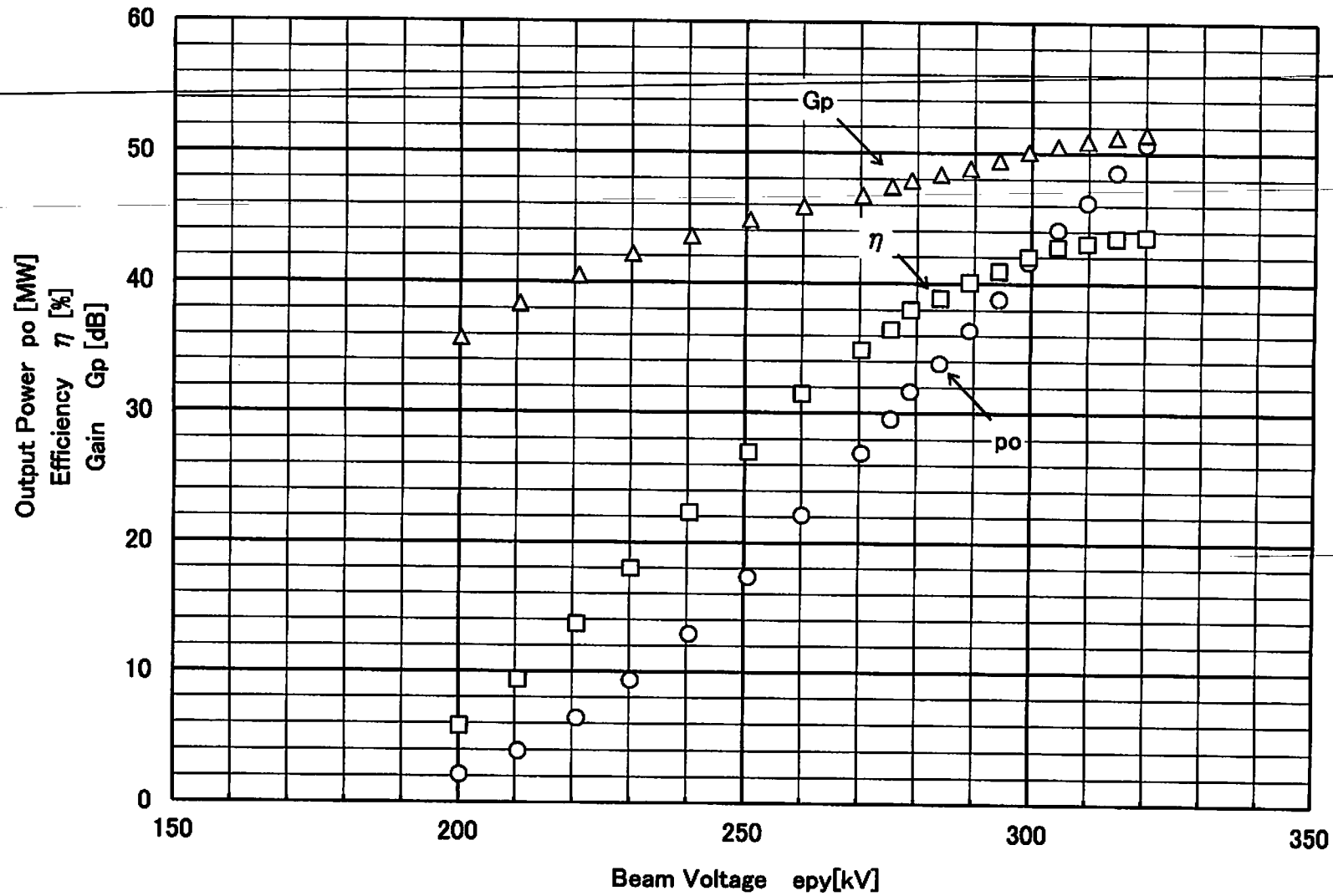
$tp(epy) = 6.2 [\mu s]$ ,  $ppr = 50 [pps]$



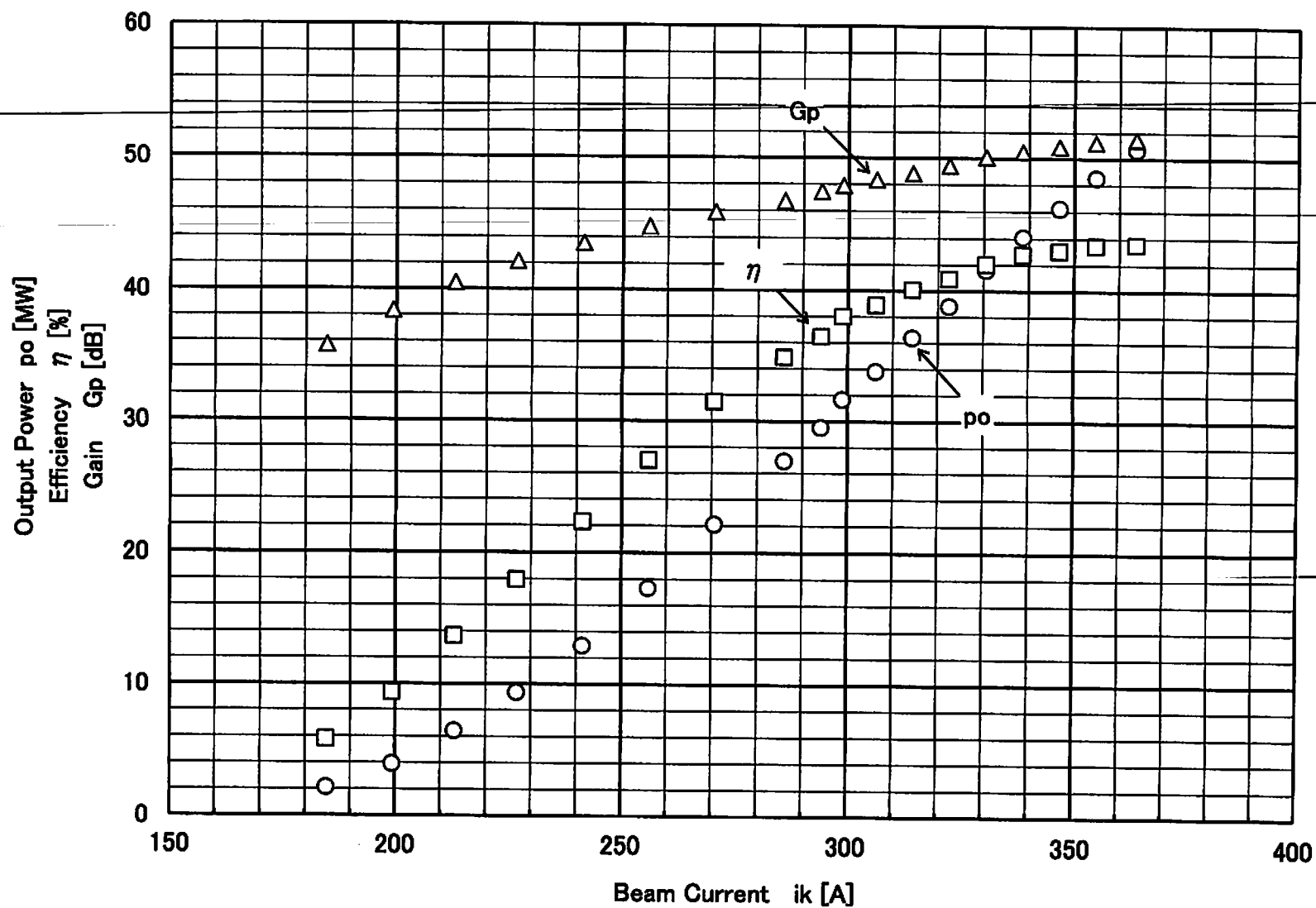
# E3730A S/N 20F103 SATURATED OUTPUT CHARACTERISTICS (1)

$t_p(\text{rf}) = 4.0 \text{ } [\mu\text{s}]$ ,  $p_{rr} = 50 \text{ [pps]}$ ,

$I_{sol} = ( 18.8 , 30.2 , 14.6 , 17.1 , 12.6 , 4.8 ) \text{ [A]}$



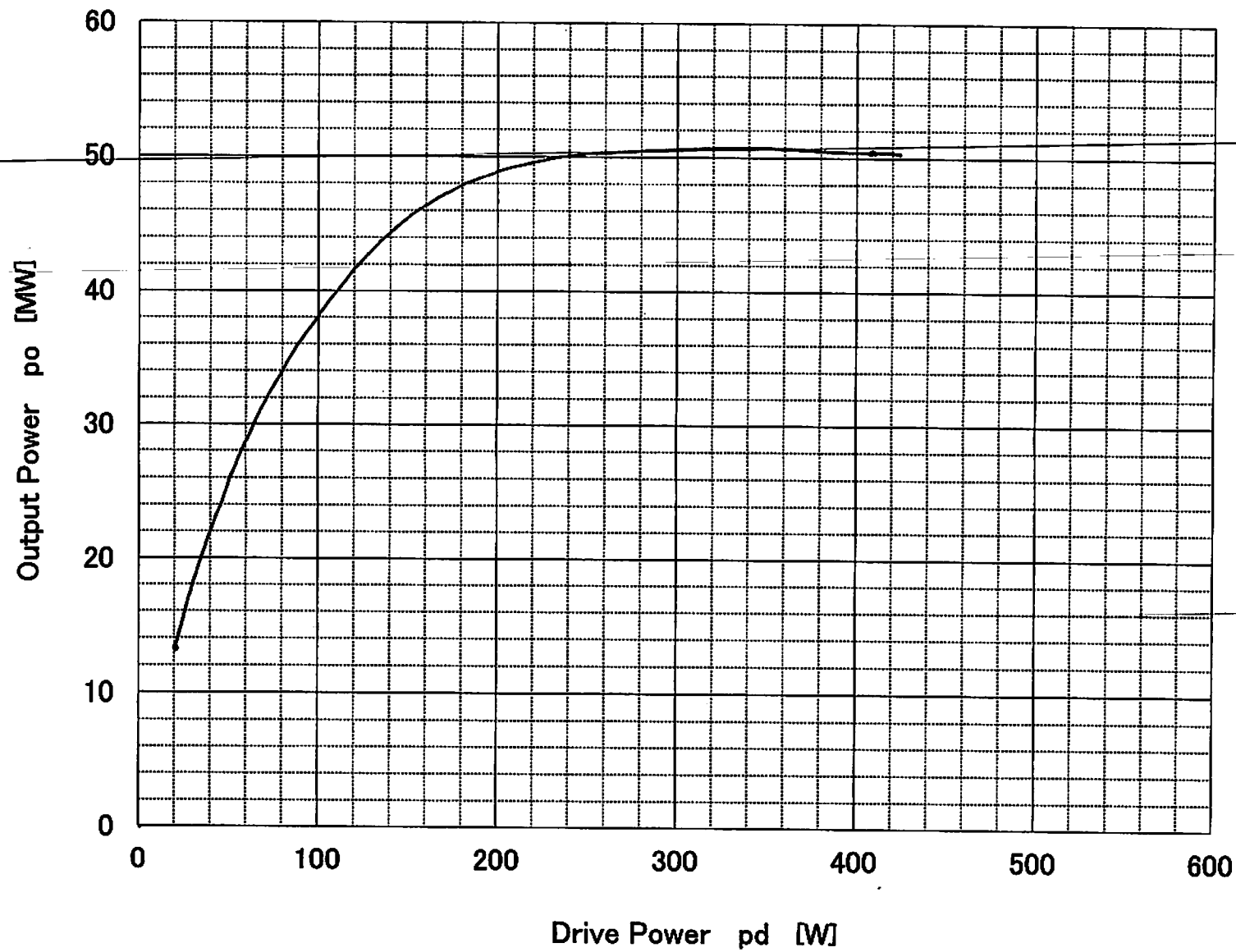
## E3730A S/N 20F103 SATURATED OUTPUT CHARACTERISTICS (2)

 $t_p(\text{rf}) = 4.0 [\mu\text{s}]$ ,  $\text{prf} = 50 [\text{pps}]$ , $I_{\text{sol}} = (18.8, 30.2, 14.6, 17.1, 12.6, 4.8) [\text{A}]$ 

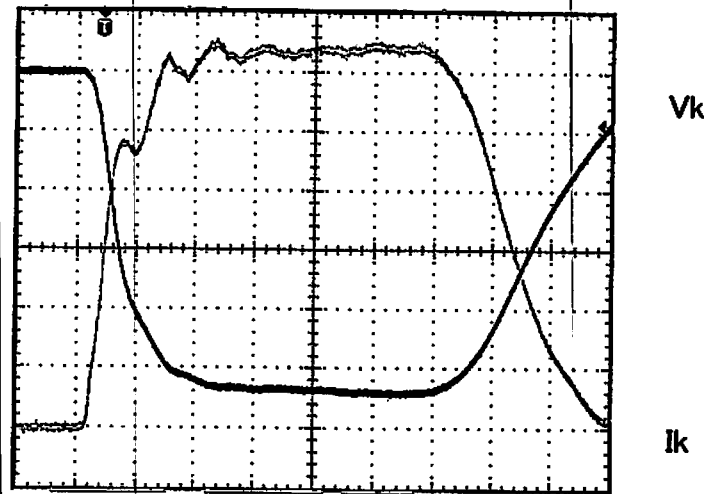
# E3730A S/N 20F103 POWER TRANSFER CHARACTERISTICS

$t_{p(rf)} = 4.0 [\mu s]$ ,  $p_{rr} = 50 [pps]$ ,  $e_{py} = 320 [kV]$ ,  $i_k = 364 [A]$ ,

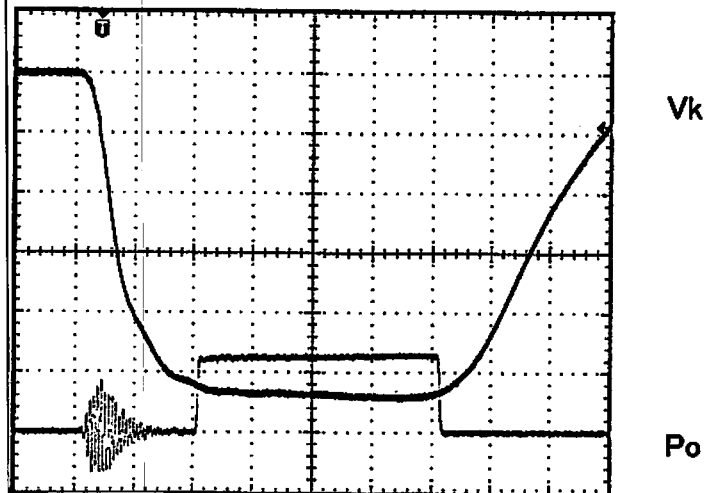
$I_{sol} = (18.8, 30.2, 14.6, 17.1, 12.6, 4.8) [A]$



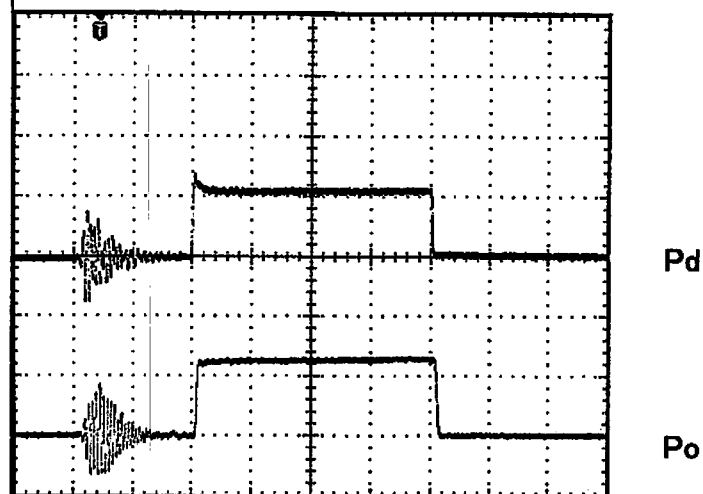




Beam Voltage  $V_k$  and Cathode Current  $I_k$   
 (X-axis:  $1[\mu\text{s/div.}]$ ,  $epy=320[\text{kV}]$ ,  $ik=364[\text{A}]$ )



Beam Voltage  $V_k$  and Output Power  $P_o$   
 (X-axis:  $1[\mu\text{s/div.}]$ ,  $epy=360[\text{kV}]$ ,  $po=50.7[\text{MW}]$ )



Drive Power  $P_d$  and Output Power  $P_o$   
 (X-axis:  $1[\mu\text{s/div.}]$ ,  $pd=360[\text{W}]$ ,  $po=50.7[\text{MW}]$ )