PHILIPS

PE 06/40

PENTODE for use as H.F. or L.F. amplifier
PENTHODE pour utilisation en amplificatrice H.F. ou B.F.
PENTODE zur Verwendung als HF- oder NF-Verstärker

Cathode : oxide-coated
Cathode : oxyde
Katode : Oxyd

Heating : indirect — PE 06/40 P — Vf = 6,3 V, If = 1,3 A
Chauffage: indirect — PE 06/40 N
Heizung : indirekt — PE 06/40 E — Vf = 12,6 V, If = 0,65 A

Capacitances
Capacités
Kapazitäten

Ca	= 8,7 pF
Cg1	= 15 pF
Cag1	= 0,1 pF

Typical characteristics
Caractéristiques types
Kenndaten

μg2g1	= 5,5
S (Ia=40 mA)	= 4 mA/V

λ	Freq.	C telegr.		B teleph.		Cag2 mod.	
m	Mc/s	Va (V)	Wo (W)	Va (V)	Wo (W)	Va (V)	Wo (W)
>15	<20	600	45	600	11	500	40
5	60	600	36	600	6,5	500	20

λ	Freq.	C fr.mult.		B mod. [1]	
m	Mc/s	Va (V)	Wo (W)	Va (V)	Wo (W)
150/75	2/4	600	27	600	100

Limiting values
Caractéristiques limites
Grenzdaten

Va	= max. 600 V	Rg1	= max. 100 kΩ [2] [3]
Wa	= max. 25 W	Rg1	= max. 200 kΩ [3]
Vg2	= max. 300 V	Ik	= max. 130 mA
Wg2	= max. 5 W	Ikp	= max. 520 mA
Wg1	= max. 1 W	Vfk	= max. 75 V

[1]) Two tubes ; deux tubes; zwei Röhren

[2]) With fixed grid bias; à polarisation fixe; mit fester Gittervorspannung

[3]) With automatic grid bias; à polarisation automatique; mit automatischer Gittervorspannung

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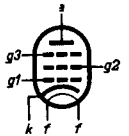
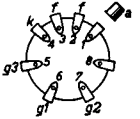
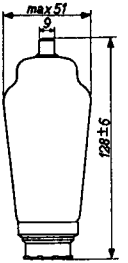
Dimensions in mm
Dimensions en mm
Abmessungen in mm

PE 06/40 P

Base
Culot P
Sockel

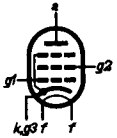


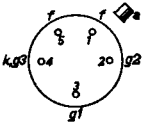


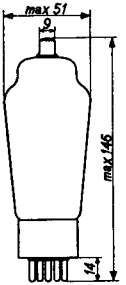


PE 06/40 N

Base
Culot N
Sockel

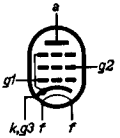


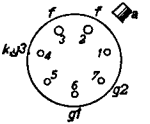


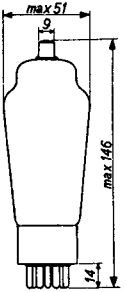


PE 06/40 E

Base
Culot E
Sockel







Socket for	PE 06/40 P	5900/02
Support pour	PE 06/40 N	40219
Fassung für	PE 06/40 E	40220

Cap; capot; haube 28 906 022

Mounting position: arbitrary
Montage : arbitrairement
Einbau : willkürlich

Net weight
Poids net 65 g
Nettogewicht

Shipping weight
Poids brut 90 g
Bruttogewicht

Operating conditions H.F. class C telegraphy
Caractéristiques d'utilisation H.F. classe C télégraphie
Betriebsdaten H.F. Klasse C Telegraphie

λ	=	>15	>15	5[1])	m
Va	=	600	600	600	V
Vg1	=	-75	-40	-75	V
Vg2	=	300	300	300	V
Vg3	=	0	0	0	V
Ia	=	109	109	195	mA
Ig1	=	2	0	0	mA
Ig2	=	11,5	11	20	mA
Vg1p	=	90	40	75	V
Wig1	=	0,2	0	0	W
Wg2	=	3,5	3,3	6	W
Wia	=	65	65	117	W
Wa	=	20	25	45	W
Wo	=	45	40	72	W
η	=	69	62	62	%

[1]) Two tubes ; deux tubes; zwei Röhren

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Operating conditions H.F. class B telephony
Caractéristiques d'utilisation H.F. classe B téléphony
Betriebsdaten H.F. Klasse B Telephonie

λ	=	>15	5[1])	m
Va	=	600	600	V
Vg1	=	−40	−38	V
Vg2	=	250	250	V
Vg3	=	0	0	V
Ia	=	60	104	mA
Ig2	=	3	5,5	mA
Vg1p	=	20	17,5	V
Wg2	=	0,75	1,4	W
Wia	=	36	63	W
Wa	=	25	50	W
Wo	=	11	13	W
η	=	30,5	20,5	%
m	=	100	100	%
Ig1	=	0	0	mA
Wig1	=	0	0	W

Operating conditions as class C frequency multiplier
Caractéristiques d'utilisation comme multiplicatrice de fréquence classe C
Betriebsdaten als Klasse C Frequenzvervielfacher

λ	=	150/75	m
Va	=	600	V
Vg1	=	−100	V
Vg2	=	300	V
Vg3	=	0	V
Ia	=	87	mA
Ig1	=	1	mA
Ig2	=	11	mA
Vg1p	=	110	V
Wig1	=	0,1	W
Wg2	=	3,3	W
Wia	=	52	W
Wa	=	25	W
Wo	=	27	W
η	=	52	%

[1]) Two valves; deux tubes; zwei Röhren

Operating conditions H.F. class C anode- and screen grid modulation
Caractéristiques d'utilisation H.F. classe C modulation d'anode et de grille-écran
Betriebsdaten H.F.Klasse C Anoden- und Schirmgittermodulation

λ	=	>15	5[1]	m
Va	=	500	500	V
Vg1	=	-75	-55	V
Vg2	=	300[2]	160[3]	V
Vg3	=	0	0	V
Ia	=	114	146	mA
Ig1	=	1,4	2	mA
Ig2	=	10	10	mA
Vg1p	=	90	75	V
Wig1	=	0,1	0,15	W
Wg2	=	3	1,6	W
Wia	=	57	73	W
Wa	=	17	33	W
Wo	=	40	40	W
η	=	70	55	%
m	=	100	100	%
Vg2p	=	300	160	V
Wmod	=	30	40	W

1) Two valves; deux tubes; zwei Röhren
2) Rg2 = 20 kΩ
3) Rg2 = 34 kΩ

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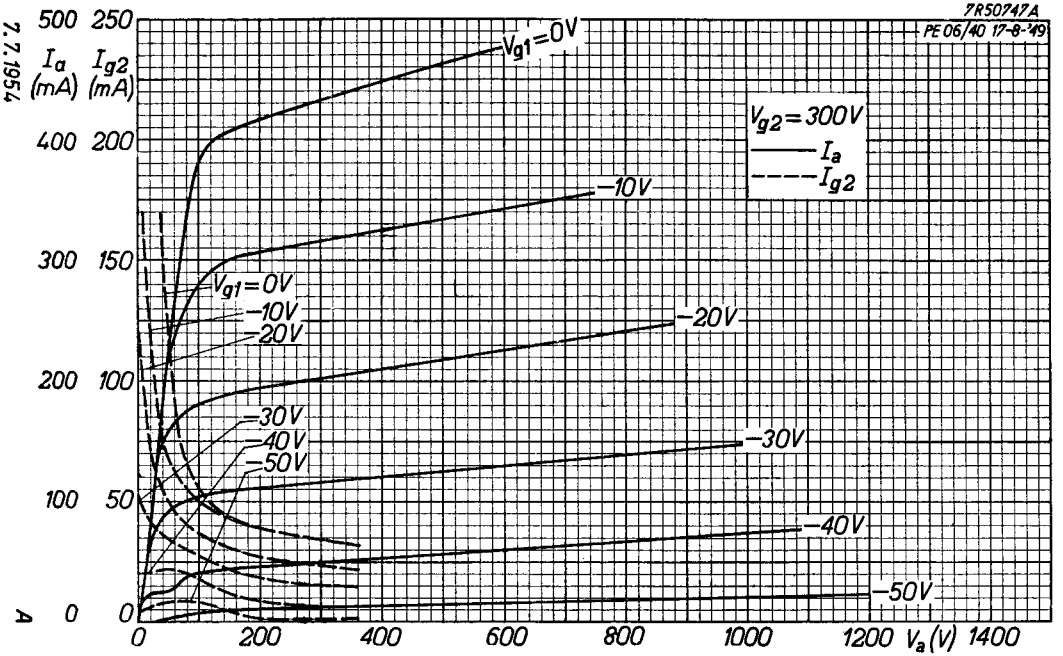
Operating conditions as L.F. class B amplifier and modulator, two valves
Caractéristiques d'utilisation comme amplificatrice et modulatrice B.F. classe B, deux tubes
Betriebsdaten als N.F. Verstärker und Modulator Klasse B, zwei Röhren

Va	=		600	V
Vg1	=		-45	V
Vg2	=		300	V
Vg3	=		0	V
Raa	=		6	kΩ
Vg1g1p	=	0	90	V
Ia	=	2x34	2x115	mA
Ig1	=	0	0	mA
Ig2	=	2x3	2x18	mA
Wig1	=	0	0	W
Wg2	=	2x0,9	2x5,4	W
Wia	=	2x20,4	2x70	W
Wa	=	2x20,4	2x20	W
Wo	=	0	100	W
d_{tot}	=	-	4	%
η	=	-	71	%



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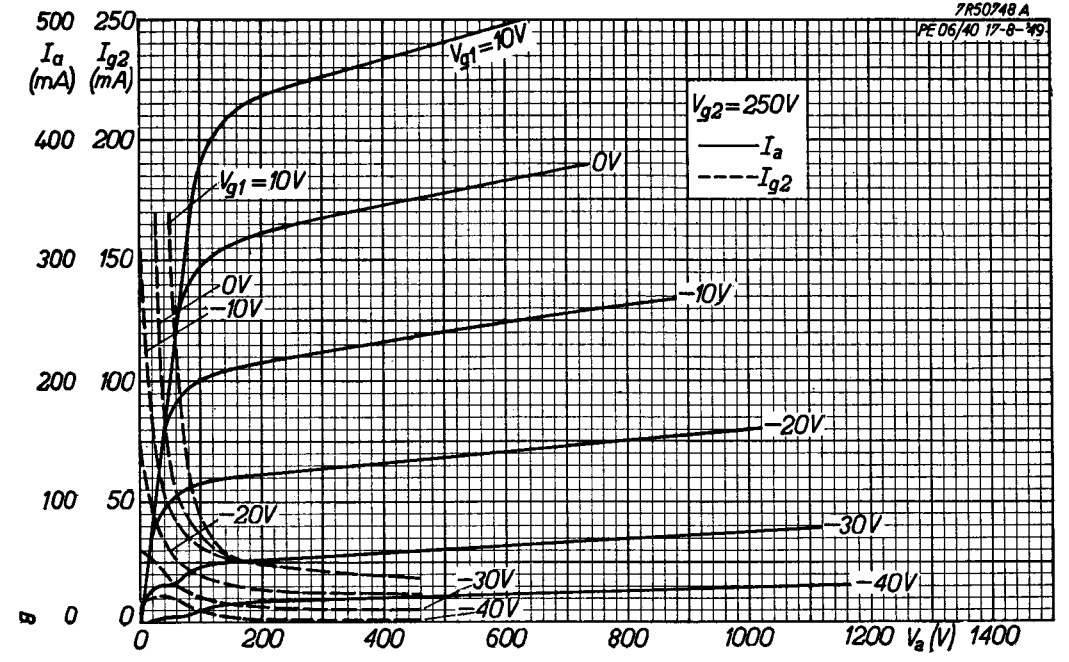
PE 06/40


7R50748A
PE 06/40 17-8-49
500 250
I_a I_{g2}
(mA) (mA)
400 200
300 150
200 100
100 50
0 0
0 200 400 600 800 1000 1200 V_a (V) 1400
$V_{g2}=250V$
I_a
I_{g2}
$V_{g1}=10V$
0V
−10V
−20V
−30V
−40V

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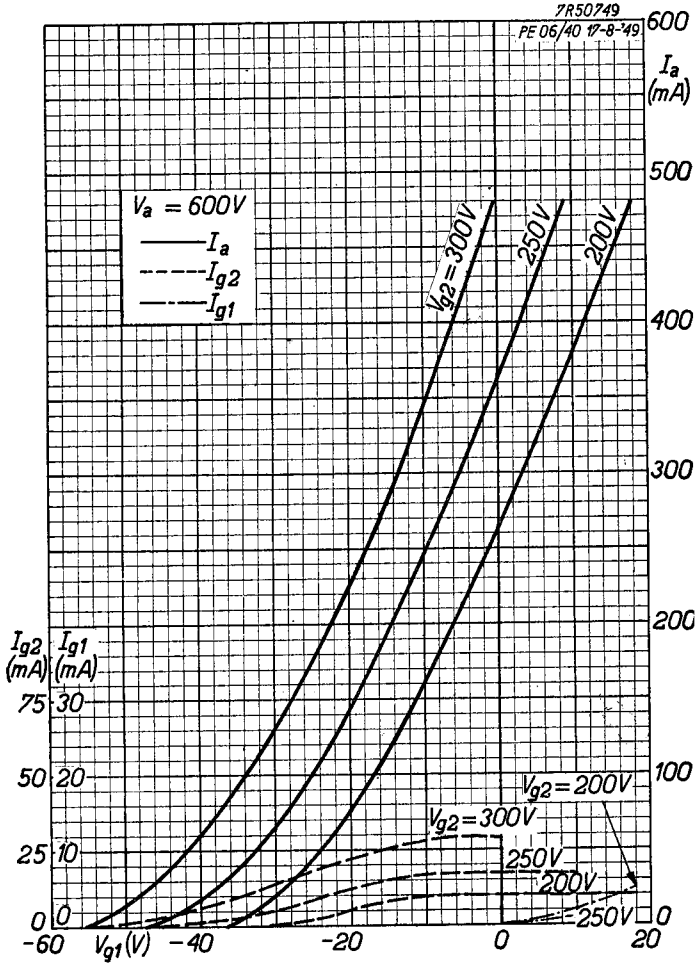
PE 06/40



9.9.1949

C

PE 06/40

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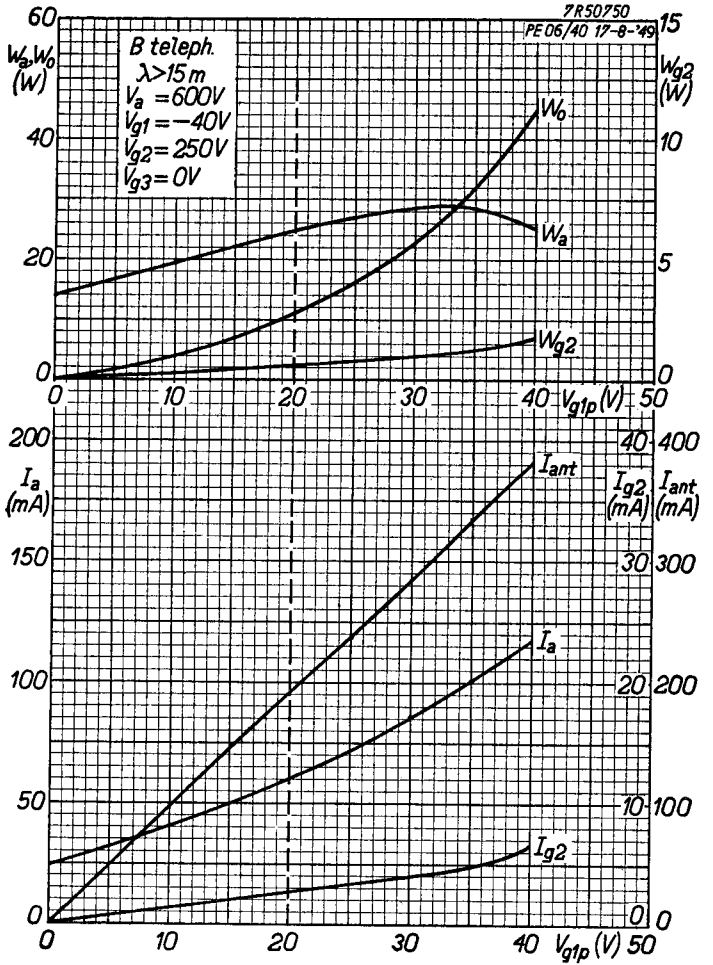

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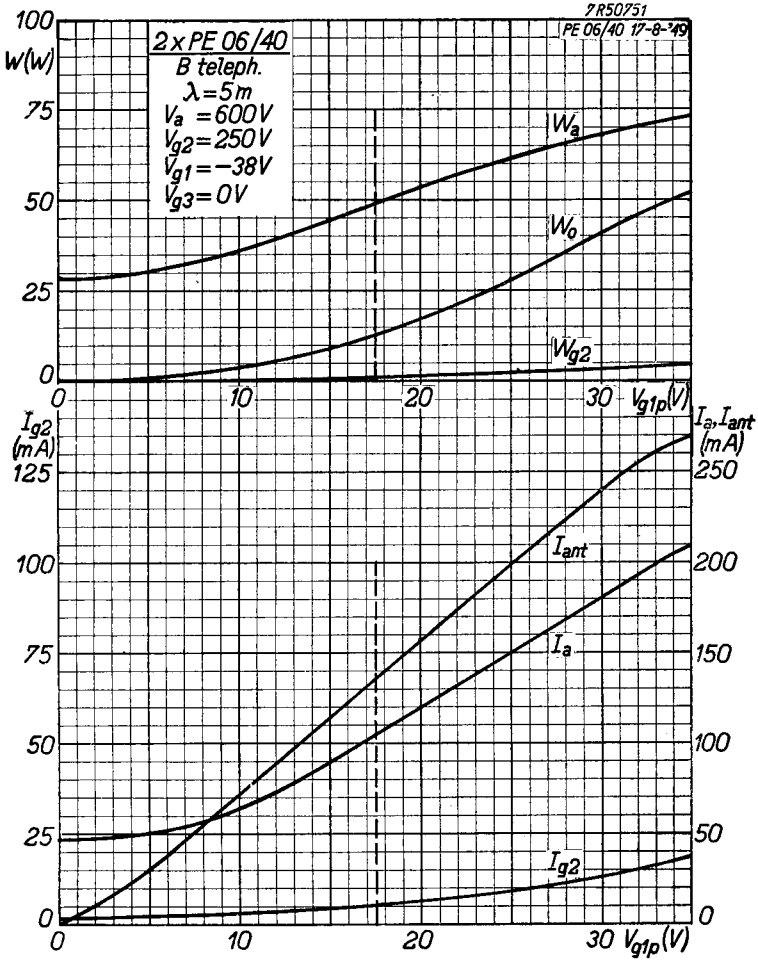
PE 06/40

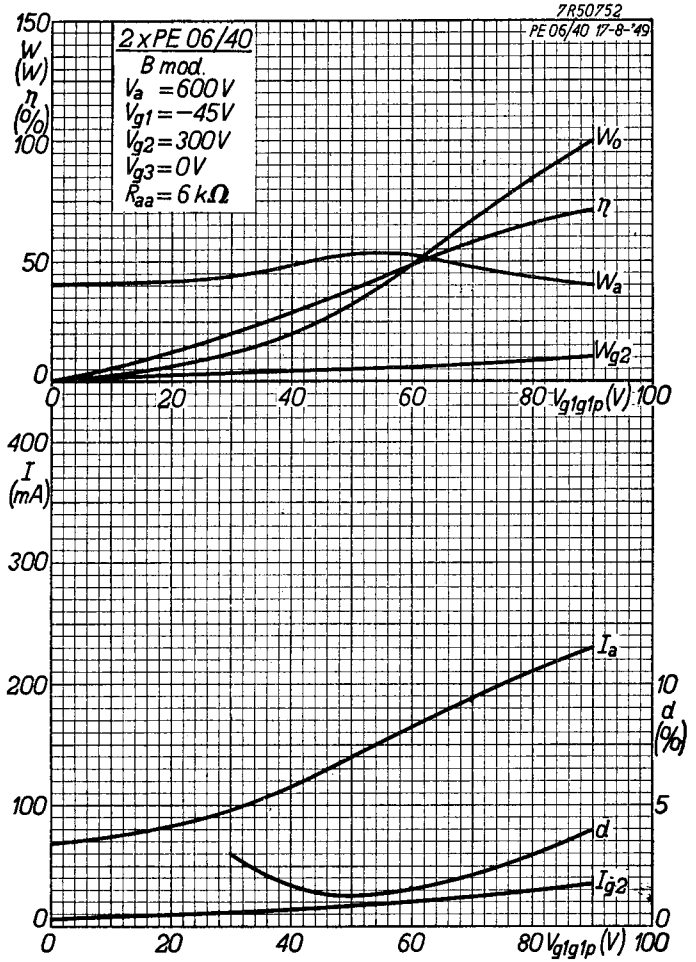


9.9.1949

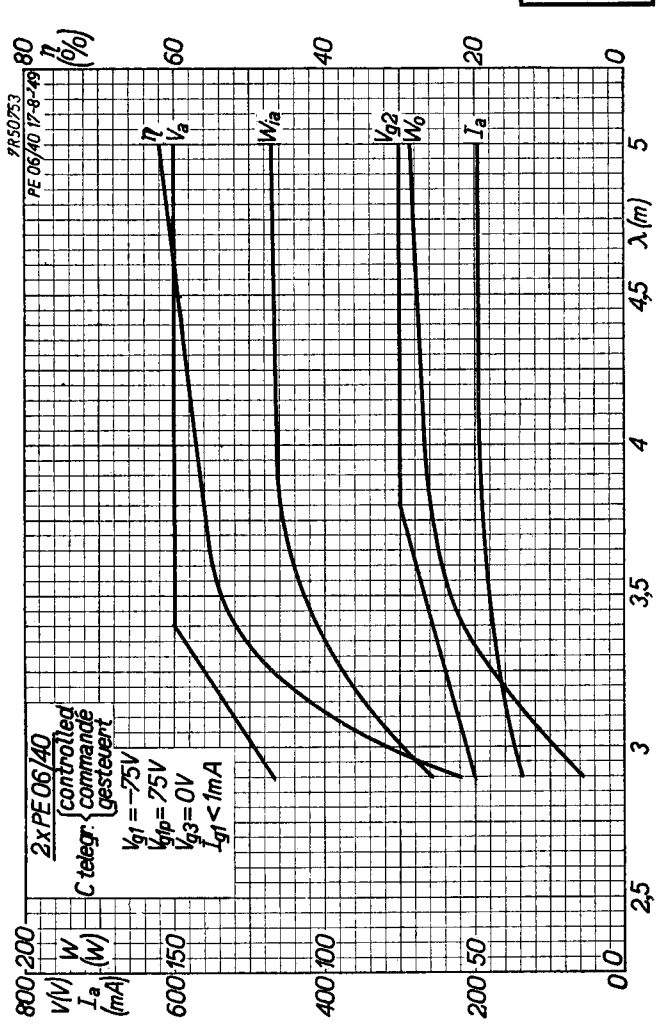
E

PE 06/40

PHILIPS



F


9R50753
PE 06/40 17-8-49
2x PE 06/40
C telegr. controlled commandé gesteuert
$V_{g1} = -75V$
$V_{gp} = 75V$
$V_{g3} = 0V$
$I_{g1} < 1mA$
V(V)
W
I_a (mA)
(W)
800
200
600
150
400
100
200
50
0
0
2,5
3
3,5
4
4,5
5
λ (m)
80
60
40
20
0
η (%)
η
V_a
W_a
V_{g2}
W_{g2}
I_a

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Electronic Tube

HANDBOOK

PE06/40E PE06/40N PE06/40P

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7	A	1954.07.07
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9	C	1949.09.09
10	D	1949.09.09
11	E	1949.09.09
12	F	1949.09.09
13	G	1949.09.09
14	FP	2000.05.05