DEPARTMENT OF TRADE AND COMMERCE

STANDARDS BRANCH

E-54

OTTAWA June 8, 1967.

NOTICE OF APPROVAL

FOR

FERRANTI-PACKARD TYPES "PCA", "PCS", "PCD" & "PC"
POLYPHASE WATTHOUR METERS

Type	Current Range	Volts	Elements	kh	Rr	Register
self-contained for metering 3 wires of a 3-phase 4-wire Y circuit (network)						
PCA	1.25-100	120	2	7.2	13-8/9	4 dial x 1
		345	2	21.6	46-8/27	4 dial x 10
self-contained for 3-phase 3-wire						
PC	1.25-100	120	2	7.2	13-8/9	4 dial x 1
		240	2	14.4	69-4/9	4 dial x 10
		345	2	21.6	46-8/27	4 dial x 10
		480	2	28.8	34-13/18	4 dial x 10
		600	2	36.0	27-7/9	4 dial x 10
self-contained for 3-phase 4-wire Y						
PC	1.25-100	120	2½Y	10.8	92-16/27	4 dial x 10
		345	2½Y	32.4	30-70/81	4 dial x 10
transformer type for 3-phase 4-wire Y using delta-connected current transformers						
	.12-10	120	2	0.6	166-2/3	4 dial x 1
	.25-20	120	2	1.2	83-1/3	4 dial x 1
	.12-10	240	2	1.2	83-1/3	4 dial x 1
	.25-20	240	2	2.4	41-2/3	4 dial x 1
	.12-10	345	2	1.8	55-5/9	4 dial x 1
	.25-20	345	2	3.6	27-7/9	4 dial x 1
	.12-10	480	2	2.4	41-2/3	4 dial x 1
	.25-20	480	2	4.8	20-5/6	4 dial x 1
	.12-10	600	2	3.0	33-1/3	4 dial x 1
	.25-20	600	2	6.0	16-2/3	4 dial x 1

self-contained for 3-phase 3-wire

PCS	1.25-100	120	2	7.2	13-8/9	4 dial x 1
		240	2	14.4	69-4/9	4 dial x 10
		480	2	28.8	34-13/18	4 dial x 10
		600	2	36.0	27-7/9	4 dial x 10
	2.5-200	120	2	14.4	69-4/9	4 dial x 10
		240	2	28.8	34-13/18	4 dial x 10
		480	2	57.6	17-13/16	4 dial x 10
		600	2	72.0	13-8/9	4 dial x 10

self-contained for 3-phase 4-wire Y

PCS	1.25-100	120	$2\frac{1}{2}$Y	10.8	92-16/27	4 dial x 10
		345	$2\frac{1}{2}$Y	32.4	30-70/81	4 dial x 10
	2.5-200	120	$2\frac{1}{2}$Y	21.6	46-8/27	4 dial x 10
		345	$2\frac{1}{2}$Y	64.8	15-35/81	4 dial x 10

transformer type for 3-phase 4-wire Y using delta-connected current transformers

PCS	.12-10	120	2	0.6	166-2/3	4 dial x 1
	.25-20	120	2	1.2	83-1/3	4 dial x 1
	.12-10	240	2	1.2	83-1/3	4 dial x 1
	.25-20	240	2	2.4	41-2/3	4 dial x 1
	.12-10	345	2	1.8	55-5/9	4 dial x 1
	.25-20	345	2	3.6	27-7/9	4 dial x 1
	.12-10	480	2	2.4	41-2/3	4 dial x 1
	.25-20	480	2	4.8	20-5/6	4 dial x 1
	.12-10	600	2	3.0	33-1/3	4 dial x 1
	.25-20	600	2	6.0	16-2/3	4 dial x 1

Transformer type for 3-phase 3-wire

PCD	.12-10	120	2	0.6	166-2/3	4 dial x 1
	.25-20	120	2	1.2	83-1/3	4 dial x 1
	.12-10	240	2	1.2	83-1/3	4 dial x 1
	.25-20	240	2	2.4	41-2/3	4 dial x 1
	.12-10	345	2	1.8	55-5/9	4 dial x 1
	.25-20	345	2	3.6	27-7/9	4 dial x 1
	.12-10	480	2	2.4	41-2/3	4 dial x 1
	.25-20	480	2	4.8	20-5/6	4 dial x 1
	.12-10	600	2	3.0	33-1/3	4 dial x 1
	.25-20	600	2	6.0	16-2/3	4 dial x 1

Frequency 60 hz - all ratings -

A 5 dial x 1 register may be used on these ratings that are listed above with a 4 dial x 10 register, in which case the register ratio will be one tenth the value given. 5 dial registers with register ratios greater than 6-17/18 will be provided with a test dial, and those with register ratios lower than this will not have a test dial.

Description: The "PC" line of polyphase watthour meters bear a family resemblance to the "PB" types which they supersede. The types "PCA", "PC" and "PCD" will be in the same cases as the corresponding "PB" types presently approved. The type "PCS" will be on a new plastic base plate.

They are of two element vertical construction with a disc for each element with a magnetic bearing. The potential coils are moulded in polyethylene plastic and the current coils are insulated with butyl rubber.

Full load calibration is provided by two pairs of "C" shaped magnets, one on each disc on the left hand side of the meter frame. The lag adjustment is by means of a soldered pigtail from coils wound on the current electromagnets. There is only one low load adjustment, which is a movable brass plate on the upper electromagnet. There is only one balance adjustment and this acts on the lower element.

Care should be taken when connecting the potential leads when verifying, it is necessary that the diagrams on the nameplates be followed exactly. In some cases one end of the potential coil is connected to the link and in other cases it is connected to the screw.

Approval granted to: Ferranti-Packard Electric Limited,
St. Catharines, Ontario.

W. J. S. Fraser,
Chief, Standards Laboratory,
Standards Branch.

K. Cryer,
Chief, Electricity & Gas Division,
Standards Branch.

Ref: SL-100-457L

FERRANTI-PACKARD TYPES "PCA", "PCS", "PCD" & "PC"
POLYPHASE WATTHOUR METERS